THE CLINTON vs. TRUMP DEBATE ON ECONOMIC GROWTH

A Citizen's Guide to the Issues

by

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Dedication

To Beck and Tommy

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PREFACE

This book is written for the person who wants to be informed about (1) the fundamental issues affecting the growth of the U.S. economy, and (2) the basic policy differences on these issues between the Democrat and Republican presidential candidates: Secretary Clinton and Mr. Trump. This book is a successor to my books: *The Obama vs. Romney Debate on Economic Growth: A Citizen's Guide to the Issues* (2012), and *Citizen's Guide to U.S. Economic Growth and the Bush-Kerry Economic Debate* (2004).

The core idea of this book grew out of a course I taught for several years at the University of Miami School of Law entitled *The Law and Public Policy of Economic Growth*. This course, which I periodically taught with Professor Tim Canova who is now with Nova Southwestern University School of Law, examined not only microeconomic concepts, which are frequently examined in law school courses, such as antitrust, but also macroeconomic concepts, which are not frequently examined in law schools. These macroeconomic concepts are important to all Americans because the application of these concepts by policy makers can have a significant impact on the growth of the U.S. economy, which determines the level of our standard of living. Thus, this book deals principally with the application of macroeconomic concepts to the important topic of economic growth. Also, the book addresses some microeconomic topics, such as the basic supply and demand curves and the policy justification for our antitrust laws. However, most of the book deals with various macroeconomic concepts that bear on economic growth, including employment, inflation, tax policy, fiscal policy, and monetary policy.

The book integrates into the discussion of the various topics the general positions Secretary Clinton and Mr. Trump have taken on the issues. Although I am a Democrat, my analysis of the positions of Secretary Clinton and Mr. Trump is based on my best judgment of the merits of the particular position, and not on a blind allegiance to the Democrat party.

In 2004, I first discussed the idea of integrating an analysis of the various economic principles with the positions of Bush and Kerry on these principles with Dr. Russell Vaught, a retired administrator of Penn State University. Russ immediately encouraged me to proceed with this idea. Without his immediate enthusiasm for the idea, I may not have undertaken the predecessors to this project back in 2004 and 2012.

For their work and helpful comments on this book, I want to say thanks to my research assistants at Penn State Law: Faisal Abbas Hirji, an undergraduate, and Matt Robida and Vasilios Vlahakis, both third year law students.

I also want to thank several others. First, for their work on the 2004 predecessor to this book, I want to again thank,

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- Ed Thompson, my brother, a former administrator at Penn State, for his very helpful suggestions on the structure of the 2004 book.

Second, for their work on the 2012 edition of this book, I want to say thanks to the following:

- My Administrative Assistant at Penn State, Mary Beth Aber. Mary Beth always provides very efficient assistance in an uncommonly cheerful manner;
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Samuel C. Thompson, Jr.
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For many years Sam was the Partner in Charge of the Tax Division of the Schiff, Hardin & Waite law firm in Chicago. He has served in the U. S. Treasury's Office of Tax Legislative Counsel and International Tax Counsel, and he has worked in an advisory capacity with (1) the European Union's Antitrust Merger Taskforce in Brussels, Belgium, (2) the FTC's Bureau of Competition, and (3) the SEC's Office of Mergers & Acquisitions. In 1999 and 2000 he served, on behalf of the U.S. Treasury Department, as the Tax Policy Advisor to the South African Ministry of Finance in Pretoria, South Africa.

Sam is the author of numerous articles and books, including the following books:

- *Mergers, Acquisitions and Tender Offers* (5 Vols, Practising Law Institute, 2010, updated twice a year);
- *Business Planning for Mergers and Acquisitions* (Carolina Academic Press, 4nd Ed., 2015*)*;
- *Corporate Taxation Through the Lens of Mergers and Acquisitions* (Carolina Academic Press, 2nd 2016*)*;
- *International Tax Planning and Policy* (Carolina Academic Press, 2nd 2016*)*;
- *A Practitioner's Guide to the Economics of the Antitrust Merger Guidelines* (ALI-ABA, 1997); and
- *Taxation of Business Entities* (West Publishing, 2nd Ed., 2001).

Sam earned his law degree from the University of Pennsylvania in 1971 and his L.L.M. in Taxation from New York University in 1973. He received a Masters in Business and Applied Economics from the University of Pennsylvania in 1969 and a B.S. from West Chester University in 1965, where he played varsity football. From 1966 to 1969, Sam served in the United States Marine Corps, rising to captain and earning the Navy Commendation Medal, with combat V, for service in Vietnam. Sam and his wife Becky, have a ten year old son, Samuel C. Thompson, III (Tommy), who loves football even more than Sam.

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PART I, INTRODUCTION

CHAPTER 1, WHAT IS THIS BOOK ABOUT?

A. For whom is this book written?

This book presents a citizen's guide to the major issues affecting growth of the U.S. economy, and the book also looks at some of the economic positions of the 2016 presidential candidates, Secretary Clinton and Mr. Trump. Further, the book presents my take on many of the issues discussed, and on some of the issues, particularly tax policy in Chapter 23, the book also looks at the 2016 "*A Better Way*" proposals of the House Republicans. The book is written for the average person and not for the expert in economic matters. Hopefully, after the election, the book will be of assistance in helping citizens to understand the many economic issues that the next president and the Congress will face.

B. Are there similar predecessor books?

This book was preceded by two similar books, written by Sam Thompson: *Citizens Guide to U.S. Economic Growth and the Bush-Kerry Economic Debate*, written in 2004, and *The Obama vs. Romney Debate on Economic Growth, A Citizen's Guide to the Issues*, which was written in 2012.

C. Why is this book in "Question and Answer" form?

To allow the reader to focus more clearly on the issue that is discussed, the title to each particular topic is stated in the form of a question that is then answered in the text. Some topics are addressed by an overarching question with several sub-questions.

D. Why the concern with economic growth?

Economic growth is one of the most significant issues facing U.S. citizens, because without economic growth, the average living standard will stagnate or even decline. Indeed, economic growth of the U.S. economy is necessary to provide better salaries for the current workforce and also future jobs for the nation's children. Thus, in one way or another, every citizen is affected by the economic growth of the U.S. economy.

Although the importance of U.S. economic growth is commonly understood by most Americans, as a result of the financial crisis of 2007-2008,, which led to a decrease in economic growth, Americans have become more keenly aware of the importance of economic growth to them and their families.

This book will give the reader a fundamental understanding of the most significant issues affecting economic growth. The book will discuss both the manner in which professional economists measure economic growth and the tools the government can utilize in attempting to promote economic growth. These tools fall into two broad categories: fiscal policy, which deals with taxation, spending, and the budget, and monetary policy, which deals with the control of the money supply and interest rates.

Federal fiscal policy is controlled by Congress and the President, while monetary policy is controlled by the Federal Reserve Board (the Fed), whose current Chairman is Janet Yellen.

This book will demystify some of the economic jargon (1) used by professional economists, and (2) often used both in the written press and on the growing number of TV and radio shows devoted to analyzing the economy. The book will give the reader the tools needed to better understand the mass of data affecting economic growth and the analyses of the data that are provided daily. Also, links between various factors, such as the link between interest rates and the level of exports and imports, will be explored. The tools gained here will help the reader make better economic decisions, including better investment decisions.

Furthermore, since the book often frames the discussion in terms of the positions taken by the 2016 presidential candidates, Secretary Clinton and Mr. Trump, the reader will be able to better evaluate the policy positions of each candidate.

E. How is the book structured?

This chapter, which is in Part I, Introduction, addresses several fundamental economic concepts, including (1) a brief discussion of the meaning of the term "economics," (2) the role of government in the economy, (3) the differences between microeconomics and macroeconomics, and (4) an introduction to the goals of macroeconomic policy. The chapter also addresses the evidence on the relationship between (1) the party of the president, Democrat or Republican, and (2) the rates of economic growth and unemployment.

The balance of this book is divided into the following Parts:

- Part II, which addresses fundamental microeconomic and macroeconomic principles and their impact on economic growth;
- Part III, which looks at the impact on economic growth of (1) the 2007-2008 financial crisis; (2) the level of federal debt; (3) monetary and fiscal policy; and (4) the proposals of Secretary Clinton and Mr. Trump regarding these matters;
- Part IV, which considers the impact on economic growth of (1) education policy; (2) immigration policy; (3) income and wealth inequality; (4) regulatory policy; (5) antitrust policy; and (6) the proposals of Secretary Clinton and Mr. Trump regarding these matters;
- Part V, which examines the tax policies of Secretary Clinton and Mr. Trump;
- Part VI, which provides a short summary of the principles discussed in this book; and
- Part VII, which takes us from general economic principles to the impact of these principles on personal investment decisions;

Thus, Part II, which contains Chapters 2 through 11, discusses basic economic concepts relating to economic growth. Part III, which contains Chapters 12 through 17, discusses (1) several public policies that can have an impact on economic growth, and (2) the positions of Secretary Clinton and Mr. Trump on these policies. Part IV, which contains Chapters 18 to 22, addresses, *inter alia*, education policy, immigration policy and inequality. Part V, which contains Chapter 23, addresses the tax policies of Secretary

Clinton and Mr. Trump. Part VI contains Chapter 24, which provides a summary of concepts covered in the preceding chapters and of the positions of Secretary Clinton and Mr. Trump, and Part VII, which contains Chapter 25, addresses how the principles discussed in the earlier chapters can impact one's investment decisions.

Turning to Part II, Chapter 2 discusses the intuition behind the demand and supply curves of microeconomics. These curves are used in a graph with price on one axis and quantity demanded on the other. In a competitive market, the intersection of the two curves determines the quantity offered and the price charged. Graphs like this can be particularly helpful in organizing economic data and in providing models to promote clear thinking about economic relationships. Since graphs are employed throughout this book and in many cases the graph will be based on a supply and demand curve, this chapter introduces some basic principles in the utilization of graphs. The chapter also takes a first look at the concept of externalities, a topic addressed in greater detail in Chapter 21, which deals with regulatory policy.

Chapter 3 looks at some of the basic considerations affecting economic growth, including (1) the differences between nominal, real, and potential Gross Domestic Product (GDP), the principal tool for measuring economic growth; (2) the relationship between the standard of living and GDP; (3) the tradeoffs between inflation and unemployment; (4) the elements of economic growth; (5) the meaning of the concepts of a recession and a depression; and (6) the meaning of the term "supply side economics."

Chapter 4 examines in greater detail the concept of GDP. Each of the components of GDP, that is, consumption spending, investment spending, government spending, and net export spending, are examined in detail. Chapter 5 explores how GDP is tracked and projected.

Chapter 6 examines the aggregate demand (AD) and aggregate supply (AS) curves of macroeconomics. The chapter also explains how the AD-AS model is used in analyzing economic growth.

Chapters 7 and 8 deal, respectively, with the impact of economic growth on employment and on inflation; and Chapter 9 addresses the tradeoffs between economic growth, inflation, and employment.

Chapter 10 examines the expenditure multiplier, which shows that an increase in spending on any of the components of GDP will increase GDP by more than the amount of the expenditure, thereby, having a multiplying effect on GDP.

Chapter 11 focuses on the impact of international trade and investment on economic growth. This chapter, therefore, examines the impact of exports and imports. The chapter also presents the positions of Secretary Clinton and Mr. Trump on trade.

Turning to Part III, Chapter 12 focuses on the impact of the 2007-2008 Financial Crisis on economic growth. Thus, among other things, this chapter looks at the bust in the housing market, and the government's responses to the Crisis.

Chapter 13, a building block for an understanding of monetary policy, examines the concept of money and how the U.S. Treasury finances the government. Chapter 14 continues the look at monetary policy, with a view of how the Federal Reserve Board (the Fed) controls monetary policy and how that policy can impact economic growth. The chapter also looks at how the positions of Secretary Clinton and Mr. Trump on monetary policy would affect economic growth.

As will be discussed, fiscal policy involves the spending and taxing policies of the government. In considering a spending aspect of fiscal policy, Chapter 15 focuses on the Great Deficit Debate and how Federal budgetary policy affects economic growth.

Also, on the spending side of fiscal policy, Chapter 16 first looks at how Social Security and Medicare are structured, and then discusses how the proposals of the Deficit Commission, Congressman Ryan, Secretary Clinton, and Mr. Trump would affect these programs and their impact on economic growth. As will be seen in the discussion in Chapter 16, over the Congressional Budget Office's 2016 to 2026 projection period, Social Security spending is number one at $12.6 trillion; Medicare is number two at $9.6 trillion; and defense is number three at $6.4 trillion.[1] Consequently, policies regarding Social Security and Medicare account for a significant share of projected deficits.

Chapter 17 looks at various aspects of Obamacare, the term used to describe the 2010 health care legislation, which was supported by President Obama. The chapter looks at the basic structure of the law, the Supreme Court's decisions upholding the law, and the positions of Secretary Clinton and Mr. Trump on the law.

Turning to Part IV, Chapter 18 examines some of the considerations involving the impact of education on economic growth, and the positions of the candidates, and Chapter 19 looks at some of the economic issues dealing with immigration and the positions of the candidates on those issues. Chapter 20 looks at issues surrounding economic inequality and poverty, and the positions of the candidates in addressing these issues.

Chapter 21 looks at the approaches of the candidates to regulatory policy, which involves the use of regulations to address negative externalities, such as pollution.

Chapter 22 addresses a microeconomic issue: the role of the antitrust laws in promoting competitive markets over monopoly markets. The chapter also explores the positions of the candidates on these issues.

Part V deals with the tax (*i.e.*, revenue) side of fiscal policy, Chapter 23 looks at (1) the structure of the Federal Income Tax and the Federal Estate Tax, and (2) the policies of Secretary Clinton and Mr. Trump with regard to these taxes. The discussion includes an analysis of the positions of the candidates on, *inter alia*: (1) the adoption of the "Buffett Rule," and (2) the merits of the proposal by the House Ways and Means Committee to move the taxation of foreign business income to a territorial system, which would exempt such income from U.S. tax. The chapter also explores the merits of a value added tax (VAT) and the positions of the candidates on a VAT.

Part VI contains Chapter 24, which provides a summary of (1) some of the major concepts addressed in this book, and (2) the major positions of Secretary Clinton and Mr. Trump.

Part VII contains Chapter 25, which takes us from general economic principles to personal investment decisions. Chapter 25 discusses how the principles and policies discussed in this book, together with basic principles of finance, can assist a person in making investment decisions.

Finally, a bibliography and an index are provided at the end of the book. Many of the footnotes in the book refer to items in the bibliography, which has short-hand references to commonly referred to documents. Also, italicized terms used in the text are defined in the bibliography.

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[1] *2016Budget and Economic Outlook*, *infra* Bibliography, at Table 3-1, page 64.

F. What's not in this book?

This book looks at only some of (1) the economic issues affecting economic growth, and (2) the positions of Secretary Clinton and Mr. Trump on these issues. For example, this book does not consider energy policy, and the book only touches on environmental regulation in Chapter 21, which deals with regulatory policy.

This book generally reflects developments through July 30, 2016, and the reader should understand that this book is only an introduction to the issues and is not intended to take a comprehensive look at any issue.

G. What is economics?

In exploring the concept of economic growth of the U.S. economy, we start by first looking at the meaning of the term "economics." One dictionary defines economics as a "social science concerned with the study of how society chooses to use scarce resources to satisfy its unlimited wants."[2] As a social science, economics is the study of human and societal behavior. The scarce resource principle applies to individuals, businesses, and governments; for each of these entities, the potential uses for financial resources, or the demands for these resources, far exceed the available financial resources, or the supply of these resources. Therefore, these entities make daily decisions on the allocation of scarce financial resources among alternative uses. For example, a father and mother must determine how to allocate the salary they receive (that is, their supply of financial resources) among the many potential uses the whole family has for the salary income (that is, the demands for the financial resources).

The dictionary goes on to say that "economics examines the costs and benefits of improving patterns of resource allocation" and that economics includes topics such as consumption, production, inflation, and unemployment. A less formal definition is that economics is the study of the financial decisions made by individuals and businesses. Individuals, for example, make decisions to buy product X rather than competing product Y, to buy a home rather than rent an apartment, or to invest in the stock of IBM rather than the stock of Microsoft. Businesses decide to produce a particular product in a particular amount and to offer the product for sale at a specified price. Businesses also decide whether to build a plant to manufacture a new product. These are just some of the financial decisions, or to be more precise, decisions having a financial impact, that are the subject of economic analysis.

H. Is economics a "moving" target?

Economics is very much a "moving" target. New developments and new insights occur every day. This book is not designed to be a comprehensive treatment of the issues; it is designed to introduce the basic concepts and to lay a foundation for understanding the changes that invariably will occur.

I. What is the role of government in the economy?

The role of government in the economy is of particular importance, because, among other things, government provides those public or collective goods (as

[2] *Dictionary of Economics, infra* Bibliography, at 117.

distinguished from private goods) that private markets ordinarily do not provide. Public goods include such items as defense, police, and roads. Government spending on most public goods has a direct effect on economic growth.

J. What are microeconomics and macroeconomics?

When economics focuses on such issues as how much of product X consumers will demand at various prices and how much the manufacturers of product X will be willing to sell at various prices, the analysis is said to be at a "micro" level, that is, microeconomic analysis. On the other hand, when economics focuses on such issues as the rate of change in the price level, that is, the rate of inflation or deflation in the economy, or the rate of unemployment, the analysis is at the "macro" level, that is, macroeconomic analysis. Thus, while microeconomics focuses on the behavior of consumers and firms in a particular market, such as the market for personal computers (PCs) or the market for new automobiles, macroeconomics focuses on the behavior of the entire economy, not just a particular market.

Although most of this book deals with macroeconomic issues, microeconomic analysis, particularly an understanding of the microeconomic concepts of the demand and supply curves, can be important in conducting macroeconomic analysis.

K. What are the principal tools of macroeconomic policy?

Analysis of economic growth principally involves the use of macroeconomic concepts, with a particular emphasis on the concepts of fiscal and monetary policy. These two macroeconomic tools are employed for the purpose of affecting economic performance and, therefore, the growth of the economy.

L. What are the goals of macroeconomic policy?

There are essentially three goals of macroeconomic policy (that is, of fiscal and monetary policy): spurring economic growth, achieving low unemployment, and ensuring low inflation. As explained in the *1999 Economic Report of the President*: "The Employment Act of 1946 [as amended by the Full Employment and Balanced Growth Act of 1978] . . . established a policy framework in which the Federal Government is responsible for trying to stabilize short-run economic fluctuations, promote balanced and noninflationary economic growth, and foster low unemployment."[3] The Report goes on to explain that although as of 1999 there had been many recessions (that is, periods of contraction in real GDP), since the adoption of this policy in 1946, there has been no economic contraction approaching that in the Great Depression, and further, the three longest expansions of the 20th Century occurred since the enactment of the Employment Act.[4] On the other hand, as noted in Chapter 12, the Financial Crisis of 2007 and 2008 led to the greatest recession since the Great Depression.

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[3] *1999 Economic Report of the President, infra* Bibliography, at 21.
[4] *Id*.

M. What is the relationship between microeconomics and macroeconomics?

In examining macroeconomic principles it is important to have a fundamental understanding of basic microeconomic principles, and for that reason Chapter 2 introduces the often used supply and demand curves that are a standard part of the microeconomic analysis. After the discussion in Chapter 2 of supply and demand, Chapter 3 begins the examination of the macroeconomic concepts underlying economic growth.

N. What is the relationship between (1) the reelection of a president, and (2) economic growth and employment during the first term?

Sitting presidents generally are reelected when the economy is booming while they are in office. On the other hand, if the economy is performing poorly, sitting presidents generally have a more difficult time getting reelected. For example, during the Carter presidency, the economy performed poorly, and he lost his reelection bid to President Reagan. Also, during the first Bush presidency, the economy performed poorly and he lost his reelection campaign to President Clinton who ran on the slogan: "It's the economy, stupid."

On the other hand, during the first term of the Clinton presidency, the economy was doing well, and he won his reelection campaign against Senator Dole. Also, during the first term of the second Bush presidency, the economy was moving in the right direction and he defeated Senator Kerry. Further, the economy was on the mend during the first term of President Obama, and he defeated Governor Romney. During the election, President Obama basically argued that he has gotten the economy moving after the Great Recession, and Governor Romney argued that as a result of President Obama's policies, economic growth has been too slow and unemployment too high.

Thus, the electorate must generally believe that presidents make a difference in the generation of economic growth and employment even though they (1) do not control monetary policy, which is controlled by the Fed, and (2) are only partners with the Congress in adopting fiscal policy. When, during a presidency, at least one house of Congress is controlled by members of the opposing party, it can be very difficult for the president to get his fiscal policies enacted.

There is, however, the following different view, at least regarding the importance of the unemployment rate at the time of a presidential election:

> The average voter in the last two [presidential] elections [that is, Bush-Kerry in 2004 and Obama-McCain in 2008], . . . has not been representative of the broader economy [because only a small percentage of voters were unemployed]. [The average voter has] been in much better financial shape than the average American. That could help explain why there's such a low correlation between the unemployment rate and the odds of being re-elected. And if that pattern repeats during this November's election [between President Obama and

Governor Romney], then what seems obvious today -- that the election will be about jobs, jobs, jobs -- might not be quite right.[5]

0. Can a Democratic or Republican president make a difference from the standpoint of economic growth and employment?

While the previous question and answer demonstrate that the performance of the economy matters in a presidential election, this section focuses on whether a Democratic or Republican president can actually make a difference from the standpoint of economic growth and employment. In addressing this question, Tables 1-A and 1-B summarize the data in Table 1-C (set out at the end of this chapter) comparing the rates of economic growth and unemployment under Republican and Democratic presidents for the period 1949 through 2015**.**

[5] Morgan Housel, *Presidents and the Unemployment Rate*, The Motley Fool (May 29, 2012) at http://www.fool.com/investing/general/2012/05/29/presidents-and-the-unemployment-rate.aspx.

Table 1-A
Summary of Data in Table 1-C Comparing Rates of Economic Growth under Republican and Democratic Presidents from 1949 through 2015

Party	Num. of & % of Yrs in Office with Negative Growth	Num. of & % of Yrs in Office with Positive Growth	Num. of & % of Yrs in Office with 0%-2% Growth	Num. of & % of Yrs in Office with 2%-4% Growth	Num. of & % of Yrs in Office with Over 4% Growth
Dem	3; 10.7%	28; 90%	1; 3.2%	12; 38.7%	15; 48.4%
Rep	7; 19.4%	29; 80.6%	5; 13.9%	14; 38.9%	10; 27.8%

Table 1-B
Summary of Data in Table 1-C Comparing Rates of Unemployment under Republican and Democratic Presidents from 1949 through 2015

Party	Num. of & % of Yrs in Office with Unempl. under 4%	Num. of and % of Yrs in Office with Unempl 4%-5%	Num. of & % of Yrs in Office with Unempl 5%-6%	Num. of & % of Yrs in Office with Unempl over 6%
Dem	5; 16.1%	5; 16.1%	9; 29%	12; 38.7%
Rep	2; 5.6%	8; 22.2%	13; 36.1%	13; 36.1%

On virtually all of these measures (which, without knowing the outcome, I had my research assistant develop),[6] Democratic presidencies outperform Republican presidencies. For example, Table 1-A demonstrates that during this period there was negative economic growth during 19.4% of the years a Republican was president, but only during 10.7% of the years a Democrat was president. On the other hand, the table demonstrates that while there was positive growth during 80.6% of the years a Republican was president, there was positive growth during 90% of the years a Democrat was president. Along these same lines, the table shows that while there was positive growth in excess of 4% during 27.8% of the years a Republican was president, there was positive growth above this level in 48.4% of the years a Democrat was president. On the other hand, Table 1-B shows that while the unemployment percentage was above 6% in 36.1% of the years a Republican was president, the percentage was 38.7% during the years a Democrat was president.

It must be emphasized that this is not a scientific sample, and the results could be impacted by the fact that during this sample period, Democrats were president for 31 years, while Republicans were president for 36 years. This discrepancy in the number of years in the presidency cuts both ways in the analysis. For example, this discrepancy could partially account for why Democrats had fewer years with negative growth. On the other hand, the discrepancy could understate the impact of the fact that even though they were in power for five years less than the Republicans, Democrats had more years with real GDP growth of over four percent (15 compared to 10) and more years with unemployment under four percent (5 compared to 2). In general, there has been more real GDP growth and less unemployment with Democratic presidencies than with Republican presidencies, rebutting the notion that Republicans are better for the economy.

These findings are consistent with a working paper by Professor Elliot Parker, which found that during the period from 1949 to 2005 Democrats grew the economy on average by 4.2%, while Republicans only grew the economy on average by 2.9%. Additionally, average unemployment under Democrats was 5.2%, while average unemployment under Republicans was 6.0%.[7] Professor Parker found that "the economy has grown significantly faster under Democratic administrations and more than twice as fast in per-capita terms."[8]

Professor Parker's paper, which was prepared prior to the election of President Obama, addresses as follows the possible explanations for this discrepancy between Democratic and Republican presidencies:

> If the economy has performed better under Democrats, what accounts for this difference? There are many possible hypotheses for this, including good (and, for Republicans, bad) luck, or a lagged effect which reduces, but does not reverse, the significance of the difference. Certainly there are limits to how much political leadership can affect the performance of the economy. But to the extent that Democrats have presided over a faster-growing economy and have affected economic

---

[6] I thank my research assistant, Stephen Anderson, a former student at Penn State Law for assembling the data and assisting with the analysis in the 2012 edition of this book. And, I thank my Penn State undergraduate research assistant, Faisal Abbas Hirji, for his assistance in extending the analysis through 2015.

[7] Elliot Parker, *Does the party in power matter for economic performance?* (Dec. 2006), at www.ssrrn.com.

[8] *Id*. at 1-2.

growth, I suggest a political attitude as much as any particular set of policies. Republicans are more likely to be economic fundamentalists who believe that government *is* the problem, and therefore see little reason to craft intelligent solutions to economic problems since government's real objective should be to just get out of the way. With such a coherent ideology, solutions are simple and easy to explain to voters, even when they are wrong. Democrats are more likely to believe that government, at least if it is *competent*, can actually fix many problems. Because they tend to believe that problems are complex, Democrats are more likely to heed expert advice. While this attitude may be harder to explain to voters, it usually leads to better policies.[9]

[9] *Id*. at 11-12.

Table 1-C
Comparison of Rates of Economic Growth and Unemployment under Republican and Democratic Presidents from 1949 through 2015: Percentages in Real Gross Domestic Product (GDP)

Year	Party	Negative Growth	1% to 2% Growth	2% to 4% Growth	Over 4% Growth	Unempl. Rate under 4%	Unempl. Rate 4%-5%	Unempl. Rate 5%-6%	Unempl. Rate over 6%
1949	D	-0.5%						5.9%	
1950	D				8.7%			5.3%	
1951	D				7.7%	3.3%			
1952	D			3.8%		3.0%			
1953	R				4.6%	2.9%			
1954	R	-0.6%						5.5%	
1955	R				7.2%		4.4%		
1956	R			2.0%			4.1%		
1957	R			2.0%			4.3%		
1958	R	-0.9%							6.8%
1959	R				7.2%			5.5%	
1960	R			2.5%				5.5%	
1961	D			2.3%					6.7%
1962	D				6.1%			5.5%	
1963	D				4.4%			5.7%	
1964	D				5.8%			5.2%	
1965	D				6.4%		4.5%		
1966	D				6.5%	3.8%			
1967	D			2.5%		3.8%			
1968	D				4.8%	3.6%			
1969	R			3.1%		3.5%			
1970	R		0.2%				4.9%		
1971	R			3.4%				5.9%	
1972	R				5.3%			5.6%	
1973	R				5.8%		4.9%		
1974	R	-0.6%						5.6%	
1975	R	-0.2%							8.5%
1976	R				5.4%				7.7%
1977	D				4.6%				7.1%
1978	D				5.6%				6.1%
1979	D			3.1%				5.8%	
1980	D	-0.3%							7.1%

Table 1-C Continued
Comparison of Rates of Economic Growth and Unemployment under Republican and Democratic Presidents from 1949 through 2011: Percentages in Real GDP

Year	Party	Negative Growth	1% to 2% Growth	2% to 4% Growth	Over 4% Growth	Unempl. Rate under 4%	Unempl. Rate 4%-5%	Unempl. Rate 5%-6%	Unempl. Rate over 6%
1981	R			2.5%					
1982	R	-1.9%							9.7%
1983	R				4.5%				9.6%
1984	R				7.2%				7.5%
1985	R				4.1%				7.2%
1986	R			3.5%					7.0%
1987	R			3.2%					6.2%
1988	R				4.1%			5.5%	
1989	R			3.6%				5.3%	
1990	R		1.9%					5.6%	
1991	R	-0.2%							6.8%
1992	R			3.4%					7.5%
1993	D			2.9%					6.9%
1994	D				4.1%				6.1%
1995	D			2.5%				5.6%	
1996	D			3.7%				5.4%	
1997	D				4.5%		4.9%		
1998	D				4.4%		4.5%		
1999	D				4.8%		4.2%		
2000	D				4.1%		4.0%		
2001	R		1.1%				4.7%		
2002	R		1.8%					5.8%	
2003	R			2.5%					6.0%
2004	R			3.5%				5.5%	
2005	R			3.1%				5.1%	
2006	R			2.7%			4.6%		
2007	R		1.9%				4.6%		
2008	R	-0.3%						5.8%	
2009	D	-3.5%							9.3%
2010	D			3.0%					9.6%
2011	D		1.7%						8.9%
2012	D			2.8%					8.1%
2013	D			2.2%					7.4%
2014	D			2.4%					6.2%
2015	D			2.4%				5.0%	

Sources: Depart of Commerce, Bureau of Economic Affairs, GDP Growth Based on Chained 2005 Dollars; Department of Labor, Bureau of Labor Statistics, Employment Status of the Civilian Non-institutional Population 16 Years and Older; and www.WhiteHouse.gov.

P. What economic proposals of Secretary Clinton and Mr. Trump are addressed in this book and where are the issues addressed?

Table 1-D sets out a list of the issues addressed in this book for which the positions of Secretary Clinton and Mr. Trump are discussed. There are also references to the specific chapter where the issue is discussed. Table 1-D is also set out as Table 24-A.

Table 1-D
Economic Issues Addressed in this Book for which Positions of Secretary Clinton and Mr. Trump are Discussed

TOPIC	CHAPTER
The minimum wage and other employment policies	7
Infrastructure spending proposals	10
Trade proposals	11
Financial Crisis proposals	12
Monetary Policy	14
The Deficit Debate	15
Social Security and Medicare	16
Obamacare	17
Education Policy	18
Immigration Policy	19
Inequality and economic growth	20
Regulatory Policy	21
Antitrust Policy	22
Tax Policy	23

This book integrates the discussion of basic economic principles with the discussion of the positions of Secretary Clinton and Mr. Trump on many of the issues. Table 1-E provides a summary of the topics covered in the chapters, with the discussions of the positions of the candidates on the issues set out in Table 1-D above, highlighted.

Table 1-E
Outline of the Economic Positions of Secretary Clinton and Mr. Trump Discussed in this Book, Chronologically by Chapter with the Discussions of the Candidate's Positions Highlighted

Chapter 1, Introduction and does the party of the president matter in determining economic growth?
Chapter 2, The supply and demand model, a building block
Chapters 3, 4, 5, and 6, Introduction to economic growth, GDP, and aggregate demand and supply
Chapter 7, Economic growth and employment, and the likely impact of the minimum wage and other employment policies of Secretary Clinton and Mr. Trump?
Chapters 8 and 9, Relationship between economic growth and inflation, and the tradeoffs among economic growth, inflation, and employment
Chapter 10, The Expenditure Multiplier, and the likely impact of the infrastructure spending proposals of Secretary Clinton and Mr. Trump
Chapter 11, International Trade and Investment, and the likely impact of the trade proposals of Secretary Clinton and Mr. Trump
Chapter 12, Impact on economic growth of the 2007-2008 Financial Crisis, and the likely impact of the proposals of Secretary Clinton and Mr. Trump
Chapters 13, 14, and 15, Introduction to monetary and fiscal policy and the Great Deficit Debate, and the likely impact of the proposals of Secretary Clinton and Mr. Trump
Chapter 16, Social Security and Medicare, and the likely impact of the proposals of Secretary Clinton and Mr. Trump
Chapter 17, Obamacare, and the likely impact of the proposals of Secretary Clinton and Mr. Trump
Chapter 18, Education Policy, and the likely impact of the proposals of Secretary Clinton and Mr. Trump
Chapter 19, Impact of immigration on economic growth, and the likely impact of the proposals of Secretary Clinton and Mr. Trump
Chapter 20, Impact of inequality on economic growth, and the likely impact of the proposals of Secretary Clinton and Mr. Trump
Chapters 21 and 22, Regulatory policy and antitrust policy, and the likely impact of the proposals of Secretary Clinton and Mr. Trump
Chapter 23, Tax Policy, and the likely impact of the proposals of Secretary Clinton and Mr. Trump 1. Introduction to the Federal Income Tax a. Individual b. Corporate c. Partnerships, LLC and Small Businesses d. International Tax, that is, U.S. taxation of U.S. owned foreign business operations, including Inversions 2. Proposals of Secretary Clinton and Mr. Trump on individual taxes 3. Proposals of Secretary Clinton and Mr. Trump on corporate and business taxes 4. Proposals of Secretary Clinton and Mr. Trump on international tax 5. Introduction to the Estate Tax 6. Proposals of Secretary Clinton and Mr. Trump on the estate tax
Chapter 24, Summary of major principles discussed in the book
Chapter 25, From economics to personal investment decisions

Q. What are some of the positions of Secretary Clinton and Mr. Trump that are not covered in this book?

Secretary Clinton has made many proposals that could potentially impact economic growth, and this book addresses the proposals highlighted in Table 1-D above.

This book does not address the following proposals Secretary Clinton has made that could potentially impact economic growth:

- Profit sharing by workers;
- Guaranteed paid family leave;
- Expansion of Social Security and Medicare;
- Increase U.S. manufacturing;
- Making it easier to start a small business;
- Support for technology and innovation;
- Paid family leave and medical leave;
- Racial justice.

Each of these proposals is addressed on Secretary Clinton's campaign website.

Mr. Trump's website does not address as many issues as Secretary Clinton's website, and virtually all of the positions addressed on Mr. Trump's campaign website are addressed here.

R. What are some of the sources used in this book?

Several economic reports of various governmental agencies are relied on in this book, including the *2016 Economic Report of the President* for the Obama Administration, the *2008 Economic Report of the President* for the last year of the Bush Administration, and *The Budget and Economic Outlook: Fiscal Years 20162 to 2026* of the Congressional Budget Office (CBO), a nonpartisan agency that serves Congress. These and other documents periodically referred to in this book are included in the Bibliography. Also, the book discusses the economic policies set out on the websites of Secretary Clinton and Mr. Trump. To facilitate an understanding of many of the concepts discussed here, some of the answers contain substantial quotes from the applicable sources.

Table 1-F, *Economic Indicator Table*, contains a list of the major economic reports together with (1) the names of the agencies providing the reports, (2) the timing for the release of the reports, and (3) the websites of the reports.

Table 1-F
Economic Indicators Table
2016

Report and Corresponding Agency	**Timing**	**Web Address**
I. Economic Growth		
A. GDP, Bureau of Economic Analysis (BEA)	Monthly	http://www.bea.gov/newsreleases/national/gdp/gdpnewsrelease.htm
B. Corporate Profits, See GDP Report (BEA)	Quarterly	http://www.bea.gov/newsreleases/national/gdp/gdpnewsrelease.htm
C. GDP by Industry (BEA)	Quarterly	http://www.bea.gov/iTable/index_industry_gdpindy.cfm
D. Productivity and Cost, Bureau of Labor Statistics (BLS)	Quarterly	http://www.bls.gov/news.release/prod2.nr0.htm
E. Durable Goods, U.S. Census Bureau	Monthly	http://www.census.gov/manufacturing/

(Census)		m3/adv/pdf/durgd.pdf
F. Leading Indicators, The Conference Board	Monthly	https://www.conference-board.org/data/bcicountry.cfm?cid=1
G. Manufacturing Trade Inventories Sales (Census)	Monthly	http://www.esa.doc.gov/economic-indicators/economic-indicators-4
H. Recent General News Reports, See ECONOMIC INDICATORS NEWS DISCUSSION OF REPORTS		
II. Production and ISM Info		
A. ISM Manufacturing Report, Institute for Supply Management (ISM)	Monthly	https://www.instituteforsupplymanagement.org/ISMReport/MfgROB.cfm?&navItemNumber=12942#top
B. ISM Non-Manufacturing Report (ISM)	Monthly	http://www.ism.ws/ismreport/nonmfgrob.cfm
III. Employment		
A. National Employment Report, Automatic Data Processing (ADP)	Monthly	http://www.adpemploymentreport.com/2016/April/NFR/NFR-April-2016.aspx
Report and Corresponding Agency	**Timing**	**Web Address**
B. The Employment Situation, Bureau of Labor Statistics (BLS)	Monthly	http://www.bls.gov/news.release/pdf/empsit.pdf
C. Mass Layoffs, (BLS)	Monthly	http://www.bls.gov/news.release/mmls.nr0.htm
D. Unemployment Insurance Weekly Claims Report, Department of Labor (DOL)	Weekly	https://www.dol.gov/ui/data.pdf
IV. Consumers		
A. Personal Income and Outlays, (BEA)	Monthly	http://www.bea.gov/newsreleases/national/pi/pinewsrelease.htm
B. Monthly Sales for Retail,(Census)	Monthly	http://www.census.gov/retail/
C. Consumer Confidence, Conference Board	Monthly	http://www.conference-board.org/data/consumerconfidence.cfm
V. Inflation		
A. Consumer Price Index, (BLS)	Monthly	http://www.bls.gov/news.release/cpi.nr0.htm
B. Producer Price Index, (BLS)	Monthly	http://www.bls.gov/news.release/ppi.htm
VI. Housing		
A. New Residential Sales, (Census)	Monthly	http://www.census.gov/construction/nrs/pdf/newressales.pdf

B. New Residential Construction, (Census)	Monthly	http://www.census.gov/construction/nrc/pdf/newresconst.pdf
C. Existing Homes Sales, National Association of Realtors (Realtor)	Monthly	http://www.realtor.org/news-releases
D. Pending Home Sales Index (Realtor)	Monthly	http://www.realtor.org/news-releases
E. S&P Case Shiller HPI, S&P Dow Jones Indices (S&P)	N/A	http://us.spindices.com/index-family/real-estate/sp-case-shiller
VII. International		
A. U.S. International Trade in Goods and Services, (BEA and Census)	Monthly	http://www.census.gov/foreign-trade/Press-Release/current_press_release/ft900.pdf
B. U.S. International Transactions, (BEA)	Quarterly	www.bea.gov/newsreleases/international/transactions/transnewsrelease.htm
Report and Corresponding Agency	**Timing**	**Web Address**
C. U.S. Investment Position, (BEA)	Quarterly	http://www.bea.gov/newsreleases/international/intinv/intinvnewsrelease.htm
VIII. Federal Reserve Board Economic Materials		
A. Industrial Production and Capacity Utilization, Federal Reserve Board (FRB)	Monthly	http://www.federalreserve.gov/releases/g17/20160517/default.htm
B. Consumer Credit (FRB)	Monthly	http://www.federalreserve.gov/releases/g19/Current/
C. Factors Affecting Reserve Balances (FRB)	Weekly	http://www.federalreserve.gov/releases/h41/Current/
D. Money Stock Measures (FRB)	Weekly	http://www.federalreserve.gov/releases/h6/current/
E. Aggregate Reserves of Depository Inst and the Monetary Base (FRB)	Weekly	http://www.federalreserve.gov/releases/h3/current/
F. Assets and Liab of U.S. Commercial Banks (FRB)	Weekly	http://www.federalreserve.gov/releases/h8/current/
G. Assets and Liab of Foreign Banks, (FRB)	Quarterly	http://www.federalreserve.gov/econresdata/releases/assetliab/current.htm

H. Charge-Off Rates, (FRB)	N/A	http://www.federalreserve.gov/releases/chargeoff/
I. Delinquency Rates, (FRB)	N/A	http://www.federalreserve.gov/releases/chargeoff/
J. Country Exposure Lending, FFIEC	N/A	http://www.ffiec.gov/E16.htm
IX. Federal Deposit Insurance Corporation		
Report and Corresponding Agency	**Timing**	**Web Address**
A. Quarterly Banking Profile, Federal Deposit Insurance Corporation (FDIC)	Q	https://fdic.gov/bank/analytical/qbp/2016mar/qbp.pdf
X. Federal Reserve Board, Monetary Policy Releases		
A. Monetary Policy Report, (FRB)	Annually	http://www.federalreserve.gov/monetarypolicy/files/20160210_mprfullreport.pdf
B. Monetary Policy Testimony, (FRB)	Annually	http://www.federalreserve.gov/newsevents/testimony/yellen20160210a.htm
C. Federal Open Market Committee, Statement	N/A	http://www.federalreserve.gov/monetarypolicy/fomccalendars.htm
D. Federal Open Market Committee, Minutes	N/A	http://www.federalreserve.gov/monetarypolicy/fomccalendars.htm
XI. European Central Bank Monetary Policy Decisions		
A. Annual Report on Monetary Policy	Annually	See Major Economic Reports
B. Latest ECB Monetary Policy Decisions (European Central Bank)	N/A	https://www.ecb.europa.eu/press/pr/date/2016/html/pr160602.en.html
C. Press Release Q & A (ECB)	N/A	https://www.ecb.europa.eu/press/pressconf/2016/html/is160602.en.html

PART II, FUNDAMENTAL MICROECONOMIC AND MACROECONOMIC PRINCIPLES AND THEIR IMPACT ON ECONOMIC GROWTH

CHAPTER 2, WHAT IS THE INTUITION BEHIND THE DEMAND AND SUPPLY CURVES OF MICROECONOMICS?

A. What is in this Chapter?

This chapter introduces the basic supply and demand curves used in the examination of microeconomic markets, such as the market for personal computers. In a competitive market, the intersection of these two curves will indicate both the quantity consumed and the price. As indicated in Chapter 22, which addresses antitrust policy, this is not the case with monopoly markets, which give rise to a lower quantity consumed and a higher price. This chapter also introduces the concept of externalities, which are examined in greater detail in Chapter 21, which deals with regulatory policy.

Although the supply-demand analysis is basically a microeconomic concept, this type of analysis can be used in the context of macroeconomic analysis. For example, as discussed in this chapter, supply and demand factors determine the price of oil, and the price of oil can have an impact on economic growth, a macroeconomic issue. Also, as discussed in Chapter 11, supply-demand analysis is employed in the determination of the exchange rate of a floating currency, which is generally a macroeconomic issue.

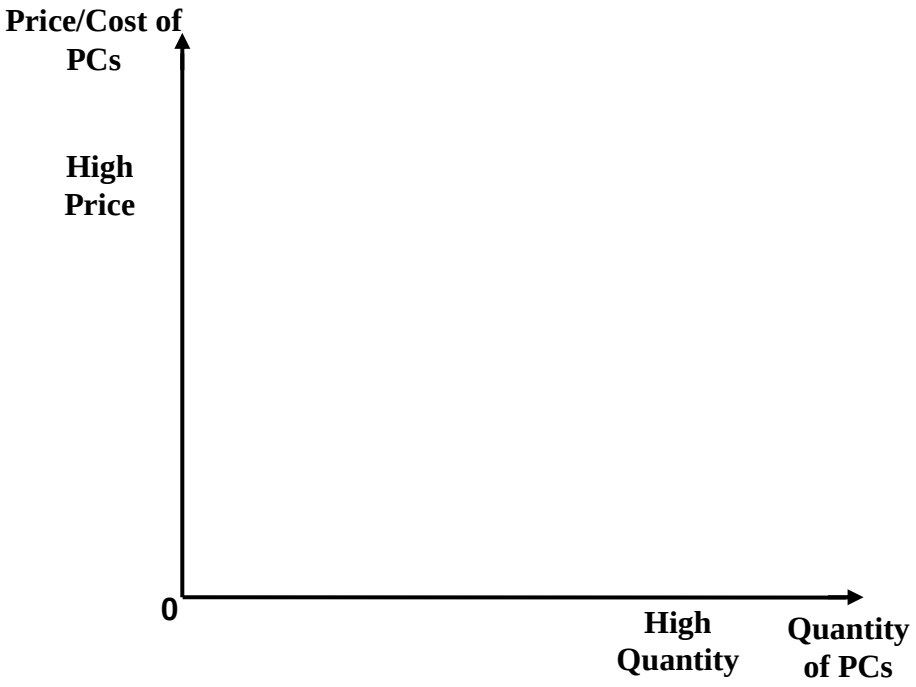
B. What is behind the microeconomic supply and demand curves?

1. How is the supply and demand graph structured?

One of the fundamental tools of microeconomic analysis is the familiar two-axis graph of the demand curve and supply curve for the market for a particular product, such as the market for PCs. It is assumed that the market for PCs is a competitive market. As discussed in greater detail later, in a competitive market, no firm has control over the quantity offered or the price charged, and the intersection of the supply and demand curve will give the price that will prevail and the quantity that will be sold in the market place.

A microeconomic market consists of a group of producers of a particular product sold in a particular geographic area. The producers represent the supply side of the market, and the potential consumers of the product reflect the demand side of the market. Graph 2-A sets out the two axes of the supply and demand graph for PCs; the demand and supply curves for PCs will be introduced next.

Graph 2-A
Illustration of Price/Cost Vertical Axis and Quantity Horizontal Axis for PCs



The quantity of PCs that could potentially be produced and sold is set out on the horizontal axis in Graph 2-A, and the potential prices to the consumer and the potential costs to the producers are set out on the vertical axis. Rightward movements along the horizontal axis mean that more PCs are sold, and upward movements along the vertical axis mean that the price or cost (depending on whether price or cost is being measured) of PCs is rising.

With an understanding of the quantity axis and the price/cost axis on Graph 2-A, it is important to develop an intuitive understanding of the normal behavior of the demand and supply curves on this graph.

2. What is the normal behavior of the demand curve?

The demand curve focuses on the consumer side of the market; it connects the plots on the graph that show how many PCs potential consumers of PCs would be willing to buy at particular prices. Given that price is measured on the vertical axis and that the quantity of PCs sold is measured on the horizontal axis, the normal demand curve is downward sloping from left to right. This indicates that at higher prices potential consumers will buy fewer PCs and that as the price of PCs falls potential consumers will buy more. It is important to note that the demand curve does not show the actual number of PCs that consumers buy; it shows the number of PCs that potential consumers would buy, or would demand, at different prices.

3. What is the normal behavior of the supply curve?

The supply curve focuses on the producer or firm side of the market and is dependent on the marginal cost, or incremental cost, potential firms in the market would incur in producing various quantities of PCs. The marginal cost is the cost incurred in making one additional item. As will be demonstrated in Chapter 22, which focuses on antitrust issues, the industry's supply curve is derived from the industry's marginal cost curve. It is important to understand that the cost here is not just the cost determined by accountants, but also includes the cost of capital to the firms. The cost of capital includes the interest on any debt of a firm used in production and the profits realized by the owners of the firm, that is, an adequate return on equity capital (dividends and capital gains) provided by the owners given the risk associated with the investment.

As will be demonstrated with a numerical example in Chapter 22, with the production of most goods, the average cost of producing an item will first fall as the firm experiences economies of scale and then will begin to increase as the firm, in producing more items, experiences diseconomies of scale resulting from increased average costs per unit. These increased costs arise, for example, when a plant is run near capacity and a second or third shift must be added at a wage rate of time and a half or double time. Given these initial economies of scale followed by diseconomies of scale, the marginal cost curve, which shows the marginal cost to the firm from a certain level of production, first falls from left to right as firms realize economies of scale and then rises from left to right as production increases and firms realize diseconomies of scale. The market supply curve is derived from the upward sloping segment of the marginal cost curve[10] and indicates that producers will be willing to sell more PCs as the price increases.

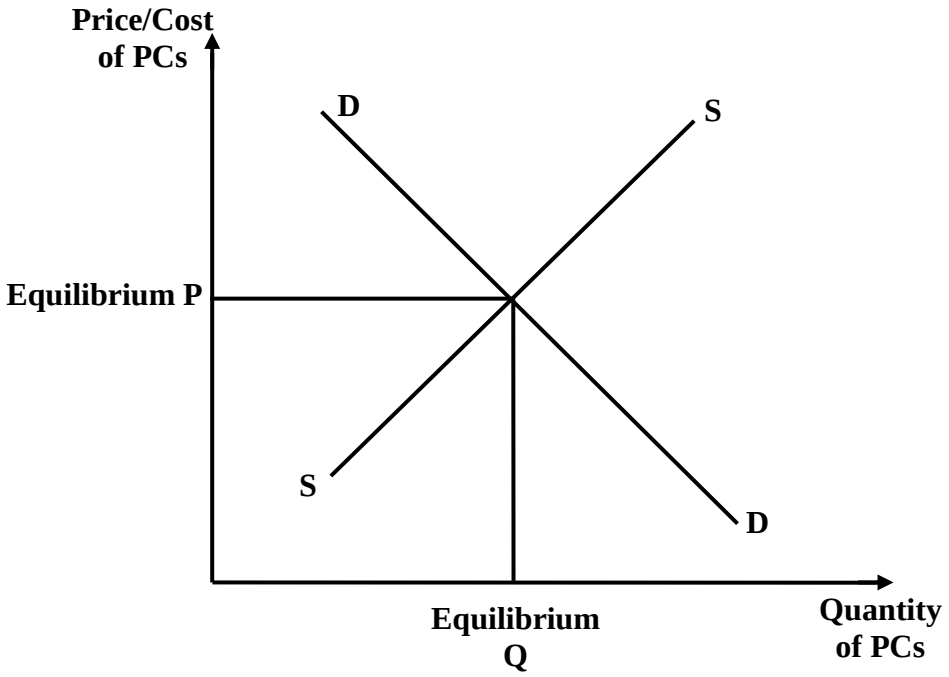
4. What is the role of supply and demand curves in competitive markets?

There are two polar extremes of market organization: the competitive market and the monopoly market. In a competitive market, there are many firms active in production in the market, no firm has any power over price, and the firms in the market do not form a cartel, pursuant to which they agree on prices or production. On the other hand, in a monopoly market, one firm controls all of the production in the market, and therefore, that firm has power over pricing and quantity decisions. Between these two extremes, there is a range of market structures, including an oligopoly market structure, which involves a market with a few producers. Oligopoly markets are generally more susceptible to the formation of cartels than are competitively organized markets.

In a competitive market, the price of the product and the amount of the product produced are determined by the intersection of the downward sloping demand curve and the upward sloping supply curve as indicated on Graph 2-B.

[10] Thompson, *Economics of the Antitrust Merger Guidelines*, *infra* Bibliography, at 95.

Graph 2-B
Microeconomic Model of Supply and Demand Curves in Competitive Market for PCs



Thus, in a competitive market, the intersection of the demand and supply curves determines the particular price that will prevail in the market (from the vertical axis) and the particular quantity that the firms in the market will produce (from the horizontal axis). This is known as an equilibrium position, because at this position, there will be no tendency for prices or quantity to move. If the price were higher than the equilibrium price, more of the good would be supplied than demanded, and therefore, the price would fall; on the other hand, if the price were lower than the equilibrium price, more of the good would be demanded than would be supplied and the price would tend to rise. Of course, in a dynamic market place, price and quantity will move, but if the market is competitively organized, the price and quantity will tend to move to an equilibrium point determined by the intersection of the supply and demand curves. This is not the case in a monopoly market, a point developed in detail in Chapter 22, which compares competitive markets and monopoly markets.

C. Does a competitive market lead to an efficient allocation of resources?

In a competitive market, the intersection of the supply and demand curves automatically leads to an efficient allocation of resources, because as seen in Graph 2-B, the price that prevails in the market is exactly equal to the marginal cost (reflected in the supply curve) of producing the item (recall that the cost includes the cost of capital, which includes profits). It can be shown that at this point the marginal cost to producers is exactly equal to the marginal utility (or benefit) to consumers. As seen in the

discussion below of externalities, this condition requires that all costs be properly reflected in marginal costs and the supply curve.

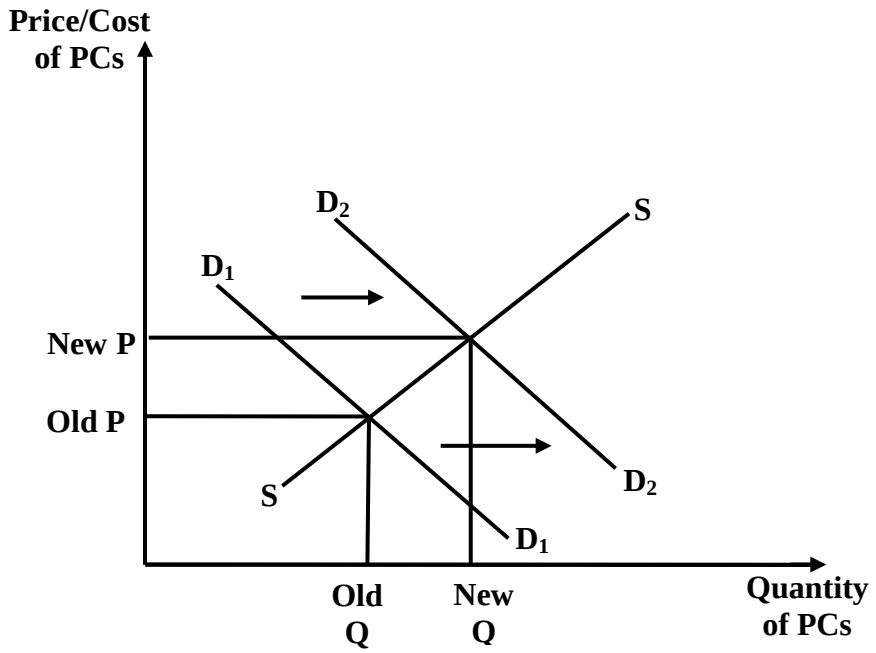
D. What is the difference between movements along a demand or supply curve and shifts in a demand or supply curve?

In thinking about the economic issues presented at various points in this book, it is important to distinguish between movements along a particular curve, such as the supply or demand curve, and shifts in the curve. This section explains that difference.

The demand curve is a depiction of the current state of consumer demand for the particular product, such as PCs. Thus, the demand curve is constructed on the assumption that (1) the number of consumers is constant, (2) the income of consumers is constant, (3) the taste (preferences) of consumers for the product and competing products is constant, and (4) the prices of other competing products are constant. As a consequence, movements along a demand curve for PCs shows the quantity of PCs consumers will demand keeping these factors (a change in any of which could affect the level of demand for PCs) constant. If any of these factors change, the demand curve for PCs would likely shift. For example, if the incomes of consumers were to increase dramatically, the demand curve for PCs would likely shift to the right, thereby indicating that more PCs would be demanded at every possible price. On the other hand, if consumers' tastes for PCs were to decrease suddenly because of the attractiveness of a new competing product, the demand curve for PCs would likely shift to the left, indicating that fewer PCs would be demanded at every possible price.

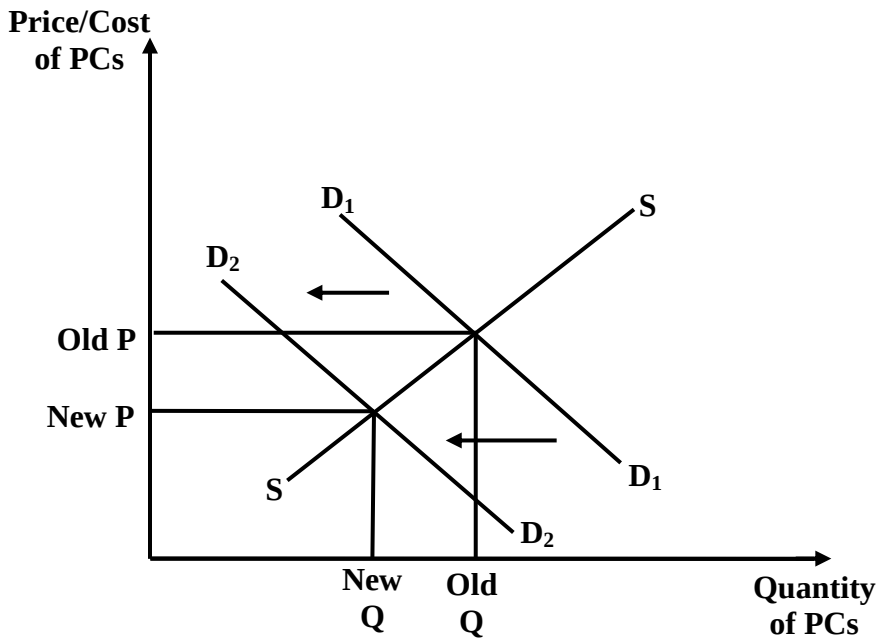
Assuming that there are no changes in the supply curve, a rightward shift in the demand curve will result in a movement of the equilibrium point that produces both an increase in production and an increase in price as is shown in Graph 2-C.

Graph 2-C
Illustration of Rightward Shift in the Demand Curve for PCs



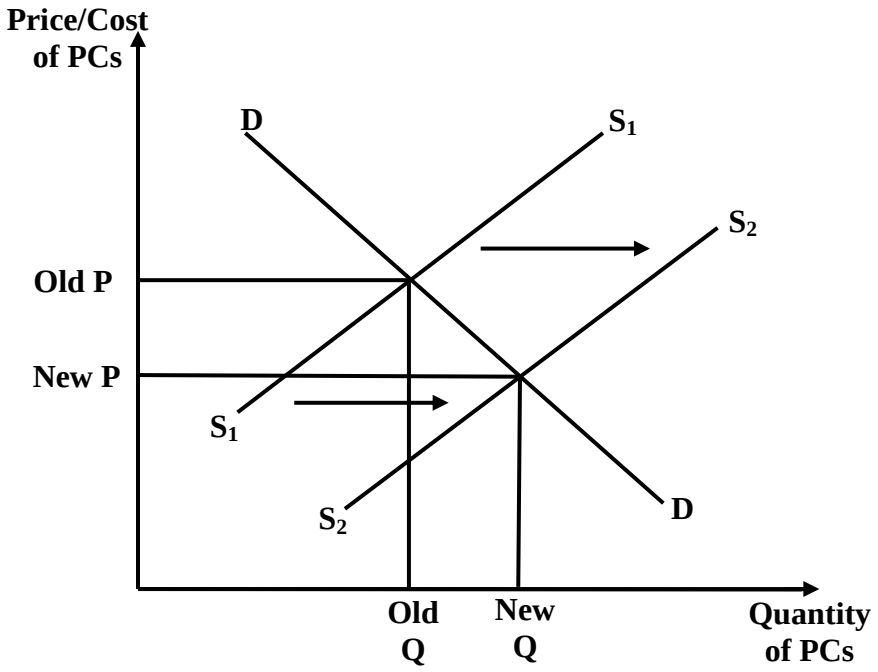
A leftward shift in the demand curve for PCs will move the equilibrium point thereby producing a lower price and a reduced output assuming the supply curve does not change. This is illustrated in Graph 2-D.

Graph 2-D
Illustration of Leftward Shift in the Demand Curve for PCs



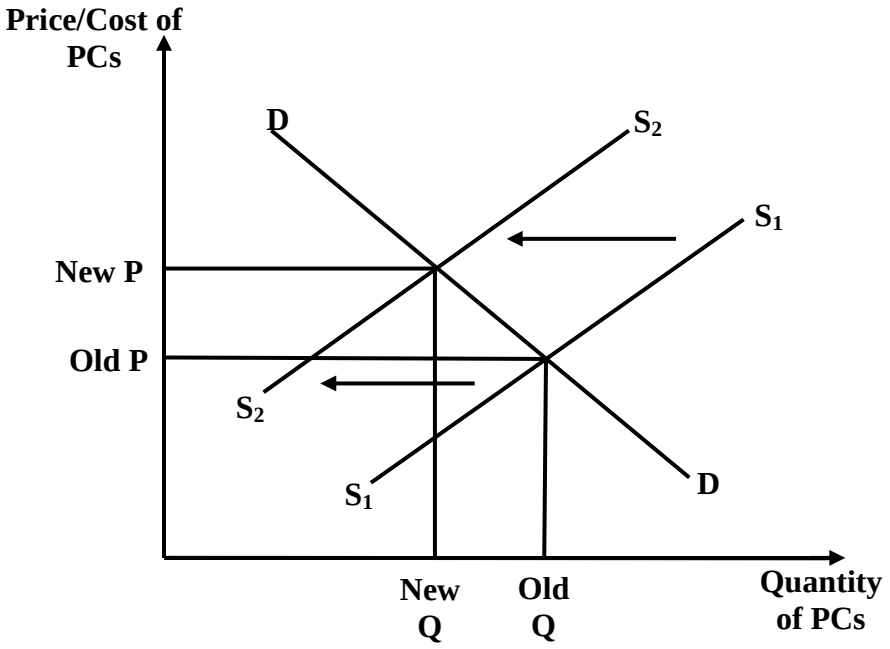
The supply curve is constructed under the assumption that (1) the state of know-how for the production of the particular product, such as PCs, is constant, and (2) the costs of production are constant. If there is a significant advance in the state of know-how that makes production of PCs more efficient, the supply curve will shift outward to the right, indicating that more PCs will be offered at every potential price. Assuming there is no change in the demand curve for PCs, a rightward shift in the supply curve will move the equilibrium point and thereby result in more production and lower prices, as indicated in Graph 2-E.

Graph 2-E
Illustration of Rightward Shift in the Supply Curve for PCs



A leftward shift in the supply curve for PCs could occur if, for example, there were dramatic increases in the prices of components that make up a PC, thereby driving up the production price. Assuming no change in the demand curve for PCs, a leftward shift in the supply curve would move the equilibrium point so that fewer PCs would be offered and the price would rise as indicated in Graph 2-F.

Graph 2-F
Illustration of Leftward Shift in the Supply Curve for PCs



E. What supply and demand factors in the oil market led to falling prices?

During early 2012, the price of oil was falling. The principles discussed previously in this chapter would lead to the conclusion that this fall in price is the result of one of the following three supply and demand factors: (1) an increase in supply, or (2) a decrease in demand, or (3) both an increase in supply and a decrease in demand.

The following posting entitled *Global Oil Supply and Demand* by Dr. Ed Yardeni indicates that the falling prices are attributable to both an increase in supply and a "flattening" of demand:

> [G]lobal supply rose to a record high . . . during February. OPEC's output rose to a new record high . . . Non-OPEC oil production edged up . . . just shy of its record . . . during September 2010. . . .
>
> In Canada oil output is at a record . . ., and in the US it's back at . . ., the highest since early 2002. The oil rig count in the US is soaring. It is up 57% over the past year to 1,317 during the week of March 16.
>
> Meanwhile, global oil demand flattened during February. . . . While oil demand rose to a record high for non-OECD countries, it has been trending downwards since last February among the OECD countries. In Western Europe, it dropped to the lowest since the summer of 1994.[11]

[11] Dr. Ed's Blog, *Global Oil Supply and Demand* (March 21, 2012), at

The 2016 Economic Report of the President makes the same point regarding the 2014-2015 decline in oil prices and the impact of that decline on economic growth:

> The oil-price decline from mid-2014 to the end of 2015 reflected both increased global supply of oil [*i.e.*, a rightward shift in the supply curve for oil], including rising production in the United States, Saudi Arabia, and Iraq, and slower global economic growth [*i.e.*, a leftward shift in the demand curve for oil]. It is difficult to precisely separate the role of supply and demand, but the comparison to non-energy commodity prices highlights the mix of factors affecting oil prices. Non-energy commodity prices also declined over this period—a sign of weakening global demand. But the non-energy commodity price decline of about 25 percent was considerably less than the about 65-percent decline in oil prices, pointing to the role of oil supply in lowering prices. Lower oil prices affect the U.S. economy through numerous channels (CEA 2014). On balance, CEA estimates that lower oil prices directly boosted real GDP growth by 0.2 percentage points during 2015, despite the adverse impacts on domestic energy producers and manufacturers that sell to the energy sector (see Box 2-1). Relatedly, the decline in oil prices noticeably held down price inflation and supported real income growth in 2015. Oil and commodity prices continued to fall sharply in early 2016 and are likely to continue to affect consumers and energy producers.[12]

F. What impact do externalities have on an industry's supply curve?

This section briefly addresses externalities, and Chapter 21 addresses the regulatory approaches of Secretary Clinton and Mr. Trump to negative or detrimental externalities. The industry supply curve developed previously reflects the marginal private costs incurred by the industry in the production process. However, there can be other societal costs generated in the production process that are not reflected in the industry's marginal private costs and, therefore, in the industry supply curve. Economists refer to these extra costs as externalities. Externalities can be both beneficial and detrimental. Chapter 21 focuses on detrimental externalities arising from market failure, which in this context means the failure of the market to internalize all of the cost of production.

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http://blog.yardeni.com/2012/03/global-oil-supply-demand.html.

[12] *2016 Economic Report of the President*, *infra* Bibliography, at 53.

CHAPTER 3, WHAT DETERMINES ECONOMIC GROWTH: AN INTRODUCTION TO GDP, PRODUCTIVITY, THE BUSINESS CYCLE, AND SUPPLY SIDE ECONOMICS?

A. What is in this Chapter?

This chapter lays the foundation for many of the issues discussed in subsequent chapters by exploring some of the basic considerations affecting economic growth. The chapter starts with a discussion of the differences between nominal, real, and potential gross domestic product (GDP) and then focuses on the relationship between the standard of living and GDP. After introducing the tradeoffs between inflation and unemployment, the chapter then considers various aspects of the business cycle. Next, the chapter turns to the elements of economic growth and to the role of productivity. Finally, after examining various factors in the debate on supply side economics, including the "Income Effect" and "Substitution Effect," the chapter focuses on the role of financial markets and inbound foreign investment (that is, investment into the U.S.) in the promotion of economic growth.

B. Basically what is GDP and its relationship to economic growth?

As addressed more completely in Chapter 4, GDP is the total amount spent, during for example a year, on final goods and services produced in the U.S. economy by labor and assets located in the U.S. In general, economic growth or the lack thereof is measured by increases or decreases in GDP.

C. What is the difference between nominal, real, and potential GDP?

Although the separate components of GDP are explored in detail in Chapter 4, it is important in understanding basic principles of economic growth to focus on the differences between nominal, real, and potential GDP. Nominal GDP is the amount of GDP measured in current dollars and is, therefore, not adjusted for inflation. On the other hand, real GDP is measured in inflation-adjusted dollars, and this adjustment process is explored in Chapter 4. Potential GDP is an estimate of the amount of real GDP that the economy is capable of producing under the assumption of full employment and full utilization of all resources. As will be seen below, the Congressional Budget Office annually provides an estimate of potential GDP. Comparing the performance of real GDP with potential GDP provides a measure of the performance of the economy, that is, whether it is under performing or over performing.

D. How is the standard of living tied to economic growth?

The standard of living is generally measured by the level of real GDP on both an aggregate basis and a per capita basis, that is, GDP divided by the population. Growth in real GDP is a key measure of economic growth and increases in the standard of living. It is a much better measure of economic growth than nominal GDP, because it takes account of the changing purchasing power of the dollar. Because of this changing

purchasing power, it is possible for nominal GDP to increase at the same time that real GDP falls. Economic growth is generally measured by comparing the level of GDP in one period with the level of GDP in a prior period, usually a year or a quarter.

E. How can the "Rule of 70" be used to measure the impact of the growth rate of GDP?

Simple arithmetic demonstrates that even small changes in the growth rate of GDP can lead to large changes in the level of GDP and, consequently, the standard of living. For example, with a 2% growth rate of GDP, which has been the approximate rate in the U.S. over the past century, average GDP doubles every 35 years. This can be determined from the Rule of 70, which provides that the number of years required for income to double is determined by dividing 70 by the growth rate of GDP. Thus, if instead of a 2% growth rate, GDP grew consistently at a 4% rate, average GDP would double in just 17.5 years (that is, 70/4=17.5). Consequently, strategies that can increase the growth rate of GDP can increase the standard of living. In certain developing countries, such as China, the growth rate of GDP may approach 10%, which would mean that GDP would double in 7 years (that is 70/10=7).

F. What is the relationship between economic growth and (1) unemployment, and (2) inflation?

Chapters 7 and 8 deal, respectively, with the impact of economic growth on employment and inflation, and Chapter 9 addresses the tradeoffs that exist between economic growth and inflation and economic growth and employment. Here, it is only necessary to point out that unemployment generally declines during an economic expansion (that is, a period in which GDP increases) and generally increases during an economic contraction (that is, a period in which GDP decreases), whereas inflation generally increases during an expansion and generally falls during a contraction. Thus, there is a natural trade-off in which the cost of lower unemployment may be higher inflation.

G. What is a recession and a depression?

A recession is a period during which real GDP declines. The *1999 Economic Report of the President* points out that a "popular recession indicator is two consecutive quarters of decline in real GDP."[13] However, as the *Report* points out, the National Bureau of Economic Research (NBER), which is charged with determining the turning points of the business cycle, defines a recession as a "recurring period of decline in total output, income, employment, and sales usually lasting from 6 months to a year."[14] As a result of the financial crisis of 2007 and 2008, the country went into a recession, and in January 2012, the Congressional Budget Office (CBO) reported that the "pace of the economic recovery has been slow since the recession ended in June 2009 . . . ."[15] This recession is sometimes referred to as the Great Recession because it was the deepest

[13] *1999 Economic Report of the President*, *infra* Bibliography, at 21.
[14] *Id*.
[15] *2012 Budget and Economic Outlook*, *infra* Bibliography, at xi.

recession since the Great Depression in the 1930s, which is discussed in the next paragraph.

A depression is a period during which there is a severe decline in GDP, resulting in severe unemployment. Although we have had many recessions since 1930, we have had only one depression, the Great Depression of the early 1930s, in which GDP contracted by 30% and the rate of unemployment reached 25%.[16]

Prior to 2007, many observers argued that our economy is depression proof largely because of government payments like unemployment compensation that automatically increase as employment falls during an economic contraction. The Great Recession called into question this assertion.

H. What is the business cycle?

A review of the economic history of the U.S. from the Civil War to the present shows that the economy has moved in cycles going from periods in which the rate of growth of GDP was positive until reaching a peak and then negative until reaching a trough, at which point the cycle of positive and negative growth would begin again. This is known as the business cycle, which is characterized by periods of economic expansion followed by periods of economic contraction.

I. What has been the recent experience with the business cycle?

For example, the U.S. economy went into a recession in 1981 and 1982, with unemployment reaching close to 11%. The economy then began expanding in 1982, and during the expansion the unemployment rate fell to approximately 5.5%. The economy then entered a recession in 1990 and 1991, which contributed significantly to the defeat of the first President Bush and to the election of President Clinton. There was a long economic expansion during President Clinton's two terms with the expansion continuing until the middle of 2000 and the unemployment rate falling to a low point of 3.9%, the lowest rate since 1970. Economic growth slowed considerably from 2000 to 2003, and began to grow rapidly until hitting the wall in 2007 with the Great Recession. Growth since the end of the Great Recession in 2009 has been anemic, as indicated in the following report of the CBO:

> The financial crisis that began in 2007 and the decline in house prices that began a year earlier had a sharp impact on the U.S. economy, nearly freezing credit markets and pushing the economy into the most severe recession since World War II. International experience shows that downturns following such crises tend to last longer than other downturns, and the return to high employment tends to be slower. It also shows that such recessions—more so than other recessions— dampen investment, raise the level and average duration of unemployment, and reduce the number of hours that employees work.[17]

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[16] *1999 Economic Report of the President*, *infra* Bibliography, at 21.
[17] *2012 Budget and Economic Outlook*, *infra* Bibliography, at 44.

J. How do recessions lead to expansions and vice versa?

Recessions lead to expansions through the following general process. The reduction in the growth rate of GDP during a recession causes industrial production to fall, thus causing a fall in capacity utilization. Somewhat counter intuitively, this fall in capacity utilization results in an increase in labor productivity, because less labor will be used per unit of output. This leads to a fall (or a slower increase) in producer prices, which in turn will cause a fall (or slower increase) in consumer prices. As a result, consumer sentiment begins to increase leading to an increase in consumer demand, which will help generate an expansion.

On the other hand, expansions lead to recessions through the following general process. An increase in GDP during an expansion causes industrial production to increase, leading to an increase in capacity utilization. Again, somewhat counter intuitively, with higher capacity utilization, labor productivity declines causing an increase in labor costs per unit of output. One factor contributing to this decrease in labor productivity is the higher wages that are paid as production increases and businesses add additional shifts at higher per-hour labor rates. As a result, prices of producers begin to rise, which leads to an increase in consumer prices. Increasing consumer prices leads to a decrease in consumer sentiment that in turn leads to a decrease in consumer demand. With falling consumer demand, businesses begin to cut back their production and the economy slows and possibly enters into a recession.

Recessions can also result from a financial crisis, such as the financial crisis in 2007 and 2008, which is discussed in greater detail in Chapter 12.

K. What is the role of the NBER in determining when recessions begin and end?

The National Bureau of Economic Research (NBER) is responsible for determining when recessions begin and end. The NBER's Business Cycle Dating Committee, which is responsible for making the determinations, describes recessions, expansions, and its process as follows:

> The NBER's Business Cycle Dating Committee maintains a chronology of the U.S. business cycle. The chronology comprises alternating dates of peaks and troughs in economic activity. A recession is a period between a peak and a trough, and an expansion is a period between a trough and a peak. During a recession, a significant decline in economic activity spreads across the economy and can last from a few months to more than a year. Similarly, during an expansion, economic activity rises substantially, spreads across the economy, and usually lasts for several years.
>
> In both recessions and expansions, brief reversals in economic activity may occur-a recession may include a short period of expansion followed by further decline; an expansion may include a short period of contraction followed by further growth. The Committee applies its judgment based on the above definitions of recessions and expansions and has no fixed rule to determine

whether a contraction is only a short interruption of an expansion, or an expansion is only a short interruption of a contraction.[18]

L. What are the elements of economic growth?

1. What are the elements of the production function?

Economists explain the concept of economic growth by focusing on the key ingredients of what they refer to as the production function. The production function is merely a way of identifying the elements of production in an economy. Basically, the production function states that the level of GDP is a function of (that is, is dependent upon) certain key elements. These key elements can be divided into the following four factors: entrepreneurship, capital, labor, and technical know-how.

2. What is the entrepreneurship element of the production function?

First, for new businesses to grow and for old businesses to expand, there must be a constant flow of new entrepreneurs that foresee opportunities and are the driving force behind the pursuit of new ventures. Without entrepreneurship and the inventiveness it brings both for newly established firms and for existing firms, there can be no economic growth.

On April 5, 2012, President Obama emphasized the importance of entrepreneurship when he signed the bipartisan JOBS Act, which liberalized the rules governing the capital raising process for small businesses. On this point, the President said:

> One of the great things about America is that we are a nation of doers -- not just talkers, but doers. We think big. We take risks. And we believe that anyone with a solid plan and a willingness to work hard can turn even the most improbable idea into a successful business. So ours is a legacy of Edisons and Graham Bells, Fords and Boeings, of Googles and of Twitters. This is a country that's always been on the cutting edge. And the reason is that America has always had the most daring entrepreneurs in the world. Some of them are standing with me today. When their ideas take root, we get inventions that can change the way we live. And when their businesses take off, more people become employed because, overall, new businesses account for almost every new job that's created in America.[19]

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[18] The NBER's Business Cycle Dating Committee, at http://www.nber.org/cycles/recessions.html (April 7, 2012).

[19] Remarks by President Obama at JOBS Act Bill Signing (April 5, 2012).

3. What is the capital element of the production function?

a) How do businesses get access to capital for "real" investment?

Second, businesses must have access to capital to provide financing for investments in plant and equipment (that is, real investment as distinguished from investments in the financial markets) and to provide the funds for the research and development that is necessary to keep businesses competitive. Thus, growth in the pool of capital is essential to economic growth. This point was made as follows by President Obama when he signed the previously discussed JOBS Act:

> [N]o matter how good their ideas are, if an entrepreneur can't get a loan from a bank or backing from investors, it's almost impossible to get their businesses off the ground. . . .
>
> Here's what's going to happen because of this bill. For business owners who want to take their companies to the next level, this bill will make it easier for you to go public [that is, sell stock of a closely-held corporation to public investors]. And that's a big deal because going public is a major step towards expanding and hiring more workers. It's a big deal for investors as well, because public companies operate with greater oversight [from the Securities and Exchange Commission (SEC] and greater transparency [through SEC required public disclosures].
>
> And for start-ups and small businesses, this bill is a potential game changer. Right now, you can only turn to a limited group of investors -- including banks and wealthy individuals -- to get funding. Laws that are nearly eight decades old make it impossible for others to invest. But a lot has changed in 80 years, and it's time our laws did as well. Because of this bill, start-ups and small business will now have access to a big, new pool of potential investors -- namely, the American people. For the first time, ordinary Americans will be able to go online and invest in entrepreneurs that they believe in. Of course, to make sure Americans don't get taken advantage of, the websites where folks will go to fund all these start-ups and small businesses will be subject to rigorous oversight [by the SEC].[20]

b) What is the relationship between "real" investment and economic growth?

There is a strong correlation between real investment (that is, investment in plant and equipment) and economic growth, because it is virtually impossible to see substantial growth without substantial real investment. Although it is unclear whether a high real investment rate leads to high growth or whether high growth leads to high real investment, most economists seem to agree that higher real investment causes higher growth. However, it is also clear that a business that experiences higher sales is more likely to expand its capital base, that is, its real investments. Further, as discussed in Chapter 4 in the analysis of the investment component of GDP and in Chapter 14, which deals with monetary policy,

[20] *Id*.

low interest rates act as an incentive for businesses to invest in additional plant and equipment.

4. What is the labor element of the production function?

Third, new labor will be required, meaning that there must be increases in the pool of available labor. A contraction in the U.S. population would be a contributing factor to a reduction in the growth rate of the U.S. economy. In addition to population numbers, in many cases, particularly with new ventures, the labor pool must be highly educated and skilled, meaning that there must be growth in the education and training (that is, the human capital) of the labor pool.

In analyzing this growth factor, both the Clinton and Bush *Economic Reports of the President* broke the labor factor into the following elements: population, labor force participation, labor productivity, and the workweek.[21] Obama's *2012 Economic Report of the President* includes this labor factor with "supply side" factors as follows: "The factors include the population, the rate of labor force participation, the employed share of the labor force, the ratio of nonfarm business employment to household employment, the workweek, labor productivity, and the ratio of real GDP to nonfarm output."[22]

5. What is the technical progress element (Total Factor Productivity, TFP) of the production function?

Finally, there must be technical expertise or technical know-how behind the production process, and this means that there must be growth in technical know-how. Stated another way, there must be technical progress. The rate of improvement in technical progress is referred to as the growth of total factor productivity (TFP), which is a measure of the rate at which GDP would increase as a result of improvements in methods of production, with all other inputs unchanged. TFP is a more elaborate way of focusing on the productivity of the U.S. economy.

Some economists have attempted to determine the relevant percentages of the annual growth in GDP that are attributable to each of these factors of production.

M. How does productivity affect economic growth?

The CBO's *2004 Budget and Economic Outlook* makes it clear that productivity growth can contribute significantly to economic growth:

> The most striking economic development of the past three years has been the robust growth of labor productivity (real output per hour of labor). Productivity is crucial in determining CBO's estimate of potential GDP, with which actual GDP is assumed to converge over the medium term. The unexpectedly vigorous growth of productivity in recent years, and especially in 2003, has led CBO to revise its forecast and medium-term projection of the levels of both GDP and potential GDP.
>
> After the rapid rise in productivity in the late 1990s and 2000--itself an unusual phenomenon in the later stages of an expansion--a period of slower-than-

[21] *2004 Economic Report of the President, infra* Bibliography, at 98 and 1999 *Economic Report of the President, infra* Bibliography, at 84.
[22] *2012 Economic Report of the President, infra* Bibliography, at 76.

average growth might have been expected. Instead, labor productivity has soared, climbing in 2003 at an annual rate of 2.2 percent in the first quarter, 7.1 percent in the second quarter, and 9.3 percent in the third quarter. Moreover, the average rate of growth for the two years ending in the third quarter of 2003--5.6 percent--was higher than the rate for any previous eight-quarter span since 1950.

In the context of the business cycle, productivity growth is typically strong during recoveries and the early part of expansions . . . .[23]

N. What has been the recent performance of productivity?

In an April 2016 Washington Post article entitled *Solving the productivity mystery*,[24] Robert Samuelson gives the following background on the recent decline in productivity:

> A paradox of our time concerns productivity. We are awash in transformative technologies — smartphones, tablets, big data — and yet the growth in labor productivity, which should benefit from all the technology, is dismal. This matters. Productivity is economic lingo for efficiency, and it's the wellspring of higher living standards. If productivity lags, so will wages and incomes.
>
> The latest figures are disheartening. From 2010 to 2015, average labor productivity for the entire economy rose a meager 0.3 percent a year. If maintained over a decade, this molasses pace implies a puny 3 percent wage increase[.] . . .
>
> Historically, we have done much better. From 1995 to 2005, labor productivity increased an average of 2.5 percent a year[.] . . . This would support a roughly 25 percent increase in wages and fringe benefits over a decade.[25]

Obviously, this is an important and difficult issue, and the next president will have to attempt to implement policies that will increase productivity.

O. What is the CBO's assessment of the impact of the Capital, Labor, and TFP elements of economic growth over the period of 2016 to 2026?

The CBO's *2016 Budget and Economic Outlook* gives the following assessment of the impact of the capital, labor and TFP elements on the rate of economic growth for the period, 2016 through 2026:

> *Lingering Effects of the Recession and Slow Recovery*. CBO expects the three major factors that determine potential output to be lower through 2026 than they would have been if not for the recession and slow recovery.
>
> Potential ***labor*** hours will be lower because persistently weak demand for workers since the recession has led some people to weaken their attachment to the labor force permanently. For example, some people who left the labor force after experiencing long-term unemployment are not expected to return to full-time, stable employment over the next decade. The rate of labor force participation will

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[23] *2004 Budget and Economic Outlook*, *infra* Bibliography, at Economic Outlook.

[24] Robert J. Samuelson, *Solving the productivity mystery*, Washington Post (April 3. 2016).

[25] *Id*.

thus be slightly lower—and the labor force slightly smaller—than it would have been otherwise.

Capital services also will be lower for several reasons. Fewer workers require proportionately less capital, all else being equal, and lower TFP (discussed below) tends to reduce investment as well. Because of automatic stabilizers and changes in fiscal policies implemented to bolster the economy during and after the recession, federal debt increased sharply. That higher debt will crowd out additional capital investment in the long term, CBO estimates.

Finally, in CBO's judgment, the protracted weakness in the economy and the large amount of slack in the labor market have lowered—and will continue to lower— potential ***TFP***. They will do so by reducing the speed and efficiency with which resources are allocated to their most productive uses, thereby slowing the rate at which workers gain new skills and restraining businesses' spending on research and development.

How the recession and slow recovery will continue to affect those three factors is difficult to quantify with any precision. For instance, significant uncertainty surrounds estimates of how much of the recent weakness in TFP can be traced to the effects of the recession and slow recovery on potential TFP and how much reflects other developments in the economy. (For example, the rate of improvement in information technology may have begun to slow a few years before the recession began.)[26]

P. What government policies can help generate economic growth?

Economic growth is affected by both monetary and fiscal policy, which are explored in greater detail in subsequent chapters. As indicated in Chapter 14, the Federal Reserve Board controls monetary policy and the level of short-term interest rates, which in turn affect the level of long-term interest rates. Low interest rates can contribute to economic growth by encouraging the financing of investment and consumer spending. However, low interest rates can also cause the economy to overheat and generate an unacceptable level of inflation.

Several fiscal policies, which as indicated in Chapters 15 through 18 are controlled by Congress and the President, can contribute to economic growth. These include:

(1) increased investment in infrastructure, *see* Chapter 10;
(2) tax incentives to promote R&D, *see* Chapter 23;
(3) spending on education and training, *see* Chapter 18;
(4) reductions in ineffective and unnecessary regulation, *see* Chapter 21; and
(5) reductions in the government's budget deficit, which should have the effect of increasing private investment, *see* Chapter 15.

[26] *2016 Budget and Economic Outlook*, *infra* Bibliography at 51-52.

Q. What is "Supply Side" economics?

1. What is the basic premise of "Supply Side" economics?

Supply side economics, which was prominent at the beginning of the Reagan Administration in the early 1980s, argued that economic growth would be increased by policies that promote greater economic efficiency, reduce regulation, and increase the incentives for work and investment. These policies are referred to as supply side initiatives because they are designed to shift the aggregate supply curve (*see* Chapter 6) outward to the right and thereby increase GDP without increasing inflation. These policies are distinguished from demand side policies that are designed to shift the aggregate demand curve (*see* Chapter 6) outward to the right. Potential shifts in the aggregate supply and aggregate demand curves are analyzed in Chapter 6 and subsequent chapters.

2. What is the "Laffer Curve" theory of supply side economics?

Some supply siders, specifically those who subscribe to the theory of the Laffer Curve, which is named after a strong proponent of supply side economics, took the controversial view that cutting taxes to a certain level would reduce rather than increase the deficit, because lower tax rates would lead to extra work that would increase tax receipts and thereby reduce the budget deficit. Although there is no empirical support for this proposition, there seems to be at least some empirical support for the following propositions of more conventional supply siders: (1) Increased incentives to work will increase the input of labor (this assumption is based on analysis of the income effect and the substitution effect discussed below), (2) Increased incentives to save and invest will make more capital available, and (3) Reduced regulation may lead to an increase in economic efficiency (see the discussion below of deregulation).

3. What was the experience with the "Laffer Curve" theory in the Economic Recovery Tax Act of 1981 (ERTA)?

The theory of the Laffer Curve was reflected in the Economic Recovery Tax Act of 1981 (ERTA), which adopted many of the proposals of the Reagan Administration to substantially reduce tax rates. Supply side tax cuts generally are directed at reducing the personal income tax, taxes on income from savings, taxes on capital gains, and the corporate income tax, with the purpose of shifting the AS curve to the right. ERTA reduced most of these taxes; however, the tax cuts do not appear to have significantly raised work effort. Indeed the ERTA led to substantial reductions in tax collections and as a result the deficit grew. Congress responded by increasing taxes in 1984 in the Deficit Reduction and Fiscal Responsibility Act of 1984 (DEFRA). In addition, the Bush tax cuts discussed in Chapter 23, which were based in part on theories similar to the Laffer Curve, have contributed to the bulging deficit.

4. Are Trump's proposals based on the Supply Side theory?

As will become apparent in the discussion of tax policy in Chapter 23, many of the economic proposals of Mr. Trump are based on the Supply Side theory. For example an article entitled *Trump's Shotgun Marriage of Populism and Supply-Side Economics*, which commented on Mr. Trump's August 2016 Detroit speech on economics, argues:

> [M]uch . . . of Trump's speech was targeted not at the average American but at corporations and high earners, with many of the ideas borrowed from the standard Republican playbook of supply-side economics. (Trump specifically positioned himself as continuing Ronald Reagan's legacy.) For example, he proposes eliminating the estate tax, which would not help many blue-collar workers, though it might benefit [Trump's children] Donald Jr., Ivanka, Eric, Tiffany, and Barron.[27]

And, an article in Bloomberg Politics reports that Trump has "sought advice from some of the most notable names in Reaganomics, including Arthur Laffer, Larry Kudlow and Stephen Moore."[28]

R. How does the "Income Effect" and "Substitution Effect" apply in analyzing the impact of tax cuts on the supply of labor?

The economic concepts of income effects and substitution effects are helpful in analyzing the impact of lower taxes on incentives to work. These concepts are also used in performing other economic analyses. For people who are already in the labor force, a reduction in taxes has two effects: an income effect and a substitution effect. The reduction in taxes increases the after-tax incomes of those already working and, therefore, through the income effect encourages more time devoted to leisure, because higher after-tax incomes generally encourage time devoted to leisure (that is, more income, less work and more time at the beach).

However, for these workers, the higher incomes also have a potential substitution effect, because the higher income resulting from lower taxes may encourage more work, or a substitution out of leisure and into work (that is, the more income I take home, the more I will work rather than go to the beach). Thus, for those in the labor market, a reduction in the taxes on wage income, which increases the income from work, will (1) through the income effect encourage workers to increase their leisure, and (2) through the substitution effect encourage workers to reduce leisure and increase work. Although those who take a "strong form" view of supply side economics believe that the substitution effect associated with tax cuts substantially outweighs the income effect, there seems to be no clear answer to the question.

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[27] David A. Graham, *Trump's Shotgun Marriage of Populism and Supply-Side Economics*, The Atlantic, Aug 8, 2016.

[28] Jesse Hamilton and Michelle Jamrisko, Reaganomics Band Gets Back Together to Advise Trump on Plan, Bloomberg Politics (May 26, 2016).

On the other hand, for people who are not in the workforce, a reduction of taxes on labor can only have a substitution effect, which encourages a substitution of work for leisure. There is empirical support for the proposition that increases in after-tax wages, indeed, have the effect of causing people who are not working (for example, homemakers) to enter the labor market, thus validating the substitution effect in this situation.

On last point: for a person already in the labor market, both the income effect of a tax cut (more leisure, less work) and the substitution effect (more work, less leisure), the person is substituting either leisure for work (income effect) or work for leisure (substitution effect); thus both effects involve s*ubstitutions* of one for the other.

S. What is the justification for deregulation?

Policies supporting a reduction in regulation can promote economic efficiency. However, it would be a grave mistake to assume that deregulation is always desirable and beneficial. For example, as indicated in the analysis of externalities in Chapter 21, there is a sound economic justification for certain environmental regulation and other regulation designed to properly account for situations in which due to detrimental externalities, there are unaccounted for marginal societal costs of production.

T. What is the relationship between financial markets and economic growth?

The financial system consists of financial institutions, such as banks and insurance companies, and capital markets, which include the stock and bond markets. This system funnels funds from individuals and institutions that save, to firms that need funds for real investment. As indicated above, real investment includes investment in plant, equipment, R&D, and other business assets and is to be distinguished from investment in financial assets, which includes purchases of stocks and bonds. Thus, the financial system acts as an intermediary between those with funds to save and those with a need for funds for real investment.

The intermediary role performed by banks is direct to the extent that banks collect deposits and lend funds to firms. The intermediary role of capital markets is both direct and indirect. For example, the purchase by an individual investor of existing (that is, outstanding) stock of a company listed on the New York Stock Exchange does not result in the funneling of the funds directly to the company whose stock is traded. Rather the funds go to the seller of the stock. However, if there is enough interest in the stock of the company, this may make it possible for the company to raise additional capital from the sale of additional stock. Thus, the public trading may indirectly contribute to the ability of the firm to raise additional capital. On the other hand, if, for example, a closely-held company issues its stock in a private offering (that is, an offering to a small number of sophisticated investors) or in an initial public offering or IPO (that is, in an offering in which the shares are publicly traded after the offering), the funds go to the company for the purposes spelled out in the disclosure documents provided to the purchasers of the stock. The same is true when a publicly traded corporation issues new shares in a private or public offering. IPOs and public offerings by companies that are already public must be registered with the Securities and Exchange Commission (SEC).

The financial system helps to promote economic growth by channeling savings into real investment. Various empirical studies have found a strong correlation between

sophisticated financial systems and economic growth. Countries with well-developed banking systems and capital markets tend to experience faster economic growth than those countries with less developed financial systems.

Chapter 12 addresses some of the issues involving the regulation of the financial markets, including the impact of the Dodd-Frank Act.

U. How does foreign direct investment (FDI) and foreign portfolio investment (FPI) affect economic growth?

1. What about FDI and FPI into the U.S.?

Foreign investment in the U.S. is divided into foreign direct investment (FDI) and foreign portfolio investment (FPI). FDI involves an acquisition of at least 10% of the stock of a U.S. business, and FPI includes all other acquisitions of stocks and bonds of U.S. companies and governments. A classic example of FDI occurs when a foreign corporation, such as BMW, a German auto company, sets up a wholly owned subsidiary in South Carolina (that is, a U.S subsidiary corporation, all the stock of which is owned by BMW) to manufacture BMW cars.

A classic example of FPI occurs when a German citizen purchases stock of IBM on the New York Stock Exchange. FDI and FPI into the U.S. increase our stock of capital, and thereby contribute positively to economic growth. This is so even though the income generated by the FDI and FPI may be distributed to the foreign owner and not reinvested in the U.S.

2. Does the U.S. have capital controls on FDI or FPI?

The U.S. does not control the outflow of capital (that is, does not have capital controls) with regard to U.S. investments made by foreign investors; therefore, there is no limit on the ability of the foreign investor to repatriate its earnings or its initial invested capital. This subject will be explored further in Chapter 11, which deals with international trade and investment.

CHAPTER 4, WHAT IS GROSS DOMESTIC PRODUCT (GDP) AND HOW IS IT A MEASURE OF ECONOMIC GROWTH?

A. What is in this Chapter?

This chapter proceeds as follows. First, the chapter elaborates on the concepts of gross domestic product (GDP) and gross national product (GNP) and discusses generally the components of GDP. The chapter then briefly addresses alternative ways of computing GDP and provides a circular diagram with an explanatory Table of the elements that go into GDP. Next, the chapter examines the behavior of each of the components of GDP for the past several years and reports on a forecast of future movements in GDP and its components. The chapter then explores various aspects of the concept of GDP per capita, which is probably the best macroeconomic measure of the standard of living.

B. What is GDP?

GDP, which is sometimes referred to as the economy's output, is the total amount spent, measured in dollars, on final goods and services produced in the U.S. economy by labor and assets located in the U.S. during a specified period, such as a month, a quarter, or a year. As an aggregate concept, GDP is an aggregation of all final sales in the economy. For example, the final sales price of a PC, the final product, is included in GDP and not the sales price of the components that make up the PC, the intermediate products. Also, as discussed more fully below, GDP does not include an amount spent on a used good, such as a used PC. On the other hand, GDP includes the amounts spent by businesses on capital goods, such as plant and equipment, even though these goods are intermediate. Thus, for example, GDP includes the cost of a new plant a computer company incurs for the manufacturer of PCs but not the cost the company incurs for the disk drives that are included in its PCs; the cost of the disk drives is accounted for as part of GDP on the sale of the computers.

GDP does not include sales of items produced in prior years, such as used cars or existing homes, but it does include the salary paid to the used car salesman and the fees paid to the seller's and buyer's broker for the existing home, because these salaries and fees are paid for currently rendered services. Also, GDP does not include purchases of financial assets, such as stocks or bonds, because the purchase of these assets does not involve production of goods or services. However, GDP does include the brokerage commission paid in making an acquisition or disposition of a financial asset. The funds received by firms from the direct sale of financial assets feeds into GDP because the funds are used to produce products and buy services that ultimately contribute to GDP.

Since corporate mergers and acquisitions involve either the acquisition of (1) a financial asset, that is, the stock of the target corporation, or (2) the existing assets of a target corporation, these transactions are not included in the computation of GDP. However, the fees paid to lawyers and investment bankers for the facilitation of the transactions are included in GDP.

GDP is a measure only of products and services transferred in legally organized markets. Thus, GDP does not include, for example, work performed by homemakers, or sales of illegal products, such as drugs, or sales or barters on a black market.

GDP is computed without any subtraction for consumption of fixed capital, that is, depreciation.

Finally, GDP may increase as a result of a tragic event. For example, as a result of damage caused by a hurricane, spending will increase, thereby increasing GDP.

GDP can be measured on either a nominal (*i.e.*, current price) basis or a real, (*i.e.*, inflation adjusted) basis. Real GDP uses constant base-year prices, thus measuring GDP between different time periods by valuing all goods and services produced in the two periods at the same prices or in constant dollars. Thus, for example, the *2016 Economic Report of the President* indicates that for 2015 nominal GDP was $18.1 trillion[29] on an annualized basis, and real GDP measured in 2009 dollars was $16.4 trillion.[30]

C. What is GNP?

Gross National Product (GNP) is a measure of final goods and services produced by labor and assets supplied by U.S. residents, wherever in the world the labor or assets are supplied. Thus, GNP does not include, for example, profits made by a German car manufacturer on cars produced and sold in the U.S. but does include the profits made by a U.S. car manufacturer on cars produced and sold in Germany. The *2012 Economic Report of the President* shows that GNP is computed by starting with GDP and adding *Income Receipts by U.S. Residents from the Rest of the World*, and subtracting *Income Payments by U.S. Residents to the Rest of the World*.[31] For the U.S., GDP and GNP are quite close in magnitude. For example, for 2010, nominal GDP was $14.52 trillion and nominal GNP was $14.71 trillion.[32] Because of the similarity in GDP and GNP and for other reasons, most macroeconomic analysis in the U.S. focuses on GDP.

D. What is the national income accounting system?

GDP, GNP, and GDO are part of the national income accounting system, which is the Federal system for collecting and presenting macroeconomic data. This system is based on the method of analysis set out by John Maynard Keynes in his 1936 groundbreaking macroeconomics book, *The General Theory of Employment, Interest, and Money*.

E. What are the components of GDP?

GDP consists of the following four components:

(1) Personal Consumption Expenditures (C), which includes consumer purchases of durable goods, non-durable goods, and services;

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[29] *2016 Economic Report of the President*, *infra* Bibliography, at Table B-2, Gross Domestic Product, 2000-2015.
[30] *Id.* .
[31] *2012 Economic Report of the President*, *infra* Bibliography, at Table B-26, Relations of Gross Domestic Product, Gross National Product, Net National Product, and National Income, 1959-2003.
[32] *Id.*

(2) Gross Private Domestic Investment (I), which includes business investment in structures, equipment, software, and changes in inventory, and investment by people in new residential housing;

(3) Government Purchases of Goods and Services (G), which include Federal spending on defense and non-defense goods and services and all state and local spending on goods and services; and

(4) Net Exports of Goods and Services (NX), which is the difference between exports and imports.

The focus in each of these components is on expenditures made for goods and services, and this is, therefore, the expenditure method of computing GDP. Other methods of computing GDP are set out in a later section.

Thus, in terms of a formula, GDP=C+I+G+NX represents the demands of all consumers, firms, government, and foreigners for final U.S. products and services.

F. What is GDO?

The *2016 Economic Report of the President* reports that a new concept, Gross Domestic Output (GDO), is "a better measure of output." The *Report* gives the following explanation of GDO:

> Measuring the strength of the economy can be difficult as it depends on surveys and administrative source data that are necessarily imperfect and incomplete in their ability to capture a complex, dynamic, and large economy. Official statistics measure the total output of the economy in two distinct ways: first, gross domestic product (GDP), which cumulates various measures of production by adding consumption, investment, government spending, and net exports; and second, gross domestic income (GDI), which cumulates incomes by adding labor compensation, business profits, and other sources of income. In theory, these two measures of output should be identical; however, they differ in practice because of measurement error. For example, the level of GDP was about 1-percent less than GDI during the first three quarters of 2015, though over longer time periods neither measure is typically stronger or weaker.
>
> In July 2015, the Bureau of Economic Analysis (BEA) began publishing the average of GDP and GDI—which CEA refers to as gross domestic output (GDO). Real GDO growth is often close to real GDP growth, but differences can be important. For example, GDO slowed more in 2007 than GDP and gave an earlier signal of the impending severe recession.[33]

The discussions in this book will focus on GDP.

G. What are some of the aspects of the components of GDP?

1. What are some of the other aspects of the Personal Consumption Expenditure component of GDP?

As discussed previously, the Personal Consumption Expenditures component of GDP includes individual purchases of newly manufactured goods and services, including durable goods such as refrigerators. For example, the purchase of personal property at a

[33] *2016 Economic Report of the President*, *infra* Bibliography at 76.

yard sale would not be included in this component because the property sold is not newly manufactured. This component does not include the cost of new residential housing because these purchases are included in Gross Private Domestic Investment.

2. What are some of the other aspects of the Gross Private Domestic Investment component of GDP?

Although GDP generally includes purchases of final goods and services, Gross Private Domestic Investment includes purchases of those intermediate goods that add to the capital stock of a business, such a plant and equipment. Since the focus is on "Gross" investment, no deduction is taken for depreciation, or other capital consumption allowances, on plant and equipment. GDP minus capital consumption allowances is referred to as Net Domestic Product (NDP), which is not examined here.

Changes in inventories are included in Gross Private Domestic Investment because (1) increases in inventory levels are additions to the stock of business capital, and (2) decreases in inventory levels operate to decrease the stock of business capital. Thus, inventories are treated as though the business that produced them also purchased them, even though the inventory is still on the shelf and has not been sold.

Firms will generally have a targeted ratio of inventories-to-sales, and new inventory management techniques, referred to as "just-in-time" systems, are designed to reduce the need for businesses to produce products until there is a purchaser for the product, thus reducing the need to carry large inventories. As an indication of the effect of this development, the *1999 Economic Report of the President* indicates that over the period from 1981 through 1997, the months' supply of inventories held by businesses dropped from 3.1 months to just 2.1 months.[34]

As previously indicated, Gross Private Domestic Investment includes expenditures of individuals on new housing, but not for existing housing. Thus, Gross Private Domestic Investment includes the purchase by businesses of plant, equipment, and software, and the purchases by individuals of new (not previously existing) houses. Individual purchases of other durable products are accounted for in Personal Consumption Expenditures.

3. What are some of the other aspects of the Government Purchases of Goods and Services component of GDP?

Government Purchases of Goods and Services do not include transfer payments, such as welfare and Social Security payments. These payments are accounted for as part of Personal Consumption Expenditures when spent. Transfer payments make up a larger portion of the Federal government's expenditures than purchases of goods and services. For example, for 2012, the Federal government spent $1.07 trillion on goods and services and $2.3 trillion on transfer payments.[35] Since most government services are not sold in markets, the contribution of government to GDP is measured by the amount the government pays for goods and services, such as the amount the Federal government

[34] *1999 Economic Report of the President*, *infra* Bibliography, at 96, Table 2-15, Inventory to Sales Ratio.
[35] *2012 Economic Report of the President*, *infra* Bibliography, at Table B-84, Federal Government Current Receipts and Expenditures, 1963-2011.

pays for national defense and the amount a state government pays for its state police and other systems.

4. What are some of the other aspects of the Net Exports of Goods and Services (X - IM) component of GDP?

In computing Net Exports of Goods and Services (X - IM), imports of goods and services are subtracted from exports. Although an expenditure on an import is included in other expenditure items such as, for example, Personal Consumption Expenditures when a consumer purchases a bottle of French wine, the import expenditure has no effect on GDP since the payment is going to a foreign firm. To account for this, exports are reduced by the amount of the imports. The same result on GDP could be reached by subtracting imports from the relevant expenditure category, such as Personal Consumption Expenditures in the case of the French wine, but this is not the convention.

Net Exports of Goods and Services is principally a function of the following factors: (1) the exchange rate between the dollar and the currencies of our trading partners such as the euro, which is the common currency used in many European countries, including Germany and France; (2) the level of foreign income (as foreign income grows the demand for U.S. products will likely grow); (3) the state of trade policies (reduced trade barriers promote exports and imports); and (4) the taste of U.S. residents for foreign products and of foreigners for U.S. products. It is important to understand the impact of exchange rates generally and on the determination of GDP.

Exchange rates, which are explored in greater detail in Chapter 11, which deals with international trade and investment, are important because in making cross border purchases of goods and services, the currency used in the purchasing country must be converted into the currency used in the selling country in order to pay for the product or service that is sold. Thus, every import or export from countries with different currencies has a foreign currency trade associated with it. A strong dollar (*i.e*. the dollar will buy a substantial amount of a foreign currency) has a tendency to (1) decrease exports because it makes U.S. goods more expensive to foreigners, and (2) increase imports because it makes U.S purchases of foreign products more affordable. On the other hand, a weak dollar has a tendency to (1) increase exports because it makes U.S. exports more affordable to foreigners, and (2) decrease imports because it makes imports more costly for Americans.

For example, first assume that in most of 2014 there was a one to one relationship between the dollar and the euro, meaning it took one dollar to buy a euro and one euro to buy a dollar. Then assume that in 2015 the dollar weakens relative to the euro to the point where it takes $1.10 to buy a euro, or approximately .9 euros to buy a dollar. In such case, it could be expected that in 2015, other things being equal, (1) exports to Europe would be higher than otherwise would be expected, because with the weakened dollar, citizens and businesses of Europe could buy more dollars for each euro, and (2) imports from Europe would be lower than otherwise expected, because U.S consumers and businesses would have to pay more dollars to buy euros.

On the other hand, assume that in 2015 the dollar strengthens relative to the euro to the point where it takes just $.90 to buy a euro or approximately 1.1 euros to buy a dollar. In such case, it could be expected that in 2015, other things being equal, (1) exports to Europe would be lower than otherwise would be expected, because with the

strengthened dollar European citizens and businesses would have to use more euros in buying dollars, and (2) imports from Europe would be higher than otherwise would be expected, because U.S consumers and businesses would have to pay fewer dollars to buy euros.

The exchange rate is affected by the interest rate as follows: If interest rates go up, there is a greater foreign demand for U.S. bonds. To purchase the bonds, foreigners will have to first convert their foreign currencies into dollars. This purchase of dollars increases demand for dollars, and thereby increases the exchange rate, making the dollar stronger. Thus, high interest rates tend to depress exports and increase imports because they tend to strengthen the dollar, and low interest rates tend to increase exports and decrease imports because they tend to weaken the dollar.

H. How is GDP related to Aggregate Demand?

Another way of thinking about GDP is that it represents aggregate demand (AD), which is the demand for domestically produced final goods and services. The demand for these goods and services can come from (1) consumption spending by households (C), (2) investment spending by businesses and households (I), (3) government (Federal, state and local) spending on goods and services (G), and (4) foreign spending on U.S. goods (exports, X) minus U.S. spending on foreign goods (imports, IM), that is net exports, (X - IM) or (NX). Thus, stated as a formula, Aggregate Demand=GDP=C+I+G+(X-IM). The concept of aggregate demand is explored further in Chapter 6.

I. What is the relationship between Gross Private Domestic Investment and Aggregate Supply?

Although Gross Private Domestic Investment is part of aggregate demand, it is important to recognize that since investment adds to the capital stock and, therefore, to the productive capacity of the nation, it also, especially in the long run, adds to aggregate supply. Thus, Gross Private Domestic Investment does "double duty," boosting both current aggregate demand and long-term aggregate supply. Other elements of GDP can have a similar effect, such as government spending on education. The aggregate supply and aggregate demand concepts are explored further in Chapter 6 and subsequent chapters.

J. What is the relationship between GDP, Disposable Personal Income, and Personal Consumption Expenditures?

As indicated, GDP is the total output of the economy. Disposable personal income is the portion of GDP that goes to individual consumers, and as will be seen below in the discussion of the circular diagram of GDP in Diagram 4-A, it is basically GDP less the following:

(1) taxes after deduction of transfer payments (that is, taxes paid minus transfer payments, such as Social Security, received by individuals); and

(2) retained earnings of businesses.

Also, as seen in the discussion of this circular diagram, personal consumption expenditure is the portion of disposable personal income that consumers spend on

consumption. The relationship of these items at the per capita level is also explored below.

K. What was the recent contribution to GDP of each of its components?

Table 4-A shows the magnitude of real GDP, measured in year 2009 dollars, and each of the components of GDP for 2015. This data is from the *2016 Economic Report of the President*.

Table 4-A
Real GDP and Its Components, for 2015

		$ Trillions	Percent
(1)	Personal Consumption Expenditures [C]	$11.3	68%
(2)	Gross Private Domestic Investment [I]	$2.8	16.9%
(3)	Government Purchases of Goods and Services [G]	$2.9	17.5%
(4)	Net Exports of Goods and Services [X - IM]	-$0.5	-3.0%
(5)	Real GDP	$16.5	100.00%

Source: *2016 Economic Report of the President, infra* Bibliography, at Table B2, Gross Domestic Product 2000-2015

Table 4-A, indicates that (1) Personal Consumption Expenditures is by far the largest component of GDP, (2) Gross Private Domestic Investment and Government Purchases of Goods and Services are relatively close in magnitude, and (3) Net Exports of Goods and Services has a negative effect on GDP because imports exceed exports.

L. Are there alternative ways of computing GDP?

As indicated, GDP computed previously focuses on expenditures made by the various components that make up GDP. Another way of computing GDP is to focus on the income received by the various factors of production, land, labor, and capital, in the form of rents, wages, interest, dividends, royalties, and proprietor profits. The equivalency between GDP and income, which economists refer to as Y, can be seen from Table B-26, *Relation of Gross Domestic Product, Gross National Product, Net National Product, and National Income, 1963-2011,* of the *2012 Economic Report of the President*. This Table shows that for 2010, GDP was $14.52 trillion, and that National Income was $12.84 trillion. Once the consumption of fixed capital (principally depreciation and amortization) of $1.87 trillion is added to this National Income of $12.84 trillion, the result is $14.71 trillion, approximately the same as GDP, which is computed without any subtraction for consumption of fixed capital, that is, depreciation.

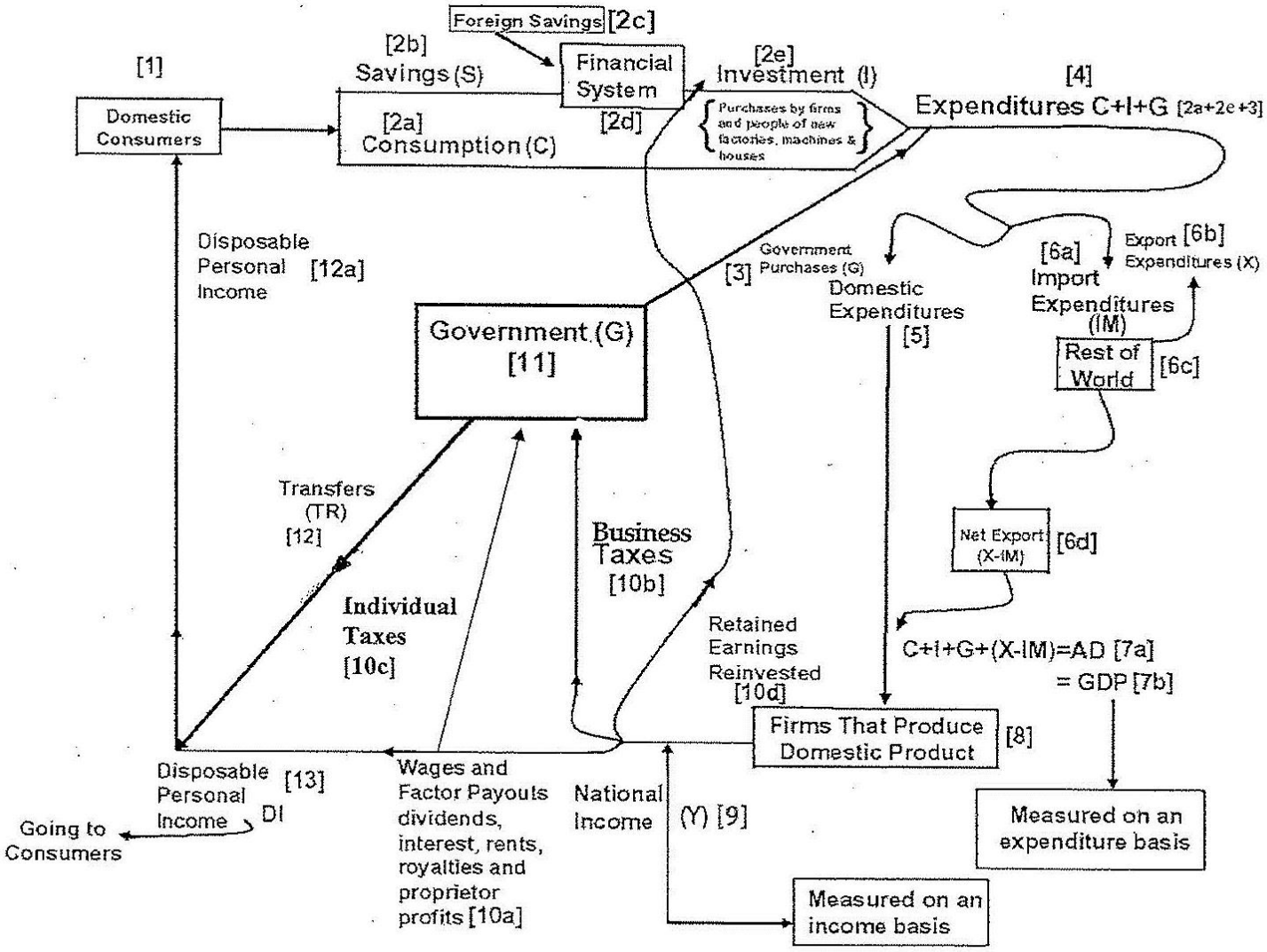
GDP can also be computed by summing all of the value added by all firms, which is in essence a firm's profit, that is, the revenue from the sale of the product minus the amount paid for the goods and services purchased from other firms in making the product.

The expenditure method of computing GDP is the most commonly used method, and, for that reason, these two alternative methods are not addressed further here.

M. What would a diagram of the GDP components look like?

Diagram 4-A, a GDP Circular Flow Diagram, sets out the relationships among the elements that go into the computation of GDP, and the discussion in the next section elaborates on the relationships.

Diagram 4-A
GDP Circular Diagram



N. What are the relationships among the items in the GDP Diagram?

First, start with Domestic Consumers [1] who receive Disposable Personal Income [13], which arises from (a) after-tax Wages and Factor Payments, that is, dividends, interest, rents, royalties and proprietor profits [10a], and (b) Transfer payments, such as welfare and Social Security (Tr) [12] from Government (G) [11].

Second, Domestic Consumers either spend their Disposable Personal Income on Consumption (C) [2a] or Save (S) [2b] their Disposable Personal Income with the Financial System [2d]. Also, foreigners save through the financial system by, among other things, buying U.S. stocks and bonds and by making deposits in U.S. banks [2c]. Although some of consumption spending and investment spending is made on imports, this is accounted for as Import Expenditures [6a] in the computation of Net Exports [6d].

Third, the Financial System converts Savings into real Investments (I) [2e] by Firms in real assets, such as plant, equipment, and software. Also, the Retained Earnings (RE) [10d] of Firms [8] is converted by those Firms into real Investments (I) [2e]. This shows that except for RE, those who Save [2b and 2c] are not those who Invest [2e]. Real Investment at [2e] is different from "investment" individuals make when they use their savings [2b] to buy stocks and bonds through the financial system [2d].

Fourth, goods and services are purchased by

(a) Consumers in the form of Consumption (C) [2a],

(b) Firms in the form of Investment (I) [2e], which includes individuals purchasing newly constructed residences, and

(c) Government in the form of Government Purchases (G) [3].

These three give the amount of Expenditures (C+I+G) [4].

Fifth, Expenditures (C+I+G) [4] are divided between Domestic Expenditure (DE) [5] and Import Expenditures (IM) [6a]. Import Expenditures are offset by Export Expenditures (X) [6b] from the Rest of the World [6c] to arrive at Net Exports (X-IM) [6d].

Sixth, Aggregate Demand (AD) [7a] consists of the Expenditures represented by C+I+G+(X-IM) [7a], which goes to Firms that Produce Domestic Product [8]. This is GDP [7b] measured on an expenditure basis, that is, the total volume of goods and services purchased by consumers (C), businesses (I), governmental entities (G) and foreigners (X-IM). Equilibrium is reached when the AD at point [7a] equals production at point [8]; in the AD-AS model. As demonstrated in Chapter 6, this is the point at which AD=AS.

Seventh, the Firms that Produce Domestic Product [8] pay out National Income (Y) [9]. Note that National Income (Y) also equals C+I+G+(X-IM). This National Income is GDP measured on an income basis.

Eighth, the payout of National Income is divided between Wages and Factor Payments (that is, dividends, interest, rents, royalties, and proprietor profits) [10a], Business Taxes (T) [10b] and Individual Taxes [10c], and Retained Earnings (RE) [10d]. RE goes into Investments (I) [2e]. Thus, National Income (Y) represents the wages and other factor income and profits before taxes earned by all individuals in the economy.

Ninth, on the revenue side, the Government (G) [11] collects Business Taxes [10b] and Individual Taxes [10c]. On the expenditure side, the Government makes Purchases [3] and makes Transfer Payments [12] in the form of, for example, welfare and Social Security payments.

Tenth, Disposable Personal Income (DPI) [13] consists of (a) after-tax Wages and other Factor Payments (that is, dividends, interest, rents, royalties, and proprietor profits) [10a], and (b) Transfer payments (Tr) [12] from Government [11]. DPI is computed on an after-tax basis, because both Business Taxes [10b] and Individual Taxes [10c], including income taxes and payroll taxes, are diagramed as going from the Firms that

Produce Domestic Product [8] and the Wages and Factor Payouts [10a] directly [10b and 10c] to the Government [11]. Note that withholding taxes on wages are paid by Firms [8] as part of Business Taxes [10b]. Firms make withholding payments for the benefit of the recipient of the income. The Government [11] returns a portion of Taxes [10b] to consumers as Transfer [12] payments (*e.g.*, Social Security). These transfers increase DPI [13]. Therefore, DPI can be written as GDP minus the following two items: (a) Taxes after deduction of Transfers, and (b) RE (Retained Earnings), that is, DPI=GDP-(T-Tr)-RE. Also, DPI=Y (National Income)-(T-Tr)-RE. For example, assume that GDP is $100B, Taxes are $20B, Transfers are $5B, and Retained Earnings are $10B. In such case, DPI is $75B (that is, $100B-($20B-$5B)-$10B). Stated another way, DPI is GDP ($100B) minus RE ($10B) and minus the $15B of Taxes ($20B) that are not returned to consumers as Transfer payments ($5B), that is, DPI =$100B-$10B-$15B, or $75B.

Eleventh, DPI is what Consumers have to start the process over again by dividing their DPI between Consumption [2a] and Savings [2b].

O. What are some of the basic principles regarding the Investment component of GDP as shown on the GDP Circular Diagram?

1. First, what makes up the Investment component?

As indicated above, the investment component of GDP consists of (1) business investment in new nonresidential structures (that is, plant and office buildings), (2) business investment in equipment and software, (3) business investment in inventories, and (4) individual investment in new residential housing. This is shown at point [2e] on Diagram 4-A.

2. Second, why do businesses invest?

Businesses make real investments for a variety of reasons, including: the replacement of depreciated plant and equipment, the addition of new facilities to keep up with increasing demand, the lowering of operating costs through more efficient plant and equipment, and the development of new products. All of these reasons are expected to lead to an enhancement in free cash flow, which is discussed in the next section.

P. As of January 2016, what was the CBO's projected "Contributions [of the various GDP components] to the Growth of Real GDP?"

In its *2016 Budget and Economic Outlook*, the CBO had the following summary the projected "Contributions to the Growth of Real GDP:"

> CBO expects that consumer spending and both business and residential investment will drive growth of real GDP in coming years. Consumer spending is expected to provide the largest contribution to the growth of output over the next few years, as it has done on average in the past. However, the anticipated pickup in growth in 2016 and 2017 stems largely from faster growth in investment in business capital and in housing . On net, purchases by the federal government and

by state and local governments are projected to have a small positive effect on the growth of GDP through 2020. In contrast, net exports will restrain growth in 2016 and 2017 but contribute slightly to growth thereafter, CBO projects.[36]

Q. As of January 2016, what was the projected rate of growth of Real GDP for the period 2015 to 2026 by the CBO, the Council of Economic Advisors, and the Federal Reserve Board?

In its *2016 Budget and Economic Outlook*, the CBO forecasts that over the period 2015 through 2025 the rates of growth of Real GDP are as set forth in Table 4-B:[37]

Table 4-B
CBO's Projected Growth Rates of GDP, 2015-2025

Year[s]	**Projected Growth Rates of GDP**
2015	2.0 Actual
2016	2.7
2017	2.5
2015-2020	2.2
2021-2025	2.0
2015-2025	2.1

These projections are similar to the projections in the *2016 Economic Report of the President*, at 108, and the *Fed 2016 Monetary Report*, at 36.

R. What is GDP Per Capita?

GDP per capita equals the level of GDP divided by the population, which in the U.S. was approximately 313 million as of the April 2012. GDP per capita is, therefore, a measure of the average citizen's standard of living. Real GDP per capita is probably the best macroeconomic indicator of how well an economy is performing. The *1999 Economic Report of the President* emphasizes the importance of per capita GDP: "If the objective of growth is the material welfare of the individuals who make up a country, then the proper measure of the success of a program of economic development is how much it adds to output per person—to total output divided by the population."[38]

It is possible for a country's nominal GDP to grow, while because of an increasing population, its real GDP per capita falls, which means that its citizens are on average becoming worse off. However, an improvement in real GDP generally means an improvement in other measures of the standard of living, such as life expectancy.

However, if there is a significant unequal distribution of resources within a country, even real GDP per capita will not be a good measure of how well citizens are doing. For example, even with a high growth rate of GDP per capita, wealthy residents may see their living standard soar while the poor see their living standard erode. This issue with inequality is addressed more fully in Chapter 20.

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[36] *2016 Budget and Economic Outlook*, *infra* Bibliography, at 37
[37] Id. at Table 2-4, p. 57.
[38] *1999 Economic Report of the President*, *supra infra* Bibliography, at 317.

A. What is in this Chapter?

This chapter discusses how GDP is tracked and projected by various governmental and private firms.

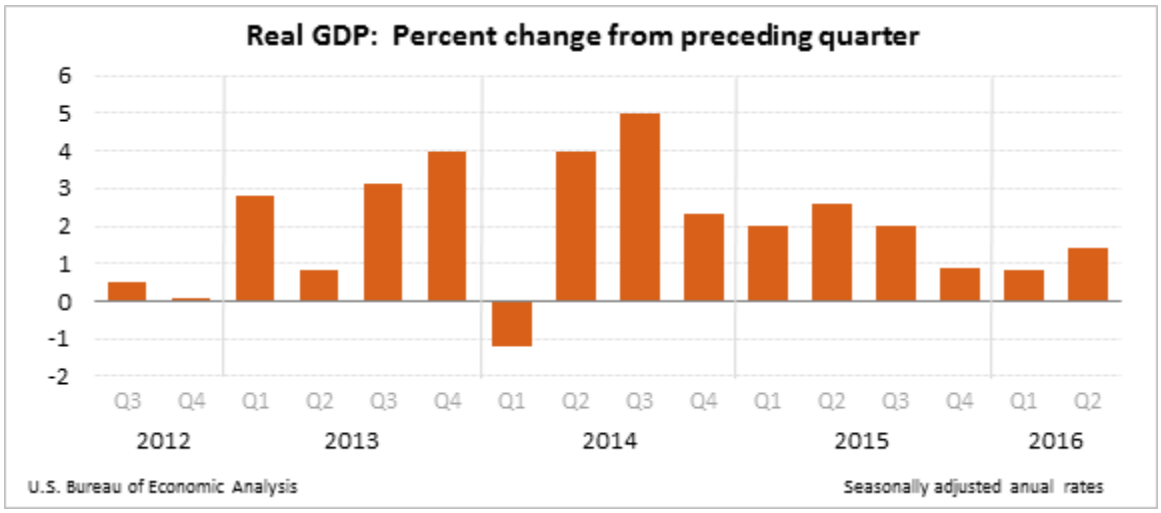
B. How does the Bureau of Economics track GDP?

The Department of Commerce's Bureau of Economic Analysis (BEA) issues a monthly report on various aspects of GDP. The reports, which are usually issued on the last Friday of the month, deal with such items as an estimate of the growth in GDP for the most recent quarter. The reports also give data on corporate profits. For example, the title of the report issued on September 29, 2016 was

National Income and Product Accounts
Gross Domestic Product: Second Quarter 2016 (Third Estimate)
Corporate Profits: Second Quarter 2016 (Revised Estimate)

As an illustration of the contents of these reports, the September 29, 2016 report gave the following summary of recent movements in GDP:

> Real gross domestic product increased at an annual rate of 1.4 percent in the second quarter of 2016, according to the "third" estimate released by the Bureau of Economic Analysis. In the first quarter, real GDP increased 0.8 percent. * * *
>
> With the third estimate for the second quarter, the general picture of economic growth remains the same. The most notable change from the second to third estimate is that nonresidential fixed investment increased in the second quarter; in the previous estimate, nonresidential fixed investment decreased. * * *



> Real gross domestic income (GDI) decreased 0.2 percent in the second quarter, in contrast to an increase of 0.8 percent in the first. The average of real GDP * * * increased 0.6 percent in the second quarter, compared with an increase of 0.8 percent in the first.

The increase in real GDP in the second quarter reflected positive contributions from personal consumption expenditures (PCE), exports, and nonresidential fixed investment. These were partly offset by negative contributions from private inventory investment, residential fixed investment, and state and local government spending. Imports, which are a subtraction in the calculation of GDP, increased.

The acceleration in real GDP in the second quarter primarily reflected an acceleration in PCE and upturns in nonresidential fixed investment and in exports. These were partly offset by a larger decrease in private inventory investment, downturns in state and local government spending and in residential fixed investment, and an upturn in imports.

Current-dollar GDP increased 3.7 percent, or $168.5 billion, in the second quarter to a level of $18,450.1 billion. In the first quarter, current dollar GDP increased 1.3 percent, or $58.8 billion.

The price index for gross domestic purchases increased 2.1 percent in the second quarter, compared with an increase of 0.2 percent in the first. The PCE price index increased 2.0 percent, compared with an increase of 0.3 percent. Excluding food and energy prices, the PCE price index increased 1.8 percent, compared with an increase of 2.1 percent.

C. How does the Council of Economic Advisers track GDP?

As indicated in Chapter 4, the *Economic Report of the President*, which is prepared by the Council of Economic Advisers and issued in February of each year, provides an analysis of the previous year's GDP and short and long-term projections of the growth rate of GDP. Also, detailed tables are presented with various analyses of past and current GDP and other macroeconomic factors.

D. How does the Federal Reserve Board track GDP?

In February and July of each year the Federal Reserve Board provides Congress with a Monetary Policy Report, and the Chairman of the Fed gives testimony on the report. Among other things, the reports and the testimony address recent developments in the growth of GDP. The reports also focus on the impact of the Fed's monetary policy. The current and past reports and testimony are available on the Fed's website at http://www.federalreserve.gov/.

E. How does the Congressional Budget Office track GDP?

The Congressional Budget Office's *Budget and Economic Outlook*, which is published in January of each year, and other analyses of the CBO are available at http://www.cbo.gov/. As indicated in Chapter 4, the *Budget and Economic Outlook* contains detailed analyses of the past performance of GDP and other macroeconomic variables and forecasts of such variables for many years into the future. All of these sources are discussed in the business press at the time of release.

F. What are some of the other indicators of GDP?

The online version of the Wall Street Journal, www.wsj.com, has an *Economic Calendar* that contains the most recent and past economic reports of various governmental agencies and private business research organizations, such as the Conference Board's Index of Leading, Coincident and Lagging Indicators. There are around 100 reports on the U.S. economy.

The online version of the Wall Street Journal also contains an economic forecasting survey that contains forecasts from several private economists of GDP and other macroeconomic variables, such as inflation and unemployment.

G. What are the Conference Board's Leading, Coincident, and Lagging Indicators?

The Leading indicators tend to start expanding or contracting before GDP begins expanding or contracting. The Coincident indicators predict the current state of the economy. The Lagging indicators generally are the last to turn down in a recession or turn up in an expansion.

H. How does the Wall Street Journal's Economic Forecasting Survey forecast the growth rate of GDP?

The Wall Street Journal periodically collects the forecasts of numerous economists on various economic factors, such as the projected growth rate of GDP.[39] The surveys report the actual and forecasted performance of, *inter alia*: (1) the growth rates for GDP, (2) the unemployment rate, (3) the inflation rate, (4) the interest rate on both Fed Funds and ten-year government debt, and (5) the annual change in housing prices.

[39] Available http://projects.wsj.com/econforecast. .

CHAPTER 6, FROM THE DEMAND AND SUPPLY CURVES OF MICROECONOMICS TO THE AGGREGATE DEMAND (AD) AND AGGREGATE SUPPLY (AS) CURVES OF MACROECONOMICS: USING THE AD-AS MODEL IN ANALYZING ECONOMIC GROWTH?

A. What is in this Chapter?

This chapter employs (1) the supply curve and demand curve used in microeconomic analysis in Chapter 2, as an introduction to (2) the aggregate demand (AD) curve and aggregate supply (AS) curve employed in macroeconomic analysis. The chapter then elaborates on the AD-AS model. The chapter discusses basic principles underlying the model and explores how the potential GDP concept fits within the model. The chapter then examines the role of inventories in signaling whether the AD-AS model is in equilibrium and briefly considers the impact of monetary and fiscal policy on the AD curve, topics that are considered in greater detail in later chapters. Finally, the chapter examines the factors that can cause the aggregate supply curve to shift. The principles laid out in this chapter are utilized in subsequent chapters.

B. How does the microeconomic supply and demand model relate to the macroeconomic aggregate supply and aggregate demand model?

As discussed in Chapter 2, microeconomic analysis focuses on the behavior of individual markets, whereas macroeconomic analysis focuses on the behavior of the broad economy. The supply and demand analysis introduced in Chapter 2 is not generally used in macroeconomic analysis. However, macroeconomic analysis employs what is known as the aggregate supply curve and the aggregate demand curve. These curves are plotted on a graph that has GDP on the horizontal axis and the price level on the vertical axis. Whereas the supply and demand curves used in microeconomic analysis focus on one market, the aggregate supply curves and the aggregate demand curves used in macroeconomic analysis focus on the aggregation of all economic players in a market. Therefore, the aggregate supply and demand curves are more of an abstraction than the regular supply and demand curves.

In thinking about these two sets of supply and demand curves, it is important to note that as Professor Krugman points out: "[M]acroeconomic questions [cannot be] be answered simply by adding up microeconomic answers," such as by "adding supply and demand analysis to every good and service in the economy, [and] then summing the results[.]"[40] He goes on to say: "[A]nswering macroeconomic questions requires an additional set of tools and an expanded frame of reference."[41]

As discussed more fully in Chapter 4, GDP, which is set out on the horizontal axis in the aggregate demand-aggregate supply model, is the total amount spent, measured in dollars, on final goods and services produced in the U.S. economy by labor and assets located in the U.S. during a specified period, such as a month, a quarter of the year, or a year. GDP is sometimes referred to as output, that is, the economy's output of goods and services measured in dollar terms. Thus, GDP is an aggregate concept; it is an aggregation of all final sales in the economy. As discussed in Chapter 4, GDP does not

[40] Krugman and Wells, *Macroeconomics Third*, *infra* Bibliography at 166.
[41] *Id*.

include sales of items produced in prior years, and it does not include purchases of financial assets, such as stocks or bonds, because the purchase of these assets does not involve production of goods or services.

Since GDP is measured on the horizontal axis of the graph depicting the aggregate demand and aggregate supply curves, GDP increases with movements to the right along the axis. This can be illustrated by, for example, the following information from the *2012 Economic Report of the President*. The *Report* indicates that nominal GDP, that is, GDP that is not adjusted for inflation, for 2011 was approximately $15.1 trillion.[42] Therefore, in plotting nominal GDP for 2012, the horizontal axis will include a range of dollar amounts around the current nominal GDP level (that is, $15.1 trillion), which will be near the midpoint of the horizontal axis.

As discussed in Chapter 4, GDP that has been adjusted for inflation is referred to as real GDP. The price level, which is set out on the vertical axis, is a measure of the price charged for a market basket of goods relative to the price charged for the same market basket of goods for a base period. It is, therefore, a measure of inflation, which is addressed in greater detail in Chapter 8. A common measure of inflation is the consumer price index or CPI. Two other methods of measuring consumer inflation are the GDP deflator and the chained prices approach, both of which are discussed further in Chapter 8, which deals with inflation.

The *2012 Economic Report of the President* uses 1982-1984 as the base period for computing the consumer price index. Thus, the average of the prices charged for the period 1982-1984 is assigned an index of 100.[43] The index for all items consumed by urban consumers, which is referred to as CPI-U, for 1983 was 99.6. The CPI-U index for 1968 was just 34.9, and the CPI-U index for 2011 was 224.9. The price level on the vertical axis will include a range of prices around the 2012 price level (that is, 224.9), which will be near the midpoint of the vertical axis.

As discussed in Chapter 4, the aggregate demand curve shows the expenditures on domestic products and services that would be made by consumers, businesses, governments, and foreigners at each possible value of the price level. Like the regular demand curve, the aggregate demand curve is downward sloping to the right, indicating that more expenditures will be made as the price level falls. The aggregate supply curve shows the quantity of GDP that firms will want to supply at each possible value of the price level. Since firms will want to supply more as the price level rises, the aggregate supply curve, like the regular supply curve, is upward sloping to the right. The intersection of the aggregate demand and supply curves gives the equilibrium point that shows on the horizontal axis the equilibrium level of GDP and on the vertical axis the equilibrium price level.

Graph 6-A presents a side-by-side picture of the microeconomic model of supply and demand and the macroeconomic model of aggregate supply and aggregate demand.

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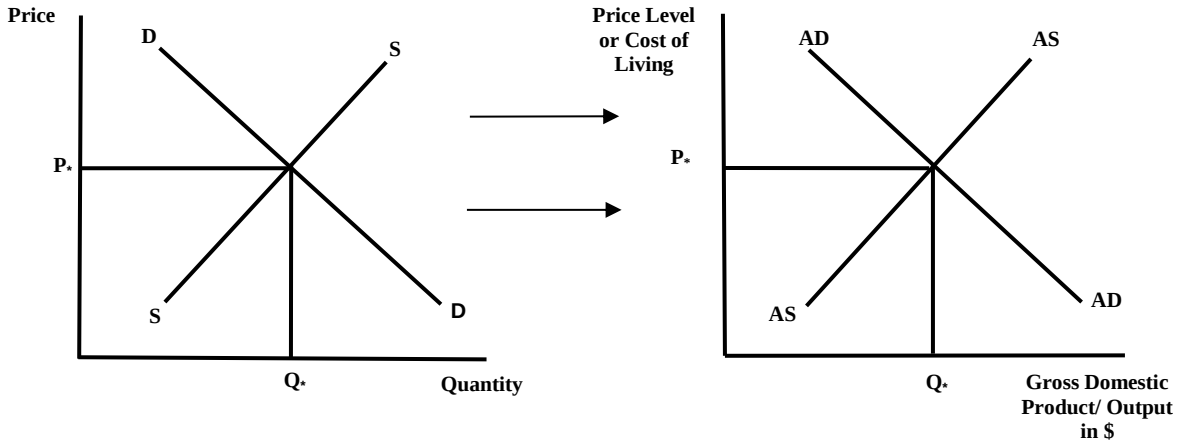
[42] *2012 Economic Report of the President*, *infra* Bibliography, at Table B-1, Gross Domestic Product, 1963-2011.

[43] *Id*. at Table B-60, Prices.

Graph 6-A
Illustration of Basic Microeconomic and Macroeconomic Models

Microeconomic Model of Competitive Market for Various Products

Aggregation of Microeconomic Models Results in Macroeconomic Model of Aggregate Demand (AD) and Aggregate Supply (AS)



It is important to grasp an intuitive understanding of a key difference between these two models. As indicated in Chapter 2, in the microeconomic model, the focus is on a particular market, such as the market for PCs, and the point on the horizontal axis below the intersection of the supply and demand curves gives the actual quantity of the particular product that will be produced in a competitive market. On the other hand, in the macroeconomic model, because the horizontal axis is measuring all products and services produced in the domestic market, it is not possible to specify an actual quantity of GDP or output; therefore, GDP is expressed in money values of all the goods and services produced. In summary, the horizontal axis in the microeconomic model is in quantity terms, but the horizontal axis in the macroeconomic model measures GDP in dollar terms.

The aggregation principles used in the AD-AS model in Graph 6-A and in macroeconomics generally are important because, in confronting broad economic issues such as unemployment, inflation, and economic growth, it is necessary to focus on the economy as a whole. Also, aggregation can be partially explained because markets tend to move in the same direction. However, aggregation can mislead; for example, the national unemployment rate may be falling while the unemployment rate in a particular region of the country is rising.

The AD-AS model is utilized in several subsequent chapters to illustrate the impact of various monetary and fiscal policies on economic growth.

C. What is the aggregate demand (AD) and aggregate supply (AS) model?

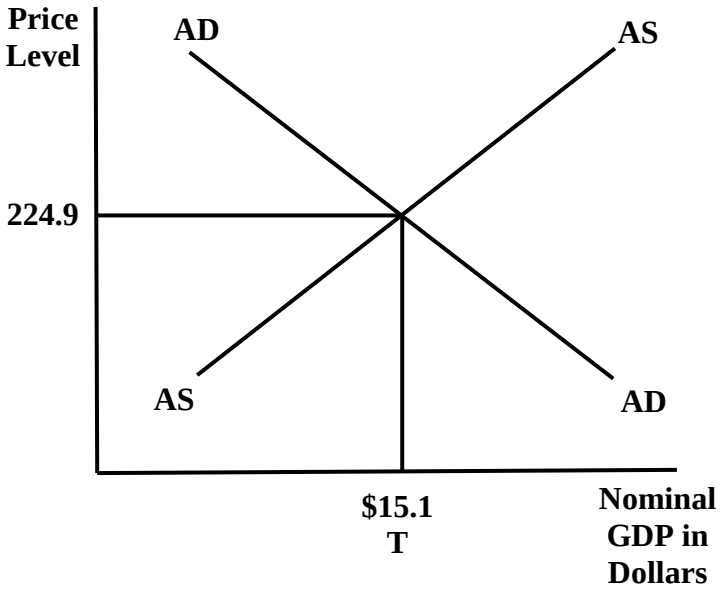
The aggregate demand (AD)-aggregate supply (AS) model is one of the principal tools of macroeconomic analysis. This book does not address more advanced macroeconomic models, such as the IS-LM model, which deals with the equilibrium position in the goods market as represented by the IS curve and the money market as represented by the LM curve. The AD-AS model is more than sufficient to illustrate how the level of GDP or output is determined and how monetary and fiscal policy can be used to impact the level of GDP, that is, can affect the rate of economic growth. The principles developed in this chapter are utilized in subsequent chapters, particularly the chapters focusing on monetary and fiscal policy.

As indicated, the AD curve, which is downward sloping, shows the level of aggregate spending that will occur given a particular price level. Thus, the AD curve, which is dependent on the price level, is a representation of the spending on domestic goods and services (GDP) that consumers (C), businesses (I), governments (G), and foreigners (X-IM) would make at each price level. (*See* Chapter 4 for an elaboration on the C, I, G, and (X-IM) components of GDP.) In equation form, AD=C+I+G+(X-IM), gives a particular price level. Thus, the higher the price level, the higher the associated point on the AD curve indicating that aggregate spending would be low. On the other hand, the lower the price level, the lower the associated point on the AD curve, indicating that aggregate spending would be high.

While the AD curve slopes downward to the right, the AS curve slopes upward to the right, indicating that the higher the price level, the more goods and services businesses will be willing to supply. Businesses will only sell if they can cover their costs, and as demonstrated in detail in 22, which examines the competitive and monopoly models of microeconomics, after a certain point in production, costs generally rise with increased production. Therefore, in order to sell the increased production at a profit, businesses will have to charge higher prices as production increases. For this reason, the AS curve slopes upward to the right.

The intersection of the AD and the AS curves determines the current level of GDP or output. The equilibrium level of GDP is equal to the spending that occurs on the AD curve at its point of intersection with the AS curve. This is all demonstrated in Graph 6-B.

Graph 6-B
Illustration of the Aggregate Demand-Aggregate Supply (AD-AS) Model



By definition, there is an equivalency between the equilibrium level of GDP and the level of spending (C+I+G+(X-IM)) associated with the equilibrium point on the AD curve. In equation form, GDP= C+I+G+(X-IM). The equivalency between GDP and the aggregate spending represented by C+I+G+(X-IM) is obvious from Table B-1, which is entitled *Gross Domestic Product, 1963-2011* and is in the *2012 Economic Report of the President*. This table shows that GDP is made up of the expenditures made by these components of GDP.

D. How does the concept of potential GDP fit into the AD-AS model?

The equilibrium position in the AD-AS model, that is, the intersection of the AD and AS curves, will give the level of nominal or real GDP (depending on which is being measured) and the price level. Thus, this equilibrium position will indicate the actual amount of real or nominal GDP. On the other hand, potential GDP, which is introduced in Chapter 4, is an "estimate of the output the economy would produce with a high rate of use of its capital and labor resources."[44] Thus, potential GDP is an estimate of the output capacity of the economy, that is, it is an estimate of the amount of output the economy could produce assuming full utilization of all inputs.

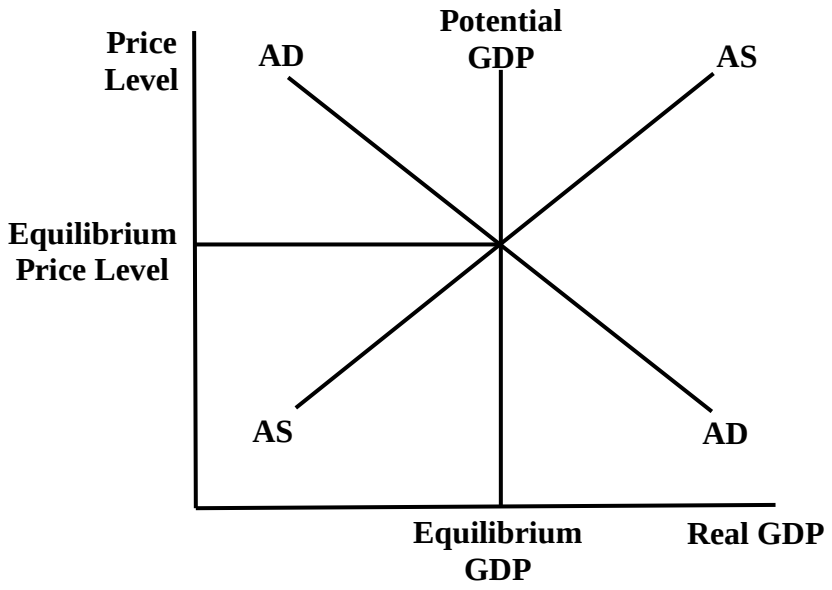
It is important to compare the level of real GDP with the level of potential GDP. If the level of real GDP is also at the economy's potential GDP, as a general matter, the

[44] *2012 Budget and Economic Outlook, infra* Bibliography, note 1 at 28.

economy will be at the full employment level and there will not be either a tendency towards high inflation or a recession.

Various agencies, including the CBO, make projections of the level of potential GDP. Graph 6-C shows the position in the AD-AS model when potential GDP is at the equilibrium position of real GDP.

Graph 6-C
Illustration of Position Where Potential GDP Equals Equilibrium GDP

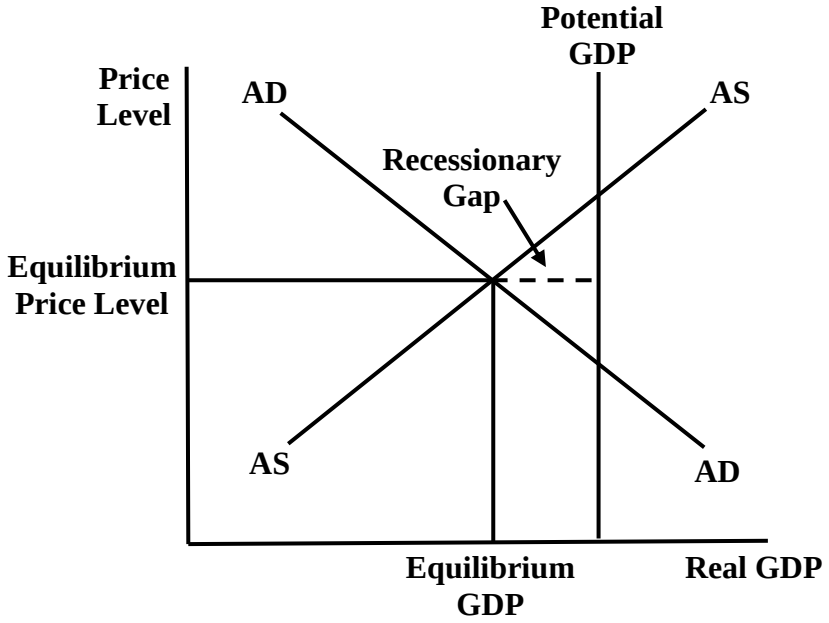


Since potential GDP is at the equilibrium point of the AD and AS curves, the economy is at the full employment level and all other resources are fully employed. At this point, the economy is not tending towards either inflation or recession.

E. What is a recessionary gap between Potential GDP and Real GDP?

If potential GDP exceeds the equilibrium level of real GDP, there will be a recessionary gap, indicating that the economy is underperforming. Graph 6-D illustrates this situation.

Graph 6-D
Illustration of Potential GDP Exceeding Equilibrium GDP—A Recessionary Gap



Since potential GDP exceeds the equilibrium position indicated by the intersection of the AD and AS curves, the economy is underperforming and generally there will be high unemployment with low inflation.

F. Has there been a recessionary gap as a result of the Great Recession and the weak recovery and where does the gap, if any, stand in 2016?

A recessionary gap between potential GDP and real GDP occurred as a result of (1) the Great Recession, which occurred between 2008 and June 2009, and (2) the slow recovery after the Great Recession. In its January 2012 assessment of the gap between actual GDP and potential GDP, the CBO explained:

> A large portion of the economic and human costs of the [Great Recession] and slow recovery remains ahead. In late 2011, according to CBO's estimates, the economy was about halfway through the cumulative shortfall in output [between potential GDP and actual GDP] that will result from the recession and its aftermath. From the first quarter of the recession through the third quarter of 2011, the cumulative difference between GDP and estimated potential GDP amounted to $2.6 trillion; by the time the nation's output rises back to its potential level, the cumulative shortfall is expected to equal $5.7 trillion. Not only are the costs associated with the output gap immense, but they are also borne unevenly. Those costs fall disproportionately on people who lose their jobs, who are displaced from their homes, or who own businesses that fail.[45]

[45] *Id.*

The CBO's *2016 Budget and Economic Outlook* indicates that much of the negative gap between real and potential GDP in 2012 had largely disappeared by 2016:

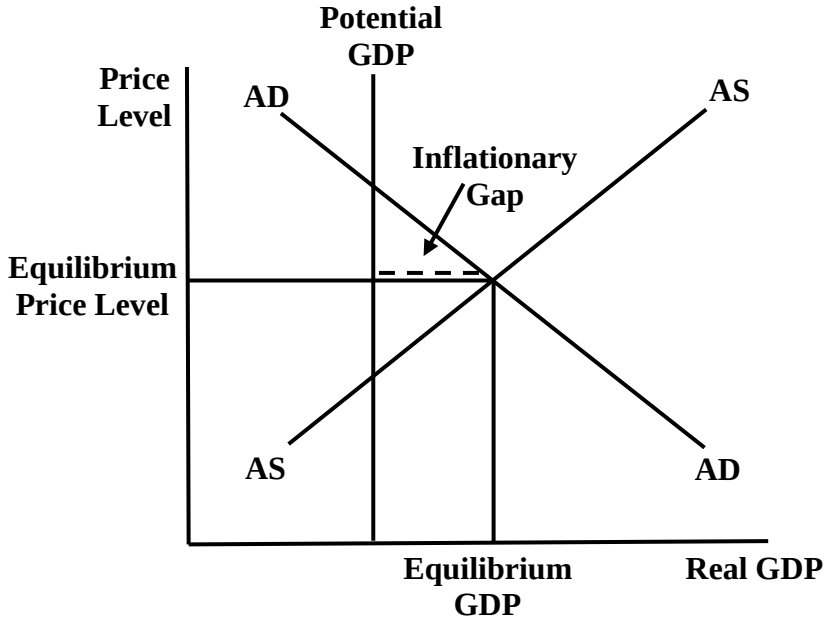
> CBO expects the slack in the economy to diminish to a negligible amount over the next few years. Since the end of the last recession, GDP has grown faster than potential GDP, on average, reducing the gap between the two and hence the amount of slack in the economy. CBO expects that gap to continue narrowing through the middle of 2018.[46]

G. What is an inflationary gap?

On the other hand, if potential GDP is less than the equilibrium level of real GDP, there will be an inflationary gap, indicating that the economy is overheating. This situation is illustrated in Graph 6-E.

[46] *2016 Budget and Economic Outlook*, infra Bibliography, at 32.

Graph 6-E
Illustration of Equilibrium GDP Exceeding Potential GDP—An Inflationary Gap



Since potential GDP is below the equilibrium position indicated by the intersection of the AD and AS curves, the economy is over-performing and generally there will be low unemployment with high inflation.

H. Can inventory levels indicate whether GDP is at an equilibrium level?

As illustrated in Graph 6-B, the equilibrium level of GDP is reached when the spending as represented by the AD curve equals the output supplied by businesses as represented on the AS curve. The level of business inventories can aide in determining if the economy is at this equilibrium position. If spending by consumers, businesses, governments and net exports exceeds output, firms will notice their inventories going down and, therefore, will increase production. On the other hand, if output exceeds spending, inventories will rise, and therefore, firms will cut back on production that would add to inventory levels. At the equilibrium point of the AD and AS curves, inventories will be at desired levels and firms will not change the level of output. Thus, inventory building by businesses is an indication that AD is shifting outward, and inventory depletion by businesses is an indication that AD is either shifting inward or is not shifting outward significantly. These principles are summarized in Table 6-A.

Table 6-A
Illustration of the Relationship between Inventories, Spending and Output

Condition	[1] Output	[2] Output is the Same, More, or Less Than Total Spending	[3] Total Spending (AD) C+I+G+NX	[4] Balance Between Spending and Output	[5] Inventories Are:	[6] Businesses Respond BY:
IF:	$15T	=	$15T	Spending = Output	Constant	Not changing production
IF:	$15T	<	$17T	Spending > Output	Falling	Producing more
IF:	$17T	>	$15T	Spending < Output	Rising	Producing Less

As Table 6-A demonstrates, movements in the level of inventories can lead to an increase in industrial production when the economy is expanding and a contraction in industrial production when the economy is in a slump. A decline in inventory investment could signal that the economy is moving into a recession. Indeed, a substantial part of the decline in investment that generally accompanies a recession is attributable to a lack of inventory investment.

I. How are inventories measured?

The U.S. Census Bureau of the Department of Commerce issues a monthly report on sales and inventories. The report is titled: *Manufacturing and Trade Inventories and Sales*. The Report for July, which was issued in July 2016, summarized its contents as follows:

> **Sales**. The U.S. Census Bureau announced today that the combined value of distributive trade sales and manufacturers' shipments for July, adjusted for seasonal and trading-day differences but not for price changes, was estimated at $1,303.6 billion, down 0.2 percent (±0.1%) from June 2016 and was down 0.8 percent (±0.4%) from July 2015.
>
> **Inventories**. Manufacturers' and trade inventories, adjusted for seasonal variations but not for price changes, were estimated at an end-of-month level of $1,813.2 billion, virtually unchanged (±0.1%)* from June 2016, but were up 0.5 percent (±0.6%)* from July 2015.
>
> **Inventories/Sales Ratio**. The total business inventories/sales ratio based on seasonally adjusted data at the end of July was 1.39. The July 2015 ratio was 1.37. [47]

[47] U.S. Census Bureau, Department of Commerce, Manufacturing and Trade Inventories and Sales, July 2016 (issued Sept. 15, 2016).

J. How does the AD curve react to monetary and fiscal policy?

It is important to understand that the AD curve is constructed under the monetary and fiscal policies that are in effect. If, however, monetary or fiscal policy changes, the AD curve will shift either outward or inward. Thus, the AD curve shows the equilibrium level of spending at each level of prices, given the current state of monetary and fiscal policy. Thus, just as the microeconomic demand curve is drawn on the assumption that other things are equal (that is, there are no changes in income, taste, or other prices), the AD curve is drawn on the assumption that other things are equal (that is, there are no changes in monetary policy or fiscal policy).

The shifts in the AD curve from a change in fiscal policy can be illustrated as follows. If the government increases spending, the AD curve would have a tendency to shift to the right as long as the spending did not drive up interest rates because of a resulting deficit. On the other hand, if the government increases individual taxes, the AD curve would have a tendency to shift to the left because consumers would have less to spend.

Turning to monetary policy, there would be a rightward shift in the AD curve if the Fed lowered the interest rate by increasing the money supply, and a leftward shift if the Fed increased interest rates. This is because firms will invest more with lower interest rates and invest less with higher interest rates.

The shifts in the AD curve as a result of changes in monetary and fiscal policy are discussed in greater detail in subsequent chapters. Also, the AD curve can shift as a result of changes in private behavior, such as an increase in spending by consumers that is attributable to, for example, an increase in the stock market, which increases wealth. This is referred to as the wealth effect on consumption. The wealth effect may cause what is referred to as an autonomous shift in the consumption function, which is discussed later.

K. What causes the AS curve to shift?

As indicated, the AS curve describes for each given price level the quantity of output firms are willing to supply. It reflects conditions in the market for factors of production, that is, capital, labor, and technology. Although it is thought that in the long run the AS curve may be vertical because in the long run the amount of output supplied depends on the available factors of production, in the short run (for example, over a period of a year of two) the AS curve is upward sloping because an increase in the price level tends to raise output, and a decrease in price level tends to reduce output.

Factors that can shift the AS curve in the long run include incentives to promote such items as saving, education, and know how. In the short-term, supply shocks can shift the AS curve. For example, a sudden increase in oil prices as a result of changes in the geopolitical situation would shift the AS curve upward to the left, and a sudden decrease in oil prices as a result of a new oil discovery would shift the AS curve outward to the right. The results of the negative supply shock are examined further in Chapter 8, which deals with inflation.

L. What is the relationship between supply side economics and the AS curve?

As indicated in Chapter 3, those who subscribe to supply side economics, think that cutting marginal tax rates will shift the AS curve outward to the right because the tax reductions will encourage work. Thus, supply siders believe that for those in the working population, the substitution effect of tax cuts (that is, the tendency of more after-tax income to encourage more work and less leisure) overpowers the income effect of tax cuts (that is the tendency of more after-tax income to encourage leisure). To summarize: with respect to a tax cut,

(1) the substitution effect predicts that individuals will work harder because they will have higher after-tax incomes, and

(2) the income effect predicts that individuals will work less and take more leisure time because they will have higher after-tax incomes.

For those not in the working population, supply siders and others believe that only the substitution effect is applicable, which means that more after-tax income encourages those out of the work force to substitute work for leisure or homemaking. As indicated in Chapter 3, empirical evidence supports this latter proposition.

CHAPTER 7, WHAT IS THE RELATIONSHIP BETWEEN ECONOMIC GROWTH AND EMPLOYMENT, AND WHAT ARE THE MIMIMUM WAGE AND OTHER EMPLOYMENT POLICIES OF SECRETARY CLINTON AND MR. TRUMP?

A. What is in this Chapter?

This chapter starts with a look at various aspects of the labor market, such as the unemployment rate, the number of jobs created or lost in the economy, and the relationship between the unemployment rate and growth of the labor market. The chapter then considers (1) the behavior of the unemployment rate when actual GDP is both above and below potential GDP, and (2) the relationship between the rate of growth of GDP and the level of employment, which is set out in Okun's law. The chapter then turns to several important policy issues: unemployment insurance, minimum wage law, the relationship between unemployment and the crime rate, and outsourcing. The chapter then examines the positions of Secretary Clinton and Mr. Trump on these issues and my take on their proposals. Finally, the chapter discusses some of the principal ways of tracking developments in the labor market.

B. What is the "unemployment rate"?

The unemployment rate is the number of unemployed people expressed as a percentage of the number of people in the workforce. The workforce is the number of people holding or seeking jobs. Thus, for example, if 100 million people are in the workforce and 5 million are unemployed, then the unemployment rate is 5%. This means that in terms of supply and demand, the supply of labor exceeds the demand for labor. The greater the excess of the supply of labor over the demand for labor, the greater the unemployment rate.

C. What is "slack in the labor market," the "employment shortfall," "potential employment," "labor force participation," and the "natural rate of unemployment?"

The CBO's *2016 Budget and Economic Outlook* provides the following introduction to these terms:

> The employment shortfall, CBO's primary measure of slack in the labor market, is the difference between actual employment and the agency's estimate of potential (maximum sustainable) employment. Potential employment is the employment that would exist if the unemployment rate was at the natural rate of unemployment (the rate that arises from all sources except fluctuations in the overall demand for goods and services) and the rate of labor force participation was at its potential rate. The contribution to the shortfall from the difference in unemployment rates is the difference between the number of jobless people searching for work at the current rate of unemployment and the number who would be jobless at the natural rate of unemployment. The contribution to the shortfall from the difference in participation rates is the difference between the number of people who are employed at the current labor force participation rate and the number who would potentially be employed if the participation rate

reflected a labor market with healthy job prospects. CBO estimates that the employment shortfall was about 2½ million people at the end of last year [2015]. That shortfall was almost entirely accounted for by the depressed rate of labor force participation; CBO estimates that the unemployment rate was only slightly above its natural rate.[48]

D. What is the contribution to slack in the labor market of (1) part-time employment, (2) marginally attached workers, and (3) a low number of hours worked?

The CBO's *2016 Budget and Economic Outlook* provides the following discussion of the contribution to slack in the labor market of (1) part-time work, (2) marginally attached workers, and (3) a low number of hours worked:

> CBO's primary measure of labor market slack incorporates the most important sources of slack during the current recovery but does not include all possible sources. For example, another source of slack in the labor market [other than the employment shortfall] is the continued unusually large percentage of part-time workers who would prefer to work full time. About 4 percent of all workers were employed part time for economic reasons (that is, because of weakness in the overall demand for goods and services) at the end of 2015, down from 4¾ percent at the end of 2014. Yet that rate is still about 1 percentage point above the rate in the fourth quarter of 2007. But how much of that difference is a measure of slack is hard to determine because part of the increase since 2007 may also be related to structural factors such as a changing composition of employment by industry. One such factor is a shift of employment to industries that employ a larger fraction of part-time workers, suchas service industries. That development suggests that the share of workers working fewer hours than they prefer may be elevated as workers and firms adjust to those structural changes.
>
> Another source of slack is the number of people said to be marginally attached to the labor force (that is, who are not looking for work now but have looked for work in the past 12 months). That number is larger than before the recession, for example—about 1.8 million people at the end of last year, up from about 1.4 million in the fourth quarter of 2007. Since the elevated level of the number of people whoare marginally attached to the labor force is closely related to the depressed rate of labor force participation, CBO's measure of the employment shortfall largely reflects that factor. . . .
>
> Another measure of slack could focus on the number of hours worked, such as the average number of hours worked per week. CBO does not use hours tomeasure slack because the agency forecasts average hours worked per week for only a portion of the economy (the nonfarm business sector). Nonetheless, in 2015 the average number of hours worked per week had returned to its prerecession value, and average hours worked per week in the nonfarm business sector had returned to its historic relationship with potential average hours worked per week. That outcome suggests that any cyclical influence on average hours

[48] *2016 Budget and Economic Outlook*, infra Bibliography, at 44, Box 2-1.Table 2.7.

worked per week was not a significant source of slack in the labor market last year.

Other economic indicators offered mixed signals about the amount of slack remaining in the labor market. The continued slow growth in hourly labor compensation compared with the growth in labor productivity and inflation indicated slack at the end of 2015. But two other indicators—the rate at which job seekers are hired and the rate at which workers are quitting their jobs (as a fraction of total employment)—suggested that slack had diminished considerably.[49]

E. What is the unemployment picture in 2016?

The CBO's *2016 Budget and Economic Outlook* contains the following analysis of the unemployment situation as of early 2016, which is similar to the situation in late 2016:

Unemployment. The unemployment rate fell from 5.7 percent in the fourth quarter of 2014 to 5.0 percent in the fourth quarter of 2015. Most of that decline stemmed from a decline in long-term unemployment (that is, unemployment lasting at least 27 consecutive weeks) as those who had been unemployed long-term appeared to move into employment (see Figure 2-8 on page 48). That outcome indicates possibly diminishing effects of the stigma and erosion of skills that can result from long-term unemployment.

CBO projects the unemployment rate to fall to 4.5 percent by the end of this year and reach 4.4 percent in 2017, leaving the rate roughly 0.4 percentage points below CBO's estimate of the natural rate of unemployment. That difference reflects a projected increase in the demand for labor that temporarily outstrips the boost to the labor force resulting from an improving labor market. However, the relatively low unemployment rate does not imply that slack is no longer present in the labor market beginning this year. Some slack is expected to persist through 2020 because fewer people will be participating in the labor market than would do so if the economy was operating at its potential.

CBO expects the natural rate of unemployment to fall by about 0.1 percentage point through 2020—from 4.9 percent last year—largely because of the demographic shift in composition of the workforce to older workers, who tend to have lower rates of unemployment.[50]

F. How does the labor force participation rate help in analyzing the unemployment rate?

Because the workforce includes only people who have a job or are looking for one, if a person seeking work has been unable to find work and, therefore, decides to quit seeking work, such person is no longer included in the workforce. Thus, the unemployment rate understates the actual number of unemployed who would want to work if they thought it were possible. As a consequence, at the tail end of a recession the unemployment rate may fall because people become frustrated and cease looking for

[49] *Id*. at 44-45, Box 2-1.Table 2.7.
[50] *Id*. at 46.

work. For example, in 2011 and 2012 (several years after the Great Recession), the unemployment rate dropped, in part, for the following two reasons: (1) people dropping out of the labor market because they could not find jobs, and (2) Baby boomers (those born between 1946, after World War II, and 1964) retiring. This also happened in the recessions that occurred in 1973-75 and 1990-91. On the other hand, as the economy begins to improve after a recession, more people may begin looking for work and this may cause the unemployment rate to increase or not fall as quickly.

The civilian labor force participation rate is a helpful tool in dissecting the unemployment rate. The civilian labor force participation rate is the percentage of civilian population over 16 and in the workforce.

G. What were the "labor force participation rates" and the unemployment rates for each of the calendar years 1995 through 2015?

Table 7-A sets out the annual civilian labor force participation rates and the unemployment rates for calendar years 1995 through 2015.

Table 7-A
Civilian Labor Force Participation Rates and Unemployment Rates, 1995-2015

Calendar Year	Annual Civilian Labor Force Participation Rate in Percentages	Annual Unemployment Rate in Percentages
1995	66.6	5.6
1996	66.8	5.4
1997	67.1	4.9
1998	67.1	4.5
1999	67.1	4.2
2000	67.1	4.0
2001	66.8	4.7
2002	66.6	5.8
2003	66.2	6.0
2004	66.0	5.5
2005	66.0	5.1
2006	66.2	4.6
2007	66.0	4.6
2008	66.0	5.8
2009	65.4	9.3
2010	64.7	9.6
2011	64.1	8.9
2012	63.7	8.1
2013	63.2	7.4
2014	62.9	6.2
2015	62.7	5.3
Average	65.6	5.9

Source: U.S. Department of Labor, Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey, Historical Data from Table A-1. Employment status of the civilian population by sex and age, at www.bls.gov

Table 7-A shows that from calendar year 1995 through calendar year 2000, the unemployment rate fell from 5.6% to 4.0%, the lowest rate since the 1960s. At the same time, the civilian labor force participation rate increased from 66.6% to 71.1%. Thus, even as more people began looking for jobs (that is, the supply of labor was increasing) the unemployment rate continued to fall, indicating that the increasing demand for workers was outstripping the increasing supply. By any measure these last years of the Clinton Administration were very good for the labor market.

Table 7-A also shows that in 2003 the labor participation rate fell to 66.2% and the unemployment rate increased to 6.0%. Thus, if the participation rate in 2003 had been the same as the participation rate in 2000, the unemployment rate in 2003 would

have even been higher. Along the same line of analysis, in 2004 the labor participation rate dropped to 66.0%, indicating that many potential workers were dropping out of the market, thereby decreasing the supply of labor. At the same time, the unemployment rate decreased to 5.5%. At least some of the reduction in the unemployment rate was attributable to the decline in the participation rate.

For the aftermath of the Great Recession, Table 7-A shows that for both 2007 and 2008, the labor participation rate was 66%, however, the unemployment rate jumped from 4.6% in 2007 to 5.8% in 2008. For 2009 through 2011, the labor participation rate fell from 65.4% to 64.1%. For 2009 and 2010, the unemployment rate increased even though the labor participation rate was falling, indicating that actual unemployment was significantly higher. For 2010, there was a drop in the labor participation rate to 64.1% from 64.7% in 2011, and there was also a drop in the unemployment rate from 9.6% to 8.9%, indicating that while the unemployment rate was falling because the economy was creating some jobs, it was also falling because people were retiring or otherwise dropping out of the job market.

Interestingly from 2010 through 2015 there was a straight linear drop in both the labor force participation rates and the unemployment rates from respectively 64.7% to 62.7% and 9.6% to 5.3%.

In summary, it seems fair to say that the 4.0% unemployment rate in 2000 overstated the unemployment rate when the 67.1% participation rate for that year is compared to the average participation rate of 65.6% for this 21-year period. The bottom line here is that in analyzing the unemployment rate, one should consider the civilian labor force participation rate.

H. What has been the recent actual and the projected relationship between (1) the labor force participation rate, and (2) the potential labor force participation rate?

The CBO does an annual analysis of (1) the labor force participation rate, and what it refers to as, (2) the "potential labor force participation rate." It defines this latter rate as the "participation rate excluding the effects of the business cycle."[51] The CBO's *2016 Budget and Economic Outlook* contains the following analysis of the current participation and potential participation rates:

> **Labor Force Participation**. The rate of labor force participation has dropped noticeably in recent years. It fell by 0.3 percentage points, to 62.5 percent in 2015 [note that in Table 7-A above it is 62.7]]. That rate was roughly 1 percentage point below CBO's estimate of the potential participation rate. CBO projects that the participation rate will remain at 62.5 percent through 2016 and then fall by roughly 0.1 percentage point per year, reaching 62.1 percent at the end of 2019. . . . At the same time, the potential participation rate continues to fall in CBO's projection, also reaching 62.1 percent by the end of 2019.
>
> Those projected declines in actual and potential rates of labor force participation reflect several factors. The most important factor is the aging of members of the baby boom generation, even though that generation apparently has a stronger attachment to the labor force than that of people age 60 and over in

[51] *Id*. at 47, Table 2.7. .

> recent generations. The lingering effects of the recession and ensuing weak recovery also will continue to push down participation, in CBO's view. Although many workers who experienced long-term unemployment because of the deep recession and slow recovery later found jobs, a notable fraction also left the labor force and remain categorized as not participating in the labor force. In addition, federal tax and spending policies—in particular, certain aspects of the ACA [Obamacare] and the structure of the tax code, which pushes some people with rising income into higher tax brackets—will tend to lower participation rates over the next several years. Finally, a set of long-term trends involving particular cohorts of people are projected to push down the participation rate slightly. Those trends include, for example, less participation in the labor force by younger and less-educated workers.
>
> CBO's projection of the actual rate of labor force participation falls by less than its projection of the potential rate because the expected continued improvement in the labor market will bolster the actual rate. Some workers who left the labor force temporarily, or who stayed out of the labor force because of weak employment prospects, will enter it in the next few years as demand for labor strengthens.[52]

Figure 2.7 of the CBO's *2016 Budget and Economic Outlook* shows that while the negative gap between the potential and actual labor force participation rates grew from 2007 through 2013, the gap has been narrowing since 2013, and the CBO expects that the gap will be eliminated by late 2019.[53] In its "*Economic Outlook for 2021-2016*, the CBO projects that during this period, the "unemployment rate [will remain] stable at 5.0 percent, slightly above the estimated natural rate of 4.8 percent."[54] This means that the CBO expects that in these out years there will be no significant gap between potential and actual labor force participation rates.

I. In view of the recent positive trends in the labor market, what have been the recent trends in (1) household income, (2) the poverty rate, and (3) health coverage?

This section discusses the U.S. Census Bureau's September 2016 report on (1) real median household income, (2) the official poverty rate, and (3) the percentage of people without health insurance coverage. The report is consistent with the recent positive labor market trends that are discussed above. A Census Bureau news release summarizes the report as follows:

> The U.S. Census Bureau announced today that real median household income increased by 5.2 percent between 2014 and 2015 while the official poverty rate decreased 1.2 percentage points. At the same time, the percentage of people without health insurance coverage decreased.
>
> Median household income in the United States in 2015 was $56,516, an increase in real terms of 5.2 percent from the 2014 median income of $53,718.

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[52] *Id*. at 44-46.
[53] *Id*. at 47.
[54] *Id*. at 48.

This is the first annual increase in median household income since 2007, the year before the most recent recession.

The nation's official poverty rate in 2015 was 13.5 percent, with 43.1 million people in poverty, 3.5 million fewer than in 2014. The 1.2 percentage point decrease in the poverty rate from 2014 to 2015 represents the largest annual percentage point drop in poverty since 1999.

The percentage of people without health insurance coverage for the entire 2015 calendar year was 9.1 percent, down from 10.4 percent in 2014. The number of people without health insurance declined to 29.0 million from 33.0 million over the period.

These findings are contained in two reports: *Income and Poverty in the United States: 2015* and *Health Insurance Coverage in the United States: 2015.*[55]

Issues involving inequality are discussed in Chapter 18, and issues involving medical care are discussed in Chapter 17.

J. What is the relationship between the unemployment rate and the growth of the labor market?

With growth in population, the labor market is constantly expanding, and therefore, the level of employment must grow just to keep the unemployment rate steady. In addressing this point, the *2004 Economic Report of the President* explained: "If the labor force is growing at the same rate as the population (about 1 percent per year), employment would have to rise 110,000 a month just to keep the unemployment rate stable, and larger job gains would be necessary . . . to induce a downward trend in the unemployment rate."[56] Thus, real economic growth is key to providing jobs for the expanding labor market.

K. What are the different types of unemployment?

Unemployment is divided into three types: frictional, structural, and cyclical. Frictional unemployment results from the normal operations of the labor markets as some businesses release employees and others hire them and as some employees quit one job and seek another for a variety of reasons, including the decision to change locations or careers. Frictional unemployment is unavoidable and in many respects is good for an economy because it can promote economic efficiency in the labor market.

Structural unemployment results when workers are replaced by significant changes in business operations, such as the adoption of new automation techniques and the outsourcing of jobs to foreign markets. The outsourcing of jobs has become a large issue and is discussed further below and in Chapter 23, which deals with taxes.

Cyclical unemployment occurs when the economy moves into a down business cycle or recession and is attributable to a decline in the growth of GDP. Thus, cyclical unemployment arises from the recessionary gap that results when potential GDP exceeds the equilibrium position of the AD and AS curves as demonstrated on Graph 6-D.

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[55] Census Bureau, News Release, *Income, Poverty and Health Insurance Coverage in the United States: 2015* (Sept. 13, 2016).

[56] *2004 Economic Report of the* President, *infra* Bibliography, note 1, at 94.

In view of these various types of unemployment and natural fluctuations in the economy, it is impossible to have a zero unemployment rate.

L. What are the unemployment rates for various racial groups?

Table 7-B, which is based on data from the *2016 Economic Report of the President*[57] presents the unemployment rates for selected racial groups in the U.S.

Table 7-B
Unemployment Rates for Selected Racial Groups 2015

RACE	UNEMPLOYMENT RATE 2015
Asian	3.8%
White	4.8%
Hispanic	6.5%
Black	9.6%
Whites 16-19	13.6%
Blacks 16-19	32%

Source: *2016 Economic Report of the President, infra* Bibliography, at Table B-12, Civilian Unemployment Rate 1972-2015; and Department of Labor, Bureau of Labor Statistics, The Employment Situation, September 2016, (Oct 7, 2016), Table A-2 Employment Status of the Civilian Population by Race, Sex and Age, for Blacks and Whites 16-19

Table 7-B demonstrates that blacks and Hispanics suffer greater unemployment than whites and Asians, with the black rate of unemployment about twice the white rate. Also, black teenagers suffered the highest rate of unemployment of any of the demographic groups reported. The 32% rate for black teenagers in 2015 is nearly 6-percentage points higher than the 26.2% rate in 2000,[58] the last year of the Clinton Administration. That 26.2% rate was the lowest rate for black teens since 1970.

This shows that while a booming economy, like the one during the late 1990s, provides significant job advantages for black teenagers, the jobs are quite vulnerable to the vagaries of the economy.

M. What is underemployment?

The unemployment rate does not measure the amount of underemployment, which occurs when people work in jobs for which they are overqualified. For example, in a tough economy, many college graduates work full-time in low paying jobs in the service industry. Once the economy turns, many will find jobs commensurate with their training and skill.

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[57] *2016 Economic Report of the President*, *infra* Bibliography, at Table B-12, Civilian Unemployment Rate 1972-2015; and Department of Labor, Bureau of Labor Statistics, The Employment Situation, September 2016 (Oct 7, 2016), Table A-2 Employment Status of the Civilian Population by Race, Sex and Age, for Blacks and Whites 16-19.

[58] *2012 Economic Report of the President*, *infra* Bibliography, note 1, at Table B-43, Civilian Employment Rate by Demographic Characteristic, 1963-2003.

N. How do we measure the number of jobs the economy creates or loses?

In addition to focusing on the rate of unemployment, much attention is given to the number of jobs the economy is creating or losing, for example, from layoffs. For example, in its discussion of the labor market, the *2016 Economic Report of the President* states:

> **Employment.** Nonfarm payroll employment rose solidly last year, and CBO expects it to continue to increase over the next few years, but more slowly. After an average increase of 228,000 jobs per month in 2015, employment is expected to rise by an average of about 172,000 jobs per month in 2016 and about 124,000 jobs per month in 2017, reflecting an anticipated slowdown in the decline in the unemployment rate and slower growth in the labor force because of the retirement of baby boomers (people born between 1946 and 1964). CBO's employment projections indicate that the number of people employed as a percentage of the population will be roughly unchanged over the next two years before falling steadily in later years as the rate of participation in the labor force falls (see Figure 2-6 on page 46).[59]

O. What is the relationship between the unemployment rate and potential and actual GDP?

Although there will always be some unemployment in the labor market, one way of thinking about full employment is to focus on the difference, if any, between (1) potential GDP, which is the level of real GDP the economy would produce if all resources including the naturally growing labor force were fully employed, and (2) actual GDP. Both of these concepts are explored in Chapter 6. If the economy grows at a rate at which actual GDP is below potential GDP, as illustrated in Graph 6-D, which demonstrates a recessionary gap, unemployment generally will increase. This is the situation that has existed since the financial crisis of 2007. On the other hand, if the economy grows at a rate that results in actual GDP exceeding potential GDP, as illustrated in Graph 6-E, which demonstrates an inflationary gap, unemployment generally will fall.

This relationship can be empirically verified by observing the behavior of the economy over the past 50 years. During this period, potential GDP grew at a steady rate, while the performance of actual GDP was erratic. On the one hand, there were periodic recessions in which the economy performed below its potential and the unemployment rate was high, and on the other hand, there were periodic booms during which the economy performed above its potential and the unemployment rate was low.

In pure economic terms, a major cost of unemployment is the loss in production that would otherwise have occurred without unemployment. However, even in boom times there will be some unemployment. For example, even in the boom of the late 1990s and early 2000s, the lowest unemployment rate reached was the 4.0 percent annual rate in 2000, the last year of the Clinton Administration. This was the lowest rate since the 3.5 percent annual rate for 1969, at the height of the Vietnam War.[60]

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[59] 2016 *Economic Report of the President*, *infra* Bibliography, at 43-44..
[60] *Id*. at Table B-42, Civilian Unemployment Rate, 1965-2011.

P. What is the relationship between (1) the rate of growth of GDP, and (2) the unemployment rate—Okun's Law and recent developments?

Okun's law addresses the relationship between the rate of economic growth and the rate of unemployment. This law posits that there will be a decrease in unemployment when economic growth is above the trend rate of approximately 2.25%. Specifically, Okun's law, which is not really a law but merely a description of past U.S. data, predicts that the unemployment rate will decline by one half of a percentage point for every one percentage point of growth in real GDP above the trend rate that continues for a year. Thus, for example, if the growth rate of real GDP for a year were 4.25%, which is two points above the trend rate, Okun's law predicts that unemployment would be expected to fall by 1%.

The *1999 Economic Report of the President* contains a graph illustrating Okun's law.[61] In general, the graph shows that periods of high growth rates are accompanied by declines in the unemployment rate, thus as a general matter validating the fundamental intuition behind the law. Therefore, as a general proposition, Okun's law can be used to predict the rate of economic growth needed to reduce the unemployment rate by, for example, one percentage point.

For the years since the 2007-2009 recession, the relationship between (1) the rate of growth of GDP, and (2) the decline in the unemployment rate, would seem to show that, at least for this period, Okun's law dramatically understates the impact that growth in GDP can have on employment. This is illustrated in Table 7-C below, which shows that even though growth was around 2%, there was a significant decline in the unemployment rate.

[61] 1999 *Economic Report of the President*, *infra* Bibliography, at 84.

Table 7-C
Relationship Between (1) Growth Rate of GDP, and (2) Unemployment Rate, 2010-2015

YEAR	GROWTH RATE OF GDP	UNEMPLOYMENT RATE
2010	2.5%	9.6%
2011	1.6%	8.9%
2012	2.2%	8.1%
2013	1.5%	7.4%
2014	2.4%	6.2%
2015	2.4%	5.3%

Source: ***2016 Economic Report of the President, infra*** **Bibliography at Table B-1, Percent Change in Real Gross Domestic Product, 1965-2015, and Table B-12, Civilian Unemployment Rate, 1972-2015**

Q. What is the difference between "Okun's Law" and the "Phillips Curve?"

The Phillips Curve, which is discussed in Chapter 9, posits that as unemployment decreases, inflation will increase. On the other hand Okun's law posits that as GDP grows, the unemployment rate will fall. Putting together the two, leads to the conclusion that as GDP grows, unemployment falls, and as unemployment falls, inflation increases.

R. What is the economic impact of unemployment insurance, an automatic stabilizer?

1. What is unemployment insurance?

The federal unemployment insurance program provides funds for a limited period to many who involuntarily lose their jobs. Thus, this program helps to cushion the blow from the loss of a job. The Federal government pays out substantial sums under this program during recessions, and most of the funds flow back into the economy as consumption expenditures, thereby buttressing this component of GDP at a time when it naturally would be contracting or growing at a reduced rate. Thus, from a macroeconomic standpoint, unemployment insurance is one of the automatic anti-depression and anti-recession programs built into the economy.

2. What is the recent level of unemployment insurance payments and what does it say about the current state of the labor market?

The Department of Labor issues a weekly report on the unemployment insurance program, and the Report for October 6, 2016 provided the following information on the number of new claims, the unemployment rate among employees covered by the program that are unemployed (that is, the insured unemployment rate), and the number of people receiving benefits.

> In the week ending October 1, the advance figure for seasonally adjusted initial claims was 249,000, a decrease of 5,000 from the previous week's unrevised level of 254,000. The 4-week moving average was 253,500, a decrease of 2,500 from the previous week's unrevised average of 256,000. This is the lowest level for this average since December 8, 1973 when it was 252,250.
>
> There were no special factors impacting this week's initial claims. This marks 83 consecutive weeks of initial claims below 300,000, the longest streak since 1970.
>
> The advance seasonally adjusted insured unemployment rate was 1.5 percent for the week ending September 24, unchanged from the previous week's unrevised rate. The advance number for seasonally adjusted insured unemployment during the week ending September 24 was 2,058,000, a decrease of 6,000 from the previous week's revised level. This is the lowest level for insured unemployment since July 1, 2000 when it was 2,052,000. The previous week's level was revised up 2,000 from 2,062,000 to 2,064,000. The 4-week moving average was 2,094,750, a decrease of 21,000 from the previous week's revised average. This is the lowest level for this average since August 12, 2000 when it was 2,090,000. The previous week's average was revised up by 500 from 2,115,250 to 2,115,750.[62]

This report is great news for the labor market, for as indicated in the week ending October 1:

(1) the 4-week moving average for initial claims was at the "lowest level for this average since December 8, 1973;"

(2) the week marked the "83 consecutive weeks of initial claims below 300,000, the longest streak since 1970;"

(3) ensured employment was at its "lowest level for insured unemployment since July 1, 2000" and

(4) the 4-week moving average was at "the lowest level for this average since August 12, 2000.

S. Does the minimum wage law produce unemployment?

1. What are the federal and state minimum wages?

Federal law sets a minimum wage for many jobs, and state and local laws may set the minimum wage rates at even higher levels. The minimum wage is a legally mandated price floor on wages for certain jobs. Many jobs pay more than the minimum wage, and as Professor Krugman points out, "[f]or three decades, from the 1970s to the mid-2000s, the American minimum wage was so low that it was not binding for the vast majority of workers."[63]

The federal minimum wage has been at $7.25 an hour since 2009, and it is not indexed for inflation. There have been various congressional proposals to increase the minimum wage that have been generally supported by Democrats and opposed by Republicans. In 2014, President Obama issued an executive order raising the minimum

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[62] Department of Labor, *Unemployment Insurance Weekly Claims Report* (October 6, 2016).

[63] Krugman and Wells, *Macroeconomics Third*, *infra* Bibliography, at 223.

wage for federal contractors to $10.10 per hour. The Fact Sheet announcing the increase explains:

> On February 12, 2014, President Obama signed Executive Order 13658, "Establishing a Minimum Wage for Contractors," to raise the minimum wage to $10.10 for all workers on Federal construction and service contracts. The President took this executive action because boosting wages lowers turnover and increases morale, and will lead to higher productivity overall. Raising wages will improve the quality and efficiency of services provided to the government.[64] The Executive Order directed the Department of Labor to issue regulations to implement the new Federal contractor minimum wage.

The rate is indexed for inflation.

In New York City, the current minimum wage is $8.38 per hour. In 2016 in Pennsylvania, Governor Wolf increased the minimum wage for government workers and contractors to $10.15 per hour. An article discussing this action in Pennsylvania, and also other recent actions in other states, explains:

> Pennsylvania Gov. Tom Wolf raised the minimum wage by nearly $3 an hour, to $10.15, for state government employees and workers on jobs contracted by the state in an executive order he signed Monday.
>
> The wage level, which will increase with inflation, was designed to be in line with the executive order signed by President Barack Obama in 2014 that required federal contractors to pay their workers at least $10.10 an hour, a figure that rises with inflation. . . .
>
> Pennsylvania wages are set at the decade-old federal minimum of $7.25 an hour, like 20 other states. Without federal action, numerous mayors, including Pittsburgh Mayor Bill Peduto, are bumping employee wages higher, some to $12 or $15 an hour.
>
> Democrat Andrew Cuomo used his power as New York's governor to order gradual wage increases for state employees, state university employees and workers at fast-food chain restaurants, to $15 an hour.
>
> Last week, Oregon Gov. Kate Brown signed legislation to raise that state's $9.25 an hour to as high as $14.75 in Portland by 2022. In Maine, voters will consider in November whether to raise that state's $7.50 minimum wage to $12 an hour, after Republican Gov. Paul LePage vetoed a measure in 2013.
>
> Last year, Illinois' Republican Gov. Bruce Rauner rescinded his Democratic predecessor's order to state vendors to pay employees $10 an hour, instead of the state's minimum wage of $8.25.[65]

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[64] Department of Labor, *Fact Sheet: Final Rule to Implement Executive Order 13658, Establishing a Minimum Wage for Contractors*, (Feb. 12, 2014) at https://www.dol.gov/whd/flsa/eo13658/fr-factsheet.htm.

[65] Marc Levy, *Pennsylvania Governor Tom Wolf raising minimum wage for state workers*, Associated Press (March 7, 2016), at http://6abc.com/politics/gov-tom-wolf-raises-minimum-wage-for-pa-state-workers/1234231/

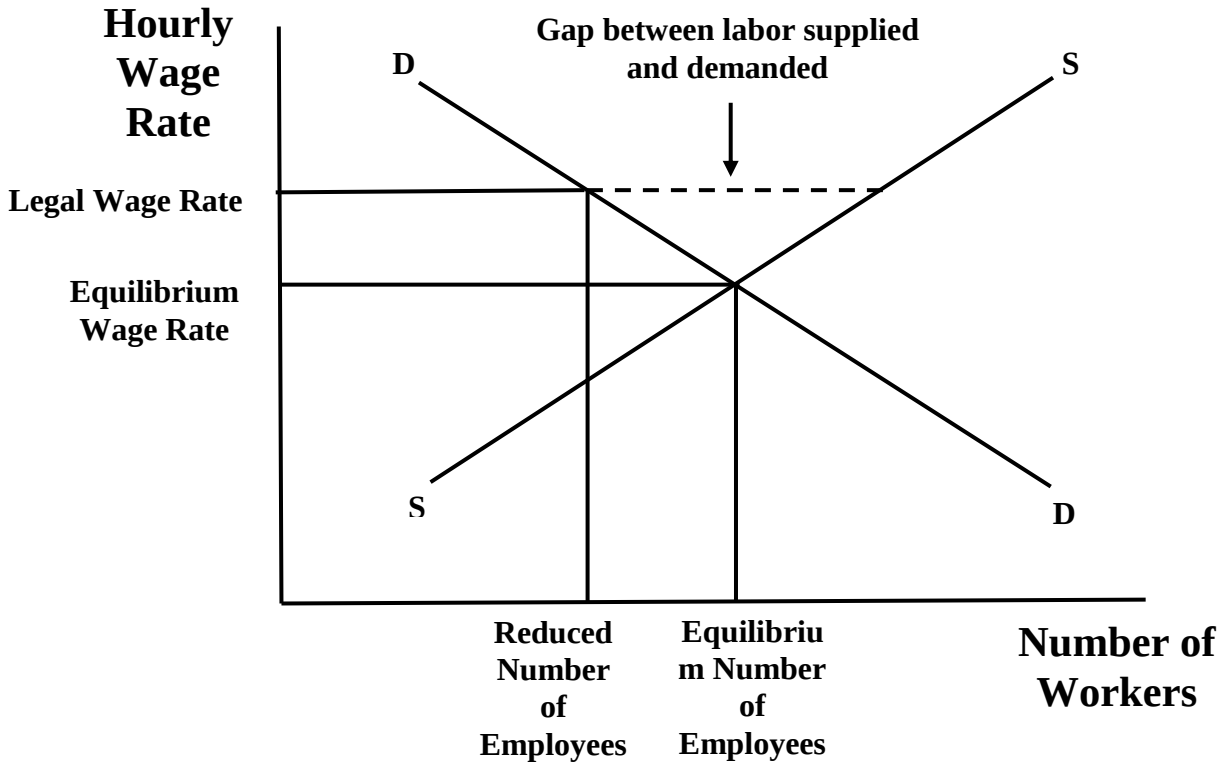
2. What is the standard economic view on this issue?

The conventional wisdom among many economists is that minimum wage laws increase unemployment. For example, in his *Basic Economics* book, Thomas Sowell says: "When all is said and done, most empirical studies indicate that minimum wage laws reduce employment in general, and especially the employment of younger, less skilled and minority workers."[66]

This conclusion is supported by simple economic reasoning using supply and demand curves in the labor market, with numbers of employees on the horizontal axis and hourly rate on the vertical axis. The intersection of the upward sloping supply curve, which shows that more labor will be offered at higher hourly rates, and the downward sloping demand curve, which shows that more labor will be demanded at lower hourly rates, gives the equilibrium point for hours worked and the hourly rate. If a minimum wage law imposes an hourly rate above the equilibrium rate, even though more labor will be supplied, less labor will be demanded, leading to a reduction in employment. This economic reasoning is demonstrated in Graph 7-A.

[66] Thomas Sowell, *Basic Economics* 165 (2004).

Graph 7-A
Illustration of Conventional Assumption that Minimum Wage Laws Increase Unemployment



The "Legal Wage Rate" in the above graph is a "price floor," and the graph is a traditional portrayal of the economic impact of a price floor:[67] here structural unemployment.

The following summary of an analysis published in the CATO's Policy Analysis supports this traditional view:

> While the aim is to help workers, decades of economic research show that minimum wages usually end up harming workers and the broader economy. Minimum wages particularly stifle job opportunities for low-skill workers, youth, and minorities, which are the groups that policymakers are often trying to help with these policies.
>
> There is no "free lunch" when the government mandates a minimum wage. If the government requires that certain workers be paid higher wages, then businesses make adjustments to pay for the added costs, such as reducing hiring, cutting employee work hours, reducing benefits, and charging higher prices. Some policymakers may believe that companies simply absorb the costs of minimum wage increases through reduced profits, but that's rarely the case. Instead, businesses rationally respond to such mandates by cutting employment and making other decisions to maintain their net earnings. These behavioral responses usually offset the positive labor market results that policymakers are hoping for.[68]

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[67] Krugman and Wells, *Macroeconomics Fourth, infra* Bibliography at 111-113
[68] Wilson, *The Negative Effects of the Minimum Wage infra* Bibliography at 1.

3. What is the Card-Krueger view on this issue?

David Card and Alan Krueger have challenged the conventional wisdom behind the analysis in Graph 7-A. In a comparative study of states where the minimum wage rate has risen with states where it has not, they have found that increases in the minimum wage do not lead to unemployment.[69] Their research was one of the reasons the Clinton Administration proposed and the Congress enacted an increase in the federal minimum wage in 1996. Along the lines of the Card and Krueger study, Professor Krugman explains:

> [S]ome researchers have produced evidence showing that increases in the minimum wage actually lead to higher employment when, as was the case in the United States at one time, the minimum wage is low compared to average wages. They argue that firms that employ low-skilled workers sometimes restrict their hiring in order to keep wages low and that, as a result, the minimum wage can sometimes be increased without any loss of jobs.[70]

Professor Krugman goes on to say however that "[m]ost economists . . . agree that a sufficiently high minimum wage does lead to structural unemployment."[71]

4. What is the view of the Congressional Budget Office on this issue

In 2014 the Congressional Budget Office (CBO) conducted a detailed study of the economic impact of raising the minimum wage from the current $7.25 per hour to either $10.10 or $9.00.[72] The CBO summarized its results and the options as follows:

> **Summary.** Increasing the minimum wage would have two principal effects on low-wage workers. Most of them would receive higher pay that would increase their family's income, and some of those families would see their income rise above the federal poverty threshold. But some jobs for low-wage workers would probably be eliminated, the income of most workers who became jobless would fall substantially, and the share of low-wage workers who were employed would probably fall slightly.
>
> **What Options for Increasing the Minimum Wage Did CBO Examine?** For this report, the Congressional Budget Office (CBO) examined the effects on employment and family income of two options for increasing the federal minimum wage:
>
> - A "$10.10 option" would increase the federal minimum wage from its current rate of $7.25 per hour to $10.10 per hour in three steps—in 2014, 2015, and 2016. After reaching $10.10 in 2016, the minimum wage would be adjusted annually for inflation as measured by the consumer price index.
> - A "$9.00 option" would raise the federal minimum wage from $7.25 per hour to $9.00 per hour in two steps—in 2015 and 2016.

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[69] David Card and Alan Krueger, *Myth and Measurement: The Economics of the Minimum Wage* (1995).
[70] Krugman and Wells, *Macroeconomics Fourth*, infra Bibliography at 228.
[71] *Id*.
[72] CBO, *The Effects of a Minimum-Wage Increase*, *infra* Bibliography.

After reaching $9.00 in 2016, the minimum wage would not be subsequently adjusted for inflation.[73]

The CBO summarized as follows the effects of the two options on employment and income:

> **What Effects Would Those Options Have?** The $10.10 option would have substantially larger effects on employment and income than the $9.00 option would—because more workers would see their wages rise; the change in their wages would be greater; and, CBO expects, employment would be more responsive to a minimum-wage increase that was larger and was subsequently adjusted for inflation. The net effect of either option on the federal budget would probably be small.
>
> **Effects of the $10.10 Option on Employment and Income.** Once fully implemented in the second half of 2016, the $10.10 option would reduce total employment by about 500,000 workers, or 0.3 percent, CBO projects. As with any such estimates, however, the actual losses could be smaller or larger; in CBO's assessment, there is about a two-thirds chance that the effect would be in the range between a very slight reduction in employment and a reduction in employment of 1.0 million workers (see Table 1).
>
> Many more low-wage workers would see an increase in their earnings. Of those workers who will earn up to $10.10 under current law, most—about 16.5 million, according to CBO's estimates—would have higher earnings during an average week in the second half of 2016 if the $10.10 option was implemented. . . .
>
> **Effects of the $9.00 Option on Employment and Income.** The $9.00 option would reduce employment by about 100,000 workers, or by less than 0.1 percent, CBO projects.
>
> There is about a two-thirds chance that the effect would be in the range between a very slight increase in employment and a reduction in employment of 200,000 workers, in CBO's assessment. Roughly 7.6 million workers who will earn up to $9.00 per hour under current law would have higher earnings during an average week in the second half of 2016 if this option was implemented, CBO estimates, and some people earning more than $9.00 would have higher earnings as well. The increased earnings for low-wage workers resulting from the higher minimum wage would total $9 billion; 22 percent of that sum would accrue to families with income below the poverty threshold, whereas 33 percent would accrue to families earning more than three times the poverty threshold, CBO estimates.
>
> For family income overall and for various income groups, CBO estimates the following:
>
> - Once the increases and decreases in income for all workers are taken into account, overall real income would rise by $1 billion.
> - Real income would increase, on net, by about $1 billion for families whose income will be below the poverty threshold under current law, boosting their average family income by about 1 percent and moving about 300,000 people, on net, above the poverty threshold.

[73] *Id*. at 2.

- Families whose income would have been between one and three times the poverty threshold would receive, on net, $3 billion in additional real income. About $1 billion, on net, would go to families whose income would have been between three and six times the poverty threshold.
- Real income would decrease, on net, by $4 billion for families whose income would otherwise have been six times the poverty threshold or more, lowering their average family income by about 0.1 percent.[74]

And, the CBO summarized as follows the effects of the two options on the federal budget:

> **Effects of a Minimum-Wage Increase on the Federal Budget.** In addition to affecting employment and family income, increasing the federal minimum wage would affect the federal budget directly by increasing the wages that the federal government paid to a small number of hourly employees and indirectly by boosting the prices of some goods and services purchased by the government. Most of those costs would need to be covered by discretionary appropriations, which are capped through 2021 under current law.
>
> Federal spending and taxes would also be indirectly affected by the increases in real income for some people and the reduction in real income for others. As a group, workers with increased earnings would pay more in taxes and receive less in federal benefits of certain types than they would have otherwise. However, people who became jobless because of the minimum-wage increase, business owners, and consumers facing higher prices would see a reduction in real income and would collectively pay less in taxes and receive more in federal benefits than they would have otherwise. CBO concludes that the net effect on the federal budget of raising the minimum wage would probably be a small decrease in budget deficits for several years but a small increase in budget deficits thereafter. It is unclear whether the effect for the coming decade as a whole would be a small increase or a small decrease in budget deficits.[75]

5. What is Secretary Clinton's position on the minimum wage?

Secretary Clinton's website sets out her position on the minimum wage as follows:

> **Raise the minimum wage**. At $7.25 per hour, the federal minimum wage isn't nearly enough to make ends meet. Americans who work 40 hours per week at the minimum wage earn just $15,080 a year—below the poverty threshold for a family of two or more. That's why Hillary wants to raise the federal minimum wage to $12 an hour—and why she supports city and state efforts to raise their own minimum wage even higher.

An article in the Wall Street Journal elaborated as follows on her position on the minimum wage:

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[74] *Id*. at 1-3.
[75] *Id*. at 3.

> Mrs. Clinton engaged in an intense, months-long debate with Bernie Sanders over what the Democratic Party's national stance should be on raising the federal minimum wage. She argued that the level should be raised, but resisted his call for a national $15-an-hour floor. In May she said the U.S. needs to raise the federal minimum wage "to the highest it's ever been in this country."
>
> She said she supported a $12 federal minimum but thinks states or cities should be allowed to set higher floors if they have local support, as many localities have done. But in the end, the Sanders camp clocked a victory by getting the party to officially back a $15 an hour federal minimum wage, imposed "over time." Mrs. Clinton has not endorsed that plank, however.[76]

6. What is Mr. Trump's position on the minimum wage?

Mr. Trump's website does not seem to have a position on the minimum wage. However, in several statements, he has seemed to be on all sides of the issue. For example, the Wall Street Journal reports:

> [He has said:] "I don't know how people make it on $7.25 an hour. Now, with that being said, I would like to see an increase of some magnitude. But I'd rather leave it to the states." . . . [His] position on minimum wage has evolved since he has come under fire from labor unions and others for saying, in a November debate, that wages were "too high." A month later he tweeted that the middle class has had "no effective raise in years. BAD." [He] shifted more clearly as other rivals in the GOP nomination fight dropped out of the race.
>
> Days after he said he didn't "know how people make it on $7.25 an hour," he issued a tweet that he would like to see an increase in the minimum wage, but at other times said the rate should be left up to the states. He later signaled he might be willing to trade a minimum-wage increase to obtain another policy goal.
>
> [I]n late July [he] called for a $10 an hour federal minimum wage, breaking from the GOP's stance and moving more in line with Democrats.[77]

7. What is my take on the minimum wage?

a) What is my starting proposition?

I start from the proposition that, as I understand the arguments, even most opponents of an increase in the minimum wage would not support the complete repeal of the minimum wage. Assuming this is so, for most people the argument is not whether there should be a minimum wage, but how high should the minimum wage be? Clearly the minimum wage should not be set at, say, $50 per hour. However, in my view, the federal minimum wage should gradually be increased to the point at which it would approximate, on an inflation-adjusted basis, the $7.25 amount that was first applicable in 2009. This would put the minimum wage at approximately $10 per hour, which would lift many people out of poverty. That amount should then be indexed for inflation on a

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[76] Melanie Trottman, *The Federal Minimum Wage, Clinton v. Trump, Where They Stand on Economic Policy Issues*, Wall Street Journal, visited Sept 24, 2016 at http://graphics.wsj.com/elections/2016/donald-trump-hillary-clinton-on-the-economy/.

[77] *Id.*

going forward basis. Adopting this type of increase would not put the U.S. minimum wage at anything close to the current minimum wage in many other industrialized countries, for as Professor Krugman points out: "As of 2013, Australia had a minimum wage over twice as high as the U.S. rate, with France, Canada, and Ireland not far behind."[78]

b) What would be the "income effect" and the "substitution effect" of an increase in the minimum wage?

As indicated in Chapter 3, an increase in the minimum wage could have an income effect by encouraging less work and more leisure or a substitution effect by encouraging more work. For individuals who are not employed, an increase in the minimum wage can only have a substitution effect, which encourages a substitution of work for leisure. Thus, one advantage of raising the minimum wage is that it would bring more people into the workforce.

c) Do I support a two-tier minimum wage?

Also, I would consider a lower minimum wage for new workers and teenagers who are working part-time. These workers, on balance, are probably not contributing as much as full-time experienced workers. This type of two-tier policy would likely apply to a substantial number of employees who are receiving the minimum wage; for example, the following is a breakdown of the persons receiving the minimum wage:

> Only 20.8 percent of all minimum wage workers are family heads or spouses working full-time, 30.8 percent were children, and 32.2 percent are young Americans enrolled in school.[79]

It would seem most important from a public policy standpoint to ensure that "family heads or spouses working full-time" are receiving a living wage. This principle was discusses as follows in an opinion piece in support of a two-tiered system:

> We need to get creative — and initiate a two-tiered minimum-wage system that will give our young people the jobs they need and give family-supporting workers a living wage — while at the same time give our employers, especially our small businesses, a payroll system they can handle.
>
> Here's the way it would work: Today's minimum wage of $7.25 an hour would remain intact for those workers ages 16 to 22. These are young people, students mostly, who need the money for tuition or extra spending money. They are looking for job experience to help them grow up and be ready to work for a living.
>
> But for those slightly older people already in the workforce and supporting a spouse or raising a family (or those younger than 22 who have dependents), the minimum wage would be raised to $9 an hour.
>
> It is estimated that 40% of New York State households with children are supported by a single income of less than $10 an hour.

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[78] Krugman and Wells, *Macroeconomics Fourth*, *infra* Bibliography at 116.
[79] Wilson, *The Negative Effects of the Minimum Wage infra* Bibliography at 3.

This would help those men and women bring home a paycheck that will finally allow them to focus on one job at a time without scrambling to make it on two or three jobs and 12- and 14-hour workdays.

Such a two-tier system makes perfect sense[.][80]

Interestingly, unions and other supporters of labor would likely oppose this type of two-tier minimum wage for fear that employers would specifically hire employees in the lower tier at the expense of the employees in the higher tier. Steps could be taken to guard against, or at least minimize, such a practice.

d) How do I approach the argument that raising the minimum wage will decrease the level of employment?

First, I think this concern may be overstated as the Card-Krueger analysis, which is discussed above, demonstrates.

Second, given the findings of the CBO study discussed above, I am of the view that the adverse employment effect of raising the minimum wage to approximately $10 per hour would be, at most, *di minimis* compared to the benefit of moving people out of poverty. As noted, the CBO analysis projects that while (1) 500,000 people are likely to lose their jobs with an increase of the minimum wage to $10.10, (2) 16.5 million workers are likely to have higher earnings during an average workweek. For me this is an easy tradeoff, particularly in view of the CBO's projection that there would be a slight decrease in the deficit.

Third, I would strongly support efforts to reduce the adverse impact on any employee who loses his or her job because of the increase in the minimum wage.

e) Is there an ethical issue in the minimum wage debate?

I have one final point on the minimum wage. Paying a living wage to those who work is an ethical as well as an economic issue. However, even in economic terms, it is hard to see how a minimum wage at the levels that have been applicable in the U.S. could in any way be a drag on economic growth.

T. What is the relationship between the unemployment rate and the crime rate?

An article in Business Week magazine points out that there is sound economic evidence indicating that the crime rate drops significantly when the unemployment rate declines.[81] The article, which was written in 2000 when the economy was still booming, explains: "The hot economy is taking a bite out of crime. A spate of recent economic studies shows that although higher rates of apprehension and incarceration are important, the improvement in the labor market also accounts for a big share of the fall in the crime

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[80] Tom Allon, *A two-tier minimum wage makes sense for both small business owners and their employees*, New York Daily News (February 22, 2012).

[81] Charles J. Whalen, *It is About Jobs, Stupid, Crime Falls as the Economy Expands*, Business Week, www.businessweek.com (August 28, 2000).

rate." The article features a study finding that the "2.6 percentage point fall in the U.S. unemployment rate between 1992 and 1997 accounted for about a 3.9% decrease in crimes per youth." The article also notes that another study found that "enhanced opportunities springing from a tight labor market can be particularly beneficial to young African Americans, a group overrepresented both in prison and in the low-wage workforce."

U. What impact does foreign outsourcing have on the unemployment rate?

There is a significant debate in this country concerning foreign outsourcing. Foreign outsourcing occurs when a company relocates a plant or operation from the U.S. to a foreign country and when a company closes down its U.S. operations and contracts to have the work performed by an unrelated company in a foreign jurisdiction.

The Bureau of Labor Statistics (BLS) of the Department of Commerce previously kept statistics on mass layoffs attributable to "domestic relocation" and "overseas relocation." This was done under a program titled: *Extended Mass Layoffs Associated with Domestic and Overseas Relocations*. However, the Department explains that this program was terminated because "these reasons do not reflect an economic reason, and instead relate to the effect of the actual reason."[82] Also, in May 2013, for budgetary reasons, the BLS discontinued its report on *Mass Layoffs* generally.

Although these reports have been discontinued, it is instructive to look at the quarterly report issued on June 10, 2004, which explains:

> Extended mass layoffs and separations associated with the movement of work, domestically or overseas, reflect job loss at companies employing at least 50 workers where at least 50 people filed for unemployment insurance during a five-week period and the layoff lasted more than 30 days. The extended mass layoff statistics and movement of work measures, therefore, do not reflect layoffs of less than 50 at these companies, nor do they capture layoffs occurring at establishments with less than 50 workers. . . . Similarly, these data do not cover situations in which firms initiate or transfer work to new locations when there are no layoffs involved.[83]

The report provides the following summary information on the level of domestic and foreign outsourcing in relation to the total number of workers who lost their jobs in the quarter: "Of the 239,361 private sector nonfarm workers who were separated from their jobs for at least 31 days in the first quarter of 2004, the separations of 4,633 workers were associated with the movement of work outside of the country. . . . Domestic relocation of work--both within the company and to other companies--affected 9,985 workers."[84] Domestic relocations were, therefore, about twice the level of foreign outsourcing. The report went on to say:

> From January to March 2004, job loss associated with the relocation of work was reported in 119 layoff events, resulting in the separation of 16,021

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[82] Department of Commerce, Bureau of Labor Statistics, *Frequently Asked Questions*, available at http://www.bls.gov/mls/mlsfaqs.htm#Question_10 (April 13, 2012).
[83] Department of Commerce, Bureau of Labor Statistics, *Extended Mass Layoffs Associated with Domestic and Overseas Relocations* (June 10, 2004).
[84] *Id*.

> workers. . . . Three out of four events (90 out of 119) associated with movement of work occurred among establishments within the same company. In more than 7 out of 10 cases, the work activities were reassigned to places elsewhere in the U.S. In the 29 events in which work activities were reassigned to another company under contractual arrangements, half of the instances involved relocation of work outside the U.S. and half to companies within the U.S.[85]

The report indicates that for the first quarter of 2004, about one third of outsourced jobs and of events involving outsourcing involved foreign outsourcing and that half of contract based outsourcing involved foreign outsourcing. If these figures are representative of what is happening with outsourcing, it would appear that foreign outsourcing could become a significant problem for U.S. employment. However, the *IMF 2004 U.S. Report*, an analysis of the U.S. economy, concludes: "Although data are sketchy, offshoring of jobs appears too small to have any significant impact on [overall employment] trends."[86]

Because outsourcing may be driven by tax considerations, such as the incentive for companies to engage in inversions, the positions of Secretary Clinton and Mr. Trump on outsourcing are examined in Chapter 23, which focuses on tax policy. Also, given the political importance of this issue, and the need to have adequate information to evaluate the policy issues, the BLS should reinstate both its reports on *Mass Layoff* and *Extended Mass Layoffs Associated with Domestic and Overseas Relocations*.

V. What are Senator Clinton's jobs proposals?

Senator Clinton's website sets out several proposals for increasing "good paying jobs." These proposals include the following:

> BREAK THROUGH WASHINGTON GRIDLOCK TO MAKE THE BOLDEST INVESTMENT IN GOOD-PAYING JOBS SINCE WORLD WAR II
> Our country has a strong bipartisan tradition of investing in our future—from Eisenhower's Interstate highway system, which unlocked the potential of the American economy and drove the rise of the middle class, to the Apollo program, which put a man on the moon and fueled giant leaps forward in technology and innovation. Hillary Clinton will break through the gridlock in Washington to make these investments, which have been a hallmark of American prosperity, once again possible.
>
> From her first day in office to her last, Hillary will make it a central priority to make sure that every American can find a good-paying job, with rising incomes across the board. That's why she will make the largest investment in good-paying jobs since World War II. These investments will not just create good jobs today, they will unlock the potential of our businesses to create good-paying jobs in the future. And she is setting a goal of a full employment, full-potential economy, where we break down barriers and create good-paying jobs in every community, for people across the country willing to work hard. That's why Hillary will:

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[85] *Id*.
[86] International Monetary Fund, *U.S. Report* 8 (2004).

- Launch our country's boldest investments in infrastructure since we built the Interstate highway system [her infrastructure proposal is examined in Chapter 10];
- Make audacious advancement in research and technology, creating the industries and jobs of the future;
- Establish the U.S. as the clean energy superpower of the world—with half a billion solar panels installed by the end of her first term and enough clean renewable energy to power every home in American within ten years of her taking office;
- Strengthen American manufacturing with a $10 billion "Make it in America" plan;
- Cut red tape, provide tax relief and expand access to capital so small businesses can grow, hire and thrive;
- Ensure that the jobs of the future in caregiving and services are good-paying jobs, recognize their fundamental contributions to families and to America;
- Pursue smarter, fairer, tougher trade policies that put U.S. job creation first and that get tough on nations like China that seek to prosper at the expense of our workers – including opposing trade deals, like the Trans-Pacific Partnership, that do not meet a high bar of creating good-paying jobs and raising pay [her trade proposals are examined in Chapter 11];
- Commit to a full employment, full-potential economy and break down barriers so that growth, jobs, and prosperity are shared in every; community in America, no matter where you live and no matter your race, ethnicity, gender, sexual orientation, or disability;
- Appoint Fed governors who share the belief that maximum employment is an essential prong of the Federal Reserve's dual mandate [this mandate is addressed in Chapter 14].

W. What are Mr. Trump's jobs proposals?

In his September 15, 2016 speech to the New York Economic Forum, Mr. Trump set out the following general proposals for increasing the rate of economic growth and job creation:

> I believe it is time to establish a national goal of reaching 4% economic growth.
>
> In working with my economic team, we've put together a plan that puts us on track to achieve that goal. Over the next ten years, our economic team estimates that under our plan the economy will average 3.5% growth and create a total of 25 million new jobs. . . .
>
> This growth means that our jobs plan, including our childcare reforms, will be completely paid-for in combination with proposed budget savings. It will be deficit neutral. If we reach 4% growth, it will reduce the deficit. It will be accomplished through a complete overhaul of our tax, regulatory, energy and trade policies.
>
> Right now, under Obama-Clinton policies, the economy grew only 1.1 percent last quarter – that translates to millions of lost jobs.

This is the weakest so-called recovery since the Great Depression. Over the last 7 years, the economy grew only 2.1 percent, the slowest period in seventy years. Had the economy grown under Obama at the same rate as Reagan, it would have meant 10 million more jobs.

Perhaps most shockingly, 1 in 6 men aged 18-34 are either in jail or out of work.

Meanwhile, another 2 million Hispanic-Americans have been added to the ranks of those in poverty.

X. What is my take on jobs proposals?

Both Senator Clinton and Mr. Trump have made several general proposals for creating jobs. Both have proposed infrastructure spending, addressed in Chapter 10, which clearly will promote job growth. However, in structuring any jobs plan, it is important to take into consideration that currently we are near full-employment, which, as indicated above, the CBO projects we will reach by 2019 under current policies. Also as indicated above, the level of unemployment payments is significantly below recent highs, indicating that we currently have a strong labor market.

While driving around any town will quickly demonstrate the need for more infrastructure spending, the spending should be prudently structured so as to (1) effectively address the infrastructure problem, (2) enhance employment, and (3) not create a significant risk of economically detrimental inflation. On the inflation point, the current rate of inflation is below the Fed's target of 2%, and this may show that the economy could take more spending without a substantial risk of spurring inflation beyond the 2% target.

Finally, both Senator Clinton and Mr. Trump discuss the problem with hard-to-employ individuals. For example, as indicated above in Table 7-B, the unemployment rate among blacks aged 16 to 19 is 32%, which is more than twice the 13.6% unemployment rate among whites aged 16 to 19. And, the 9.6% unemployment rate among blacks generally is twice the 4.8% unemployment rate among whites generally. Further, the 6.5% unemployment rate for Hispanics is nearly 2 percentage points higher than the unemployment rate among whites generally. This country needs to take proactive steps to reduce these disparities, for doing so will (1) benefit the lives of the hard-to-employ; (2) reduce the cost to society in the long run by, *inter alia*, reducing (a) the need for welfare payments, and (b) crime (*see* above); and (3) promote economic growth.

Indeed policies designed to get the hard-to-employ into jobs are supply-side policies.

Y. How is Employment Tracked?

The Administration's *Economic Report of the President*, the CBO's *Budget and Economic Outlook*, and the Fed's semi-annual *Monetary Report to Congress* contain analyses of the labor market. As indicated above, the Bureau of Labor Statistics (BLS) of the Department of Labor publishes a monthly report on the *Employment Situation* that contains a wealth of information on the labor market, including the current and historical rates of unemployment. Another closely watched economic report on the labor market is the BLS's *Unemployment Insurance Weekly Claims Report*, which is discussed above in

connection with the examination of unemployment insurance. All of these reports can be obtained on the BLS website at www.bls.gov. As discussed above, the Wall Street Journal's Economic Forecasting Survey reports the results of the survey of economists on the actual and forecasted unemployment rates.

CHAPTER 8, WHAT IS THE RELATIONSHIP BETWEEN ECONOMIC GROWTH AND INFLATION?

A. What is in this Chapter?

This chapter looks at various aspects of inflation and the related concept of deflation. After introducing the topic and examining the manner in which inflation is measured, the chapter discusses the concerns economists have with both inflation and deflation. The chapter then looks at the difference between real and nominal interest rates and examines inflation in the context of the AD-AS model. Finally, the chapter discusses the manner in which inflation can be tracked.

B. What are Inflation, Deflation, and Disinflation?

Inflation is a sustained increase in the price level. For example, if the cost of a market basket of goods in 2015 was $100 and the cost of the same market basket in 2016 is $105, there would be an inflation rate of 5% between 2015 and 2016. Deflation is a decrease in the price level. Thus, if the same market basket in 2016 cost $95, there would have been approximately 5% deflation. Disinflation is a declining rate of inflation. Thus, if the rate of inflation for 2015 was 5% and the rate for 2016 is 4%, there would have been disinflation of 1 percentage point between 2015 and 2016.

C. How is inflation measured by the CPI, the Core CPI, the PPI, the GDP Deflator, and the PCE?

Each of these terms describes a method of measuring inflation, and each is explained here.

The CPI. A common measure of inflation is the consumer price index or CPI. The Bureau of Labor Statistics (BLS) of the Department of Commerce gives the following "Brief Explanation of the CPI:"

> **Brief Explanation of the CPI**
>
> The Consumer Price Index (CPI) is a measure of the average change in prices over time of goods and services purchased by households. The Bureau of Labor Statistics publishes CPIs for two population groups: (1) the CPI for Urban Wage Earners and Clerical Workers (CPI-W), which covers households of wage earners and clerical workers that comprise approximately 28 percent of the total population and (2) the CPI for All Urban Consumers (CPI-U) and the Chained CPI for All Urban Consumers (C-CPI-U), which covers approximately 89 percent of the total population and includes, in addition to wage earners and clerical worker households, groups such as professional, managerial, and technical workers, the self-employed, short-term workers, the unemployed, and retirees and others not in the labor force.
>
> The CPIs are based on prices of food, clothing, shelter, fuels, transportation fares, charges for doctors' and dentists' services, drugs, and other goods and services that people buy for day-to-day living. Prices are collected each month in 87 urban areas across the country from about 6,000 housing units and approximately 24,000 retail establishments-department stores, supermarkets,

hospitals, filling stations, and other types of stores and service establishments. All taxes directly associated with the purchase and use of items are included in the index. Prices of fuels and a few other items are obtained every month in all 87 locations. Prices of most other commodities and services are collected every month in the three largest geographic areas and every other month in other areas. Prices of most goods and services are obtained by personal visits or telephone calls of the Bureau's trained representatives.

In calculating the index, price changes for the various items in each location are averaged together with weights, which represent their importance in the spending of the appropriate population group. Local data are then combined to obtain a U.S. city average. For the CPI-U and CPI-W separate indexes are also published by size of city, by region of the country, for cross-classifications of regions and population-size classes, and for 27 local areas. Area indexes do not measure differences in the level of prices among cities; they only measure the average change in prices for each area since the base period. For the C-CPI-U data are issued only at the national level. It is important to note that the CPI-U and CPI-W are considered final when released, but the C-CPI-U is issued in preliminary form and subject to two annual revisions.

The index measures price change from a designed reference date. For the CPI-U and the CPI-W the reference base is 1982-84 equals 100. The reference base for the C-CPI-U is December 1999 equals 100. An increase of 16.5 percent from the reference base, for example, is shown as 116.500. This change can also be expressed in dollars as follows: the price of a base period market basket of goods and services in the CPI has risen from $10 in 1982-84 to $11.65.[87]

The Core CPI-U. Another measure of consumer inflation is what is referred to as the core CPI-U, which is the CPI-U excluding food and energy prices. These items are excluded because they are subject to broad swings in prices due to climate in the case of food and geopolitical factors in the case of energy.

The PPI. The BLS gives the following explanation of its Producer Price Index or PPI:

The Producer Price Index (PPI) of the Bureau of Labor Statistics (BLS) is a family of indexes that measure the average change over time in the prices received by domestic producers of goods and services. PPIs measure price change from the perspective of the seller. This contrasts with other measures, such as the Consumer Price Index (CPI). CPIs measure price change from the purchaser's perspective. Sellers' and purchasers' prices can differ due to government subsidies, sales and excise taxes, and distribution costs.[88]

The GDP deflator. The GDP deflator, which is the ratio of nominal GDP to real GDP, differs from the CPI in that it measures price changes of all goods produced in the domestic economy. Whereas the CPI measures the price of a model basket of goods and includes imported items, the GDP deflator does not include imported goods. Thus, for example, oil is a larger part of the CPI than of the GDP deflator, because a significant amount of oil is imported. The *2004 Economic Report of the President* describes the differences between the CPI and GDP deflator:

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[87] *BLS Consumer Price Index, August 2016*.
[88] *BLS Consumer Price Index, August 2012*.

> The GDP price index increases less rapidly than the CPI because it reflects the choices of households and businesses to shift their purchases away from items with increasing relative prices and toward items with decreasing relative prices. In addition, the GDP price index includes investment goods, such as computers, whose relative prices have been falling rapidly. Computers, in particular, receive a much larger weight in the GDP price index (0.8 percent) than in the CPI (0.2 percent).[89]

The PCE. Finally, personal consumption expenditures (PCE) can be used in measuring inflation. As explained by the Bureau of Economic Analysis of the Department of Commerce:

> [The PCE] is the primary measure of consumer spending on goods and services in the U.S. economy. It accounts for about two-thirds of domestic final spending, and thus it is the primary engine that drives future economic growth. PCE shows how much of the income earned by households is being spent on current consumption as opposed to how much is being saved for future consumption.
>
> PCE also provides a comprehensive measure of types of goods and services that are purchased by households. Thus, for example, it shows the portion of spending that is accounted for by discretionary items, such as motor vehicles, or the adjustments that consumers make to changes in prices, such as a sharp run-up in gasoline prices.[90]

The BEA reports PCE and disposable personal income (DPI) on a nominal and real basis monthly in a report entitled Personal Income and Outlays. The February 2012 report summarized as follows the results for February 2012:

> Personal income increased $39.3 billion (0.2 percent) in August according to estimates released today by the Bureau of Economic Analysis. Disposable personal income (DPI) increased $31.9 billion (0.2 percent) and personal consumption expenditures (PCE) increased $6.2 billion (less than 0.1 percent).
>
> Real DPI increased 0.1 percent in August and Real PCE decreased 0.1 percent. The PCE price index increased 0.1 percent. Excluding food and energy, the PCE price index increased 0.2 percent.[91]

D. What was the CBO's assessment of inflation in its 2016 Budget and Economic Outlook?

In the assessment of the potential for inflation in its *2016 Budget and Economic Outlook*, the CBO referred to both the PCE and the CPI:

> **Inflation**
>
> CBO anticipates that prices will rise at a modest pace over the next few years, consistent with its projection of the remaining—but diminishing—slack in the economy and with widely held expectations for low and stable inflation. The agency projects that the rate of inflation in the price index for personal consumption expenditures

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[89] 2004 *Economic Report of the President*, *infra* Bibliography, at 96.
[90] BEA, *Chapter 5: Personal Consumption Expenditures*, at http://www.bea.gov/national/pdf/ch5%20PCEforposting.pdf (April 14, 2012).
[91] BEA, *Personal Income and Outlays, August 2016* (Sept. 30, 2016).

(PCE price index) will rise to 1.5 percent this year, up from 0.5 percent in 2015 (see Figure 2-10 on page 50). The decline in energy prices and the increase in the exchange value of the dollar [which made imports less expensive] exerted downward pressure on inflation last year. CBO expects inflation to rise in 2016 as the temporary downward pressure from the decline in energy prices dissipates and the remaining slack in the economy diminishes.

In 2017, the agency projects, inflation will stabilize at 2.0 percent—the Federal Reserve's longer-run goal [*see* Chapter 14]. That projection reflects CBO's judgment that consumers and businesses expect the Federal Reserve to adjust monetary policy [*see* Chapter 14] to prevent inflation from exceeding or falling short of the 2 percent goal for a prolonged period. CBO has a similar projection for core PCE inflation, which excludes food and energy prices; in CBO's forecast, that inflation rate reaches 2 percent at the end of 2017.

The consumer price index for all urban consumers (CPI-U) and its core version are expected to increase a little faster than their PCE counterparts because of the different methods used to calculate them. CBO projects that the difference between inflation as measured by the CPI-U and inflation in the PCE price index will generally be about 0.4 percentage points per year—close to the average difference over the past several decades.[92]

E. What is the concern with inflation?

Economists have identified several problems with high rates of inflation, including:

(1) inflation tends to harm lenders of money and to benefit borrowers because borrowers can repay in inflated dollars,

(2) severe inflation makes it risky for businesses to enter long-term contracts and, therefore, can dampen investment spending,

(3) in addition to discouraging investment spending, inflation can also discourage saving, and

(4) the tax system generally does not distinguish between inflation and non-inflation income, such as between nominal and real interest, as discussed below.

However, most economists seem to think that steady low rates of inflation, that is, annual inflation rates below 2% or 3%, are desirable or at least acceptable.

F. Is there a concern with deflation?

It might appear that a decrease in the price level, that is, deflation, would be desirable. However, as indicated in the following testimony of Alan Greenspan, a former Chairman of the Federal Reserve Board, there is reason to avoid deflation:

A very low inflation rate increases the risk that an adverse shock to the economy would be more difficult to counter effectively. Indeed, there is an especially pernicious, albeit remote, scenario in which inflation turns negative against a backdrop of weak aggregate demand, engendering a corrosive deflationary spiral.

Until recently, this topic was often regarded as an academic curiosity. Indeed, a decade ago, most economists would have dismissed the possibility that a

[92] *2016 Budget and Economic Outlook, infra* Bibliography, at 47-48.

> government issuing a fiat currency [fiat currency is discussed in Chapter 14] would ever produce too little inflation [that is, disinflation or deflation]. However, the recent record in Japan [with deflation] has reopened serious discussion of this issue. To be sure, there are credible arguments that the Japanese experience is idiosyncratic. But there are important lessons to be learned, and it is incumbent on a central bank to anticipate any contingency, however remote, if significant economic costs could be associated with that contingency.[93]

Professor Mishkin, the author of the *Economics of Money*, is more direct: "Deflation …is especially to be feared because of the possibility that it may promote financial instability and precipitate a severe economic contraction."[94] Thus, it seems that moderate levels of inflation can contribute to the growth of the economy.

G. What inflation rate does the U.S. Federal Reserve Board "aim" for and why?

As discussed more fully in Chapter 14, which deals with monetary policy, in answering the question on its website: "Why does the Federal Reserve aim for 2 percent inflation over time?", the Fed responds:

> The Federal Open Market Committee (FOMC) judges that inflation at the rate of 2 percent (as measured by the annual change in the price index for personal consumption expenditures, or PCE) is most consistent over the longer run with the Federal Reserve's mandate for price stability and maximum employment. Over time, a higher inflation rate would reduce the public's ability to make accurate longer-term economic and financial decisions. On the other hand, a lower inflation rate would be associated with an elevated probability of falling into deflation, which means prices and perhaps wages, on average, are falling--a phenomenon associated with very weak economic conditions. Having at least a small level of inflation makes it less likely that the economy will experience harmful deflation if economic conditions weaken. The FOMC implements monetary policy to help maintain an inflation rate of 2 percent over the medium term.

As of 2004, all countries that followed a stated policy of targeting a particular inflation rate (that is, engage in inflation targeting) had "set their inflation targets above zero."[95] The following countries had set the indicated midpoints as their inflation targets: New Zealand, 1.5%, Canada and Sweden, 2%, and the U.K. and Australia, 2.5%.[96]

H. What is the relationship between inflation and interest rates?

The nominal rate of interest on a fixed rate loan is the yield the lender receives for making the loan; there are no adjustments for the fact that there may have been changes in the buying power of dollars between the time the money is loaned and the time it is

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[93] Testimony of Chairman Alan Greenspan, *Federal Reserve Board's Semiannual Monetary Policy Report to the Congress,* Before the Committee on Financial Services, U.S. House of Representatives (July 15, 2003).
[94] *Economics of Money*, *infra* Bibliography, at 507.
[95] *Economics of Money*, *infra* Bibliography, at 507.
[96] *Id*.

paid back. Thus, there is no adjustment for any fall in purchasing power due to inflation. On the other hand, the real rate of interest is the nominal or actual yield on the loan less the rate of inflation. Thus, for example, if a bank makes a one year loan of $1000 at a 10% rate of interest, and the rate of inflation during the year is 4%, even though the nominal rate of interest is 10% the real rate of interest is just 6%, the difference between the nominal rate and the rate of inflation.

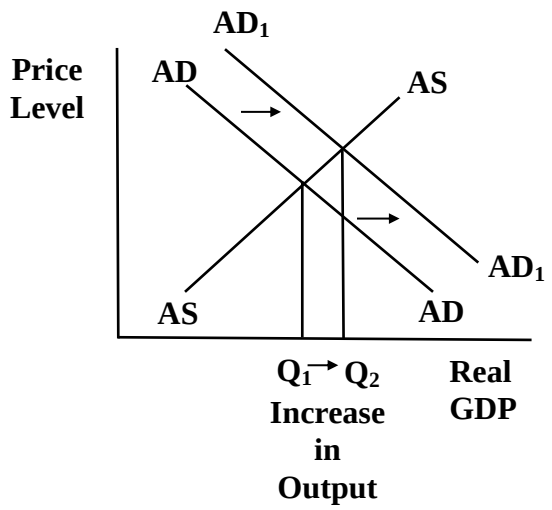
During periods of significant inflation, lenders that make fixed rate loans are harmed as the inflation rate eats into their real returns, and borrowers are benefited as they repay the loans in inflated dollars. To guard against this type of situation, many lenders make floating rate loans, which help ensure that the lender receives its expected real rate of return.

The tax code does not distinguish between nominal and real rates of interest, and all interest income is included in the taxable income of the lender and, subject to certain exceptions, all interest payments are deductible in computing the taxable income of the debtor.

I. How is Demand Side inflation illustrated in the AD-AS Model?

Demand side inflation occurs as a result of an outward shifting of the aggregate demand (AD) curve at a time when the aggregate supply (AS) curve is relatively steep and does not also shift outward. This is shown on Graph 8-A.

Graph 8-A
Illustration of Demand Side Inflation



Here the rightward shift in the AD curve can come from an increase in any of the components of GDP, that is, from consumption (C), investment (I), government (G), or foreigners (X-IM). With the relatively steep and non-shifting AS curve, this leads to both greater GDP and also a greater price level (that is, inflation). Thus, in this case, inflation occurs because expenditures on AD grow more rapidly than real GDP.

J. How is Supply Side inflation illustrated in the AD-AS Model?

Supply side inflation occurs as a result of a supply shock, such as a significant decrease in the supply of oil that causes the AS curve to shift to the left, while the AD curve is steep and does not also shift to the left. This is illustrated in Graph 8-B.

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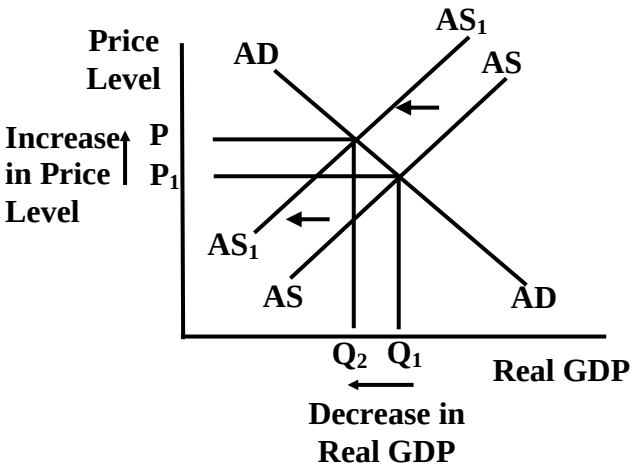
Graph 8-B
Illustration of Supply Side Inflation

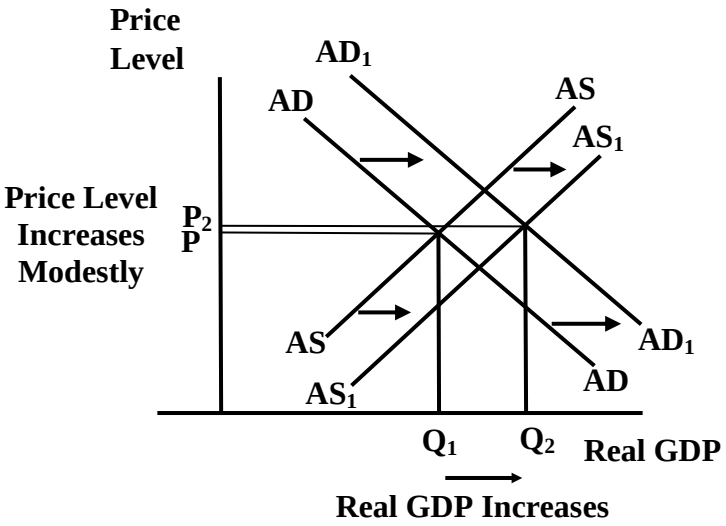


Here, a supply shock, such as the one that occurred in the 1970s with a dramatic increase in oil prices, shifts the AS curve to the left, thereby resulting in a decrease in real GDP and an increase in prices. This is an illustration of stagflation, which is inflation that occurs when there is either (1) a slow growth in real GDP, that is, the economy is stagnating, or (2) a recession.

K. What happens with inflation when both the AD and AS curves shift outward in a growing economy?

If both the AD and the AS curves shift to the right in a growing economy, there will be both an increase in real GDP and a slight increase in inflation, as illustrated in Graph 8-C.

Graph 8-C
Illustration of High Growth with Slight Inflation as the AD and AS Curves Shift Rightward



Because of shifts in both the AD and AS curves, real GDP increases proportionately more than the price level; thus, there is economic growth with low inflation. This is what occurred in the late 1990s during the Clinton Administration, and as indicated in its *2016 Budget and Economic Outlook,* the CBO expects to to take place from 2021 through 2026:

> In CBO's projections for the 2021–2026 period:
>
> - Actual and potential real GDP grow at an annual average of roughly 2.0 percent per year.
> - The unemployment rate remains stable at 5.0 percent, slightly above the estimated natural rate of 4.8 percent.
> - Both overall inflation and core inflation, as measured by the PCE price index, average 2.0 percent per year, and inflation as measured by the CPI-U is slightly higher, on average.
> - The interest rates for 3-month Treasury bills and 10-year Treasury notes average 3.2 percent and 4.1 percent, respectively.[97]

L. How is inflation tracked?

The Administration's *Economic Report of the President*, the CBO's *Budget and Economic Outlook*, and the Fed's semi-annual *Monetary Report to Congress* contain analyses of inflation. As discussed above, the Bureau of Labor Statistics (BLS) of the Department of Labor promulgates the CPI every four weeks. The BLS also promulgates the Producer Price Index (PPI), which comes out the third Monday of the month. These and other items relating to inflation are available on the BLS website at www.bls.gov. As indicated above, the Bureau of Economic Analysis of the Department of Commerce puts

[97] *2016 Budget and Economic Outlook, infra* Bibliography, at 48.

out a monthly report on PCE, which is available on its website at www.bea.gov. In addition, the Wall Street Journal's *Economic Forecasting Survey* provides forecasts by economists of, *inter alia*, inflation.

CHAPTER 9, WHAT ARE THE TRADEOFFS AMONG ECONOMIC GROWTH, INFLATION, AND EMPLOYMENT?

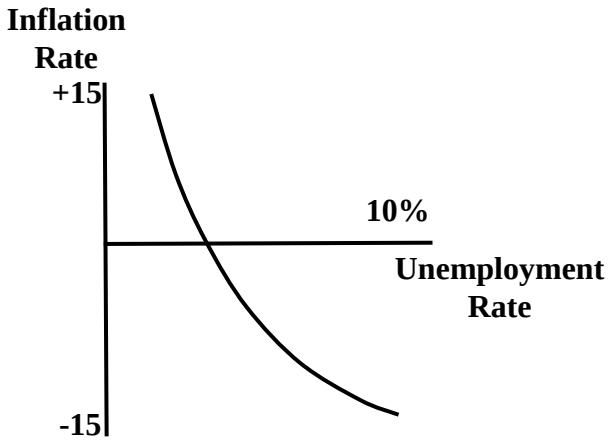
A. What is in this Chapter?

This chapter integrates the analysis of employment and inflation, which are examined in the preceding two chapters. The chapter explores two policy tools that can be helpful in determining the trade-offs between employment and inflation: the Phillips curve and the nonaccelerating inflation rate of unemployment, NAIRU.

B. What is the Phillips Curve?

The purpose of the Phillips curve is to describe the empirical relationship between the rate of inflation and the rate of unemployment. In general, the lower the rate of unemployment, the higher the rate of inflation. Thus, the Phillips curve predicts an inverse relationship between these two factors, indicating that the economy faces a trade-off between unemployment and inflation. Graph 9-A is a diagram of the Phillips Curve.

Graph 9-A
Diagram of the Phillips Curve



Graph 9-A shows that as the rate of unemployment, which is measured on the horizontal axis, falls, the rate of inflation, which is measured on the vertical axis, rises. The Phillips curve thus predicts that a lower rate of unemployment, which will result from accelerating economic growth, can only be obtained by incurring more inflation.

C. Is the Phillips Curve accurate?

During the 1960s, policy makers often viewed the Phillips curve as offering a choice between lower inflation and higher unemployment as occurred in 1961, and higher inflation and lower unemployment, as occurred in 1969.[98] Thus, in the 1960s the Phillips curve seemed to offer valid predictions. However, in the 1970s and 1980s the empirical relationship seemed to break down, with the economy experiencing stagflation**.** With stagflation resulting from negative supply shocks that shift the AS curve inward, the economy experienced both high rates of unemployment and high rates of inflation. On the other hand, positive supply shocks, such as the increase in productivity that occurred in the 1990s, that shift the AS curve to the right will generate low unemployment and low inflation, which was the case in the late 1990s. Thus, recent empirical evidence has not been particularly consistent with the predictions of the Phillips curve. For example, in the late 1990s, there was both low unemployment and low inflation, indicating that the Phillips curve may not apply in the New Economy.

The Phillips curve is related to the concept of the nonaccelerating inflation rate of unemployment (NAIRU), which is explored below.

[98] Baumol and Binder, *Economics 2003*, *infra* Bibliography, at 668.

D. What is the difference between "Okun's Law" and the "Phillips Curve?"

As discussed above, the Phillips Curve posits that as unemployment decreases, inflation will increase. On the other hand Okun's Law, which is discussed in Chapter 7, posits that as GDP grows, the unemployment rate will fall. Putting together the two, leads to the conclusion that as GDP grows, unemployment falls, and as unemployment falls, inflation increases.

E. What is the Nonaccelerating Inflation Rate of Unemployment—NAIRU?

The *1999 Economic Report of the President* addresses the concept of the nonaccelerating inflation rate of unemployment, or NAIRU, by first indicating that the prevailing view in the 1960s was that lower rates of unemployment would come only with higher rates of inflation as predicted by the Phillips curve, which is addressed above.[99] The Report points out that although in the 1960s the "full-employment unemployment rate was thought to be about 4 percent," the experience of the 1970s helped persuade economists that, if the unemployment rate decreased below a certain level, prices would not just increase but the increase would accelerate."[100] This rate of full employment unemployment became known as the nonaccelerating inflation rate of unemployment, or NAIRU. The Report went on to say: "Although the NAIRU is an indicator of the risk of inflation, estimates of the NAIRU have a wide band of uncertainty and should be used carefully in formulating policy. The NAIRU implicit in the Administration's forecast has drifted down in recent years and is now within a range centered on 5.3 percent."[101]

F. Is NAIRU accurate?

Even though the *1999 Economic Report of the President* says that NAIRU in 1999 was "within a range centered on 5.3%," the unemployment rate in 1999 was 4%, and the inflation rate for 1999 was just 2.2%. Thus, the 4% rate of unemployment in 1999 did not seem to cause an acceleration in the rate of inflation. However, it must be noted that the inflation rate for 2000 was 3.3%, which was the highest rate in the 1994-2002 period, and this may have been related to the low rates of unemployment in 1999 (4%) and 2000 (3.9%).

Also, as indicated in the its *2016 Budget and Economic Outlook,* for the period from 2012 to 2026, the CBO expects (1) "the unemployment rate [to] remain[] stable at 5.0 percent, slightly above the estimated natural rate of 4.8 percent," and (2) "Both overall inflation and core inflation, as measured by the PCE price index, [to] average 2.0 percent per year[.]"[102]

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[99] *1999 Economic Report of the President*, *infra* Bibliography, at 24.
[100] *Id*.
[101] *Id*.
[102] *2016 Budget and Economic Outlook*, *infra* Bibliography, at 48.

G. How can the Phillips Curve and NAIRU be used as policy tools?

Both the Phillips curve and NAIRU are based on an assumption of an inverse relationship between employment and inflation, that is, as the rate of unemployment decreases, the rate of inflation increases. Thus, both of these concepts could lead the Fed, as the controller of monetary policy, and the President and the Congress, as the controllers of fiscal policy, to be hesitant to adopt policies to spur economic growth for fear that the resulting lower unemployment rate can only be attained at the price of higher inflation. However, as the performance of the economy in the late 1990s shows, strong economic growth with the attendant low unemployment rate may be attainable without incurring a heavy price with inflation. Thus, policy makers should in general not be too quick to fight inflation, because in doing so they may needlessly prevent the nation from realizing the substantial benefits that come with a low rate of unemployment. On the other hand, policy makers should not be blind to the predictions of the Phillips curve and NAIRU, because to do so could lead to high inflation rates that could have a deleterious effect on long-term economic growth.

CHAPTER 10, HOW DOES THE EXPENDITURE MULTIPLIER IMPACT ECONOMIC GROWTH, AND HOW WOULD IT IMPACT THE INFRASTRUCTURE SPENDING PROPOSALS OF SENATOR CLINTON AND MR. TRUMP?

A. What is in this Chapter?

This chapter shows how an increase or decrease in the spending on any of the components of GDP can have a multiplying effect on GDP. The chapter starts with a discussion of the very important concept of the marginal propensity to consume and then examines how changes in consumer spending resulting from such factors as changes in tax rates or the wealth effect can affect aggregate demand. The chapter then examines various aspects of the expenditure multiplier or what is referred to as the multiplier effect, and illustrates the impact of the multiplier effect on the aggregate demand curve.

Although the expenditure multiplier discussed here is different from the money multiplier discussed in Chapter 14, which deals with monetary policy, they are based on the same mathematical principle.

Finally, this chapter looks at the infrastructure proposals of Secretary Clinton and Mr. Trump, and examines the potential multiplier effect of those proposals on the growth of GDP

B. What is the Marginal Propensity to Consume (MPC)?

Diagram 4-A, the circular diagram of GDP, shows that disposable personal income (DPI), point [13] on the diagram, goes to consumers, point [1] on the diagram. Consumers divide DPI between consumption spending (CS), point [2a], and savings, point [2b]. The consumption function, which is otherwise known as the marginal propensity to consume (MPC), expresses the relationship between total CS and total DPI, holding all other determinants of CS constant. The MPC is the ratio of the change in CS to the change in DPI. For example, if DPI increases by $100 million and CS increases by $90 million, then the MPC is .9 or 90%. As a formula, MPC= Change in CS ($90M)/Change DPI ($100M) =.9.

C. How do changes in consumer spending affect the Aggregate Demand Curve?

As discussed in Chapter 4, Consumption spending (CS), the largest component of GDP, is generally around 70% of GDP. Consequently, increases or decreases in CS can have a significant impact on GDP. In terms of the AD-AS model, across the board changes in the level of CS, which are referred to as autonomous shifts in CS, will cause the AD curve to shift. These across the board shifts can come from, among other things, a change in tax policy, a change in consumer wealth, which is referred to as the wealth effect, or as discussed more fully below, a change in infrastructure spending. Autonomous increases in CS will shift the AD curve outward to the right, thereby increasing both GDP and the price level, assuming an upward sloping AS curve. On the other hand, autonomous decreases in CS will shift the AD curve inward to the left, thereby decreasing both GDP and the price level, assuming an upward sloping AS curve.

D. What Impact do changes in federal tax policy have on consumption spending and the Aggregate Demand Curve?

Changes in federal tax policy can cause an autonomous shift in CS. Reductions in taxes can cause an autonomous increase in CS, and this will cause an outward shift in the AD curve, which generally will result in an increase in both GDP and the price level. On the other hand, an increase in taxes can cause an autonomous decrease in CS, and this will cause an inward shift in the AD curve, which generally will lower both GDP and the price level.

E. What Impact does the "Wealth Effect" have on consumption spending and the Aggregate Demand Curve?

The *1999 Economic Report of the President* points out that one of the factors that can cause an upward shift in the MPC is the wealth effect. In explaining this concept, the Report says: "An increase in a person's net worth raises the amount that he or she can consume, either today or in the future. Statistical evidence suggests that consumer spending has tended to rise or fall by roughly 2 to 4 cents per year for every dollar that stock market wealth rises or falls."[103] Thus, an increase in wealth as a result of a rising stock market can cause an autonomous increase in CS, and this will cause an outward shift in the AD curve, which generally will result in an increase in both GDP and the price level. On the other hand, a decrease in wealth as a result of a falling stock market can cause an autonomous decrease in CS, and this will cause an inward shift in the AD curve, which generally will lower both GDP and the price level.

F. What is the Multiplier Effect of an increase in consumption spending?

An autonomous increase in consumption spending (CS) has a multiplier effect because those who receive this spending (the first order of spending) will themselves spend a portion of the income received in a second order of spending. The recipients of this second order of spending will in turn spend a portion of their income in a third order of spending. This process will continue to the point discussed below.

For example, assume that Disposable Personal Income (DPI) increases by $100 million due to a tax cut which goes to consumer Group 1, and the MPC of this group is, say, 75%. As a first order effect, CS will increase by $75 million (75% of $100M). Assuming that all of this $75 million ends up in the hands of consumer Group 2, and that the MPC of this group is also 75%, as a second order effect, Group 2 will spend $56.2 million (75% of $75M) on CS. Assuming again that this $56.2 million ends up in the hands of consumer Group 3, which also has an MPC of 75%, as a third order effect Group 3 would spend $42.2 million (75% of $56.2M) in consumer spending. Continuation of the math with the assumptions that all the spending ends up in the hands of consumers and that the MPC is 75% would lead to an increase in GDP that was 4 times the initial $100 million of spending, or $400 million of GDP.

Algebraically the multiplier can be determined by the sum of geometric progression, which is determined in Equation 10-A.

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[103] *1999 Economic Report of the President*, *infra* Bibliography, at 67.

Equation 10-A
Determination of the Multiplier

$$\text{Multiplier} = \frac{1}{1 - R}$$

In Equation 10-A, R = the MPC. Thus, if the MPC = .75, the multiplier = 4, which is calculated in Equation 10-B.

Equation 10-B
Illustration of Multiplier Formula with MPC of 75%

$$\begin{aligned} Multiplier &= \frac{1}{1 - R} = \frac{1}{1 - MPC} \\ &= \frac{1}{1 - .75} \\ &= \frac{1}{.25} \\ &= 4 \end{aligned}$$

Equation 10-B indicates that if CS increases by $100 million, GDP could be expected to increase by 4 X $100 million, or $400 million.

G. Is the Multiplier Effect oversimplified?

The multiplier discussed above is an oversimplified multiplier because several factors decrease the force of the simple mathematical formula. Even though the MPC in the U.S. is around .9, which would indicate a multiplier of 10, the actual multiplier is much less. The oversimplified multiplier overstates the actual multiplier for the following principal reasons. First, some consumer and investment spending goes to imports, and this spending does not increase GDP and, therefore, does not have a multiplier effect. Second, increases in the price level mean that as time passes, less can be purchased in real terms, thus lowering the impact on real GDP and the multiplier.

Third, income and employment taxes reduce the amount of the Disposable Personal Income (DPI) that consumers receive. For example, assume that on average consumers are subject to income and employment taxes at a 30% rate. This means that for each dollar received as part of national income, which is point [9] on Diagram 4-A, the circular diagram of GDP, 30 cents goes to taxes, which is at point [10b], and this leaves only 70 cents of DPI, which is at point [13]. Thus, the MPC is only applicable to this after-tax DPI. The MPC of .9 times the .7 of national income that goes to DPI, gives an Effective MPC of only .56. When this Effective MPC of .56 is put into the multiplier formula, the multiplier is reduced to 2.2, which is computed in Equation 10-C.

Equation 10-C
Illustration of Multiplier Formula with MPC of 56%

$$Multiplier = \frac{1}{1 - R} = \frac{1}{1 - EffMPC}$$
$$= \frac{1}{1 - .56}$$
$$= \frac{1}{.44}$$
$$= 2.2$$

This 2.2 effective multiplier in Equation 10-C is close to the actual multiplier; Baumol and Blinder claim that the "actual multiplier for the U.S. economy is less than 2."[104]

H. How does the Multiplier work in reverse?

The multiplier works the other way around as well. The first order effect of a decrease in Disposable Personal Income (DPI) from, for example, a tax increase, will lead to a decrease in consumer spending by an amount equal to the decrease times the MPC, and through the multiplier effect, GDP will be reduced by a multiple of the decrease in consumption. For example, if DPI is reduced by $100 million due to a tax increase and the MPC is 75%, the first order effect is a reduction in GDP by $75 million, and after taking full account of the multiplier, GDP would fall by $400 million (4X$100M). The reverse multiplier is also oversimplified.

I. What is the Multiplier Effect for an Increase in Investment, Government or Net Export Spending?

Recall that the four components of GDP are Consumption spending, Investment spending, Government spending, and Net Export spending. Just as an increase in autonomous Consumption spending has a multiplier effect because the recipients of the spending have income that they will spend and so forth, an increase in autonomous Investment spending (for example, from a decrease in the cost of capital), or an increase in autonomous Government spending (for example, from a new highway spending program), or an autonomous increase in exports (for example, from a lowering of trade barriers), has the same type of multiplier effect. In each of these cases the recipients of the spending have income that they will spend and so forth. For example, if the marginal propensity to consume (MPC) is .75, and it is assumed that all first and subsequent order spending ends up in the hands of consumers, the oversimplified multiplier effect of this spending will be 4, just as it would be under the same circumstances with an autonomous increase in Consumption spending. Thus, for example, $100 billion of additional Investment spending would result in $400 billion of additional GDP by causing an outward shift of the

[104] Baumol and Binder, *Economics 2003*, *infra* Bibliography, at 541.

AD curve. As with Consumption spending, the effective multiplier is much lower than the oversimplified multiplier.

Just as the Consumption multiplier can work in reverse if there is an autonomous decrease in Consumer spending, the Investment, Government, and Net Export multiplier can work in reverse if there is an autonomous decrease in spending for these items.

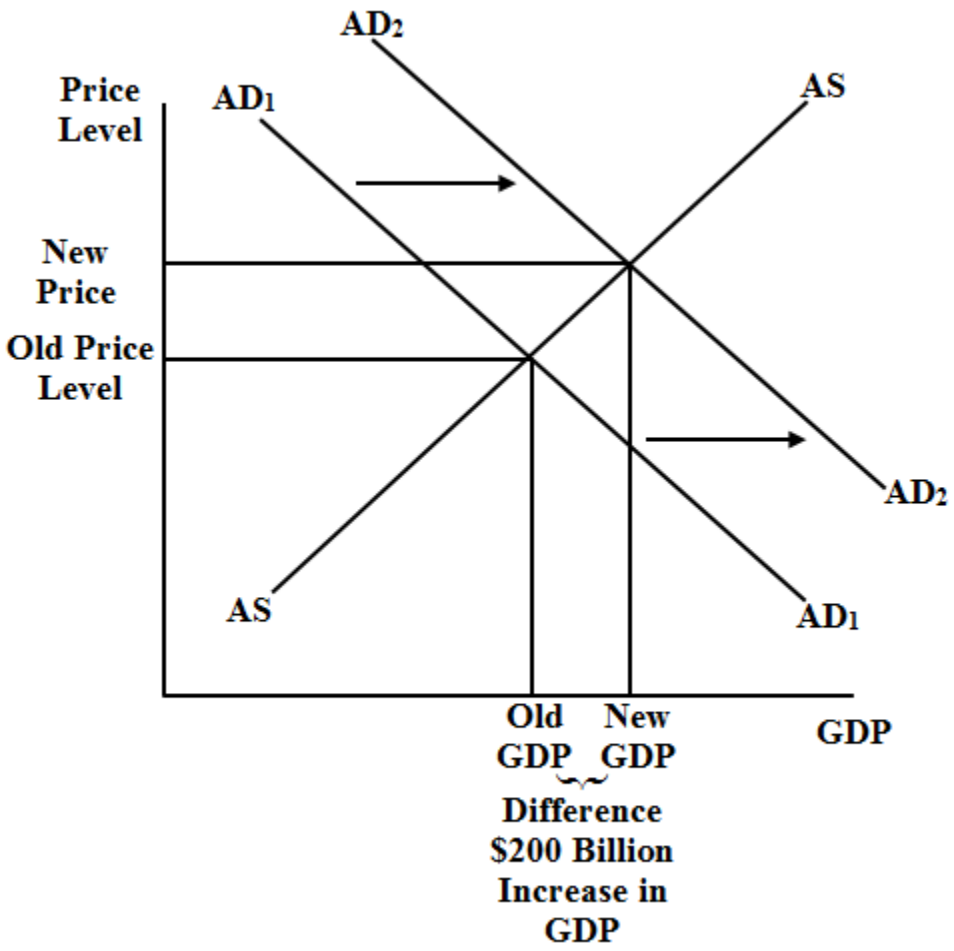
J. Is there a different Multiplier Effect for (1) a Tax decrease, and (2) an increase in Government Spending?

As indicated, a decrease in taxes will cause Consumption spending to change by the marginal propensity to consume (MPC) times the tax decrease. Thus, with an MPC of .75, a $100 billion reduction in taxes will initially increase Consumption spending by $75 billion. On the other hand, an increase in Government spending of $100 Billion will initially increase Government spending by the full $100 billion, although subsequent rounds of spending will be subject to the MPC. Therefore, an increase in Government spending will have a stronger initial impact on GDP than a decrease in taxes in the same amount. This issue is addressed further in Chapter 12, which addresses the financial crises.

K. How does the Multiplier affect the AD curve?

Autonomous shifts in Consumer, Investment, Government, or Net Export spending causes an autonomous shift in the AD curve to the point where the level of GDP reflects the effective multiplier. An autonomous increase in spending leads to a rightward shift in the AD curve, which will produce an increase in GDP by the amount of the effective multiplier, and depending on the slope of the AS curve, an increase in the price level. A decrease in autonomous spending will shift the AD curve to the left, which will lead to a reduced GDP by the amount of the effective reverse multiplier, and, depending on the slope of the AS curve, a lowering of the price level. Thus, the multiplier effect enhances the shift of the AD curve. Graph 10-A illustrates the impact on the AD curve from an increase in spending on any of the components of GDP: Consumption, Investment, Government, and Net Export spending.

Graph 10-A
Illustration of the Impact of the Multiplier Effect on the AD Curve:
Increase in Government Spending of $100 Billion, Effective Multiplier=2



Thus, $100 billion of additional government spending results in an increase in GDP of $200 billion.

L. How did the multiplier effect work in the context of the federal government's stimulus spending after the domestic financial crisis?

Chapter 12, which addresses the financial crisis, explores the theory and behavior of the multiplier effect that applied to the stimulus spending which was designed to address the domestic financial crisis.

M. What is the "paradox of thrift?"

The "paradox of thrift" is the adverse impact on growth an increase in savings can have. For example, Professor Krugman explains:

> [W]hen families and businesses are worried about the possibility of economic hard times, they prepare by cutting their spending. This reduction in spending depresses the economy as consumers spend less and businesses react by laying off workers.[105]

Thus, when the paradox of thrift occurs, the AD curve shifts to the left, thereby reducing GDP.

N. What is the relationship between infrastructure spending and the multiplier?

1. First, what is infrastructure?

Chapter 6 of the *2016 Economic Report of the President* is devoted to *The Economic Benefits of Investing in Infrastructure*. The *Report* defines "infrastructure" as follows:

> Infrastructure is defined as fixed capital assets that are consumed jointly in various production processes that facilitate and support economic activity, with "core" infrastructure referring to roads and other transportation facilities, power generation facilities and distribution networks, and water and sewer systems. The services provided by infrastructure are an indispensable input to the productive capacity of an economy, applied in tandem with other key inputs such as labor, human capital, land, and natural resources. Firms combine the use of infrastructure with these other inputs to produce goods and services, while households employ infrastructure services in both the production of output and the consumption of leisure activities. Deficiencies in infrastructure have the potential to adversely affect economic output, employment, and overall quality of life. At various points in time, the country has recognized the need to substantially upgrade its public infrastructure to foment economic development, and has subsequently invested in new and expanded infrastructure.[106]

2. Second, what are "public goods," "spillover effects," and "economies of scale;" and how do these concepts relate to the economic case for investing in infrastructure?

The *2016 Economic Report of the President* summarizes as follows the macroeconomic and microeconomic theories regarding investment in infrastructure:

> The crucial role of infrastructure is well recognized in economic theory. Macroeconomics emphasizes the importance of infrastructure capital in fostering economic growth, while microeconomics notes the private and social benefits that infrastructure services can provide for consumers, businesses, and entire communities. Economic theory also highlights how, to achieve optimal levels of investment, some forms of infrastructure may require government involvement in

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[105] Krugman and Wells, *Macroeconomics Third*, *infra* Bibliography at 167.
[106] *2016 Economic Report of the President*, *infra* Bibliography, at 252.

> their provision and financing because they exhibit many characteristics of what economics defines as "public goods." Pure public goods have two unique characteristics: non-excludability in supply and non-rivalry in consumption. Non-excludability in supply means that consumers cannot be prohibited from enjoying the benefits of the public good; once the public good has been provided, the entity providing it cannot exclude members of the general public from utilizing its services (usually for technological reasons), and thus cannot charge anyone for its use. Non-rivalry in consumption means that any one consumer's decision to use a good does not reduce the amount available for others. One cannot keep a ship from seeing a lighthouse once it is lit (non-excludable), and one ship seeing the lighthouse does not prevent others from seeing it (non-rival).
>
> Since the services they provide are both non-excludable and non-rival (for example, lighthouses and street lights), many types of transportation infrastructure are classic examples of pure public goods. In other cases, infrastructure may be excludable (a bridge with limited access) or rival (overcrowded roads or bridges). Furthermore, highway and transit infrastructure often have spillovers beyond their immediate users, providing benefits to a wide set of consumers and firms—thus making it difficult to identify who, and how much, to charge for those services. Other types of infrastructure also have positive spillovers that are difficult to monetize, such as public health benefits arising from improved clean water systems. As a result, individual entities, both public and private, may overlook projects that are not profitable for them, but nevertheless provide a net benefit for society as a whole. Moreover, some types of infrastructure may be characterized by economies of scale; as such, only one firm [for example, the local electric utility company, see Chapter 21 dealing with regulation of such firms] can profitably provide the service while competition with other firms would be inefficient. As a result, the private sector may lack the proper incentives to invest in such capital or may not provide the amount that is socially desirable, leading to market failure. These issues suggest that the government has a role to play in efficiently supplying and maintaining transportation infrastructure, especially when it spans across geographic borders.[107]

3. Third, what are the "Demand Side" and "Supply Side" benefits of investing in infrastructure?

The *2016 Economic Report of the President* discusses several benefits of investing in infrastructure, including: (1) *Short-Term Demand Side Benefits*, and (2) *Long-Term Supply Side Benefits*. The *Report* introduces the benefits as follows:

> This section discusses the role of infrastructure in the economy, highlighting the channels through which infrastructure investment can spur overall economic activity in both the short and long run. In the near term, this boost occurs through the demand-side of the economy. Because investing in infrastructure requires raw materials, manufactured goods, and extensive labor, it stimulates economic activity among firms in the supply chain and in households with members searching for employment. In the medium and long term, benefits

[107] *Id*. at 252-253.

materialize primarily on the supply-side. Higher-capacity and better-performing infrastructure supports faster, more reliable transport flows. As a result, households can increase their consumption through reduced travel costs and firms can exploit economies of scale in their production processes and distribution networks. Investing in new infrastructure also increases the flow of capital services that households and firms can utilize to produce valuable commodities and services. These longer-term supply improvements enable the economy to use private capital, labor, energy, and other inputs more productively, thereby augmenting the economy's future potential growth.[108]

4. Fourth, what is the "Multiplier Effect" with the "Short-Term Demand Side Benefit" of infrastructure spending?

In addressing *Short-Term Demand Side Benefits*, and the "multiplier effect," the *Report* says:

> Slack in the economy refers to the underutilization of resources like labor and capital. When slack exists in the economy, fiscal spending can help alleviate that slack by augmenting its contribution to public works projects. In the near term, public investment can reduce unemployment, provide workers with disposable income, and spur economic activity through the purchasing of inputs needed for implementing these projects[.] Government spending has a multiplier effect, which is defined as the dollar change in output caused by a $1 change in public spending. The multiplier measures the effects of government spending on overall economic activity rather than simply the impacts on businesses or households that directly receive the spending.[109]

Table 6-3 of the *Report*, *Input-Output Effects of Infrastructure Investment*, sets out estimated multipliers for various types of infrastructure spending. Table 10-A immediately below contains the information from Table 6-3 on "*Core Infrastructure Investment*:"

Table 10-A
Multiplier Effect of Various Types of Core Infrastructure Spending

Type of Core Infrastructure Spending	Direct Multiplier	Indirect Multiplier on Manufacturing Industries	Indirect Multiplier on Non-Manufacturing Industries	Total Multiplier
Highways and Streets	1.0	0.48	0.52	2.00
Electric Power Generation, Transmission and Distribution	1.0	0.18	0.61	1.80
Water Sewage and Other Systems	1.0	0.12	0.48	1.60

Source: Table 6-3, *Input-Output Effects of Infrastructure Investment, 2016 Economic Report of the President, infra* Bibliography at 263.

[108] *Id*. at 260-261.
[109] Id. at 262.

The *Report* discusses as follows the general "multiplier effect" of infrastructure spending:

> The short-run public investment multiplier for economic output has been well-documented. The International Monetary Fund (2014) finds, during times of low growth, a public spending multiplier of 1.5 in the same year as the investment and a slightly higher multiplier of 3 over the next four years. When a government has clearly identified infrastructure needs, an efficient investment process for identifying and directing funding toward those needs, and economic slack, then there is a strong case for increasing public investment in infrastructure. With nominal interest rates at or close to zero percent, the effects of increased government spending can be larger than they would be during normal circumstances when interest rates are higher. When the Central Bank's policy rate is set at zero—which it was from 2009 through 2015—Christiano, Eichenbaum, and Rebelo (2011) and Eggerston (2011) find stronger effects of increased public investment, producing short-run multipliers that range between 2 and 2.5. Because of its labor-intensive nature, spending on transportation is associated with even larger boosts to economic output than other government spending, with a short-run multiplier of about 2.7 (Leduc and Wilson 2014). In addition, to the degree that sustained losses in economic output lead discouraged workers to drop out of the labor force for prolonged periods and make them reluctant to return, alleviating these output losses in the short run can help to increase long-run output. When there is less slack in the economy, or when the Central Bank might tighten monetary policy in response to fiscal spending, fiscal multipliers are much lower (Auerbach and Gorodnichenko 2012).[110]

0. What has been the recent trend in infrastructure spending as a percentage of GDP?

The *2016 Economic Report of the President* summarizes the recent trend in spending on infrastructure as a percentage of GDP:

> Over the past half-century, public spending on water and transportation infrastructure as a share of gross domestic product (GDP) has trended slightly downward[.] Federal, State, and local government spending on water and transportation infrastructure accounted for 2.42 percent of GDP in 2014, 0.6 percentage point below its peak share of GDP in 1959 and somewhat above the smallest annual share of GDP at 2.35 percent in 1998. Most of the public spending can be attributed to State and local governments, which have accounted for, on average, about 72 percent of public spending on water and transportation infrastructure since 1956.[111]

[110] *Id*. at 263-264.
[111] *Id*. at 254.

P. What is the FAST Act, and what impact will it have on infrastructure spending?

The FAST Act became law in December 2015. The Department of Transportation describes this Act as follows:

> On December 4, 2015, President Obama signed into law the Fixing America's Surface Transportation Act, or "FAST Act." It is the first law enacted in over ten years that provides long-term funding certainty for surface transportation, meaning States and local governments can move forward with critical transportation projects, like new highways and transit lines, with the confidence that they will have a Federal partner over the long term. Secretary Foxx and his team at U.S. DOT have worked tirelessly to advocate for a long term bill, underscoring the needed sense of urgency to the American people. . . .
>
> Overall, the FAST Act largely maintains current program structures and funding shares between highways and transit. It is a down-payment for building a 21st century transportation system.

Q. What amount of infrastructure spending is called for?

An article in the Atlantic reports that the American Society of Civil Engineers has the following estimate of our infrastructure needs:

> [T]here is more than $3 trillion of infrastructural work to do before 2020 in order to repair, reinforce, and rebuild America's circuitry, including almost two trillion for roads and bridges and several hundred billion more for airports and waterways.[112]

R. What is Secretary Clinton's proposal for infrastructure spending and what would be the likely impact on the economy through the multiplier effect?

1. First, what is Secretary Clinton's infrastructure spending proposal?

Secretary Clinton's website has an elaborate discussion of her plans to increase spending on infrastructure, and this section briefly introduces (1) the rationale she gives for the proposal, and (2) the proposal. The next section addresses her projection of the economic impact of the proposal.

The Rationale. She says that "[s]trong infrastructure is critical to a strong economy," and she favorably points to the following infrastructure programs under two Republican and one Democrat president:

> President Lincoln's transcontinental railroad fueled the growth of a nation and a continent. President Eisenhower's interstate highway system drove the rise

[112] Jim Bourg, *One Issue Trump and Clinton Agree On*, The Atlantic (Aug. 16, 2016), at http://www.theatlantic.com/business/archive/2016/08/the-one-issue-where-trump-and-clinton-agree/496064/.

of the strongest middle class in history. President Roosevelt helped to build the Hoover Dam and power the rise of the American Southwest.

She lays out as follows her position that we are dramatically underinvesting in infrastructure:

> Today . . . we are dramatically underinvesting in our future. As a share of the economy, federal infrastructure investment is roughly half of what it was thirty-five years ago. Estimates of the size of our "infrastructure gap" register in the trillions of dollars. Workers can't get to work, congestion keeps parents stuck in traffic, floods threaten our cities, and airports leave travelers stranded for hours or even days at a time. Our small businesses, farmers, and manufacturers face highways, waterways, ports, and airports that make it harder for them to get their products to customers. Meanwhile, countries like China are racing ahead, building projects that will drive commerce and growth in the 21st century.

In elaborating on the rationale, she says:

> Investing in our infrastructure is about so much more than creating good-paying jobs: it's about maintaining our status as the world's economic superpower. That means making smart investments in ports, airports, roads, and waterways to address the key chokepoints for the movement of goods in our economy—connecting businesses and farmers to their suppliers and customers and enhancing U.S. competitiveness in the global economy. It means giving allAmerican households access to world-class broadband and creating connected "smart cities" with infrastructure that's part of tomorrow's Internet of Things. It means building airports and air traffic control systems that set the world standard for efficiency, reliability, and safety—saving time, money, and energy on every trip. It means a smart, resilient electrical grid that powers America's clean energy future. It means safe, smart roads and highways that are ready for the connected cars of tomorrow and the new energy sources that will power them. And it means changing the way we make our infrastructure investments—so that every dollar we spend goes further.

The Proposal. In outlining the general features of her proposal, she says that in her "first 100 days as president" she will:

> [W]ork with both parties to pass a comprehensive plan to create the next generation of good jobs. Now the heart of my plan will be the biggest investment in American infrastructure in decades, including establishing an infrastructure bank that will bring private sector dollars off the sidelines and put them to work there. . . .
>
> AS PRESIDENT, HILLARY WILL:
>
> - Repair and expand our roads and bridges. Hillary will make smart investments to improve our roads, reduce congestion, and slash the "pothole tax" that drivers silently pay each and every day.
> - Lower transportation costs and unlock economic opportunity by expanding public transit options. Hillary will encourage local governments to work with low-income communities to ensure unemployed and underemployed Americans are connected to good jobs.

- Connect all Americans to the internet. Hillary will work to ensure that by 2020, 100 percent of households in America will have access to affordable broadband. She will also invest new resources in bringing free Wi-Fi to public buildings and public transportation.
- Invest in building world-class American airports and modernize our national airspace system. These investments will reduce carbon emissions and save travelers and airlines an estimated $100 billion in avoided delays over the next 15 years.
- Build energy infrastructure for the 21st century. We can unlock America's clean energy potential by modernizing infrastructure like dams, levees, and wastewater systems—saving billions of gallons in clean drinking water and generating clean energy.

Moving to the specifics, she sets out the following direct spending and infrastructure bank goals and also says how she would pay for these proposals:

CLINTON IS ANNOUNCING A FIVE-YEAR $275 BILLION DOLLAR INFRASTRUCTURE PLAN.

Clinton would increase federal infrastructure funding by $275 billion over a five-year period, fully paying for these investments through business tax reform. Of these funds, she would allocate $250 billion to direct public investment. She would allocate the other $25 billion to a national infrastructure bank, dedicated to advancing our competitive advantage for the 21st century economy. The bank would leverage its $25 billion in funds to support up to an additional $225 billion in direct loans, loan guarantees, and other forms of credit enhancement—meaning that Clinton's infrastructure plan would in total result in up to $500 billion in federally supported investment. The bank would also administer part of a renewed and expanded Build American Bonds program, and would look for opportunities to work with partners in the private sector to get the best possible outcomes for the American people.

She points out that her plan will go beyond the FAST Act, discussed above.

2. Second, what does Senator Clinton say would be the likely impact on the economy through the multiplier effect of her infrastructure spending program?

Secretary Clinton provides the following predictions of the economic impact of her proposal, including, the impact on jobs and the impact on the growth of GDP from the multiplier effect of the spending:

CLINTON'S PLAN WOULD CREATE GOOD-PAYING JOBS TODAY AND DRIVE UP WAGES IN THE FUTURE.

According to the White House Council of Economic Advisers, every $1 billion in infrastructure investment creates 13,000 jobs. Moreover, the vast majority of the jobs created by infrastructure investment are good-paying, middle-class jobs — paying above the national median. And beyond creating good-paying jobs today, infrastructure investments promise to enhance the productivity of the American economy tomorrow — helping to boost the incomes of working Americans in the future. Every dollar of infrastructure investment leads to an

estimated $1.60 increase in GDP the following year and twice that over the subsequent 20 years.

S. What is Mr. Trump's proposal for infrastructure spending and what would be the likely impact on the economy through the multiplier effect?

1. First, what is Mr. Trump's infrastructure spending proposal?

Mr. Trump's website does not seem to have a separate section addressing infrastructure; however, Mr. Trump has supported an increase in infrastructure spending. For example, the Wall Street Journal reports:

> Mr. Trump has made a vast infrastructure investment program a major talking point in his speeches. He has promised a "trillion-dollar rebuilding program" to patch up roads, airports, bridges, water systems and the power grid. In a recent appearance in North Dakota, Mr. Trump said he would lift restrictions on energy production and use part of the resulting tax revenue to finance his infrastructure plan. He has also talked about setting up a fund where private investors could help finance projects.
>
> The Republican has also vowed to complete projects faster and for less money. His positions on infrastructure spending are largely in line with the rest of the Republican Party, which frequently calls for new investments without raising the gas tax, which pays for much of the federal infrastructure spending.[113]

2. Second, what does Mr. Trump say would be the likely impact on the economy through the multiplier effect of his infrastructure spending program?

Mr. Trump's proposal is not nearly as well developed as Senator Clinton's proposal, and he does not appear to have any specific projection of the economic impact of this proposal.

T. Is there a case for criticizing both Senator Clinton's and Mr. Trump's infrastructure spending plans?

In describing the infrastructure spending plans of Senator Clinton and Mr. Trump, an article in Politico explains:

> Ask Congress watchers what major legislation is most likely to pass under the next administration, one answer always comes up: infrastructure investment. It is one of the few issues the two presidential candidates appear to agree on: Both Hillary Clinton and Donald Trump argue that the country's dilapidated roads,

[113] David Harrison, *Infrastructure, Clinton v. Trump, Where They Stand on Economic Policy Issues*, Wall Street Journal, visited Sept 24, 2016, at http://graphics.wsj.com/elections/2016/donald-trump-hillary-clinton-on-the-economy/.

> bridges and airports need rebuilding. Both candidates also say those programs will create many new jobs, putting construction workers back to work.[114]

However, the article asserts for the following reasons that because of the current state of the construction labor market it could be imprudent to undertake such a large increase in infrastructure spending:

> Unemployment is low and wages have even started rising. Instead of creating thousands of jobs, experts now warn that a new infrastructure investment could face the exact opposite challenge: a labor shortage.
>
> "Clearly, there aren't as many players on the bench as there were," said Ken Simonson, the chief economist for the Associated General Contractors of America. "To the extent that more were needed, the industry would be turning to people with less experience or perhaps having to raise compensation." . . .
>
> [T]he construction industry has slowly recovered as the housing sector has picked up, undermining the case for infrastructure investment as fiscal stimulus. Unemployment in the construction industry in June was down to 4.6 percent, the lowest it's been since 2000. Compensation has started rising as well, hitting 2.5 percent in the second quarter of this year—not a rapid improvement but its highest level since 2008. Job openings in the construction industry are also nearing their pre-recession peak. Headlines now repeatedly warn of a shortage in construction workers. [115]

The article goes on to point out that many of the proponents of infrastructure spending, including Lawrence Summers, the former Secretary of the Treasury in President Clinton's Administration and the Chairman of the National Economic Council in President Obama's Administration, argue that the focus should be on the long-term benefits of such spending and not the short-term stimulus benefit. The article explains:

> Proponents of a big infrastructure plan brush off these [tight employment] numbers. The real value in infrastructure investment is not the short-term jobs, they say, but the long-term economic benefits from reduced commute times, safe drinking water and improved productivity. Plus, if the government does face a labor shortage, wages will rise and workers in other industries will switch to construction.[116]
>
> [E]xperts agree that the long-term effects of a major infrastructure bill are positive. Interest rates remain extraordinarily low, although they may rise in the coming months as the Federal Reserve hikes rates. Commodities like concrete, gas and steel are inexpensive, although those prices may tick back up as well. Private investment in construction projects is strong.[117]

The article also points out that one of the biggest concerns with any large infrastructure program is that it may be delayed because of a labor shortage. However, on the other hand, the article points out that "many economists [are] nervous that a recession could hit during the next president's first term[,] and [if] that occurs, a large

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[114] Danny Vinik, *The problem with Clinton and Trump's infrastructure plans*, Politico (Aug. 8, 2016), at http://www.politico.com/agenda/story/2016/08/clinton-trump-infrastructure-construction-workers-000183.
[115] *Id*.
[116] *Id*.
[117] *Id*.

infrastructure program could be ramping up just as the construction industry hits a downturn and more workers find themselves jobless."[118]

U. What is my take on the candidates' proposals on infrastructure spending?

Both Senator Clinton and Mr. Trump support more spending on infrastructure. However, Senator Clinton's proposals are more specific. In my judgment, there is a critical need for more spending on infrastructure. Further, given the continued slack in the economy, a significant increase in infrastructure spending is unlikely to result in harmful inflation. However, even if the slack in the economy is eliminated, there is still a strong case for spending on infrastructure, for do we as a country let our roads, bridges, water treatment plants, and other critical infrastructure systems atrophy for fear that improving them may increase inflation in the labor market? I think not! As Professor Krugman says: "To provide good infrastructure an economy must not only be able to afford it, but it must also have the political discipline to maintain it."[119]

V. What is the politics behind Senator Clinton's and Mr. Trump's infrastructure spending proposals and are we likely to get an increase in such spending?

An article in the Atlantic makes the following observation about the politics of the infrastructure spending issue:

> Trump and Clinton's rare political kumbaya is almost certain to be wasted, not because of economics, but because of politics. The Republican-led Congress has made abundantly clear their preferential direction on federal infrastructure spending: down. The caucus has refused to raise revenue for infrastructure spending, so that as a share of GDP, money for bridges, roads, ports, and so on has fallen to a 30 year low on their watch. The Obama administration has repeatedly proposed infrastructure mini-stimuli, and the GOP House has repeatedly stiff-armed them.
>
> The party of Eisenhower and Reagan ought to know better. The former general oversaw the establishment of one the most expensive national infrastructure projects ever, the interstate highway system, while the latter raised taxes to pay for bridges and highways, seeing America's transportation strength as a matter of national revitalization. Things have gotten quite bad in Washington when Trump's policy chops are making a group of professional politicians look ridiculous.[120]

Notwithstanding this pessimistic evaluation of the current political scene, in 2015, Congress did pass the FAST Act, which is discussed above, and my sense is that since both Secretary Clinton and Mr. Trump support an increase in infrastructure spending, it is likely that Congress will in fact increase such spending.

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[118] *Id*.

[119] Krugman and Wells, *Macroeconomics Fourth*, *infra* Bibliography at 260

[120] Jim Bourg, *One Issue Trump and Clinton Agree On*, The Atlantic (Aug. 16, 2016), at http://www.theatlantic.com/business/archive/2016/08/the-one-issue-where-trump-and-clinton-agree/496064/.

CHAPTER 11, HOW DO INTERNATIONAL TRADE AND INVESTMENT AFFECT ECONOMIC GROWTH, AND WHAT WOULD BE THE IMPACT OF THE TRADE PROPOSALS OF SECRETARY CLINTON AND MR. TRUMP?

A. What is in this Chapter?

This chapter analyzes four broad issues: (1) the benefits of international trade, including U.S. activities in promoting international trade; (2) exchange rates and their impact on international trade and investment; (3) the balance of payments, which is the method of accounting for international trade and investment; and (4) the determinants of the net exports component of GDP and the role of this component in promoting economic growth.

The chapter also takes a look at (1) the North American Free Trade Agreement (NAFTA), which came into effect in the 1990's during the administration of President Bill Clinton, and (2) the Trans-Pacific Partnership (TPP), which is currently (October 2016) being considered by the Senate. Further, this chapter examines the positions of Secretary Clinton and Mr. Trump on these and other trade deals.

Before digging into these topics, we first take a look at the concept of globalization and the domestic and international organizations that deal with international trade issues.

B. Is globalization a new concept?

Globalization posits that the world is interconnected and is becoming increasingly so. However, this is not a new concept. Indeed, prior to World War I, because of low trade and other barriers, there were "large cross-border flows of goods, capital and people."[121] As discussed below, several international and domestic organizations focus on promoting cross-border flows of goods and capital.

C. What is the World Trade Organization?

The U.S. and other nations are members of the World Trade Organization (WTO), the purpose of which is to promote international trade through the lowering of trade barriers. The WTO provides the following description of its activities:

> There are a number of ways of looking at the World Trade Organization. It is an organization for trade opening. It is a forum for governments to negotiate trade agreements. It is a place for them to settle trade disputes. It operates a system of trade rules. Essentially, the WTO is a place where member governments try to sort out the trade problems they face with each other.
>
> The WTO was born out of negotiations, and everything the WTO does is the result of negotiations. The bulk of the WTO's current work comes from the 1986–94 negotiations called the Uruguay Round and earlier negotiations under the General Agreement on Tariffs and Trade (GATT). The WTO is currently the host to new negotiations, under the 'Doha Development Agenda' launched in 2001.
>
> Where countries have faced trade barriers and wanted them lowered, the negotiations have helped to open markets for trade. But the WTO is not just about

[121] Baumol and Binder, *Economics 2009*, *infra* Bibliography, at 724.

opening markets, and in some circumstances its rules support maintaining trade barriers — for example, to protect consumers or prevent the spread of disease.

At its heart are the WTO agreements, negotiated and signed by the bulk of the world's trading nations. These documents provide the legal ground rules for international commerce. They are essentially contracts, binding governments to keep their trade policies within agreed limits. Although negotiated and signed by governments, the goal is to help producers of goods and services, exporters, and importers conduct their business, while allowing governments to meet social and environmental objectives.

The system's overriding purpose is to help trade flow as freely as possible — so long as there are no undesirable side effects — because this is important for economic development and well-being. That partly means removing obstacles. It also means ensuring that individuals, companies and governments know what the trade rules are around the world, and giving them the confidence that there will be no sudden changes of policy. In other words, the rules have to be 'transparent' and predictable.

Trade relations often involve conflicting interests. Agreements, including those painstakingly negotiated in the WTO system, often need interpreting. The most harmonious way to settle these differences is through some neutral procedure based on an agreed legal foundation. That is the purpose behind the dispute settlement process written into the WTO agreements.[122]

D. What is the International Monetary Fund?

The Web site of the International Monetary Fund (IMF) gives the following description of its purposes and organizational structure:

The IMF works to foster global growth and economic stability. It provides policy advice and financing to member [countries] in economic difficulties and also works with developing nations to help them achieve macroeconomic stability and reduce poverty.

The IMF promotes international monetary cooperation and exchange rate stability, facilitates the balanced growth of international trade, and provides resources to help members in balance of payments difficulties or to assist with poverty reduction.[123]

As discussed later in this chapter, the IMF provided monetary assistance to Greece and other European countries that faced a financial crisis in 2011 and 2012.

E. What is the World Bank?

The World Bank is an organization that is based in Washington D.C., and its website explains that it has two goals for the world to achieve by 2030:

- End extreme poverty by decreasing the percentage of people living on less than $1.90 a day to no more than 3%

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[122] WTO, Who We Are, at https://www.wto.org/english/thewto_e/whatis_e/who_we_are_e.htm (Oct. 17, 2016).

[123] International Monetary Fund, *Overview*, at http://www.imf.org/external/about/overview.htm (April 23, 2012).

- Promote shared prosperity by fostering the income growth of the bottom 40% for every country.

The World Bank provides financial and technical assistance to developing countries around the world. It describes its "Financial Products and Services" as follows:

> We provide low-interest loans, zero to low-interest credits, and grants to developing countries. These support a wide array of investments in such areas as education, health, public administration, infrastructure, financial and private sector development, agriculture, and environmental and natural resource management. Some of our projects are cofinanced with governments, other multilateral institutions, commercial banks, export credit agencies, and private sector investors.
>
> We also provide or facilitate financing through trust fund partnerships with bilateral and multilateral donors. Many partners have asked the Bank to help manage initiatives that address needs across a wide range of sectors and developing regions.

Thus, the World Bank is focused on economic development in the developing world, and it is not addressed further in this book.

F. What is the Office of the U.S Trade Representative (USTR)?

The Office of the U.S. Trade Representative (USTR) is responsible for developing and coordinating U.S. international trade, commodity, and direct investment policy, and overseeing negotiations relating to these matters with other countries.[124] The head of the USTR is a member of the President's Cabinet. The Mission Statement of the USTR explains:

> American trade policy works toward opening markets throughout the world to create new opportunities and higher living standards for families, farmers, manufacturers, workers, consumers, and businesses. The United States is party to numerous trade agreements with other countries, and is participating in negotiations for new trade agreements with a number of countries and regions of the world.
>
> The Office of the U.S. Trade Representative (USTR) is responsible for developing and coordinating U.S. international trade, commodity, and direct investment policy, and overseeing negotiations with other countries. . . . Through an interagency structure, USTR coordinates trade policy, resolves disagreements, and frames issues for presidential decision. . . .
>
> USTR provides trade policy leadership and negotiating expertise in its major areas of responsibility, including:
>
> - Bilateral, regional and multilateral trade and investment issues.
> - Expansion of market access for American goods and services.
> - International commodity agreements.
> - Negotiations affecting U.S. import policies . . . .
> - Trade, commodity, and direct investment matters managed by international institutions such as the Organization for Economic

[124] Mission of the USTR, at http://www.ustr.gov/about-us/mission, (April 18, 2012).

Cooperation and Development (OECD) and the United Nations Conference on Trade and Development (UNCTAD).

- Trade-related intellectual property protection issues.
- World Trade Organization (WTO) issues.[125]

The U.S. Congress established several private sector advisory committees to advise the USTR on the impact U.S. trade policy has on U.S. commercial and economic interests. Among other things, the committees prepare reports on proposed trade agreements.

G. What is the role of the U.S. Department of Commerce in international trade?

Issues involving the imposition by the U.S. of tariffs, which are taxes on imports, and other import issues are the responsibility of the Import Administration of the International Trade Administration (ITA) of the Department of Commerce. The ITA's website contains the following description of its purpose and the functions of the Import Administration:

> Unfair foreign pricing and government subsidies distort the free flow of goods and adversely affect American business in the global marketplace. When that happens, the International Trade Administration can take enforcement actions. ITA's Import Administration is the agency's lead unit on enforcing trade laws and agreements to prevent unfairly traded imports and to safeguard jobs and the competitive strength of American industry. [The ITA works] to resolve disputes [and implement] measures when violations are found . . . The primary role of Import Administration is to enforce effectively the U.S. unfair trade laws (i.e., the anti-dumping and countervailing duty laws) and to develop and implement other policies and programs aimed at countering foreign unfair trade practices.[126]

H. What is the U.S. International Trade Commission?

The website of the U.S. International Trade Commission describes its role as follows:

> The United States International Trade Commission (USITC) is an independent, quasijudicial Federal agency with broad investigative responsibilities on matters of trade. The agency investigates the effects of dumped and subsidized imports on domestic industries and conducts global safeguard investigations. The Commission also adjudicates cases involving imports that allegedly infringe intellectual property rights. Through such proceedings, the agency facilitates a rules-based international trading system. The Commission also serves as a Federal resource where trade data and other trade policy-related information are gathered and analyzed. The information and analysis are provided to the President, the Office of the United States Trade Representative (USTR), and Congress to facilitate the development of sound and informed U.S. trade

[125] *Id*.
[126] International Trade Administration, Import Administration, at http://trade.gov/ia/ (April 22, 2012).

policy. The Commission makes most of its information and analysis available to the public to promote understanding of international trade issues.
The mission of the Commission is to (1) administer U.S. trade remedy laws within its mandate in a fair and objective manner; (2) provide the President, USTR, and Congress with independent analysis, information, and support on matters of tariffs, international trade, and U.S. competitiveness; and (3) maintain the Harmonized Tariff Schedule of the United States (HTS).

I. What is the basic economic case in support of international trade?

We should favor international trade for the same reason we favor trade generally: because both parties to the trade benefit. This is known as the principle of mutual gains from trade, which means that since the parties to a voluntary trade end up with the desired product, there is a redistribution of products that results in both parties ending up with a more desirable product than they held before the trade. Thus, trade facilitates the movement of products to their highest and best use and, therefore, promotes economic efficiency.

Also, because no country has all of the natural assets its people need in just the right proportions, it is economically efficient for countries to trade with each other to remedy such overages or shortages. For example, assume that good X can be produced more efficiently in France than in the U.S. and that France can produce more of good X than the French people can consume. Also assume that good Y can be produced more efficiently in the U.S. than in France and that the U.S. can produce more of good Y than the U.S. people can consume. In this case, it obviously makes sense for France to sell good X in the U.S. and for the U.S. to sell good Y in France.

While this "win-win" situation presents an easy case in support of international trade, support also comes from the less obvious law of comparative advantage, which is discussed in the next section.

J. What is the law of comparative advantage?

The law of comparative advantage provides a clear theoretical justification for the principle that both countries to international trade generally benefit, which means that there are mutual gains from international trade. It is possible that one country, say the U.S., will have an absolute advantage over another country, say Brazil, in producing two different products, such as manufacturing telephones and manufacturing tables. This means that the U.S. can manufacture both telephones and tables more efficiently, that is, with less labor, capital, and technical resources, than Brazil.

Although the U.S. has this absolute advantage in both telephones and tables, assume that Brazil is more efficient in manufacturing one of these products than the other. For example, assume that Brazil is more efficient in manufacturing tables than telephones, and therefore, the U.S. has a greater efficiency lead over Brazil in manufacturing telephones than it has in manufacturing tables. In this situation, the U.S. has what is known as a comparative advantage over Brazil in the production of telephones relative to tables. Assume further that the output of telephones and tables by the U.S. and Brazil in a one-year period from the same amount of labor, capital, and

technical know-how (that is, from $1 billion of these inputs) would be as set out in Table 11-A.

Table 11-A
A Year's Production of Telephones and Tables by U.S. and Brazil from $1 billion of Labor, Capital, and Technical Inputs

Product	**U.S.**	**Brazil**
Telephones	50M	10M
Tables	50M	25M

Thus, Table 11-A shows that in the U.S. $1 billion of labor, capital and technical inputs can produce in one year either 50 million telephones or 50 million tables. On the other hand, in Brazil, $1 billion (in equivalent Brazilian currency) of these same inputs can produce in one year either 10 million telephones or 25 million tables. Thus, the U.S. has an absolute advantage over Brazil in the production of both telephones and tables. However, the U.S. has a greater comparative advantage in producing telephones, that is, Brazil can produce tables more efficiently than it can produce telephones relative to the U.S. In other words, the U.S. is five times more efficient than Brazil in producing telephones, but only twice as efficient as Brazil in producing tables.

Now assume further that the U.S. and Brazil are trying to decide how to allocate the $1 billion of these resources and want to do so to maximize the joint production of telephones and tables. A little arithmetic will show that joint production is maximized if the U.S. concentrates on manufacturing telephones and Brazil concentrates on manufacturing tables. This reasoning leads to the law of comparative advantage, which holds that when every country does what it can do best relative to other countries, all countries will benefit because more of every commodity can be produced with a given amount of inputs, and thus, worldwide economic efficiency is attained.

K. What does the U.S. Trade Representative (USTR) say are the benefits of trade?

The USTR points out that the U.S. is both the world's largest economy and the world's largest exporter and importer of goods and services. The USTR says:

> Trade is critical to America's prosperity - fueling economic growth, supporting good jobs at home, raising living standards and helping Americans provide for their families with affordable goods and services.
>
> The U.S. is the world's largest trading nation, with exports of goods and services of nearly $2.3 trillion in 2013.
>
> • U.S. goods and services exports supported an estimated 11.3 million jobs in 2013.
> • Every billion dollars of goods and services exports supported nearly an estimated 5,600 jobs in 2013. Every billion dollars of goods exports supported more than 5,400 jobs in 2013. Every billion dollars of services exports supported more than 5,900 jobs in 2013.
> • An estimated 25 percent of all manufacturing jobs are supported by exports.
> • U.S. agricultural exports supported an estimated 929 thousand jobs on and off the farm in 2012 (latest data available).
> • Every billion dollars of U.S. agricultural exports in 2012 (latest data available) required 6,577 American jobs throughout the economy.

• US jobs supported by goods exports pay 13-18 percent more than the US national average.
• Exports of goods and services full year share of U.S. GDP at 13.45 percent in 2013.

Trade expansion benefits families and businesses by:

• Supporting more productive, higher paying jobs in our export sectors
• Expanding the variety of products for purchase by consumers and business
• Encouraging investment and more rapid economic growth

Trade keeps our economy open, dynamic, and competitive, and helps ensure that America continues to be the best place in the world to do business.[127]

L. How could the U.S. reduce imports through the use of tariffs and quotas?

Countries have a variety of ways of interfering with international trade. First, a country can impose a tariff, which is a tax on imports. Second, a country can impose a quota, which is a number limit on imports. The Department of Commerce provides the following guidance on tariffs:

> A tariff or duty (the words are used interchangeably) is a tax levied by governments on the value including freight and insurance of imported products. Different tariffs are applied on different products by different countries. The average duty worldwide is about 5 percent. National sales and local taxes, and in some instances customs fees, will often be charged in addition to the tariff. The tariff, along with the other assessments, is collected at the time of customs clearance in the foreign port.[128]

The U.S. has a combined tariff and quota system (*i.e.*, a tariff-rate quota) governing the importation into the U.S. of sugar and sugar products. The U.S. Department of Agriculture (USDA) describes this system as follows:

> *Sugar Import Program*. Imports of sugar into the United States are governed by tariff-rate quotas (TRQs), which allow a certain quantity of sugar to enter the country under a low tariff. TRQs apply to imports of raw cane sugar, refined sugar, sugar syrups, specialty sugars and sugar-containing products. Import restrictions are intended to meet U.S. commitments under the North American Free Trade Agreement (NAFTA) [see the discussion *infra* of NAFTA] and the Uruguay Round Agreement on Agriculture (which resulted in the creation of the World Trade Organization).
>
> USDA establishes the annual quota volumes for each federal fiscal year (beginning October 1) and the U.S. Trade Representative allocates the TRQs among countries. Sugar and related products paying a higher, over-quota tariff may enter the country in unlimited quantities.[129]

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[127] Office of U.S. Trade Representative, at https://ustr.gov/about-us/benefits-trade (Oct. 17, 2016).
[128] Department of Commerce, *Tarriffs and Import Fees*, at http://export.gov/logistics/eg_main_018130.asp (April 23, 2012).
[129] U.S. Department of Agriculture, *U.S. Sugar Import Program*, at http://www.fas.usda.gov/programs/sugar-import-program (Oct 19, 2016).

The U.S. imposes both tariffs and quotas on many products. For example, in March 2002, President Bush imposed a tariff on the import of certain steel products. As explained by the U.S. Trade Representative's Office (USTR), the tariffs (that is, "safeguard measures") were imposed after a finding by the International Trade Commission (ITC) that "increased imports of eight [steel] products caused serious injury to the domestic [steel] industry producing a like or directly competitive product."[130] The USTR went on to explain: "A safeguard measure may be applied 'to prevent or remedy serious injury and to facilitate adjustment,'" and that the U.S. "may choose any form for the measure – for example, a tariff, tariff-rate quota, or quantitative restriction."[131]

Significant political implications can impact the decisions to impose tariffs and quotas. For instance, President Bush decided to repeal most of the tariffs on imported steel, after the European Union threatened to impose sanctions on orange juice and other citrus products from Florida, a key political battleground state.[132] However, by doing so President Bush risked political backlash in other key battleground states, such as Pennsylvania, Ohio, and West Virginia, which are heavy steel-producing states.[133]

M. What are anti-dumping, anti-subsidies, and countervailing duties (CVDs)?

In the context of international trade, dumping involves a sale of a product by a company organized in one country (Country S) to customers in another country (Country P), where (1) the price is lower than a price that would otherwise prevail in the marketplace, or (2) the quantity is more than would otherwise prevail in the marketplace. For example, the price might be below the seller's cost of producing the product, which would be a sign of predatory pricing. Although such sales may temporarily benefit the customers in Country P, the sales also harm the competitors of the seller located in Country P and could put them out of business. This would then allow the selling company to engage in monopolistic pricing.

The World Trade Organization (WTO) provides the following basic definition of dumping and describes the permissible anti-dumping steps a country, like Country P, may take:

> If a company exports a product at a price lower than the price it normally charges on its own home market, it is said to be "dumping" the product. Is this unfair competition? The WTO agreement does not pass judgment. Its focus is on how governments can or cannot react to dumping — it disciplines anti-dumping actions, and it is often called the "Anti-dumping Agreement".[134]

A governmental subsidy can have a similar economic effect to dumping. For example, a subsidy provided by Country S to its companies that are manufacturing a

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[130] U.S. Trade Representative's Office, *United States – Definitive Safeguard Measures On Imports of Certain Steel Products, Executive Summary* (October 10, 2002), at www.ustr.gov.
[131] *Id*.
[132] Mike Allen, *President to Drop Tariffs on Steel*, Washington Post, at www.washingtonpost.com, (December 1, 2002).
[133] *Id*.
[134] World Trade Organization, *Anti-dumping*, at http://www.wto.org/english/tratop_e/adp_e/adp_e.htm (April 23, 2012).

product can permit the companies to sell the product in Country P at a price that is lower than the price that would prevail in the marketplace in the absence of the subsidy.

Countervailing duties (CVDs) are measures that Country P can take to counteract dumping and subsidies. The WTO provides the following basic guidance on subsidies and CVDs:

> The WTO Agreement on Subsidies and Countervailing Measures disciplines the use of subsidies, and it regulates the actions countries can take to counter the effects of subsidies. Under the agreement, a country can use the WTO's dispute-settlement procedure to seek the withdrawal of the subsidy or the removal of its adverse effects. Or the country can launch its own investigation and ultimately charge extra duty ("countervailing duty") on subsidized imports that are found to be hurting domestic producers.[135]

N. What CVD action was taken by the Department of Commerce in March 2012 against the importation of Chinese solar panels?

On March 20, 2012 the Department of Commerce (DOC) announced its preliminary decision in the countervailing duty (CVD) investigation of imports of solar panels from China.[136] The DOC explained that "countervailable subsidies are financial assistance from foreign governments that benefit the production of goods from foreign companies . . . ." These subsidies are "limited to specific enterprises or industries, or are contingent either upon export performance or upon the use of domestic goods over imported goods." The DOC "preliminarily determined that Chinese producers/exporters have received countervailable subsidies ranging from 2.90 to 4.73 percent." The DOC further explained as follows its decision to impose a CVD:

> As a result of this preliminary determination, Commerce will instruct U.S. Customs and Border Protection to collect a cash deposit or bond based on these preliminary rates, applicable to all entries of Chinese solar cells made up to 90 days prior to the preliminary determination.

The DOC explained that its decision was the result of a petition filed by SolarWorld Industries America Inc. of Oregon.

O. Does the U.S. restrict foreign ownership of U.S. businesses?

In general, the U.S. does not impose restrictions on foreign ownership of U.S. businesses. However, there are certain restrictions on foreign ownership of U.S. airlines and U.S. communications that are regulated by the Federal Communications Commission. Also, under the rules of the Committee on Foreign Investment in the U.S.

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[135] World Trade Organization, *Subsidies and countervailing measures*, at http://www.wto.org/english/tratop_e/scm_e/scm_e.htm (April 23, 2012).

[136] Department of Commerce, ITA, *FACT SHEET, Commerce Preliminarily Finds Countervailable Subsidization of Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules from the People's Republic of China* (March 20, 2012).

(CFIUS), a U.S. Federal law, restrictions can be imposed on the foreign ownership of a U.S. business that is important for national security.

The CFIUS law was strengthened as a result of efforts by (1) the China National Offshore Oil Corporation (CNOOC) to acquire Unocal, a U.S. oil company, and (2) Dubai Ports World to acquire a British corporation that operated U.S. ports. Both of these transactions were abandoned.

P. How could the U.S. support exports?

Countries can adopt policies to encourage exports. For example, the U.S. adopted the Extraterritorial Income Exclusion (ETI) provisions of the federal tax code, which provided tax benefits for certain export activity. The World Trade Organization (WTO) found that the ETI was a violation of the WTO rules and authorized certain countries to impose compensating tariffs on U.S. imports. As a result, Congress repealed the ETI for transactions entered into after December 31, 2004.

In 1973, a *President's Export Council* was established, which is the "principal national advisory committee on international trade."[137] The purpose of the Council is to advise the President on government policies and programs that will "promote trade performance" and "expand exports." The Council has 28 private sector members appointed by the President.

Q. What are exchange rates?

An exchange rate (ER) is the price in terms of one currency, for example, the dollar, at which another currency (for example, the euro, which is used by many European countries including France and Germany) can be bought. For most currencies, by convention, the ER is quoted in terms of the number of foreign currency per U.S. dollar; however, for both the euro and the U.K. pound, by convention, the ER is stated as the number of U.S. dollars per unit of foreign currency, that is, per euro or pound.

For example, on October 19, 2016, (1) the euro was at approximately 1.2 U.S. dollars (that is, it would take $1.1 to buy one euro), and (2) the U.K. pound was at approximately 1.2 U.S. dollars (that is, it would take approximately $1.2 to buy one U.K. pound). On the other hand, the dollar was at approximately .9 Swiss francs (that is, it would take approximately .9 Swiss francs to purchase one U.S. dollar).

Interestingly, when the previous edition of this book was published in 2012, it would have taken (1) $1.3 to buy one euro, (2) $1.6 to buy one U.K. pound, and (3) .9 Swiss francs to purchase one U.S. dollar. Thus, as discussed below, between 2012 and 2016, the dollar has appreciated against the euro and the U.K. pound, and remained constant against the Swiss franc.

The Wall Street Journal publishes daily, under the heading "Key Currency Cross Rates," the ERs of various major currencies against each other. Also the Wall Street Journal publishes daily under the heading "Exchange Rates" the ERs between the dollar and many of the world's currencies in terms of both the amount of foreign currency per dollar and the amount of dollars per unit of foreign currency.

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[137] The White House, *About the President's Export Council*, at http://trade.gov/pec/about.asp (April 10, 2012).

R. How are exchange rates determined?

Many currencies are allowed to trade freely in the foreign exchange market, that is, are allowed to float. Other currencies are traded at an official exchange rate. Between these two extremes, some currencies, such as the Chinese renminbi, which is also known as the yuan, trade within a band relative to a currency or basket of currencies determined by the government. The renminbi, for example, trades within a band relative to the dollar as determined by the Chinese government.

S. How is the exchange rate for the Chinese yuan determined?

The Wall Street Journal gives the following explanation of the April 2012 modification in the yuan's trading range:

> The People's Bank of China said [that] it would widen the yuan's daily trading band against the dollar to 1% above and below the central parity, a daily reference exchange rate, from 0.5% previously. It last expanded the dollar/yuan trading band from 0.3% in May 2007.[138]

The *2016 Economic Report of the President* discusses as follows, recent developments with China's exchange rate policy:

> China's currency policies also underwent noteworthy changes in 2015. China maintains a narrow trading band with respect to the U.S dollar. Market pressure forced the renminbi (RMB) toward the weak edge of its trading band during much of 2014 and the first half of 2015 (see Figure 3-10). On August 11, the People's Bank of China decided to adopt a new scheme in determining its reference rate, basing it on the RMB's previous closing and allowing a plus or minus a 2 percent trading band, accompanied by a depreciation of the RMB. This shift came amidst, and may have contributed to, global market volatility in August. Between August 10 and the end of 2015, the cumulative depreciation in the spot rate was 4.6 percent against the dollar. Since August, the authorities have sold foreign exchange to support the RMB, as the market was surprised by the sudden depreciation, exchange rate expectations reset, and private capital outflows continued. The end of 2015 and start of 2016 has also seen renewed discussion of the value of the RMB versus a basket of currencies—not just the U.S. dollar—as well as greater volatility in the exchange rate. Clear communication by China of its policies and actions to the market as it makes an orderly transition to a market-determined exchange rate will help guide market expectations.[139]

And, in March 2016, CNBC described as follows action by China's central bank in guiding the yuan higher against the dollar:

> The People's Bank of China (PBOC) set the mid-point of the dollar-yuan trading band at 6.4905, its strongest level so far this year. The pace of the increase versus the previous day's fix was the fastest since November last year.

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[138] Esther Fung, *Yuan Rises Against Dollar*, at http://blogs.wsj.com/marketbeat/2012/04/17/yuan-rises-against-dollar/tab/print/ (April 17, 2012).

[139] *2016 Economic Report of the President*, *infra* Bibliography at 140-143.

Friday's fix compares with the onshore spot trade close of 6.5075 Thursday. China's central bank lets the yuan spot rate rise or fall a maximum of 2 percent against the dollar relative to the official fixing rate.[140]

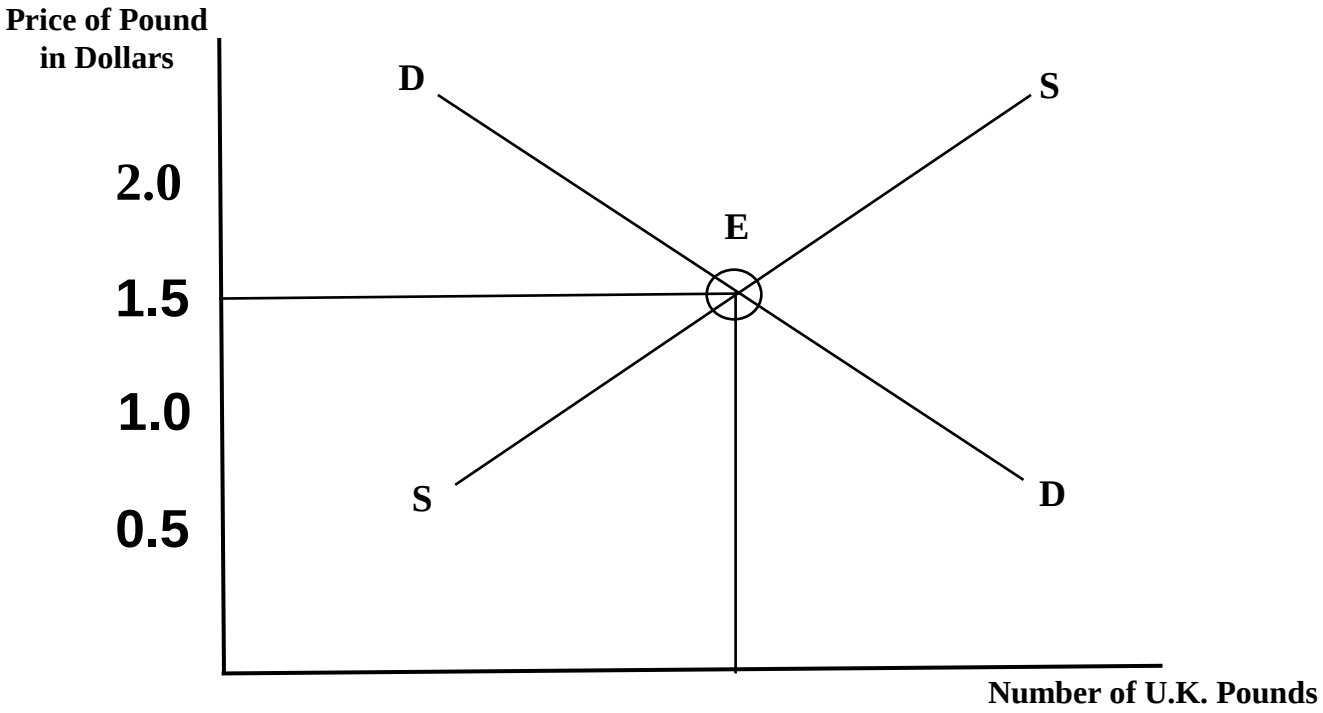
As this chapter is being written on October 17, 2016 the dollar-yuan exchange rate is 6.7 yuan per dollar, which means that between March 2016 and October 2016, the yuan depreciated against the dollar, which appreciated against the yuan.

T. How is the exchange rate of a floating currency determined?

The foreign exchange market is made up of a large number of banks, other financial institutions, and foreign currency dealers and brokers that trade currencies electronically. ERs for currencies that float, such as the U.S. dollar, are determined in this free market by the law of supply of a currency and the demand for a currency. This is illustrated in Graph 11-A.

[140] CNBC, *Why China fixed the yuan higher against the dollar* http://www.cnbc.com/2016/03/11/china-renminbi-yuan-jumps-against-dollar-in-pboc-fixing.html (March 11, 2016).

Graph 11-A,
Illustration of the Supply and Demand for the U.K. Pound



In Graph 11-A, if the ER were below the equilibrium point of $1.5 per pound (say the ER was $1 per pound), then the quantity of pounds demanded by U.S. businesses and individuals would exceed the quantity supplied by U.K. businesses and individuals. This conclusion is reached through the following logic: If, for example, $1 would buy one U.K. pound instead of the equilibrium $1.50 per pound, U.K. goods and services would become much cheaper for Americans and they would want to convert more dollars to pounds so they could make extra purchases. However, the number of pounds supplied by U.K. businesses and individuals would fall dramatically, and as a consequence, the price would rise.

On the other hand, if the price exceeded the equilibrium price of $1.50 (say the ER was $2 per pound), the cost of U.K. goods and services would be higher, and therefore, there would be a reduction in the number of pounds demanded by U.S. businesses and individuals (that is, the higher the price of pounds the lower the amount demanded). At the same time, U.K. businesses would want to supply more pounds than were demanded and the price would have to fall to the equilibrium price.

U. What are the foreign currency futures and forward markets?

In addition to the foreign currency market itself, foreign currency futures and forward contracts are traded. Futures are traded on organized commodities exchanges, and forward contracts are traded in an informal market. These are transactions in which currencies are traded for delivery at a future date. For example, if a U.S. firm realizes that it will have to pay a million euros three months from today at the time it takes delivery from a French manufacturer, it can enter into a futures or forward contract to buy a million euros three months from today at a particular exchange rate. As a consequence, the firm can eliminate the exchange rate risk in the transaction. Similarly, if a U.S. firm will be receiving a payment of a million euros three months from now, it could enter into a futures or forward contract to sell a million euros three months from now at a specified exchange rate and thus eliminate the foreign exchange risk in the transaction.

V. What factors (e.g foreign portfolio investment and foreign direct investment) determine supply and demand for a floating currency?

Demand for a floating currency, for example, the U.K. pound, comes from at least the following factors: First, demand for pounds comes from international trade in U.K. goods and services. For example, demand by U.S. consumers for U.K. products will lead to a demand from U.S. import businesses for the U.K. pounds needed to purchase the U.K. products.

Second, demand for pounds comes from international trade in U.K. financial instruments like stocks and bonds. For example, if Americans want to buy U.K. stocks and bonds, they will have to first purchase the U.K. pounds needed to purchase the U.K stocks. Thus, demand for U.K. financial assets leads to a demand for pounds. This type of investment in the securities of a U.K. business that is not controlled by the foreign investor is known as foreign portfolio investment. Thus, demand for a country's currency comes from the desire by foreign investors to make foreign portfolio investments in the country.

Third, demand for pounds comes from the purchase by foreigners of U.K. physical assets like factories and machinery and of U.K. stocks where the purchaser owns at least 10% of the stock. This type of investment is referred to as foreign direct investment. For example, when Ford purchased all of the stock of the U.K. Jaguar company for cash, a classic foreign direct investment, Ford first had to purchase the U.K. pounds needed to pay for the stock of Jaguar. Thus, this transaction obviously increased the demand for U.K. pounds.

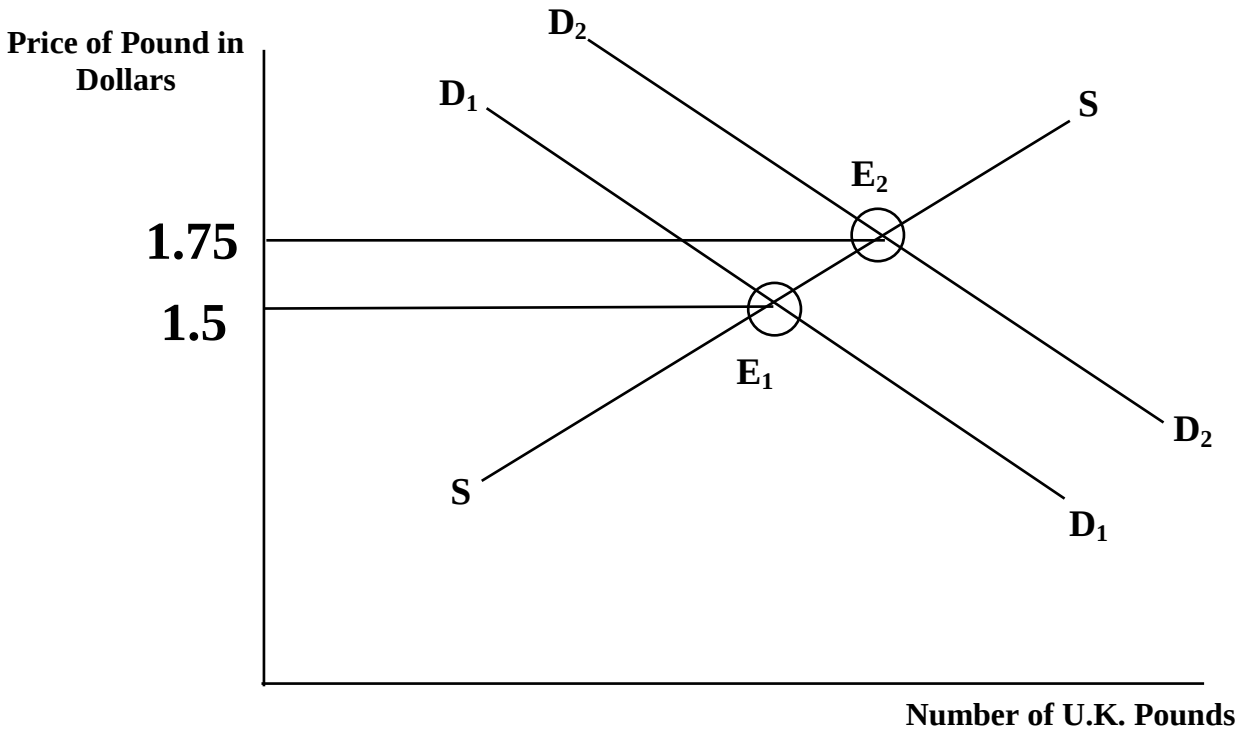
Fourth, demand for pounds comes from currency speculators who think that pounds are undervalued relative to other currencies and, therefore, want to buy pounds in anticipation of a price increase. Speculators may also think that the pound is overvalued relative to other currencies, in which case the speculators would sell pounds in anticipation of the price decrease.

Fifth, the demand for pounds comes from an increase in the U.K. interest rate, which will result in an increase in purchases of U.K debt instruments by foreign investors who want to take advantage of the higher interest rates.

The supply of a country's currency (for example, the U.S. dollar) comes from the need by a country's people and businesses for another country's (*i.e.*, the U.K.) currency. Thus, for example, in each of the cases above involving the demand for U.K. pounds by (1) U.S. import businesses, (2) U.S investors making foreign portfolio investments in U.K. securities, and (3) U.S. firms making foreign direct investments in U.K. companies, the U.S party was supplying dollars. Thus, a party participating in a foreign currency transaction (for example, Ford buying U.K pounds) both (1) adds to the market demand for the currency being purchased (the U.K. pound), and (2) adds to the market supply of the currency used to make the purchase (the U.S. dollar).

As with all demand curves (see Chapter 2 for a general discussion of supply and demand curves), the demand curve above for pounds is drawn on the assumption that all relevant factors, such as the foreign demand for the currency, are constant. However, assume that, for example, the principal trading partners with the U.K. experience a significant increase in economic growth that leads to a significant increase in the demand for U.K goods. In such a situation, there would be an outward shift in the demand curve for pounds. Other things being equal, this type of shift would increase the cost of pounds in dollars. As demonstrated in the next section, this increase in cost is a depreciation in the value of the dollar and a correlative appreciation in the value of the pound. This type of reaction is set out in Graph 11-B.

Graph 11-B,
Illustration of Rightward Shift in Demand Curve for Pounds Resulting from Economic Growth in the U.S. Resulting in an Appreciation of the Pound and a Depreciation of the Dollar



W. What does an "appreciation" or "depreciation" in the dollar mean?

A domestic currency is said to appreciate, that is, go up, relative to a foreign currency when ERs change so that a unit of the domestic currency can buy more units of a foreign currency. On the other hand, a domestic currency is said to depreciate, that is go down, relative to a foreign currency, when ERs change so that a unit of the currency can buy fewer units of a foreign currency. For every domestic currency that appreciates against a foreign currency, the foreign currency depreciates against the domestic currency and vice versa; there can be no appreciation without a corresponding depreciation.

This appreciation with a corresponding depreciation is illustrated in the following description in the Wall Street Journal of the reaction of the dollar to a jobs report: "The dollar skidded against its major European rivals Friday after the release of a U.S. jobs report that was much worse than expected. In afternoon trading, the euro was at $1.2320, up from $1.2284 immediately after the report. . . . The pound rose to $1.8332 from $1.8202; the dollar dropped against the Swiss franc to 1.2317 francs from 1.2484 francs."[141] This article mixes statements regarding depreciation and appreciation. It starts by saying the dollar dropped or depreciated "against major European rivals." On the other hand, it says that the euro and the U.K. pound were both up, or appreciated, against the dollar. The article then reverses course and says that the dollar dropped, or depreciated, against the Swiss franc. In each case, however, the dollar depreciated against these currencies.

The article went on to point out that the reason the weak job report led to the depreciation was the belief that the weakness in the job market would lead the Fed to increase rates at a slower pace than the market had previously expected. As discussed previously and will be explored in greater depth later, higher interest rates tend to lead to an appreciation in a currency, and since the market was anticipating higher rates before the jobs announcement but expected lower rates after the announcement, the dollar could be expected to depreciate as a result of the announcement.

X. What is a devaluation or revaluation?

An appreciation or depreciation in a currency should be distinguished from a devaluation or revaluation. A devaluation is a reduction in the official value of a fixed exchange rate currency, and a revaluation is an increase the official value of such a currency.

For example, assume that the official exchange ratio between the U.S. dollar and Foreign Currency X (the currency of Country X) is 8 X per U.S. dollar. If Country X decides that X is undervalued relative to the dollar (that is, too few X are being paid per dollar), it might devalue the X by moving the official exchange rate to, say, 9 X per dollar. One impact of this type of move would be to make goods in Country X cheaper because more goods could be purchased per U.S. dollar.

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[141] Jamie McGeever, *Disappointment in Job Growth Sinks Dollar Against the Euro*, Wall Street Journal On Line, at www.wsj.com, (July 2, 2004).

On the other hand, if Country X decided that the X was overvalued relative to the dollar (that is, too many X are being paid per dollar), it might have a revaluation of the X by moving the official exchange rate to, say, 7.5 X per dollar.

Y. What is the relationship between (1) an appreciation or a depreciation, and (2) a revaluation or a devaluation?

An appreciation of a floating rate currency is the economic equivalent of a revaluation of a fixed rate currency. In both cases, the currency becomes stronger (*i.e.*, purchases more of another currency). On the other hand, a depreciation in a floating rate currency is the economic equivalent to a devaluation of a fixed rate currency. In both cases, the currency becomes weaker (*i.e.*, purchases less of another currency).

Z. What is the relationship between interest rates and exchange rates?

The higher a nation's interest rates the more desirable the debt securities issued by that nation's debtors. Thus, for example, an increase in interest rates in the U.S., without an increase in foreign rates, will make debt instruments issued by U.S. debtors more attractive relative to the debt instruments issued by debtors in countries with lower interest rates. Thus, in general, higher interest rates in the U.S. will tend to make it easier to attract foreign portfolio investment in U.S. debt instruments, including U.S. Treasury securities. As indicated above, an increase in foreign portfolio investment in the U.S. would tend to increase the demand for the dollar and thereby cause the dollar to appreciate relative to other currencies. Also, the higher rates will cause U.S. investors to make fewer foreign portfolio investments in foreign securities, thus reducing the demand for such securities and further reinforcing the appreciation in the dollar.

On the other hand, a decrease in U.S interest rates, without a decrease in foreign rates, would tend to lead to a reduction in foreign portfolio investment in U.S. debt instruments and thereby cause the dollar to depreciate relative to other currencies. Further, it would increase foreign portfolio investment by U.S. investors in foreign debt securities thereby increasing the demand for such securities and reinforcing the depreciation in the dollar.

Although as a result of the Financial Crisis of 2007-2008, the Fed has significantly reduced the interest rates on U.S. Treasury securities, those securities remain an attractive investment because of their safety relative to the debt securities of other countries.

AA. What is the "purchasing power parity" theory of exchange rates?

The purchasing power parity (PPP) theory holds that in the long run the exchange rate between two currencies, such as the U.S. dollar and the U.K. pound, will adjust to take account of differences in the price levels in the two countries. Thus, for example, if the same market basket of goods cost $150 in the U.S. and 100 pounds in the U.K., then under the PPP theory, in the long run the exchange rate between the dollar and the pound should tend towards 1.5 dollars per pound, or 1.5 to 1. This would mean that a person in the U.K. could convert 100 pounds to $150 and buy the same market basket of

goods in the U.S. that she could buy in the U.K. and that a person in the U.S. could convert $150 to 100 pounds and buy the same market basket of goods in the U.K. that she could buy in the U.S. Thus, if the current exchange rate between the dollar and the pound is less than 1.5 to 1, the dollar is overvalued (that is, the dollar is buying too many pounds), and if the current exchange rate is more than 1.5 to 1, the dollar is undervalued (that is, the dollar is buying too few pounds).

The PPP could be approximated by comparing the price of a particular product in two countries after taking account of the exchange rate. This is what *The Economist* magazine does with the periodic publication of its Big Mac Index, [142] which is based on McDonalds' Big Mac, which is sold in over 100 countries and is essentially the same wherever sold. As *The Economist* explains: "The Big Mac PPP is the exchange rate that would leave a burger in any country costing the same as in America." Thus, the first step in the Big Mac Index is to convert the price of the Big Mac in the foreign country into dollars at the current exchange rate. If the price determined equals the U.S. price the exchange rate is consistent with the price that the PPP theory would predict.

For example, the May 27, 2004 issue of *The Economist* showed that at that time (1) the average price of a Big Mac in the U.S. was $2.90, and (2) the cost in U.S. dollars of a Big Mac in Canada was $2.33 and the cost in U.S. dollars in the U.K. was $3.33. Thus, under this theory, the U.S. dollar was undervalued (buys too few) relative to the pound, because it would take more than $2.90 dollars to buy a Big Mac in the U.K., and the U.S. dollar was overvalued (buys to many) relative to the Canadian dollar, because it would take less than $2.90 dollars to buy a Big Mac in Canada. Consistent with this observation, a column in *The Economist* showed that the Canadian dollar was undervalued by 20% against the dollar and that the pound was overvalued by 16% against the dollar. Thus, under the PPP theory, it could be expected that the Canadian dollar would appreciate against the dollar and that the pound would depreciate.

The Economist gave the following caveat on the use of the Big Mac Index: "The Big Mac index was never intended as a precise forecasting tool. Burgers are not traded across borders as the PPP theory demands; prices are distorted by differences in the cost of non-tradable goods and services, such as rents."

BB. Does the U.S. have exchange controls?

There generally are no exchange controls in the U.S. Consequently, foreign investors can (1) invest in U.S. securities and businesses without restriction (except for the restrictions discussed previously related to national security), and (2) repatriate the proceeds of their investment without restriction.

CC. Has the dollar appreciated or depreciated lately and what are the projections for 2012 and beyond?

In its *2012 Budget and Economic Outlook*, the CBO gives the following (1) picture of the then recent movements in the value of the dollar, and (2) projections of future movements:

> [The] value [of the dollar] fell [depreciated] for most of the past decade, as international investors became less willing to add to their increasingly large

[142] *The Big Mac Index*, The Economist, at www.theeconomist.com (May 27, 2004).

> holdings of U.S. dollar assets [including U.S. Treasury debt]. However, the value of the dollar turned sharply upward [appreciated] during the global financial crisis, when international investors purchased large amounts of U.S. Treasury securities to reduce their exposure to volatile or steadily falling prices of other assets. The value of the dollar resumed its decline [depreciation], as the worst of the financial crisis passed, but has strengthened again since [July 2011], as concerns have escalated about the banking and fiscal problems in Europe. In CBO's forecast, the dollar returns to its downward trend when the European problems fade in the next few years.[143]

The observation shows that even with the falling interest rates in the U.S during 2011 and 2012, foreign investors have invested in the U.S., particularly in Treasury debt. This has caused an appreciation in the dollar. This is because U.S. Treasuries became a safe-haven for investment even though the interest rates on those securities are at historically low levels.

In its *2016 Budget and Economic Outlook*, the CBO states that the "continued appreciation of the exchange rate of the U.S. dollar through 2016 is projected to contribute to lower net exports this year and next."[144]

DD. What is the balance of payments?

The balance of payments (BOP) is the record of the transactions of U.S. residents with the rest of the world. Thus, it takes account of all cross border transactions. These transactions can be categorized as (1) the export and import of goods and services, which is referred to as trade in goods and services, and (2) the purchase and sale by U.S persons of foreign assets and the purchase and sale by foreign persons of U.S. assets, that is, inbound and outbound foreign portfolio investment and foreign direct investment.

The BOP is divided between a current account and a capital account. The current account measures (1) the trade in goods and services, that is, the financial impact of imports and exports and to a lesser degree certain transfer payments, such as international aid, and (2) investment income flows, that is, the income received by U.S. persons on foreign investments and the income received by foreign persons on U.S. investments. These investment income flows (*e.g*., interest, dividends, and royalties) can be viewed as the service payments attributable to capital. The trade in goods and services account will be in surplus if exports exceed imports, plus net transfers to foreigners. The trade in goods and services account is the net exports component of GDP.

The International Monetary Fund divides the current account into: a trade balance, which reflects the import and export of goods; a services balance, which reflects the import and export of services; an income balance, which reflects investment flows; and a current transfer balance, which reflects transfer payments.

The capital account measures sales and purchases of assets in inbound and outbound foreign portfolio investment and foreign direct investment transactions. Thus, for example, Ford's purchase of the stock of Jaguar, a U.K. company, in a foreign direct investment transaction, was reflected in the capital account, whereas the dividend income Ford receives from Jaguar is included in the current account because it is a charge for the use of capital. The net position in the capital account is referred to as net foreign investment (NFI).

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[143] *2012 Budget and Economic Outlook*, *infra* at Bibliography at 35.
[144] *2016 Budget and Economic Outlook*, *infra* at Bibliography at 41.

All private transactions in the current account and capital account generally must add up to zero. The logic behind this observation can be explained by the following simplified example, which will require the reader to figure out what likely will happen in the capital account. Assume that the U.S. has just two current account transactions in a year, and both of the transactions take place with firms in France, which has the euro as its currency. The two transactions are (1) the purchase (an import) by a U.S. firm of French wine from a French firm for 75 euro, and (2) the sale (an export) by a U.S. firm of a cell phone to a French firm for $100. Also, assume that the exchange ratio between the dollar and the euro is 1 to 1 and that all foreign exchange transactions take place within either the U.S or France. What can be expected to happen in the capital account assuming that any such transaction occurs between residents of the U.S. and France?

The import of the French wine will require the U.S. firm first to convert $75 dollars to 75 euro. To make this conversion, the U.S. firm buys 75 euros from a French resident (FRes). This puts $75 in the hands of FRes. The U.S. firm then makes the payment of 75 euro, and the French wine is delivered. The French firm purchasing the cell phone will have to convert 100 euros to $100 to make the purchase. The French firm acquires the dollars in two transactions. First, it buys $75 from FRes who got the dollars from the sale of euros to the U.S. firm. Second, it buys the additional $25 from a U.S. resident (USRes). After getting the $100, the payment is made, and the cell phone is delivered.

After these transactions, the net export position, or the current account position, of the U.S. is a positive $25 because exports (that is, the $100 cell phone) have exceeded imports (that is, the 75 euro wine) by that amount. As a result of this excess, USRes is now holding 25 euros. Assuming that the only transaction available to USRes for the use of these euros is a capital account transaction, it could be expected that USRes, or some U.S. person to whom he sold the euros, would use the 25 euros to purchase a French asset, such as stock in a French company or French government bonds. This would generate a negative balance of $25 in the capital account. Therefore, the positive balance in the current account would be exactly offset by the negative balance in the capital account.

The IMF sets out the following explanation of why these accounts should generally balance. "In principle the world current, capital and financial accounts should each sum to zero, but this does not happen in practice because of different recording practices among countries with regard to coverage, valuation, classification, different timing of cross-border transactions and transfers that are missed altogether by one party or the other."[145]

EE. What was the balance of payments for 2011?

The quarterly report on *U.S. International Transactions* of the Bureau of Economic Analysis (BEA) of the Department of Commerce provides a detailed analysis of the balance of payments. The Report issued on September 15, 2016 provided the following summary of the major items of the Current Account (that is, trade in goods and services and investment income flows) of the U.S. balance of payments for the second quarter of 2016:

[145] International Monetary Fund, 1999 *Annual Report*, at Balance of Payments.

U.S. International Transactions: Second Quarter 2016

Current Account Balance

The U.S. current-account deficit decreased to $119.9 billion (preliminary) in the second quarter of 2016 from $131.8 billion (revised) in the first quarter of 2016, according to statistics released by the Bureau of Economic Analysis (BEA). The deficit decreased to 2.6 percent of current-dollar gross domestic product (GDP) from 2.9 percent in the first quarter.

The $12.0 billion decrease in the deficit reflected an $8.9 billion increase in the surplus on primary income to $42.9 billion, a $3.1 billion decrease in the deficit on secondary income to $37.6 billion, and a $0.4 billion increase in the surplus on services to $61.5 billion. These changes were partly offset by a $0.5 billion increase in the deficit on goods to $186.7 billion.

Current Account Transactions (tables 1-5)

Exports of goods and services and income receipts

Exports of goods and services and income receipts increased $18.0 billion in the second quarter to $777.0 billion.

- Primary income receipts increased $10.4 billion to $198.9 billion, primarily reflecting an increase in direct investment income.
- Goods exports increased $6.1 billion to $360.2 billion, reflecting increases in industrial supplies and materials, primarily in petroleum and products, and foods, feeds, and beverages. A decrease in consumer goods except food and automotive partly offset these increases.

Imports of goods and services and income payments

Imports of goods and services and income payments increased $6.1 billion to $896.9 billion.

- Goods imports increased $6.5 billion to $546.9 billion, reflecting increases in imports of industrial supplies and materials, largely in energy products, and capital goods except automotive. These increases were partly offset by a decrease in imports of consumer goods, except food and automotive, particularly other household goods, including cell phones.
- Primary income payments increased $1.4 billion to $155.9 billion, reflecting an increase in direct investment income.
- Secondary income payments decreased $2.4 billion to $69.8 billion, reflecting a decrease in U.S. government transfers, both in U.S. government grants and in U.S. government pensions and other transfers.[146]

[146] Department of Commerce, Bureau of Economic Analysis, *U.S. International Transactions, Second Quarter 2016* (September 15, 2016).

The BEA report gave the following picture of the Financial Account (that is, the purchase of foreign financial assets by U.S. persons and the purchase of U.S. financial assets by foreigners), which is a part of the Capital Account, for the second quarter or 2016:

Financial Account (tables 1, 6, 7, and 8)

Net U.S. borrowing measured by financial-account transactions was $31.1 billion in the second quarter, a $14.3 billion decrease from net borrowing of $45.4 billion in the first quarter. An increase in net U.S. acquisition of financial assets excluding financial derivatives was mostly offset by an increase in net U.S. incurrence of liabilities excluding financial derivatives. Net transactions in financial derivatives other than reserves reflected more net lending in the second quarter than in the first quarter.

Financial assets

Net U.S. acquisition of financial assets excluding financial derivatives increased $233.8 billion to $293.7 billion.

- Transactions in portfolio investment assets increased $167.3 billion to net U.S. acquisition of $109.9 billion, as a shift to net acquisition of equity and investment fund shares more than offset a shift to net sales of debt securities.
- Net U.S. acquisition of direct investment assets increased $38.7 billion to $106.1 billion, largely reflecting an increase in net acquisition of equity.
- Net U.S acquisition of other investment assets increased $26.5 billion to $77.5 billion, as a shift to net provision of loans to foreigners exceeded a shift to net withdrawal of U.S. residents' deposits abroad (in currency and deposits).

Liabilities

Net U.S. incurrence of liabilities excluding financial derivatives increased $232.2 billion to $350.4 billion.

- Net U.S. incurrence of other investment liabilities increased $143.9 billion to $192.0 billion, mostly reflecting a shift to net incurrence of deposit liabilities in currency and deposits.
- Net U.S. incurrence of direct investment liabilities increased $68.3 billion to $159.6 billion, reflecting increases in net incurrence of both equity and debt instrument liabilities.

Financial derivatives

Transactions in financial derivatives other than reserves reflected second-quarter net lending of $25.6 billion, a $12.6 billion increase from the first quarter.[147]

FF. What are the determinants of exports and imports?

Exports are sensitive to the income of our trading partners and imports are sensitive to the income of Americans. Thus, to the extent that the economic growth of our trading partners accelerates, it can be expected that exports from the U.S. will accelerate and to the

[147] *Id*.

extent that economic growth accelerates in the U.S., it can be expected that imports will accelerate. In addition, a strong dollar will tend to increase imports because it makes imports cheaper, and a weak dollar will tend to increase exports because it makes exports cheaper.

GG. What impact do net exports have on aggregate demand?

An increase in Net Exports will have a multiplier effect on GDP, just like the effect of an increase in Consumption, Investment, and Government spending. Thus, it will also shift the AD curve to the right, thereby increasing both GDP and the price level. A decrease in Net Exports will have the opposite effect.

HH. What is the CBO's projection of the impact Net Exports will have on U.S. economic growth for 2012 and beyond?

The CBO's *2016 Budget and Economic Outlook* contains the following detailed (1) projection of the contribution of Net Exports to U.S. economic growth, and (2) an analysis of the impact of the exchange rate for the dollar on Net Exports:

> *Net Exports*. CBO expects that real net exports will fall and slow the growth of GDP from 2016 through 2018, just as they did last year. In later years, net exports are expected to make a small contribution to growth. [Net exports are currently negative, meaning that the United States imports more than it exports. A decrease in net exports indicates that imports are increasing more than exports.] CBO's projection of net exports is based primarily on the significant increase in the exchange value of the dollar during the past two years and on the agency's forecast of that value (see Figure 2-4). In the past two years, the trade-weighted U.S. dollar appreciated by approximately 19 percent.14 That appreciation occurred because long term interest rates declined among the United States' leading trading partners, particularly in Europe and Asia, and because the outlook for foreign growth deteriorated. Those developments increased the exchange value of the dollar by boosting the relative demand for dollar denominated assets, which reduced net exports in the past year and will continue to do so this year. CBO expects the stronger growth in the United States compared with that among its trading partners to continue to contribute to an increasing divergence between interest rates in the United States and those abroad this year. That effect will further push up the exchange value of the dollar
> and contribute to weaker net exports over the next two years. As growth in foreign economies strengthens, however, foreign central banks will gradually tighten their monetary policies and foreign interest rates will generally rise, in CBO's estimation. As a result, the exchange value of the dollar is expected to decrease and contribute to stronger net exports in 2019 and beyond.
>
> CBO's projection of net exports also is based partly on important differences in the expected pace of economic activity in the United States and among its leading trading partners. CBO expects growth in the United States this year to outpace that of the leading U.S. trading partners; for example, China's

> economic growth is projected to continue to slow over the next few years, and continued decline in commodity prices will dampen growth in Canada and Mexico over the next year. The effects of modest improvements to economic growth in the euro zone and Japan are expected to only partially offset the effects of slow growth in the economies of China, Canada, and Mexico. Consequently, U.S. spending on imports is projected to rise more than the trading partners' spending on U.S. exports will, reducing net exports. As commodity prices rebound, CBO expects growth among the nation's major trading partners (especially Canada, Mexico, and other commodity-producing economies) to rise and exceed the rate of U.S. economic growth—slightly boosting net exports.[148]

II. What is the IMF's projection for world economic growth in 2012?

In April 2016, the IMF issued its annual *World Economic Outlook* in which the IMF had the following projections for global economic growth:

> The baseline projection for global growth in 2016 is a modest 3.2 percent, broadly in line with last year, and a 0.2 percentage point downward revision relative to the January 2016 *World Economic Outlook Update*. The recovery is projected to strengthen in 2017 and beyond, driven primarily by emerging market and developing economies, as conditions in stressed economies start gradually to normalize. But uncertainty has increased, and risks of weaker growth scenarios are becoming more tangible. The fragile conjuncture increases the urgency of a broad-based policy response to raise growth and manage vulnerabilities.[149]

This report shows the interconnectedness of national economies and how growth in the U.S. is to an extent dependent on growth in other nations. This is principally because as other nations grow, U.S. exports are likely to grow.

JJ. What is the link between (1) the trade deficit, and (2) the budget deficit?

Economic logic can show that there may be a link between the trade deficit (*i.e.*, an excess of imports over exports) and the budget deficit (an excess of government spending over revenues).[150] For example, in 2011, there was a trade deficit of approximately $473.4 billion and a budget deficit of approximately $1.2 trillion. It is reasonable to expect that a budget deficit will contribute to a trade deficit, because some of the government's spending will go to consumers and businesses that will use the funds to the purchase imports, which can lead to a trade deficit.

It can be shown algebraically that if savings (S) equals investment (I), then a trade deficit (*i.e.*, an excess of imports (IM) over exports (X)) will exactly equal the budget deficit (*i.e.*, an excess of government spending (G) over taxes (T)). The formula is as follows: X-IM = (S-I) – (G-T).[151] For example, assume that X is 100 and IM is 110,

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[148] *2016 Budget and Economic Outlook infra* Bibliography, at 42.
[149] IMF, *2016 World Economic Outlook*, *infra* Bibliography, at xv.
[150] *See e.g.*, Baumol and Binder, *Economics 2009*, *infra* Bibliography at 771.
[151] *Id*.

giving a trade deficit of 10. If S is exactly equal to I, then G must exceed T by 10, giving a budget deficit of 10. Baumol and Binder describe this as a "loose link."[152]

KK. What is the relationship between free trade and outsourcing?

One of the side effects of free trade is that cheap foreign labor can be beneficial to U.S. consumers in the form of lower prices for imported goods. The other side of this coin, however, is that to the extent that U.S. companies move overseas to take advantage of this cheap foreign labor and then sell the products back into the U.S., labor in the U.S. is harmed. Thus, there is a trade-off between (1) American consumers reaping some of the benefits from cheap foreign labor in the form of lower prices for imported goods, and (2) the cost of greater unemployment in the U.S. labor market to the extent that cheap foreign labor comes from moving U.S. manufacturing operations overseas. This is one aspect of the outsourcing debate that is raging in the U.S at this time. The positions of Secretary Clinton and Mr. Trump on this issue are addressed below and in Chapter 23, which addresses tax policy.

LL. What is the relationship between the tax system and outsourcing including inversions?

As discussed in Chapter 23, which deals with tax policy, the current system of taxing foreign income provides an incentive for U.S. companies to set up operations in low-tax foreign jurisdictions. Thus, the tax system can encourage outsourcing, including inversions. Various proposals for addressing this issue, including the positions of Secretary Clinton and Mr. Trump, from a tax policy perspective are examined in Chapter 23.

MM. Do workers hurt by outsourcing receive assistance?

When U.S. companies move overseas and as a result generate unemployment in the U.S. labor market, transitional assistance may be needed for affected employees. Several governmental agencies have Trade Adjustment Assistance programs, including the U.S. Department of Labor, which describes its program as follows:

> Trade Adjustment Assistance (TAA) and Alternative Trade Adjustment Assistance (ATAA) help trade-affected workers who have lost their jobs as a result of increased imports or shifts in production out of the United States. Certified individuals may be eligible to receive one or more program benefits and services depending on what is needed to return them to employment.[153]

The Department of Labor explains that Trade Adjustment Assistance includes the following programs and benefits:

- Rapid Response Assistance - provided by the Dislocated Worker Unit in the state where workers are laid off. . . .
- Reemployment Services - offer workers assistance in finding a new job. . . .

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[152] *Id*.

[153] U.S. Department of Labor, Trade Adjustment Assistance (TAA) and Alternative Trade Adjustment Assistance (ATAA) Services and Benefits, at http://www.doleta.gov/tradeact/benefits.cfm (April 18, 2012).

- Job Search Allowances - may be payable to cover expenses incurred in seeking employment outside a certified worker's normal commuting area, if a suitable job is not available in the area. . . .
- Relocation Allowances - may reimburse approved expenses when certified workers must move to a new area of employment outside their normal commuting area. . . .
- Training - is provided to certified workers who do not have the skills to secure suitable employment in the existing labor market. . . .
- Income Support - Trade Readjustment Allowances (TRA) - are available to provide income support to individuals while they are participating in full time training. . . .
- Health Coverage Tax Credit (HCTC) - Workers who are eligible to receive income support under the TAA program may be eligible to receive tax credits for 65% of the monthly health insurance premium they pay.[154]

NN. What is NAFTA?

The U.S. has entered bilateral and multilateral free trade agreements, such as the North American Free Trade Agreement (NAFTA) with Canada and Mexico. This agreement eliminates tariffs, quotas, and other trade barriers, which are discussed below. The Preamble to NAFTA states:

> The Government of Canada, the Government of the United Mexican States and the Government of the United States of America, resolved to:
>
> STRENGTHEN the special bonds of friendship and cooperation among their nations;
>
> CONTRIBUTE to the harmonious development and expansion of world trade and provide a catalyst to broader international cooperation;
>
> CREATE an expanded and secure market for the goods and services produced in their territories;
>
> REDUCE distortions to trade;
>
> ESTABLISH clear and mutually advantageous rules governing their trade;
>
> ENSURE a predictable commercial framework for business planning and investment;
>
> BUILD on their respective rights and obligations under the General Agreement on Tariffs and Trade and other multilateral and bilateral instruments of cooperation;
>
> ENHANCE the competitiveness of their firms in global markets;
>
> FOSTER creativity and innovation, and promote trade in goods and services that are the subject of intellectual property rights;
>
> CREATE new employment opportunities and improve working conditions and living standards in their respective territories;
>
> UNDERTAKE each of the preceding in a manner consistent with environmental protection and conservation;

[154] U.S. Department of Labor, TAA Program Services and Benefits, at http://www.doleta.gov/tradeact/benefits.cfm#2 (April 18, 2012).

PRESERVE their flexibility to safeguard the public welfare;

PROMOTE sustainable development;

STRENGTHEN the development and enforcement of environmental laws and regulations; and

PROTECT, enhance and enforce basic workers' rights . . . .

During the Bush II Administration in 2003, the U.S. Trade Representative's Office explained that NAFTA (which was, as indicated below, initiated by the Bush I Administration and fully adopted during the Clinton Administration) has been a "huge success for the U.S. and its NAFTA partners. It has helped Americans work smarter, earn more and increase purchasing power. It has contributed to more trade, higher productivity, better jobs, and higher wages."[155] This office also explained that as of 2003:

- In ten years of NAFTA, total trade among the three countries has more than doubled, from $306 billion to $621 billion in 2003. That's $1.7 billion in trade every day.
- U.S. exports to Canada and Mexico grew from $142 billion to $263 billion in NAFTA's first ten years. And Mexican exports to the U.S. grew 242 percent, improving lives and reducing poverty in Mexico.[156]

This litany of the benefits of NAFTA set out by the Bush Administration could easily have been written by the Clinton Administration and possibly the Obama Administration.

OO. What President initiated NAFTA?

NAFTA was initiated by President George H.W. Bush (Bush I) in the fall of 1992, and the incoming president, President Clinton, supported it before Congress and the American people despite opposition from many labor organizations. Thus, NAFTA had bi-partisan support at the top from its early days. Interestingly, at the October 7, 1992 signing ceremony at the White House, President George H. W. Bush set out the following argument in support of NAFTA:

And if anyone doubts the importance of trade for creating jobs, they should come to this great state, come to the Lone Star State. In 1991, Texas exports totalled $47 billion, just from this state. And of that amount, over $15 billion went to Mexico, almost 2-1/2 times as much as five years ago. . . .

Free trade is the way of the future. . . .

But NAFTA's importance is not limited to trade. We've taken particular care that our workers will benefit and the environment will be protected. And as a result of NAFTA, the US and Mexico are working more closely than we ever have to strengthen cooperation on such important labor issues as occupational health and safety standards, child labor, labor- management relations. And then, on the environment, an issue of critical concern for all three leaders here today, we have agreed on practical, effective steps to address urgent issues such as border pollution, as well as longer-term problems such as preventing countries from lowering environmental standards to attract foreign investment. . . .

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[155] U.S. Trade Representative's Office, *Trade Facts, Myth: NAFTA was a failure for the U.S.*, at www.ustr.gov. (November 2003).

[156] *Id*.

And I know, for some, NAFTA will be controversial precisely because it opens the way to change. Some of NAFTA's critics will fight the future, throw obstacles in the way of this agreement, to mask a policy of protectionism. But history shows us that any nation that raises walls and turns inward is destined only for decline. We cannot make that choice for ourselves or for our children. And we must set our course for the future, for free trade.

PP. What is the Trans-Pacific Partnership (TPP)?

1. What is the TPP and who are the parties to it?

The TPP is a trade agreement that, as of October 2016, has been negotiated by the U.S. Office of Trade Representative with several countries. However, the agreement has not yet been ratified by the Senate. The website of the Office of the U.S. Trade Representative provides the following "*Overview of the Trans Pacific Partnership*," which sets out the parties to it:

INCREASING AMERICAN EXPORTS, SUPPORTING AMERICAN JOBS

President Obama announced in November 2009 the United States' intention to participate in the Trans-Pacific Partnership (TPP) negotiations to conclude an ambitious, next-generation, Asia-Pacific trade agreement that reflects U.S. economic priorities and values. Through this agreement, the Obama Administration seeks to boost U.S. economic growth and support the creation and retention of high-quality American jobs by increasing exports in a region that includes some of the world's most robust economies and that represents nearly 40 percent of global GDP. The Obama Administration, in close partnership with Congress and a wide range of stakeholders, is working to conclude a strong agreement that addresses the issues that U.S. businesses and workers face in the 21st century.

LEADING ASIA-PACIFIC REGIONAL INTEGRATION INITIATIVE

The United States is negotiating the TPP with 11 other like-minded countries (Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, and Vietnam) that share a commitment to concluding a high-standard, ambitious agreement and to expanding the initial group to include additional countries throughout the Asia-Pacific region. We are in the endgame of negotiations, making TPP the most promising platform for Asia-Pacific regional trade integration.

AMERICAN COMPETITIVENESS IN THE ASIA-PACIFIC

The TPP is the cornerstone of the Obama Administration's economic policy in the Asia Pacific. The large and growing markets of the Asia-Pacific already are key destinations for U.S. manufactured goods, agricultural products, and services suppliers, and the TPP will further deepen this trade and investment. As a group, the TPP countries are the largest goods and services export market of the United States. U.S. goods exports to TPP countries totaled $698 billion in 2013, representing 44 percent of total U.S. goods exports. U.S. exports of agricultural products to TPP countries totaled $63 billion in 2013, 42 percent of total U.S. agricultural exports. U.S. private services exports totaled

$172 billion in 2012 (latest data available), 27 percent of total U.S. private services exports to the world. America's small- and medium-sized enterprises alone exported $247 billion to the Asia-Pacific in 2011 (latest data available).[157]

2. What does the Preamble to the TPP say?

The preamble to the TPP gives some of the background and purpose of the agreement. The preamble states:

PREAMBLE

The Parties to this Agreement, resolving to:

ESTABLISH a comprehensive regional agreement that promotes economic integration to liberalise trade and investment, bring economic growth and social benefits, create new opportunities for workers and businesses, contribute to raising living standards, benefit consumers, reduce poverty and promote sustainable growth;

STRENGTHEN the bonds of friendship and cooperation between them and their peoples;

BUILD on their respective rights and obligations under the Marrakesh Agreement Establishing the World Trade Organization;

RECOGNISE the differences in their levels of development and diversity of economies;

STRENGTHEN the competitiveness of their businesses in global markets and enhance the competitiveness of their economies by promoting opportunities for businesses, including promoting the development and strengthening of regional supply chains;

SUPPORT the growth and development of micro, small and medium-sized enterprises by enhancing their ability to participate in and benefit from the opportunities created by this Agreement;

ESTABLISH a predictable legal and commercial framework for trade and investment through mutually advantageous rules;

FACILITATE regional trade by promoting efficient and transparent customs procedures that reduce costs and ensure predictability for their importers and exporters;

RECOGNISE their inherent right to regulate and resolve to preserve the flexibility of the Parties to set legislative and regulatory priorities, safeguard public welfare, and protect legitimate public welfare objectives, such as public health, safety, the environment, the conservation of living or non-living exhaustible natural resources, the integrity and stability of the financial system and public morals;

RECOGNISE further their inherent right to adopt, maintain or modify health care systems;

AFFIRM that state-owned enterprises can play a legitimate role in the diverse economies of the Parties, while recognising that the provision of unfair advantages to state-owned enterprises undermines fair and open trade and investment, and resolve to establish rules for state-owned enterprises that promote

[157] Office of U.S. Trade Representative, *Overview of the Trans Pacific Partnership*, https://ustr.gov/tpp/overview-of-the-TPP (Oct. 17, 2016).

a level playing field with privately owned businesses, transparency and sound business practices;

PROMOTE high levels of environmental protection, including through effective enforcement of environmental laws, and further the aims of sustainable development, including through mutually supportive trade and environmental policies and practices;

PROTECT and enforce labour rights, improve working conditions and living standards, strengthen cooperation and the Parties' capacity on labour issues;

PROMOTE transparency, good governance and the rule of law, and eliminate bribery and corruption in trade and investment;

RECOGNISE the important work that their relevant authorities are doing to strengthen macroeconomic cooperation, including on exchange rate issues, in appropriate fora;

RECOGNISE the importance of cultural identity and diversity among and within the Parties, and that trade and investment can expand opportunities to enrich cultural identity and diversity at home and abroad;

CONTRIBUTE to the harmonious development and expansion of world trade and provide a catalyst to broader regional and international cooperation;

ESTABLISH an Agreement to address future trade and investment challenges and opportunities, and contribute to advancing their respective priorities over time; and

EXPAND their partnership by encouraging the accession of other States or separate customs territories in order to further enhance regional economic integration and create the foundation of a Free Trade Area of the Asia Pacific,

3. What does the U.S. Trade Representative (USTR) say are the Benefits of the TPP?

The website of the Office of the U.S. Trade Representative describes the Benefits of the TPP as follows:

> The Trans-Pacific Partnership (TPP) is a new, high-standard trade agreement that levels the playing field for American workers and American businesses, supporting more Made-in-America exports and higher-paying American jobs. By eliminating over 18,000 taxes—in the form of tariffs—that various countries put on Made-in-America products, TPP makes sure our farmers, ranchers, manufacturers, and small businesses can compete—and win—in some of the fastest-growing markets in the world. With more than 95 percent of the world's consumers living outside our borders, TPP will significantly expand the export of Made-in-America goods and services and support American jobs.
>
> - TPP Eliminates over 18,000 Different Taxes on Made-in-America Exports
> - TPP Includes the Strongest Worker Protections of Any Trade Agreement in History
> - TPP Includes the Strongest Environmental Protections of Any Trade Agreement in History
> - TPP Helps Small Businesses Benefit from Global Trade

- TPP Promotes E-Commerce, Protects Digital Freedom, and Preserves an Open Internet
- TPP Levels the Playing Field for U.S. Workers by Disciplining State-Owned Enterprises (SOEs)
- TPP Prioritizes Good Governance and Fighting Corruption
- TPP Includes First Ever Development Chapter
- TPP Capitalizes on America's Position as the World Leader in Services Exports.[158]

4. How does the TPP "Upgrade" NAFTA?

The website of the Office of the U.S. Trade Representative describes as follows the manner in which the TPP will "Upgrade" NAFTA:

> As President Obama has made clear, past trade deals – including the North American Free Trade Agreement, or NAFTA – haven't always lived up to the hype. That's why he has called for renegotiating NAFTA to better address labor and environmental issues. Because TPP includes Canada and Mexico and improves substantially on NAFTA's shortcomings, it delivers on that promise. TPP learns from past trade agreements, including NAFTA, by upgrading existing standards and setting new high standards that reflect today's economic realities.
>
> HOW TPP UPGRADES NAFTA
>
> - Adopting the highest environmental standards of any trade agreement, including fully enforceable obligations prohibiting some of the most harmful fishery subsidies, creating new tools to combat illegal wildlife trafficking, and improving enforcement of conservation laws.
> - Adopting the highest labor standards of any trade agreement, including fully-enforceable requirements to protect the freedom to form unions and bargain collectively, prohibitions against exploitative child labor and forced labor, protections against employment discrimination and requirements for acceptable conditions of work.
> - Including the first-ever measures to ensure that state-owned enterprises compete on a commercial basis, and that the advantages SOEs receive from their governments (such as unfair subsidies) do not have an adverse impact on American workers and businesses.
> - Setting standards to protect digital freedom, by preserving the free flow of information across borders, and protecting against requirements that force businesses to locate infrastructure in the markets in which they seek to operate.
> - Improving protections for 40 million American workers whose jobs depend on innovation.
> - Subjecting commitments in the Labor and Environment chapters to dispute settlement–the same enforceability mechanism available for other

[158] Office of U.S. Trade Representative, *Overall U.S. Benefits of TPP*, at https://ustr.gov/tpp/#overall-us-benefits (Oct. 17, 2016).

chapters of the TPP Agreement – including the availability of trade sanctions.[159]

QQ. What is the assessment of the U.S. International Trade Commission of the economic impact of the TPP generally?

The U.S. International Trade Commission conducted an in depth analysis of the economic impact of the TPP. The analysis is contained in an 800 plus page report entitled *Trans-Pacific Partnership Agreement: Likely Impact on the U.S. Economy and on Specific Industry Sectors* (the USITC TPP Report).[160] The Executive Summary gives the following background on the analysis:

> In accordance with section 105(c) of the Bipartisan Congressional Trade Priorities and Accountability Act of 2015, this report, by the U.S. International Trade Commission (Commission or USITC), assesses the likely effects of the Trans-Pacific Partnership Agreement (TPP, TPP Agreement, or the agreement) on the U.S. economy as a whole and on specific industry sectors. It encompasses TPP's impact on the United States' gross domestic product (GDP), exports, and imports; U.S. aggregate employment and employment opportunities; the production, employment, and competitive position of U.S. industries likely to be significantly affected by TPP; and the interests of U.S. consumers. The report also reviews other assessments of TPP's economic effects available in the literature, and discusses areas of consensus and divergence between the Commission's analyses and conclusions and those in the literature reviewed.[161]

The USITC TPP Report provides the following "Overview of Findings, Economy-wide Assessment:"

> The TPP Agreement would affect the trade and investment relationship between the United States and the region in many areas. In addition to the United States, the parties to the agreement are Australia, Brunei Darussalam Brunei [i.e., Brunei], Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, and Vietnam. Together, these countries accounted for 36 percent of global GDP in 2014. The United States already has FTAs in force with Australia, Canada, Chile, Mexico, Peru, and Singapore. The agreement would influence bilateral trade in goods and services, rules governing trade and investment, and the regulatory environment facing U.S. exports to the region. The overall impact of the TPP Agreement would be small as a percentage of the overall size of the U.S. economy; it would be stronger with respect to countries with which the United States does not already have a free trade agreement (FTA) in force: Brunei, Japan, Malaysia, New Zealand, and Vietnam.
>
> The quantitative assessment in this report estimates the economic effects of TPP provisions related to tariffs and tariff-rate quotas; selected nontariff

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[159] Office of U.S. Trade Representative, *Upgrading NAFTA*, at https://ustr.gov/tpp/#upgrading-nafta (Oct. 17, 2016).

[160] U.S. International Trade Commission, *Trans-Pacific Partnership Agreement: Likely Impact on the U.S. Economy and on Specific Industry Sectors (*May 2016).

[161] *Id*. at 21.

measures affecting trade in goods and cross-border trade in services; and restrictions affecting foreign investment, compared to a baseline estimate of economic growth in the absence of the TPP Agreement. . . .

The Commission estimates that by 2032, U.S. real GDP would be $42.7 billion (or 0.15 percent) higher than a baseline scenario that reflects expected global economic conditions without TPP. Real income, a measure of economic welfare that measures consumers' purchasing power, would be $57.3 billion higher (or 0.23 percent) over the same time period. Employment would be 0.07 percent higher, or close to 128,000 full-time equivalents. These gains would be slightly higher after 30 years (that is, 2047), when all provisions of the agreement would be in force. By 2047, real GDP would rise by $67 billion (0.18 percent); real income, by $82.5 billion (0.28 percent); and employment, by 0.09 percent, or nearly 174,000 full-time equivalents, compared to the baseline.

According to Commission estimates, U.S. exports to TPP partners will grow faster than U.S. exports to the rest of the world. U.S. imports from TPP partners will grow faster than overall U.S. imports, but not as fast as exports to TPP partners. By 2032, under the agreement, total U.S. exports to the TPP parties would be $57.2 billion (5.6 percent) higher than the baseline and U.S. imports from the TPP parties would be $47.5 billion (3.5 percent) over the baseline. Some of this impact would represent trade diversion from other trading partners to TPP parties. According to Commission estimates, U.S. exports to the world would be $27.2 billion higher (1.0 percent), while U.S. total imports would be $48.9 billion higher (1.1 percent).[162]

RR. What is the assessment of the U.S. International Trade Commission of the impact of the TPP on the labor market?

The USITC TPP Report provides the following assessment of the impact of the TPP on the U.S. labor market:

Economists, academics, and policy makers debate the effects of FTAs on the overall U.S. labor market. Some maintain that FTAs have a negligible effect on aggregate employment and a positive, yet small, effect on wages. Others express concern that FTAs cause declines in wages and employment, especially over the short run, and increased income inequality that persists over time. . . .

Economic theory suggests that trade liberalization can affect labor markets in complicated ways. FTAs remove barriers to cross-border trade and investment and increase economic integration between signatory countries, which shifts production patterns in those countries. The result is a shift in labor demand between industries within each country. In the short term, this shift in labor demand is likely to be reflected more in changes in wages and at least temporary job loss, as workers transition from import-competing sectors that are contracting into exporting industries that are expanding and paying higher wages as demand for workers increases. In the long run, aggregate employment moves toward full employment, as the transition to a new equilibrium moves toward completion, but

[162] *Id*. at 21-22.

> the effects on different types of workers in certain industries can persist. The speed and economic cost of the transition can be affected by policies in place to compensate displaced workers and to ease their transitions into new jobs for example, through retraining. Aggregate employment could also change such that some workers may be encouraged to enter or exit the labor force, or the number of hours worked by existing workers may increase or decrease. . . .
>
> By 2032, the Commission estimates that TPP would increase employment in the United States by about 128,000 full-time equivalent jobs, and increase the real wage rate by about 0.19 percent. In percentage terms, the rise in the wages of unskilled workers would be similar to the rise for skilled workers.[163]

SS. What is President Obama's argument in favor of the TPP?

In support of the TPP, the White House website says: (1) "Jobs supported by U.S. exports pay up to 18% more on average than other jobs;" (2) "U.S. exports supported 11.7 million American jobs in 2014;" and (3) the TPP "eliminates over 18,000 taxes that various countries put on U.S. goods and services." The website also makes the following argument in favor of the TPP:

> America's trade policy may seem remote and technical, but it has a significant impact on the strength of our economy and the lives of millions of Americans. If the businesses you buy from everyday also sell their products to customers abroad, they are more likely to expand and support jobs here at home. Why is that? Ninety-five percent of the world's consumers live outside our borders. Our Made-in-America products and services are in demand, making American exports a vital pillar of our 21st century economy. In fact, exports played an indispensable role in America's resurgence from the Great Recession. So, when the rules are fair, Americans can out-compete anyone in the world.
>
> Last year, we broke the record in American exports for the fifth year in a row, selling $2.34 trillion in goods and services abroad. And here's why that's important: The more we sell abroad, the more higher-paying jobs we support here at home.
>
> And those jobs tend to pay Americans better, meaning companies that export pay up to 18% more than companies that don't.
>
> But right now, our current trade policy — the status quo — puts our workers and businesses at a disadvantage, with higher costs for American goods, more barriers to trade, and lower standards for workers and the environment abroad than we have at home.
>
> That is why President Obama has concluded negotiating the Trans-Pacific Partnership and will now work with Congress to secure its passage into law. The TPP is a trade agreement with 11 other countries in the Asia-Pacific, including Canada and Mexico that will eliminate over 18,000 taxes various countries put on Made-in-America products.
>
> With the TPP, we can rewrite the rules of trade to benefit America's middle class. Because if we don't, competitors who don't share our values, like China, will step in to fill that void.

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[163] *Id*. at 88-90.

> That is why the President's trade policy is the best tool we have to ensure that our workers, our businesses, and our values are shaping globalization and the 21st century economy, rather than getting left behind. . . .
>
> Trade policy doesn't just support our country's economy, it can reflect our country's values too.
>
> The President knows that past trade deals haven't always lived up to the hype. That is why he fought for the high standards embodied in this trade agreement that will upgrade our existing agreements to reflect our American values.
>
> Under the TPP, tough, fully-enforceable standards will protect workers' rights and the environment for the first time in history.

TT. What is the position of the Mercatus Center, a right leaning organization, on the TPP?

Daniel Griswold, a Fellow at the Mercatus Center at George Mason University, a right leaning organization, has set out a strong argument in support of the TPP and against the opposition to it of both Senator Clinton and Mr. Trump. He argues:

> Like most trade agreements, TPP is a mixed bag of real trade liberalization alongside exemptions, long phase outs, and extraneous non-trade issues. But as a package, the agreement will reduce government barriers to commerce, delivering real benefits for the U.S. economy and U.S. foreign-policy interests.
>
> The Trans-Pacific Partnership is a sweeping trade pact negotiated by the Obama administration with 11 U.S. trading partners on both sides of the Pacific. It includes six countries that have already signed free-trade agreements with the United States—Canada, Mexico, Peru, Chile, Australia, and Singapore—and five that would be new FTA partners—New Zealand, Brunei Darussalam, Malaysia, Vietnam, and Japan.
>
> TPP would eliminate 18,000 tariffs now imposed on U.S. exports to other TPP countries. Nearly 90 percent of those duties would go to zero upon enactment, and nearly all would be eliminated within 16 years. U.S. duties would also be phased out almost completely, with the steepest reduction on imported apparel and footwear, delivering benefits directly to low-income U.S. households.
>
> The agreement would be especially beneficial to small and medium-sized enterprises. The agreement contains an important chapter on electronic commerce that prohibits imposing customs duties on electronic transmissions. It prohibits TPP countries from requiring the "localization" of data servers as a condition for doing business in their territory, and prohibits requiring the transfer of source code. It also enhances competition among express carriers, a service especially important to SMEs.
>
> In a May 2016 analysis of TPP, the U.S. International Trade Commission determined that it would boost U.S. two-way trade, economic output, household incomes, and employment.
>
> Beyond the economic effect, TPP will deepen our geo-strategic relationships in East Asia. The agreement will set the rules for commerce that reflect our values as a nation—openness, competition, respect for private property

and the rule of law. If Congress or the next president rejects TPP, China will be ready to fill the vacuum with its own brand of economic leadership.[164]

UU. What is the position of the Chicago Tribune, a left leaning paper, on the TPP?

In an editorial in the Chicago Tribune, a fairly liberal paper, gave its strong support for the TPP for the following reasons:

> [I]nternational trade and investment already are the reality. In the global economy, companies and countries specialize in making the most valuable products they can and buying the rest. Illinois companies manufacture sophisticated goods and Illinois farms grow crops sold all over the world. . . .
>
> There is no need to reverse these economic trends, and they shouldn't be reversed. TPP will be good for Illinois because the best way to improve the American standard of living is to support the competitiveness of American businesses. Conversely, American consumers enjoy the benefits of less expensive goods from overseas. Part of the equation is using trade deals to secure and protect new markets for American products. That's what TPP will do.
>
> The folly of [opposing the TPP] is exemplified by Trump's campaign promise to get Apple to bring production of the iPhone home in order to create more American jobs. Setting aside the fact that presidents don't control business decisions, assembling iPhones in the United States isn't going to happen. Making the phones here would add $50 to $100 to the cost of each one, which would drive consumers to Apple's competitors. That likely underestimates the cost by multiples because reshoring Apple production would be nearly impossible: China's factories with their low-cost workforce are so vast and flexible that no American plant could compete.
>
> The late Steve Jobs once was asked by President Barack Obama what it would take for Apple to make iPhones in the United States. Jobs' reply: . . . "Those jobs aren't coming back[.]"[165]

VV. What is the position of the Economic Policy Institute, a left leaning organization, on the TPP, NAFTA and trade generally?

Robert Scott of the Economic Policy Institute (EPI), a left leaning organization, explains that the EPI opposes the TPP and other trade liberalizations on the following grounds:

> [G]rowing imports of goods from low-wage, less-developed countries, which nearly tripled from 2.9 percent of GDP in 1989 to 8.4 percent in 2011,

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[164] Daniel Griswold, *Hillary Agrees With Donald On TPP—And Why They Are Both Wrong*, Mercatus Center at George Mason University, (Aug 11, 2016), at https://madabouttrade.com/hillary-agrees-with-donald-on-tpp-and-why-they-are-both-wrong-b5712407f7ac#.ml9rx1kox.

[165] Editorial, *Why global trade will endure: Clinton, Trump and the folly of genie-stuffing*, Chicago Tribune, (Oct 17, 2016), at http://www.chicagotribune.com/news/opinion/editorials/ct-trade-brexit-trump-tpp-clinton-edit-1018-jm-20161017-story.html.

reduced the wages of the typical non-college educated worker in 2011 by "5.5 percent, or by roughly $1,800—for a full-time, full year worker earning the average wage for workers without a four-year college degree[.]" .

Overall, there are nearly 100 million American workers without a 4-year degree. The wage losses suffered by this group amount to roughly a full percentage point of GDP—about $180 billion per year. Workers without a 4-year degree constitute a bit less than 70 percent of the overall workforce, but three-quarters of black workers (75.5 percent) and more than four-fifths (85.0 percent) of Hispanic workers do not have a 4-year degree. While educational attainment levels for blacks and Hispanics are rising, differences remain.

The Trans-Pacific Partnership would hurt black and Hispanic workers even more than white workers[.] . . .

Six of the twelve members of the TPP (Malaysia, Mexico, Peru, Vietnam, Chile, and Brunei) are low-wage, developing countries, and if the TPP leads to expanding trade with these countries it will contribute to a continuing growth of imports and growing downward pressure on the wages of non-college educated workers. This deal would be especially harmful to black and Hispanic workers, who already suffer higher unemployment and lower wages than whites.[166]

WW. What is the Economic Policy Institute's position on the role of currency manipulation in contributing to our trade deficit?

1. First, what is currency manipulation and who are the currency manipulators?

Robert Scott of the Economic Policy Institute (EPI) describes currency manipulation as follows:

Currency manipulation acts like an artificial subsidy to the host country's exports (making their goods artificially less expensive) and as a tax on all U.S. exports, which undercuts the competitiveness of U.S. products, especially manufactured goods (which make up 70 percent of all U.S. goods exports[.] . . .

Currency manipulators are countries that run large, persistent trade surpluses with the world, and that have intervened significantly in currency markets, or taken equivalent steps, to lower the value of their currencies to levels that support those trade surpluses. Governments manipulate currency by buying up foreign assets denominated in the currencies of other countries (such as U.S. Treasuries) and other assets to increase demand for the other countries' currency (for example, the dollar) relative to their currency. This process has had a bigger impact on the United States than on any other trading nation. By making the dollar more expensive, such manipulation makes U.S. goods more expensive and

[166] Robert E. Scott, *The Trans-Pacific Partnership Would Hurt Black and Hispanic Workers Even More Than White Workers,* Economic Policy Institute (Sept 8, 2016).

competing countries' products cheaper. Currency misalignment occurs when private investors (not the government) buy up Treasuries and other assets.[167]

2. Second, how does currency manipulation contribute to the trade deficit?

Robert Scott of the Economic Policy Institute (EPI) discusses as follows the relationship between currency manipulation and the trade deficit the U.S. currently faces:

> The most significant cause of growing U.S. trade deficits is currency manipulation and misalignment by China and about 20 other countries, primarily in Asia. These countries' governments have purchased trillions of dollars of foreign assets over the past 15 years, which has bid up the price of the U.S. dollar. This inflated dollar value has increased the price of U.S. exports in every country where we compete with currency manipulators, and it acts like a subsidy to all our competitors' exports. Growing U.S. trade deficits are largely responsible for the loss of 5 million manufacturing jobs in the United States between January 2000 and December 2014[.][168]

3. Third, how could the U.S. take measures against currency manipulation?

Robert Scott of the Economic Policy Institute (EPI) discusses as follows measures that have been proposed for addressing currency manipulation:

> Over the past 10 years, there have been numerous attempts in Congress to enact policies to end currency manipulation, which is illegal under the rules of the International Monetary Fund and the World Trade Organization (though these rules have never been enforced). Proposed actions against currency manipulation have included efforts to include "enforceable restrictions" on currency manipulation in the TPP. But the TPP does not include such rules (which, given the stakes of this issue is reason enough to oppose the entire deal). There have also been calls for the Treasury and the president to do more to name and penalize currency manipulators, under rules established in the Trade Act of 1988. These rules were strengthened under the Bennet Amendment to the Customs bill, passed this year, but at best, these changes will only improve the process by which Treasury monitors currency manipulation. New tools are needed to realign the dollar.
>
> The most effective tools available are those that would directly intervene in currency markets. Several economists have recommended ways to do this. Fred Bergsten and Joe Gagnon of the Peterson Institute for International Economics have proposed that the United States and other deficit countries engage in countervailing currency intervention (CCI) by buying up large amounts of foreign assets denominated in the currencies of the surplus countries (Bergsten and Gagnon 2012). John Hansen (2016), another distinguished economist, has proposed the imposition of an adjustable "market access charge," a tax or fee on all capital inflows that would reduce the demand for dollar-denominated assets

[167] *Id*.
[168] *Id*.

and hence the value of the currency. By revaluing the currencies of surplus countries, the U.S. trade deficit could be reduced by between $200 billion and $500 billion dollars, raising demand for U.S. exports (which are dominated by manufactured goods). (Rebalancing the dollar would also help exports in the services and agriculture sectors.)[169]

XX. What is Secretary Clinton's position on the TPP, NAFTA, and trade generally?

NAFTA became law under President Bill Clinton, and while Secretary Clinton was Secretary of State, she supported the TPP, which the Obama Administration still supports. Thus both NAFTA and the TPP originated under Democratic administrations.

Notwithstanding her prior support of the TPP, Secretary Clinton now is opposed to it. For example in a speech in Warren Michigan on August 11, 2016, she said:

> Well, let's start with this: It's true that too often, past trade deals have been sold to the American people with rosy scenarios that did not pan out. Those promises now ring hollow in many communities across Michigan and our country that have seen factories close and jobs disappear.
>
> Too many companies lobbied for trade deals so they could sell products abroad but then they instead moved abroad and sold back into the United States. It is also true that China and other countries have gamed the system for too long. Enforcement – particularly during the Bush administration – has been too lax. Investments at home that would make us more competitive have been completely blocked in Congress. And American workers and communities have paid the price.
>
> But the answer is not to rant and rave – or cut ourselves off from the world. That would end up killing even more jobs. The answer is to finally make trade work for us, not against us.
>
> So my message to every worker in Michigan and across America is this: I will stop any trade deal that kills jobs or holds down wages – including the Trans-Pacific Partnership. I oppose it now, I'll oppose it after the election, and I'll oppose it as President.
>
> As a Senator from New York, I fought to defend New York's manufacturers and steel-makers from unfair Chinese trading practices. And I opposed the only multilateral trade deal that came before the Senate while I was there, because it didn't meet my high bar.
>
> As Secretary of State, I fought hard for American businesses to get a fair shot around the world and to stop underhanded trading practices like currency manipulation and the theft of intellectual property.
>
> So as President, I will stand up to China and anyone else who tries to take advantage of American workers and companies. And I'm going to ramp up enforcement by appointing, for the first time, a chief trade prosecutor, I will triple the number of enforcement officers, and when countries break the rules, we won't hesitate to impose targeted tariffs.

[169] *Id*.

Now Mr. Trump may talk a big game on trade, but his approach is based on fear, not strength. Fear that we can't compete with the rest of the world even when the rules are fair. Fear that our country has no choice but to hide behind walls. . . .

Right now, thousands of Michigan companies are exporting billions of dollars of products around the world. We want them to sell even more, and create more jobs here at home. But corporations should not abandon profitable operations here in the United States to move abroad, just to give shareholders a quicker return, CEOs a bigger bonus, and unions a weaker hand to play.

Now, before he tweets about how he's really one who will put 'America First' in trade, let's remember where Trump makes many of his own products. Because it sure is not America.

He's made Trump ties in China and Trump suits in Mexico instead of here in Michigan. He keeps saying it's not possible to make these things in America anymore, and that's just wrong.

So we created a website — hillaryclinton.com/make-it-here — on it we list a hundred places across the United States that already producing similar goods.

Now one positive thing Trump could do to make America great again is actually make great things in America again.

YY. What is Mr. Trump's position on NAFTA, the TPP, and trade generally?

Mr. Trump has been opposed to what he refers to as bad trade deals. For example in an August 8, 2016 speech in Detroit he said:

One of the most important reforms of all is trade reform.

As Bernie Sanders has said, Hillary Clinton has bad judgment. We've seen this bad judgment overseas, in Libya, Iraq, and Syria. . . . But we've also seen the terrible Obama-Clinton judgment right here in Detroit.

Hillary Clinton has supported the trade deals stripping this city, and this country, of its jobs and wealth.

She supported Bill Clinton's NAFTA, she supported China's entrance into the World Trade Organization, she supported the job-killing trade deal with South Korea, and she supports the Trans-Pacific Partnership.

Let's talk about South Korea for a moment, because it so perfectly illustrates the broken promises that have hurt so many American workers.

President Obama, and the usual so-called experts who've been wrong about every trade deal for decades, predicted that the trade deal with South Korea would increase our exports to South Korea by more than $10 billion—resulting in some 70,000 jobs.

Like Hillary Clinton's broken promises to New York, these pledges all turned out to be false. Instead of creating 70,000 jobs, it has killed nearly 100,000, according to the Economic Policy Institute. Our exports to South Korea haven't increased at all, but their imports to us have surged more than $15 billion—more than doubling our trade deficit with that country.

The next betrayal will be the Trans-Pacific Partnership. Hillary Clinton's closest friend, Terry McAuliffe, confirmed what I have said on this from the beginning: if sent to the Oval Office, Hillary Clinton will enact the TPP. Guaranteed. Her donors will make sure of it.

A vote for Hillary Clinton is a vote for TPP—and it's also a vote for NAFTA. Our annual trade deficit in goods with Mexico has risen from close to zero in 1993 to almost $60 billion. Our total trade deficit in goods hit nearly $800 billion last year.

This is a strike at the heart of Michigan, and our nation as a whole. According to the Bureau of Labor Statistics, before NAFTA went into effect, there were 285,000 auto workers in Michigan. Today, that number is only 160,000. . . .

Hillary Clinton's Trans-Pacific Partnership (TPP) will be an even bigger disaster for the auto industry. In fact, Ford Motor Company has announced its opposition to the deal.

According to the Economic Policy Institute, the U.S. trade deficit with the proposed TPP member countries cost over 1 million manufacturing jobs in 2015. By far the biggest losses occurred in motor vehicles and parts, which lost nearly 740,000 manufacturing jobs.

Michigan ranks first for jobs lost as a share of state workforce due to the trade deficit with TPP members.

Just imagine how many more automobile jobs will be lost if the TPP is actually approved. That is why I have announced we will withdraw from the deal before that can ever happen. Hillary Clinton will never withdraw from the TPP. She is bought, controlled and paid-for by her donors and special interests.

Because my only interest is the American people, I have previously laid out a detailed 7-point plan for trade reform, available on my website. It includes strong protections against currency manipulation, tariffs against any countries that cheat by unfairly subsidizing their goods, and it includes a renegotiation of NAFTA. If we don't get a better deal, we will walk away. At the center of my plan is trade enforcement with China. This alone could return millions of jobs into our economy.

China is responsible for nearly half of our entire trade deficit. They break the rules in every way imaginable. China engages in illegal export subsidies, prohibited currency manipulation, and rampant theft of intellectual property. They also have no real environmental or labor protections, further undercutting American workers.

Just enforcing intellectual property rules alone could save millions of American jobs. According to the U.S. International Trade Commission, improved protection of America's intellectual property in China would produce more than 2 million more jobs right here in the United States. Add to that the saved jobs from cracking down on currency cheating and product dumping, and we will bring trillions of dollars in new wealth and wages back to the United States.

Trade has big benefits, and I am in favor of trade. But I want great trade deals for our country that create more jobs and higher wages for American workers. Isolation is not an option, only great and well-crafted trade deals are.

In a speech in Gettysburg, Pa on October 22, 2016 he reiterated his objection to trade deals. CNN reports that there he

> vowed again to begin renegotiating the North American Free Trade Agreement of the 90s and announce his intention to withdraw from the Trans-Pacific Partnership and promised to take a tough approach to countries like China that he believes are abusing free trade laws.[170]

ZZ. What is my take on NAFTA, the TPP, and trade generally?

As a general matter, for the economic reasons discussed above, I strongly support trade. Further, it seems to me that while there are obvious losers with NAFTA and there will be losers with the TPP, on balance NAFTA, the TPP, and other trade liberalization measures are positive for the U.S. and its trading partners.

That said, I am troubled by the possibility that the TPP could be approved after the election, when both Secretary Clinton and Mr. Trump have expressed strong views against it. This is particularly so if Secretary Clinton is elected because it appears that the principal proponents of the TPP are Republicans. As indicated by the following discussion in a publication of the Economic Policy Institute, this was also the case with the approval of NAFTA:

> Two-thirds of the votes needed to pass NAFTA in 1993 were provided by members of Trump's own Republican Party. In fact, NAFTA was Ronald Reagan's idea, and was first introduced and negotiated by President George H. W. Bush. More recently, 85 percent of Democrats in the House and 70 percent in the Senate opposed giving the president Fast Track authority for the TPP and other trade deals, while 87 percent of Senate Republicans gave final approval to the Fast Track bill[.] It was Republicans in Congress who helped these trade deals go forward. And it was Republican leaders who blocked legislation that would have given the Commerce Department tools to tackle the currency manipulation that is behind the loss of jobs to exporting nations that break the rules.[171]

Also, the adoption or rejection of the TPP should have only a modest impact on the broader U.S. economy. This point is reflected in an analysis of Secretary Clinton's economic policies by Moody's Analytics, which, for the following reason, excluded the TPP from its analysis:

> And as long as her ambivalence over greater global trade, as reflected in her opposition to the Trans-Pacific Partnership trade deal, does not intensify, it too should mean little for the economy over the 10-year horizon of this analysis.[172]

Further, as the analysis discussed above of the Economic Policy Institute points out, non-college educated workers suffer most from recent trade liberalization measures like the TPP. It seems that most of those voters, both Democrat and Republican, oppose trade deals, and given that strong opposition, together with the opposition of both Secretary Clinton and Mr. Trump, it would be prudent for the Congress not to ratify TPP during the lame duck session after the election and before the inauguration. Further,

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[170] Jeremy Diamond, *Trump makes 'closing argument,' again attacks accusers*, CNN (Oct. 22, 2016), at http://www.cnn.com/2016/10/21/politics/donald-trump-gettysburg-speech-first-100-days/.
[171] Robert E. Scott, *Currency Manipulation*, *infra* Bibliography.
[172] Moody's, *Macroeconomics of Secretary Clinton's Economic Policies*, infra Bibliography, at 2.

without respect to who is elected president, efforts should be made towards building a broad bipartisan consensus in favor of trade deals. It would seem that a more robust and effective Trade Adjustment Assistance program could more effectively address the legitimate needs of those workers who are harmed by the TPP or other trade deals. Such action could help to build a solid political coalition in favor of trade liberalizations.

AAA. How can international economic considerations be tracked?

Several sources address international considerations, including the following. As discussed above, the Bureau of Economic Analysis (BEA) of the Department of Commerce issues a quarterly report on *U.S. International Transactions*. This report provides information on the current account and the financial account. The BEA also periodically issues a report on *U.S. International Trade In Goods And Services*, which gives detailed information on the balance of trade in goods and services between the U.S. and the rest of the world. The BEA also publishes a report on the *U.S. International Investment Position at Yearend*, which focuses on the current levels of inbound and outbound foreign direct investment. These items are available on the BEA's website at http://www.bea.doc.gov. Also, the Fed's semi-annual reports on *Monetary Policy*, the annual *Economic Reports of the President*, and the CBO's *Budget and Economic Outlook* provide analyses of the international sector.

PART III, THE IMPACT ON ECONOMIC GROWTH OF (1) THE RECENT FINANCIAL CRISIS; (2) MONETARY POLICY; (3) FISCAL, POLICY[173] INCLUDING SOCIAL SECURITY, MEDICARE, AND HEALTHCARE; AND (4) THE PROPOSALS OF SECRETARY CLINTON AND MR. TRUMP REGARDING THESE MATTERS

CHAPTER 12, FINANCIAL CRISIS: HOW DOES ECONOMIC GROWTH CONTIUNE TO BE IMPACTED BY THE 2007-2008 FINANCIAL CRISIS AND THE RESULTING DODD-FRANK ACT; AND HOW WOULD THE POLICIES OF SECRETARY CLINTON AND MR. TRUMP ON THIS CRISIS AND THE DODD-FRANK ACT AFFECT ECONOMIC GROWTH?

A. What is in this Chapter?

This chapter first discusses the causes and consequences of the 2007-2008 Financial Crisis. In considering economic growth, it is important to understand the principal causes of the crisis and the impact the crisis has had on the economy. The chapter then looks at the government's short-term response to the crisis through the TARP program. The chapter next considers the government's long-term response to the crisis, the adoption of the *Dodd-Frank Act*.

Finally, the chapter discusses (1) the positions of Secretary Clinton and Mr. Trump on the *Dodd-Frank Act*, and (2) my take on their positions.

The reaction of the Federal Reserve Board to the Financial Crisis is discussed in Chapter 14.

The principal sources used in this chapter for an analysis of the causes and consequences of the Financial Crisis are (1) the National Commission, *Financial Crisis Report*,[174] and (2) the Senate, *Financial Collapse Report*.[175]

B. What was the Financial Crisis of 2007 and 2008?

The Financial Crisis of 2007 and 2008 involved the impact on the financial system and the economy of inflated prices in the U.S. residential real estate market. These inflated prices resulted in major part from the creation of new global markets for mortgages on these residences. These new markets for mortgages had the effect of driving up the prices of housing beyond sustainable levels. In other words, the mortgages led to the creation of a bubble in the U.S. housing market. In many cases, home owners were refinancing their homes as housing prices increased and using excess loan proceeds for consumption. Eventually the home owners who owed the loans that were secured by the mortgages on the inflated home prices began to default on the loans in large numbers.

This eventually led to a significant decrease in the value of the homes that were the security for the mortgages. This became a national and global problem for the financial system, because unlike a house mortgage that is originated and held by a local bank, interests in these residential mortgages were securitized (*i.e.*, divided into different securities) and sold by Wall Street investment banks to investors, many of which were

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[173] Tax policy, which is an aspect of fiscal policy is addressed in Part V, Chapter 23.
[174] National Commission, *Financial Crisis Report*, *infra* Bibliography.
[175] Senate, *Financial Collapse Report*, *infra* Bibliography.

banks and other financial institutions, like stock in a company may be sold to many different shareholders. Consequently, a drop in U.S. housing prices led to a drop in the value of the mortgages that had been sold through the securitization process to financial institutions around the world, and this drop in the value of assets held by financial institutions led to the financial crisis.

The National Commission, *Financial Crisis Report* contains the following summary description of this financial crisis:

> While the vulnerabilities that created the potential for crisis were years in the making, it was the collapse of the housing bubble—fueled by low interest rates, easy and available credit, scant regulation, and toxic mortgages—that was the spark that ignited a string of events, which led to a full-blown crisis in the fall of 2008. Trillions of dollars in risky mortgages had become embedded throughout the financial system, as mortgage-related securities were packaged, repackaged, and sold to investors around the world. When the bubble burst, hundreds of billions of dollars in losses in mortgages and mortgage-related securities shook markets as well as financial institutions that had significant exposures to those mortgages and had borrowed heavily against them. This happened not just in the United States but around the world [because there was a global market for investment in U.S. mortgage-backed securities]. The losses were magnified by derivatives such as synthetic securities [*see* the subsequent discussion].
>
> The crisis reached seismic proportions in September 2008 with the failure of Lehman Brothers [a large investment bank] and the impending collapse of the insurance giant American International Group (AIG). Panic fanned by a lack of transparency of the balance sheets of major financial institutions, coupled with a tangle of interconnections among institutions perceived to be "too big to fail," caused the credit markets to seize up. Trading ground to a halt. The stock market plummeted. The economy plunged into a deep recession.[176]

The National Commission, *Financial Crisis Report* explains that from 1978 to 2007, the debt held by the financial sector increased from $3 trillion to $36 trillion, and in 2006, the financial sector accounted for 27% of all corporate profits in the U.S. In 1980, the financial sector accounted for only 15% of corporate profits.[177]

Also, the National Commission, *Financial Crisis Report* elaborates as follows on the impact of subprime lending:

> There was an explosion in risky subprime lending [*see* the discussion below] and securitization [*see* the discussion below], an unsustainable rise in housing prices, widespread reports of egregious and predatory lending practices, dramatic increases in household mortgage debt, and exponential growth in financial firms' trading activities, unregulated derivatives [*see* discussion below], and short-term "repo" lending markets [*see* discussion below], among many other red flags. Yet there was pervasive permissiveness; little meaningful action was taken to quell the threats in a timely manner.[178]

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[176] National Commission, *Financial Crisis Report*, *infra* Bibliography, at xvi.
[177] *Id*. at xvii.
[178] *Id*.

C. What impact did the Financial Crisis have on family income and wealth?

Not surprisingly, the Financial Crisis had a significant adverse effect on family income and wealth. For example, a 2012 Federal Reserve Board study of Family Finances reports as follows on recent changes in both family income and family net worth:

> [O]ver the 2007–10 period, the median value of real (inflation-adjusted) family income before taxes fell 7.7 percent; median income had also fallen slightly in the preceding three-year period. The decline in median income was widespread across demographic groups, with only a few groups experiencing stable or rising incomes. . . .
>
> The decreases in family income over the 2007−10 period were substantially smaller than the declines in both median and mean net worth; overall, median net worth fell 38.8 percent, and the mean fell 14.7 percent. Median net worth fell for most groups between 2007 and 2010, and the decline in the median was almost always larger than the decline in the mean. The exceptions to this pattern in the medians and means are seen in the highest 10 percent of the distributions of income and net worth, where changes in the median were relatively muted. Although declines in the values of financial assets or business were important factors for some families, the decreases in median net worth appear to have been driven most strongly by a broad collapse in house prices.[179]

D. What has been the recent trend in household income?

As discussed more fully in Chapter 7, a Census Bureau Report indicates that there has finally been an increase in post-crisis real median household income. The Report states.

> Median household income in the United States in 2015 was $56,516, an increase in real terms of 5.2 percent from the 2014 median income of $53,718. This is the first annual increase in median household income since 2007, the year before the most recent recession.[180]

E. What were the causes of the Financial Crisis?

The National Commission, *Financial Crisis Report* breaks its Conclusions concerning the causes of the Financial Crisis into the following eight categories:

- We conclude this financial crisis was avoidable.
- We conclude widespread failures in financial regulation and supervision proved devastating to the stability of the nation's financial markets.
- We conclude dramatic failures of corporate governance and risk management at many systemically important financial institutions were a key cause of this crisis.
- We conclude a combination of excessive borrowing, risky investments, and lack of transparency put the financial system on a collision course with crisis.

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[179] Fed, *2012 Family Finances Study*, *infra* Bibliography at 1.

[180] Census Bureau, News Release, *Income, Poverty and Health Insurance Coverage in the United States: 2015* (Sept. 13, 2016).

- We conclude the government was ill prepared for the crisis, and its inconsistent response added to the uncertainty and panic in the financial markets.
- We conclude there was a systemic breakdown in accountability and ethics.
- We conclude over-the-counter derivatives [*see* discussion below] contributed significantly to this crisis.
- We conclude the failures of credit rating agencies were essential cogs in the wheel of financial destruction.[181]

In reaching similar conclusions, the Senate, *Financial Collapse Report* states that "the crisis was not a natural disaster, but the result of high risk, complex financial products; undisclosed conflicts of interest; and the failure of regulators, the credit rating agencies, and the market itself to rein in the excesses of Wall Street."[182]

F. How did the "shadow" financial system and regulatory failures contribute to the Financial Crisis?

In the U.S., a complex set of overlapping laws regulate banks and other players in financial markets. As a result of more stringent regulation by some regulators than others and gaps in regulation, the "shadow" banking system evolved. This system involved firms performing unregulated activities that were similar to regulated activities performed by banks and other regulated financial institutions. The National Commission, *Financial Crisis Report* gives the following background information on this shadow banking system:

> [O]ver the past 30-plus years, we permitted the growth of a shadow banking system—opaque and laden with short-term debt—that rivaled the size of the traditional banking system. Key components of the market—for example, the multitrillion-dollar repo lending market off-balance-sheet entities, and the use of over-the-counter derivatives [*see* discussion below of each of these concepts]—were hidden from view, without the protections we had constructed to prevent financial meltdowns. We had a 21st-century financial system with 19th-century safeguards.[183]

The National Commission, *Financial Crisis Report* gives the following summary of the regulatory failures that contributed to the Financial Crisis:

> The sentries were not at their posts, in no small part due to the widely accepted faith in the self-correcting nature of the markets and the ability of financial institutions to effectively police themselves. More than 30 years of deregulation and reliance on self-regulation by financial institutions, championed by former Federal Reserve chairman Alan Greenspan and others, supported by successive administrations and Congresses, and actively pushed by the powerful financial industry at every turn, had stripped away key safeguards, which could have helped avoid catastrophe. This approach had opened up gaps in oversight of critical areas with trillions of dollars at risk, such as the shadow banking system and over-the-counter derivatives markets. In addition, the government permitted

[181] National Commission, *Financial Crisis Report*, *infra* Bibliography, at xvii-xxv.
[182] Senate, *Financial Collapse Report*, *infra* Bibliography, at 1.
[183] National Commission, *Financial Crisis Report*, *infra* Bibliography, at xx.

financial firms to pick their preferred regulators in what became a race to the weakest supervisor.[184]

G. What is subprime mortgage lending?

Subprime mortgage lending was at the heart of the Financial Crisis. Without this lending, there would have been no crisis. Subprime loans encompass a broad range of loans made to people who may have difficulty repaying the loans. The National Commission's, *Financial Crisis Report* contains the following description of "these once-rare mortgage products with their strange-sounding names:"

> [S]ubprime, I-O (interest-only), low-doc, no-doc, or ninja (no income, no job, no assets) loans; 2–28s [2 year fixed rate, 28 year floating] and 3–27s [3 year fixed rate, 27 year floating]; liar loans; piggyback second mortgages; payment-option or pick-a-pay adjustable rate mortgages. New variants on adjustable-rate mortgages [ARMs] called "exploding" ARMs, featured low monthly costs at first, but payments could suddenly double or triple, if borrowers were unable to refinance. Loans with negative amortization would eat away the borrower's equity.[185]

Related to subprime loans are "Alt-A" loans, which are risker than an "A" or prime loan, but not as risky as a subprime loan. The National Commission's Report explains that "there were a multitude of different kinds of mortgages available on the market, confounding consumers who didn't examine the fine print, baffling conscientious borrowers who tried to puzzle out their implications, and opening the door for those who wanted in on the action."[186]

H. What were the subprime lending practices at Washington Mutual, a leader in this market?

The Senate, *Financial Collapse Report* contains an elaborate discussion of the subprime lending practices at Washington Mutual Bank (WaMu), which the Report explains were common throughout the industry.

Before the financial crisis, WaMu was the nation's largest thrift and sixth largest bank, and as result of the financial crisis, it went into receivership and was acquired by JP Morgan. The Senate's Report discusses as follows these practices:

> Beginning in 2004, [WaMu] embarked upon a lending strategy to pursue higher profits by emphasizing high risk loans. By 2006, WaMu's high risk loans began incurring high rates of delinquency and default, and in 2007, its mortgage backed securities began incurring ratings downgrades and losses. Also in 2007, the bank itself began incurring losses due to a portfolio that contained poor quality and fraudulent loans and securities. Its stock price dropped as shareholders lost confidence, and depositors began withdrawing funds, eventually causing a liquidity crisis at the bank. . . .
>
> WaMu had held itself out as a prudent lender, but in reality, the bank turned increasingly to higher risk loans. Over a four-year period, those higher risk

[184] *Id*. at xviii.
[185] *Id*. at 6.
[186] *Id*. at 6-7.

loans grew from 19% of WaMu's loan originations in 2003, to 55% in 2006, while its lower risk, fixed rate loans fell from 64% to 25% of its originations. At the same time, WaMu increased its securitization [*see* discussion below] of subprime loans sixfold, primarily through its subprime lender, Long Beach Mortgage Corporation, increasing such loans from nearly $4.5 billion in 2003, to $29 billion in 2006. From 2000 to 2007, WaMu and Long Beach together securitized at least $77 billion in subprime loans.

WaMu also originated an increasing number of its flagship product, Option Adjustable Rate Mortgages (Option ARMs), which created high risk, negatively amortizing mortgages and from 2003 to 2007, represented as much as half of all of WaMu's loan originations. In 2006 alone, Washington Mutual originated more than $42.6 billion in Option ARM loans and sold or securitized at least $115 billion to investors, including sales to the Federal National Mortgage Association (Fannie Mae) and Federal Home Loan Mortgage Corporation (Freddie Mac) [*see* the subsequent discussion of Fannie Mae and Freddie Mac]. In addition, WaMu greatly increased its origination and securitization of high risk home equity loan products. By 2007, home equity loans made up $63.5 billion or 27% of its home loan portfolio, a 130% increase from 2003.

At the same time that WaMu was implementing its high risk lending strategy, WaMu and Long Beach engaged in a host of shoddy lending practices that produced billions of dollars in high risk, poor quality mortgages and mortgage-backed securities. Those practices included qualifying high risk borrowers for larger loans than they could afford; steering borrowers from conventional mortgages to higher risk loan products; accepting loan applications without verifying the borrower's income; using loans with low, short-term "teaser" rates that could lead to payment shock when higher interest rates took effect later on; promoting negatively amortizing loans in which many borrowers increased rather than paid down their debt; and authorizing loans with multiple layers of risk. In addition, WaMu and Long Beach failed to enforce compliance with their own lending standards; allowed excessive loan error and exception rates; exercised weak oversight over the third party mortgage brokers who supplied half or more of their loans; and tolerated the issuance of loans with fraudulent or erroneous borrower information. They also designed compensation incentives that rewarded loan personnel for issuing a large volume of higher risk loans, valuing speed and volume over loan quality. As a result, WaMu, and particularly its Long Beach subsidiary, became known by industry insiders for its failed mortgages and poorly performing RMBS [residential mortgage backed securities]. Among sophisticated investors, its securitizations were understood to be some of the worst performing in the marketplace.[187]

[187] Senate, *Financial Collapse Report*, *infra* Bibliography, at 2-3.

I. Why did Washington Mutual move into subprime lending?

The Senate, *Financial Collapse Report* explains as follows the reason WaMu followed its subprime strategy:

> WaMu launched its high risk lending strategy primarily because higher risk loans and mortgage backed securities could be sold for higher prices on Wall Street. They garnered higher prices, because higher risk meant the securities paid a higher coupon rate than other comparably rated securities, and investors paid a higher price to buy them. Selling or securitizing the loans also removed them from WaMu's books and appeared to insulate the bank from risk.[188]

The Report says that these subprime lending and securitization practices were not restricted to WaMu, "but were present at a host of financial institutions that originated, sold, and securitized billions of dollars in high risk, poor quality home loans that inundated U.S. financial markets."[189]

J. What is the securitization process for residential mortgage backed securities (RMBS)?

The securitization process for residential mortgage backed securities (RMBS) can be broken into four steps. In the first step, a lender, like WaMu, discussed above, originates residential mortgages, that is, it makes loans to home buyers that are secured by mortgages on the homes. The loans are made either directly by the financial institution or through independent mortgage brokers who act as intermediaries between home buyers and the lenders.

In the second step, a financial firm, such as Citigroup, a large Wall Street bank and investment bank, purchases a package of residential mortgages on homes from a firm or firms that originated the mortgages, such as WaMu. Thus, the firm that originates the mortgages does not continue to own them, but rather sells the mortgages thereby both (1) earning a profit on the mortgages, and (2) raising funds to originate additional mortgages.

In the third step, Citigroup would sell or contribute the mortgages to an entity controlled by Citigroup but not included on its balance sheet, that is, an "off-balance sheet" entity. These entities were generally known as special purpose vehicles (SPVs) or special purpose entites (SPEs). At this point, the SPV holds the mortgages.

In the fourth step, the SPV (1) carves up the ownership interests in the mortgages by creating securities with specific rights to the mortgage pool (*i.e.*, residential mortgage backed securities, or RMBS), and (2) then sells the RMBS to several investors and financial firms, including European banks. As discussed below, the credit rating agencies were key in this process, because certain financial institutions could only purchase RMBS with high credit ratings. To summarize, the interests in a package of residential mortgages are securitized, that is, carved up into different types of securities which are sold to different investors. The securitization process is similar to the process by which stock ownership in a company can be sold to different investors.

The securitization process is described in greater detail as follows in the National Commission, *Financial Crisis Report*:

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[188] *Id*. at 4.
[189] *Id*.

In 2006, New Century Financial, a California-based lender, originated and sold 4,499 subprime mortgages to Citigroup, which sold them to a separate legal entity [*i.e.*, a SPE] that Citigroup sponsored that would own the mortgages and issue the tranches. [These tranches were separate ownership interests, or securities with different rights. They are similar to the creation of multiple classes of stock in a corporation.] The entity purchased the loans with cash it had raised by selling the securities these loans would back. The entity had been created as a separate legal structure so that the assets would sit off Citigroup's balance sheet, an arrangement with tax and regulatory benefits.

The 4,499 mortgages carried the rights to the borrowers' monthly payments, which the Citigroup entity divided into 19 tranches of mortgage-backed securities; each tranche gave investors a different priority claim on the flow of payments from the borrowers, and a different interest rate and repayment schedule. The credit rating agencies assigned ratings to most of these tranches for investors, who—as securitization became increasingly complicated—came to rely more heavily on these ratings. Tranches were assigned letter ratings by the rating agencies based on their riskiness. . . .

Below the senior tranches and next in line for payments were eleven "mezzanine" tranches—so named because they sat between the riskiest and the safest tranches. These were riskier than the senior tranches and, because they paid off more slowly, carried a higher risk that an increase in interest rates would make the locked-in interest payments less valuable. As a result, they paid a correspondingly higher interest rate. . . .

The last to be paid was the most junior tranche, called the "equity," "residual," or "first-loss" tranche, set up to receive whatever cash flow was left over after all the other investors had been paid. This tranche would suffer the first losses from any defaults of the mortgages in the pool. Commensurate with this high risk, it provided the highest yields. In the Citigroup deal, as was common, this piece of the deal was not rated at all. Citigroup and a hedge fund each held half the equity tranche.

While investors in the lower-rated tranches received higher interest rates because they knew there was a risk of loss, investors in the triple-A [i.e., the highest rated] tranches did not expect payments from the mortgages to stop. This expectation of safety was important, so the firms structuring securities focused on achieving high ratings. In the structure of this Citigroup deal, which was typical, $737 million, or 78%, was rated triple-A.[190]

K. What is a collateralized debt obligation (CDO)?

A Collateralized Debt Obligation (CDO) is like a securitization of a securitization. The National Commission, *Financial Crisis Report* gives the following explanation:

Despite their relatively high returns, tranches [of securitized mortgage pools] rated other than triple-A could be hard to sell. If borrowers were delinquent or defaulted, investors in these tranches were out of luck because of where they sat in the payments waterfall [from triple A to junk].

[190] National Commission, *Financial Crisis Report*, *infra* Bibliography, at 71-72.

> Wall Street came up with a solution: in the words of one banker, they "created the investor." That is, they built new securities that would buy the tranches that had become harder to sell. Bankers would take those low investment-grade tranches, largely rated BBB or A, from many mortgage-backed securities and repackage them into the new securities—CDOs. Approximately 80% of these CDO tranches would be rated triple-A despite the fact that they generally comprised the lower-rated tranches of mortgage-backed securities. CDO securities would be sold with their own waterfalls, with the risk-averse investors, again, paid first and the risk-seeking investors paid last. As they did in the case of mortgage-backed securities, the rating agencies gave their highest, triple-A ratings to the securities at the top.
>
> Still, it was not obvious that a pool of mortgage-backed securities rated BBB could be transformed into a new security that is mostly rated triple-A. But math made it so.[191]

L. What was the role of the credit rating agencies in the securitization process?

The National Commission, *Financial Crisis Report* contains the following description of the role of the credit rating agencies in the securitization process and the contribution of these agencies to the financial crisis:

> The three credit rating agencies were key enablers of the financial meltdown. The mortgage-related securities at the heart of the crisis could not have been marketed and sold without their seal of approval. Investors relied on them, often blindly. In some cases, they were obligated to use them, or regulatory capital standards were hinged on them. This crisis could not have happened without the rating agencies. Their ratings helped the market soar and their downgrades through 2007 and 2008 wreaked havoc across markets and firms. . . .
>
> From 2000 to 2007, Moody's rated nearly 45,000 mortgage-related securities as triple-A. This compares with six private-sector companies in the United States that carried this coveted rating in early 2010. In 2006 alone, Moody's put its triple-A stamp of approval on 30 mortgage-related securities every working day. The results were disastrous: 83% of the mortgage securities rated triple-A that year ultimately were downgraded.
>
> [T]he forces at work behind the breakdowns at Moody's [included] flawed computer models, . . . pressure from financial firms that paid for the ratings, the relentless drive for market share, the lack of resources to do the job despite record profits, and the absence of meaningful public oversight. . . . [W]ithout the active participation of the rating agencies, the market for mortgage-related securities could not have been what it became.[192]

The Senate, *Financial Collapse Report* elaborates as follows on the role of the credit rating agencies in creating the financial crisis:

> Between 2004 and 2007, Moody's and S&P issued credit ratings for tens of thousands of U.S. residential mortgage backed securities (RMBS) and

[191] *Id*. at 127.
[192] *Id*. at xxv.

collateralized debt obligations (CDOs) [*see* discussion below]. Taking in increasing revenue from Wall Street firms, Moody's and S&P issued AAA and other investment grade credit ratings for the vast majority of those RMBS and CDO securities, deeming them safe investments even though many relied on high risk home loans. In late 2006, high risk mortgages began incurring delinquencies and defaults at an alarming rate. Despite signs of a deteriorating mortgage market, Moody's and S&P continued for six months to issue investment grade ratings for numerous RMBS and CDO securities.

Then, in July 2007, as mortgage delinquencies intensified and RMBS and CDO securities began incurring losses, both companies abruptly reversed course and began downgrading at record numbers hundreds and then thousands of their RMBS and CDO ratings, some less than a year old. [193]

M. What was the impact of the downgrades of RMBS and CDOs by the credit rating agencies?

The Senate, *Financial Collapse Report* gives the following description of the impact on the financial system of the massive downgrades in the ratings of RMBS and CDOs by the credit rating agencies:

> Investors like banks, pension funds, and insurance companies, who are by rule barred from owning low rated securities, were forced to sell off their downgraded RMBS and CDO holdings, because they had lost their investment grade status. RMBS and CDO securities held by financial firms lost much of their value, and new securitizations were unable to find investors. The subprime RMBS market initially froze and then collapsed, leaving investors and financial firms around the world holding unmarketable subprime RMBS securities plummeting in value. A few months later, the CDO market collapsed as well.
>
> Traditionally, investments holding AAA ratings have had a less than 1% probability of incurring defaults. But in 2007, the vast majority of RMBS and CDO securities with AAA ratings incurred substantial losses; some failed outright. Analysts have determined that over 90% of the AAA ratings given to subprime RMBS securities originated in 2006 and 2007 were later downgraded by the credit rating agencies to junk status. In the case of Long Beach, 75 out of 75 AAA rated Long Beach securities issued in 2006, were later downgraded to junk status, defaulted, or withdrawn. Investors and financial institutions holding the AAA rated securities lost significant value. Those widespread losses led, in turn, to a loss of investor confidence in the value of the AAA rating, in the holdings of major U.S. financial institutions, and even in the viability of U.S. financial markets.
>
> Inaccurate AAA credit ratings introduced risk into the U.S. financial system and constituted a key cause of the financial crisis. In addition, the July mass downgrades, which were unprecedented in number and scope, precipitated the collapse of the RMBS and CDO secondary markets, and perhaps more than any other single event triggered the beginning of the financial crisis.[194]

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[193] Senate, *Financial Collapse Report*, *infra* Bibliography, at 6.
[194] *Id*.

N. What role did derivatives play in the financial crisis?

Derivatives, particularly credit default derivatives, played a large role in the financial crisis. Before looking at credit default derivatives, we first look at some basic principles involving derivatives.

A derivative is a contract whose value is determined by the movements in the value of an underlying asset. They include options, futures, forward contracts, and various types of swaps. This section provides an introduction.

The basic concept is best illustrated by an example. Options on stock are traded on several securities exchanges, such as the Chicago Board Options Exchange. Assume that an exchange traded call option on IBM stock gives (1) the purchaser of the option (the long party) the contractual right to buy a specified number of IBM shares within a specified period, and (2) the seller of the option (the short party) the contractual obligation to sell to the long party the specified number of IBM shares within the specified period.

To induce the short party to sell the option, the long party transfers to the short party a purchase price, which is called a "premium." If the value of IBM shares increases, the long party may exercise the option and buy the stock from the short party at the contract price, which would be at a bargain compared to the price of the IBM stock. In such case, the short party will suffer an economic loss. On the other hand, if the price of IBM shares falls, the long party will likely not exercise the option, and the short party will have a gain equal to the premium.

Exchange traded options are generally settled in cash rather than with a transfer of the underlying asset. For example, if after a purchase of a call option, the price of IBM increases, the price of the option will increase and rather than actually purchasing the IBM stock underlying the option, the long party may just sell the option at a gain. The ability to sell the option is made possible by a clearing organization that stands between every purchaser and seller of an option.

In addition to call options, there are also exchange traded put options on stock. These options give the purchaser of the put (the short party) the right to sell the underlying stock to the seller of the put (the long party). If the price of the stock falls, the purchaser of the put benefits, and the seller of the put suffers a loss; vice versa if the price of the underlying stock increases in value.

In addition to exchange traded options, there are exchange traded futures on many different types of commodities, such as corn, wheat, and gold, and also on many different types of securities, such as Treasury Bonds and stock indices. Futures give the purchaser the right and obligation to buy the underlying asset and the seller the right and obligation to sell the underlying asset. As with options, there is a clearing organization for futures, which permits the contracts to be closed out for cash, which is generally the case.

There is a very active forward market for trading foreign currencies. Although forward contracts are similar to futures contracts, forward contracts are not traded on an exchange; they are traded on an informal market between sophisticated financial institutions.

There is also a very active swaps market that encompasses various types of derivatives such as a swap that permits the holder of a fixed rate debt obligation to swap it into a floating rate debt obligation. Like forward contracts, swaps are not traded on an exchange.

Derivatives that are not exchange traded are called Over-the-Counter (OTC) derivatives. These include the credit default swaps (CDSs) discussed below. The market for exchange traded options and futures generally worked well during the financial crisis and did not contribute in a meaningful way to the crisis.

O. What are credit default swap derivatives and what role did they play in the Financial Crisis?

The National Commission, *Financial Crisis Report* gives the following explanation of credit default swap (CDS) derivatives and their impact on the financial crisis:

> OTC derivatives contributed to the crisis in three significant ways. First, one type of [OTC] derivative—credit default swaps (CDS)—fueled the mortgage securitization pipeline. CDS were sold to investors to protect against the default or decline in value of mortgage-related securities backed by risky loans. Companies sold protection—to the tune of $79 billion, in AIG's case—to investors in these newfangled mortgage securities, helping to launch and expand the market and, in turn, to further fuel the housing bubble.[195]

Thus, firms like AIG through CDSs guaranteed that the RMBS and CDOs would be paid. In essence, the owner of the RMBS and CDOs were transferring (swapping) to AIG the risk of loss on these assets for a fee paid to AIG.

The National Commission, *Financial Crisis Report* says that these CDOs "contributed to the housing bubble."[196]

P. What role did credit default swaps play in the collateralized debt obligations (CDOs) market?

The National Commission, *Financial Crisis Report* provides the following analysis of the impact of credit default swaps on the sale of CDOs:

> Credit default swaps, sold to provide protection against default to purchasers of the top-rated tranches of CDOs, facilitated the sale of those tranches by convincing investors of their low risk, but greatly increased the exposure of the sellers of the credit default swap protection to the housing bubble's collapse.[197]

Q. What are synthetic collateralized debt obligation (CDOs) and what role did they have in the Financial Crisis?

The National Commission, *Financial Crisis Report* gives the following description of "synthetic CDOs" and their impact on the Financial Crisis:

> [S]ynthetic CDOs were merely bets on the performance of real mortgage-related securities. They amplified the losses from the collapse of the housing bubble by allowing multiple bets on the same securities and helped spread them throughout the financial system. Goldman Sachs alone packaged and sold $73 billion in synthetic CDOs from July 1, 2004 to May 31, 2007. Synthetic CDOs created by Goldman referenced more than 3,400 mortgage securities, and 610 of

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[195] National Commission, *Financial Crisis Report*, *infra* Bibliography, at xxiv.
[196] *Id*. at 155.
[197] *Id*.

> them were referenced at least twice. This is apart from how many times these securities may have been referenced in synthetic CDOs created by other firms.[198]

The National Commission's *Report* also says that credit default swaps "were essential to the creation of synthetic CDOs."[199]

R. What overall role did credit default swaps (CDS) and other derivatives play in the financial crisis?

The National Commission, *Financial Crisis Report* gives the following description of the impact of credit default swaps (CDS) and other derivatives on the financial crisis:

> [W]hen the housing bubble popped and crisis followed, derivatives were in the center of the storm. AIG, which had not been required to put aside capital reserves as a cushion for the protection it was selling, was bailed out when it could not meet its obligations. The government ultimately committed more than $180 billion because of concerns that AIG's collapse would trigger cascading losses throughout the global financial system. In addition, the existence of millions of derivatives contracts of all types between systemically important financial institutions—unseen and unknown in this unregulated market—added to uncertainty and escalated panic, helping to precipitate government assistance to those institutions.[200]

S. What is "repo" lending and what role did it have in the Financial Crisis?

Repo lending involves an owner (Borrower) of an asset, such as a Treasury Bond, selling the Bond to another party (Lender) with an agreement that the Borrower will buy the Bond back at a specified time, which usually is shortly after the sale, for a specified amount, which is more than the sale price. Thus, the Repo is much like a short-term secured loan, with the Borrower receiving funds that it will have to pay back with interest at which time it receives back the security for the loan. The term "Repo" is short for the term "repurchase agreement."

The National Commission, *Financial Crisis Report* gives the following background on the Repo lending market and its contribution to the Financial Crisis:

> The ability to borrow using the AAA and AA tranches of CDOs as repo collateral facilitated demand for those securities. But repo borrowing carried risks: it created significant leverage and it had to be renewed frequently. For example, an investor buying a stock on margin—meaning with borrowed money—might have to put up 50 cents on the dollar, with the other 50 cents loaned by his or her stockbroker, for a leverage ratio of 2 to 1. A homeowner buying a house might make a 10% down payment and take out a mortgage for the rest, a leverage ratio of 10 to 1. By contrast, repo lending allowed an investor to buy a security for much less out of pocket—in the case of a Treasury security, an investor may have to put in only 0.25%, borrowing 99.75% from a securities firm

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[198] *Id*. at xxiv-xxv.
[199] *Id*. at xxiv.
[200] *Id*. at xxv.

(400 to 1). In the case of a mortgage-backed security, an investor might pay 5% (20 to 1).

With this amount of leverage, a 5% change in the value of that mortgage-backed security can double the investor's money—or lose all of the initial investment.[201]

T. What was the role of investment banks in creating structured finance products and how did they impact the Financial Crisis?

"Structured finance products" are complex financial instruments that are generally created by investment banks. As explained by the Senate, *Financial Collapse Report*, these products included "RMBS and CDO securities, credit default swaps (CDS), and CDS contracts linked to the ABX Index."[202] Thus, structured finance products encompass many of the financial instruments discussed above.

The Senate Report contains the following discussion of this market leading up to the financial crisis and the role of investment bankers in creating these structured finance products:

> From 2004 to 2008, U.S. financial institutions issued nearly $2.5 trillion in RMBS and over $1.4 trillion in CDO securities, backed primarily by mortgage related products. Investment banks typically charged fees of $1 to $8 million to act as the underwriter of an RMBS securitization, and $5 to $10 million to act as the placement agent for a CDO securitization. Those fees contributed substantial revenues to the investment banks, which established internal structured finance groups, as well as a variety of RMBS and CDO origination and trading desks within those groups, to handle mortgage related securitizations. Investment banks sold RMBS and CDO securities to investors around the world, and helped develop a secondary market where RMBS and CDO securities could be traded. The investment banks' trading desks participated in those secondary markets, buying and selling RMBS and CDO securities either on behalf of their clients or in connection with their own proprietary transactions.
>
> The financial products developed by investment banks allowed investors to profit, not only from the success of an RMBS or CDO securitization, but also from its failure. CDS contracts, for example, allowed counterparties to wager on the rise or fall in the value of a specific RMBS security or on a collection of RMBS and other assets contained or referenced in a CDO. Major investment banks developed standardized CDS contracts that could also be traded on a secondary market. In addition, they established the ABX Index which allowed counterparties to wager on the rise or fall in the value of a basket of subprime RMBS securities, which could be used to reflect the status of the subprime mortgage market as a whole. The investment banks sometimes matched up parties who wanted to take opposite sides in a transaction and other times took one or the other side of the transaction to accommodate a client. At still other times, investment banks used these financial instruments to make their own proprietary

[201] *Id*. at 135.
[202] Senate, *Financial Collapse Report*, *infra* Bibliography, at 8.

wagers. In extreme cases, some investment banks set up structured finance transactions which enabled them to profit at the expense of their clients.[203]

U. What are Fannie Mae and Freddie Mac and what role did they play in the Financial Crisis?

Fannie Mae (officially, the Federal National Mortgage Association) was organized by the Federal government during the Great Depression, and its purpose was to buy mortgages insured by the Federal Housing Administration (FHA). This ensured that there would be a supply of credit for mortgages that met the FHA lending standards. Fannie Mae held some of the mortgages and sold others to financial firms and investors.

During the Johnson administration in the 1960's, Fannie Mae was reorganized as a publicly held corporation, known as a GSE, or government sponsored enterprise. Also, two years later, Congress organized Freddie Mac (officially, the Federal Home Loan Mortgage Corporation) as a second publicly traded GSE. Congress authorized both Fannie Mae and Freddie Mac to purchase certain conventional (non-FHA) mortgages from private firms, thus making more funds available for mortgage lending.

Eventually both Fannie and Freddie got into the "business of buying mortgages, pooling them, and then selling mortgage-backed securities. Freddie collected fees from lenders for guaranteeing timely payment of principal and interest."[204]

The National Commission, *Financial Crisis Report* explains as follows the roles of Fannie and Freddie:

> Fannie and Freddie had dual missions, both public and private: support the mortgage market and maximize returns for shareholders. They did not originate mortgages; they purchased them—from banks, thrifts, and mortgage companies—and either held them in their portfolios or securitized and guaranteed them. Congress granted both enterprises special privileges, such as exemptions from state and local taxes and a $2.25 billion line of credit each from the Treasury. The Federal Reserve provided services such as electronically clearing payments for GSE debt and securities as if they were Treasury bonds. So Fannie and Freddie could borrow at rates almost as low as the Treasury paid. Federal laws allowed banks, thrifts, and investment funds to invest in GSE securities with relatively favorable capital requirements and without limits. By contrast, laws and regulations strictly limited the amount of loans banks could make to a single borrower and restricted their investments in the debt obligations of other firms. In addition, unlike banks and thrifts, the GSEs were required to hold very little capital to protect against losses: only 0.45% to back their guarantees of mortgage-backed securities and 2.5% to back the mortgages in their portfolios. This compared to bank and thrift capital requirements of at least 4% of mortgage assets under capital standards. Such privileges led investors and creditors to believe that the government implicitly guaranteed the GSEs' mortgage-backed securities and debt and that GSE securities were therefore almost as safe as Treasury bills. As a

[203] *Id*.
[204] National Commission, *Financial Crisis Report*, *infra* Bibliography, at 39.

result, investors accepted very low returns on GSE-guaranteed mortgage backed securities and GSE debt obligations.[205]

As a result of various regulatory developments and competition from Wall Street, Fannie and Freddie began to purchase and securitize subprime loans, and this led to the Treasury's decision on September 7, 2008 to place them into conservatorship. As the National Commission, *Financial Crisis Report* explains:

> Fannie and Freddie continued to purchase subprime and Alt-A mortgage–backed securities from 2005 to 2008 and also bought and securitized greater numbers of riskier mortgages. The results would be disastrous for the companies, their shareholders, and American taxpayers.[206]

The Report also explains: "[As a result of the government guarantees] GSE mortgage securities essentially maintained their value throughout the crisis and did not contribute to the significant financial firm losses that were central to the financial crisis."[207]

V. What financial firms collapsed or were acquired as a result of the Financial Crisis?

As a result of the Financial Crisis, (1) Lehman Brothers, an investment bank, went into bankruptcy; (2) AIG, an insurance company, was bailed out by the government; (3) Merrill Lynch, an investment bank, and Countrywide, a subprime lender, were acquired by Bank of America; (4) Bear Stearns, an investment bank, and Washington Mutual were acquired by JP Morgan; (5) Wachovia was acquired by Wells Fargo; (6) IndyMac failed and was taken over by the FDIC; and (7) as indicated previously, Fannie Mae and Freddie Mac were put into conservatorship.

W. What was the economic impact of the Financial Crisis of 2007 and 2008?

The National Commission, *Financial Crisis Report* gives the following description of the impact of the Financial Crisis as of the date of the Report in January 2011:

> [T]here are more than 26 million Americans who are out of work, cannot find full-time work, or have given up looking for work. About four million families have lost their homes to foreclosure and another four and a half million have slipped into the foreclosure process or are seriously behind on their mortgage payments. Nearly $11 trillion in household wealth has vanished, with retirement accounts and life savings swept away. Businesses, large and small, have felt the sting of a deep recession. . . .
>
> The collateral damage of this crisis has been real people and real communities. The impacts of this crisis are likely to be felt for a generation. And the nation faces no easy path to renewed economic strength.[208]

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[205] *Id*.
[206] *Id*. at 125.
[207] *Id*. at 323.
[208] National Commission, *Financial Crisis Report*, *infra* Bibliography at xv-xvi.

X. How has the Financial Crisis affected the growth of GDP?

Recall that gross domestic product (GDP) consists of Consumption spending (C); investment spending by private firms, including investment in new residential real estate (I); government spending (G); and net exports (X-M). Two principal ways in which the Financial Crisis has affected the growth of GDP is through significant reductions in both

(1) spending as a result of the evaporation of personal wealth resulting from the burst of the housing bubble, and

(2) investment spending on new residential real estate as a result of the glut of houses on the market.

Although, after the beginning of the Financial Crisis, there was initially an increase in government spending because of concerns with budget deficits, this spending has dried up. Further, because of the 2011-2012 economic crisis in Europe, there was a decrease in net exports. Consequently, as of early 2012, there had been a lack of spending by all of the components of GDP: C, I, G and (X-M).

The reduction in spending and growth of GDP initially led to a significant and persistent high rate of unemployment.

The housing market's impact on economic growth during the period following the Financial Crisis is addressed as follows in a 2012 letter from Ben Bernanke, the then Chairman of the Federal Reserve Board, to the Committee on Financial Services of the U.S. House of Representatives:

> The ongoing problems in the U.S. housing market continue to impede the economic recovery. House prices have fallen an average of about 33 percent from their 2006 peak, resulting in about $7 trillion in household wealth losses and an associated ratcheting down of aggregate consumption. At the same time, an unprecedented number of households have lost, or are on the verge of losing, their homes. The extraordinary problems plaguing the housing market reflect in part the effect of weak demand due to high unemployment and heightened uncertainty. But the problems also reflect three key forces originating from within the housing market itself: a persistent excess supply of vacant homes on the market, many of which stem from foreclosures; a marked and potentially long-term downshift in the supply of mortgage credit; and the costs that an often unwieldy and inefficient foreclosure process imposes on homeowners, lenders, and communities.[209]

Y. What has been the relationship between the rate of growth of GDP and the unemployment rate from 2010 through 2015?

Notwithstanding the bleak picture of the employment market painted by Chairman Bernanke in the answer to the immediately preceding question, as indicated in the following Table 12-A (which is also set out as Table 7-C) from 2010 through 2011, there has been both (1) a modest increase in GDP, and (2) a rather significant decrease in the unemployment rate.

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[209] Ben S Bernanke, Chairman, Board of Governors of the Federal Reserve System , *The U.S. Housing Market: Current Condition and Policy Considerations*, attached to a letter to Spencer Bachus, Chairman and Barney Frank, Ranking Member, of the U.S. House Committee on Financial Services (Jan. 4, 2012).

Table 12-A
Relationship Between (1) Growth Rate of GDP, and (2) Unemployment Rate, 2010-2015

YEAR	GROWTH RATE OF GDP	UNEMPLOYMENT RATE
2010	2.5%	9.6%
2011	1.6%	8.9%
2012	2.2%	8.1%
2013	1.5%	7.4%
2014	2.4%	6.2%
2015	2.4%	5.3%

Source: *2016 Economic Report of the President, infra* Bibliography at Table B-1, Percent Change in Real Gross Domestic Product, 1965-2015, and Table B-12, Civilian Unemployment Rate, 1972-2015

Z. Why did Congress establish the TARP program for addressing the Financial Crisis?

On October 3, 2008, during the last days of the Bush Administration, Congress passed the Emergency Economic Stabilization Act (EESA), which created the Troubled Asset Relief Program (TARP). As explained in the U.S. Treasury, *Citizen's Report on TARP*, in establishing TARP, EESA gave the Treasury "the authorities and facilities to help restore liquidity and stability to the U.S. financial system."[210] The *Citizen's Report* contains the following statement regarding the Treasury's resources under TARP:

> EESA provided authority for the TARP to purchase or guarantee up to $700 billion in troubled assets. In July 2010, The Dodd-Frank Wall Street Reform and Consumer Protection Act amended EESA by capping total purchase and guarantee authority at a cumulative $475 billion and limiting any new obligations only to programs or initiatives that were initiated prior to June 25, 2010. Treasury reduced the TARP program allocations to conform to these limitations. As of October 3, 2010, [The Treasury's] authority to make new commitments under TARP expired.[211]

AA. How did the TARP program work in addressing the Financial Crisis?

The Treasury established several programs under TARP that were designed to stabilize financial and certain other institutions. The programs include:

- The Capital Purchase Program,
- The Targeted Investment Program,
- The Asset Guarantee Program,

[210] U.S. Treasury, *Citizen's Report on TARP*, *infra*, Bibliography at 4.
[211] *Id*. at 13.

- The Public-Private Investment Program,
- The Automotive Industry Financing Program, and
- The AIG Investment Program.

Only the Capital Purchase Program, the Automotive Industry Financing Program and the AIG Investment Program are discussed further here.

BB. What was TARP's Capital Purchase Program?

The U.S. Treasury, *Citizen's Report on TARP* provides the following information on the Capital Purchase Program (CPP), the largest TARP program:

> Through the CPP, Treasury provided capital infusions directly to banks and thrifts deemed viable by their regulators to bolster the capital position of institutions of all sizes and, in doing so, built confidence in these institutions and the financial system as a whole. With the additional capital, CPP participants were better equipped to undertake new lending and continue to provide other services to consumers and businesses, even while absorbing write-downs and charge-offs on loans that were not performing.
>
> Treasury received preferred stock or debt securities, as well as warrants to purchase common shares or other securities from the financial institutions in exchange for the CPP investments. The warrants provide an opportunity for taxpayers to reap additional returns on the CPP investments as CPP participants recover.
>
> The program was successful in achieving its objective, and it will also generate a positive return to taxpayers. From inception of the program through September 30, 2011, Treasury has recovered $185 billion of the $205 billion invested, and received an additional $26 billion in income. The program has continued to strengthen the financial system as more banks have repaid the government's investments, replacing public support with private capital. Treasury holds only $17 billion in remaining investments in 390 institutions.[212]

CC. What was TARP's Automotive Industry Financing Program?

The U.S. Treasury, *Citizen's Report on TARP* provides the following information on the Automotive Industry Financing Program:

> Three years ago, General Motors and Chrysler were on the verge of collapse. The uncontrolled liquidation of these two companies would have significantly disrupted the U.S. automotive industry and caused additional strain on an already weakened financial system and economy.
>
> Recognizing both General Motors Corporation (Old GM) and Chrysler Holdings LLC (Old Chrysler) were on the verge of potentially disorderly liquidations, Treasury under President Bush extended temporary loans to Old GM and Old Chrysler in December 2008. When President Obama took office, he decided to provide additional investment only if the companies engaged in fundamental restructuring. Both companies were required to develop plans to achieve long-term viability, under which all stakeholders, including unions,

[212] *Id*. at 4.

dealers, creditors, and others, would make substantial sacrifices. As a result, General Motors Company (New GM) and Chrysler Group LLC (New Chrysler) are more competitive and viable companies, supporting American jobs and the economy. Operating results have improved, the industry has added jobs, and the TARP investments have begun to be repaid.

New GM's second quarter 2011 profit was its sixth consecutive profitable quarter. Since emerging from bankruptcy, New GM has added shifts at six of its plants to address growing demand. New GM is also on a path to repay the taxpayers for their assistance. In November 2010, New GM completed a successful IPO, one of the largest ever by a U.S. company. As part of the IPO, Treasury sold approximately 412.3 million shares of New GM common stock at $33.00 per share, and thereby recovered approximately $13.5 billion of the taxpayers' investment.

A similar story is playing out at New Chrysler as the company has lowered its structural costs, become more efficient, adopted new technologies, rejuvenated its product line, and rebuilt its brands. Today, its market share continues to recover. As of August 2011, the company had achieved six consecutive quarters of operating profit and on March 31, 2011, Chrysler realized its first quarter of positive net income since exiting bankruptcy. On May 24, 2011, New Chrysler repaid its outstanding TARP loans to Treasury, six years before the loans were scheduled to mature in 2017. In total, Treasury committed $12.4 billion to Chrysler under TARP. To date, more than $11.1 billion of that amount has been returned to taxpayers through principal repayments, interest, and canceled commitments. Treasury is unlikely to fully recover the difference of $1.3 billion owed by Old Chrysler, which is being liquidated. . . .

Treasury also invested a total of $16.3 billion of TARP funds in Ally Financial (formerly GMAC). Ally provides financing to auto dealers and consumers. As a result of repayments, Treasury holds $5.9 billion of mandatory convertible preferred stock in Ally and 74 percent of the outstanding shares of Ally's common stock as of September 30, 2011. Treasury will focus on continuing to exit our remaining AIFP commitments, while recovering as much as possible for the taxpayers.[213]

DD. What was TARP's AIG Investment Program?

The U.S. Treasury, *Citizen's Report on TARP* provides the following information on the AIG Investment Program:

During September, October, and November 2008, the Federal Reserve and Treasury took a series of steps to prevent the disorderly failure of AIG and mitigate the impact that such a failure could have had on the U.S. financial system, as well as global financial and insurance markets. The initial assistance to AIG was provided by the FRBNY before the passage of EESA and the creation of TARP. After EESA was enacted, Treasury and the Federal Reserve continued to work together to address the challenges posed by AIG. The taxpayers' recovery of

[213] *Id*. at 6-7.

these funds has required a fundamental restructuring of AIG's balance sheet and its business operations. . . .

AIG is now experiencing a turnaround. In January 2011, AIG, Treasury, the FRBNY and the AIG Credit Facility Trust (the Trust) completed a complex restructuring transaction that was part of a plan announced in September 2010. The restructuring plan was designed to accelerate the timeline for AIG's repayment of the government support and facilitate its transition from a majority government-owned and supported entity to a financially sound and independent entity.

Following completion of this transaction, in May 2011, AIG and Treasury completed a public offering of AIG common stock. Having stabilized its operations, Treasury is now in a better position to recoup its investments in AIG. As a result, during fiscal year 2011, substantial progress was made in reducing Treasury's exposure to AIG.

At its peak, the FRBNY and Treasury committed approximately $180 billion in loans and commitments to AIG, with $70 billion of that committed by Treasury under TARP. As of September 30, 2011, the FRBNY's direct loans to AIG have been repaid and Treasury's total investment in AIG stood at $51 billion. In addition, $18.8 billion is owed to the FRBNY by Maiden Lane II and III – two limited liability corporations created to alleviate capital and liquidity pressures on AIG during the 2008 crisis.[214]

EE.Has the Treasury been repaid its TARP money?

The U.S. Treasury, *Citizens Report on TARP* provides, as of the end of the 2011 fiscal year, the following information regarding the amounts repaid on the Treasury's TARP investments in the banking industry, which were the largest investments made under TARP:

Treasury has already recovered an amount that is greater than what was invested through TARP's banking programs and has begun to see a positive return for the taxpayers. A total of $245 billion was invested in banking institutions pursuant to several TARP initiatives. Since TARP's inception and through September 30, 2011, Treasury has collected approximately $258 billion through repayments, sales, dividends, interest, and other income -- approximately $13 billion more than disbursements -- under these initiatives.[215]

Table 12-B sets out the following amounts for the three largest TARP programs, the Capital Purchase Program, the Automotive Industry Financing Program, and the AIG Investment Program:

(1) the amount initially invested,

(2) the outstanding balance as of September 30, 2011,

(3) the estimated value of the investment as of September 30, 2011, and

(4) the estimated deficit in the principal amount of the investment as of September 30, 2011.

[214] *Id*. at 7.
[215] *Id*. at 4.

Table 12-B,
Initial Investments, Outstanding Balances, Estimated Value, and Estimated Deficit in the Three Largest TARP Programs (in billions)

Program	Amount Initially Invested through TARP	Outstanding Balance as of September 30, 2011	Estimated Value of Remaining Investment as of September 30, 2011	Estimated Deficit from Investment as of September 30, 2011
Capital Purchase Program	$204.9	$17.3	$12.4	$4.9
Automotive Industry Financing Program	$79.7	$37.3	$17.8	$19.5
AIG Investment Program	$67.8	$51.1	$30.4	$20.7
Total	$352.4 of the total TARP investments of $470.1	$122.4	$80.1	$42.3

Source: U.S. Treasury, *Citizens Report on TARP, infra,* Bibliography at Tables 2 and 4.

Table 12-B does not take into account the income received on the investments; it only focuses on the principal amounts. As indicated above, taking into account interest, dividends and other income, the TARP investments in the banking industry have returned more than the invested amount.

FF. What is the relationship between TARP and spending on the Stimulus?

As discussed in greater detail in Chapter 15, which deals with the great deficit debate, in 2009, Congress enacted The American Recovery and Reinvestment Act of 2009. This Act provided for a package of stimulus measures involving both tax cuts and increased spending. The Act was designed to reverse the effects of the economic slowdown. The total package was $787 billion, with $286 billion of this amount represented by tax cuts.[216] A CRS report on the Act states that it included "spending for infrastructure, unemployment benefits, and food stamps, revenue sharing with the states, middle class tax cuts, and business tax cuts."[217] This CRS report also explains as follows the differences between the stimulus legislation and the TARP legislation:

[216] Congressional Research Service, *Economic Stimulus: Issues and Policies* (Dec. 9, 2009).
[217] *Id*. at Summary.

> Also in 2008 and 2009, the government intervened in specific financial markets by providing financial assistance to troubled firms and enacting legislation granting authority to the Treasury Department to purchase $700 billion in assets [the TARP program]. The broad intervention into the financial markets was passed to avoid the spread of financial instability; but there are disadvantages, including leaving the government holding large amounts of mortgage debt.[218]

It is interesting to point out that similar amounts were allocated to TARP and to the Stimulus Act. However, as discussed above, as of spring 2012, a significant part of the Treasury's funds invested through TARP have been recovered.

GG. What is the Treasury's assessment of TARP?

The Treasury is of the view that TARP has been a success. For example, the U.S. Treasury, *Citizen's Report on TARP* contains the following favorable assessment of TARP:

> This report describes our financial and performance results for the seventh year of the Troubled Asset Relief Program (TARP). The Emergency Economic Stabilization Act of 2008 (EESA) established [the Office of Financial Stability, OFS] within the Office of Domestic Finance at the Department of the Treasury (Treasury) to implement the TARP. With the nation in the midst of the worst financial crisis since the Great Depression, TARP was created to "restore the liquidity and stability of the financial system." It was an extraordinary response to an extraordinary crisis.
>
> Today, it is generally agreed that as a result of the forceful and coordinated response by the federal government through TARP and many other emergency programs, we helped avert what could have been a devastating collapse of our financial system. Although we are still repairing the damage from the crisis and many families still face challenges on a daily basis, the financial system is much more stable and our economy is growing, albeit not as fast as we would like. Credit is more available than would otherwise be the case for families, businesses, and local governments; banks are better capitalized; and we are implementing reforms to address the underlying causes of the crisis.
>
> OFS has made significant progress towards winding down TARP investments. As of September 30, 2015, OFS had collected 103 percent of the $412.1 billion in program funds that were disbursed under TARP investment programs, as well as an additional $17.5 billion from Treasury's equity stake in AIG. Here is where we stand concerning the four categories of TARP investment programs:
>
> - *Banking Programs*. OFS has collected more than $275.4 billion (including $339 million collected in fiscal year 2015) for all TARP bank support programs through repayments, sales, dividends, interest, and other income, compared to $245.5 billion invested. As of September 30, 2015, $714 million in banking program investments remained outstanding, primarily

[218] *Id*.

in community banks, and OFS is continuing to wind down these investments through repurchases by banks and asset sales.

- *Credit Market Programs*. OFS has completed the wind-down of all of the TARP credit market programs, including investments made under the Public-Private Investment Program (PPIP), Term Asset-Backed Securities Loan Facility (TALF) program, and the SBA 7(a) Securities Purchase Program. As of the end of fiscal year 2015, OFS has collected $23.6 billion compared to $19.1 billion disbursed under these programs.
- *Auto Industry Financing Program*. In December 2014, OFS completed the wind-down of the Auto Industry Finance Programs (AIFP) with the sale of its remaining 55 million shares of Ally Financial. In total, OFS collected $70.5 billion through sales, repayments, dividends, interest, recoveries, and other income, compared to $79.7 billion disbursed under the program.
- *American International Group*. In fiscal year 2013, OFS exited all remaining holdings in the American International Group, Inc. (AIG). During the financial crisis, the peak amount of assistance committed by OFS and the Federal Reserve to prevent the collapse of AIG totaled $182.3 billion, a portion of which was later canceled. As a result of the combined efforts of AIG, Treasury, and the Federal Reserve, $22.7 billion in excess of the total of funds disbursed to AIG was recovered through sales and other income. Of the $67.8 billion total disbursed to AIG by OFS, TARP's cumulative net collections from repayments, sales, dividends, interest, and other income related to AIG assets totaled $55.3 billion. Treasury's non-TARP AIG shares generated proceeds in excess of cost of $17.5 billion, resulting in net proceeds in excess of cost of $5.0 billion for Treasury as a whole.

While OFS carefully winds down the investment programs under TARP, we are continuing to implement and enhance the TARP Housing Programs to continue helping struggling homeowners avoid foreclosure, primarily through mortgage modifications and other forms of direct assistance. These programs (which include the government sponsored enterprises (GSE) programs) have also created new mortgage modification and consumer protection standards that have helped transform the mortgage servicing industry. During the past fiscal year, the Obama administration made a number of changes to strengthen the Making Home Affordable Program (MHA), including increasing borrower incentives and reducing documentation requirements, that will help more families qualify for MHA assistance.

The financial and performance data contained in this report are reliable and complete. For the seventh consecutive year, OFS has earned unmodified opinions from the Government Accountability Office (GAO) on its financial statements for TARP, and its internal control over financial reporting for TARP.[219]

[219] U.S. Treasury, *Citizen's Report on TARP 2015*, *infra*, Bibliography at v-vi.

HH. What is my position on TARP?

TARP appears to have been a successful program. To me, the most questionable TARP program was the assistance given to AIG pursuant to the AIG Investment Program and the related financial assistance provided to AIG by the New York Federal Reserve Bank. As discussed previously, the principal purpose of this assistance was to ensure that AIG could make good on its obligations on its credit default swaps (CDSs).

As a consequence, the government's assistance first went in AIG's front door and then immediately came out its back door into the hands of the sophisticated institutions, like Goldman Sachs, that had purchased the CDSs. Thus, although the bailout went in first instance to AIG, the ultimate beneficiaries of the bailout were the sophisticated purchasers of the CDSs.

In my view, before purchasing the CDSs from AIG, these sophisticated institutions should have done more credit analysis to ensure that AIG could satisfy its obligations. It appears to me that there may have been some "willful blindness" on the part of the financial institutions that purchased the CDSs from AIG. In such case, it clearly would have been better for the government to have (1) forced AIG into bankruptcy, and (2) dealt with the repercussions of the bankruptcy of the financial institutions that were the purchasers of those sophisticated products.

Under the government's approach, all purchasers of the CDSs got paid without respect to whether repayment was important to the viability of the institution. With a bankruptcy approach, the government could have provided assistance only to those financial institutions that, as a result of AIG's bankruptcy, needed the assistance to survive, and the assistance could have been structured as an investment, such as a purchase of preferred stock of the entity.

On the other hand, the National Commission, *Financial Crisis Report* gives the following description of the potential harm that could have resulted if the bankruptcy approach had been followed:

> AIG was so interconnected with many large commercial banks, investment banks, and other financial institutions through counterparty credit relationships on credit default swaps and other activities such as securities lending that its potential failure created systemic risk. The government concluded AIG was too big to fail and committed more than $180 billion to its rescue. Without the bailout, AIG's default and collapse could have brought down its counterparties, causing cascading losses and collapses throughout the financial system.[220]

An article with Bloomberg entitled, *Secret AIG Document Shows Goldman Sachs Minted Most Toxic CDOs*, explains that most of this interconnection was with Goldman Sachs. The then Treasury Secretary (Paulson) had been Chairman of Goldman before becoming Treasury Secretary. The Bloomberg article states that "banks such as Goldman Sachs Group Inc. and Societe Generale SA had bought $62.1 billion in credit-default swaps from AIG."[221] The article goes on to say:

> These were the deals that pushed the insurer to the brink of insolvency -- and were eventually paid in full at taxpayer expense. The New York Fed, which

[220] National Commission, *Financial Crisis Report*, *infra* Bibliography, at 352.

[221] Richard Teitelbaum, *Secret AIG Document Shows Goldman Sachs Minted Most Toxic CDOs*, Bloomberg (Feb. 23, 2010).

secretly engineered the bailout, prevented the full publication of the document [containing information on the payments] for more than a year, even when AIG wanted it released. . . .

The public can now see for the first time how poorly the securities performed, with losses exceeding 75 percent of their notional value in some cases. Compounding this, the document and Bloomberg data demonstrate that the banks that bought the swaps from AIG are mostly the same firms that underwrote the CDOs in the first place.[222]

II. What did Congress do in the Dodd-Frank Act to prevent a future Financial Crisis?

In 2010, Congress enacted the *Dodd-Frank Act*,[223] the most extensive reforms of the regulation of financial institutions since the Great Depression in the 1930s. A Congressional *Dodd Frank Act Brief Summary* explains as follows Congress's reasons for enacting this law:

> Years without accountability for Wall Street and big banks brought us the worst financial crisis since the Great Depression, the loss of 8 million jobs, failed businesses, a drop in housing prices, and wiped out personal savings.
>
> The failures that led to this crisis require bold action. We must restore responsibility and accountability in our financial system to give Americans confidence that there is a system in place that works for and protects them. We must create a sound foundation to grow the economy and create jobs.[224]

The Highlights in the *Brief Summary* describe as follows the major elements of the Act:

> **Consumer Protections with Authority and Independence**: [The Act] [c]reates a new independent watchdog [the Consumer Financial Protection Bureau (CFPB)], housed at the Federal Reserve, with the authority to ensure American consumers get the clear, accurate information they need to shop for mortgages, credit cards, and other financial products, and protect them from hidden fees, abusive terms, and deceptive practices.
>
> **Ends Too Big to Fail Bailouts**: [The Act] [e]nds the possibility that taxpayers will be asked to write a check to bail out financial firms that threaten the economy by: creating a safe way to liquidate failed financial firms; imposing tough new capital and leverage requirements that make it undesirable to get too big; updating the Fed's authority to allow system-wide support but no longer prop up individual firms; and establishing rigorous standards and supervision to protect the economy and American consumers, investors and businesses.
>
> **Advance Warning System**: [The Act] [c]reates a council [the Financial Stability Oversight Council (FSOC)] to identify and address systemic risks posed by large, complex companies, products, and activities before they threaten the stability of the economy. The website of the FSOC states:

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[222] *Id*.
[223] *Dodd-Frank Act*, *infra* Bibliography.
[224] *Dodd Frank Act Brief Summary*, *infra* Bibliography.

The [FSOC] has a clear statutory mandate that creates for the first time collective accountability for identifying risks and responding to emerging threats to financial stability. It is a collaborative body chaired by the Secretary of the Treasury that brings together the expertise of the federal financial regulators, an independent insurance expert appointed by the President, and state regulators.

The Council has important new authorities to constrain excessive risk in the financial system. For instance, the Council has the authority to designate a nonbank financial firm for tough new supervision to help minimize the risk of such a firm from threatening the stability of the financial system.

Additionally, to help with the identification of emerging risks to financial stability, the FSOC can provide direction to, and request data and analyses from, the newly created Office of Financial Research (OFR) housed within Treasury.]

Transparency & Accountability for Exotic Instruments: [The Act] [e]liminates loopholes that allow risky and abusive practices to go on unnoticed and unregulated -- including loopholes for over-the-counter derivatives, asset-backed securities, hedge funds, mortgage brokers and payday lenders.

Executive Compensation and Corporate Governance: [The Act] [p]rovides shareholders with a say on pay and corporate affairs with a non-binding vote on executive compensation and golden parachutes [i.e., large payments to executives of target corporations who lose their jobs after an acquisition].

Protects Investors: [The Act] [p]rovides tough new rules for transparency and accountability for credit rating agencies to protect investors and businesses.

Enforces Regulations on the Books: [The Act] [s]trengthens oversight and empowers regulators to aggressively pursue financial fraud, conflicts of interest and manipulation of the system that benefits special interests at the expense of American families and businesses.[225]

Several of the following questions explore in greater detail several of the above principles.

JJ. What is the role of the CFPB, which was created by the Dodd-Frank Act?"

The website of the CFPB describes as follows that actions it can take on behalf of harmed consumers:

Payments to harmed consumers

Congress has authorized the CFPB to take legal action against companies and people that violate federal consumer financial law.

When the Bureau enforces the law, it or a court may order the violator to take action to remedy the harm it caused consumers. This can include requiring the person or company to compensate its victims for this harm. This compensation is generally called "redress." In some cases, when the available

[225] *Id*.

redress is insufficient to fully compensate consumers for the harm they have suffered, the Bureau may compensate victims from the Bureau's Civil Penalty Fund. The money in the Civil Penalty Fund comes from penalties that the Bureau obtains in enforcement actions against entities and individuals who have violated the law.

Payments by case. Payments to harmed consumers can be made when the Bureau or court orders a company that has violated a consumer financial protection law to pay an amount of money to compensate the consumers' harm. This money is distributed to victims either by the Bureau, directly by the violator, or through a third-party administrator.

Civil Penalty Fund. When violators of consumer financial protection law pay a penalty to the Bureau, those funds are deposited into the Civil Penalty Fund. The money in that Fund can then be used to compensate eligible victims. When payments to victims aren't feasible, or if all eligible victims have been fully compensated, the Bureau may use Civil Penalty Fund money for consumer education and financial literacy programs.

KK. How does the Dodd-Frank Act address systemic risk and systemically important financial institutions?

Professor Barr, a former Assistant Secretary of Treasury for Financial Institutions, describes as follows the impact the *Dodd-Frank Act* has on the regulation of financial firms that could pose systemic risk to the financial system:

> [T]he Dodd-Frank Act authorizes the Federal Reserve to supervise and regulate any financial firm, regardless of legal form, whose failure could pose a threat to financial stability. The OTS [Office of Thrift Supervision] has been abolished, along with the SEC's voluntary investment bank regulatory scheme. In addition to its pre-crisis role regulating bank holding companies, the Federal Reserve will oversee savings-and-loan holding companies in place of the OTS and will also supervise nonbank financial institutions identified by the Financial Stability Oversight Council as posing a risk to financial stability.[226]

Professor Barr also explains that the *Dodd-Frank Act* "requires large banks and systemically important nonbank firms to meet stricter capital and liquidity requirements than their smaller peers."[227] Also, the Fed is required to conduct "annual stress tests" for the purpose of determining whether these systemically important firms have sufficient capital to withstand a significant economic downturn.

Although the *Dodd Frank Act* does not consolidate the various regulators of firms in the financial sector, the Act establishes the "Financial Stability Oversight Council, which has the authority to identify and address threats to financial stability."[228] An Office of Financial Research is established for the purpose of assisting the Council in identifying potential risk to the financial system.

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[226] Barr, *The Financial Crisis*, *infra* Bibliography, at 98-99.
[227] *Id*. at 99.
[228] *Id*. at 100.

As a tool for addressing the systemic risk posed by firms that are "too big to fail," the *Dodd Frank Act* establishes the "authority for liquidating large, interconnected nonbank financial institutions similar to the ones whose collapse fueled the last economic crisis."[229] This authority, which includes a requirement that certain financial institutions adopt "living wills," will reduce "the perception that large firms are 'too big to fail.'"[230]

LL. How does the Dodd-Frank Act address the "shadow" banking system?

As explained by Professor Barr, the *Dodd-Frank Act* introduces "transparency requirements and effective, consolidated supervision over the most important shadow banking instruments - over-the-counter [OTC] derivatives, repurchase ("repo") agreements, and securitized assets."[231]

MM. How does the Dodd-Frank Act address the OTC derivatives aspect of the shadow banking system?

As discussed above, OTC derivatives, such as credit default swaps (CDS) were a part of the shadow banking system. Professor Barr elaborates as follows on the problem with OTC derivatives:

> In the years before the economic crisis, the market in these financial products reached a notional amount of nearly $700 trillion. In hindsight, we know that this market was responsible for a significant increase in both risk and uncertainty in the broader financial market. Credit derivatives [such as credit default swaps (CDSs)], which were designed to diffuse risk, instead concentrated it among large banks, investment banks, and other institutions, such as AIG. Derivatives increased firms' counterparty credit exposures and aggravated the effect of any particular firm's failure on the financial system as a whole. Synthetic securitization (with embedded derivatives) magnified failures in the real securitization market.
>
> Prior to the crisis, these risks were concealed by the lack of regulatory or public disclosure in the OTC derivatives market. Information on the prices and volume of trades was opaque to external parties. Moreover, traders were backed by insufficient margin, and major participants in the system lacked sufficient capital in the event that these trades lost value or went bad. In addition, many of the trades were funded with short-term money that quickly disappeared when the crisis hit. The lack of information on derivative exposures led firms to withdraw from counterparties and broad market sectors as the crisis unfolded. Firms demanded more margin protection from their remaining counterparties, which put further downward pressure on underlying asset prices. While individual firms had hoped that their use of derivatives would help them to manage risk, the system as a whole became riskier. In the crisis, the implosion in asset prices led to cascading losses in derivatives contracts and then to contagion across the system.[232]

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[229] *Id*.
[230] *Id*.
[231] *Id*. at 103.
[232] *Id*. at 103-104.

Professor Barr explains that the *Dodd-Frank Act* "reduces risk concentration and market opacity by promoting central clearing and exchange trading, and by strengthening supervision of market participants."[233]

NN. How does the Dodd-Frank Act address the repo aspect of the shadow banking system?

Professor Barr explains that prior to the Financial Crisis, "major financial firms increasingly looked to the repo markets for short-term funding."[234] He further explains:

> At the same time, these markets were growing riskier, due to market concentration in the two major clearing banks and a shift away from low-risk Treasury bonds to higher-risk collateral, ranging from equities and corporate debt to asset-backed securities. Market participants misjudged the quality and liquidity of these newer forms of collateral, in part because of credit rating agencies' increasing willingness to label as "safe" assets backed by lower-quality loans - particularly poorly underwritten subprime and Alt-A mortgages. When the financial crisis hit, the repo markets froze, causing a massive contraction in available credit. This contraction was stemmed only by a massive Fed intervention.[235]

Professor Barr explains as follows the manner in which the *Dodd-Frank Act* addressed these issues:

> The *Dodd-Frank Act* will fundamentally reform the short-term wholesale funding markets by forcing firms to internalize more of the costs of this funding system. The Act empowers the Federal Reserve to regulate financial market utilities (FMUs) identified by the Financial Stability Oversight Council as systemically important, to set new rules for capital, collateral, and margin requirements, and to establish uniform risk-management standards to be used across the market.[236]

OO. How does the Dodd-Frank Act address the securitization aspect of the shadow banking system?

With respect to the securitization aspect of the shadow banking process, Professor Barr explains as follows the changes made by the *Dodd-Frank Act*:

> The Act requires investment banks and other issuers to provide comprehensive disclosure of securitization structures, including information about assets and originators. Sponsors will also be required under most circumstances to retain a portion of the risk in the securitizations they sponsor, so that incentives are better aligned among participants in the system. Capital rules will better account for actual risk, while parallel changes in accounting rules will bring the most common forms of securitizations onto the balance sheet. Credit rating agencies, whose ratings for securitizations contributed significantly to market distortions, will be subject to comprehensive oversight by the SEC, including

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[233] *Id*. at 104.
[234] *Id*. at 105.
[235] *Id*.
[236] *Id*.

policing of ratings shopping and conflicts of interest. Ratings will also be more transparent, thanks to mandatory disclosure of information on rating methodologies, underlying data, and results of third-party due diligence.[237]

PP. How does the Dodd-Frank Act address consumer protection?

Professor Barr explains that prior to the *Dodd-Frank Act*, "federal financial consumer protection regulation was fragmented over seven different agencies, which complicated rule-writing, supervision, and enforcement efforts."[238] He further explains that the Act "replaces [the] fragmented, inefficient system with a single, dedicated regulatory agency [that is armed] with expanded authority to prohibit unfair, deceptive, and abusive practices . . . ."[239]

QQ. What is the Volcker Rule?

The *Dodd Frank Act* requires that the banking regulators adopt the Volcker Rule. This rule will generally prohibit, subject to certain exceptions, banking entities from engaging in "proprietary trading [*i.e.*, trading in securities for their own benefit] or from acquiring or retaining an ownership interest in, sponsoring, or having certain relationships with a hedge fund or private equity fund ('covered fund') . . ."[240]

On December 10, 2013 the Agencies[241] adopted the Final Volcker Rule.[242] The Preamble to the final rule spans nearly 900 pages, and the rule itself is 71 pages long. A Fact Sheet on the Rule released by the Agencies explains:

> The final rules generally would prohibit banking entities from:
>
> - engaging in short-term proprietary trading of securities, derivatives, commodity futures and options on these instruments for their own account.
> - owning, sponsoring, or having certain relationships with hedge funds or private equity funds, referred to as 'covered funds.'
>
> **Proprietary Trading Prohibition** – The final rules prohibit proprietary trading by banking entities. As required by the Dodd-Frank Act, the final rules include exemptions, *inter alia*, for:
>
> *Underwriting*: This exemption requires that a banking entity act as an underwriter for a distribution of securities (including both public and private offerings) and that the trading desk's underwriting position be

[237] *Id*. at 106-107.
[238] *Id*. at 107.
[239] *Id*.
[240] Federal Reserve Board, Office of Comptroller of the Currency, FDIC, and SEC, Proposed Rule, *Prohibitions and Restrictions on Proprietary Trading and certain Interests in, and Relationships with, Hedge Funds and Private Equity Funds* (Oct 11, 2011).
[241] The Board of Governors of the Federal Reserve System, the Office of the Comptroller of the Currency, the Federal Deposit Insurance Corporation, the Securities and Exchange Commission and the Commodity Futures Trading Commission.
[242] Prohibitions and Restrictions on Proprietary Trading and Certain Interests in, and Relationships with, Hedge Funds and Private Equity Funds, 79 Fed.Reg. 5807 (Jan. 31, 2014).

related to that distribution. Consistent with the Dodd-Frank Act, the underwriting position must be designed not to exceed the reasonably expected near-term demands of customers. . . .

Other permitted activities: The final rules exempt, provided certain requirements are met, trading on behalf of a customer in a fiduciary capacity or in riskless principal trades and activities of an insurance company for its general or separate account.

Covered Fund Prohibitions – The final rules prohibit banking entities from owning and sponsoring hedge funds and private equity funds, referred to as "covered funds."

RR. How would the Volcker Rule have applied to the 2012 trading loss suffered by J.P. Morgan Chase?

J.P. Morgan Chase is the largest U.S. bank holding company. In early 2012, Morgan realized several billion dollars in losses in certain trading activities conducted by its London office. These losses may have been from the type of proprietary trading activities that now would be prohibited by the Volcker Rule. Prior to the realization of these trading losses, Morgan had been a leader in the charge against the promulgation of a tough Volcker rule by the banking regulators. As explained in a BNA Securities Regulation report, the Morgan loss may make the promulgation of a tough Volcker more likely:

> JPMorgan's disclosure of a major trading loss will mean more pressure from regulators and lawmakers on large U.S. banks, boosting the likelihood of tighter rules to implement new restrictions on proprietary trading while raising slim but real odds for legislation to separate commercial and investment banking.
>
> The bank disclosed a $2 billion loss on a synthetic credit position in a May 10 call with analysts, but the extent of the losses is still unclear, with the possibility that those losses could mount in coming weeks.
>
> The most likely near-term fallout is more pressure on federal bank regulators to implement limits on proprietary trading under a 2010 financial reform [Dodd-Frank] law . . .
>
> More broadly, it could spur legislation to separate commercial banking and trading operations, and add fuel to Federal Deposit Insurance Corporation Director Thomas M. Hoenig's call for commercial banks to sell their broker-dealers.[243]

BNA also reports as follows on the statement on Morgan and the Volcker rule made after the June 20, 2012 Fed meeting by Fed Chairman Ben Bernanke:

> Bernanke said that had the rule been in place prior to the JPM trades, "a bank would be required to provide a plan in advance explaining how the hedge was going to be done, how it was going to work, that would be necessary to have an auditing process to make sure that, in fact, that was being followed, that there were adequate risk-management and -- governance rules to oversee the process,

[243] *Congressional Fallout Likely After JPMorgan Trading Loss*, BNA, Securities Regulation (May 15, 2012).

and it would be necessary that compensation for the executives involved in the management of the position would not be such that it would incentivize them to take proprietary positions."[244]

SS. What is President Obama's position on Dodd-Frank?

President Obama was a strong supporter of the *Dodd-Frank Act* as it was moving through Congress. At the signing ceremony for the bill President Obama gave the following explanation of the importance of the Act to what he referred to as both "Main Street and Wall Street:"

> Over the past two years, we have faced the worst recession since the Great Depression. . . . Now, while a number of factors led to such a severe recession, the primary cause was a breakdown in our financial system. It was a crisis born of a failure of responsibility from certain corners of Wall Street to the halls of power in Washington. For years, our financial sector was governed by antiquated and poorly enforced rules that allowed some [through the shadow banking system] to game the system and take risks that endangered the entire economy.
>
> Unscrupulous lenders locked consumers into complex loans with hidden costs. Firms like AIG placed massive, risky bets with borrowed money. And while the rules left abuse and excess unchecked, they also left taxpayers on the hook if a big bank or financial institution ever failed.
>
> Now, even before the crisis hit, I went to Wall Street and I called for common-sense reforms to protect consumers and our economy as a whole. And soon after taking office, I proposed a set of reforms to empower consumers and investors, to bring the shadowy deals that caused this crisis into the light of day, and to put a stop to taxpayer bailouts once and for all. Today, thanks to a lot of people in this room, those reforms will become the law of the land. . . .
>
> Passing this bill was no easy task. To get there, we had to overcome the furious lobbying of an array of powerful interest groups and a partisan minority determined to block change. . . .
>
> [T]he financial industry is central to our nation's ability to grow, to prosper, to compete and to innovate. There are a lot of banks that understand and fulfill this vital role, and there are a whole lot of bankers who want to do right -- and do right -- by their customers. This reform will help foster innovation, not hamper it. It is designed to make sure that everybody follows the same set of rules, so that firms compete on price and quality, not on tricks and not on traps.
>
> It demands accountability and responsibility from everyone. It provides certainty to everybody, from bankers to farmers to business owners to consumers. And unless your business model depends on cutting corners or bilking your customers, you've got nothing to fear from reform.
>
> Now, for all those Americans who are wondering what Wall Street reform means for you, here's what you can expect. If you've ever applied for a credit card, a student loan, or a mortgage, you know the feeling of signing your name to pages of barely understandable fine print. What often happens as a result is that

244 *Monetary Policy, Fed Extends 'Operation Twist'; Bernanke Touches on Volcker Rule*, BNA Banking Law Report (June 26, 2012).

many Americans are caught by hidden fees and penalties, or saddled with loans they can't afford. . .

[T]his law, we'll crack down on abusive practices in the mortgage industry. We'll make sure that contracts are simpler -– putting an end to many hidden penalties and fees in complex mortgages -– so folks know what they're signing.

With this law, students who take out college loans will be provided clear and concise information about their obligations.

And with this law, ordinary investors -– like seniors and folks saving for retirement –- will be able to receive more information about the costs and risks of mutual funds and other investment products, so that they can make better financial decisions as to what will work for them.

[T]hese reforms represent the strongest consumer financial protections in history. And these protections will be enforced by a new consumer watchdog with just one job: looking out for people -– not big banks, not lenders, not investment houses -– looking out for people as they interact with the financial system.

And that's not just good for consumers; that's good for the economy. Because reform will put a stop to a lot of the bad loans that fueled a debt-based bubble. And it will mean all companies will have to seek customers by offering better products, instead of more deceptive ones.

Now, beyond the consumer protections I've outlined, reform will also rein in the abuse and excess that nearly brought down our financial system. It will finally bring transparency to the kinds of complex and risky transactions that helped trigger the financial crisis. Shareholders will also have a greater say on the pay of CEOs and other executives, so they can reward success instead of failure.

And finally, because of this law, the American people will never again be asked to foot the bill for Wall Street's mistakes. There will be no more tax-funded bailouts [i.e., no more TARPs] -- period. If a large financial institution should ever fail, this reform gives us the ability to wind it down without endangering the broader economy. And there will be new rules to make clear that no firm is somehow protected because it is "too big to fail," so we don't have another AIG.

That's what this reform will mean. Now, it doesn't mean our work is over. For these new rules to be effective, regulators will have to be vigilant. We may need to make adjustments along the way as our financial system adapts to these new changes and changes around the globe. No law can force anybody to be responsible; it's still incumbent on those on Wall Street to heed the lessons of this crisis in terms of how they conduct their businesses.

The fact is every American -– from Main Street to Wall Street –- has a stake in our financial system. Wall Street banks and firms invest the capital that makes it possible for start-ups to sell new products. They provide loans to businesses to expand and to hire. They back mortgages for families purchasing a new home. That's why we'll all stand to gain from these reforms. We all win when investors around the world have confidence in our markets. We all win when shareholders have more power and more information. We all win when

consumers are protected against abuse. And we all win when folks are rewarded based on how well they perform, not how well they evade accountability.

In the end, our financial system only works –- our market is only free –- when there are clear rules and basic safeguards that prevent abuse, that check excess, that ensure that it is more profitable to play by the rules than to game the system. And that's what these reforms are designed to achieve -- no more, no less. Because that's how we will ensure that our economy works for consumers, that it works for investors, that it works for financial institutions -– that it works for all of us.

This is the central lesson not only of this crisis but of our history. Ultimately, there's no dividing line between Main Street and Wall Street. We rise or fall together as one nation. So these reforms will help lift our economy and lead all of us to a stronger, more prosperous future.[245]

In October 2016, the website of the White House described as follows what the Obama Administration considers to be the effectiveness of Dodd-Frank:

In the fall of 2008, a financial crisis of a scale and severity not seen in generations left millions of Americans unemployed and resulted in trillions in lost wealth. Our broken financial regulatory system was a principal cause of that crisis. It was fragmented, antiquated, and allowed large parts of the financial system to operate with little or no oversight. And it allowed some irresponsible lenders to use hidden fees and fine print to take advantage of consumers.

To make sure that a crisis like this never happens again, President Obama signed the Dodd-Frank Wall Street Reform and Consumer Protection Act into law. The most far reaching Wall Street reform in history, Dodd-Frank will prevent the excessive risk-taking that led to the financial crisis. The law also provides common-sense protections for American families, creating new consumer watchdog to prevent mortgage companies and pay-day lenders from exploiting consumers. These new rules will build a safer, more stable financial system—one that provides a robust foundation for lasting economic growth and job creation.

The White House's website also explains that in July 2016, President Obama and Sen. Elizabeth Warren of Massachusetts appeared together in the White House's weekly Saturday address to mark the six-year anniversary of the Dodd-Frank Act. The website say:

"He signed into law the toughest Wall Street reforms and strongest consumer protections in generations," Warren said of Obama. "Trust me – I'm a pretty tough grader. These new rules are making our financial system more transparent, getting rid of a lot of fine print, and making sure that if a bank screws up, you have someone to call so you don't get stuck with the bill."

The two also hailed the Consumer Financial Protection Bureau, which Warren masterminded and was created as part of Dodd-Frank.

"Before the Consumer Financial Protection Bureau, you didn't have a strong ally to turn to if your bank took advantage of you, or you were being harassed or charged inappropriate fees. Now you do," Obama said.

[245] Remarks by the President at Signing of Dodd-Frank Wall Street Reform and Consumer Protection Act (July 21, 2010).

"But every year, like clockwork, big banks and their Republican allies in Congress try to roll back these protections and undermine the consumer watchdog, whose only job is to look out for you," added Warren. "Their nominee for President promises to dismantle all of it. They may have forgotten about the crisis, but working families sure haven't."

TT. What is the position of the American Action Forum, a conservative leaning organization on Dodd-Frank?

In a July 2016 study of the regulatory costs of Dodd Frank, the American Action Forum came to the following general conclusions on the cost of administering Dodd-Frank:

> The conservative American Action Forum (AAF) released a study Wednesday that finds Dodd-Frank has led to $36 billion in regulatory costs since it was passed in 2010.
>
> That includes a more than $10 billion — or nearly 50 percent — increase in regulatory costs in the last year alone.
>
> Broken down, the total cost of Dodd-Frank translates to $310 per household, or $112 per person, the study claims.
>
> What's more: The study finds there are another 61 Dodd-Frank regulations scheduled to be released before the end of the Obama administration that could cost an additional $3.3 billion in regulatory expenses.
>
> The AAF's studies are often disputed by left-leaning public interest groups, which argue they do not factor in the full benefits of the rules they are measuring.[246]

A discussion in Insights builds on and expands on the above analysis of the AAF:

> Congress passed the Dodd-Frank Act six years ago in an attempt to address the causes of the financial crisis. The law has imposed billions of dollars in costs with unclear benefits. Regulators have least 61 regulations remaining to finish implementing the law. According to American Action Forum (AAF) research, Dodd-Frank has imposed more than $36 billion in final rule costs and 73 million paperwork hours, up from $24 billion in final rule costs and 61 million paperwork burden hours from last year's report. To put those figures in perspective, the costs are approximately $112 per person or $310 per household; for paperwork, it would take 36,950 employees working full-time (2,000 hours annually) to complete a single year of the law's paperwork, and those are based on agency calculations.
>
> In recent research, AAF even found the law had resulted in a 14.5 percent decline in revolving consumer credit. From a housing market still experiencing mediocre growth, to an uneven labor picture, to significant consumer impacts, it's

[246] Tim Devaney, *Dodd-Frank Costs $112 Per Person, Study Finds*, The Hill (July 20, 2016).

clear the law has fundamentally altered capital markets and added layers of complexity for individuals and financial institutions.[247]

UU. What is Senator Clinton's position on Dodd-Frank generally?

Senator Clinton's campaign webpage contains an elaborate discussion of her approach to Dodd-Frank and similar financial regulatory issues. She in essence states as follows her guiding principles on these issues.

> Our banking system is still too complex and too risky. … While institutions have paid large fines and in some cases admitted guilt, too often it has seemed that the human beings responsible get off with limited consequences—or none at all, even when they've already pocketed the gains. This is wrong, and on my watch, it will change. . . .
>
> The financial crisis showed how irresponsible behavior in the financial sector can devastate the lives of everyday Americans—costing 9 million workers their jobs, driving 5 million families out of their homes, and wiping out more than $13 trillion in household wealth. . . .

Specifically, she outlines numerous bank regulatory proposals, the most important of which are:

> *Impose a risk fee on the largest financial institutions*. Big banks and financial companies would be required to pay a fee based on their size and their risk of contributing to another crisis.
>
> *Close loopholes that let banks make risky investments with taxpayer money*. The Volcker Rule prohibits banks from making risky trading bets with taxpayer-backed money—one of the core protections of the post-financial crisis Wall Street reforms. However, under current law these banks can still invest billions through hedge funds, which are exempt from this rule. Hillary would close that loophole and strengthen the law.
>
> *Hold senior bankers accountable when a large bank suffers major losses*. When a large bank suffers major losses with sweeping consequences, senior managers should lose some or all of their bonus compensation.
>
> *Make sure no financial firm is ever too big or too risky to be managed effectively*. Hillary's plan would give regulators more authority to force overly complex or risky firms—including banks, hedge funds and other non-bank financial institutions—to reorganize, downsize, or break apart.
>
> *Tackle financial dangers of the "shadow banking" system*. Hillary's plan will enhance transparency and reduce volatility in the "shadow banking system," which includes certain activities of hedge funds, investment banks, and other non-bank financial companies.
>
> *Impose a tax on high-frequency trading*. The growth of high-frequency trading has unnecessarily placed stress on our markets, created instability, and enabled unfair and abusive trading strategies. Hillary would impose a tax on

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[247] Sam Batkins, Dan Goldbeck, *Six Years After Dodd-Frank: Higher Costs, Uncertain Benefits*, Insights (July 20, 2016), at https://www.americanactionforum.org/insight/six-years-dodd-frank-higher-costs-uncertain-benefits/.

harmful high-frequency trading and reform rules to make our stock markets fairer, more open, and transparent. . . .

Prosecuting individuals when they break the law. Hillary would extend the statute of limitations for prosecuting major financial frauds, enhance whistleblower rewards, and provide the Department of Justice and the Securities and Exchange Commission with more resources to prosecute wrongdoing.

*Holding executives accountable when they are responsible for their subordinates' misconduc*t. Hillary believes that when corporations pay large fines to the government for violating the law, those fines should cut into the bonuses of the executives who were responsible for or should have caught the problem. And when egregious misconduct happens on an executive's watch, that executive should lose his or her job.

Holding corporations accountable when they break the law. Hillary will make sure that corporations can't treat penalties for breaking the law as merely a cost of doing business, so we can put an end to the patterns of corporate wrongdoing that we see too often today.

VV. What is Senator Clinton's position on reenacting the Glass-Steagall Act, which would separate commercial banking from investment banking?

Although she acknowledges the proposals of many to strengthen the Glass-Steagall Act by separating commercial from investment banking, she does not endorse such action, arguing:

One serious approach being advocated is to pass an updated Glass-Steagall Act . . . to reduce the size of the banks and the risk of a taxpayer bailout. I certainly share the goal of never having to bail out the big banks again, but I prefer the path of tackling the most dangerous risks in a different way [including by "[*Imposing*] *a risk fee on the largest financial institutions*."

WW. What is Mr. Trump's position on Dodd-Frank generally?

Mr. Trump seems to have taken opposite positions on parts of Dodd-Frank. For example, as reported in Fortune, he has said that he would dismantle most of Dodd-Frank:

"Dodd-Frank has made it impossible for bankers to function," he says. Republican presidential candidate Donald Trump said on Tuesday that sweeping financial reforms put in place under President Barack Obama were harming the economy and he would dismantle nearly all of them. . . .

"Dodd-Frank has made it impossible for bankers to function," the presumptive Republican nominee said. "It makes it very hard for bankers to loan money for people to create jobs, for people with businesses to create jobs. And that has to stop."

Pressed on the extent of the changes he wanted to make, Trump said, "it will be close to dismantling of Dodd-Frank." . . .

> Trump declined to offer specifics on his plan, but said it would address whether institutions should separate commercial banking activities from investment banking. He said even under the new plan, the banking system would not be perfect.[248]

The Fortune article goes on to discuss the general reaction of Republicans and bankers to Dodd-Frank:

> Republicans in Congress have pushed to ease the requirements on small- and medium-sized banks and to make it more difficult for regulators to introduce new rules. They have also argued for getting rid of the consumer financial protection agency.
>
> Banks and other financial firms have spent six years and millions of dollars adjusting their operations to comply with the law. Bank lobbyists have generally pushed for changes to make complying easier, rather than a wholesale rewrite.[249]

XX. What is Mr. Trump's position on reenacting the Glass-Steagall Act, which would separate commercial banking from investment banking?

While, as indicated above, Mr. Trump has attacked Dodd-Frank generally, he has proposed going much further than Dodd-Frank by reinstating the Glass-Steagall Act's prohibition against the combination of commercial banking and investment banking. The Volcker Rule portion of Dodd-Frank, discussed above, partially reinstated Glass-Steagall. An article in CNN Money, discusses as follows Mr. Trump's positon on reinstating Glass Steagall:

> At Trump's urging, the GOP formally endorsed breaking up America's big banks Monday. It's almost like the Republicans were taking a page from liberal senators Bernie Sanders and Elizabeth Warren who have advocated for exactly that to ensure no bank is "too big too fail."
>
> The official Republican platform for 2016 calls for bringing back the Glass-Steagall Act, a law put in place during the Great Depression to restrict banks from serving both Wall Street and Main Street. President Bill Clinton repealed the law in 1999.
>
> In a sign of just how unpopular Wall Street is in America right now, reinstating the Glass-Steagall Act is in both the Republican and Democratic platforms. [250]

The CNN Money article goes on to explain as follows the position of big banks on the reinstatement of Glass-Steagall:

> Big banks don't like the idea of Glass-Steagall returning because companies like JPMorgan Chase and Bank of America would likely have to break

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[248] Fortune, *Donald Trump Says He Would Dismantle Dodd-Frank Wall Street Regulation*, (May 18, 2016).

[249] *Id*.

[250] *Donald Trump wants to crack down on Wall Street*, CNN Money (Aug. 16, 2016), at http://money.cnn.com/2016/07/19/investing/donald-trump-glass-steagall/.

up and get smaller. Goldman Sachs called it a "surprising new position" for the GOP.[251]

YY. What is my take on Dodd-Frank generally?

I think the *Dodd-Frank Act* gives the Federal government the tools needed to prevent a Financial Crisis that is similar to the recent Financial Crisis.

The Consumer Financial Protection Bureau (CFPB) should do an effective job in ensuring that consumers are aware of (1) the terms and conditions of contracts they enter into, and (2) the financial and economic impact thereof. As an example of a presumably effective action the CFPB recently took, an October 11, 2016 press release of the CFPB announced:

> Today the Consumer Financial Protection Bureau (CFPB) took action against Navy Federal Credit Union for making false threats about debt collection to its members, which include active-duty military, retired service members, and their families. The credit union also unfairly restricted account access when members had a delinquent loan. Navy Federal Credit Union is correcting its debt collection practices and will pay roughly $23 million in redress to victims along with a civil money penalty of $5.5 million.

In my judgment there is no case for eliminating the CFPB. However, I am certain that there are ways in which the law governing it could be improved.

The Financial Stability Oversight Council (FSOC) should be effective in identifying any deleterious practices in the shadow banking system that could have a systemically negative impact on the financial system as a whole.

The provisions of the Act dealing with derivatives should promote transparency, which will help a party to such a contract better access risk associated with the counterparty.

ZZ. What is my take on the Volcker Rule a the potential reinstatement of the Glass Steagall Act?

The Volcker Rule should limit the ability of large banking institutions to enter into risky proprietary trading activity. Interestingly, while Mr. Trump is for restatement of the Glass-Steagall prohibition of combinations of banking with investment banking organizations, which would require the break-up of several large banking-investment banking organizations, Senator Clinton opposes such a break-up. Thus, Mr. Trump has taken Bernie Sander's position on the issue, and Senator Clinton has taken the position most Republicans take on the issue.

Paul Volcker, who the Volcker Rule is named after, comes out with Senator Clinton on the reinstatement of Glass-Steagall issue. An October 2016 article in the Wall Street Journal provides the following background on Mr. Volcker's position:

> Paul Volcker on Tuesday pushed back against calls to break up big Wall Street banks and ramp up oversight of large asset managers, while disputing claims that the rule named after him had caused a damaging drop in market liquidity.

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[251] *Id*.

> The former Federal Reserve chairman . . . said he understood the appeal of breaking up complex and potentially compromised institutions but that he was "not convinced" such moves would improve financial stability.
>
> "If you break up a $2 trillion bank into $4[00 billion] or $500 billion banks, you've got a problem," he said. "It's an interesting debate….But from a stability standpoint it's not on my list."
>
> Asked whether asset managers such as BlackRock Inc. should be designated "systemically important" he said, "No, I wouldn't go that far at this point." But he said it was an area to be looked at, "because of the kind of growth you see, and you wonder a little bit about what's going on...within all those huge firms." BlackRock said Tuesday its assets under management had topped $5 trillion for the first time.
>
> Mr. Volcker said the "Volcker rule," which in effect bans banks from taking speculative positions, wasn't an antitrading rule, but a rule against speculation, suggesting claims it had reduced liquidity in some markets were motivated by traders' self-interest[252]

On this break-up question, I am with Mr. Trump and against Senator Clinton and Mr. Volcker. Prior to the elimination in the 1990s of the Glass-Steagall prohibition, which was put in place during the Depression in the 1930s, we had recessions, but none like the Great Recession of 2007 and 2008. It seems clear that the elimination of Glass-Steagall was a significant contributing factor in creating the abuses that led to the Great Recession. Consequently, returning to Glass-Steagall, in my judgment, is likely to decrease the chances that our economy will likely see again the types of abuses that led to the Great Recession.

Further on the break-up question, investment banking products, such as advising companies on initial public offerings or mergers, are fundamentally different from banking products, such as commercial loans; and, for example, it is good for competition in the financial marketplace for the decisions of a bank that is considering making a commercial loan to a corporation to not have the lending decision affected by the relationship its investment banking arm may have with the corporation. When banking and investment banking are combined in one organization, it is likely that such relationships will be taken into account, even though the banking authorities require that "firewalls" be maintained between banking and investment banking.

AAA. What is my bottom line on Dodd-Frank generally?

The bottom line here is that basically I agree with the following conclusion of Professor Barr, the Assistant Secretary for Treasury for Financial Institutions at the time the *Dodd-Frank Act* passed:

> [The *Dodd-Frank Act*] provides the government with the tools it needs to monitor systemic risk and to supervise institutions and markets regardless of whether they are in the banking or the "shadow banking" world. It provides for comprehensive regulation of the derivatives markets. It provides the government with the tools to wind down a major financial institution in the event of distress

[252] Paul Volcker: *Breaking Up Big Banks Wouldn't Help*, Wall Street Journal (Oct. 18, 2016).

> while minimizing risks to the financial system and taxpayers. And it establishes a Consumer Financial Protection Bureau to establish a level playing field for competition that protects consumers. The Act is not perfect - no legislation is. Yet it puts in place the key reforms that were necessary to establish a firm foundation for future financial stability and economic growth in the decades ahead.[253]

I also agree with Professor Alan Binder, a former member of the Federal Reserve Board, who has expressed similar support for Dodd-Frank. In a June 2016 editorial in the Wall Street Journal, he writes:

> Populism—standing up for the little guy against the powers that be—seems to be the theme of the 2016 presidential campaign. Yet Donald Trump, a *faux* populist if there ever was one, said in a May 17 interview that he wants to eviscerate the Dodd-Frank Act. In his words, "it will be close to a dismantling of Dodd-Frank." But destroying Dodd-Frank certainly would not be good for the little guy. . . .
>
> So let's review some of the safeguards that would disappear if Dodd-Frank were dismantled.
>
> First, and perhaps foremost to many Americans, is the Consumer Financial Protection Bureau, a *bête noire* of the GOP since it was first suggested in 2007 by now-Sen. Elizabeth Warren (D., Mass.). Yes, the CFPB is a bit of a pain to the financial industry—yet another regulator. But Congress created it for a good reason: to protect millions of unwary consumers from the sleazy practices that decimated so many families' finances and led the country into economic calamity. Should we go back to the status quo ante?
>
> Next, and probably foremost to policy wonks, Dodd-Frank abolished "too big to fail." Yes, abolished it. For reasons I will never understand, the Obama Treasury has not trumpeted this achievement far and wide. So many Americans think that too big to fail lives on. It doesn't. Here's what Dodd-Frank actually says.
>
> The Treasury's 2009 proposal sought to give the Federal Deposit Insurance Corp. two options for dealing with a sick financial giant: liquidation (to wit, slow death) or resolution (to wit, keeping it alive on life support). But Congress, in no mood to authorize future bank bailouts, rejected the second option. Thus Title II of Dodd-Frank created only "Orderly Liquidation Authority," not resolution authority. Yes, some banks may still be too big, but not too big to fail. . . .
>
> Dodd-Frank's third, and very important, objective was to make it much harder for big banks to play with fire, and thereby occasionally burn down the neighborhood. This it accomplished in two principal ways: by toughening supervision, which was embarrassingly weak before the crisis, and by reducing leverage. . . .
>
> There is lots more in Dodd-Frank, including much-needed regulation of derivatives—something Congress had, amazingly, banned in 2000. But I think I've listed enough to make the point. The Dodd-Frank Act is not perfect. But it

[253] Barr, *The Financial Crisis*, *infra* Bibliography at 118.

provides significant protections for the average Joe and Jane, makes our financial system safer, and abolishes too big to fail.[254]

Notwithstanding my support, I am concerned about the regulatory costs associated with Dodd-Frank, and I urge all of the organizations that have a role in implementing it to actively review all relevant programs and rules for the purpose of eliminating any that are non-effective.

[254] Alan S. Blinder, *Why Trump, The 'King of Debt,' Hates Dodd-Frank, Contrary to Popular Belief, The 2010 Law Actually Did Abolish 'Too Big To Fail.'*, Wall Street Journal (June 6, 2016).

A. What is in this Chapter?

This chapter starts with a discussion of the meaning of "money," and then turns to the manner in which the U.S. Treasury finances the government. This chapter is a building block for Chapter 14, which focuses on monetary policy.

B. What is money?

Money has many functions, including the following. First, money serves as a medium of exchange. Without money, there would be a barter economy, which requires a double coincidence of wants, that is, the two people engaging in the barter must have a desire for the good that the other person owns. Money eliminates the need for a double coincidence of wants, because a person (X) can sell a product he owns (*e.g.*, a house) to one person (Y) for money and then use the money to buy a new product (*e.g.*, a boat) from another person (Z).

Second, money serves as a store of value, meaning that money can be retained and used at a subsequent time to make purchases of goods. However, the purchase price of stored money will decline if there is inflation, and for that reason, money is usually stored, with a bank or other institution that pays interest.

Third, money serves as a unit of account, meaning prices are quoted in money terms.

Fourth, money is a standard of payment, meaning it will be accepted as payment of an obligation. Indeed, it is legally required that U.S. money be accepted for payment of obligations. As a practical matter, however, money will be accepted as payment only because the recipient of the payment believes that the money will later be accepted from her as payment of her obligations.

C. Can the U.S. dollar be exchanged for gold or silver or is it "fiat" money?

Although prior to 1973 the U.S. dollar was backed by gold, since that time there has been no gold, silver, or other property standing behind the dollar. A dollar bill, for example, can be exchanged for four quarters, or a $100 bill can be exchanged for ten $10 bills, but the holder cannot demand any other property. This is known as fiat money; although the dollar has no intrinsic value, it derives value from its acceptability as a medium of exchange.

Although a holder of a dollar cannot require the government to give her gold or silver for the dollar, the holder can, of course, use the dollar to purchase on the open market gold or silver, or an interest therein, such as a futures contract on gold or silver.

D. Who manufactures U.S. dollars and how does the public receive them?

U.S. money, including dollars (or, as they are technically called, "Reserve Notes") is manufactured by the Bureau of Engraving and Printing (BEP), a division of the U.S. Treasury. As discussed in Chapter 14, the physical money is transferred to the Fed's

Reserve Banks around the country for distribution through the banking system. Also, Chapter 14 addresses the impact on the Fed's balance sheet of the issuance by it of Reserve Notes.

E. How does the Treasury finance government operations?

The U.S. Treasury has many responsibilities relating to finance and economics, including responsibility for raising the funds needed to finance Federal governmental operations. For example, the mission statement of the Treasury states that its responsibilities include "the production of coin and currency [*i.e.*, money], the disbursement of payments to the American public, revenue collection, and the borrowing of funds necessary to run the federal government."[255]

The two principal sources of funds for operations are taxes and the proceeds of debt issued by the Treasury. The Internal Revenue Service (IRS), which is responsible for managing our tax system, is a department within the U.S. Treasury Department.

Debt issued by the Treasury is principally purchased by (1) U.S. and foreign institutions and individuals; (2) the Federal Reserve Board, as discussed in Chapter 14; and (3) foreign governments, such a China. For example, since China has a trade surplus with the U.S. it invests a significant portion of the dollars received from the surplus in U.S. Treasury obligations.

The principal obligations issued by the Treasury are the following types of publicly traded debt: T-bills, Treasury Notes, Treasury bonds, TIPS bonds, and STRIP bonds. These debt instruments are discussed after an introduction to the concept of interest, which is key to understanding the structure of debt instruments.

F. What is interest and how is it generally calculated?

Interest is the rent charged by people who have money in excess of their current needs and desire to lend the excess to a person who does not have sufficient money and, therefore, has a need to borrow. The interest rate is computed by dividing the interest paid, usually for a period of a year, by the amount of the loan. For example, if a loan of $1,000 is made for a year, and the interest is $100, the rate of interest is 10% (100/1000).

G. What are T-bills and how is interest calculated on them?

Treasury bills (T-bills) are short-term obligations of the U.S. Treasury. TreasuryDirect, which manages the sale of securities of the U.S. Treasury, provides the following background on T-bills:

> Treasury bills, or T-bills, are sold in terms ranging from a few days to 52 weeks. Bills are typically sold at a discount from the par amount (also called face value). For instance, you might pay $990 for a $1,000 bill. When the bill matures, you would be paid $1,000. The difference between the purchase price and face value is interest. It is possible for a bill auction to result in a price equal to par, which means that Treasury will issue and redeem the securities at par value.

[255] U.S. Treasury Department, Mission, at http://www.treasury.gov/about/role-of-treasury/Pages/default.aspx (May 14, 2012).

> You can buy bills from us in TreasuryDirect. . . . You also can purchase bills through banks and brokers through either competitive or non-competitive bidding. You can hold a bill until it matures or sell it before it matures.[256]

TreasuryDirect also explains that (1) the discount rate is determined at auction, (2) the minimum price is $100, (3) the maximum purchase in a single auction is $5 million in a noncompetitive bid and 35% of a competitive bid, (4) the investment increment is in multiples of $100, and (5) the issue method is electronic.

If, for example, the Treasury sells a 91 day T-bill with a face of $10,000 and the purchaser is looking for a return (*i.e.*, interest) for the 91 days of, say approximately 1%, which is an annual rate of interest of approximately 4%, then the purchaser would offer $9,900 for the $10,000 T-bill. When the purchaser receives the $10,000 payment at the time the T-bill matures, he will have received, in essence, $100 of interest on his $9,900 investment. There is a very active and liquid secondary market for T-bills, and therefore, if the purchaser desires to dispose of the T-bill before the maturity date, he can do so easily. In such case, the excess of the amount realized on the sale and the purchase price is treated as interest.

As discussed in greater detail later, as a result of the Financial Crisis, the T-bill rate has been very low compared to pre-crisis rates. Table 13-A presents the rates on October 26, 2016 of one, three, and six month T-bills. .

[256] Treasury Direct, *Treasury Bills*, at http://www.treasurydirect.gov/indiv/products/prod_tbills_glance.htm (May 13, 2012).

Table 13-A
Rates on One, Three and Six Month T-Bills on October 26, 2016

Maturity of T-Bill	Interest Rate on an Annual Basis, that is the Yield (%) on the T-Bill
1 month	0.238%
3 month	0.327%
6 month	0.483%

Source: Wall Street Journal, *Bond Market Overview* (October 26, 2016)

H. What are Treasury notes and Treasury bonds?

U.S. Treasury notes are intermediate obligations of the U.S. Treasury, with maturities from 2 to 10 years. U.S. Treasury bonds, sometimes referred to as long bonds, are long-term obligations of the U.S. Treasury, with maturities greater than 10 years. Treasury notes and bonds are generally issued with a stated amount of interest paid every six months. TreasuryDirect gives the following description of Treasury notes:

> Treasury notes, sometimes called T-Notes, earn a fixed rate of interest every six months until maturity. Notes are issued in terms of 2, 3, 5, 7, and 10 years.
>
> You can buy notes from us in TreasuryDirect. . . . You also can purchase notes through a bank or broker. You can hold a note until it matures or sell it before it matures. To buy a Treasury note through the U.S. Treasury, you place a competitive or noncompetitive bid for the note.[257]

TreasuryDirect also explains that Treasury bonds are issued for a term of 30 years and that they "pay a fixed rate of interest every six months until they mature."[258]

TreasuryDirect goes on to explain that with respect to both Treasury notes and Treasury bonds, (1) the yield is determined at auction, (2) the minimum purchase price is $100, (3) the maximum purchase in a single auction is $5 million in a non-competitive bid and 35% of the offering amount in a competitive bid, (4) the investment increment is multiples of $100, and (5) the issue method is electronic.

As with T-bills, as a result of actions taken by the Fed to combat the Financial Crisis, the rate of interest on Treasury notes and Treasury bonds has been very low. For example, Table 13-B presents the rates as of October 26, 2016 on one, five, and ten year Treasury notes and 30 year Treasury bonds.

[257] Treasury Direct, *Treasury Notes*, at http://www.treasurydirect.gov/indiv/products/prod_tnotes_glance.htm (May 13, 2012).
[258] Treasury Direct, *Treasury Bonds*, at http://www.treasurydirect.gov/indiv/products/prod_tbonds_glance.htm (May 13, 2012).

Table 13-B
Rates on One, Five, and Ten Year Treasury Notes and 30 Year Treasury Bonds on October 26, 2016

Maturity of Treasury Note and Bond	Interest Rate on an Annual Basis, that is the Yield (%) on the T-Bill
1 year note	0.658%
5 year note	1.306%
10 year note	1.792%
30 year bond	2.538%

Source: Wall Street Journal, *Bond Market Overview* (October 26, 2016)

Between June 2011 and May 2012, the interest rate on 10 year notes dropped from a little over 3% to 1.8%.

I. How is interest determined on Treasury notes and bonds?

At the time Treasury notes and bonds are issued, the fixed rate of stated interest will reflect a market rate of interest. For example, for a 10 year Treasury note issued in June 2011, the stated rate of interest would have been approximately 3%, which is the rate determined by the bond market, an active and liquid market in which dealers in both Treasury and corporate bonds trade with each other on behalf of themselves and their customers. However, as of May 11, 2012, the bond market determined that the required rate of interest on 10 year notes was approximately 2% (actually 1.8%). Thus, the interest rate the Treasury would have to pay on a 10 year note issued in May 2012 was approximately 2%, whereas the rate it had to pay on a 10 year note issued in June 2011 was 3.0%. The impact of a change in the prevailing interest rate on the price of a debt instrument is addressed in the next section.

J. How is the price of Treasury notes and bonds determined, and what is the "yield to maturity?"

Assume that a 10-year Treasury note was issued in June 2011 with a stated rate of interest of 3%. As of May 2012, this note would (1) still be outstanding, (2) still have an interest rate of 3%, (3) have a remaining life of 9 years, and (4) be traded in the bond market. Assume also that in May 2012, the bond market tells us that the required rate of interest on Treasury notes with a term of 9 years is 2.9%. In such case, the trading value of the 10-year note issued in June 2011, which now has a remaining life of 9 years, will be higher than its par or principal value (*i.e.*, the amount paid at maturity). That is, this note will trade at a premium to its principal amount. This is because where the currently applicable rate of interest on a Treasury note or bond (hereinafter "bond") is lower than the stated rate on the bond, the price of the bond will be more than the principal amount of the bond.

On the other hand, where the currently applicable rate on a Treasury bond is higher than the stated rate on the bond, the price of the bond will be less than the principal amount. That is, the bond will trade at a discount to its principal amount.

Because there will always be changes in the prevailing interest rates between the time a bond is issued and the time a bond is redeemed at maturity, the price paid for Treasury bonds that are sold in these dealer markets will reflect the difference between the stated rate of interest on the bond and the rate that is currently applicable for bonds of a similar maturity. This is also the case with T-bills.

In a case where interest rates have risen since the issuance of a Treasury bond, the discount will be calculated so that the total of the discount plus the stated interest will equal the currently applicable interest rate on what is referred to as a yield to maturity basis. This means that the rate is determined so that after taking into account the term of the bond and the compounding of interest on unpaid interest, the yield on the bond is equal to the currently applicable interest rate for such bond. If, on the other hand, the currently applicable rate is less than the stated rate on the Treasury bond, the price of the bond will be higher than the principal amount, reflecting that the yield to maturity on the bond is less than the stated interest rate.

K. What are Treasury Inflation-Protected Securities (TIPS)?

Treasury Inflation-Protected Securities or TIPS provide protection against inflation. TreasuryDirect contains the following description of TIPS:

> The principal of a TIPS increases with inflation and decreases with deflation, as measured by the Consumer Price Index. When a TIPS matures, you are paid the adjusted principal or original principal, whichever is greater.
>
> TIPS pay interest twice a year, at a fixed rate. The rate is applied to the adjusted principal; so, like the principal, interest payments rise with inflation and fall with deflation.[259]

TIPS can be purchased pursuant to the Treasury's auction process or through banks and brokers.

L. What are Treasury OID STRIPS?

The Treasury issues some bonds on a zero coupon basis, meaning that they do not have a stated rate of interest. These bonds are referred to as "STRIPS," an acronym for "separate trading of registered interest and principal." These bonds are sold on a discount basis (*i.e.*, they have original issue discount or OID), with the amount of the OID determined such that the discount will produce the required yield to maturity on the bond. The holders of OID bonds are required to include in taxable income on an annual basis an amount of hypothetical interest computed on a yield to maturity basis, which reflects the compounding of interest concept. As a consequence, most OID bonds are held by tax-exempt entities, such as pension plans.

M. What are SLGS?

SLGS or State and Local Government Securities, also known as slugs, are Treasury obligations issued to state and local governments. These issuances reduce the need for the Treasury to borrow private capital.

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[259] Treasury Direct, *Treasury Inflation-Protected Securities (TIPS)*, at http://www.treasurydirect.gov/indiv/products/prod_tips_glance.htm.

N. What is the "yield curve?"

As discussed above, since the stated interest rate on bonds may be different than the currently applicable rate and some bonds may be issued with OID, it is common to focus on the required yield for the particular bond, which means the required yield to maturity, discussed previously.

The yield curve reflects the interest rates on debt instruments of different maturities. In general, the required yield on a Treasury obligation will be greater the longer the obligation has to run to maturity. Thus, the yield curve is generally upward sloping, meaning that the rates start out low on T-bills and progressively increase as the time to the maturity date increases. Tables 13-A and 13-B show that in October 26, 2016 the yield curve was upward sloping: the yield on 6-month T-bills was 0.238%; the yield on one-year Treasury notes was 0.658%; the yield on 5-year Treasury notes was 1.306%; the yield on 10-year Treasury notes was 1.792%; and the yield on 30-year Treasury bonds was 2.938%.

One reason for a generally upward sloping yield curve is that the required interest rate will reflect a premium for expected inflation, and the longer the term of the bond, the greater the possibility that there will be inflation over the period the bond is outstanding.

With an inverted yield curve, short-term rates are higher than long-term rates. This means that the bond market expects that the short-term inflation rate will exceed the long-term rate. As will be seen in the subsequent discussion, the Fed has significant control over short-term rates, and generally, the higher short-term rates, the higher long-term rates and also the higher the rate charged by banks, including the bank prime rate, which is the rate that banks charge their best customers.

O. What are basis points?

In talking about changes or differences in interest rates, it is common to focus on basis points. One basis point is equal to $1/100^{th}$ of a percent. Thus, for example, if the Fed announces that it has increased the targeted fed funds rate by 25 basis points, this means that it has increased the target by ¼ of a percent.

P. Are the above principles also applicable to corporate bonds?

Companies can finance themselves from the following principal sources: (1) equity contributions from shareholders from the sale of stock; (2) bank loans; (3) loans from other financial institutions, such as insurance companies; and (4) the issuance of debt either privately or publicly. The public issuance of corporate debt is generally referred to as the issuance of corporate bonds, and the discussion here focuses on these bonds.

The principles discussed previously relating to Treasury notes and bonds generally are also applicable to corporate bonds; however, with corporate bonds there is a risk of default, which is not the case with Treasury notes.

Q. How much debt has the Treasury issued in early 2016?

The Treasury periodically issues information on its "marketable borrowing," which encompasses the issuance of the various types of Treasury obligations discussed above. For example, on August 1, 2016, the Treasury issued a news release dealing with this issue. The release explains:

> The U.S. Department of the Treasury today announced its current estimates of net marketable borrowing for the July – September 2016 and October – December 2016 quarters:
>
> - During the July – September 2016 quarter, Treasury expects to borrow $201 billion in net marketable debt, assuming an end-of-September cash balance of $350 billion. This borrowing estimate is $47 billion higher than announced in May 2016. The increase in borrowing is due primarily to a higher end-of-quarter cash balance estimate and lower receipts.
> - During the October – December 2016 quarter, Treasury expects to issue $182 billion in net marketable debt, assuming an end-of-December cash balance of $390 billion.
>
> During the April – June 2016 quarter, Treasury payed down $25 billion in net marketable debt and ended the quarter with a cash balance of $364 billion. In May 2016, Treasury estimated a $65 billion pay down in net marketable debt and assumed an end-of-June cash balance of $350 billion. The lower pay down was driven by lower receipts and a higher end-of-quarter cash balance.

The total outstanding debt of the Federal government is addressed in Chapter 15, which deals with the Great Deficit Debate.

R. How does one determine when Treasury is going to sell obligations?

TreasuryDirect has on its website information on upcoming auctions of various types of Treasury obligations. For example, Table 13-C presents the Upcoming Auctions as of October 27, 2016:

Table 13-C
Upcoming Treasury Auctions of Obligations, as of October 27, 2016

Announcement Date	Security Term	Security Type	CUSIP Number	Auction Date	Issue Date
10-27-16	26-weeks	Bill	*	10-31-16	11-03-16
10-20-16	7-Year	Note	*	10-27-16	10-31-16

Source: TreasuryDirect, Upcoming Auctions, at http://www.treasurydirect.gov/instit/instit.htm?upcoming (October 14, 2016)

As of October 27, 2016, no Treasury bonds were scheduled to be issued.

CHAPTER 14, MONETARY POLICY: HOW DOES THE FED'S CONTROL OF MONETARY POLICY AFFECT ECONOMIC GROWTH, AND HOW WOULD THE POLICIES OF SECRETARY CLINTON AND MR. TRUMP ON MONETARY POLICY AFFECT ECONOMIC GROWTH?

A. What is in this Chapter?

This chapter examines the manner in which the Federal Reserve Board (Fed) conducts monetary policy. The chapter starts with a discussion of the structure of the Fed. The chapter then examines the various policy tools employed by the Fed in the conduct of monetary policy, including open market purchases, the discount rate, and the required reserve ratio. The chapter then looks at how the Fed conducts stabilization policy, that is, anti-recessionary and anti-inflationary policy. The chapter then examines the Fed's response to the Financial Crisis, which is discussed in Chapter 12. Finally, the chapter presents the views of Secretary Clinton and Mr. Trump on the Fed and its Chairperson Janet Yellen. Chapter 13, which focuses on the concept of money and how the Treasury finances the Federal government, is a building block for this chapter.

At several points in this chapter references are made to lectures that former Fed Chairman Ben Bernanke, now a professor of economics at Princeton University, gave at George Washington University on the Fed and monetary policy.

B. What is the Fed?

The Federal Reserve Board (the Fed) gives the following succinct explanation of what it is and how it was established:

> [The Fed] is the central bank of the United States. It was created by the Congress to provide the nation with a safer, more flexible, and more stable monetary and financial system. The Federal Reserve was created on December 23, 1913, when President Woodrow Wilson signed the Federal Reserve Act into law.[260]

As discussed subsequently in greater detail, control of the monetary policy of the U.S. government is in the hands of the Fed.[261]

C. BOG and FOMC: How is the Fed Structured?

The top officials of the Fed are the seven members of its Board of Governors (BOG). The Chairman of the BOG, who is currently Janet Yellen, is the principal Fed spokesperson. The Governors are appointed by the President with confirmation by the Senate to 16 year terms, and the Chairman is appointed by the President with confirmation by the Senate to a 4-year term. Chairman Yellen was appointed to a four year term as chairman by President Obama. .

The BOG sits in Washington D.C., but there are 12 regional Federal Reserve Banks spread throughout the U.S. Commercial banks are members of these Federal

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[260] *Fed FAQs*, *infra* Bibliography, at *What is the purpose of the Federal Reserve System?*.

[261] For a critique of the Fed, see generally Canova, *The Federal Reserve We Need*, *infra* Bibliography.

Reserve Banks and have representation on the boards of these banks. Some of the principal functions of these Federal Reserve Banks are:

> (1) the holding of reserve balances of member banks (see subsequent discussion),
>
> (2) the making of discount loans to member banks (see subsequent discussion),
>
> (3) the processing of checks, and
>
> (4) the monitoring of economic activity in the particular region.

The Federal Reserve Banks submit periodic reports, contained in what is referred to as the beige book, to the Fed on the economic conditions in their regions.

As discussed subsequently in greater detail, the principal policy tool of the Fed in controlling monetary affairs is open market operations (OMOs). The Fed says that OMOs involve the "purchase and sale of securities in the open market by [the Fed and] are a key tool used by [it] in the implementation of monetary policy."[262] The Fed goes on to explain:

> [The Fed] has used OMOs to adjust the supply of reserve balances so as to keep the federal funds rate around the target federal funds rate [see the discussion below] established by the Federal Open Market Committee (FOMC).[263]

OMOs are under the direction of the Federal Open Market Committee (FOMC), which consists of all of the members of the BOG, the President of the Federal Reserve Bank of New York, and on a rotating basis the presidents of four of the other 11 regional Federal Reserve Banks. The FMOC meets approximately monthly and sets monetary policy at these meetings.

Immediately after its meetings, the FOMC issues a statement explaining its decision. The importance of these statements was highlighted as follows in a Wall Street Journal article entitled *Parsing the Fed*:

> The Federal Reserve's statements reflect how the members of the central bank's Federal Open Market Committee perceive the economy. Their words have world-wide impact and the slightest changes and nuances are scrutinized for clues about where interest rates may be headed.[264]

Section 14 of the Federal Reserve Act authorizes the Fed to engage in OMOs, and they are conducted by the Trading Desk at the Federal Reserve Bank of New York, which issues an Annual Report on its OMOs. The range of securities the Fed can purchase or sell in OMOs is relatively limited.[265]

D. What are the responsibilities of the Fed?

The Fed explains that its responsibilities fall into the following four general areas:

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[262] Fed, *Open Market Operations*, at http://www.federalreserve.gov/monetarypolicy/bst_openmarketops.htm (May 10, 2012).
[263] *Id*.
[264] *Parsing the Fed*, Wall Street Journal on line (July 1, 2004), at www.wsj.com.
[265] Fed, *Open Market Operations*, at http://www.federalreserve.gov/monetarypolicy/bst_openmarketops.htm (May 10, 2012).

- Conducting the nation's monetary policy by influencing money and credit conditions in the economy in pursuit of full employment and stable prices.
- Supervising and regulating banks and other important financial institutions to ensure the safety and soundness of the nation's banking and financial system and to protect the credit rights of consumers.
- Maintaining the stability of the financial system and containing systemic risk that may arise in financial markets.
- Providing certain financial services to the U.S. government, U.S. financial institutions, and foreign official institutions, and playing a major role in operating and overseeing the nation's payments systems.[266]

In his Lecture 1 on the *Origins and Mission of the Federal Reserve*, former Fed Chairman Bernanke says that the Fed has the following two "Policy Tools:"

- **Monetary Policy**
  - For macroeconomic stability: In normal times, the [Fed] adjust[s] the level of short-term interest rates to influence spending, production, employment, and inflation.
- **Provision of Liquidity**:
  - For financial stability: [The Fed] provid[es] liquidity (short-term loans) to financial institutions or markets to help calm financial panics, serving as the "lender of last resort."[267]

With regard to the Provision of Liquidity, the Chairman also points out that short-term loans from the Fed can "replace losses of deposits . . ., preventing the failure of solvent but illiquid [banks]."[268]

This chapter focuses mainly of the Fed's conduct of monetary policy, a concept addressed in the following question.

E. What is monetary policy?

Monetary policy deals with issues affecting the supply of money and the determination of interest rates. Monetary policy is under the control of the Fed, which uses monetary policy to help counteract recessions and to combat inflation. The Fed explains that the goals of monetary policy established by Congress in the Federal Reserve Act are "maximum employment, stable prices, and moderate long-term interest rates."[269] This is sometimes referred to by the Fed and others as the "dual mandate," promoting (1) economic and job growth, and (2) keeping inflation under control. For example, the Fed's statement following its September 2011 meeting spoke of the dual mandate as follows:

> Consistent with its statutory mandate, the Committee seeks to foster maximum [1] employment and [2] price stability. The Committee continues to expect some pickup in the pace of recovery [*i.e.*, economic growth] over coming quarters but anticipates that the unemployment rate will decline only gradually toward levels that the Committee judges to be consistent with its dual mandate. . .

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[266] *Fed FAQs*, *infra* Bibliography, at *What is the purpose of the Federal Reserve System?*..
[267] Bernanke, *Lecture 1*, *infra* Bibliography, at 8.
[268] *Id*. at 13.
[269] *Fed FAQs*, *infra* Bibliography, at *What are the Federal Reserve's objectives in conducting monetary policy?*.

> . The Committee also anticipates that inflation will settle, over coming quarters, at levels at or below those consistent with the Committee's dual mandate . . . .[270]

While the above statement uses the term "dual mandate," the *Fed 2012 Monetary Report* describes the mandate as follows:

> The statement emphasizes the Federal Reserve's commitment to pursue its congressional mandate to promote maximum employment, stable prices, and moderate long-term interest rates.[271]

F. What are the Fed's specific goals for employment and inflation under the dual mandate?

The Fed explains that after the January 2012 meeting of the FOMC, a statement was issued concerning the Fed's "longer-run goals and monetary policy strategy."[272] In addressing the FOMC's goals with regard to inflation, the Fed explains:

> The [FOMC] judges that inflation at the rate of 2 percent (as measured by the annual change in the price index for personal consumption expenditures, or PCE) is most consistent over the longer run with the Federal Reserve's statutory mandate. Communicating this inflation goal clearly helps keep longer-term inflation expectations firmly anchored, thereby fostering price stability and moderate long-term interest rates and enhancing the FOMC's ability to promote maximum employment.[273]

If monetary policy is too accommodating (*i.e.*, low interest rates) or fiscal policy is too loose (*i.e.*, heavy spending), as was the case from 1960 through 1979, significant inflation could result, which was the situation at that time.[274] The tight monetary policies (*i.e.*, high interest rates) under Fed Chairman Volcker in the early 1980's helped to bring inflation under control but also created a recession and high unemployment.[275]

Turning to its goals for maximum employment, the Fed first noted that the "maximum level of employment is largely determined by nonmonetary factors that affect the structure and dynamics of the job market."[276] It further explained that these "factors may change over time and may not be directly measurable." The Fed then explained:

> [T]he FOMC does not specify a fixed goal for maximum employment; rather, the FOMC's policy decisions must be informed by its members' assessments of the maximum level of employment, though such assessments are necessarily uncertain and subject to revision. In the FOMC's most recent [*i.e.*, 2012] Summary of Economic Projections, Committee participants' estimates of the longer-run normal rate of unemployment had a central tendency of 5.2 to 6.0 percent, roughly unchanged from January 2011 but substantially higher than the corresponding interval several years earlier.[277]

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[270] *Fed Statement Following September Meeting* (Sept. 21, 2011).
[271] *Fed 2012 Monetary Report*, *infra* Bibliography, at 3.
[272] *Fed FAQs*, *infra* Bibliography, at *What are the Federal Reserve's objectives in conducting monetary policy?*
[273] *Id*.
[274] Bernanke, *Lecture 2*, *infra* Bibliography, at 7.
[275] *Id*. at 11 and 13.
[276] *Fed FAQs*, *infra* Bibliography, at *What are the Federal Reserve's objectives in conducting monetary policy?*
[277] *Id*.

The Fed explains as follows its policies regarding both inflation and employment and the relationship between the two polices:

> In setting monetary policy, the Committee seeks to mitigate deviations of inflation from its longer-run goal and deviations of employment from the Committee's assessments of its maximum level. These objectives are generally complementary. However, under circumstances in which the Committee judges that the objectives are not complementary, it follows a balanced approach in promoting them, taking into account the magnitude of the deviations and the potentially different time horizons over which employment and inflation are projected to return to levels judged consistent with its mandate.[278]

G. Why is it important for individuals and businesses to understand the general stance of monetary policy?

The Fed states that the FOMC "seeks to explain its monetary policy decisions to the public as clearly as possible." The Fed goes on to discuss why it is important for individuals and businesses to have an understanding of the Fed's policies:

> Clarity in policy communications facilitates well-informed decision-making by households and businesses, reduces economic and financial uncertainty, increases the effectiveness of monetary policy, and enhances transparency and accountability, which are essential in a democratic society.[279]

The following is an example of individual decision making that could be impacted by Fed policy:

> Every person who is considering purchasing a house with a mortgage, should be basically aware of the Fed's general policy on interest rates, because the Fed's policy will impact the rates charged on residential mortgages. If interest rates are trending up, the potential buyer may want to accelerate the purchase, whereas if interest rates are trending lower, the potential buyer may want to delay the purchase. If interest rates are very low, as in 2012, the potential buyer may want to make the purchase at that time rather than waiting for the Fed to begin raising rates.

H. What are the Fed's policy tools for the conduct of monetary policy?

The principal policy tool of the Fed in controlling monetary affairs is open market operations. These operations are under the direction of the Federal Open Market Committee (FOMC), which was previously introduced. As discussed in greater detail later, the FOMC controls the fed funds rate, which is the interest rate banks charge each other for overnight loans of excess reserves, which are discussed later. After each of its meetings, the FOMC issues a directive that sets a target level for the fed funds rate, and the New York Federal Reserve Bank through its open market operations, discussed later, guides the rate near that target. Obviously, the fed funds rate is affected by the level of demand banks have for reserves, and this is taken into account in structuring open market operations.

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[278] *Id*.
[279] *Id*.

The Fed funds rate has (1) a direct impact on other short-term rates such as the T-bill (*e.g.*, 90-day Treasury obligation) rate, and (2) a derivative impact on long-term rates. Former Fed Chairman Bernanke explains as follows:

> Conventional monetary policy involves management of a target short-term interest rate (the federal funds rate). Because longer-term rates tend to fall when the Fed lowers the short-term rate, and because lower longer-term rates tend to encourage purchases of long-lasting consumer goods, houses, and capital goods, cutting the federal funds rate helps stimulate the economy.[280]

A second policy tool of the Fed is the control of the discount rate, which is the rate at which member banks can borrow from the Fed. The BOG and the Federal Reserve Banks control the discount rate.

The third policy tool is the bank reserve requirement, which is the amount of reserves a bank must hold as vault cash to cover withdrawals and as deposits with the Fed. The BOG basically sets the reserve requirement.

I. How does the Fed measure the money supply?

There are several ways of measuring the supply of money. The first is M-1, which basically includes currency in circulation in the U.S. economy, plus the balances in checking accounts. Since checking account balances can readily be converted to cash they are included with cash in the composition of M-1, which is the most liquid measure of the money supply.

The second measure of the supply of money is M-2, which includes M-1, plus time deposits (*i.e.*, savings accounts), money market mutual funds, and other accounts with withdrawal restrictions. Thus, M-2 contains both liquid and somewhat non-liquid items.

M-3, the third measure of the supply of money includes M-1, M-2, plus large negotiable deposits and repurchase agreements.

Finally, the broadest measure of money, L, includes M-1, M-2, M-3, plus, for example, commercial paper (*i.e.*, short-term debt issued by corporations), Eurodollar deposits (*i.e.*, deposits of U.S. dollars held overseas), and T-bills. As a general matter, in moving from M-1 to L, liquidity decreases and the yield (*i.e.*, the return from holding the asset) generally increases, because the less liquid a monetary asset, the higher the yield required. For the most liquid asset, cash in circulation, there is no yield for the holder.

As an illustration of the Fed's analysis of M-2, in its 2012 *Monetary Policy Report to the Congress*, the Fed presented the following discussion of the behavior of M-2:

> The M2 monetary aggregate expanded at an annual rate of about 12 percent over the second half of 2011. The rapid growth in M2 appears to be the result of increased demand for safe and liquid assets due to concerns about the European situation, combined with a very low level of interest rates on alternative short-term investments. In addition, a number of regulatory changes have likely boosted M2 of late. In particular, unlimited insurance by the Federal Deposit Insurance Corporation (FDIC) of onshore non-interest-bearing deposits has made these deposits increasingly attractive at times of heightened volatility and uncertainty in financial markets. . . . The monetary base—which is equal to the sum of currency in circulation and the reserve balances of depository institutions

[280] Bernanke, *Lecture 4*, *infra* Bibliography, at 9.

held at the Federal Reserve—expanded at an annual rate of 3.75 percent in the second half of the year, as the rise in currency more than offset a slight decrease in reserve balances.[281]

J. What is the income velocity of money?

The income velocity of money is a measure of the number of times each year the stock of money (M) turns over in financing GDP. It is determined by dividing nominal GDP, which is sometimes referred to as Y, by M as in Equation 14-A.

[281] *Fed 2012 Monetary Report*, *infra* Bibliography, at 28.

Equation 14-A
Equation for Computing the Velocity of Money

$$V \equiv \frac{Y_n}{M} = \frac{GDP_n (nominal\ GDP)}{M}$$

Equation 14-A can be rewritten to show that nominal GDP is equal to the velocity of money (V) times the stock of money (M). Therefore, if V and M are known, then nominal GDP can be derived. This formula does not take into account the portion of the money supply that is used to purchase financial assets.

K. What is the Fed's required reserve/deposit ratio?

The reserve/deposit ratio, also referred to as the cash reserve ratio, is the ratio of bank reserves to bank deposits. A bank's reserves include notes and coins held by the bank and deposits held by the bank at the Fed. The reserves held by the bank permit the bank to fulfill its obligations for cash withdrawals, and reserves held as Fed deposits permit the bank to pay its checks deposited with other banks. Thus, reserves are designed to insure that the bank has enough liquid assets to fulfill its obligations to its customers.

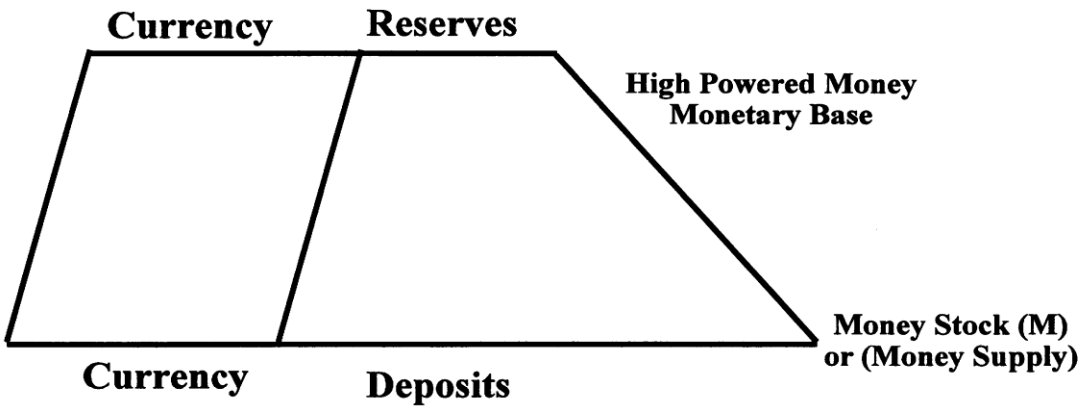
The required reserve/deposit ratio, which is set by the Fed, is currently 10% on transactions deposits (*i.e.*, checking and other similar unrestricted deposits), and zero percent on time deposits (*i.e.*, deposits which can only be withdrawn after a certain period). For example, a bank must have reserves equal to at least 10% of its transactions deposits. This means that for every $100 of such deposits, a bank must hold $10 in reserves.

The required reserve/deposit ratio is principally a function of the following factors: First, the market rate of interest; the higher the interest rate the less the reserves held, because under the liquidity preference theory, the higher the interest rate the less the demand for cash; Second, the discount rate charged by the Fed; and Third, the uncertainty associated with a bank's net flow of deposits. Also, since most bank deposits are insured by the Federal Deposit Insurance Corporation (FDIC), there is little risk of a run on banks, and this has the effect of lowering the required reserve/deposit ratio.

L. What is the money multiplier effect and how is it related to reserves?

Because the reserve requirement is just a fraction of transactions deposits, a deposit, which will increase reserves, will lead through the money multiplier effect to loans and checkable deposits in the banking system that are greater than the initial deposit. This money multiplier is similar to, but not the same as, the expenditure multiplier effect discussed in Chapter 10. This money multiplier effect can be illustrated by focusing on High Powered Money (HPM) or the monetary base (MB), which consists of currency (notes & coin) (C) and bank reserve deposits at the Fed (R). Thus, the MB includes the total reserves in the system (R), that is MB = C + R. The relationship between the HPM and the money supply, is shown by the money multiplier, which is set out in Graph 14-A.

Graph 14-A
Illustration of the Money Multiplier



Graph 14-A shows that there is a one to one relationship between currency and the money supply. However, reserves lead to deposits that are a multiple of reserves. This is because deposits create loans, and the deposits and loans move through the banking system from one person to another with a multiplying effect on deposits and loans. With a reserve ratio of 10%, if reserves increase by $100, total checkable deposits will increase by $1000, the point at which the $100 initial deposit equals the required reserve on the $1000.

Like the oversimplified expenditure multiplier, the basic money multiplier is also oversimplified. For example, some individuals will hold part of their money in cash and some banks will hold excess reserves, and these factors will reduce the money multiplier effect.

M. How does the money multiplier work?

The multiplier effect would start with an injection by the Fed of money into the economy by, for example, a purchase of $1 billion of Treasury securities from the Bank of America (BOA). (This type of open market purchase is examined further below.) As a result of this purchase, the reserves of BOA increase by $1 billion. With a reserve requirement of 10%, BOA has excess reserves of $900 million, and if BOA does not want to hold excess reserves, it will make loans of $900 million, keeping $100 million in required reserves. Assume the $900 million loan is to GE, which uses the loan to pay U.S. Steel for the delivery of steel. U.S. Steel deposits the $900 million check with JP Morgan Bank, which now has $900 million of excess reserves. Not wanting to hold excess reserves, JP Morgan makes loans of $810 million, keeping $90 million as required reserves.

Assuming that all banks in the system hold only required reserves and no cash is held back by the recipient of payments, this money creation process will continue until there are $10 billion in deposits. This is the amount of deposits that can be supported by the initial $1 billion of additional reserves in the system. Mathematically, the money multiplier for deposits is equal to one divided by the required reserve ratio, (that is 1/0.1=10). This means that with a 10% reserve requirement, deposits could be expected to increase by 10 times the initial injection of new reserves in the banking system. As indicated, this is an oversimplified multiplier, because some banks will hold excess reserves and some payees will hold back cash.

N. What is the ned funds market and how is it affected by reserves?

Some banks hold excess reserves. If a bank comes up short on reserves, it can borrow to make up the deficiency, and banks with excess reserves can lend the excess to banks short on reserves. The lending and borrowing of excess bank reserves is made in what is referred to as the Fed funds market, and the fed funds rate is the interest rate charged for these loans. As will be seen in a subsequent discussion, the Fed controls the fed funds rate through its open market operations. The following excerpt elaborates on the fed funds market:

> United States financial institutions keep reserve balances at the Federal Reserve Banks to meet requirements, earn interest, or to clear financial transactions. The market for federal funds is an interbank over-the-counter market

for unsecured, mostly overnight loans of dollar reserves held at Federal Reserve Banks. This market allows institutions with excess reserve balances to lend reserves to institutions with reserve deficiencies. A particular average measure of the market interest rate on these loans is commonly referred to as the fed funds rate.

The fed funds market is primarily a mechanism that reallocates reserves among banks. . . . The fed funds market is the setting where the interest rate on the shortest maturity, most liquid instrument in the term structure is determined. This makes it an important market from the standpoint of Finance. The fed funds rate affects commercial bank decisions concerning loans to businesses and individuals, and has important implications for the loan and investment policies of financial institutions more generally. This makes the fed funds market critical to macroeconomists. The fed funds market is the epicenter of monetary policy implementation: The Federal Open Market Committee (FOMC) communicates monetary policy by choosing the fed funds rate it wishes to prevail in this market, and implements monetary policy by instructing the trading desk at the Federal Reserve Bank of New York to "create conditions in reserve markets" that will encourage fed funds to trade at the target level.[282]

O. What is the Fed's discount window?

As an alternative to borrowing in the Fed funds market, a bank short on reserves can borrow reserves from the Fed at what is referred to as the discount window. The discount rate is the interest rate charged by the Fed for loans of reserves, but the Fed generally does not like to see banks borrow from it too often.

P. How does the Fed increase reserves by open market purchases?

The Fed can increase the stock of HPM by making an open market purchase of government bonds. In doing so the Fed writes a check on itself to pay for the bonds. Thus, as a result of the Fed's purchase, there are more reserves in the banking system, creating excess reserves, which in turn support new loans and deposits, through the multiplier effect discussed previously. This is referred to as an expansionary monetary policy.

Q. What impact does the purchase of securities by the Fed have on the required interest rate (i.e., yield) of those securities?

The purchase by the Fed of government securities has the effect of lowering the fed funds rate and other rates, because the purchases will increase the price of the securities thereby reducing the required yield, or interest rate. In other words, there is an inverse relationship between the price of debt securities and the yield, or effective interest rate.

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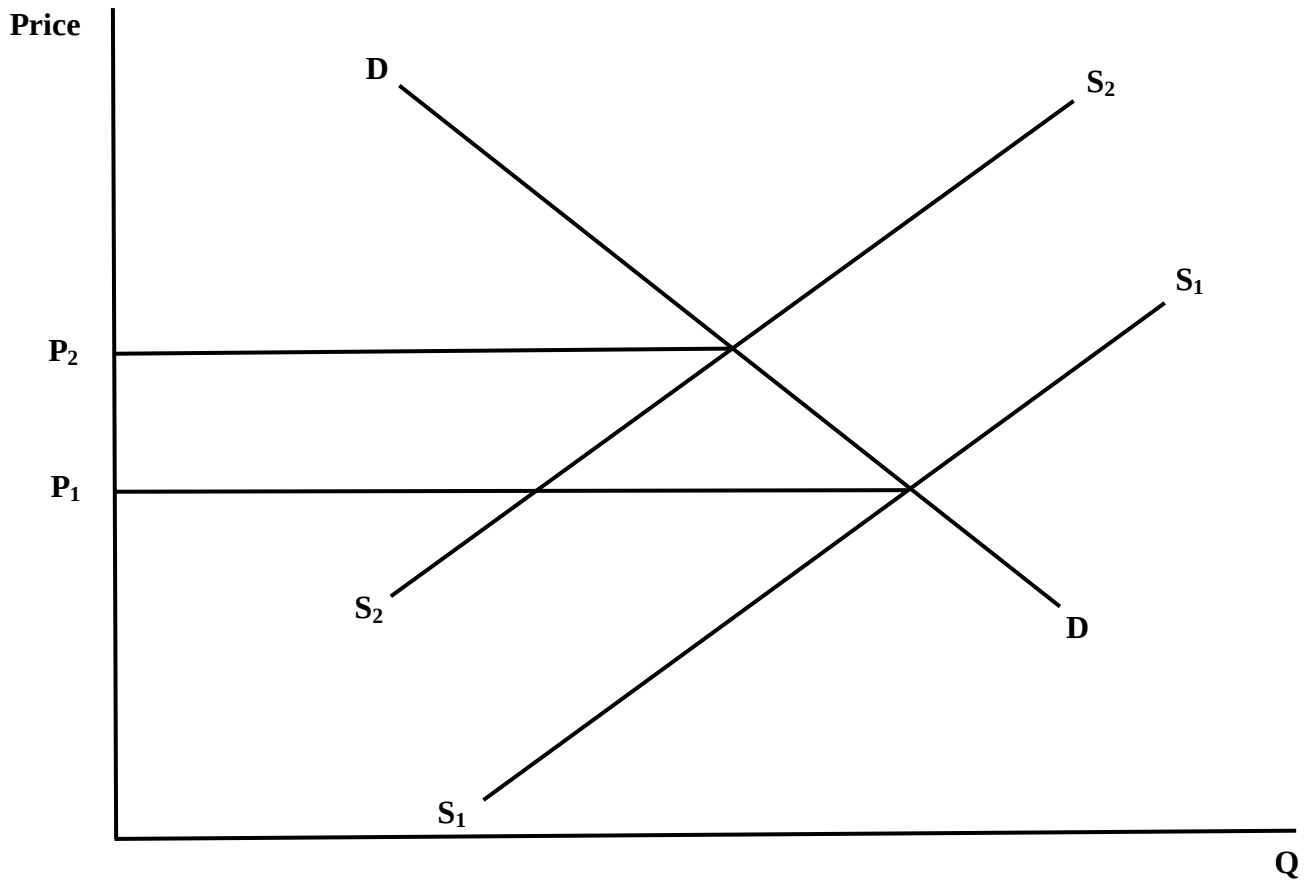
[282] Gara Afonso and Ricardo Lagos, *Trade Dynamics in the Market for Federal Funds*, Federal Reserve Bank of New York Staff Report No. 549 (Feb. 2012).

For example, assume that before the Fed's open market purchases, 90-day T-bills, which are sold on a discount basis, have a $1,000 principal amount and a 1% yield or rate of interest, which amounts to a 4% annual yield. These T-bills sell for $990, because the holder will receive $1,000 on maturity, which will give the holder a return of $10 or 1% for the 90 days, a 4% annual rate. Assume further that as a result of the open market purchases, the price of the T-bills increases to $995. In such case, as a result of the increase in the price of the T-bills, the rate of interest has dropped from 1% to 0.5% for 90 days, an annual rate of 2%.

In terms of supply and demand, (1) the demand curves for T-bills and other government securities is determined by the prices at which private parties would be willing to buy such securities, and (2) the supply curve is determined by the prices at which the private holders of such securities would be willing to sell such securities. The purchase of government securities by the Fed from private holders shifts the supply curve for these securities to the left, that is, as a result of the purchase, there are fewer securities offered for sale. This will result in higher prices for securities and, therefore, lower yields that will be reflected in the Fed fund rate. This impact is shown on Graph 14-B.

Graph 14-B
Illustration of Impact of Fed Purchase of Government Securities from a Private Party on Price of the Securities and on the Fed Funds Rate



Since in Graph 14-B the price of the securities increases as a result of the inward shift of the supply curve, the yield on the securities will fall, which will also precipitate a fall in the Fed funds rate.

R. What is "printing money?"

The process of open market purchases by the Fed is commonly referred to as "printing money." In this process the Fed creates additional reserves in the banking system by writing a check on itself. Thus, the Fed does not literally print money. As discussed in the prior chapter, the U.S. Treasury actually prints money.

S. What impact does "printing money" have on the Fed's balance sheet?

By printing money, the Fed increases the "size" of its balance sheet by the addition to its balance sheet of the securities it purchases.

T. How does the Fed decrease reserves by open market sales?

As an alternative to purchases of government securities from private parties, the Fed may also sell government securities. The Fed receives payment by reducing the account of the buyer's bank, thereby draining reserves from the banking system and contracting the money supply.

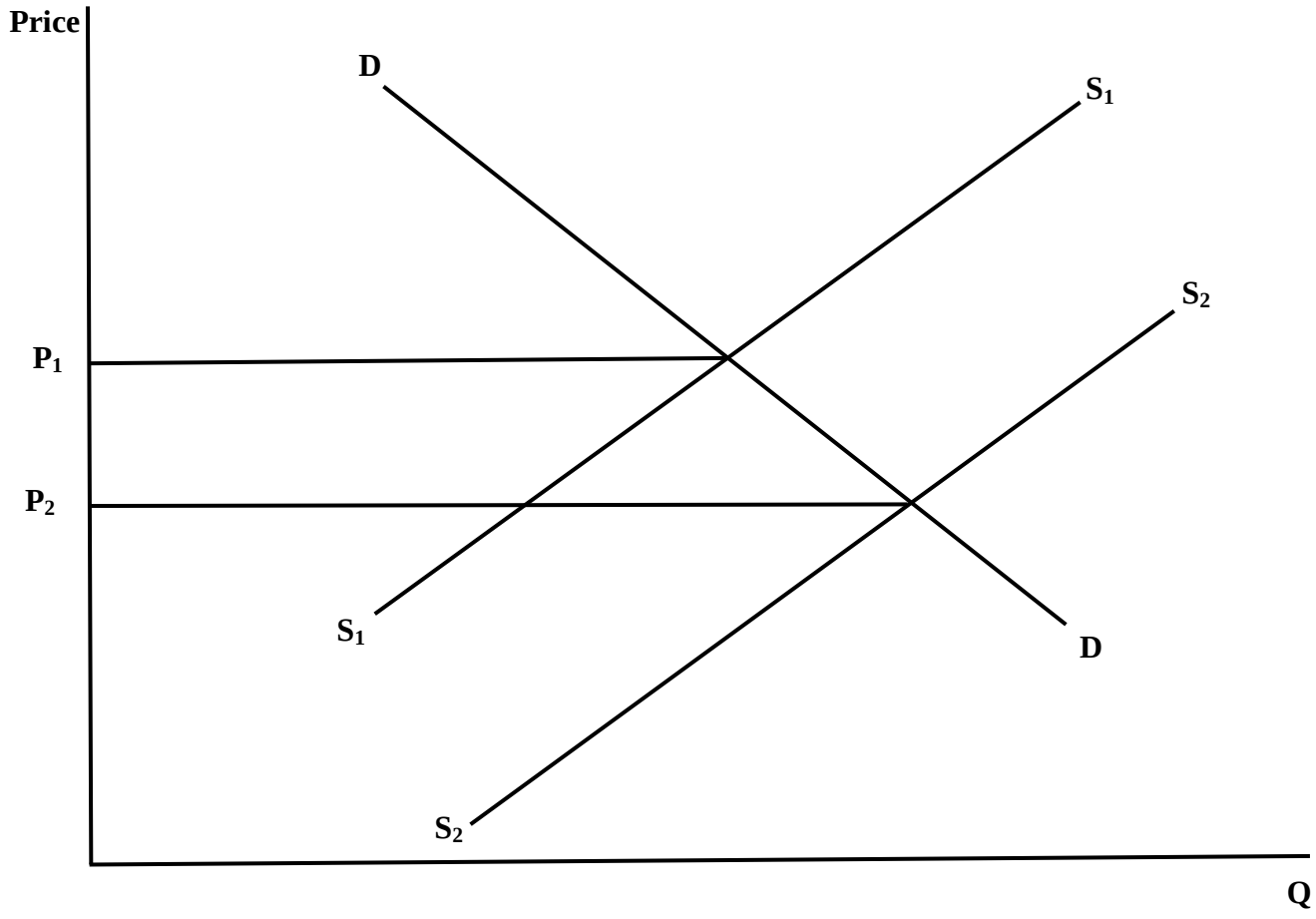
U. What impact does the sale of securities by the Fed have on the required interest rate (i.e., yield) of those securities?

The sales of government securities by the Fed will also have the effect of reducing the price of the securities, thereby raising the yield or required interest rate including the fed funds rate.

For example, assume that before the Fed's open market sales, 90-day T-bills, which are sold on a discount basis, have a $1,000 principal amount and a 1% yield or rate of interest, which amounts to a 4% annual yield. These T-bills sell for $990, because the holder will receive $1,000 on maturity, which will give the holder a return of $10 or 1% for the 90 day period, a 4% annual return. Assume further that as a result of the open market sales, the price of the T-bills decreases to $985. In such case, as a result of the decrease in the price of the T-bills, the rate of interest has increased from 1% to 1.5% for the 90 day period, an annual rate of 6%.

In terms of supply and demand the sale of government securities shifts the supply curve for securities to the right because more securities are available. This in turn results in lower prices for the securities and, therefore, higher yields on the securities, which will cause the Fed funds rate to increase. This is illustrated in Graph 14-C.

Graph 14-C
Illustration of Fed Sale of Government Securities on the Price of the Securities and on the Fed Funds Rate



V. Can the Fed set both a targeted interest rate and a targeted money supply?

It is commonly accepted that the Fed cannot set both a targeted interest rate and a targeted stock of money, because the two targets are fundamentally incompatible. It is easier for the Fed to control interest rates through open market purchases or sales than to control the money supply. Although the Fed closely follows movements of the money supply, the Fed concentrates its monetary policy on controlling interest rates and in particular the fed funds rate.

In the past, the Fed has periodically focused its policy on controlling the growth of the money supply, and economists of the monetarists' school, a leader of which was Milton Friedman, argue that to keep inflation under control, the Fed should focus only on the growth of the money supply.

W. How does monetary policy fit into the model of aggregate demand and aggregate supply?

This question requires a detailed look at "stabilization policy," which is examined in the subsequent questions.

1. What is "Stabilization Policy"?

Stabilization polices include government policies designed to affect the level of economic growth by shifting the AD curve. They can be either monetary policies or fiscal policies. This section addresses monetary policies. Anti-recessionary stabilization policies are designed to shift the Aggregate Demand (AD) curve to the right, thereby increasing GDP and possibly the price level, and anti-inflationary stabilization policies are designed to shift the AD curve to the left, thereby slowing economic growth and decreasing inflation. As seen below, the effectiveness of these two stabilization policies can be affected by the steepness of the Aggregate Supply (AS) curve.

There is a great debate about whether the Fed should use stabilization policy, with monetarists arguing that stabilization policy may be counterproductive. They argue that it is better for the Fed to focus on the growth of the money supply and let the economy self-correct. Also, those who subscribe to the theory of rational expectations argue that monetary and fiscal policy will be unsuccessful in affecting growth of the economy, because the economic players in the market will anticipate the changes.

It seems generally accepted that although monetary and fiscal policy can affect the level of GDP in the short run, neither affects GDP in the long run. This is because an increase in GDP above the potential level of GDP for a sustained period likely will be accompanied by unacceptable inflation.

2. Are there lags in implementing stabilization policy?

Stabilization policy is subject to several lags. First, there is an inherent lag in the data that is available on the economy at any one time because most data is based on the state of the economy several months ago. Second, although decisions to change monetary policy can be made very quickly (for example, the Open Market Committee can decide to lower the Fed funds rate and immediately begin implementing the change),

it can take firms a significant amount of time to adjust their investment plans to take advantage of lower interest rates. Third, fiscal policy, such as a tax cut, can take a significant period to implement because of the need for Congress to act, and there may be delays in the response of consumers in increasing their spending as a result of the cut.

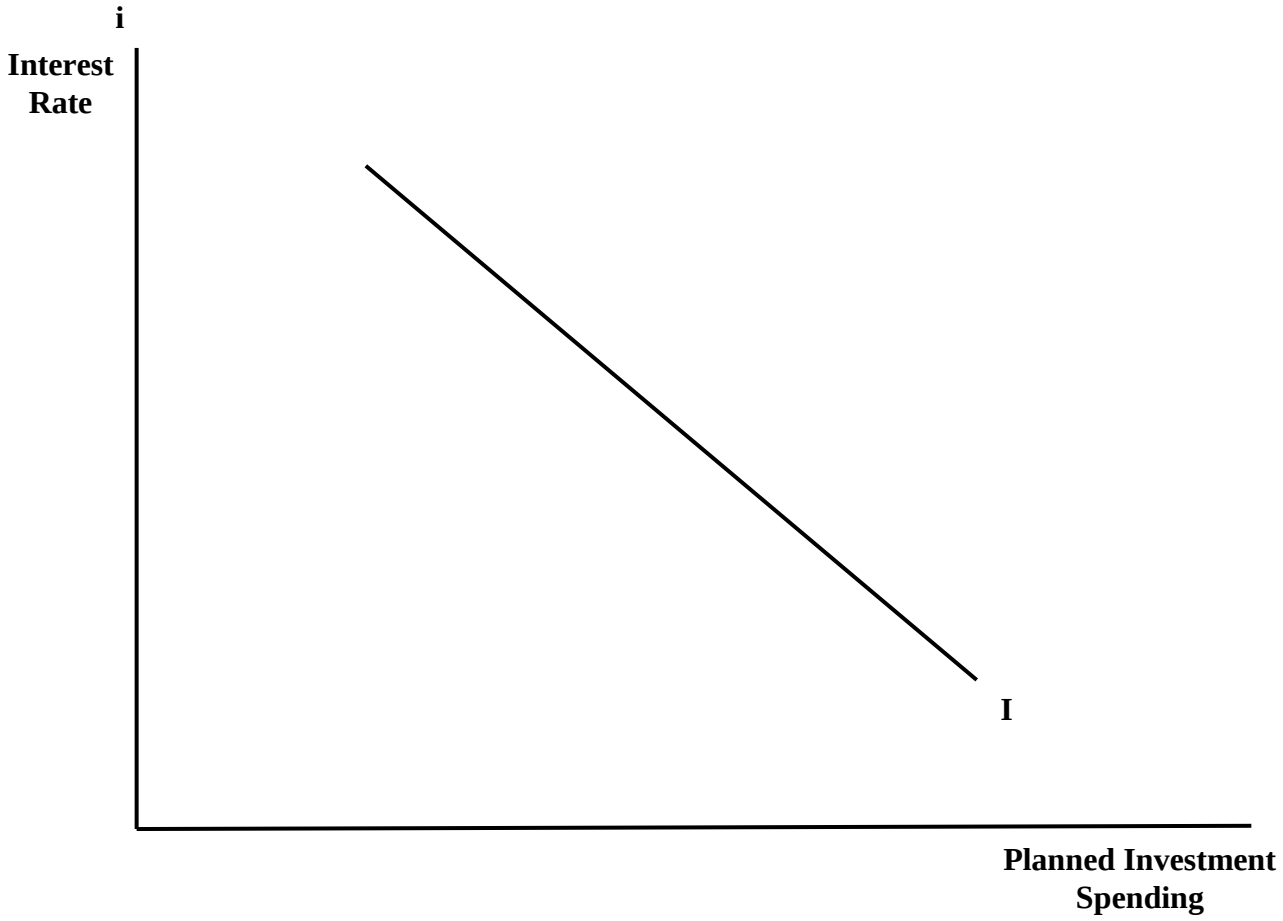
3. How does the level of interest rates affect the AD curve?

As seen previously, the Fed can control the level of short-term interest rates through its open market operations. The questions in this section shows how the level of interest rates can affect the AD curve through their effect on the investment and net export components of GDP. The principal effect is generally through the Investment component but also through the Net Exports and Consumption components.

a) What is the relationship between interest rates and the investment component of GDP?

The investment schedule shows the relationship between the interest rates and the amount of planned investment. For reasons discussed more fully in Chapter 25, as interest rates increase, the amount of planned investment spending will decrease. This is shown on the Graph 14-D.

Graph 14-D
Relationship between Interest Rates and Planned Investment Spending



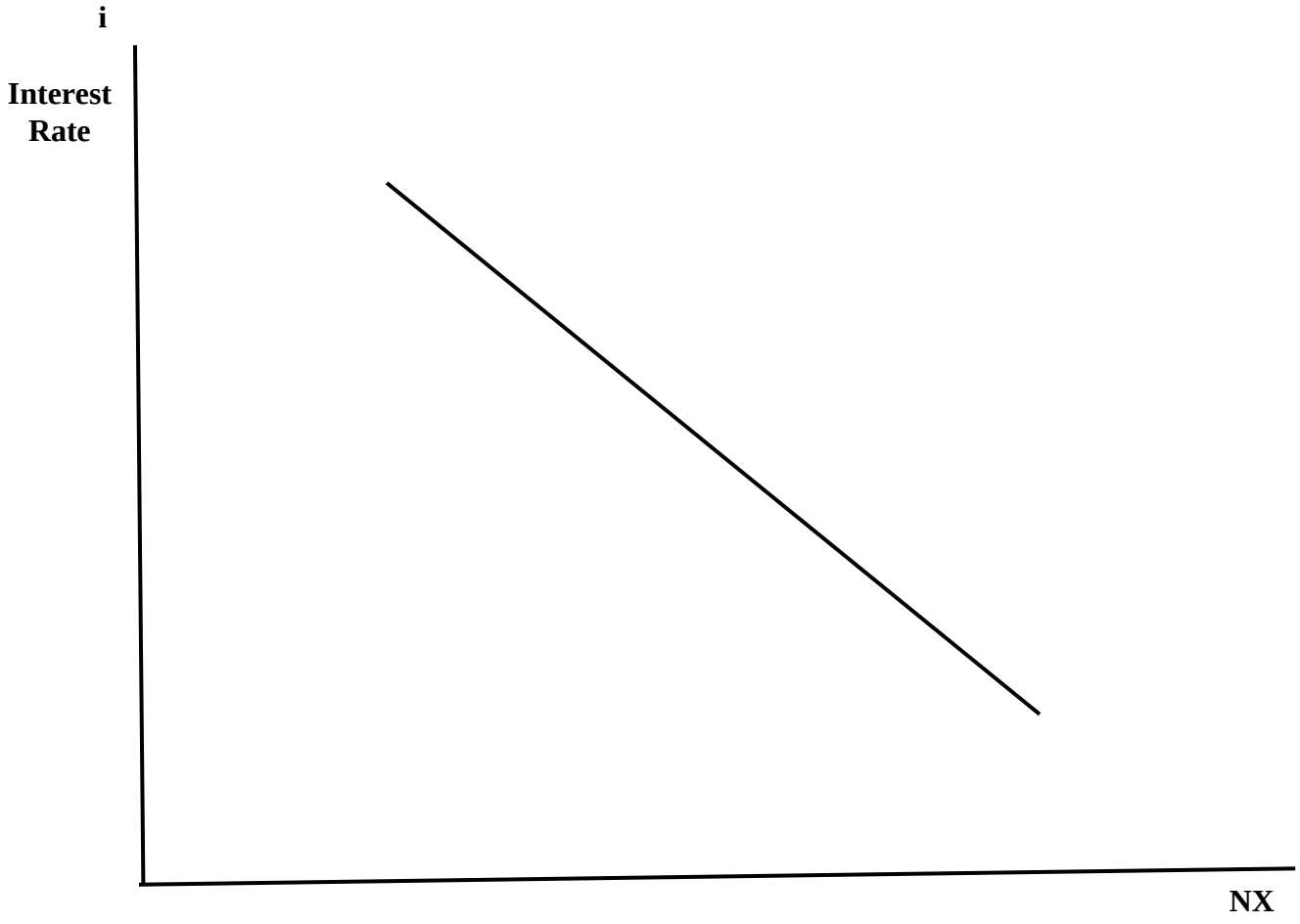
b) What is the relationship between interest rates and Net Exports?

There is also a relationship between interest rates and Net Exports (the excess of exports over imports); the higher the interest rate, the lower Net Exports. This can be seen from the following four-step analysis. First, a higher interest rate will attract more foreign investment in U.S bonds. Second, the higher investment in U.S. bonds will require foreign investors to buy dollars to then buy the bonds. Third, the purchase of dollars drives up the value of the dollar in relationship to other currencies. Finally, the higher priced dollar will make it more expensive for foreign consumers to purchase U.S. products, thereby lowering U.S. exports and the Net Exports component of GDP. This relationship between the interest rate and Net Exports is set out on Graph 14-E.

c) What is the relationship between interest rates and the consumption component of GDP?

As interest rates rise, consumers will spend more and as interest rates fall consumers will spend less. Thus, the effect of interest rates on the AD curve is similar for investment spending, net exports, and consumption spending.

Graph 14-E
Relationship between Interest Rates and Net Exports



d) How does the transmission system work from open market operations to shifts in the AD curve to changes in GDP?

The manner in which open market purchases are transmitted into increases in GDP are summarized in Table 14-A.

Table 14-A
Illustration of the Transmission from Open Market Purchases to an Increase in GDP

[1] Open market purchases by the Fed of T-bills from private parties decrease the supply of T-bills and increase the money supply as more money is injected into the market.	[2] The Fed's purchases of T-bills lead to an increase in the prices of T-bills and a decrease in short-term interest rates, which transmits to lower interest rates on long-term debt.	[3] The lower interest rates result in an increase in the Investment, Consumption, and Net Exports components of GDP, thereby shifting the AD curve to the right.	[4] GDP increases and possibly the price level increases as a result of the shifting AD curve.

The manner in which open market sales are transmitted into a reduction in GDP is summarized in Table 14-B.

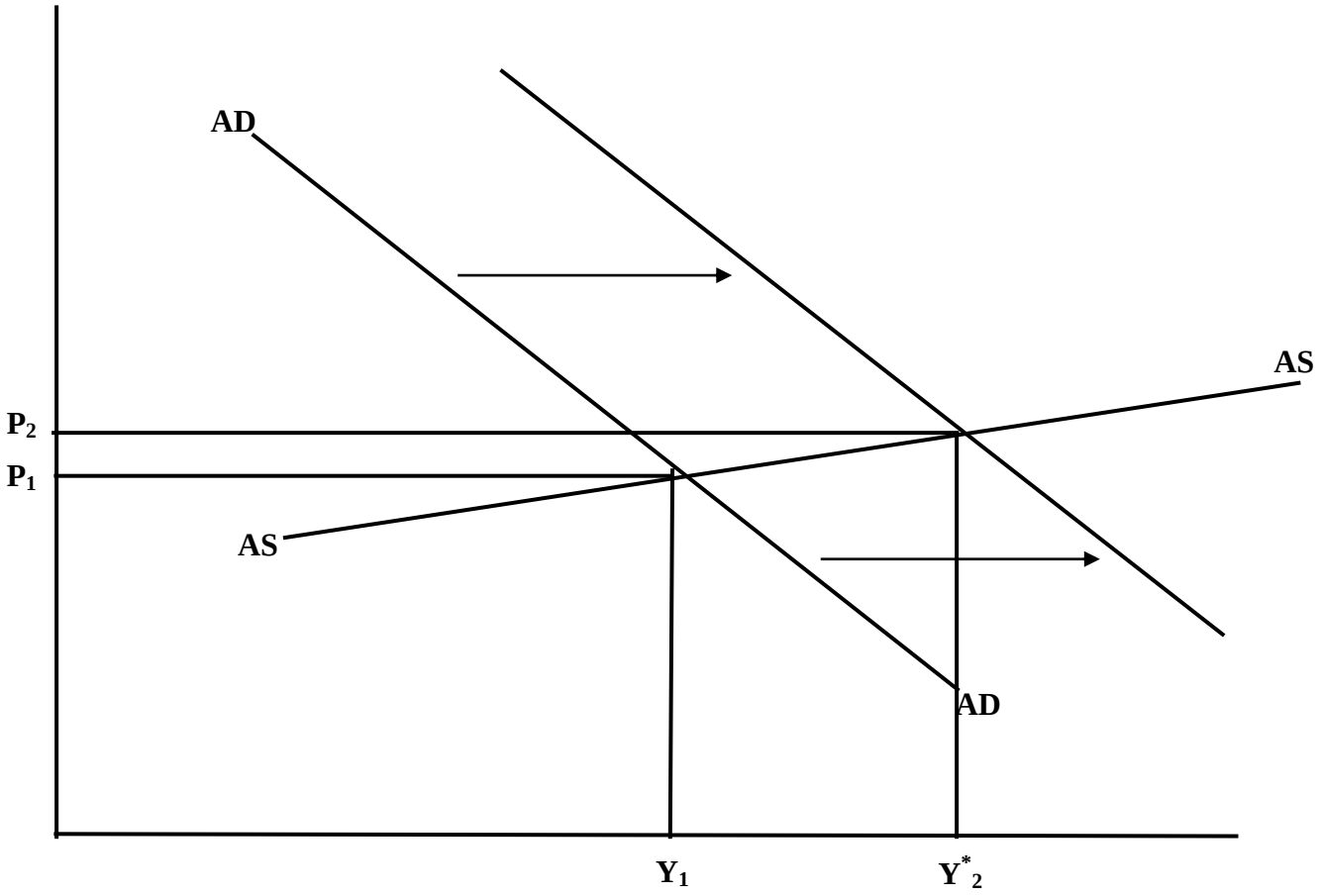
Table 14-B
Illustration of the Transmission from Open Market Sales to a Decrease in GDP

[1] Open market sales of T-bills by the Fed increase the supply of T-bills and decrease the money supply as money and reserves are drained from the market to pay for the T-bills.	[2] The Fed's sales of T-bills lead to a decrease in the prices of T-bills and an increase in short-term interest rates and this transmits to higher rates on long-term debt.	[3] The higher interest rates result in a decrease in the Investment, Consumption, and Net Exports components of GDP, thereby shifting the AD curve to the left.	[4] GDP decreases and possibly the price level decreases as a result of the shifting AD curve.

4. **How does the shape of the AS curve affect anti-recessionary policies?**

Some economists think the AS curve is flat; others see it as steep. If it is flat, stabilization policy is much more effective as an anti-recessionary policy because the AD curve can be driven out resulting in an increase in GDP without a significant increase in prices as indicated on Graph 14-F.

Graph 14-F
Illustration of Anti-Recessionary Policy: Shifting the AD Curve with a Relatively Flat AS Curve

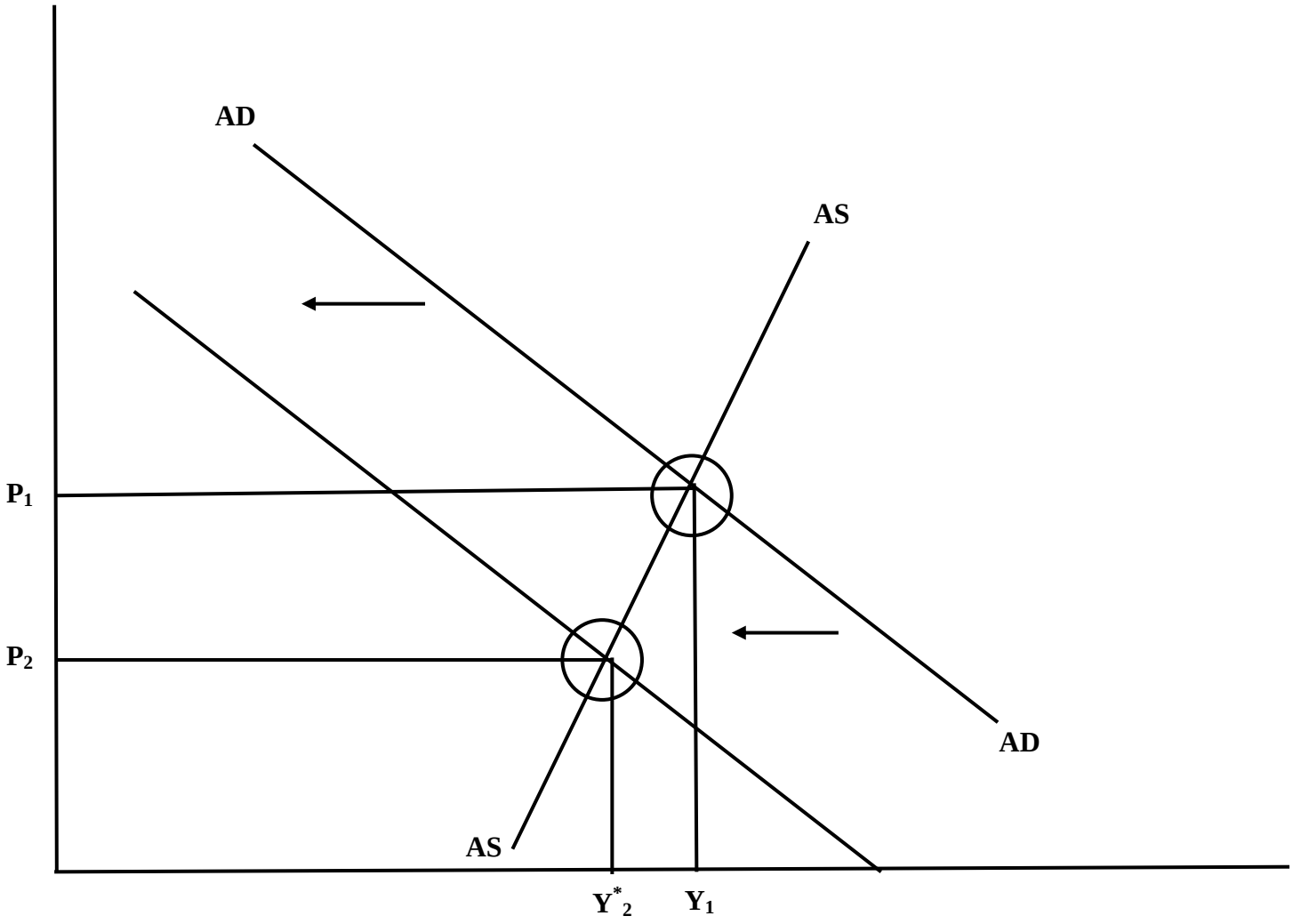


Since in Graph 14-F, the AS curve is relatively flat, the increase in GDP is proportionately larger than the increase in the price level.

5. **How does the shape of the AS curve affect anti- inflationary policies?**

On the other hand, if the AS curve is steep an anti-inflationary stabilization policy is more effective because the AD curve can be shifted to the left resulting in a big drop in prices with a small drop in GDP as seen on Graph 14-G.

Graph 14-G
Illustration of Anti-Inflationary Policy: Shifting the AD Curve with a Relatively Steep AS Curve



In Graph 14-G, the decrease in the price level is proportionately greater than the decrease in GDP.

6. What does rational expectations theory predict about the effectiveness of stabilization policy?

The rational expectations theory holds, *inter alia*, that the Fed's conduct of stabilization policy must take into account the rational expectations of economic actors, such as businesses and consumers. These actors will base their current behavior on their optimal forecasts of future factors, such as the rate of inflation, and the Fed's response to it. Consequently, expectations regarding, for example, the rate of inflation can have an impact on actual inflation and the ability of the Fed to control it.

7. How do rules and discretion differ in the conduct of monetary policy?

Some economists argue that the Fed should not use discretion in the conduct stabilization policy but rather should follow a particular rule. Two well-known rules are the Taylor Rule, which provides a model for determining the fed funds rate that the Fed should pursue, and the Friedman Rule, which provides for growing the money base at a constant rate. While the Fed may consult these and other rules in making decisions regarding monetary policy, the Fed currently uses its discretion in conducting monetary policy. Discretion is particularly important in addressing unique problems, such as the 2007-2008 Financial Crisis.

X. Why did the Fed raise the fed funds and discount rates in 2004?

As indicated in the previous discussion, the Fed's Open Market Committee (FMOC) meets periodically to set monetary policy. A particularly noteworthy meeting took place on June 30, 2004. This meeting signaled a turning point in Fed policy. Prior to this meeting, the Fed for several years had guided the fed funds rate to a 1% rate and kept it there for a substantial period. It had also reduced the discount rate to 2%. This action was taken principally because of a weakening economy, which began in 2000, and the aftermath of the events of September 11, 2001.

The discussion here dissects the following statement by the Fed, which was issued after the June 30, 2004 meeting:

Fed's Statement Regarding Rates June 30, 2004

> The Federal Open Market Committee decided today to raise its target for the federal funds rate by 25 basis points to 1¼ percent. The committee believes that, even after this action, the stance of monetary policy remains accommodative and, coupled with robust underlying growth in productivity, is providing ongoing support to economic activity. The evidence accumulated over the inter-meeting period indicates that output is continuing to expand at a solid pace and labor

market conditions have improved. Although incoming inflation data are somewhat elevated, a portion of the increase in recent months appears to have been due to transitory factors.

The committee perceives the upside and downside risks to the attainment of both sustainable growth and price stability for the next few quarters are roughly equal. With underlying inflation still expected to be relatively low, the committee believes that policy accommodation can be removed at a pace that is likely to be measured. Nonetheless, the committee will respond to changes in economic prospects as needed to fulfill its obligation to maintain price stability.

Voting for the F.O.M.C. monetary policy action were: Alan Greenspan, chairman; Timothy F. Geithner, vice chairman; Ben S. Bernanke; Susan S. Bies; Roger W. Ferguson Jr.; Edward M. Gramlich; Thomas M. Hoenig; Donald L. Kohn; Cathy E. Minehan; Mark W. Olson; Sandra Pianalto; and William Poole.

In a related action, the board of governors approved a 25 basis point increase in the discount rate to 2¼ percent. In taking this action, the board approved the requests submitted by the boards of directors of the Federal Reserve Banks of Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Minneapolis, Kansas City, Dallas and San Francisco.

Several important points are made in this statement. First, the Fed increased the targeted fed funds rate by 25 basis points from the then current 1 percent level to 1¼ percent. This was the first increase in the rate in four years. As noted previously, the fed funds rate is the rate of interest banks charge each other on overnight loans of excess reserves. The Federal Reserve Bank of New York implemented this goal through its open market purchases and sales of U.S. Treasury securities. Since it was raising the rate, there likely were more sales than purchases, because as explained previously, sales of securities increase the supply, thereby driving the price of the securities lower and the interest rate higher.

Second, the Fed raised the discount rate, the rate at which banks can borrow from the Fed, by 25 basis points to 2¼ percent. Since the rates at which banks can borrow in the fed funds market and at the Discount Window (that is, the office in a Federal Reserve bank that makes discount loans) were increasing, it could be expected that the rates that banks charged their customers increased also. Thus, it could be expected that the prime rate, the rate at which banks loan to their best customers, and other rates would increase. This is also true of rates in other debt markets.

Third, the statement said that notwithstanding the increase in rates, the Committee believed the "stance of monetary policy remain[ed] accommodative." This means that monetary policy was structured to accommodate continued growth in the economy through low interest rates.

Fourth, the statement indicated that Output or GDP was "continuing to expand at a solid pace."

Fifth, the statement said that this growth in Output had led to "improvements in the labor market," meaning that the unemployment rate was falling.

Sixth, in addressing the state of inflation, the statement said: "Although incoming inflation data are somewhat elevated, a portion of the increase in recent months appears to have been due to transitory factors." One of the "transitory factors" presumably was the recent "spike" up (significant increase) in the price of oil.

Seventh, the statement was forward-looking in that it gave as follows the Committee's view on the expected balance of risk between growth and inflation: "The committee perceives the upside and downside risks to the attainment of both sustainable growth and price stability for the next few quarters are roughly equal." Thus, the Committee was expecting that over the next several quarters there would be growth in Output or GDP without significant inflation.

Eighth, another forward-looking aspect of the statement made a prediction about the direction of future rates: "With underlying inflation [that is, the core CPI discussed in Chapter 8] still expected to be relatively low, the committee believes that policy accommodation can be removed at a pace that is likely to be measured." The use of the term "measured" was designed to signal that the Fed expected to increase rates slowly. Rates could be expected to increase over the long-term because as the economy continued to grow, inflation pressures could be expected to grow, and higher interest rates would be needed to restrain the inflation.

Ninth, the Fed reinforced as follows that it would not hesitate to raise rates faster if inflation increased significantly: "Nonetheless, the committee will respond to changes in economic prospects as needed to fulfill its obligation to maintain price stability."

In this short statement, the Fed referred directly or indirectly to (1) the inflation picture four times, (2) the economic growth picture three times, and (3) the employment picture one time.

Many economists criticized this action by the Fed at this 2004 meeting as not being sufficiently anti-inflationary. For example, a New York Times article, which examined this action, said: "Many view the Fed's extremely measured approach to curbing inflation, which is running at a rate of 2.9 percent so far this year, as a mistake."[283]

This New York Times article also indicated that the stock market "barely reacted" to the Fed's action and that the bond market "rallied, pushing yields on the 10-year Treasury down to 4.58 from 4.69 . . ." The increase in the price of these bonds, with the correlative decrease in yields, was probably the result of concern in the bond market that at the meeting the Fed might increase the fed funds rate by more than 25 basis points.

Y. Why did the fed funds rate continue to rise from 2004 through 2006?

As indicated previously, at the FMOC meeting in 2004, the target Fed funds rate was raised by 25 basis points from 1% to 1¼%. The FMOC continued to raise the fed funds rate until in 2006 it reached 5¼%. The Fed's Monetary Policy Report of 2007 explained as follows the reasons for the Fed's actions regarding the fed funds' rate:

> The U.S. economy turned in another solid performance in 2006, although the pattern of growth was uneven. . . . The housing market cooled substantially . . . .
>
> On balance, core inflation was a bit higher over the four quarters of 2006 than in 2005. . . .

[283] Gretchen Morgenson, *As Greenspan Chases Inflation, Critics Shout, 'Faster!'*, New York Times, at www.nyt.com (July 1, 2004).

> The FOMC firmed the stance of monetary policy 25 basis points at each of its four meetings over the first half of 2006. . . . [T]he FOMC voted to increase the policy rate a further 25 basis points at both the May and June meetings, bringing the federal funds rate to 5-1/4 percent.[284]

Z. Did the Fed's monetary policy contribute to the creation of the Financial Crisis?

The many causes of the Financial Crisis are examined in Chapter 12. However, Chairman Bernanke says that "[s]ome have argued that the Fed's low interest rate monetary policy in the early 2000s contributed to the housing bubble, which in turn was a trigger of the [Financial Crisis]."[285] However, he says that "most evidence suggests otherwise."[286]

AA. Fed's response to the Financial Crisis: Why did the fed funds rate begin to drop in 2007?

The Financial Crisis began in 2007, notwithstanding the Fed's rosy assessment in its early 2007 Monetary Policy Report, discussed previously, of the economy. The Fed's Monetary Policy Report for 2008 gives the following picture of the beginnings of the Financial Crisis:

> The U.S. economy has weakened considerably since last July, when the Federal Reserve Board submitted its previous Monetary Policy Report to the Congress. Substantial strains have emerged in financial markets here and abroad, and housing-related activity has continued to contract. . . . Overall economic activity held up reasonably well into the autumn despite these adverse developments, but it decelerated sharply in the fourth quarter. Moreover, the outlook for 2008 has become less favorable since last summer, and considerable downside risks to economic activity have emerged. Headline consumer price inflation picked up in 2007 as a result of sizable increases in energy and food prices, while core inflation (which excludes the direct effects of movements in energy and food prices) was, on balance, a little lower than in 2006. . . . Under these circumstances, the Federal Reserve has eased the stance of monetary policy substantially since July.
>
> The turmoil in financial markets that emerged last summer was triggered by a sharp increase in delinquencies and defaults on subprime mortgages. That increase substantially impaired the functioning of the secondary markets for subprime and nontraditional residential mortgages, which in turn contributed to a reduction in the availability of such mortgages to households. Partly as a result of these developments as well as continuing concerns about prospects for house prices, the demand for housing dropped further. In response to weak demand and high inventories of unsold homes, homebuilders continued to cut the pace of new construction in the second half of 2007, pushing the level of single-family starts in

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[284] Fed, *Monetary Policy Report submitted to the Congress on February 14, 2007*, at Part I.
[285] Bernanke, *Lecture 2*, *infra* Bibliography, at 32.
[286] *Id*. at 34.

> the fourth quarter more than 50 percent below the high reached in the first quarter of 2006.
>
> After midyear, as losses on subprime mortgages and related structured investment products continued to mount, investors became increasingly skeptical about the likely credit performance of even highly rated securities backed by such mortgages. The loss of confidence reduced investors' overall willingness to bear risk and caused them to reassess the soundness of the structures of other financial products. That reassessment was accompanied by high volatility and diminished liquidity in a number of financial markets here and abroad. The pressures in financial markets were reinforced by banks' concerns about actual and potential credit losses. In addition, banks recognized that they might need to take a large volume of assets onto their balance sheets--including leveraged loans, some types of mortgages, and assets relating to asset-backed commercial paper programs--given their existing commitments to customers and the increased resistance of investors to purchasing some securitized products. In response to those unexpected strains, banks became more conservative in deploying their liquidity and balance sheet capacity, leading to tighter credit conditions for some businesses and households. The combination of a more negative economic outlook and a reassessment of risk by investors precipitated a steep fall in Treasury yields, a substantial widening of spreads on both investment-grade and speculative-grade corporate bonds, and a sizable net decline in equity prices. Initially, the spillover from the problems in the housing and financial markets to other sectors of the economy was limited. Indeed, in the third quarter, real gross domestic product (GDP) rose at an annual rate of nearly 5 percent, in part because of solid gains in consumer spending, business investment, and exports. In the fourth quarter, however, real GDP increased only slightly, and the economy seems to have entered 2008 with little momentum. In the labor market, growth in private-sector payrolls slowed markedly in late 2007 and January 2008. The sluggish pace of hiring, along with higher energy prices, lower equity prices, and softening home values, has weighed on consumer sentiment and spending of late. In addition, indicators of business investment have become less favorable recently. However, continued expansion of foreign economic activity and a lower dollar kept U.S. exports on a marked uptrend through the second half of last year, providing some offset to the slowing in domestic demand. [287]

As the following discussion from the Fed's 2008 Monetary Policy Report makes clear, as a result of the looming Financial Crisis, the Fed immediately began to reduce the fed funds rate:

> With regard to monetary policy, the Federal Open Market Committee (FOMC) cut the target for the federal funds rate 50 basis points at its September meeting to address the potential downside risks to the broader economy from the ongoing disruptions in financial markets. The Committee reduced the target 25 basis points at its October meeting and did so again at the December meeting. In the weeks following that meeting, the economic outlook deteriorated further, and downside risks to growth intensified; the FOMC cut an additional 125 basis

[287] Fed, *Monetary Policy Report submitted to the Congress on February 27, 2008*, at Part I.

points from the target in January--75 basis points on January 22 and 50 basis points at its regularly scheduled meeting on January 29-30.[288]

As a result of these actions, the targeted Federal funds rate of 5¼% in September 2007 was reduced to 1¾% at the end of January 2008.

In addressing the Financial Crisis in 2007 and early 2008, the Fed also took the following actions:

> With regard to short-term funding markets, the Federal Reserve's initial actions when market turbulence emerged in August included unusually large open market operations as well as adjustments to the discount rate and to procedures for discount window borrowing and securities lending. As pressures intensified near the end of the year, the Federal Reserve established a Term Auction Facility to supply short-term credit to sound banks against a wide variety of collateral; in addition, it entered into currency swap arrangements with two other central banks to increase the availability of term dollar funds in their jurisdictions.[289]

BB. Fed's response to the Financial Crisis: What was the targeted fed funds rate at the end of 2008?

The Fed's 2009 Monetary Policy Report provides the following background on the Financial Crisis and its impact on the economy:

> The U.S. economy weakened markedly in the second half of 2008 as the turmoil in financial markets intensified, credit conditions tightened further, and asset values continued to slump. Conditions in the labor market worsened significantly after early autumn, and nearly all major sectors of the economy registered steep declines in activity late last year. Meanwhile, inflation pressures diminished appreciably . . . .
>
> In September, the government-sponsored enterprises Fannie Mae and Freddie Mac were placed into conservatorship by their regulator, and Lehman Brothers Holdings filed for bankruptcy. The insurance company American International Group, Inc., or AIG, also came under severe pressure, and the Federal Reserve, with the full support of the Treasury, agreed to provide substantial liquidity to the company. In addition, a number of other financial institutions failed or were acquired by competitors. As a result of the Lehman Brothers bankruptcy, a prominent money market mutual fund suffered capital losses, which prompted investors to withdraw large amounts from such funds. The resulting massive outflows undermined the stability of short-term funding markets, particularly the commercial paper market, upon which corporations rely heavily to meet their short-term borrowing needs. Against this backdrop, investors pulled back broadly from risk-taking in September and October, liquidity in short-term funding markets vanished for a time, and prices plunged across asset classes. Securitization markets, with the exception of those for government-supported mortgages, essentially shut down.
>
> Reflecting in part the adverse developments in financial markets, economic activity dropped sharply in late 2008 and has continued to contract so

[288] *Id*.
[289] *Id*.

> far in 2009. In the labor market, the pace of job losses quickened considerably beginning last autumn, the unemployment rate has risen to its highest level since the early 1990s, and other measures of labor market conditions--for example, the number of persons working part time because full-time jobs are not available--have worsened noticeably. The deteriorating job market, along with the sizable losses of equity and housing wealth and the tightening of credit conditions, has depressed consumer sentiment and spending; these factors have also contributed to the continued steep decline in housing activity. In addition, businesses have instituted widespread cutbacks in capital spending in response to the weakening outlook for sales and production as well as the difficult credit environment. And in contrast to the first half of the year--when robust demand for U.S. exports provided some offset to the softness in domestic demand--exports slumped in the second half as economic activity abroad fell. In all, real gross domestic product (GDP) in the United States declined slightly in the third quarter of 2008 and is currently estimated by the Bureau of Economic Analysis to have dropped at an annual rate of 3-3/4 percent in the fourth quarter; real GDP seems headed for another considerable decrease in the first quarter of 2009.
>
> [There has been] a substantial lessening of inflation pressures in the past several months. [290]

The Fed also described as follows its action during 2008 in reducing the Federal funds rate to a range of 0% to ¼%:

> The Federal Reserve has responded forcefully to the crisis since its emergence in the summer of 2007. By the middle of last year, the Federal Open Market Committee (FOMC) had lowered the federal funds rate 325 basis points. And as indications of economic weakness proliferated and the financial turbulence intensified in the second half, the FOMC continued to ease monetary policy aggressively; at its December meeting, the Committee established a target range for the federal funds rate of 0 to 1/4 percent and indicated that economic conditions are likely to warrant exceptionally low levels of the federal funds rate for some time.[291]

CC.Fed's response to the Financial Crisis: What was the targeted Federal funds rate at the end of 2009?

The Fed's 2010 Monetary Policy Report discussed as follows the improvements in the economy as it began to recover from the Financial Crisis:

> After declining for a year and a half, economic activity in the United States turned up in the second half of 2009, supported by an improvement in financial conditions, stimulus from monetary and fiscal policies, and a recovery in foreign economies. These factors, along with increased business and household confidence, appear likely to boost spending and sustain the economic expansion. . . .
>
> Despite the pickup in output, employment continued to contract in the second half of 2009, albeit at a markedly slower pace than in the first half. . . .

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[290] Fed, *Monetary Policy Report submitted to the Congress on February 24, 2009*, at Part I.
[291] *Id*.

> The recovery in financial markets that began last spring continued through the second half of the year and into 2010. . . . Investors became more optimistic about the outlook for financial institutions during the first half of last year. That development was bolstered by the release of the results of the Supervisory Capital Assessment Program (SCAP) [*i.e.*, stress tests of banks], which were seen as helping clarify the financial conditions of the largest bank holding companies and provided investors with greater assurance about the health of the institutions.
>
> [I]n part because of support from the Federal Reserve's Term Asset-Backed Securities Loan Facility, the consumer asset-backed securities market, which is an important funding source for consumer loans, improved.[292]

The 2010 Report also explained that the FOMC "maintained a target range of 0 to 1/4 percent for the federal funds rate throughout the second half of 2009 and early 2010 and indicated that economic conditions were likely to warrant exceptionally low levels of the federal funds rate for an extended period."[293]

DD. Fed's response to the Financial Crisis: What was the targeted Federal funds rate at the end of 2010?

The Fed's 2011 Monetary Report provides the following information on the targeted Federal funds rate for 2010:

> Throughout the second half of 2010 and early 2011, the FOMC maintained a target range for the federal funds rate of between 0 and 1/4 percent and reiterated its expectation that economic conditions, including low rates of resource utilization, subdued inflation trends, and stable inflation expectations, were likely to warrant exceptionally low levels for the federal funds rate for an extended period.[294]

EE. Fed's response to the Financial Crisis: What was the targeted Federal funds rate at the end of 2011?

At the end of 2011 and beginning of 2012, the targeted Federal funds rate continued to be in the 0 to ¼% range, making it very "accommodative." For example, the statement after the January meeting of the FOMC includes the following guidance on the targeted Fed funds rate and the forward guidance regarding that target:

> To support a stronger economic recovery and to help ensure that inflation, over time, is at levels consistent with the dual mandate, the Committee expects to maintain a highly accommodative stance for monetary policy. In particular, the Committee decided today to keep the target range for the federal funds rate at 0 to 1/4 percent and currently anticipates that economic conditions–including low rates of resource utilization and a subdued outlook for inflation over the medium run–are likely to warrant exceptionally low levels for the federal funds rate at least through late 2014.[295]

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[292] Fed, *Monetary Policy Report submitted to the Congress on February 24, 2010*, at Part I.
[293] *Id*.
[294] Fed, *Monetary Policy Report submitted to the Congress on March 1, 2011*, at Part I.
[295] *Fed Statement Following January Meeting* (Jan. 25, 2012).

FF. Fed's response to the Financial Crisis: When did the Fed first raise the fed funds rate (i.e., when did "lift-off" occur) after the Financial Crisis?

The *Fed 2016 Monetary Report* gives the following explanation of the first time the Fed raised the fed funds rate after the Financial Crisis:

> In December [2015], after holding the federal funds rate near zero for seven years, the FOMC raised the target range for that rate to ¼ to ½ percent. The decision to increase the federal funds rate reflected the Committee's assessment that there had been considerable improvement in the labor market last year and that the Committee was reasonably confident that inflation would move back to 2 percent over the medium term; thus, the criteria set out by the Committee in March 2015 had been met.
>
> The Committee anticipates that economic conditions will evolve in a manner that will warrant only gradual increases in the federal funds rate. This expectation is consistent with the view that the neutral nominal federal funds rate—defined as the value of the federal funds rate that would be neither expansionary nor contractionary if the economy was operating at its productive potential—is currently low by historical standards and is likely to rise only gradually over time, as headwinds to economic growth dissipate slowly and as inflation rises toward the Committee's goal of 2 percent. Consistent with this outlook, in the most recent Summary of Economic Projections (SEP), which was compiled at the time of the December FOMC meeting, FOMC participants projected that the appropriate level of the federal funds rate would be below its longer-run level through 2018.[296]

GG. Fed's response to the Financial Crisis: What was the level of the fed funds rate in September 2016?

The statement of the Federal Open Market Committee (FMOC) issued after its September 21, 2016 meeting gives the following picture of the following aspects of the economy; (1) employment, (2) economic growth, (3) consumption spending, (4) investment spending, and (5) inflation:

> Information received since the Federal Open Market Committee met in July indicates that the labor market has continued to strengthen and growth of economic activity has picked up from the modest pace seen in the first half of this year. Although the unemployment rate is little changed in recent months, job gains have been solid, on average. Household spending has been growing strongly but business fixed investment has remained soft. Inflation has continued to run below the Committee's 2 percent longer-run objective, partly reflecting earlier declines in energy prices and in prices of non-energy imports. Market-based measures of inflation compensation remain low; most survey-based measures of longer-term inflation expectations are little changed, on balance, in recent months.
>
> Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The Committee expects that, with

[296] *Fed 2016 Monetary Report*, *infra* Bibliography at 2.

> gradual adjustments in the stance of monetary policy, economic activity will expand at a moderate pace and labor market conditions will strengthen somewhat further. Inflation is expected to remain low in the near term, in part because of earlier declines in energy prices, but to rise to 2 percent over the medium term as the transitory effects of past declines in energy and import prices dissipate and the labor market strengthens further. Near-term risks to the economic outlook appear roughly balanced. The Committee continues to closely monitor inflation indicators and global economic and financial developments. [297]

And, the statement gives the following guidance on the FOMC's target fed funds rate:

> Against this backdrop, the Committee decided to maintain the target range for the federal funds rate at 1/4 to 1/2 percent. The Committee judges that the case for an increase in the federal funds rate has strengthened but decided, for the time being, to wait for further evidence of continued progress toward its objectives. The stance of monetary policy remains accommodative, thereby supporting further improvement in labor market conditions and a return to 2 percent inflation.[298]

Further, the statement gives the following guidance possible future adjustments in the fed funds rate:

> In determining the timing and size of future adjustments to the target range for the federal funds rate, the Committee will assess realized and expected economic conditions relative to its objectives of maximum employment and 2 percent inflation. This assessment will take into account a wide range of information, including measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial and international developments. In light of the current shortfall of inflation from 2 percent, the Committee will carefully monitor actual and expected progress toward its inflation goal. The Committee expects that economic conditions will evolve in a manner that will warrant only gradual increases in the federal funds rate; the federal funds rate is likely to remain, for some time, below levels that are expected to prevail in the longer run. However, the actual path of the federal funds rate will depend on the economic outlook as informed by incoming data.[299]

HH. Fed's response to the Financial Crisis: What are QE-1, QE-2, QE-3 and standard and non-standard monetary policy?

Standard or conventional monetary policy conducted by the Fed principally involves (1) targeting the fed funds rate through the purchase of short-term governmental obligations, (2) adjusting the rate on discount loans, and (3) modifying the reserve ratio. If the Fed is faced with an economic crisis, like the Financial Crisis, standard monetary tools may not be sufficient to generate economic growth, and the Fed may be required to

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[297] Board of Governors, Federal Reserve System, Press Release, Monetary Policy Release (Sept. 21, 2016).
[298] *Id*.
[299] *Id*.

turn to non-standard or non-conventional "expansionary" or "simulative" monetary policies, designed to generate or stimulate growth in the economy.

These non-standard policies are referred to as Quantitative Easing (QE). QE may be needed when the Fed funds rate and other short-term rates are near or at zero, and as a consequence, the targeting of the fed funds rate may not result in a lowering of long-term rates. QE may also be used to help the Fed reach its target for inflation.

As discussed below, in response to the Financial Crisis the Fed first undertook QE-1, which focused on ensuring that large banks and other financial institutions, like AIG, did not fail. The Fed then conducted QE-2 and QE-3, which involved the purchase of long-term Treasury securities and other government backed debt instruments.

II. Fed's response to the Financial Crisis: What QE-1 actions were taken by the Fed and the FDIC in 2008?

In its 2009 Monetary Policy Report, the Fed discussed actions, other than reducing the fed funds rate, it and the FDIC took during 2008 in addressing the Financial Crisis. These actions, which are discussed as follows, are generally referred to as QE-1 or the Wall Street bailout:

> In addition [to reducing the Fed funds rate], the Federal Reserve took a number of measures during the second half of 2008 to shore up financial markets and support the flow of credit to businesses and households. . . . In response to intensified stresses in dollar funding markets, the Federal Reserve announced extensions of its Term Auction Facility and significantly expanded its network of liquidity swap lines with foreign central banks. To support the functioning of the commercial paper market in the aftermath of the Lehman Brothers bankruptcy, the Federal Reserve established the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility in September as well as the Commercial Paper Funding Facility and Money Market Investor Funding Facility in October. In an effort to restart certain securitization markets and support extensions of credit to consumers, the Federal Reserve in November announced the Term Asset-Backed Securities Loan Facility . . . The Treasury announced a temporary guarantee of the share prices of money market mutual funds and . . . used authority granted under the Emergency Economic Stabilization Act to purchase preferred shares in a large number of depository institutions. [T]he Federal Deposit Insurance Corporation (FDIC) introduced a Temporary Liquidity Guarantee Program under which it offers guarantees for selected senior unsecured obligations of participating insured depository institutions and many of their parent holding companies as well as for all balances in non-interest-bearing transaction deposit accounts at participating insured depository institutions. In November, Citigroup came under significant financial pressure. In response, the FDIC, the Treasury, and the Federal Reserve provided a package of loans and guarantees to bolster Citigroup's financial condition; a similar package was arranged for Bank of America in January. Since October, governments in many advanced economies have announced support plans for their banking systems. . . .

> The measures taken by the Federal Reserve, other U.S. government entities, and foreign governments have helped restore a degree of stability to some financial markets.[300]

JJ. Fed's response to the Financial Crisis: What QE-2 actions were taken by the Fed in 2008?

In its 2009 Monetary Policy Report, the Fed discussed its actions relating to the purchase of agency-guaranteed mortgage-backed securities and agency debt. These actions, together with the Fed's purchase of long-term Treasury securities, have become known as a part of QE-2:

> To support the mortgage and housing markets and the economy more broadly and to encourage better functioning in the market for agency securities, the Federal Reserve announced programs . . . to purchase agency-guaranteed mortgage-backed securities and agency debt. These initiatives have resulted in a notable expansion of the Federal Reserve's balance sheet [discussed subsequently], and the FOMC has indicated that it expects the size of the balance sheet to remain at a high level for some time as a result of open market operations and other measures to support financial markets and to provide additional stimulus to the economy in an environment of very low short-term interest rates.[301]

Former Chairman Bernanke has discussed as follows the manner in which the purchase by the Fed of long-term securities can impact the interest rate on private debt:

> With the available supply of Treasury and GSE securities reduced by Fed purchases, investors were willing to accept lower yields. Lower longer-term rates helped stimulate the economy, just as they do under conventional policies.
>
> Reduced availability of Treasury and GSE securities led investors to purchase other assets, such as corporate bonds, lowering the yields on those assets as well.[302]

KK. Fed's response to the Financial Crisis: What is the relationship between QE-2 and the monetization concept?

Although the Treasury rarely sells debt directly to the Fed, that is, engage in *money financing*, the Fed can always buy debt from private holders who have purchased from the Treasury or other private holders. This is referred to as monetizing the deficit, that is, the Fed accommodates the deficit by buying more bonds through open market purchases when the Government sells bonds to finance the deficit. QE-2 is, therefore, a form of monetization of the deficit.

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[300] Fed, *Monetary Policy Report submitted to the Congress on February 24, 2009*, at Part I.
[301] *Id*.
[302] Bernanke, *Lecture 4*, *infra* Bibliography, at 16.

LL. Fed's response to the Financial Crisis: What QE-2 actions were taken by the Fed in 2009?

The Fed's 2010 Monetary Report gives the following information on the purchase by the Fed of various types of governmental securities, which were part of its QE-2 efforts:

> [T]he Federal Reserve continued its purchases of Treasury securities, agency mortgage-backed securities (MBS), and agency debt in order to provide support to mortgage and housing markets and to improve overall conditions in private credit markets. To promote a smooth transition in financial markets as the acquisitions are completed, the Federal Reserve gradually slowed the pace of these purchases in late 2009 and early 2010. The planned acquisitions of $300 billion of Treasury securities were completed by October, while the purchases of $1.25 trillion of MBS and about $175 billion of agency debt are expected to be finished by the end of the first quarter of this year.[303]

MM. Fed's response to the Financial Crisis: How did the Fed begin to close down QE-1 in 2009?

The Fed's 2010 Monetary Report gives the following information on the Fed's closing down of many of its efforts under QE-1 to save Wall Street:

> In light of the improved functioning of financial markets, the Federal Reserve removed some of the extraordinary support it had provided during the crisis and closed many of its special liquidity facilities and the temporary liquidity swap arrangements with other central banks in the fall of 2009 and early in 2010.[304]

NN. Fed's response to the Financial Crisis: How did the Fed change its policy on discount loans in 2009?

The Fed's 2010 Monetary Report gives the following information on the Fed's policy regarding discount loans to banks:

> The Federal Reserve . . . began to normalize its lending to commercial banks through the discount window by reducing the maximum maturity of loans extended through the primary credit facility from 90 days to 28 days, effective on January 14, and by announcing that the maturity of those loans will be reduced further to overnight, effective on March 18. The rate charged on primary credit loans was increased from 1/2 percent to 3/4 percent effective February 19.[305]

OO. Fed's response to the Financial Crisis: What is the impact of the payment by the Fed of interest on reserve balances?

The Fed's 2010 Monetary Report gives the following information on the Fed's policy regarding the payment of interest on reserve deposits of banks:

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[303] *Id*.
[304] *Id*.
[305] *Id*.

> Because the Federal Reserve, under the statutory authority provided by the Congress in October 2008, pays interest on the balances depository institutions hold at Reserve Banks, it can put upward pressure on short-term interest rates even with an extraordinarily large volume of reserves in the banking system by raising the interest rate paid on such balances. In addition, the Federal Reserve has continued to develop several other tools that it could use to reinforce the effects of increases in the interest rate on balances at Reserve Banks.[306]

PP. Fed's response to the Financial Crisis: What QE-2 actions were taken by the Fed in 2010?

The Fed's 2011 Monetary Report provides the following summary of the Fed's QE-2 actions in 2011:

> In the spring and early summer, a number of key indicators of economic activity softened relative to the readings posted in late 2009 and the first part of 2010, raising concerns about the durability of the recovery. In light of these developments--and in order to put the economic recovery on a firmer footing--the Federal Open Market Committee (FOMC) provided additional monetary policy stimulus during the second half of 2010 by reinvesting principal repayments from its holdings of agency debt and agency mortgage-backed securities in longer-term Treasury securities and by announcing its intention to purchase an additional $600 billion of Treasury securities by the end of the second quarter of 2011. . . .
>
> Yields on longer-term Treasury securities declined in the summer and early autumn, reflecting in part anticipation of additional monetary policy stimulus, but subsequently rose as economic prospects improved and as market expectations of the ultimate size of FOMC Treasury purchases were revised down. Despite some volatility, yields on Treasury securities remained relatively low on balance. [307]

QQ. Fed's response to the Financial Crisis: What QE-2 actions were taken by the Fed in 2011?

The Fed's 2012 Monetary Report indicates that economic growth in 2011 "expanded at a moderate rate," and the Report provides the following summary of the Fed's QE-2 actions in 2011:

> In order to support a stronger economic recovery and help ensure that inflation, over time, is at levels consistent with its dual mandate, the FOMC provided additional monetary policy accommodation during the second half of 2011 and early 2012. In August, the Committee modified its forward rate guidance, noting that economic conditions were likely to warrant exceptionally low levels for the federal funds rate at least through mid-2013. The FOMC decided at its September meeting to extend the average maturity of its Treasury holdings [this is known as operation Twist], and to reinvest principal payments from its holdings of agency debt and agency MBS in agency MBS rather than in Treasury securities. Finally, at the Committee's January 2012 meeting, the FOMC

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[306] *Id*.

[307] Fed, *Monetary Policy Report submitted to the Congress on March 1, 2011*, at Part I.

> modified its forward guidance to indicate that it expected economic conditions to warrant exceptionally low levels for the federal funds rate at least through late 2014. The Committee noted that it would regularly review the size and composition of its securities holdings and is prepared to adjust those holdings as appropriate to promote a stronger economic recovery in the context of price stability.[308]

RR. Fed's response to the Financial Crisis: What is the scope of the Operation Twist, QE-2 action taken by the Fed in 2011?

In discussing in 2012 its Operation Twist, which is formally the Fed's "maturity extension program," the Fed stated that it intends to "sell $400 billion of shorter-term Treasury securities by the end of June 2012 and use the proceeds to buy longer-term Treasury securities. This will extend the average maturity of the securities in the Federal Reserve's portfolio."[309] The Fed said that it believes the program will have the following effect:

> By reducing the supply of longer-term Treasury securities in the market, this action should put downward pressure on longer-term interest rates, including rates on financial assets that investors consider to be close substitutes for longer-term Treasury securities. The reduction in longer-term interest rates, in turn, will contribute to a broad easing in financial market conditions that will provide additional stimulus to support the economic recovery. . . .
>
> The maturity extension program will provide additional stimulus to support the economic recovery but the effect is difficult to estimate precisely. The program is intended to contribute to a broad easing in financial market conditions that will provide additional stimulus to support the economic recovery. The Federal Open Market Committee (FOMC) will be reviewing the pace of its securities transactions and the overall size of the program regularly in light of incoming economic information.[310]

The Fed explained that the program will not only have an effect on the rates on longer-term Treasury securities, but will also have an effect on the "rates paid by households and businesses."[311] The Fed elaborated as follows on this point:

> The program should put downward pressure on Treasury rates. In response to the lower Treasury yields, interest rates on a range of instruments including home mortgages, corporate bonds, and loans to households and businesses will also likely be lower. Various studies suggest that the maturity extension program will contribute to a modest decline in longer-term yields relative to levels that would otherwise prevail.[312]

The Fed explained as follows that it does not expect Operation Twist to cause an increase in short-term Treasury rates:

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[308] *Fed 2012 Monetary Report*, *infra* Bibliography, at Part I.
[309] Fed, *FAQs on Operation Twist, Maturity Extension Program*, at http://www.federalreserve.gov/faqs/money_15070.htm (May 15, 2012).
[310] *Id*.
[311] *Id*.
[312] *Id*.

> Federal Reserve sales of short-term securities could put some upward pressure on their yields, but the effect is likely to be small. The Committee has stated that it anticipates that economic conditions are likely to warrant exceptionally low levels for the federal funds rate at least through late 2014. This expectation should help anchor short-term rates near current levels, suggesting that shorter-term Treasury rates should not be significantly affected by the maturity extension program.[313]

The Fed explained that upon the completion of the $400 billion program, the "average maturity of [its] Treasury securities portfolio would be expected to rise from about 75 months currently to about 100 months by the end of 2012."[314]

The Fed also explained that it does not anticipate that the "maturity extension program will complicate its exit strategy [because the FOMC] . . . can use a number of tools including redemptions, changes in the interest paid on excess reserves, reserve draining tools, and asset sales to remove policy accommodation at the appropriate time and normalize the size and composition of the balance sheet."[315]

Finally, the Fed explained that the "shift from [1] reinvesting principal payments on agency securities in longer-term Treasury securities, to [1] reinvesting those payments instead in agency mortgage-backed securities, . . . would help support conditions in mortgage markets and contribute to a stronger economic recovery."[316]

SS. Fed's response to the Financial Crisis: Has the Fed made or lost money on its QE-1 and QE-2 operations?

Former Chairman Bernanke reported that the Fed has made money on its QE operations:

> The Fed's asset purchases [*i.e.*, QE-1 and QE-2] are not government spending, because the assets the Fed acquired will ultimately be sold back into the market. Indeed, the Fed has made money on its purchases so far, transferring about $200 billion to the Treasury from 2009 through 2011, money that benefited taxpayers by reducing the federal deficit.[317]

TT. Fed's response to the Financial Crisis: As of April 2012, what was the likelihood of the Fed undertaking QE-3?

As discussed previously, QE-3 would involve additional non-standard monetary policy by the Fed, such as the purchase of additional long-term Treasury or government agency securities. In his briefing after the April 2012 meeting of the FOMC, Chairman Bernanke was asked about the possibility of the Fed undertaking QE-3. A Wall Street Journal blog on that briefing describes as follows the Chairman's response:

> The first question: Some of your critics think you're being too cautious. Is the Fed any closer to QE3 than it was at the last meeting?

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[313] *Id*.
[314] *Id*.
[315] *Id*.
[316] *Id*.
[317] Bernanke, *Lecture 4*, *infra* Bibliography, at 21.

> Bernanke is quick with the defense, citing a long list of "bold and aggressive" moves to ease monetary policy. The Fed will continue to assess whether unemployment is moving toward its target and inflation is staying stable.
>
> And here you go: "We remain entirely prepared to take additional *balance sheet actions* if necessary," he says. Additional easing "remains on the table" and the Fed has tools to do so. "We will not hesitate to use them should the economy require that additional support."[318] (emphasis added)

The next question deals with the meaning of the term "balance sheet action," which the Chairman used at the briefing.

UU. Fed's response to the Financial Crisis: What is the meaning of the term "balance sheet action," which, as discussed in the previous question, was used by Chairman Bernanke?

"Balance sheet action" as used by Chairman Bernanke in the preceding question would involve the purchase by the Fed of additional long-term securities. This action would increase the Fed's holdings of such securities, which would be reflected on the Fed's balance sheet. Thus, QE-2 had the effect of "increasing" the Fed's balance sheet, because as a result of QE-2, the Fed held more assets. For example, the Fed's balance sheet on January 2, 2007, which was before the Financial Crisis, showed assets of $879 billion. On the other hand, the Fed's balance sheet on February 22, 2012 showed $2.9 trillion of assets.

In a February 2015 speech, Stanley Fischer, the Vice Chairman of the Fed, gave the following description of the Fed's balance sheet:

> To set the stage, consider the size of the Fed's balance sheet over the past several years. Assets have risen from about $900 billion in 2006 to about $4.5 trillion today, or . . . from 6 percent of nominal gross domestic product (GDP) to about 26 percent of nominal GDP. The net expansion over this period reflects primarily our large-scale asset purchase programs.[319]

VV. Fed's response to the Financial Crisis: What was the Fed's move from Operation Twist under QE-2 to the Asset Purchase Program under QE-3?

In a February 2015 speech, Stanley Fischer, the Vice Chairman of the Fed discussed as follows (1) the connection between Operation Twist under QE-2 and the asset purchase program under QE-3, and (2) the impact of these programs on long-term rates:

> The nature of our purchase programs has changed over time. In the early programs--that is to say, QE1, QE2, and the program we call the MEP, or the maturity extension program, otherwise known as "Operation Twist"--the Federal

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[318] *Recap: Ben Bernanke Press Conference*, Wall Street Journal, at www.wsj.com (April 25, 2012), by Sudeep Reddy.

[319] Stanley Fischer, Vice Chairman, Federal Reserve Board, *Conducting Monetary Policy with a Large Balance Sheet* (Feb. 27, 2015).

Open Market Committee (FOMC) specified the expected quantities of assets to be acquired over a defined period. Early in the crisis, this strategy seemed to help bolster confidence that the Fed was acting aggressively to offset the tightening in credit conditions and the steep downturn in economic activity.

The communication of asset purchases changed with QE3. In September 2012, the FOMC launched an open-ended asset purchase program in which it directed the New York Fed's Open Market Desk to conduct purchases at an announced monthly pace until there was "significant improvement" in the outlook for the labor market. Later, the FOMC noted that the monthly pace of purchases was data dependent, allowing the pace to be revised up or down based on its assessment of progress toward its long-run objectives.

Both of these types of asset purchase programs were aimed at putting downward pressure on long-term yields. . . . For example, the decline in 10-year Treasury yields associated with the first purchase program is estimated to have been as large as 100 basis points. The documented effects associated with subsequent programs are generally smaller. These results raise the question of whether the marginal effect of asset purchases has declined over time. While that question is a valid one, our conclusion is that asset purchases over more recent years have provided meaningful stimulus to the economy, and continue to do so. . . .

The results suggest that the Fed's balance sheet programs are currently depressing 10-year Treasury yields by about 110 basis points. And, with the Fed continuing to hold these securities, they should apply downward pressure on rates for some time.

The declines in long-term yields have led to an associated drop in long-term borrowing costs for households and firms and higher equity valuations. Thus, the asset purchases have helped make financial conditions overall more accommodative and have provided significant stimulus for the broader economy. . . . [A] recent study estimates that the QE programs along with increasingly explicit forward guidance have reduced the unemployment rate by 1-1/4 percentage points and increased the inflation rate by 1/2 percentage point relative to what would have occurred in the absence of these policies. Moreover, the estimates imply that these macroeconomic effects are only now manifesting themselves in full, reflecting the inherent lags in the monetary transmission mechanism. Of course, such estimates have a wide band of uncertainty around them.

As is well known, a number of potential costs might be associated with QE and the Fed's elevated balance sheet. Among these are the possibility that elevated securities holdings and low interest rates could pose risks to financial stability, possible effects on the Fed's income and remittances to the U.S. Treasury, and possible difficulties in conducting policy normalization. Such potential difficulties arise because the level of reserve balances will be very high when the FOMC begins to raise the federal funds rate, and, consequently, the Federal Reserve will employ new tools, which have their own benefits and costs, to implement monetary policy.

Despite these potential costs, we think that asset purchases have had a meaningful effect in promoting economic recovery and helping to keep inflation closer to the FOMC's 2 percent goal than would otherwise have been the case.

Moreover, the estimates imply that these macroeconomic effects are only now manifesting themselves in full, reflecting the inherent lags in the monetary

transmission mechanism. Of course, such estimates have a wide band of uncertainty around them.[320]

As indicated in the following excerpt from the statement of the Federal Open Market Committee (FMOC) issued after its September 21, 2016 meeting, as of that date, the Fed was continuing its asset purchase program:

> The Committee is maintaining its existing policy of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities and of rolling over maturing Treasury securities at auction, and it anticipates doing so until normalization of the level of the federal funds rate is well under way. This policy, by keeping the Committee's holdings of longer-term securities at sizable levels, should help maintain accommodative financial conditions.

WW. What impact does the Fed's issuance of money, i.e., Reserve Notes, have on the liability side of the Fed's balance sheet and on the fed funds rate?

The Fed explains that "[h]istorically, Federal Reserve notes have been the largest liability on [its] balance sheet."[321] The Fed discusses as follows the mechanics of its transactions in Reserve Notes:

> A U.S. depository institution, when it needs more currency to meet its customers' needs, asks a Reserve Bank to send it more Federal Reserve notes. The Reserve Bank ships the currency to the institution and debits the institution's Federal Reserve account by the amount shipped. Thus, an increase in Federal Reserve notes outside of the Reserve Banks is matched, in the first instance, by a reduction in the quantity of reserve balances that banks and other depository institutions hold in their Federal Reserve accounts. Similarly, a depository institution that finds that it has more Federal Reserve notes on hand than it needs to meet its customers' needs generally returns the extra currency to a Reserve Bank; the Reserve Bank credits the institution's account so the liability side of the Federal Reserve's balance sheet shows a reduction in Federal Reserve notes outstanding and a matching increase in reserve balances held by depository institutions.[322]

The Fed also explains how this system of issuance and receipt of Reserve Notes have an impact on the fed funds rate:

> Absent any additional action by the Federal Reserve, the increase in Federal Reserve notes would reduce the quantity of reserve balances held by depository institutions and push the federal funds rate above the target set by the Federal Open Market Committee (FOMC). To prevent that outcome, the Federal Reserve engages in open market operations to offset the reduction in reserve balances.[323]

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[320] *Id*.
[321] Fed, *Federal Reserve Liabilities*, at http://www.federalreserve.gov/monetarypolicy/bst_frliabilities.htm (May 10, 2012).
[322] *Id*.
[323] *Id*.

XX. What is Senator Clinton's view on the Fed and its Chair, Janet Yellen?

As a matter of substance, apparently, the only thing Senator Clinton's website says about the Fed is: "[a]ppoint Fed governors who share the belief that maximum employment is an essential prong of the Federal Reserve's dual mandate." She has also supported an effort of various Democrats who have urged the Fed to "increase the racial and gender diversity of its leadership," and she has urged the Fed to get bankers off the boards of the regional Federal Reserve banks.[324]

Finally, as reported in Fortune, Senator Clinton has criticized Mr. Trump for making comments about monetary policy. The article says:

> Democratic presidential candidate Hillary Clinton criticized Republican rival Donald Trump on Tuesday for making comments about the Federal Reserve's monetary policies, which she said should be off-limits for U.S. presidents and presidential candidates. . . .
>
> Trump, who has previously accused the U.S. central bank of keeping interest rates low to help Democratic President Barack Obama, said on Monday that interest rates should change.
>
> "They're keeping the rates down so that everything else doesn't go down," Trump said in response to a reporter's request to address a potential rate hike by the Federal Reserve in September. "We have a very false economy."
>
> [Clinton said:] "He should not be trying to talk up or talk down the economy, and he should not be adding the Fed to his long list of institutions and individuals that he is maligning and otherwise attacking[.]"[325]

YY. What is Mr. Trump's view of the Fed and Chair Janet Yellen?

Mr. Trump appears to be both for and against current Fed policy and its Chair Janet Yellen. For example, a May 2016 Fortune article reports that Mr. Trump said the following about the current Fed Chair, Janet Yellen:

> [He] . . . praised Federal Reserve Chairman Janet Yellen, saying he approved of her decision to keep interest rates low. Trump has said in the past he would replace Yellen once her term as Fed chair ended.
>
> "I'm not a person that thinks Janet Yellen is doing a bad job," he told Reuters. "I would rather have a Republican in the position but I am not the enemy of Janet Yellen."[326]

While in the past Mr. Trump has said that raising rates "would be a disaster for the economy, in September he criticized Chair Yellen for keeping rates "artificially low"

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[324] Donna Borak and Henry Williams, *Clinton vs. Trump, Where They Stand on Wall Street*, Wall Street Journal (Last updated, Oct. 25, 2016), at http://graphics.wsj.com/elections/2016/where-do-clinton-and-trump-stand-on-wall-street/.

[325] Fortune, *Hillary Clinton Slams Trump for Fed Comments: 'Words Have Consequences'* (Sept. 6, 2016), at http://fortune.com/2016/09/06/clinton-trump-federal-reserve/.

[326] Fortune, *Donald Trump Says He Would Dismantle Dodd-Frank Wall Street Regulation*, (May 18, 2016).

in order to help President Obama,[327] and as indicated in the preceding answer, in criticizing the Fed, he also said that we have a "very false economy." Mr. Trump also has supported Republican efforts to require an audit of the Fed.[328]

ZZ. What is my take on the Fed and Chair Yellen?

As of the Fall 2016, in view of the inability of Congress and the President to agree on additional fiscal stimulus for the economy, it is particularly important for the Fed to continue to pursue its monetary stimulus. The Fed's large balance sheet could be of concern; however, the absence of fiscal stimulus has made the large balance sheet necessary. As indicated, the Fed has already begun the process of raising interest rates, and it appears to me that it is acting wisely in making the rate increases dependent on the performance of the economy.

In his Lecture 1 on the *Origins and Mission of the Federal Reserve*, former Chairman Bernanke points out that during the Great Depression, the Fed initially kept money tight, and this led to "sharply falling prices and steep declines in output and employment."[329] He also points out that deflation stopped once monetary policy became "less tight."[330] The Fed should be careful to avoid making in 2016 the mistake it made in 1932.

AAA. How can actions of the Fed be tracked?

As indicated, the Federal Open Market Committee releases a statement immediately after each meeting, and it is important to analyze these statements for hints on the direction of interest rates and other monetary policy. Also, the Fed's *Monetary Policy Reports to Congress*, and the related Congressional testimony of the chairperson, are extremely important. These and other important documents are available on the Fed's website.

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[327] Donna Borak and Henry Williams, *Clinton vs. Trump, Where They Stand on Wall Street*, Wall Street Journal (Last updated, Oct. 25, 2016), at http://graphics.wsj.com/elections/2016/where-do-clinton-and-trump-stand-on-wall-street/.
[328] *Id*.
[329] Bernanke, *Lecture 1*, *infra* Bibliography at 41.
[330] *Id*.

CHAPTER 15, FISCAL POLICY: THE GREAT DEFICIT DEBATE: HOW DOES FEDERAL BUDGETARY POLICY AFFECT ECONOMIC GROWTH, AND WHAT ARE THE BUDETARY POLICIES OF SENATOR CLINTON AND MR. TRUMP?

A. What is in this Chapter?

This chapter examines the impact of the expenditures and revenues of the Federal government on economic growth. Thus, this chapter focuses on Federal fiscal policy, that is, policies that impact governmental receipts and expenditures. The chapter starts with a look at the role of the U.S. Treasury in financing the Federal government and then proceeds to examine (1) the differences between deficits and debt, (2) the concepts of budget deficits and budget surpluses, (3) the level of Federal government spending and receipts generally, and (4) how the Fed can monetize the deficit, which is explored also in Chapter 14, which deals with monetary policy.

The chapter then focuses on the CBO's budget projections and various relationships, such as the relationship between the level of debt and GDP. After looking at budget deficits and surpluses within the aggregate demand and aggregate supply model developed in preceding chapters, the chapter examines the efficacy of the 2009 Stimulus Act. Finally, the chapter looks at budgetary proposals of the Deficit Commission, Congressman now Speaker Ryan, Senator Clinton, and Mr. Trump.

The budgetary impacts of the financing of Social Security and Medicare are examined in Chapter 16; Obamacare is addressed in Chapter 17; and tax policy is explored in Chapter 23.

B. How does the U.S. Treasury finance the Federal government?

The U.S. Treasury Department takes the leadership role in structuring the financing of the Federal government. Of course, the Treasury must act within the statutory authority set by the Congress, which has the power to spend and tax. The Treasury has four potential ways of financing the expenditures of the government: (1) Collecting taxes and fees, (2) Borrowing from the public (debt financing), (3) Borrowing from the Federal Reserve System (the Fed) (money financing), and (4) Selling assets. Although the Treasury rarely sells debt to the Fed, as will be seen in the subsequent discussion, the Fed can monetize the deficit by buying from the public debt the public has purchased from the Treasury. Also, as will be discussed subsequently, the Treasury is involved in managing the debt, which involves the refinancing of outstanding government bonds.

C. How does the Treasury issue debt?

As discussed in Chapter 13, the Treasury securities held by the public principally include Treasury bills, notes, bonds, and inflation-indexed bonds.

D. What is "debt held by the public"?

Government debt is held by the public and by various government agencies and trust accounts, such as the Social Security trust fund. The *2012 Budget and Economic Outlook* gives the following explanation of the term debt that is held by the public:

> Debt held by the public consists mostly of securities that the Treasury issues to raise cash to fund the federal government's activities and to pay off its maturing liabilities. The Treasury borrows money from the public by selling securities in the capital markets; that debt is purchased by various buyers in the United States, by private investors overseas, and by the central banks of other countries. Of the $10.1 trillion in federal debt held by the public at the end of 2011, 55 percent ($5.5 trillion) was held by domestic investors and 45 percent ($4.6 trillion) was held by foreign investors. . . .[331]

E. What are budget deficits and budget surpluses?

A budget surplus (BS) is an excess of the Federal government's revenues, which principally include taxes, over its total expenditures, which include purchases of goods and services and transfer payments (for example, Social Security payments). On the other hand, a budget deficit (BD) is the excess of the Federal government's expenditures including transfer payments over its revenues. Even though transfer payments are not included in the computation of the Government component of GDP, they are indirectly included in the Consumer spending component of GDP, and they are included in determining whether there is a budget deficit or surplus.

A budget surplus (BS) or deficit (BD) is calculated annually and quarterly and is determined principally by (1) Congress' reaction to the President's annual budget proposal, which is submitted to Congress in January of each year, and (2) the general performance of the economy. Thus, a BS or BD depends on several factors, including the tax rates set by Congress, the level of government spending set by Congress, the level of transfer payments set by Congress, and the growth rate of GDP. A growing GDP can contribute to a reduced BD or a BS through an increase in tax collections and a decrease in transfer payments.

F. What is the difference between a structural deficit and a cyclical deficit?

The structural deficit, which is also referred to as a full-employment or high employment deficit, is the level at which the deficit would be if output were at its full employment level, that is, if actual GDP were at potential GDP. (*See* Chapter 10)

On the other hand, the cyclical deficit is the difference between the actual and structural deficits. Recessions increase the budget deficit because of declining taxes and increased transfer payments (for example, increases in unemployment insurance payments). On the other hand, economic booms decrease the budget deficit because of increased taxes and reduced transfer payments (for example, decreases in unemployment insurance payments).

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[331] *2012Budget and Economic Outlook*, *infra* Bibliography, at 11.

G. What is the difference between deficits and debt?

The nation's debt has accumulated over the years from past yearly deficits net of yearly surpluses, that is, the aggregate amount of Federal debt is the accumulation of budget deficits minus budget surpluses from past years. Thus, annual deficits contribute to the total amount of debt outstanding.

Much of the debt held by the public, including foreign governments, can be traced back to governmental deficits from years ago. For example, Table B-78 in the *2004 Economic Report of the President* shows that in 1939 the outstanding debt held by the public was $41.4 billion and that since then the debt has grown in most years and has never shrunk as much as $41.4 billion. This indicates that the debt created from past deficits is generally rolled over into new debt. This can be seen from a Table in the *2004 Budget and Economic Outlook* that computes the Debt Held by the Public at the End of the Year by starting with (1) Debt Held by the Public at the Beginning of the Year, then subtracting (2) any Surplus for the Year (which would be used to pay down debt), and adding both (3) any Deficit for the Year, and (4) any Other Means of Financing.[332] The debt held by the public is addressed subsequently.

H. How can the Fed monetize the deficit?

Although the Treasury rarely sells debt directly to the Fed, that is, engage in *money financing*, the Fed can always buy debt issued by the Treasury to the public. This is referred to as monetizing the deficit, that is, the Fed accommodates the deficit by buying more bonds through open market purchases when the Government sells bonds to finance the deficit. Open market purchases and sales by the Fed are examined in the Chapter 14, which examines monetary policy. By monetizing the deficit, the Fed can maintain interest rates at a constant nominal rate in the face of deficits. Without the monetizing, the deficit would cause interest rates to rise, because the sale of government bonds by the Treasury would cause prices of bonds to fall (since more are supplied without an increase in demand, prices must fall) and interest rates will rise. The rising interest rates would crowd out private investment. There is a large tradeoff in monetizing the debt: the likelihood of an unacceptable increase in inflation.

I. What are the CBO's 2016 baseline projected levels of the Federal government's revenues, outlays, and deficits?

The CBO's *2016 Budget and Economic Outlook* provides an excellent look at the budget picture of the Federal government. In explaining the scope and content of the projections contained in the 2012 Report the CBO explains: "As specified in law, and to provide a benchmark against which potential policy changes can be measured, CBO constructs its baseline estimates of federal revenues and spending under the assumption that current laws generally remain unchanged."[333]

Table 15-A, which is based on Table 1-2 of the 2016 Report, provides the following overview of the actual 2015 results and CBO's projections for 2016 through 2019 of revenues, outlays, and total deficits. The data is presented in absolute numbers and as a percentage of GDP.

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[332] *2004 Economic Report of the President* , *infra* Bibliography, at Expenditure Outlook, at Figure 1.5.
[333] *2012 Budget and Economic Outlook*, *infra* Bibliography, at xi.

Table 15-A
CBO's Baseline Budget Projections of Revenues, Outlays, Total Deficit, and Debt Held by the Public; Including as a Percentage of GDP

In Billions of $	2015 Actual	2016	2017	2018	2019
1a, Total Revenues	3,249	3,376	3,511	3,633	3,747
1b, Total Revenues as a Percentage of GDP	18.2%	18.3%	18.2%	18.1%	17.9%
2a, Total Outlays	3,687	3,919	4,072	4,206	4,485
2b, Total Outlays as a Percentage of GDP	20.7%	21.2%	21.1%	20.9%	21.5%
3a, Total Deficit (-) or Surplus	-439	-544	-561	-572	-738
3b, Total Deficit as a Percentage of GDP	-2.5%	-2.9%	-2.9%	-2.8%	-3.5%

Source: ***2012 Budget and Economic Outlook, infra*** **Bibliography, Table 1-2, page 15**

Focusing on 2015, Table 15-A shows that total Federal revenues were $3.2 trillion, which was 18.2% of GDP, and total expenditures were $3.6 trillion, which was 20.7% of GDP. Consequently, there was a deficit for the year of $0.4 trillion, which was -2.5% of GDP. By comparison, in 2011, shortly after the Financial Crisis, the deficit was $1.3 trillion, which was -8.7% of GDP.

Table 15-A also shows that for 2019, total Federal revenues are projected to be $3.7 trillion, which would be 17.9% of the projected GDP, and total expenditures are projected to be $4.4 trillion, which would be 21.5% of projected GDP. Consequently, there is a projected deficit for 2019 of $738 billion, which would be -3.5% of GDP.

The revenues and outlays included in Table 15-A include both on budget and off budget items. On budget numbers exclude revenues and outlays from the Social Security and other trust funds and the Postal Service, all of which are considered off budget.

The CBO provides the following summary of its data for the period 2017 through 2026:

CBO's Baseline Budget Projections for 2017 to 2026

> CBO constructs its baseline in accordance with provisions set forth in the Balanced Budget and Emergency Deficit Control Act of 1985 (P.L. 99-177) and the Congressional Budget and Impoundment Control Act of 1974 (P.L. 93-344).

> For the most part, those laws require that the agency's baseline projections incorporate the assumption that current laws governing taxes and spending in future years remain in place. Under that assumption for constructing CBO's baseline, the budget deficit is projected to remain just under 3.0 percent of GDP through 2018. After that, however, the deficit generally increases each year as a share of the economy, reaching 4.9 percent of GDP by 2026.
>
> The pattern of stable deficits through 2018 is largely attributable to shifts in the timing of certain payments from one fiscal year to another because certain scheduled payment dates fall on weekends; without those shifts, the deficit would rise in each year of the projection period. Although revenues are projected to remain roughly flat as a share of GDP, outlays are projected to increase each year, driven by the aging of the population, the rising costs of health care, and increasing interest payments.[334]
>
> The CBO also explains that if the "various provisions of current law are not fully implemented or if economic growth differs from what CBO projects, . . . budgetary outcomes could be quite different.[335]

A Figure in the CBO's *2016 Budget and Economic Outlook* shows that the actual budget deficits for 2009, 2010, 2011, and 2012 were for each of these years larger than the deficits for any other year since 1966.[336]

J. What is Federal "debt held by the public?"

The CBO's *2016 Budget and Economic Outlook* gives the following description of the term Federal "debt held by the public:"

> **Federal Debt**
>
> Federal debt held by the public consists mostly of the securities that the Treasury issues to raise cash to fund the federal government's activities and to pay off its maturing liabilities. The Treasury borrows money from the public by selling securities in the capital markets; that debt is purchased by various buyers in the United States, by private investors overseas, and by the central banks of other countries. Of the $13.1 trillion in federal debt held by the public at the end of 2015, 54 percent ($7.0 trillion) was held by domestic investors and 46 percent ($6.1 trillion) was held by foreign investors. Other measures of federal debt are sometimes used for various purposes, such as to provide a more comprehensive picture of the government's financial condition or to account for debt held by federal trust funds.[337]

[334] *Id*. at 18.
[335] *Id*.
[336] *Id*. at 3, Figure 1-1.
[337] Id. at 21

K. What is the CBO's 2016 baseline projected levels of debt held by the public?

Table 15-B, which is based on Table 1-B of the CBO's *2016 Budget and Economic Outlook*, provides the following overview of the actual 2015 results and CBO's projections for 2016 through 2019 of the "debt held by the public:"

Table 15-B
CBO's Baseline Projections of Debt Held by the Public; Including as a Percentage of GDP

In Billions of $	2015 Actual	2016	2017	2018	2019
1, Debt Held by the Public at the End of the Year	13,117	13,978	14,613	15,244	16,033
2, Debt Held by the Public at the End of the Year as a Percentage of GDP	73.6%	75.6%	75.7%	75.7%	76.7%

Source: ***2012 Budget and Economic Outlook, infra*** **Bibliography, Table 1-2, page 15**

The debt held by the public at the end of 2015 was $13.1 trillion, which was 73.6% of GDP, and the debt held by the public at the end of 2019 is projected to be $16 trillion, which would be 76.7% of GDP.

The CBO presents the following summary analysis of its projections of debt held by the public for the period 2016 through 2026:

Debt Held by the Public.

> Under the assumptions that govern CBO's baseline, the federal government is projected to borrow $9.8 trillion from the end of 2016 through 2026, boosting debt held by the public to 86 percent of GDP by the end of the projection period
> (*see* Table 1-3).
>
> That amount of debt relative to the size of the economy would be the greatest since 1947 and more than double the 50-year average of 39 percent. By historical standards, debt that high—and heading higher—would have significant negative consequences for the budget and the economy.
>
> The amount that the Treasury borrows by selling securities (net of the maturing securities it redeems) is determined primarily by the annual budget deficit. However, several factors—collectively labeled "other means of financing" and not directly included in budget totals—also affect the government's need to

borrow from the public. Those factors include changes in the government's cash balance[.][338]

L. What are the categories of Federal spending?

There are three categories of Federal spending: mandatory spending, discretionary spending, and net interest spending. It is important to distinguish between mandatory and discretionary spending. Mandatory spending results from obligations enacted permanently in law, such as a person's right to receive Social Security payments upon retirement. Discretionary spending is made each year pursuant to a new law enacted for the year. The *2012 Budget and Economic Outlook*, which provides an analysis of the impact of mandatory and discretionary spending on the budget, gives the following explanation of these two expenditure categories:

> Mandatory spending consists primarily of benefit programs, such as Social Security, Medicare, and Medicaid. The Congress generally determines spending for those programs by setting rules for eligibility, benefit formulas, and other parameters rather than by appropriating specific amounts each year. In making baseline projections, the Congressional Budget Office (CBO) generally assumes that existing laws and policies for those programs will remain unchanged. Mandatory spending also includes offsetting receipts—fees and other charges that are recorded as negative budget authority and outlays. Offsetting receipts differ from revenues in that revenues are collected in the exercise of the government's sovereign powers (for example, in the form of income taxes), whereas offsetting receipts generally are collected from other government accounts or from members of the public for businesslike transactions (for example, as premiums for Medicare or as rental payments and royalties for oil or gas drilling on public lands).
>
> Discretionary spending is controlled by annual appropriation acts; policymakers decide each year how much money to provide for given activities. Appropriations fund a broad array of government activities, including, for example, defense, law enforcement, transportation, the national park system, disaster relief, and foreign aid. Some fees and other charges that are triggered by appropriation action are classified as offsetting collections, which are credited against gross discretionary spending.
>
> For individual discretionary accounts, CBO's baseline depicts the path of that spending as directed by the provisions of the Balanced Budget and Emergency Deficit Control Act of 1985. That act stated that current appropriations should be assumed to grow with inflation in the future.[339]

The other category of expenditure is net interest, which the CBO describes as follows:

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[338] *Id*. at 21.
[339] *Id*. at 48.

Net interest includes interest paid on Treasury securities and other interest the government pays (for example, on late refunds issued by the Internal Revenue Service) minus interest that the government collects from various sources (such as from commercial banks that maintain Treasury tax and loan accounts). Net interest is determined by the size and composition of the government's debt, annual budget deficits or surpluses, and market interest rates.[340]

M. What percentages of GDP are mandatory, discretionary, net interest, and total Federal spending?

As seen in Table 15-C, for 2015, mandatory spending was 13.5% of GDP, discretionary spending was 9.0%, net interest was 1.5%, and total spending was 24.1%.[341] For 2022, the relevant projected percentages of projected GDP are 14.3%, 5.6%, 2.5%, and 22.4%. For 2004, prior to the Financial Crisis, the relevant percentages of GDP were 10.8%, 7.8%, 1.4%, and 20%,[342] and in 1997 during the economic boom, the relevant percentages were 10.5%, 5%, 3%, and 18.5%.[343]

[340] *Id*.
[341] *Id*. at Table 3-1.
[342] *2004 Budget and Economic Outlook*, *infra* at Table 3-1.
[343] *Id*. at Figure 3-1.

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Table 15-C
CBO's Baseline Budget Actual and Projected Mandatory, Discretionary, Net Interest and Total Spending as a Percentage of GDP, 1997, 2015-2018, and 2026

Year/Type of Spending	Mandatory Spending as a Percentage of GDP	Discretionary Spending as a Percentage of GDP	Net Interest Spending as a Percentage of GDP	Total Spending as a Percentage of GDP
1997	10.5%	5.0%	3.0%	18.5%
2015	12.9%	6.5%	1.3%	20.7%
2016	13.3%	6.5%	1.4%	21.2%
2017	13.3%	6.2%	1.6%	21.1%
2018	13.1%	6.0%	1.8%	20.9%
2026	15.0%	5.2	3.0%	23.1

Source: ***2016 Budget and Economic Outlook, infra*** **Bibliography, Table 1-2 and** ***2004 Budget and Economic Outlook, infra*** **Bibliography, Table 3-1 and Figure 3-1**

Comparing 1997 with 2026, as a percentage of GDP, mandatory spending is expected to be up significantly, discretionary spending is expected to be modestly up, and net interest spending is projected to be the same. However, net interest spending is currently down significantly from 1997, but is expected to grow back to the 1997 level by 2026. This is because of the projection that interest rates will increase.

N. What is the relationship between debt held by the public and net interest spending?

As indicated in Table 15-B, debt held by the public, is a significant percentage of GDP; however, as demonstrated in Table 15-C, net interest spending has recently been a declining percentage of GDP. The CBO's *2012 Budget and Economic Outlook* gives the following explanation of this effect:

> Although debt held by the public surged in the past few years to its highest level relative to GDP since the early 1950s, outlays for net interest have remained low relative to GDP because interest rates on Treasury securities have fallen to remarkably low levels. Rates on 3-month Treasury bills plummeted from an average of almost 5 percent in 2007 to an average of 0.1 percent in 2011. Similarly, rates on 10-year Treasury notes dropped from an average of nearly 5 percent in 2007 to an average of 3 percent in 2011. As a result, even though debt held by the public rose dramatically—climbing from 36 percent of GDP at the end of 2007 to 68 percent at the end of 2011[73.6% for 2015]—outlays for net interest as a share of GDP fell from 1.7 percent in 2007 to 1.5 percent in 2011

[1.3% in 2015]. By comparison, such outlays averaged about 3 percent of GDP in the 1980s and 1990s.[344]

O. What impact do Social Security and the Major Health Care Programs (e.g., Medicare and Medicaid), have on mandatory spending?

As demonstrated in Table 15-C, the "elephant in the spending room" is mandatory spending, and the bulk of mandatory spending is for Social Security and Medicare. In its *2012 Budget and Economic Outlook*, the CBO gives the following assessment of the impact of spending on, *inter alia*, Social Security and Medicare:

> Under both CBO's baseline and its alternative fiscal scenario, the aging of the population and rising costs for health care will push spending for Social Security, Medicare, Medicaid, and other federal health care programs considerably higher as a percentage of GDP. If that rising level of spending is coupled with revenues that are held close to the average share of GDP that they have represented for the past 40 years (rather than being allowed to increase, as under current law), *the resulting deficits will increase federal debt to unsupportable levels*. To prevent that outcome policymakers will have to substantially restrain the growth of spending for those programs, raise revenues above their historical share of GDP, or pursue some combination of those two approaches. (emphasis added)[345]

Since Social Security and Medicaid play such a large role in the budget and could cause deficits that "*will increase federal debt to unsupportable levels*," these programs are addressed separately in Chapter 16.

P. What is the impact of government expenditures and in the alternative tax cuts on the multiplier?

As indicated in the previous discussion of the multiplier, an increase in Government spending will have a similar multiplier effect to an increase in Consumer spending or Investment spending. In fact, Government spending is more powerful than tax reductions, because tax reductions increase consumption spending only by the amount of the tax cut times the marginal propensity to consume (MPC). On the other hand, Government spending is in the full amount of the spending, and the MPC only applies to subsequent rounds of spending as the money moves through the economy.

There may be an offsetting effect from any budget deficits arising from an increase in Government spending. The increase in the budget deficit will tend to cause interest rates to rise and will, therefore, tend to crowd out private investment, thereby dampening the effect of the multiplier.

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[344] *2012 Budget and Economic Outlook*, *infra* Bibliography, at 73.

[345] *Id*. at xiii.

Q. What is the impact of budget deficits on growth within the aggregate demand and aggregate supply model?

In the short run, an increase in the budget deficit will tend to shift the AD curve to the right through additional Government expenditures. However, without an accommodating strategy by the Fed that monetizes the debt, the higher deficits will tend to drive interest rates up (more bonds are being sold), thereby crowding out or reducing investment. This crowding out effect will tend to shift the AD curve to the left, or moderate the rightward shift from the deficit spending.

On the other hand, in the short run, a decrease in the budget deficit by less spending or increasing taxes can decrease output or GDP and the price level by shifting the AD curve to the left. However, the reduced deficits will lead to lower interest rates, which could "crowd in" private investment thereby tending to shift the AD curve to the right or at least moderating the leftward shift from the reduced spending. This policy was followed early in the first Clinton Administration when taxes were raised to reduce significant budget deficits. Interest rates fell and investment increased significantly. It seems clear that in the long run, lower deficits will ultimately lower interest rates and thereby stimulate investment by reducing crowding out and shifting both the AD and AS curves outward.

R. What was the budgetary impact of the 2009 Stimulus Act?

President Obama took office in January 2009, and in February 2009 the American Recovery and Reinvestment Act of 2009 (ARRA or the 2009 Stimulus Act) was enacted "in response to significant weakness in the nation's economy."[346] The CBO provides the following analysis of the budgetary impact of the Act:

> Most of ARRA's effects on federal spending and revenues have now occurred, and they have been roughly in line with the original estimates of the Congressional Budget Office (CBO) and the staff of the Joint Committee on Taxation (JCT). CBO estimates that nearly 90 percent of ARRA's budgetary impact was realized by the end of fiscal year 2011 and that the law added $733 billion to budget deficits over the 2009–2011 period. . . .
>
> In initial analyses covering the period from 2009 through 2019, CBO and JCT projected that ARRA would increase deficits by $787 billion. Since that time, economic developments and other factors have differed in various ways from what CBO anticipated. . . .
>
> In addition, legislation enacted in 2010 rescinded some funds appropriated under ARRA and limited the period in which higher payments under the Supplemental Nutrition Assistance Program (SNAP, formerly known as Food Stamps) will be available. CBO now estimates that ARRA's cumulative impact on deficits over the 2009–2019 period will be $831 billion.[347]

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[346] *Id*. at 8.
[347] *Id*.

S. What is the CBO's assessment of the economic impact of the 2009 Stimulus Act?

A 2010 CBO report provides the following assessment of the economic impact of the 2009 Stimulus Act (the ARRA):

> In sum, CBO estimates that in the fourth quarter of calendar year 2009, ARRA's policies:
>
> - Raised real GDP by between 1.5 percent and 3.5 percent,
> - Lowered the unemployment rate by between 0.5 percentage points and 1.1 percentage points,
> - Increased the number of people employed by between 1.0 million and 2.1 million, and
> - Increased the number of full-time-equivalent jobs by 1.4 million to 3.0 million compared with what those amounts would have been otherwise.
>
> The effects of ARRA on output and employment are expected to increase further in calendar year 2010 but then diminish in 2011 and fade away by the end of 2012.[348]

T. What was the S&P's downgrade of U.S. debt and what impact did it have on interest rates on U.S. debt?

On April 18, 2011, Standard and Poor's (S&P), a credit rating agency, affirmed its triple A rating of U.S. debt, while at the same time stating that its "Outlook was Revised to Negative." On August 2, 2011, the Budget Control Act of 2011 was enacted after a long and public dispute between President Obama and Republican members of Congress regarding raising the U.S. debt ceiling. A failure to raise the debt ceiling would have caused the U.S. to default on some of its debt and other obligations on or about August 3, 2011. This Act involved the "introduction of several complex mechanisms, including the creation of the Congressional Joint Select Committee on Deficit Reduction (sometimes called the 'super committee') . . . ."

Notwithstanding the enactment of the Budget Control Act, on August 5, 2011 S&P lowered its rating of U.S. bonds, explaining that (1) the "prolonged controversy over raising the statutory debt ceiling and the related fiscal policy debate indicate that further near-term progress containing the growth in public spending, especially on entitlements [*i.e.*, Social Security and Medicare], or on reaching an agreement on raising revenues is less likely than we previously assumed," and (2) the "fiscal consolidation plan that Congress and the Administration agreed to . . . falls short of the amount that we believe is necessary to stabilize the general government debt burden by the middle of the decade."[349] The April 2011 S&P report makes it clear that the principal contributors to the long-term budgetary issues are Social Security, Medicare, and Medicaid. Both Social Security and Medicare are addressed in Chapter 16.

The phase-out for Social Security and Medicare that I propose in Chapters 16 would address, at least in part, S&P's concern that the percentage of Federal spending for

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[348] CBO, *Estimated Impact of the American Recovery and Reinvestment Act on Employment and Economic Output From October 2009 Through December 2009,* 8 (Feb. 2010).

[349] Standard and Poors' Press Release (August 5, 2011), at http://www.standardandpoors.com/ratings/articles/en/us/?assetID=1245316529563.

these programs will "continue increasing as long as these entitlement programs remain as they currently exist . . . ."[350]

After the announcement of the downgrade, interest rates on U.S. debt decreased, indicating that if the U.S. was in bad shape, other countries were even in worse shape, and it was time for a flight to quality by bond holders. One analyst puts it this way:

> We've seen a lot of people say things like: Well, if the US loses its AAA rating, then interest payments on the debt will rise.
>
> This is wrong. The AAA-rating is not the basis for US low borrowing costs. A belief in the supreme credit-worthiness in the US is why the US has low borrowing costs. There's a big difference between the two statements.
>
> Just the fact that US rates fell after yesterday's downgrade should tell you that the bond market doesn't take its cues from S&P and that ratings [and] rates do not move hand in hand.[351]

S&P's current rating of U.S. debt is AA+ with stable outlook.

U. What is the assessment of the economic impact of the 2009 Stimulus Act by the Council of Economic Advisers of the Obama Administration?

The Council of Economic Advisers to the Obama Administration issued quarterly reports on the 2009 Stimulus Act (ARRA). In its Eighth Quarterly Report on December 9, 2011, the Council set forth the following conclusions on the economic impact of the Act:

- Following implementation of the ARRA, the trajectory of the economy changed significantly. Real GDP began to grow steadily starting in the third quarter of 2009 and private payroll employment increased on net by 2.2 million from the start of 2010 to the end of the second quarter of 2011. (From the employment trough in February 2010 to November 2011 private payroll employment increased by 2.9 million.)
- The two established CEA methods of estimating the impact of the fiscal stimulus suggest that the ARRA has raised the level of GDP as of the second quarter of 2011, relative to what it otherwise would have been, by between 2.0 and 2.9 percent. These estimates are very similar to those of a wide range of other analysts, including the non-partisan Congressional Budget Office.
- CEA estimates that as of the second quarter of 2011, the ARRA has raised employment relative to what it otherwise would have been by between 2.2 and 4.2 million.
- The Recovery Act was designed to be temporary. The amount of stimulus outlays and tax reductions has begun to decline and, as discussed in previous reports, as it does so, the impact on the level of GDP and employment will lessen over time.[352]

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[350] *Id*.

[351] Joe Weisenthal *NEWSFLASH: Ratings Downgrades Do NOT Equal Higher Interest Rates* Business Insider (April 19, 2011), at http://articles.businessinsider.com/2011-04-19/markets/30083134_1_aaa-rating-debt-outlook-s-p-downgrade#ixzz1vUshFliw (May 21, 2012).

[352] Obama Administration, Council of Economic Advisers, *The Economic Impact of the American Recovery and Reinvestment Act of 2009*, Eighth Quarterly Report (Dec. 9, 2011).

W. How did actual budgetary results after the Financial Crisis, TARP, and the 2009 Stimulus Act differ from the pre-Crisis projections?

As a result of the Financial Crisis, the actual budgetary impacts of several items were significantly different from the projections for these items made by the CBO prior to the Financial Crisis. This was due to a combination of increased spending and decreased revenues during the Great Recession.

The following tables show how far off the CBO's pre-Crisis projections were for the following aspects of the budget: (1) the total deficit, (2) revenues, (3) Medicare spending, (4) Medicaid spending, (5) Social Security spending, (6) Unemployment compensation spending, (7) TARP (Wall Street Bailout) spending, net of revenues received, (8) Fannie Mae and Freddie Mac spending, and (9) 2009 Stimulus Act spending.

The tables present the projection by the CBO for these items for the period 2007 through 2010, and the actual results for these items during that period. Thus, the tables help illustrate how spending on these particular programs affected the deficit during the Great Recession. All numbers are in billions of dollars.

Table 15-D shows the projected and actual total deficits for each of years 2007 through 2010.

Table 15-D
Projected and Actual Total Deficits, 2007-2012

	CBO's Projected Budget Deficits as of Jan, 2007	**Actual Budget Deficit**	**Change in Budget Deficit from Adjusted Projections**
2007	-172	-163	9
2008	-98	-455	-357
2009	-116	-1,414	-1,298
2010	-137	-1,294	-1,157

Sources: Projections are from the CBO, Budget and Economic Outlook Fiscal Years 2008 – 2017 (Jan. 2007), actual results are from various CBO Budget and Economic Outlooks.

Table 15-D illustrates how the pre-recession deficit projections from the CBO missed their marks as a result of the recession. The first column shows the CBO's projected budget deficits for these years as of January 2007, before the Financial Crisis. The second column is the actual budget deficit, and the last column is the difference between the actual deficit and the projected budget deficit, thus providing an estimate of the change, or "delta," in the budget deficit resulting from the Financial Crisis. The biggest difference between the projected deficit and the actual deficit was for 2009 when the actual deficit was almost $1.3 trillion more than the pre-Crisis projected deficit.

Table 15-E shows the projected and actual revenues for each of years 2007 through 2010, together with the (1) Change in Revenues from Projected Revenues, and (2) Change in Revenue as a Percentage of Actual Deficit.

Table 15-E
Projected and Actual Total Revenues, 2007-2010

	CBO's Projected Total Revenues as of Jan, 2007	Actual Total Revenues	Change in Revenues from Projected Revenues	Change in Revenue as a Percentage of Actual Deficit
2007	2,542 B	2,568 B	26 B	NA
2008	2,720 B	2,524 B	-196 B	-43.1%
2009	2,809 B	2,105 B	-704 B	-49.8%
2010	2,901 B	2,162 B	-739 B	-57.1%

Sources: Projections are from the CBO, Budget and Economic Outlook Fiscal Years 2008 – 2017 (Jan. 2007), actual results are from various CBO Budget and Economic Outlooks.

Table 15-E shows that approximately half of the budget deficits for 2008 through 2010 were attributable to a reduction in tax revenues. The reduction in tax revenues was the result of declining incomes and a reduction in the taxes imposed.

Table 15-F shows how Medicare spending differed from the 2007 projections and the effect that the change in spending had on the deficit.

Table 15-F
Projected and Actual Medicare Spending, 2007-2010

	Medicare Spending '07 Projections	Actual Medicare Spending	Effect on Deficit of the Difference	Change in Medicare Spending as a Percentage of Actual Deficit
2007	374 B	436 B	-62 B	-38%
2008	428 B	455 B	-27 B	-5.9%
2009	449 B	499 B	-50 B	-3.5%
2010	477 B	520 B	-43 B	-3.3%

Sources: Projections are from the CBO, Budget and Economic Outlook Fiscal Years 2008 – 2017 (Jan. 2007), actual results are from various CBO Budget and Economic Outlooks.

Medicare tax receipts were reduced during the recession due to a lower level of employment income, and this factor was shown above in the effect on revenues.

Table 15-G shows how Medicaid spending differed from the 2007 projections and the effect the change in spending had on the deficit. This spending is for health care for the poor.

Table 15-G
Projected and Actual Medicaid Spending, 2007-2010

	Medicaid Spending '07 Projections	Actual Medicaid Spending	Effect on Deficit of the Difference	Change in Medicaid Spending as a Percentage of Actual Deficit
2007	193 B	191 B	2 B	NA
2008	208 B	201 B	7 B	NA
2009	225 B	251 B	-26 B	-1.8%
2010	242 B	273 B	-31 B	-2.4%

Sources: Projections are from the CBO, Budget and Economic Outlook Fiscal Years 2008 – 2017 (Jan. 2007), actual results are from various CBO Budget and Economic Outlooks.

The increases in Medicaid spending in 2009 and 2010 were partially due to higher unemployment and higher enrollment in the Medicaid program. In addition, the 2009 Stimulus Act increased Medicaid spending. However, increases in Medicaid spending were not a significant addition to the total deficit for these years.

Table 15-H shows how Social Security spending differed from the 2007 projections and the effect the change in spending had on the deficit.

Table 15-H
Projected and Actual Social Security Spending, 2007-2010

	Social Security Spending '07 Projected	Actual Social Security Spending	Effect on Deficit of the Difference	Change in Social Security Spending as a Percentage of Actual Deficit
2007	582 B	581 B	1 B	NA
2008	609 B	612 B	-3 B	-0.7%
2009	639 B	678 B	-39 B	-2.8%
2010	675 B	701 B	-26 B	-2.0%

Sources: Projections are from the CBO, Budget and Economic Outlook Fiscal Years 2008 – 2017 (Jan. 2007), actual results are from various CBO Budget and Economic Outlooks.

Social Security tax receipts were reduced during the recession due to a lower level of employment, and this factor was shown above in the effect on revenues. In addition, under the 2009 Stimulus Act, the employees' portions of payroll taxes for Social Security

were reduced, further reducing tax receipts for Social Security. The increases in Social Security spending shown in Table 15-H were not a significant percentage of the deficits.

Table 15-I shows how Unemployment Compensation spending differed from the 2007 projections and the effect the changes in spending had on the deficit.

Table 15-I
Projected and Actual Unemployment Compensation Spending, 2007-2010

	Unemployment Compensation Spending '07 Projections	Actual Unemployment Compensation Spending	Effect on Deficit of the Difference	Change in Unemployment Compensation as a Percentage of Actual Deficit
2007	32 B	33 B	-1 B	-0.6%
2008	36 B	23 B	13 B	NA
2009	40 B	120 B	-80 B	-5.7%
2010	42 B	159 B	-117 B	-9.0%

Sources: Projections are from the CBO, Budget and Economic Outlook Fiscal Years 2008 – 2017 (Jan. 2007), actual results are from various CBO Budget and Economic Outlooks.

Clearly in 2007, the CBO did not think the unemployment rate would be so high in future years. This increase led to a large strain on the deficit from Unemployment Compensation spending. In addition, the 2009 Stimulus Act extended these benefits, further increasing this spending.

Table 15-J shows how spending on TARP, Fannie Mae and Freddie Mac, and the 2009 Stimulus Act affected the budget deficit.

Table 15-J
Unanticipated Spending on TARP, Fannie Mae and Freddie Mac, and the 2009 Stimulus Act, 2007-2010

	Effect on Deficit of TARP Spending	TARP Spending as a Percentage of Actual Deficit	Effect on Deficit of Fannie Mae Freddie Mac Spending	Fannie Mae Freddie Mac Spending as a Percentage of Actual Deficit	Effect on Deficit of 2009 Stimulus Act	2009 Stimulus Act as a Percentage of Actual Deficit
2007	0	NA	0	NA	0	NA
2008	0	NA	0	NA	0	NA
2009	-151 B	-10.7%	-91 B	6.4%	-183 B	12.9%
2010	110 B	NA	-40 B	3.1%	-405 B	31.3%

Sources: Projections are from the CBO, Budget and Economic Outlook Fiscal Years 2008 – 2017 (Jan. 2007), actual results are from various CBO Budget and Economic Outlooks.

The 2010 value for TARP is positive because in that year the net effect of TARP on the budget was positive. The effect of the 2009 Stimulus Act was felt across the budget. It increased some spending (for instance, by increasing unemployment insurance) and it reduced some revenues (for instance, by creating certain tax incentives and tax breaks).

Table 15-K sets out the percentage effects on the budget of (1) each of the above items, and (2) the aggregate of the above items.

Table 15-K
Percentage Contribution to Unanticipated Deficit Spending of Each of the following: Revenues, Medicare, Medicaid, Unemployment Compensation, Social Security, TARP, Fannie Mae and Freddie Mac, and the 2009 Stimulus Act, 2007-2010

	Actual Budget Deficit	Chg in Rev as a % of Act Def	Chg in Medicare Spending as a % of Act Def	Chg in Medicaid Spending as a % of Act Def	Chg in Soc Sec Spending as a % of Act Def	Chg in Unempl Comp as a % of Act Def	TARP Spending as a % Act Def	Fanni & Fredy Spending as a % of Act Def	2009 Stim Act as a % of Act Def	Total Eff of Revs and Prog on Act Def
2007	-163	NA	-38.0%	NA	NA	-0.6%	NA	NA	NA	-38.6%
2008	-455	-43.1%	-5.9%	NA	-0.7%	NA	NA	NA	NA	-49.7%
2009	-1414	-49.8%	-3.5%	-1.8%	-2.8%	-5.7%	-11.6%	-7.0%	14.1%	-68.1%
2010	-1294	-57.1%	-3.3%	-2.4%	-2.0%	-9.0%	NA	-3.5%	-35.0%	-112.3%

Sources: Various CBO Budget and Economic Outlooks.
*** The Total Effect is overstated in 2009 and 2010 because spending for the 2009 Stimulus Act increased some spending categories (for instance, by increasing unemployment insurance) and it reduced some revenues (for instance, by creating certain tax incentives and tax breaks).**

Table 15-K shows the cumulative effect of decreased revenues and increased spending of these programs. As shown, the major contributors to the deficit were decreased revenues and increased spending due to the 2009 Stimulus Act. As noted, there is some overlap between the 2009 Stimulus Act and the decrease in Revenues because the 2009 Stimulus Act contained legislation that reduced taxes, thus decreasing revenues. This shows that spending and decreased revenues unique to the Financial Crisis were the major causes of the deficit.

Together, the change in spending for Social Security, Medicare, and Medicaid did not account for more than ten percent of the deficit in any of the years from 2007 through 2010. However, the combined increased spending from unemployment insurance and Fannie Mae and Freddie Mac was more than ten percent of the deficit in both 2009 and 2010, and TARP spending alone accounted for more than ten percent of the deficit in 2009. This shows, once again, that spending unique to the Financial Crisis was a major cause of the deficit.

X. What are my views on the 2009 Stimulus Act?

There are several legitimate criticisms that can be launched at the 2009 Stimulus Act, including, (1) a failure to ensure that a sufficient number of projects were "shovel ready," (2) not focusing more of the spending on infrastructure where the economic effects of the spending would be more long lasting, and (3) perhaps an over-allowance to funding for green projects. As discussed more fully below, Governor Romney, President Obama's opponent in the 2012 election, criticize the Act. However, as indicated previously in both the CBO's and the Council of Economic Adviser's analyses of the impact of the Act, on an overall basis the Act has been successful. Indeed, given where the economy was heading at the time of the enactment of the Act in February 2009, it would have been economic folly not to enact a stimulus plan at that time.

In *Believe in America*, Governor Romney, as part of his criticism of the 2009 Stimulus Act, correctly states: "The idea behind [the Act] was standard Keynesian pump-priming in which government spending, or 'purchases,' are cycled through the economy and, thanks to a 'multiplier' effect [see previous discussion], generate rapid economic growth."[353] Certainly the implication in this statement and the context in which it is made leads one to conclude that the Governor is against "Keynesian pump-priming." On the other hand, most professional economists subscribe to the principle of Keynesian pump-priming.in order to address short-term slow-downs in the economy.

In another criticism of the Act, Governor Romney states: "[T]he Obama stimulus package *failed to fulfill the predictions* of its authors and their White House sponsor." (emphasis added).[354] The Governor explains that "instead of holding unemployment to 8 percent [as the plan sponsors predicted], it soared past 10 percent."[355] This criticism does not lead to the conclusion that there should have been no 2009 Stimulus Act; rather, it leads to the conclusion that President Obama underestimated the gravity of the economic situation and should have proposed a much larger stimulus package. This point has been made as follows by Professor Krugman:

> Those of us who say that the stimulus was too small are often accused of after-the-fact rationalization: you said this would work, but now that it hasn't, you're just saying it wasn't big enough. The quick answer to that accusation is that people like me said that the stimulus was too small in advance. But the longer answer is that it's all in the math: Keynesian analysis provides numbers as well as qualitative predictions, and given reasonable projections of the economy's path in January 2009, the proposed stimulus just wasn't big enough.[356]

And, in his book *End this Depression Now*, Professor Krugman elaborates as follows on this point:

> Unfortunately, the [2009 stimulus] bill, clocking in at $787 billion, was far too small for the job. It surely mitigated the recession, but it fell far short of what would have been needed to restore full employment, or even to create a sense of progress. Worse yet, the failure of the stimulus to deliver clear success had the

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[353] Romney, *Believe in America*, *infra* Bibliography, at Introduction, at 22.
[354] *Id*. at 24.
[355] *Id*.
[356] Paul Krugman, *How Did We Know The Stimulus Was Too Small?* New York Times (Jan. 28, 2010), at, www.nyt.com.

effect, in the minds of voters, of discrediting the whole concept of using government spending to create jobs. So the Obama administration didn't get a chance for a do-over.[357]

At the beginning of the chapter on the 2009 Stimulus Act in his *End this Depression Now* book, Professor Krugman has the following prophetic observation he made in January 2009 concerning this Act:

> I see the following scenario: a weak stimulus plan, perhaps even weaker that what we're talking about now, is crafted to win those extra [Republican] votes. The plan limits the rise in unemployment, but things are still pretty bad, with the rate peaking at something like 9 percent [it actually peaked at around 10%] and coming down only slowly. And then Mitch McConnell [the Republican leader in the Senate] says, "See, government spending doesn't work."[358]

There is independent proof that the 2009 Stimulus Act was not large enough. If the stimulus to the economy provided by the Act had been sufficient, there would be no need for the Fed to have taken the unprecedented step in announcing to the markets that, in order to continue to stimulate the economy, it expects to keep the fed funds rate at near zero through 2014.

Y. Why are deficits increasing?

In the CBO 2016 Long-Term Budget Outlook, the CBO summarizes as follows the reasons deficits are increasing:

> **Why Are Projected Deficits Rising?**
>
> In CBO's projections, deficits rise during the next three decades because the government's spending grows more quickly than its revenues do (see Summary Figure 1). In particular, spending grows for Social Security, the major health care programs (primarily Medicare), and interest on the government's debt.
>
> Much of the spending growth for Social Security and the major health care programs results from the aging of the population: As members of the baby-boom generation age and as life expectancy continues to increase, the percentage of the population age 65 or older is anticipated to grow sharply, boosting the number of beneficiaries of those programs. By 2046, projected spending for those programs for people 65 or older accounts for about half of all federal noninterest spending.
>
> The remainder of the projected growth in spending for Social Security and the major health care programs is driven by health care costs per beneficiary, which are projected to increase more quickly than GDP per person (after the effects of aging and other demographic changes are removed). CBO projects that those health care costs will rise—though more slowly than in the past—in part because of the effects of new medical technologies and rising personal income.
>
> The federal government's net interest costs are projected to rise sharply as a percentage of GDP for two main reasons. The first and most important is that interest rates are expected to be higher in the future than they are now, making any given level of debt more costly to finance. The second reason is the projected

[357] Krugman, *End this Depression Now*, *infra* Bibliography at 117.
[358] *Id*. at 109.

increase in deficits: The larger they are, the more the government will need to borrow.

Mandatory spending other than spending on Social Security and the major health care programs—such as spending for federal employees' pensions and for various income security programs—is projected to decline as a percentage of GDP, as is discretionary spending. (Mandatory spending is generally governed by provisions of permanent law, whereas discretionary spending is controlled by annual appropriation acts.) The projected decline in the latter stems largely from the caps on discretionary funding that are set in law for the next several years.

The modest projected growth in revenues relative to GDP over the next three decades is attributable to increases in individual income tax receipts. Those receipts
are projected to grow mainly because CBO anticipates that income will rise more quickly than the price indexes that are used to adjust tax brackets; as a result, more income will be pushed into higher tax brackets over time. Combined receipts from all other sources are projected to decline as a percentage of GDP.[359]

Z. What impact do deficits and debt have on economic growths issue; and what is the problem with debt?

In evaluating the impact of deficits and debt on the economy,[360] the CBO first points out that "deficits during or shortly after a recession generally hasten economic recovery . . . ."[361] The CBO then discusses several reasons, "[s]ome of [which] would arise gradually,"[362] why we should be concerned with rising deficits and debt. The gradual consequences include potential harms from (1) "crowding out" private investment, and (2) higher marginal tax rates.[363] In addition to these potential gradual consequences, the CBO points out that there is also concern that "a growing federal debt . . . would increase the probability of a sudden fiscal crisis.[364] However, the CBO goes on to explain: "because interest rates on Treasury securities are unusually low today, such a crisis does not appear imminent in the United States."[365]

Although this evaluation by the CBO does not necessarily mean that our projected deficits and debt will ruin our economy, it is commonly accepted that they may have an adverse effect on our economy if they are not addressed. For example, similar risks were discussed by (1) the *Deficit Commission*,[366] (2) the *Obama Proposal*,[367] and (3) the *Ryan Proposal*, which are discussed next.[368]

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[359] CBO, *2016 Long-Term Budget Outlook*, *infra* Bibliography at 1.
[360] This question is based on a discussion in Thompson, *A Buffett Rule for Social Security and Medicare*, *infra* Bibliography.
[361] *2011 Budget and Economic Outlook*, *infra*, Bibliography, at 25.
[362] *Id*.
[363] *Id*.
[364] *Id*.
[365] *Id*.
[366] *The Deficit Commission Proposal*, *infra* at 11.
[367] *The Obama Proposal*, *infra*.
[368] *Ryan Proposal*, *infra* at 21.

AA. In general, what are the deficit proposals by the Deficit Commission, President Obama, and Congressman (now Speaker) Ryan?

The concern with the Federal budget deficits and the growing Federal debt has brought forth many proposals for addressing the issue. This section addresses the following three proposals:[369] (1) the December 2010 proposal by the bipartisan National Commission on Fiscal Responsibility and Reform (The *Deficit Commission Proposal*);[370](2) the April 2011 Fiscal Year 2012 Budget Resolution, *The Path to Prosperity*,[371] advanced by Congressman (now Speaker) Paul Ryan, the then Republican chairman of the House Committee on the Budget (the *Ryan Proposal*); and (3) the proposal of President Obama set out in a speech[372] he gave at George Washington University on April 13, 2011 (the *Obama Proposal*).

These proposals are sometimes referred to here as the Three Deficit Proposals. Since Social Security and Medicare are the two largest spending programs addressed in these proposals, the proposals for these programs are discussed in greater detail in Chapter 16.

Congressman Ryan made similar proposals after 2011, and the discussion of Social Security and Medicare focuses on the 2011 version of *The Ryan Proposal*.

The approach of the *Ryan Proposal* to Medicaid, discretionary spending, and taxes can be summarized as follows. First, in a March 2012 analysis entitled *The Long-Term Budgetary Impact of Paths for Federal Revenues and Spending Specified by Chairman Ryan*, the CBO did an analysis of the budgetary impact of The *Ryan Proposal's* funding of Medicaid and the Children's Health Insurance Program (CHIP). These programs provide health insurance for low income adults and children. The CBO explained that the *Ryan Proposal* would reduce the spending on these programs from "2 percent of GDP in 2011 to 1¼ percent in 2030 and 1 percent in 2050." Thus, the proposal would significantly reduce the funding for these programs.

Second, the CBO analysis projects that the *Ryan Proposal* would dramatically reduce discretionary spending, which essentially includes all spending other than mandatory spending on Medicare, Social Security, Medicaid, and CHIP. The reduction would be "from 12½ percent of GDP in 2011 to 5¾ percent in 2030 and 3¾ percent in 2050." This 75% reduction is obviously a striking decrease, particularly in view of the fact that discretionary spending is less than half of all spending. It would lead to extraordinary cuts in many governmental programs including veteran affairs and student loans.

Turning to the revenue side, the *Ryan Proposal* would significantly reduce both individual and corporate tax rates on a claimed revenue neutral basis. However, the *Proposal* does not explain the tax loopholes that would be closed in order to make the tax cuts revenue neutral. The approach to individual taxes was examined in a March 23, 2012 Tax Policy Center article by Howard Gleckman entitled *Paul Ryan's Budget Plan: More Big Tax Cuts for the Rich*. The article reports that the study came to the following conclusion:

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[369] This question is based on a discussion in Thompson, *A Buffett Rule for Social Security and Medicare*, *infra* Bibliography.
[370] *The Deficit Commission Proposal*, *infra* Bibliography.
[371] *Ryan Proposal*, *infra* Bibliography.
[372] *The Obama Proposal*, *infra* Bibliography.

> Relative to today's tax system, those making $1 million or more would enjoy an average tax cut of $265,000 and see their after-tax income increase by 12.5 percent. By contrast, half of those making between $20,000 and $30,000 would get no tax cut at all. On average, people in that income group would get a tax reduction of $129. Ryan would raise their after-tax income by 0.5 percent.
>
> Nearly all middle-income households (those making between $50,000 and $75,000) would see their taxes fall, by an average of roughly $1,000. Ryan would increase their after-tax income by about 2 percent.

Neither The *Deficit Commission Proposal* nor The *Obama Proposal* would reduce spending on Medicaid or CHIP; both would reduce discretionary spending but not by as dramatically as The *Ryan Proposal*; and both would lower tax rates while broadening the base and generating revenues to be used to reduce the deficit.

In commenting on the 2011 *Ryan Proposal*, Newt Gingrich, a Republican and the former House Speaker, described the plan as "radical" and "right-wing social engineering." (*See* Ruth Marcus, *Ryan doesn't help the Romney ticket*, Washington Post (Aug. 12, 2012).

In my view, the drastic spending cuts in the *Ryan Proposal* should be rejected for at least three reasons. First, they would have a disproportionately adverse impact on the most vulnerable in our society. Second, they would cut government programs without regard to the effectiveness of the program and, therefore, would make our economy less efficient. Third, the *Ryan Proposal's* "meat cleaver" approach to spending cuts would have an adverse impact on economic growth because it would result in a significant decrease in the contribution of government spending to the growth of GDP. I am also of the view that this approach to discretionary spending is so harsh and so radical that once the American public gained the slightest understanding of it, they would soundly reject it.

BB. What is the position of Secretary Clinton on the debt?

Secretary Clinton's website does not set out a specific plan for addressing the federal debt. A search for a discussion of the term "debt" on her website resulted in the following relevant three statement:

> [Secretary Clinton] believes that by making sure the most fortunate and corporations pay their fair share, we can afford to pay for the ambitious progressive investments she has put forward, in a fiscally responsible way, without adding to the debt.
>
> [Secretary Clinton will] also ask the wealthiest Americans to pay more in taxes, including a new tax on multimillionaires, to help pay for the investments our country needs without increasing the national debt.
>
> Donald Trump's reckless ideas would run up our debt and put us at risk of another economic crash. Hillary Clinton, on the other hand, has a vision for an economy that works for everyone—not just those at the top.

Thus, Secretary Clinton proposes to use additional taxes on the wealthy to pay for certain spending programs, without increasing the federal debt. The Wall Street Journal describes her position on debt as follows:

> While she hasn't outlined specific steps to balance budgets, she has for the most part ensured that new spending programs are paid for from a budgeting

standpoint, usually through higher taxes on higher income households. The Committee for a Responsible Federal Budget, an organization that advocates for debt reduction, estimates that Mrs. Clinton's spending and tax policies would essentially hold the national debt on the trajectory it faces under current law.[373]

CC. What is the position of Mr. Trump on the debt?

Like Secretary Clinton's website, Mr. Trump's website does not set out a specific plan for addressing the federal debt. A search for a discussion of the term "debt" on his website resulted in the following relevant four statement:

- Since President Obama took office, the national debt has doubled.
- On top of it all, the Obama-Clinton policies have doubled the national debt. It took more than 230 years for the United States to accumulate its first $10 trillion dollars in debt – it took President Obama only eight years to add another $10 trillion.
- Now, it would be one thing if that money had been used to completely rebuild our nation, our military, and our infrastructure.
- Instead, the opposite happened. We doubled our debt and, in return, we have dilapidated infrastructure, failing schools, a badly depleted military, and another 14 million people who have left the workforce.

The Wall Street Journal describes as follows certain contradictory statements on the debt Mr. Trump has made:

> Mr. Trump has made a number of sometimes contradictory statements on the public debt. In March, he said that unleashing stronger economic growth would allow the U.S. to begin paying off the national debt, something that no budget analysts deem possible right now. In subsequent interviews this spring, Mr. Trump said he might try to renegotiate the national debt. He reversed course days later in a May interview with The Wall Street Journal, where he said he wouldn't do anything to alter the terms of that debt, which he called "absolutely sacred."

The Wall Street Journal also reports that he said: "We've got to get rid of the $19 trillion in debt… I think we could do it fairly quickly… over a period of eight years."[374]

DD. What is the position of the non-partisan Committee for a Responsible Federal Budget on the positions of Secretary Clinton and Mr. Trump on the debt?

The non-partisan Committee for a Responsible Federal Budget has done an analysis of the tax and spending proposals of Secretary Clinton and Mr. Trump. Their proposals on Social Security and Medicare are discussed in Chapter 16 and their

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[373] *Clinton v. Trump, Where They Stand on Economic Policy Issues*, Wall Street Journal (Sept 24, 2016), at http://graphics.wsj.com/elections/2016/donald-trump-hillary-clinton-on-the-economy/.

[374] *Clinton v. Trump, Where They Stand on Economic Policy Issues*, Wall Street Journal (Sept 24, 2016), at http://graphics.wsj.com/elections/2016/donald-trump-hillary-clinton-on-the-economy/.

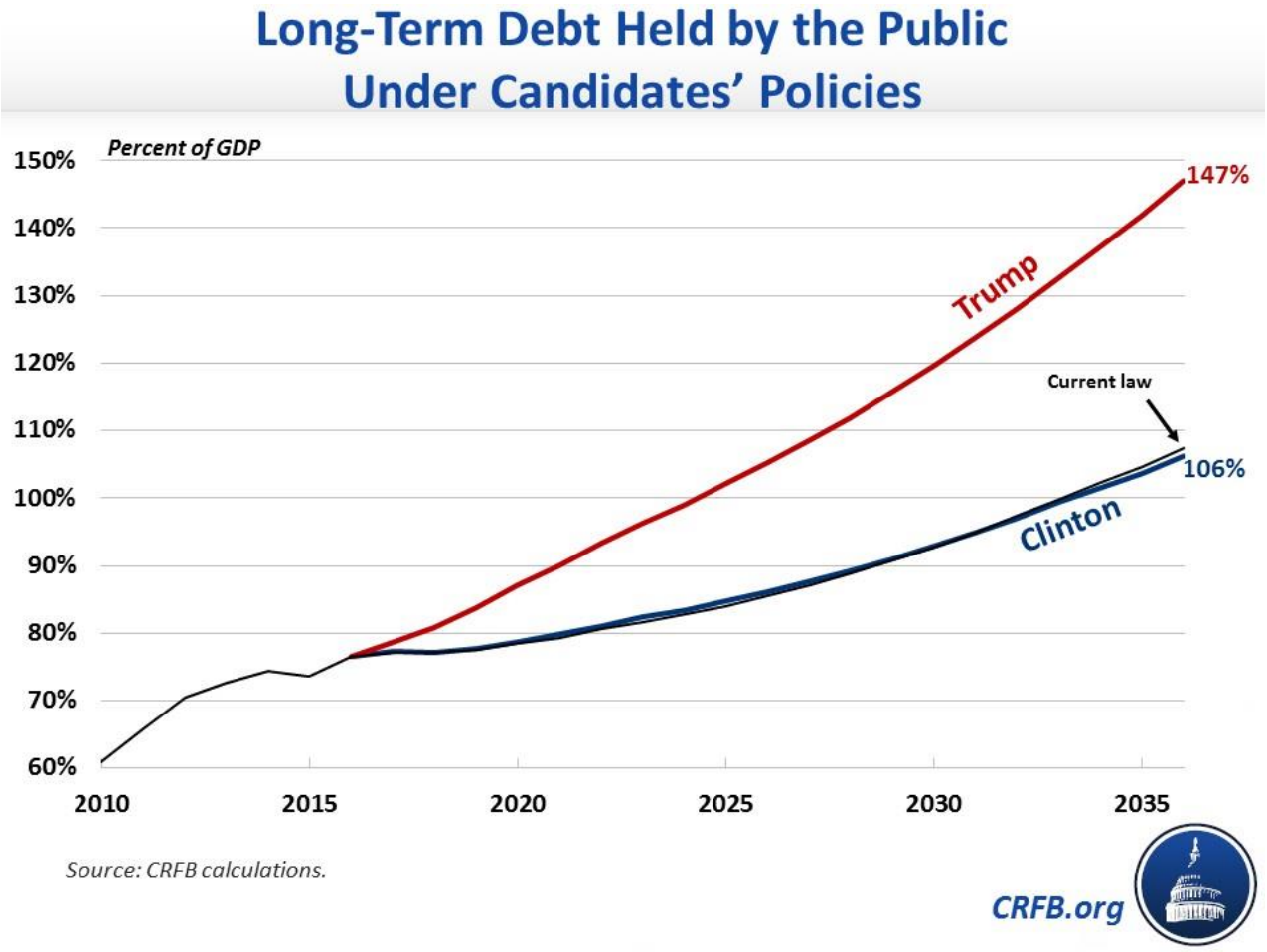
proposals dealing with taxes are addressed in Chapter 23. This section discusses the reaction of the Committee to the candidates' proposals on spending and tax issues. The conclusion of the Committee is as follows:

> We've shown before that neither Hillary Clinton nor Donald Trump would reverse the unsustainable growth of the national debt over the next decade, and Trump would significantly worsen it. Yet the United States' real fiscal problems are over the long run; in 20 years, debt held by the public is projected to exceed the record level hit just after World War II, reaching 107 percent of Gross Domestic Product (GDP) by 2036. According to our very rough estimates, debt would rise almost as high as the current projections under Clinton's plan and would rise much higher under Trump's plan.
>
> Extrapolating our previous ten-year estimates, we project that debt held by the public would reach approximately 106 percent of GDP under Clinton by 2036 and would rise rapidly to 147 percent of GDP under Trump by 2036.
>
> Compared to current law, over twenty years we project Clinton would reduce debt by about $500 billion compared to current law projections, or by about 1 percent of GDP – the result of $4.5 trillion in higher taxes and $4 trillion in higher spending. Meanwhile, Trump would increase the debt by nearly $16 trillion over current law projections, or by about 40 percent of GDP – the result of $14.5 trillion of tax cuts, $2.5 trillion of spending cuts, and $3.8 trillion of higher interest costs.[375]

The Committee illustrates the above principles in the following graph:

[375] *Looking at the Long Term under the Candidates' Plans*, Committee for a Responsible Federal Budget (Oct 26, 2016),

Table 15-A
Committee for a Responsible Federal Budget, *Long-Term Debt Held by the Public Under Candidates' Policies*



EE. What is my take on the deficits and debt issue?

For the following two reasons, I am of the view that the concern with debt is overstated.

First, the CBO's *2011 Budget and Economic Outlook* points out that the increase in budget deficits and debt arose from a combination of (1) a reduction in revenues resulting from the most severe downturn in economic activity since the Great Depression, and (2) an increase in government spending to offset the decline in spending by individuals and firms. Many, if not most, economists agree that (1) without the increase in short-term spending by our Federal government through the *2009 Stimulus Act*, our economy would have been worse off than it is now, and (2) it does not make sense economically to be cutting short-term government spending as our economy is recovering from a recession. One economist made the point as follows:

> Virtually all experts agree that the deficits that must be brought under control are the looming large future deficits, not the temporary deficit caused by the recession itself or the temporary fiscal stimulus enacted to combat it.[376]

Another economist had the following harsh assessment of the rush to cut current government spending:

> We are cutting government spending with little thought to the value of the public services forgone, and no thought at all to the effect on production, jobs and incomes.
>
> Fiscal prudence matters. But the helter-skelter rush to cut this year's and next year's budget deficits is high-priced folly. For want of enough spending overall by households, businesses and government taken together, *i.e.*, for want of enough buying, a huge amount of production capacity is standing idle, producing nothing. . . .
>
> If anyone tells you that cutbacks in this year's and next year's federal spending will encourage enough additional private spending to make up the difference . . . [i]t's nonsense.[377]

It should be crystal clear to any objective observer that the problem with debt is not a short-term problem; rather, it is a long-term problem, principally caused by the aging of the American population and the rising per capita costs of medical care. As explained by Baumol and Binder, for the following reason, a balanced budget is not always advisable:

> Suppose the budget was initially balanced and private spending [C+I+(X-IM)] sagged for some reason, as it did in 2007-2008. The multiplier would pull GDP down. Because personal and corporate tax receipts fall sharply when GDP declines, the budget would automatically swing into the red. To restore budget balance, the government would then have to cut spending or raise taxes—exactly the opposite of the appropriate fiscal policy response to a recessionary gap . . .[378]

Baumol and Binder go on to summarize their policy analysis: "Attempts to balance the budget during recessions—as was done, say, during the Great Depression—will prolong and deepen slumps."[379]

Second, the ratio of Federal debt to GDP is in some ways analogous to the ratio of an individual's debt to his or her income. Most individuals who have a home mortgage have a ratio of debt to income of 3 or 4 to 1, much higher than the ratio of Federal debt to GDP. However, the ratio of an individual's debt to home and asset value may be at most 70%-80%. At the Federal level the ratio of debt to the value of all of the assets in the U.S is significantly lower than 70%-80%.

Although, the above analysis could mean that the concern with Federal debt may be overstated, it is prudent to act peremptorily in addressing the projected growth in long-term debt. In this regard, as explained more fully in Chapter 16, I propose, as two ways of prudently cutting the long-term debt, that we modify both the benefit scheme and the

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[376] Laurence Seidman, *Reducing Future Deficits While Stimulating Today's Economy*, The Economists' Voice, at www.bepress.com/ev (Aug. 2010).
[377] Francis Bator, *There is no US federal debt crisis*, Economist's Forum, (March 28, 2011) at http://blogs.ft.com/economistsforum/2011/03/there-is-no-us-federal-debt-crisis-2/.
[378] Baumol and Binder, *Economics* 2009, *infra* Bibliography at 684.
[379] *Id*.

tax scheme for both Social Security and Medicare. These two programs are the principal causes of the long-term budget concern.

CHAPTER 16, FISCAL POLICY: FIRST, HOW ARE SOCIAL SECURITY AND MEDICARE STRUCTURED, AND SECOND, HOW WOULD PROPOSALS OF SENATOR CLINTON AND MR. TRUMP AFFECT THE IMPACT OF THESE PROGRAMS ON ECONOMIC GROWTH?

A. What is in this Chapter?

This chapter starts with a brief look at the structure of the Social Security tax and benefit system and the Medicare tax and benefit system. The chapter then focuses on the impact of Social Security and Medicare on the budget. Next, the chapter looks at the positions on Social Security and Medicare of: (1) the Deficit Commission, (2) Congressman, now Speaker, Ryan, (3) Secretary Clinton, and (4) Mr. Trump. The chapter then sets out my proposal for means testing both Social Security and Medicare benefits.

B. Basically what is Social Security?

The Introduction to the *2016 Social Security and Medicare Report* contains the following summary of the Social Security program:

> The Social Security program provides workers and their families with retirement, disability, and survivors insurance benefits. Workers earn these benefits by paying into the system during their working years. Over the program's 80-year history, it has collected roughly $19.0 trillion and paid out $16.1 trillion, leaving asset reserves of more than $2.8 trillion at the end of 2015 in its two trust funds.

C. Basically what is Medicare?

The Introduction to the *2016 Social Security and Medicare Report* contains the following summary of the Medicare program:

> The Medicare program has two separate trust funds, the Hospital Insurance Trust Fund (HI) and the Supplementary Medical Insurance Trust Fund (SMI). HI, otherwise known as Medicare Part A, helps pay for hospital, home health services following hospital stays, skilled nursing facility, and hospice care for the aged and disabled. SMI consists of Medicare Part B and Part D. Part B helps pay for physician, outpatient hospital, home health, and other services for the aged and disabled who have voluntarily enrolled. Part D provides subsidized access to drug insurance coverage on a voluntary basis for all beneficiaries and premium and cost-sharing subsidies for low-income enrollees.

D. What are the long-term budgetary implications of Social Security and Medicare?

The Introduction to the *2016 Social Security and Medicare Report* gives the following description of the financing conditions of these two programs:

> Both Social Security and Medicare face long-term financing shortfalls under currently scheduled benefits and financing. Lawmakers have a broad continuum of policy options that would close or reduce the long-term financing shortfall of both programs. The Trustees recommend that lawmakers take action sooner rather than later to address these shortfalls, so that a broader range of solutions can be considered and more time will be available to phase in changes while giving the public adequate time to prepare. Earlier action will also help elected officials minimize adverse impacts on vulnerable populations, including lower-income workers and people already dependent on program benefits.
>
> Social Security and Medicare together accounted for 41 percent of Federal program expenditures in fiscal year 2015. The unified budget reflects current trust fund operations. Consequently, even when there are positive trust fund balances, any drawdown of those balances, as well as general fund transfers into Medicare's Supplementary Medical Insurance (SMI) fund and interest payments to the trust funds that are used to pay benefits, increase pressure on the unified budget. Both Social Security and Medicare will experience cost growth substantially in excess of GDP growth through the mid-2030s due to rapid population aging caused by the large baby-boom generation entering retirement and lower-birth-rate generations entering employment. For Medicare, it is also the case that growth in expenditures per beneficiary exceeds growth in per capita GDP over this time period. In later years, projected costs expressed as a share of GDP rise slowly for Medicare and are relatively flat for Social Security, reflecting very gradual population aging caused by increasing longevity and slower growth in per-beneficiary health care costs.

As discussed subsequently, proposals for elimination of the cap on the amount of labor income that is subject to the Social Security tax, which is supported by Secretary Clinton, and my means testing proposal for both Social Security and Medicare are designed to address this long-term financing problem with both Social Security and Medicare.

E. How is the Social Security tax structured?

The Social Security payroll tax is imposed on wage, salary, and other labor income at a rate of 6.2% for the employee and 6.2% for the employer. The employer withholds the employee's portion and pays it over together with its portion to the IRS. In 2016, the tax was only applicable to the first $118,500 of labor income; this cap is indexed for inflation. Those who are self-employed pay the full tax. Non-labor income, such as dividends, interest, and capital gains, is not subject to the Social Security tax.

F. Who bears the burden of the Social Security tax?

Most economists believe that the burden of the employer's portion of the tax is borne by the employee, in terms of reduced salary. For example, the *1999 Economic Report of the President* explains: "It is generally agreed that, in an economic sense, the

burden of the tax falls entirely on the worker."[380] Thus, the employee may be incurring a 12.4% tax on labor income.

G. How are Social Security benefits structured?

The *1999 Economic Report of the President* explains: "Retirement benefits are based on a person's lifetime average indexed monthly earnings . . . in covered employment."[381] The Report further explains that the normal retirement age (NRA) is the age at which one becomes eligible for a full retirement benefit. The NRA is a function of the retiree's birth date, with (1) individuals born in 1937 or before having a NRA of 65, and (2) individuals born in 1960 and later having an NRA of 67. As early as age 62, an individual may elect to receive a permanently lower pension benefit than would otherwise be paid at the person's NRA. Social Security benefits may also be available for the disabled and on the death of a family member.

H. What impact does the Social Security tax have on the progressivity of the federal tax system?

As indicated in Chapter 18, the Federal income tax is progressive, which means that a taxpayer pays proportionally more tax as income rises. Under the current Federal tax law, a low-income taxpayer may be subject to a 10% marginal rate on labor income, whereas a high-income taxpayer could be subject to a 39.6% rate on labor income, with rates between these two extremes applicable to other taxpayers. Most income tax systems in the world are progressive, indicating that most countries have accepted the notion that those with more income should on balance pay proportionally more in taxes.

The Social Security tax has some features that are proportional and some that are regressive. As indicated in Chapter 18, a proportional tax is imposed at the same rate on all income, whereas with a regressive tax, taxpayers pay proportionally less as income rises. Most people would reject a clear regressive tax, such as a head tax, which everyone would pay in the same amount without respect to means.

Social Security taxes are proportional in that they are imposed at a flat rate (6.2% on the employee and 6.2% on the employer) up to the cap, which for 2016 is $118,500 of labor income. Thus, the tax is proportional with respect to the income to which it applies.

On the other hand, the Social Security tax is also regressive for two principal reasons. First, Social Security taxes only apply to labor income; income from capital, such as interest, dividends, and capital gains, is exempt from the tax. Second, the income subject to the tax is capped at $118,500 (for 2015) of labor income, which means that the more a taxpayer makes over the cap, the smaller the portion the Social Security tax represents of total income. For example, for a single worker with $50,000 of salary income, the tax is $3,100, which is 6.2% of the salary (this excludes the employer's portion of the tax). On the other hand, a single worker with salary income of $200,000 will have a Social Security tax of $7,347 (that is, 6.2% of $118,500), which is 3.7% of the salary. This shows that the more labor income above the cap, the lower the percentage of Social Security tax paid, which makes the tax regressive.

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[380] *1999 Economic Report of the President*, *infra* Bibliography, at 143.
[381] *Id*.

Indeed, the above example understates the regressivity in the Social Security tax, because the example focuses only on labor income and not investment income, such as interest and capital gains, which is not subject to the Social Security Tax and which the high salary worker is more likely to have.

I. Is the overall Social Security System--taxes and benefits--progressive?

To look at the progressivity of the Social Security system as a whole, it is necessary to take into account the distribution of benefits as well as the payment of taxes. This is difficult to do because there are numerous perverse effects in the distribution of benefits. For example, married couples receive larger payouts than singles. Also, African Americans have a lower life expectancy after retirement than White Americans, and as a result, African Americans on average pay more in Social Security taxes than they receive in Social Security benefits.[382] Thus, on average the Social Security taxes paid by African Americans are subsidizing the Social Security benefits received by White Americans.

Further, as a general matter, high wage earners pay more in taxes than they receive in benefits, whereas the opposite is the case for low income wage earners. Thus, this moves the overall system in the direction of being progressive or at least not as regressive as when only the tax side of the equation is considered.[383]

J. Is the spending on Social Security benefits mandatory or discretionary?

As indicated in Chapter 15, government spending is divided between spending on mandatory programs and discretionary programs. The spending for Social Security benefits is part of mandatory government spending, because these are benefits that are set forth in the law and are not dependent upon yearly Congressional budget decisions. The *2004 Budget and Economic Outlook* explains: "Mandatory spending consists overwhelmingly of benefit programs such as Social Security, Medicare, and Medicaid. The Congress generally determines spending for those programs by setting rules for eligibility, benefit formulas, and other parameters rather than by appropriating specific dollar amounts each year."[384]

K. What if (1) Social Security taxes collected exceed the benefits paid, or (2) benefits paid exceed taxes collected?

Social Security is on a pay as you go system under which retirement payments are generally made out of currently collected Social Security taxes. Any excess of taxes collected over benefits paid is invested in interest bearing Treasury securities. Until recently, there has been an excess of taxes over benefits, however, as discussed in the *2016 Social Security and Medicare Report*, this changed in 2010, thus requiring a use of some of the interest income on the Treasury securities to be used to pay benefits.

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[382] Harvey S. Rosen, *Public Finance* 198-201 (7th Ed 2004).
[383] *Id*.
[384] *2004 Budget and Economic Outlook*, *infra* Bibliography, at The Spending Outlook.

The *2016 Social Security and Medicare Report* provides for the "75-year projection period" the following analysis of the funding challenges associated with Social Security: (1) the collection of Social Security taxes, (2) interest received on and redemptions of government securities, and (3) the payment of Social Security benefits:

> In 2015, Social Security's reserves increased by $23 billion to $2.8 trillion by the end of the year. The Bipartisan Budget Act of 2015, signed into law on November 2, 2015, averted a near-term shortfall in Social Security's Disability Insurance (DI) Trust Fund. The temporary reallocation of tax rates from the Old-Age and Survivors Insurance (OASI) fund to the DI fund means that DI will be able to pay full benefits until 2023. OASI is able to pay full benefits until 2035, and the combined OASDI funds until 2034, both unchanged from last year. Over the 75-year projection period, Social Security faces an actuarial deficit of 2.66 percent of taxable payroll, slightly less than the 2.68 percent projected in last year's report. The deficit equals 1.0 percent of GDP through 2090. Reserves in Medicare's two trust funds decreased by $3 billion to a total of $263 billion at the end of 2015. The Hospital Insurance (HI) Trust Fund is projected to be able to pay full benefits until 2028. The HI actuarial deficit is 0.73 percent of taxable payroll over the 75-year projection period, slightly larger than the 0.68 percent projected in last year's report, and equivalent to 0.3 percent of GDP through 2090.
>
> Social Security's and Medicare's projected long-range costs exceed currently scheduled financing and will require legislative action to avoid subjecting beneficiaries and taxpayers to unanticipated program changes. The sooner that lawmakers take action, the wider will be the range of solutions to consider and the more time that will be available to phase in changes, giving the public adequate time to prepare. Earlier action allows more generations to share the economic cost of maintaining program solvency, and would provide more opportunity to ameliorate adverse impacts on vulnerable populations, including lower-income workers and people already significantly dependent on program benefits.

L. How does the government account for the use of the Social Security Trust Funds for general operating purposes?

The *2004 Budget and Economic Outlook* makes it clear that the only thing the Social Security Trust fund receives in consideration for use by the government of excess Social Security taxes to pay government operating expenses is the IOU of the Federal government:

> **Debt Held by Government Accounts**. Besides selling securities to the public, the Treasury has issued more than $2.8 trillion in securities to various accounts of the federal government. All of the major trust funds and many other government funds invest in special, nonmarketable Treasury securities known as the government account series. Those transactions are intra-governmental and have no direct effect on the economy. The securities represent credits to the various government accounts and are redeemed when benefit payments and other expenses arise. [That is, at the time in the future when benefits exceed taxes

> collected, the securities will be redeemed to pay the benefits.] In the meantime, the Treasury assigns interest earnings to the funds holding those securities; such payments have no net effect on the budget.
>
> The largest balances of such debt are in the Social Security trust funds (almost $1.5 trillion at the end of 2003) . . . .[385]

As indicated in a subsequent discussion, in describing the Social Security trust fund, former Secretary of Treasury O'Neill is reported to have said that all future beneficiaries have is "someone else's promise." This point is also made clear in the 2004 Economic Report of the President: "Allocating Social Security surpluses to special-issue Treasury bonds in the trust fund provides no guarantee that future Social Security obligations are prefunded. It would therefore not be appropriate to simply accumulate government bonds in a trust fund as a way to restore solvency."[386]

M. Should Social Security be in a "lockbox"?

In preparing the first edition of this chapter back in 2004, I was shocked at (1) the then excess of the Social Security tax revenues over the benefits, and (2) the use of the surplus to reduce part of the deficit resulting in substantial part from the Bush tax cuts, which are tilted in favor of the wealthy. I thought that Social Security was in some "lockbox," which was a term used in the debates during the 2000 presidential election, and I was surprised to discovered that there is no such thing. My ignorance of the real facts behind Social Security is, I am sure, an illustration of how little the public understands this issue.

One possible way of creating a "lockbox" for Social Security would be to invest the accumulated surpluses in high grade securities of private firms. The *2004 Economic Report of the President* addressed as follows this possibility:

> One way to overcome the vagueness in trust fund accounting is to require that the prefunding occur by allocating a portion of Social Security's annual revenues to the purchase of private rather than government securities and to treat these purchases as annual expenditures of the Federal government. Doing so would break the link between Social Security surpluses and the issuance of debt by the Federal government. This would allow the Social Security program to accumulate a portfolio of financial claims on private sources to pay for future obligations.[387]

There would undoubtedly be numerous concerns with this approach, including concerns with the Federal government investing in private securities. But, this is essentially what the Social Security Commission suggested through private accounts. With the approach discussed here, rather than having millions of private accounts, the investment could be made through one private account, which is what happens with state pension and other funds. Creative minds could develop methods to insulate the investment decisions for these funds from political influence, which I understand has largely been accomplished with the states.

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[385] *2004 Budget and Economic Outlook*, *infra* Bibliography, at The Spending Outlook.
[386] *Id*. at 142.
[387] *2004 Economic Report of the President*, *supr*a Chapter 1, note 1, at 142.

N. How will the Government Finance the Coming Social Security Deficit?

As discussed above, the Treasury issues its bonds to the Social Security and other social trusts funds in consideration of the use by the Treasury of the surpluses in these funds to pay down the "on budget" deficit. However, there is no real money here; it is just an IOU from one branch of the Federal government to another. The government will have to satisfy the future Social Security obligation out of future taxes or borrowing. If the tax route is followed, there is nothing to stop the Congress from increasing the Social Security and other payroll taxes. Indeed, since there will at some time be a deficit in these trust funds, Congress could be tempted to fund the deficit with higher Social Security and other payroll taxes. It could be expected that powerful lobbyists for the wealthy will at such time argue strongly that it would be detrimental economically and unfair to raise the marginal income tax rates on the wealthy. In such case, the average American payer of the Social Security and other payroll taxes would be not only significantly over taxed now but also significantly over taxed then.

The above analysis is consistent with statements made by former Secretary of Treasury O'Neill, who served in the Bush Administration. In his *Perfectly Legal* book, David Cay Johnston reports that in a public speech O'Neill said: "Today we have no assets in the [Social Security] trust fund. We have promises of the good faith and credit of the United States government that benefits will flow."[388] Johnston also reports that O'Neill said that the only thing potential beneficiaries have is "someone else's promise."[389] Johnston goes on to give his own analysis of the situation: "The only way that the taxes that Americans have paid in advance for their Social Security benefits can be turned into retirement checks is by a new round of taxes to redeem the IOUs. The Social Security taxes people paid in advance are gone."[390]

O. How is Social Security treated in President Obama's 2010 Deficit Commission Proposal?

In its chapter on Social Security, the Deficit Commission proposes several technical changes. Although no costs estimates are included with the proposed changes, Figure 17 to The *Deficit Commission Proposal* shows that the "Total Deficit Effect of Social Security Reform" is to increase the deficit by $238 billion over the 2012-2020 forecast period. This increase arises because many of these proposals, including a proposal to make the benefit formula more progressive, would enhance the Social Security payments received by lower income workers.

The Deficit Commission essentially keeps in place the current structure of Social Security. Its changes are on the margins and do not adversely impact the "safety net" role of Social Security.

P. How is Social Security treated by Congressman Ryan?

The 2012 *Ryan Proposal* (which was prepared under the direction of then Chairman of the House Budget Committee, and now House Speaker, Paul Ryan) sets out

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[388] *Perfectly Legal*, *infra* Bibliography, at 127.
[389] *Id*.
[390] *Id*.

sets out several general principles regarding the need for Congress and the President to reform Social Security; however, the Proposal has no change to Social Security payments over the forecast period.

Q. What is the proposal of Secretary Clinton for addressing Social Security benefits?

Secretary Clinton's website says the Secretary will protect Social Security against attacks by some Republicans:

> **Defend Social Security against Republican attacks.** Republicans are using scare tactics about the future and effectiveness of Social Security to push through policies that would jeopardize it. The real threat is Republican attempts to undermine the bedrock of the system. Hillary believes that Social Security must remain what it has always been: a rock-solid benefit that seniors can always count on—not subject to the budget whims of Congress or to the fluctuations of the stock market. She fought Republican efforts to undermine Social Security when she was a senator and throughout her career, and she will fight them as president. As president, she would:
>
> - Fight any attempts to gamble seniors' retirement security on the stock market through privatization.
> - Oppose reducing annual cost-of-living adjustments.
> - Oppose Republican efforts to raise the retirement age—an unfair idea that will particularly hurt the seniors who have worked the hardest throughout their lives.
> - Oppose closing the long-term shortfall on the backs of the middle class, whether through benefit cuts or tax increases.

The website also says that she will expand Social Security in the following respects:

> **Expand Social Security for those who need it most and who are treated unfairly by the current system**—including women who are widows and those who took significant time out of the paid workforce to take care of their children, aging parents, or ailing family members. Social Security works well, but it should work better. Hillary will fight to expand Social Security for those who need it most and who are treated unfairly today. For instance:
>
> - The poverty rate for widowed women 65 or older is nearly 90 percent higher than for other seniors—in part because when a spouse dies, families can face a steep benefit cut. For a two-earner couple, those benefit cuts can be as much as 50 percent. Hillary believes that we have to change that by reducing how much Social Security benefits drop when a spouse dies, so that the loss of a spouse doesn't mean financial hardship or falling into poverty.

- Millions of women—and men—take time out of the paid workforce to raise a child, take care of an aging parent or look after an ailing family member. Caregiving is hard work that benefits our entire economy. However, when Americans take time off to take care of a relative, that can reduce their Social Security benefits at retirement, since those benefits are calculated based on their top 35 years of earnings. No one should face meager Social Security checks because they took on the vital role of caregiver for part of their career. Americans should receive credit toward their Social Security benefits when they are out of the paid workforce because they are acting as caregivers.

R. What is the proposal of Secretary Clinton for addressing the shortfall in the funding of Social Security?

Secretary Clinton's website says the Secretary will address the funding shortfall with Social Security by increasing taxes on the wealthy. Specifically, she proposes:

> **Preserve Social Security for decades to come by asking the wealthiest to contribute more.** Social Security must continue to guarantee dignity in retirement for future generations. Hillary understands that there is no way to accomplish that goal without asking the highest-income Americans to pay more, including options to tax some of their income above the current Social Security cap and taxing some of their income not currently taken into account by the Social Security system.

S. What is the proposal of Mr. Trump for addressing Social Security benefits and the funding shortfall issue?

Although Mr. Trump's website apparently does not discuss his position on Social Security, a Wall Street Journal article[391] discusses Mr. Trump's positions on Social Security generally and the funding shortfall issue:

> Donald Trump We're going to save your Social Security without killing it like so many people want to do, and your Medicare.— June 18 rally in Phoenix »
>
> Mr. Trump has criticized proposals floated by Republican leaders to address looming across-the-board benefit cuts that will be triggered if Social Security exhausts Treasury account reserves by, for example, raising retirement ages or capping benefits for wealthier retirees. Instead, Mr. Trump has said that the program can eliminate waste and abuse to close the demographic-induced solvency gap, a proposal that independent experts say isn't credible.

[391] *Clinton v. Trump, Where They Stand on Economic Policy Issues*, Wall Street Journal, Sept 24, 2016, http://graphics.wsj.com/elections/2016/donald-trump-hillary-clinton-on-the-economy/.

T. What is My Take on Social Security?

I agree with both Secretary Clinton and Mr. Trump that Social Security should continue substantially in its current form, and I agree with Secretary Clinton that changes need to be made in the way in which Social Security is funded. I support both (1) an elimination or modification of the current cap on the amount of labor income that is subject to the tax (for 2016 the cap is $118,500 of labor income), which Secretary Clinton has proposed, and (2) a phase-out of Social Security benefits for retirees who have substantial other income, which neither Secretary nor Mr. Trump has proposed. My phase-out proposal would apply to both Social Security and Medicare, and for that reason, the proposal is discussed below after an examination of Medicare.

U. How is the Medicare tax structured?

The payroll tax on Medicare is at 1.45% of labor income for both the employee and the employer. In contrast to the Social Security tax, the Medicare tax is not capped, and therefore, it is proportional with respect to all labor income. However, because it does not apply to capital income, it is also regressive but less so than the Social Security tax.

V. How is the Obamacare-Medicare Tax on Net Investment Income structured?

Obamacare has instituted an unearned income Medicare contribution tax that is imposed at a rate of 3.8% of net investment income in excess of $250,000 of taxable income in the case of married individuals filing a joint return. Obviously, this tax will increase the progressivity of the Medicare tax system.

W. How are Medicare benefits structured?

Medicare benefits are divided into Parts A, B, C, and D. The following questions elaborate on the benefit provided by each part.

X. What benefit is provided by Medicare Part A?

The Medical Consumer Guide provides the following basic information on Medicare Part A:

> Medicare Part A is a type of hospital insurance provided by Medicare. The coverage provided by Part A includes inpatient care in hospitals, nursing homes, skilled nursing facilities, and critical access hospitals. Part A does not include long-term or custodial care. If you meet specific requirements, then you may also be eligible for hospice or home health care.
>
> Fiscal Intermediaries handle the claims for the Medicare Part A plan. These are private insurance companies that act as agents for the federal government in processing and paying Medicare claims.[392]

[392] Medical Consumer Guide, at http://www.medicareconsumerguide.com/medicare-part-a.html (May 22, 2012).

Y. What benefit is provided by Medicare Part B?

The Medical Consumer Guide provides the following basic information on Medicare Part B:

> Medicare Part B is a medical insurance provided by the federal government to eligible beneficiaries. The coverage provided by Part B includes medically necessary doctor's services, outpatient care, and most other services that Part A does not cover such as some physical or occupational therapies and some home health care services. Part B covers preventive services as well.[393]

Most people are required to pay a premium for coverage under Part B, and usually the premium is deducted from the person's monthly Social Security payment.

Z. What benefit is provided by Medicare Part C?

Medicare Part C encompasses Medicare Advantage plans, which combine both Part A (*e.g*., hospital care) and Part B (*e.g*., doctors' visits). Medical Advantage plans are offered by private insurance companies.[394]

AA. What benefit is provided by Medicare Part D?

Medicare Part D provides a prescription drug benefit that is designed to lower the cost of such drugs for Medicare recipients. It is offered by private insurance companies approved my Medicare.[395]

BB. How is Medicare treated in President Obama's 2010 Deficit Commission Proposal?

In its chapter on Health Care Savings, President Obama's 2010 Deficit Commission makes several rather technical recommendations relating to Medicare.[396] The total cost savings would be $298 billion through 2020, which is about 4% of the $7.6 trillion the CBO estimates will be spent on Medicare during the 10-year forecast period, 2011-2021. None of the changes would seem to have a significant adverse impact on the benefits Medicare recipients receive.

The Deficit Commission essentially keeps in place the current structure of Medicare.

CC. How is Medicare treated by Congressman Ryan?

The 2012 *Ryan Proposal* (which was prepared under the direction of then Chairman of the House Budget Committee, and now House Speaker, Paul Ryan) sets out proposed changes to Medicare that would partially privatize Medicare.[397] Under the *Ryan Proposal*, for younger workers, when they reach eligibility, Medicare will provide a Medicare payment and a list of guaranteed coverage options from which recipients can

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[393] *Id*.
[394] Medical Consumer Guide, at http://www.medicareconsumerguide.com/medicare-part-c.html (May 22, 2012).
[395] *Id*.
[396] This answer is based on a discussion in Thompson, *A Buffett Rule for Social Security and Medicare*, *infra* Bibliography.
[397] *Id*.

choose a plan that best suits their needs. These future Medicare beneficiaries will be able to choose a plan the same way members of Congress do. Medicare will provide additional assistance for lower-income beneficiaries and those with greater health risks.

This proposal is referred to here as the Ryan Medicare Voucher Proposal, although the *Ryan Proposal* describes it as a "premium-support" program. The *Ryan Proposal* explains that wealthier retirees would receive less premium-support than low income retirees. The *Ryan Proposal* would apply to people who are now 55 or under.

An analysis of the *Ryan Proposal* by the Congressional Budget Office, estimates that in 2022, under that Proposal, "a typical 65-year-old would pay 61 percent of the [the costs] of benchmark [medical services]." On the other hand, under the current Medicare rules, the CBO estimates that "the typical 65-year-old would pay 27 percent of the benchmark . . . ."

DD. What is the proposal of Secretary Clinton for addressing Medicare?

Secretary Clinton's website says the Secretary will address the funding shortfall with Social Security by increasing taxes on the wealthy. She describes Medicare as follows:

> Medicare is the bedrock of health care coverage for more than 50 million American seniors and people with disabilities. As senator, Hillary co-sponsored and sponsored bills to reduce the impact of the Medicare prescription drug gap by reducing the price of pharmaceuticals for seniors.

And as President, she says that she will:

> Fight Republican attempts to repeal the Affordable Care Act. The Affordable Care Act made preventive care available and affordable for an estimated 39 million people with Medicare and saved more than 9 million people with Medicare thousands of dollars in prescription drug expenses. . . .
>
> Fight back against Republican plans to privatize or "phase out" Medicare as we know it. Republicans have called for privatizing or even "phasing out" Medicare and shifting millions more seniors into private plans that would dramatically raise costs. Hillary will stand against these attempts to weaken the program.
>
> Drive down drug costs for seniors and other Americans. Hillary will ensure Medicare can negotiate lower drug prices with pharmaceutical companies, so we lower costs for seniors.
>
> Reform Medicare delivery systems to deliver value and quality to our seniors and people with disabilities.

EE. What is the proposal of Mr. Trump for addressing Medicare?

As with Social Security, Mr. Trump has indicated his support for Medicare and has proposed no significant changes in either the entitlements to or funding of Medicare.

FF. What is my proposal for phasing out benefits under Social Security and Medicare for high income individuals?

Virtually all analyses of the funding of Social Security and Medicare conclude that in view of the aging of the American population, there are long-term funding problems with Social Security and Medicare.[398]

While there is no one solution, in addition to the elimination of the cap on the amount of labor income that is subject to the Social Security tax, I propose that at least a partial solution to the funding problem for both Social Security and Medicare is the "phase-out" the entitlements under these programs for high income individuals. This "phase-out" principle can be illustrated by analyzing the treatment of the following two hypothetical retirees, Joe and Sally, who are polar opposites when it comes to assets and income. Under the phase-out proposal here, income is broadly measured and includes income excluded from gross income under the Federal income tax, such as interest on state and local bonds and income earned in tax exempt retirement accounts. It does not include a payout of principal in a retirement account. This income is referred to here as Broadly Measured Income. Joe and Sally are both retired and have the following assets and income:

Joe is a 70 year old retired bus driver, who has $500,000 in investable assets (e.g., a retirement account) and $50,000 in annual Broadly Measured Income, including his Social Security, and Sally is a 70 year old retired executive who has $5 million in investable assets and $250,000 in annual Broadly Measured Income, including her Social Security.

Under the phase-out proposal set out below, Joe would get his full Social Security payment and would be covered under Medicare as he presently is under current law. On the other hand, because of her financial resources, Sally would not receive any Social Security payment and would have to pay 100% of a premium covering the economic costs of her Medicare benefits if she chose to participate in Medicare.

As discussed below, under the proposal here (1) the Social Security Benefit would be phased out as individuals move from $75,000 of annual Broadly Measured Income to $175,000 (the Social Security Phase-Out Requirement); and (2) to participate in Medicare, retired persons would be required to pay an increasing portion of the economic costs of a premium for Medicare benefits as they move from $75,000 of annual Broadly Measured Income to $175,000 (the Medicare Premium Payment Requirement). This requirement would be indexed for inflation.

If Sally's income drops below the $75,000 threshold, she would then be entitled to full participation in Medicare and Social Security. Thus, these programs would be there as safety nets for any individual who was initially not covered but because of, for example, a significant decrease in the fair market value of investable assets, his or her income drops below $75,000.

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[398] *Id*.

GG. What is the justification for my proposed Social Security Phase-Out Requirement?

The Social Security Phase-Out Requirement is similar to the approach in Canada, which begins to reduce Social Security payments once a retiree's income exceeds approximately $67,000 in Canadian dollars.[399] The Social Security payment is completely eliminated at approximately $150,000 in Canadian dollars. This phase-out feature of the Canadian Social Security system is apparently one of the reasons Canada does not face the same long-term budgetary problems the U.S. faces.

Sally, the executive, would not suffer a material adverse effect from elimination of the Social Security payment because it is a small percentage of her income and will not have a material impact on her standard of living. In fact, Sally is unlikely to spend the Social Security payment at any time during her life, and the most likely disposition of any Social Security benefit she receives will be to increase her heirs' inheritances. This illustrates that for many high income retirees, the economic impact of current Social Security benefits is to increase the inheritances their heirs receive. No sensible retirement policy could support such a bizarre economic effect.

On the other hand, the Social Security payment received by Joe is a material part of his income, and his living standard likely would be adversely affected in a material way if he did not receive it. Unlike Sally, the executive, Joe is likely to spend his Social Security payment on the current needs of his family. Also, it is likely that Joe's life expectancy will be shorter than Sally's, and as a consequence, under the current system, Joe will get a smaller aggregate benefit from Social Security than Sally. The proposal here would eliminate much of this type of regressivity (*i.e.*, giving the wealthy proportionately more benefits) in the current system.

HH. What is the justification for my proposed Medicare Premium Payment Requirement?

Turning to Medicare, why should the Federal government provide free Medicare benefits to Sally just because she is older than 65?[400] The money Sally saves as a result of receiving Medicare benefits under the current system will likely not be spent by Sally on her immediate needs; rather, such money likely will go to Sally's heirs in the form of increased inheritances. Thus, like the Social Security benefit Sally receives under the current system, the Medicare benefits Sally currently receives are likely to merely increase the inheritances her heirs receive.

In any event, under the Medicare Premium Payment Requirement, Sally could purchase Medicare insurance if she chose to do so; however; she would have to pay the full cost of the premium.

In discussing the purpose of Medicare, the *Ryan Proposal* explains: "In urging the creation of Medicare, President Kennedy said that such a program was chiefly needed to protect, not the poor, but people who had worked for years and suddenly found all their savings gone because of a costly health problem." The phase-out of benefits under Medicare is certainly consistent with this purpose, and under the proposal here, no person

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[399] *Id*.
[400] *Id*.

otherwise eligible for Medicare would "suddenly [find] all [of his or her] savings gone because of costly health problems."

As a practical matter, any person who was not initially covered would be entitled to full coverage once his or her investable assets dropped below approximately $1 million. This can be illustrated as follows:

> Assuming an average 5% return (*i.e.*, income and capital gains) on investments, under the phase-out proposed here, only individuals with more than approximately $1 million in investable assets would have to pay a portion and in some cases all of the cost of Medicare. For example, assume that a person initially had $4 million in investable assets producing $200,000 in Broadly Measured Income, before taking into account any Social Security Benefit. Because this person's Broadly Measured Income exceeds $175,000, he or she would have to pay the full cost of participating in Medicare. Assume further that this person does not purchase Medicare or other insurance and as a result must spend his or her personal resources to address a catastrophic health issue. Once this person's assets have dropped to approximately $1 million, which under the 5% assumption here would produce approximately $50,000 in Broadly Measured Income, he or she would qualify for full participation in Medicare without making any payment as long as the Social Security benefit, which is also included in Broadly Measured Income, did not exceed $25,000. This is because Broadly Measured Income includes the $50,000 of earnings on investable assets plus the Social Security benefit, and as long as the total is less than $75,000, there would be no phase-out. Thus, by limiting any such depletion in assets to approximately $1 million, the proposal here addresses the concern expressed by President Kennedy and highlighted in the *Ryan Proposal*. Similar principles apply to the Social Security Phase-Out Requirement.

II. What would be the budgetary effect of adopting my proposed phase-out of Social Security and Medicare benefits?

The phase-out of Social Security and Medicare has not been addressed by the CBO or any of the three budget proposals discussed here.[401] However, an analysis by the Center for Economic and Policy Research indicates that with a phase-out like the one proposed here, which effectively begins at approximately $50,000 of non-Social Security income (*i.e.*, $75,000 of Broadly Measured Income including Social Security), the revenue savings would be less than 10% of the overall cost of Social Security.

Obviously, more savings would arise if the phase-outs begin and end at lower levels of Broadly Measured Income. The $75,000 beginning, and $150,000 ending thresholds I propose are used for illustrative purposes, and the starting and ending points could be either lower or higher depending on the budgetary impact.

[401] *Id*.

JJ. Why would my phase-outs likely be opposed by both left leaning Democrats and right leaning Republicans?

The phase-outs proposed here will likely be opposed by left leaning Democrats and right leaning Republicans for the same reasons these polar opposite political groups opposed means testing of the premiums for Medicare Part B, the non-hospitalization benefit.[402]

With respect to the Democratic opposition, Professor Kaplan explains:

> Democrats in the House opposed means testing Medicare because they thought that such a concept was contrary to the social insurance role that they wanted Medicare to play. . . . House Democrats opposed means-testing Medicare Part B because they were concerned that if Medicare Part B began to take on certain characteristics of a welfare program—e.g., fewer benefits (or higher costs) for persons with greater income—then Medicare might become vulnerable to the sort of attack that federal welfare programs had endured the previous year.

The reasoning behind this opposition by some Democrats seems to me to be the equivalent of a decision to bribe high income individuals into supporting Medicare. My proposal does not bribe high income individuals.

With respect to the Republican opposition, Professor Kaplan explains that "House Republicans believed that calibrating Medicare Part B premiums according to income was a back-door tax on retirees who had worked and invested conscientiously throughout their working lives." However, high income individuals are not the only ones who "work and invest conscientiously." The well-off in this country do not have a monopoly on hard work.

Notwithstanding the likely left and right opposition to the phase-out proposal here, if politicians from across the political spectrum are truly concerned with long-term debt, then in the interest of retaining the current benefit structures of Social Security and Medicare for those retired Americans who are in need of them, these debt-concerned politicians should coalesce around this, or a similar, proposal.

Discussions that could lead to this type of coalescence could be on the horizon. For example, an article published by MSNBC in April 2011 states: "Calling Social Security 'broken,' three Republican senators unveiled a plan . . . to overhaul the 75-year old entitlement program by raising the retirement age and reducing benefits for some wealthier Americans." Under this proposal, "seniors making over $43,000 a year would have their monthly benefits reduced by $300 to $400 by 2032."[403] It is noteworthy that the means-testing in the Senator's plan would (1) begin at a much lower threshold ($43,000) than the threshold for the means-test I propose here ($75,000), and (2) would only cut back, and not phase-out benefits, which my proposal would do.

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[402] *Id*.
[403] *Id*.

KK. What about the economic argument against means testing like my proposed phase-outs?

As explained by Professor Krugman, a recipient of the Nobel Prize for Economics, "means-testing benefits does the same thing" as raising marginal tax rates.[404] Economists argue that an increase in marginal tax rates can act as a disincentive to work. For example, assume that the highest marginal tax rate imposed on a taxpayer making $250,000 of taxable income is 40%. If the tax law is changed to increase the marginal tax rate on income above $250,000 from 40% to 50%, then the taxpayer arguably has less of an incentive to put in the additional work needed to make, for example, an additional $10,000 of taxable income. Before the tax increase, the additional $10,000 of taxable income would be taxed at only 40% leaving $6,000 in after-tax income. After the tax increase, the additional $10,000 of taxable income would be taxed at 50% leaving only $5,000 of after-tax income.

Many economists, particularly conservative economists, argue that this lower after-tax income that results from the higher marginal tax rates is a disincentive for work. This may be so for some taxpayers, but for other taxpayers, the higher tax rate may be an incentive to work even harder. For example, if the taxpayer above decides that he or she needs an additional $6,000 of after-tax income, then with a 50% marginal rate the taxpayer may be incentivized to work to make an additional $12,000 in taxable income (rather than only $10,000) so that after-tax income will rise by $6,000. Thus, higher marginal rates can act as both a disincentive and an incentive to work.

Warren Buffett, one of the richest men in the world and one of the most outstanding investors, has questioned the incentive effects either way of marginal rate increases. In an August 14, 2011 article in the New York Times, he argues:

> Back in the 1980s and 1990s, tax rates for the rich were far higher, and my percentage rate was in the middle of the pack. According to a theory I sometimes hear, I should have thrown a fit and refused to invest because of the elevated tax rates on capital gains and dividends.
>
> I didn't refuse, nor did others. I have worked with investors for 60 years and I have yet to see anyone — not even when capital gains rates were 39.9 percent in 1976-77 — shy away from a sensible investment because of the tax rate on the potential gain. People invest to make money, and potential taxes have never scared them off. And to those who argue that higher rates hurt job creation, I would note that a net of nearly 40 million jobs were added between 1980 and 2000. You know what's happened since then: lower tax rates and far lower job creation.

Without respect to the incentive effects of increasing marginal tax rates, means testing Social Security and Medicare, which as I propose here, would not begin for ten years, would have much less of an incentive effect (either by increasing or decreasing work) than an increase in marginal tax rates. This is because of the delay between (1) the time payments are made into the Social Security and Medicare systems, and (2) the time benefits are received. Thus, even though the phase-out proposals here raise marginal rates, the incentive effects should be minimal and could cut in favor of either more or less work.

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[404] *Id*.

In any event, for the following reasons, Professor Krugman argues for an increase in the tax rates on high income taxpayers in lieu of means-testing Medicare:

> So what's the difference between means-testing and just collecting a bit more taxes? The answer is, class warfare — not between the rich and poor, but between the filthy rich and the merely affluent. For a tax rise would get a significant amount of revenue from the very, very rich (because they have so much money), while means-testing would end up imposing the same burden on $400,000 a year working Wall Street stiffs that it imposes on billion-a-year hedge fund managers.
>
> What we need is actual control of health costs. Means-testing of Medicare is just a badly designed, unfair form of taxation.

This class warfare argument against means-testing is more of a political argument than an economic argument and is a variant of the "need for inclusion" argument, discussed above, made by liberal leaning Democrats. Further, this type of class warfare has not taken place with regard to Canada's phase-out of Social Security benefits. The bottom line here is that Professor Krugman does not explain how it could make economic sense for the government (through the payment of Social Security and Medicare benefits to high-income retirees) to fund the inheritances of the children of these retirees.

I agree with Professor Krugman's argument that it is sensible to increase the Medicare tax rate for the wealthy. Along these lines, a previous question argues that the cap on compensation in the Social Security tax should be removed, so that all wage income becomes subject to the tax.

LL. What is the case for giving Secretary Clinton and Mr. Trump Social Security and Medicare?

Both Secretary Clinton and Mr. Trump are eligible to receive Social Security and Medicare benefits. Both Senator Clinton and Mr. Trump are wealthy beyond imagination. It is economic folly for the Federal government to be providing them with these benefits, for as indicated above the economic effect of providing the benefits to them is to merely enhance the inheritances of their heirs.

CHAPTER 17, FISCAL POLICY: OBAMACARE: HOW IS IT STRUCTURED; WHAT ARE THE POSITIONS OF SECRETARY CLINTON AND MR. TRUMP ON IT; AND WHAT IMPACT WOULD THEIR POSITIONS HAVE ON ECONOMIC GROWTH?

A. What is in this Chapter?

This chapter discusses *Obamacare*, a term used to refer to the 2010 Health Care Legislation, encompassed by the Patient Protection and Affordable Care Act of 2010 (ACA) as amended by the Health Care and Education Reconciliation Act of 2010 (HCERA), which made significant substantive changes to the ACA. Although the term *Obamacare* was originally created by opponents to the 2010 Health Care Legislation, President Obama has embraced the term, and therefore, it is used here to describe that legislation. In addition to discussing the basic structure of this law, this chapter discusses the Supreme Court's rulings on the constitutionality of the law and the positions of Secretary Clinton and Mr. Trump on the law. I also give my take on the law.

As will be seen below, Secretary Clinton has many healthcare proposals, but this chapter focuses principally on *Obamacare* and the principal issues around it.

B. Is Obamacare constitutional?

Upon enactment of *Obamacare*, several states and others challenged the constitutionality of the law in several courts around the country. Two of the cases ended up in the U.S. Supreme Court, which upheld the law in both instances. In its 2012 decision in *National Federation of Independent Business v. Sebelius*,[405] the Supreme Court upheld the constitutionality of the individual mandate, and in its 2015 decision in *King v. Burwell*,[406] the Supreme Court upheld the provisions of the law that provide federal tax subsidies to individuals who purchase their insurance on the federal health care exchange. Thus, the credit is available for insurance purchased on both the federal health care exchange and state-run exchanges. *King* could be the last big legal challenge to this legislation.

C. What is the purpose of Obamacare?

The principal purposes of *Obamacare* are to (1) reduce the number of Americans that do not have healthcare insurance, and (2) strengthen the quality of such insurance.

D. As of November 2016, what has been the record of Obamacare in reducing the number of uninsured?

In explaining that "U.S. uninsured rate is at an all-time low," an October 2016 article in the Wall Street Journal said:

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[405] 132 S.C. 2566 (2012).
[406] 576 U.S. ____ (2015).

To be specific: The uninsured rate for non-elderly Americans has fallen from about 16.6% in 2013 to 10% in the first quarter of 2016, and 8.6% taking into account seniors who have near universal coverage.[407]

E. How do Americans get their healthcare insurance?

A chart on the White House website gives the following picture of the current state of "Where Insured Americans Get Covered and How the Affordable Care Act Impacts Them:"

Summary: For the first time ever, more than 90 percent of Americans have health insurance. . . .

Here's where insured Americans get covered and how the Affordable Care Act impacts them:

- Employer coverage: 57%
- Medicare: 15%
- Medicaid & CHIP: 22%
- Individual Market (incl. Marketplace), not eligible for tax credits: 2%
- Individual Market (incl. Marketplace), potentially eligible for tax credits: 4%

57% Employer Coverage. People who are covered at work have seen sharply lower premium growth from 2010 to 2016 compared to the decade before the ACA, which saved people with family coverage an average of $3,600 in 2016. They are also now guaranteed better coverage, including access to preventive services without cost sharing, no lifetime limits on coverage, and a hard cap on annual out-of-pocket spending.

15% Medicare. The prescription drug donut hole is closing, saving seniors thousands of dollars. The lifespan of the Medicare Trust Fund has been extended by 11 years since the ACA passed, and quality of care has improved.

22% Medicaid and CHIP. Millions more low- and moderate-income kids and adults can access quality coverage today, thanks to policies implemented under this Administration.

4% Individual Market (Including Marketplace), potentially eligible for tax credits. About two-thirds of those who purchase coverage on their own - including 85 percent of people who purchased coverage through the Health Insurance Marketplace - are potentially eligible for tax credits that ensure coverage remains affordable. In fact, 72 percent of current HealthCare.gov consumers can get coverage for $75 or less after tax credits in 2017.

2% Individual Market (including Marketplace), ineligible for tax credits. Families that make over 400 percent of the Federal Poverty Level ($97,000 for a family of four) are not eligible for tax credits but are guaranteed the right to find a comprehensive health plan that meets their needs, even with a

[407] Drew Altman, *The Affordable Care Act's Little-Noticed Success: Cutting the Uninsured Rate* (Wall Street Journal, Oct. 12, 2016).

pre-existing condition. Congress could extend financial assistance to these families to make coverage even more affordable.[408]

F. What are the five P's of the health care industry and how does Obamacare apply to each of them?

In approaching issues involving healthcare, it is helpful to think in terms of the following "Five P's" of the healthcare industry:

(1) Patients;
(2) Providers, such as doctors and hospitals;
(3) Pharma;
(4) Producers, including medical device manufacturers; and
(5) Payors, such as insurance companies and Medicare.[409]

As discussed later, *Obamacare* applies to each of the Five P's of the healthcare industry. The discussion focuses only on the main aspects of *Obamacare*.

G. How does Obamacare apply, in general, to the first P, Patients, including employees and their employers: the carrots and the sticks?

One of the major purposes of *Obamacare* is to decrease the number of people in the U.S. who do not have health insurance. In seeking to accomplish this goal, *Obamacare* takes a "carrot" and "stick" approach to both individuals (patients) and employers in seeking to reduce the number of uninsured individuals.

1. What is the Patient "stick" and "carrot" in Obamacare?

As of 2014 individuals that do not have insurance through their Employment or Medicare must either (1) purchase a minimum essential health insurance policy for themselves and their dependents, or (2) make a "shared responsibility payment." This is referred to as the individual mandate: buy insurance, or pay a penalty. An exemption applies, *inter alia*, to individuals who cannot afford coverage.

a) How is the Patient "stick," i.e., the "Individual Mandate," structured?

In its 2016 *Premiums and Policy* publication, the CBO describes as follows the individual mandate and the effect of its potential repeal:

> **The Individual Mandate.** Since 2014, an individual mandate has required most people to obtain health insurance. It is closely related to two other ACA regulations (discussed below), which require insurers to offer coverage to all applicants and prohibit insurers from charging higher premiums to people with health problems. On their own, those other two regulations make it easier for people to wait until they develop health problems to sign up for coverage; the individual mandate discourages such delays.

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[408] *Where Insured Americans Get Covered and How the Affordable Care Act Impacts Them*, White House website (Oct. 27, 2016).

[409] The discussion here of the impact of Obamacare on the Five P's of the healthcare industry are based in part on discussions at several places in Chapter 27, which deals with Healthcare M&A, of Thompson, *Mergers, Acquisitions, and Tender Offers*, *infra* Bibliography.

People who do not comply with the individual mandate (and do not obtain an exemption) must pay a penalty. The penalty equals the greater of two amounts, each of which is subject to a cap: a fixed dollar amount assessed for each uninsured person in a household; and a share of the difference between the household's adjusted gross income and its income threshold for tax filing. The fixed dollar amount per uninsured adult rises from $95 in 2014 to $695 in 2016 and will rise at the rate of general inflation thereafter; the penalty per child is half as large; and a household's total penalty may be no larger than three times the penalty per adult. The income-based penalty rises from 1 percent in 2014 to 2.5 percent in 2016 and later, but it may be no larger than the national average premium for a bronze plan sold in the exchanges. For people who are uninsured for only part of the year, the penalty is reduced.

Although most legal residents are subject to the individual mandate, a number of exemptions apply. For example, people who would have to pay more than a certain share of their income to acquire health insurance do not face a penalty; that share was 8.05 percent in 2015. People with income below the tax-filing threshold are also exempt. CBO and JCT expect that a substantial majority of the people who remain uninsured will receive an exemption. All told, the agencies expect that, on average, about 4 million people will pay the penalty during any given month in 2017 (including dependents who have the penalty paid on their behalf). Because some people will be insured in some months and uninsured in others, the total number of people who pay a penalty during that year will be greater.

Notwithstanding the exemptions, the mandate significantly reduces average premiums, CBO and JCT estimate. It does so by encouraging healthier people to obtain insurance, which lowers average spending on health care among the insured population. Although the penalty may be smaller than the premium that a person would have to pay for coverage, it nevertheless increases the cost of remaining uninsured and thus means that more people will gain financially by obtaining coverage. That financial analysis takes into account the benefits of having insurance—including a reduced risk of facing large medical bills—and the fact that people who pay the penalty receive no benefits in return. CBO also expects that some people will obtain coverage not for financial reasons but simply because the mandate exists. That expectation is based on an analysis of people's responses to other mandates and their tendency to comply with laws even when the expected costs of noncompliance are low.

A recent CBO estimate of the effects of repealing the individual mandate illustrates its impact on premiums. Specifically, CBO estimated in 2015 that repealing that mandate while maintaining all other provisions of current law would increase average premiums in the nongroup market by roughly 20 percent.[410]

b) How is the Patient "carrot," i.e., the "Premium Tax Credit," structured?

As a "carrot" for individuals, beginning in 2014, certain individuals, with incomes below 400% of the Federal poverty line, who purchase qualified health plans through state exchanges are entitled to a refundable income tax credit equal to the "premium assistance credit amount," which ranges from 2% to 9.5% of household income.

In its 2016 *Premiums and Policy* publication, the CBO describes as follows the Premium Tax Credits that are available to individuals who buy insurance pursuant to the mandate:

[410] CBO, *Premiums and Policy*, infra Bibliography at 18-19

Premium Tax Credits. Before 2014, few subsidies were available for nongroup coverage. Now, however, some people who buy nongroup coverage in health insurance exchanges qualify for tax credits that cover at least part of their premium. To qualify, they must meet four conditions: They must be U.S. citizens or otherwise lawfully present in the country; they must not be eligible for Medicare, Medicaid, or certain other sources of coverage; they must not have an offer of coverage from their employer or from a familymember's employer that is considered affordable under federal law; and their income must generally be between 100 percent and 400 percent of the federal poverty guidelines (also known as the federal poverty level, or FPL). The tax credit is refundable; that is, its value may exceed the income tax liability of the recipient. . . .

The tax credit equals the difference between the premium for a person's reference plan and a specified share of that person's income (see Table 2). For example, in 2015, the share of income for a person whose income equaled 150 percent of the FPL was set at 4.02 percent; the credit therefore equaled the difference between that amount and the reference plan's premium. The specified percentages increase with income. For example, people with an income equaling 200 percent of the FPL paid 6.34 percent of their income for the reference plan in 2015, and people with an income between 300 percent and 400 percent of the FPL paid 9.56 percent. Those percentages of income are indexed to rise over time.

Lower-income families thus receive a larger tax credit than middle-income families do, but the value of the credit generally does not depend on which plan any given family chooses. People receiving the credit can buy a more expensive plan and pay the additional premium, or they can buy a less expensive one and reduce their premium.
(They may not receive a rebate if the premium is less than the amount of the credit, however.) Unlike the tax exclusion for employment-based premiums, therefore, the tax credits are not structured in a way that encourages people to buy more extensive coverage, and consequently they do not put the same kind of upward pressure on nongroup premiums.

In other respects, however, the tax credits and the tax exclusion have similar effects. Like the exclusion, the credits encourage people with lower expected costs for health care—who may not value insurance as highly as people with higher expected costs do—to buy insurance. That helps keep premiums down. (It also helps offset the effects on premiums of new regulations, described below, that have made it easier for people with higher expected costs to purchase nongroup coverage.) At the same time, the tax credits effectively increase recipients' net income, just as the exclusion does—putting slight upward pressure on premiums, because recipients are likely to spend some of that increase on more extensive health insurance.

CBO and JCT estimate that in fiscal year 2016, the tax credits will cost the federal government about $37 billion. The cost will grow in later years because of projected increases in premiums for exchange plans, even though the number of subsidized enrollees is projected to decline slightly. From fiscal years 2016 through 2025, the credits are projected to cost $691 billion.[411]

[411] *Id*. at 14-16.

2. What is the employer "stick" and "carrot" in Obamacare?

Obamacare also takes a carrot and stick approach to employer provided health care. As a carrot, *Obamacare* provides a tax credit for certain small employers for payments made to purchase health insurance for their employees. Beginning in 2014, the credit is available only for health insurance offered through an "Exchange," which each state is to organize.

As a stick, certain large employers are required to make a "shared responsibility" payment if the employer does not provide health insurance for its employees.

As another stick, beginning in 2018, a 40% excise tax will apply to employers to the extent the aggregate value of health care coverage provided by the employer exceeds a certain amount. This is sometime referred to as the "Cadillac tax" on rich health plans.

H. How does Obamacare apply, in general, to the second P, Providers, including to doctors and hospitals?

Among other things, *Obamacare* provides, subject to certain exceptions, that physician ownership of hospitals cannot increase after the date of enactment. The purpose of this provision is to reduce the potential for referrals by a doctor of its patients to a hospital controlled by the doctor.

I. How does Obamacare apply, in general, to the third P, Pharma?

Among other things, *Obamacare* imposes an annual fee, which is treated as an excise tax, on the sales to, or for the benefit of, certain government programs by manufacturers and importers of "branded prescription drugs." The aggregate fee, which is $2.5 billion for 2011, is apportioned among such manufacturers and importers each year based on each entity's relative share of the sales of such branded prescription drug during the previous calendar year.

J. How does Obamacare apply, in general, to the fourth P, Producers, such as medical device manufacturers?

Obamacare imposes a tax equal to 2.3 percent of the sale price on the sale of certain medical devices by the manufacturer, producer, or importer of such devices. An exemption from the tax applies to eyeglasses, contact lenses, hearing aids, and any other medical device specified in regulations that are generally purchased at retail for individual use.

K. How does Obamacare apply, in general, to the fifth P, Payors, such as insurance companies?

Obamacare made significant changes to the Federal regulation of health insurance. *Obamacare* imposes, *inter alia*, the following requirements on health insurers:

(1) prohibits both life time and annual limits on benefits;
(2) prohibits rescissions, except in the case of fraud;
(3) requires the provision of certain preventive health services;

(4) extends coverage for dependent children up to the age of 26;

(5) prohibits discrimination in favor of the highly compensated;

(6) requires that an uninsured individual with a preexisting condition be granted immediate access to insurance; and

(7) sets out rules governing health insurance competition through state established Health Benefit Exchanges.

L. What is the Health Insurance Marketplace?

The website of the Department of Health and Human Services (HHS) describes as follows the Health Care Marketplace:

> WHAT IS THE HEALTH INSURANCE MARKET PLACE. The Health Insurance Marketplace is a resource where individuals, families, and small businesses can compare health insurance plans for coverage and affordability; get answers to questions about your health care insurance; find out if you are eligible for tax credits for private insurance or health programs like Medicaid or the Children's Health Insurance Program (CHIP); enroll in a health insurance plan that meets your needs.

M. How does the Health Insurance Marketplace operate?

The website of the for the, gives the following basic guidance to the Health Insurance Marketplace, which is sometimes referred to as the health insurance "exchange" or "Obamacare exchange").

> **1. The Marketplace is for people without health coverage.** If you don't have health insurance through a job, Medicare, Medicaid, the Children's Health Insurance Program (CHIP), or another source of qualifying coverage, the Marketplace can help you get covered.
>
> If you have job-based insurance: You can buy a Marketplace plan, but you'll pay full price unless your job-based insurance doesn't meet certain standards. Most job-based plans do.
>
> If you have Medicare: You can't switch to Marketplace insurance, use a Marketplace plan as a supplement, or buy a Marketplace dental plan. . . .
>
> **2. 2017 Open Enrollment runs from November 1, 2016 through January 31, 2017**
>
> **3. What you pay for insurance depends on your income — and you'll probably save.** Your savings depend on your expected household income for the year. Over 8 in 10 people who apply are eligible to save, and most can find plans for between $50 and $100 per month (after accounting for their premium tax credit). . . . [Insurance plans are classified in four levels: bronze, silver, gold and platinum, which is determined by the amount of coverage.] . . .
>
> You may qualify for a premium tax credit that lowers your monthly insurance bill, and for extra savings on out-of-pocket costs like deductibles and copayments.
>
> The plans are offered by private insurance companies with a range of prices and features.
>
> You can add dental, but you don't have to. You can't buy a dental plan unless you enroll in a health plan.

Medicaid and the Children's Health Insurance Program (CHIP)
Medicaid and CHIP provide free or low-cost coverage to millions of people and families with limited income, disabilities, and some other situations.

Many states are expanding Medicaid to cover all households below certain incomes. . . .

Your children may qualify for CHIP even if you don't qualify for Medicaid.

4. You can apply for coverage 4 ways:

- Online
- By phone
- With in-person help
- With a paper application

5. If you don't have health insurance, you may have to pay a fee. Most people must have qualifying health coverage or pay a penalty.

For 2016, the penalty is either 2.5% of your income, or $695 per adult ($347.50 per child) — whichever is higher. The fee rises with inflation. Final 2017 fees will be published soon.

Some people qualify for an exemption from the health insurance requirement[.]

N. What percent of the population was covered by health care prior to the enactment of Obamacare and what percentage will be covered once Obamacare is fully implemented?

In March 2011, the CBO provided the following analysis of the percentage of (1) the population covered by health care presently, and (2) the percentage that will be covered in 2021 under the alternative assumptions that *Obamacare* is and is not in place:

> CBO and JCT estimate that PPACA and the Reconciliation Act will increase the number of nonelderly Americans with health insurance by about 32 million in 2016 and about 34 million in 2021. About 95 percent of legal nonelderly residents will have insurance coverage in 2021, compared with a projected share of about 82 percent in the absence of that legislation (and an estimated 83 percent currently).[412]

O. What does the Department of Health and Human Services (HHS) say are the benefits of Obamacare?

The website of the Department of Health and Human Services says that the following are the principal benefits of Obamacare:

> For the last 50 years, Americans have struggled to navigate a health care system that has failed to put patients first. Millions who were uninsured struggled to pay for even a doctor's visit, while those who had insurance risked losing it when they needed it most. Quality care, especially preventive screenings and checkups that keep people healthy, was a luxury for many. And doctors were

[412] CBO, *2011 Analysis of Obamacare*, *infra* Bibliography.

encouraged to focus on the amount of care they delivered, rather than effectively treating patients' big-picture health.

Strong Enrollment in the Health Insurance Marketplace. On March 31, 2015 about 10.2 million Americans had paid their premiums and had active coverage through the Health Insurance Marketplace.

Historic Reduction in the Uninsured. We have seen the largest reduction in the uninsured in four decades. Since the passage of the Affordable Care Act five years ago, about 16.4 million uninsured people have gained health coverage. Those gains come primarily from [1] the Marketplace, [2] young adults who can stay on their parents' plans until they turn 26, and [3] Medicaid expansions.

Progress in Fighting Health Inequity. Since 2013, the uninsured rate has declined 9.2 percentage points for African Americans, resulting in 2.3 million adults gaining coverage and 12.3 percentage points for Latinos, resulting in 4.2 million adults gaining coverage. Since 2013, the uninsured rate among women declined 7.7 percentage points, resulting in 7.7 million women gaining coverage. An estimated 55 million women are also benefiting from preventive services coverage with no out-of-pocket costs. And health insurers can no longer discriminate based on gender, so being a woman is no longer a preexisting condition.

Medicaid Expansion. Over 12.3 million additional individuals are enrolled in Medicaid and CHIP as of April 2015, compared to before October 2013. To date, 28 states plus DC have expanded Medicaid under the Affordable Care Act. This is one of the areas where we know more can be done. We want to work with all the states that have yet to expand — to get as many people covered as possible.

Reducing Uncompensated Care in Hospitals. As a result of Marketplace coverage and Medicaid expansion, hospital uncompensated care costs were reduced by an estimated $7.4 billion in 2014, compared to what they would have been in the absence of the coverage expansion. Medicaid expansion states account for $5 billion, or 68 percent, of that reduction. If all States fully expanded Medicaid, uncompensated care costs would be about $8.9 billion lower in 2016 than they would be if no additional states expanded Medicaid. . . .

Choice, Competition and Premiums. Insurers have decided that the Marketplace is a good place to do business and as a result, consumers have more choices. Twenty-five percent more issuers joined the Marketplace for the 2015 Open Enrollment, and consumers could choose from an average of 40 health plans, up from 30 in 2014 - PDF. Studies show more issuers are associated with more affordable premiums.

Health Care Cost Growth Has Slowed Sharply. Since the Affordable Care Act became law, the price of health care has risen at the slowest rate in 50 years. Medicare has paid out nearly $316 billion less through 2013 than it would have had previous trends continued. The average premium for employer-based family coverage rose just 3 percent in nominal terms in 2014. Just more than a decade ago, surveys by the Kaiser Family Foundation frequently registered double-digit premium increases for this type of coverage.

Quality. Improved Patient Safety. Since 2011, patient harms like hospital-acquired conditions, pressure ulcers, central line associated infections, falls and traumas have fallen by 17 percent, saving an estimated 50,000 lives and $12 billion dollars.

Fewer Avoidable Hospital Readmissions. The Medicare all-cause 30-day readmission rate fell to approximately 17.5 percent in 2013, translating to an estimated 150,000 fewer hospital readmissions among Medicare beneficiaries between January 2012 and December 2013.

Alternative Care Models are Driving Value. Accountable Care Organizations (ACOs) are groups of providers and insurers who work together to put patients in the center of their care and create better health outcomes. Today, more than one in every 14 Americans gets their health care from one of more than 700 ACOs established by Medicare and other payers. ACOs have generated a combined $417 million in savings for Medicare. In addition, the Pioneer ACO model has been certified as the first patient care model to meet the stringent criteria for expansion to a larger population of Medicare beneficiaries.

Higher Quality Coverage. After years of dropped coverage, flimsy plans and barriers to care, everyone's coverage has improved because consumers have new protections, including those who get health insurance through their employers. They can't be turned away because of pre-existing conditions; they can't be dropped just because they get sick and insurance has to cover care that Americans count on like trips to the emergency room, prescriptions and preventive services.

The HHS website also discusses as follows the affordability of Health Care Coverage, which is one of the principal complaints about Obamacare, particularly in view of the significant premium increases announced in October 2016:

Affordability. Health Care Coverage is now Affordable for Millions of Americans. Of the about 10.2 million consumers who had paid their premium and had active Marketplace coverage on March 31, 2015, nearly 8.7 million (85 percent) nationwide and 6.4 million in the 34 states with Federally-facilitated Marketplaces received an average premium tax credit of $272 per month. And in 2015, nearly 80 percent of Marketplace shoppers using HealthCare.gov could purchase coverage for $100 or less after tax credits. A recent Commonwealth Fund study found that in 2014, fewer Americans had problems paying medical bills or medical debt, and fewer went without care because they couldn't afford it. This is the first decline and lowest level in these areas since 2005.

P. What does HHS Say are the "Myths" involving Obamacare?

The HHS website discusses as follows certain "myths" consumers might have concerning Obamacare:

Myth #1: Health coverage on the Marketplace is unaffordable. On the surface, headline rate changes can look spooky – but they don't actually reflect what the vast majority of people will pay.

If you dig deeper, most consumers shopping on the Marketplace will be able to find a plan between $50 and $100 per month, thanks to financial assistance.

Myth #2: Consumers don't have choices on the Marketplace. In fact, people shopping for coverage on the Marketplace will have more choices than many people who get coverage through their employers. The average Marketplace consumer will be able to choose from 30 different plans.

It's important to distinguish between issuers and the plans they offer. On average, each issuer this year will offer around 10 plans. These are plans with different options for premiums, out-of-pocket costs, networks of hospitals and physicians, and prescription drugs.

Myth #3: It's hard to shop for health coverage on the Marketplace. There are problems with the website and there's no help available. We've come a long, long way since we launched HealthCare.gov. This year, we've made it even easier for you to find and enroll in a plan that works for you and your family.

HealthCare.gov has tools to help people easily compare plans based on their doctor, the medications they need covered, and the out-of-pocket costs they'd pay.

This year, we'll also be phasing in changes that make it smoother and more intuitive to shop on a phone or tablet. That means no more clicking on tiny boxes or hard-to-read screens.

And people can get help on the phone or in person. The Marketplace Call Center (1-800-318-2596) is open 24 hours a day, 7 days a week, in more than 150 languages. You can also find in-person assistance right in your community by visiting:

Myth #4: I bought coverage on the Marketplace last year, so I don't need to do anything during Open Enrollment.

Let's face it – a lot can change year to year. A year ago, for example, I definitely didn't have this mustache.

Every new Open Enrollment gives you a chance to see if you can find a better plan – or a lower monthly premium. Many people will qualify for tax credits this year, sometimes even if they didn't during the last Open Enrollment, especially if they live in places where headline premiums are going up.

This year, returning customers to HealthCare.gov can save an average of $682 in annual premiums by shopping on the Marketplace.

Myth #5: It's fine to be uninsured. When you're young, you may think you're invincible. But we busted that myth a long time ago. Life isn't always predictable, accidents happen and we all get sick.

Health coverage keeps you protected – both in your health and your wallet. Many young people may not realize that more than 9 in 10 Marketplace-eligible young adults without health insurance have incomes that could qualify you for tax credits that make coverage more affordable than you think. You can even get preventive services at no out-of-pocket cost so you can stay healthy – services like diet counseling to wean you off that addiction to Halloween candy.

There's one thing that's predictable, though. If you stay uninsured, you could face a tax penalty come April. Avoid the sticker shock today and get covered.

Q. What are the Obamacare premium rate hikes that were announced by Health and Human Services in late October 2016, just days before the election?

1. How has the Wall Street Journal described this problem?

Just days before the November 8, 2016 election, the Insurance Marketplace announced that there would be significant increases in the premiums on the average Marketplace insurance plan. An article in the Wall Street Journal gives the following picture of this development:

> This year is especially critical because consumers so far have been sicker and older than expected, which has led to higher-than-anticipated costs.
>
> In response major insurers such as Aetna Inc. and UnitedHealth Group Inc. have pulled back from their sales of coverage under the law, leaving about 30% of counties with only one participating insurer. The Obama administration said last week premiums would increase by an average of 25% across the roughly three dozen states that use HealthCare.gov; in many states the market leader is raising rates by a far greater average.
>
> Increased enrollment from younger, healthier people would create a chance for insurers to regain their footing; without it, they will likely reach a point of no return in which they continue to raise rates and further deter all but the neediest of customers.[413]

2. How has the New York Times described this problem?

An article in the New York Times makes the following points regarding this increase in premiums:

> [T]he Obama administration said three-fourths of consumers would still be able to find plans for less than $100 a month with the help of federal subsidies. . . .
>
> The average increase of 25 percent in benchmark premiums on the federal exchange compares with increases of 2 percent in 2015 and 7 percent this year. Major insurers have pulled out of the public marketplace in many states, citing multimillion-dollar losses, and state officials have approved rate increases of 25 to 50 percent or more for some insurers that remain.
>
> One in five consumers on the federal health insurance website HealthCare.gov will find only one insurer with offerings next year, the administration said. . . .
>
> The administration minimized the marketplace's troubles. Officials said people could lower their costs by seeking income-based subsidies in the form of

[413] Stephanie Armour and Louise Radnofsky, *Health Law Enrollment Opens Amid Volatility*, (Wall Street Journal (Nov 1, 2016).

> tax credits and by switching to less expensive plans. While some markets will have few choices, consumers nationwide will see an average of 10 plans per insurer. Plans vary in cost and cover different doctors, hospitals and drugs.
>
> The Obama administration said last week that it expected monthly enrollment in the Affordable Care Act marketplace to average 11.4 million next year, up from a monthly average of 10.5 million this year. But five million to seven million people who buy insurance on their own do not receive federal subsidies.[414]

The article discusses the impact of the premium tax credit and gives several examples of the cost of the insurance after taking into account the premium tax credit, including:

> "The number of people eligible for tax credits will increase" as premiums rise next year, and the amount of assistance will also increase, Kevin Griffis, a spokesman for the Department of Health and Human Services, said. . . .
>
> In Raleigh, N.C., 18 plans are available for 2017 from two insurers, but the premiums could be a substantial expense for some consumers. For a 53-year-old man with income of $53,000 a year, the cheapest midlevel silver plan will cost $714 a month, or $8,568 a year, according to the federal website, and no subsidy would be available.
>
> But a man of the same age with income of $25,000 a year could get a subsidy of $639 a month, reducing his premium to $75 a month, or $900 a year.[415]

3. What is the New York Time's "A Quick Guide to Rising Obamacare Rates"

An October 25, 2016 article in the New York Times sets out *A Quick Guide to Rising Obamacare Rates*.[416] The article makes the following points:

> **Obamacare rates are going way up**. The latest estimate from the federal government is that the average midlevel Obamacare plan, the most popular choice, will cost about 22 percent more in 2017 than it did in 2016. This is based on data from 39 states where people sign up through the HealthCare.gov website and some preliminary data from four other states and the District of Columbia.
>
> **There is big variation nationwide**. Customers in Phoenix are looking at a premium increase of 145 percent, while customers in Providence, R.I., are looking at a 14 percent decrease, according to a Kaiser Family Foundation analysis. . . .
>
> Many insurers also mispriced their plans in the early years of the law and have either left the market or have had to raise their prices sharply to cover the cost of providing coverage. . . .
>
> The 2017 premiums are actually a pretty good match for what the Congressional Budget Office forecast back before the Affordable Care Act passed

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[414] Robert Pear, *Some Health Plan Costs to Increase by an Average of 25 Percent, U.S. Says,* (New York Times (Oct 24, 2016).

[415] *Id*.

[416] Reed Abelson and Margot Sanger-Katz, *A Quick Guide to Rising Obamacare Rates*, New York Times (Oct. 25, 2016), at http://www.nytimes.com/2016/10/26/upshot/rising-obamacare-rates-what-you-need-to-know.html?_r=0.

in 2009. The big question now is whether this is a one-time jump in the rates — or the start of ugly increases from now on.

These increases really matter only for those who buy their own insurance. Most people are unaffected by the rate increases because they get their insurance through an employer or are covered through government programs like Medicare, Medicaid or the Department of Veterans Affairs.

Only a small fraction of Americans who have insurance buy individual policies. There are about 10 million people in the Obamacare markets and around an additional seven million who buy health plans outside the marketplace, according to Obama administration estimates. The published rate increases apply only to people who shop in the markets, but premiums are expected to go up sharply for the other plans as well.

If you get a subsidy, and you're willing to switch plans, you won't have to pay these big increases. More than 80 percent of Obamacare customers get subsidies that help them pay the cost of their premiums. Those people do not pay the full cost of insurance out of their pockets, and they will not feel the full brunt of these increases, as long as there is a less expensive plan available in their market and they are willing to switch.

People who don't get subsidies will be the ones hardest hit by the increases.

Customers may have to switch plans to save money, and switching health plans can be a big deal. . . .

Despite the burdens for these people, annual switching is a feature, not a bug, of Obamacare. The law relies on market competition to keep premiums as low as possible. If customers aren't willing to change into the cheapest plans, the insurance companies won't have any incentive to compete on price.

If you get insurance through work, you don't have to worry too much about this news. The health law is much bigger than just the Obamacare exchanges, and many of the new rules offer protections against having coverage that is too skimpy. Your health plan must cover basic services, like drugs and hospitalization; basic preventive services provided by your doctor, like a checkup, a flu shot or a mammogram, can be free.

But while you may feel as if you're paying more for your medical care, premiums for employer-based insurance have been increasing at historically low rates. Premiums for the average single person in the employer market are the same this year as they were in 2015, according to a large survey of employers from the Kaiser Family Foundation; prices for most family plans are rising by 3 percent.

What has probably changed is the size of your deductible, which has been going up steadily. Employers have been shifting costs to their workers, a trend that began long before Obamacare went into effect.

Of course, federal tax dollars pay for the subsidies for low-income people who buy insurance in Obamacare markets — about $32 billion this year, according to the Congressional Budget Office. If premiums go up by more than 20 percent every year, that will put pressure on the federal budget. . . .

> Even if you don't want to shop, you may have to. Several large insurance carriers, like UnitedHealth Group and Aetna, have decided to exit many of the places where they had been offering policies.
>
> Some markets are not functioning well. Because what is happening varies around the country, it's hard to generalize about whether Obamacare is "working" everywhere. But the combination of insurer exits and sharp price increases is a sign that the markets are in trouble in at least a few parts of the country. There are many places where customers have only one insurer offering plans and where prices have risen sharply. That's a bad sign for a system built around choice and market competition.
>
> Fixing what ails the markets is complicated. There are a number of policy proposals out there to help stabilize the Obamacare marketplaces. But experts have not coalesced around one simple fix that by itself can solve the problems. Some of the suggested changes involve complex regulatory changes, but most are legislative. The ideas include increasing penalties for remaining uninsured so that more healthy people will join the insurance pool, and extending safety-net payments for insurers who end up with very sick, very expensive patients.

4. What is the position of the New York Time's Editorial Board on the solution to the "increase-in-premium" problem?

The Editorial Board of the New York Times is of the view that the premium rate increase is a fixable problem. The Editorial first points out that Obamacare has "improved and expanded" medical care coverage and that "the sharp increase in premiums for plans sold under the program shows some of the problems that the next president and Congress need to fix."[417] On the positive side, the Editorial points out that notwithstanding the 25% average increase, the Premium Tax Credit will shelter most people from the increased prices. On this point the Editorial explains:

> [M]ost Americans will be largely insulated from price increases by federal subsidies. About 85 percent of the 10.5 million people who bought insurance through the online health exchanges this year received subsidies; that proportion is likely to increase in 2017 as premiums rise.[418]

The Editorial gives the following explanation of (1) the reasons for the premium increases, and (2) the reasons some states have experienced much smaller premium increases:

> Premiums are going up because [1] many insurers underpriced plans when they started selling policies in 2013; [2] not enough healthy, younger people signed up; and [3] those who did used more medical care than the insurers had anticipated. As a result, companies like UnitedHealth and Aetna have stopped selling health plans in many parts of the country and the providers that remain have raised prices. Premiums have gone up most in states like Alabama, Arizona, Oklahoma and Tennessee that have three or fewer insurers selling Affordable Care Act plans.

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[417] New York Times, *Obamacare Premium Increase is Fixable*, *infra* Bibliography.
[418] *Id*.

> Premiums are rising much more modestly in states where there is more robust competition among insurers. For example, the average cost of the second-lowest "Silver" level plan, the benchmark used by federal officials to analyze the market, will increase by 7 percent in California, 5 percent in New Jersey and 2 percent in Ohio.[419]

Notwithstanding the premium increases, the Editorial discusses as follows the benefits Obamacare has brought to healthcare:

> Even with the big premium increases, health experts say that plans on the exchanges generally cost less and provide access to more medical care than the plans that they replaced. All told, the law has helped 20 million people gain coverage, including those who became eligible for Medicaid and young adults allowed to stay on their parents' policies, pushing the portion of the population without insurance to less than 10 percent for the first time in history. (About 150 million people are insured through employer plans.)[420]

And, the Editorial sets out the following suggestions for improving Obamacare:

> [T]he federal and state governments ought to make every effort to increase enrollment to spread the insurance risk over a larger population. For instance, of the 27.2 million people who still do not have health insurance, about 5.3 million are eligible for federal tax subsidies and may not realize it, according to a recent report by the Kaiser Family Foundation. People without health insurance will have a tax penalty of about $700 a year in 2017, up from about $400 in 2016. One way to lift enrollment would be to increase the penalty.
>
> Congress and the next president could further strengthen the health care law by offering subsidies to middle-income families who currently receive little or no help. Lawmakers should also consider applying to the health care exchanges the kind of reinsurance program Congress has used to encourage insurers to participate in Medicare's Part D prescription drug benefit program.[421]

5. What is the relationship between the premium rate increases and the Premium Tax Credit?

The Non Profit Quarterly has pointed out as follows that notwithstanding the calls to repeal and replace Obamacare, the Premium Tax Credit will protect most people from the premium increases:

> [E]ven with the premium spikes, the majority of marketplace consumers were eligible for subsidies that would ensure their plans were affordable.
>
> Understanding how health insurance works under the ACA also seems to be playing a role in stoking anxiety around the rate increases. Mother Jones shared tweets from a health care advocate in New Mexico who had been fielding calls from panicked health insurance customers on the day the increases were

[419] *Id*.
[420] *Id*.
[421] *Id*.

announced. Colin Baillio tweeted, "Every person I talked to was shielded by subsidies or on [an] employer plan," adding the hashtag #headlinesmatter.[422]

R. What is House Speaker Paul Ryan's reaction to the increase in premiums?

On November 1, 2016, Speaker Paul Ryan, a strong opponent of Obamacare, put out the following statement on the increase in premiums:

> "For far too many Americans, Obamacare open enrollment means it's open season on their wallets. These eye-popping premium hikes are just more evidence that Obamacare is not working. Here's a better way: repeal this broken law and implement real, patient-centered solutions so that you can pick the plan the meets your needs—not Washington's mandates."

The House Republicans have put out a series of policy proposals under the general heading "A Better Way." The following is the summary of their A Better Way for Health Care:

> In a nation of 323 million people, it makes no sense for one federal bureaucracy to dictate Americans' health insurance plans. But that's exactly what Obamacare does, and it is not working.
>
> Our plan gives you more control so you can choose the plan that best meets your needs—not Washington's mandates. We will:
>
> - Make it easier to take insurance from job to job.
> - Expand health saving accounts.
> - Give small businesses more leverage to negotiate better rates, and
> - Allow health insurance to be sold across state lines. You can do it for your car, why can't you do it for your care too?
>
> All of this will help lower premiums. And instead of Washington at the center of your health care, it will be you and your doctor.

Speaker Ryan would likely support virtually all of the proposals of Mr. Trump that are discussed below.

S. What is behind President Bill Clinton's statement that a part of Obamacare is "crazy?"

As explained in the following report by CNN, in October 2016, at a campaign event for his wife, former President Bill Clinton criticized *Obamacare*:

> Bill Clinton criticized [Obamacare calling it]. . . "the craziest thing in the world." . . .
>
> Speaking at a Democratic rally in Flint, Michigan, the former president ripped into the Affordable Care Act (ACA) for flooding the health care insurance market and causing premiums to rise for middle-class Americans who do not qualify for subsidies.

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[422] Melinda Crosby, *Headlines Matter: While Obamacare Rates Increase, So Do Its Subsidies*, Non Profit Quarterly, NPQ (Oct 27, 2016) at https://nonprofitquarterly.org/2016/10/27/headlines-matter-obamacare-rates-increase-subsidies/?gclid=CKn7srqAhtACFQNAhgodqdIHFg.

"So you've got this crazy system where all of a sudden 25 million more people have health care and then the people who are out there busting it, sometimes 60 hours a week, wind up with their premiums doubled and their coverage cut in half. It's the craziest thing in the world," Clinton said.

On Tuesday, he tried to clean up his criticism. "Look, the Affordable Health Care Act did a world of good, and the 50-something efforts to repeal it that the Republicans have staged were a terrible mistake," Clinton said at a rally in Athens, Ohio. "We, for the first time in our history, at least are providing insurance to more than 90% of our people."

"But there is a group of people -- mostly small business owners and employees -- who make just a little too much money to qualify for Medicaid expansion or for the tax incentives who can't get affordable health insurance premiums in a lot of places. And the reason is they're not in big pools," Clinton said. "So they have no bargaining power."[423]

The group of people who make "just a little too much money to qualify for . . . tax incentives" are referred to below in the examination of President Obama's views on Obamacare as the *Non-Tax Credit Protected Portion of the Marketplace Potential Users*.

T. What are President Obama's General Views on Obamacare and the increase in premiums?

In October 20, 2016 speech in Miami,[424] President Obama set out a detailed explanation of (1) the manner in which Obamacare operates, (2) the problems it faces, and (3) the improvements Congress and the next President need to make to it. The sub-questions to this question breaks the President's speech into it essential elements.

1. Mr. President, who does Obamacare cover?

[B]ecause of Obamacare, another 20 million Americans now know the financial security of health insurance. So do another 3 million children, thanks in large part to the Affordable Care Act and the improvements, the enhancements that we made to the Children's Health Insurance Program. And the net result is that never in American history has the uninsured rate been lower than it is today. Never. (Applause.) And that's true across the board. It's dropped among women. It's dropped among Latinos and African Americans, every other demographic group. It's worked.

2. Mr. President, is Obamacare is perfect?

[Obamacare's success] that doesn't mean that it's perfect. No law is. And it's true that a lot of the noise around the health care debate, ever since we tried to pass this law, has been nothing more than politics. But we've also always known -- and I have always said -- that for all the good that the Affordable Care Act is doing right now -- for as big a step forward as it was -- it's still just a first step. It's like building a starter home -- or buying a starter home. It's a lot better than not having a home, but you hope that over time you make some improvements.

And in fact, since we first signed the law, we've already taken a number of steps

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[423] *Id*.

[424] President Obama, *October 2016 Remarks on Obamacare*, *infra* Bibliography.

to improve it. And we can do even more-- but only if we put aside all the politics rhetoric, all the partisanship, and just be honest about what's working, what needs fixing and how we fix it.

3. Mr. President, how do the majority of Americans get their healthcare, that is, the 80% Employer/Medicare/Medicaid Insured Group and the 20% Non-Employer/Medicare/Medicaid Insured Group?

The majority of Americans do not -- let me repeat -- do not get health care through the Affordable Care Act [that is, the Marketplace under Obamacare]. Eighty percent or so of Americans get health care on the job, through their employer, or they get health care through Medicaid, or they get health care through Medicare. And so for most Americans, the Affordable Care Act, Obamacare, has not affected your coverage -- except to make it stronger. [This group is referred to here as the "*80% Employer/Medicare/Medicaid Insured Group*." Thus, Obamacare deals with the "*20% Non-Employer/Medicare/Medicaid Insured Group*.]

4. Mr. President, what are the benefits of Obamacare?

Because of the law, you now have:

- Free preventive care.
- Insurance companies have to offer that in whatever policy they sell.
- Because of the law, you now have free checkups for women. Because of the law, you get free mammograms. (Applause.)
- Because of the law, it is harder for insurance companies to discriminate against you because you're a woman when you get health insurance. (Applause.)
- Because of the law, doctors are finding better ways to perform heart surgeries and delivering healthier babies, and treating chronic disease, and reducing the number of people that, once they're in the hospital, end up having to return to the hospital.
- Because of the law, your annual out-of-pocket spending is capped.
- Seniors get discounts on their prescription drugs because of the law.
- Young people can stay on their parents' plan [until age 26].

5. Mr. President, has healthcare inflation increased since the enactment of Obamacare?

[B]efore Obamacare, health insurance rates for everybody -- whether you got your insurance on the job, or you were buying it on your own -- health insurance rates generally were going up really fast. This law has actually slowed down the pace of health care inflation. So, every year premiums have gone up, but they've gone up the slowest in 50 years since Obamacare was passed. In fact, if your family gets insurance through your job, your family is paying, on average, about $3,600 less per year than you would be if the cost trends that had existed before the law were passed had continued. Think about that. That's money in your pocket.

6. **Mr. President, are copays up?**

Now, some people may say, well, I've seen my copays go up, or my networks have changed. But these are decisions that are made by your employers. It's not because of Obamacare. They're not determined by the Affordable Care Act.

7. **Mr. President, what has Obamacare delivered to the previously uninsured, that is, the 20% Non-Employer/Medicare/Medicaid Insured Group?**

So if the Affordable Care Act, if Obamacare hasn't changed the coverage of the 80 percent of Americans who already had insurance [that is, the *80% Employer/Medicare/Medicaid Insured Group*], except to make it a better value, except to make it more reliable, how has the law impacted the other 15 or 20 percent of Americans who didn't have health insurance through their job, or didn't qualify for Medicaid, or didn't qualify for Medicare [that is, the *20% Non-Employer/Medicare/Medicaid Insured Group*]?

Well, before the Affordable Care Act, frankly, you were probably out of luck. Either you had to buy health insurance on your own, because you weren't getting it through the job, and it was wildly expensive, and your premiums were going up all the time, and if you happened to get sick and use the insurance, the insurer the next year could drop you. And if you had had an illness like cancer or diabetes, or some other chronic disease, you couldn't buy new insurance because the insurance company's attitude was, you know what, this is just going to cost us money, we don't want to insure you.

So if you were trying to buy health insurance on your own, it was either hugely expensive or didn't provide very effective coverage. . . .

And so you're relying on the emergency room, but the emergency room is the most expensive place to get care. And because you weren't insured, the hospital would have to give you the care for free, and they would have to then make up for those costs by charging everybody else more money. So it wasn't good for anybody.

8. **Mr. President, what is Obamacare, specifically the Marketplace, designed to do for the 20% Non-Employer/Medicare/Medicaid Insured Group?**

[**The Uninsured and Underinsured**] So what the Affordable Care Act is designed to do is to help those people who were previously either uninsured or underinsured [that is, the *20% Non-Employer/Medicare/Medicaid Insured Group*]. And it worked to help those people in two ways.

[**Medicaid Expansion**] First, we gave states funding to expand Medicaid to cover more people. In D.C. and the 31 states that took us up on that, more than 4 million people have coverage who didn't have it before. They now have health insurance.

[**The Marketplace and the Premium Tax Credit**] Second, for people who made too much to qualify for Medicaid even after we expanded it, we set up what we call marketplaces on HealthCare.gov, so you could shop for a plan that fits your needs, and then we would give you tax credits to help you buy it. And most people today can find a

plan for less than $75 a month at the HealthCare.gov marketplace when you include the tax credits that government is giving you. That means it's less than your cell phone bill[.]

9. Mr. President, what's the good news with the Marketplace?

And the good news is, is that most people who end up buying their coverage through the marketplaces, using these tax credits, are satisfied with their plans.

So not only did Obamacare do a lot of good for the 80-plus percent of Americans who already had health care [by requiring better coverage], but now it gave a new affordable option to a lot of folks who never had options before. All told, about another 10 percent of the country now have coverage.

The Affordable Care Act has done what it was designed to do: It gave us affordable health care.

10. So, Mr. President, what's the problem, why are Republicans still opposed to Obamacare?

So what's the problem? Why is there still such a fuss? Well, part of the problem is the fact that a Democratic President named Barack Obama passed the law. (Applause.) And that's just the truth. (Laughter.) I mean, I worked really, really hard to engage Republicans; took Republican ideas that originally they had praised; said, let's work together to get this done. And when they just refused to do anything, we said, all right, we're going to have to do it with Democrats. And that's what we did.

And early on, Republicans just decided to oppose it. And then they tried to scare people with all kinds of predictions -- that it would be a job-killer; that it would force everyone into government-run insurance; that it would lead to rationing; that it would lead to death panels; that it would bankrupt the federal government. You remember all this. And despite the fact that all the bad things they predicted have not actually happened -- despite the fact that we've created more jobs since the bill passed in consecutive months than any time on record -- (applause) -- despite the fact that the uninsured rate has gone down to its lowest levels ever, despite that fact that it's actually cost less than anybody anticipated and has shown to be much less disruptive on existing plans that people get through their employers, despite the fact that it saved Medicare over $150 billion -- which makes that program more secure -- despite all this, it's been hard, if not impossible, for any Republican to admit it.

They just can't admit that a lot of good things have happened and the bad things they predicted didn't happen. So they just keep on repeating, we're going to repeal it. We're going to repeal it, and we're going to replace it with something better -- even though, six and a half years later, they haven't -- they still haven't shown us what it is that they would do that would be better.

11. So, Mr. President, what's (1) the "10% Marketplace-Medicaid Insured" and (2) the "10% Continued Uninsured" Issue?

But -- and this is actually the main reason I'm here -- just because a lot of the Republican criticism has proven to be false and politically motivated doesn't mean that there aren't

some legitimate concerns about how the law is working now. And the main issue has to do with the folks who still aren't getting enough help. Remember, I said 80 percent of people, even before the law passed, already had health insurance. And then we expanded Medicaid, and we set up the marketplaces, and another 10 percent of people got health insurance [that is, the *10% Marketplace-Medicaid Insured*]. Well, but that still leaves that last 10 percent [the "*10% Continued Uninsured*"]. And the fact that that last 10 percent [that is, the "*10% Continued Uninsured*"] still has difficulties is something that we've got to do something about.

12. **Mr. President, how could Medicaid expansion in states like Florida help with the "Medicaid Eligible Portion of the 10% Continued Uninsured?"**

Now, part of the reason for [the *10% Continued Uninsured*] is, as I already mentioned to you, not every state expanded Medicaid to its citizens, which means that some of the most vulnerable working families that the law was designed to help still haven't gotten insurance. [These are referred to here as the *Medicaid Eligible Portion of the 10% Continued Uninsured*.] As you may have heard, Florida is one of those states. If your governor could put politics aside - AUDIENCE: Booo -- THE PRESIDENT: Don't boo -- vote. (Applause.)

If your governor would just put politics aside and do what's right, then more than 700,000 Floridians would suddenly have access to coverage. And, by the way, that would hold down costs for the rest of you,10 because there would be less uncompensated care in hospitals. And it means that people who did sign up for the marketplace, who oftentimes may be sicker, qualify for Medicaid and so they're not raising costs in the marketplace.

13. **Mr. President, how many states have not expanded Medicaid to the Medicaid Eligible Portion of the 10% Continued Uninsured, and how many people would be covered if the states expanded Medicaid?**

In fact, if the 19 states who so far have not expanded Medicaid to the [*Medicaid Eligible Portion of the 10% Continued Uninsured*] would just do so, another 4 million people would have coverage right now all across the country.

So that's step number one. And that's, by the way, just completely in the control of these governors. They could be doing it -- right now. They could do it tomorrow.

14. **Mr. President, what is the problem with the Marketplaces and in particular the premium increases?**

[**Not Enough Competition**] Now, the second issue has to do with the marketplaces [and the people eligible to use the Marketplaces, that is the *Marketplace Potential Users*.] Although the marketplaces are working well in most of the states, there are some states where there's still not enough competition between insurers. So if you only have one insurer, they may decide we're going to jack up rates because we can, because nobody else is offering a better price. [The discussion in Chapter 22 demonstrates why competition among firms can keep prices low for consumers.]

[**Lack of Outreach in Certain States**] In those states where the governor or legislature is hostile to the ACA, it makes it harder to enroll people because the state is not actively participating in outreach. And so, as a consequence, in those states enrollment in the plan -- especially enrollment of young people -- has lagged.

[**Higher Percentage of Older and Sicker People**] And what that means is that the insurance pool is smaller and it gets a higher percentage of older and sicker people who are signing up -- because if you're sick or you're old, you're more likely to say, well, I'm going to sign up, no matter what, because I know I'm going to need it; if you're young and healthy like you guys, you say, eh, I'm fine, life is good -- so you have more older and sicker people signing up, fewer younger and healthier people signing up, and that drives rates up, because the people who use health care most end up being in the insurance pool; people who use it least are not.

[**Prices Initially Set Too Low**] And then, in some cases, insurers just set their prices too low at the outset because they didn't know what the insurance pool was going to look like, and then they started losing money. And so now they've decided to significantly increase premiums in some states.

15. Mr. President, what impact does the Premium Tax Credit have on the premium increases?

[**Premium Tax Credit May Offset Premium Increase**] Now, it's these premium increases in some of the states in the marketplace that sometimes attracts negative headlines. Remember, these premium increases won't impact most of the people who are buying insurance through the marketplace, because even when premiums go up, the tax credits go up to offset the increases. So people who qualify for tax credits, they may not even notice their premiums went up because the tax credit is covered.

16. Mr. President, do the Marketplace premium increases apply to employer insurance, Medicare, or Medicaid?

And keep in mind that these premium increases that some of you may have read about have no effect at all if you're getting health insurance on the job, or through Medicaid or Medicare. So for the 80 [percent]-plus people who already had health insurance, if your premium is going up, it's not because of Obamacare. It's because of your employer or your insurer -- even though sometimes they try to blame Obamacare for why the rates go up. It's not because of any policy of the Affordable Care Act that the rates are going up.

17. But Mr. President, what about the people who do not get health insurance from (1) an employer, (2) Medicare, (3) Medicaid, or (4) the Marketplace with a Premium Tax Credit that does not offset the premium increase [that is, ?

But if you are one of the people who doesn't get health care on the job, doesn't qualify for Medicaid, doesn't qualify for Medicare -- doesn't qualify for a tax credit to help you buy insurance, because maybe you made just a little bit too much money under the law -- these premium increases do make insurance less affordable. [These people are referred to here as the "*Non-Tax Credit Protected Portion of the Marketplace Potential*

Users"]. And in some states, the premium increases are manageable. Some are 2 percent or 8 percent, some 20 percent. But we know there are some states that may see premiums go up by 50 percent or more.

And an extreme example is Arizona, where we expect benchmark premiums will more than double. Part of this is because Arizona is one of those states that had really low average premiums -- among the lowest in the country -- so now insurance companies basically are trying to catch up, and they also don't have a lot of competition there. And meanwhile, in states like Florida, the failure to expand Medicaid contributes to higher marketplace premiums. And then there are some other states that just because of the nature of their health care systems, or the fact that they're rural and people are dispersed, so it's harder to provide health care, more expensive -- they have a tougher time controlling costs generally.

Again, the tax credits in the ACA will protect most consumers from the brunt of these premium increases. And with the ability to shop around on HealthCare.gov -- which works really well now -- most people can find plans for prices even lower than this year's prices. But there are going to be people who are hurt by premium increases or a lack of competition and choice [that is, the *Non-Tax Credit Protected Portion of the Marketplace Potential Users*]. And I don't want to see anybody left out without health insurance. I don't want to see any family having to choose between health insurance now or saving for retirement, or saving for their kids' college education, or just paying their own bills.

18. Mr. President, how do we fix the problem; extending coverage to the last 10% and stabilizing premiums?

So the question we should be asking is, what do we do about these growing pains in the Affordable Care Act, and how do we get the last 9 percent of Americans covered? How do we reach those last 9 percent? And how do we make sure that premiums are more stable going forward, and the marketplace insurance pools are more stable going forward?

a) Mr. President, what about simply repealing Obamacare?

Well, I can tell you what will not work. Repealing the Affordable Care Act will not work. (Applause.) That's a bad idea. That will not solve the problem. Because right off the bat, repeal would take away health care from 20 million people. We'd go back where 80 percent of people had health insurance instead of 90 percent -- right off the bat. And all the reforms that everybody benefits from that I talked about -- like young Americans being able to stay on their parents' plans, or the rules that prevent insurance companies from discriminating against people because of a preexisting condition like diabetes or cancer, or the rule now that you can't charge somebody more just because they're a woman -- all those reforms would go away for everybody, because that's part of Obamacare.

All the progress that we've made in controlling costs and improving how health care is delivered, progress that's helped hold growth in the price of health care to the slowest rate in 50 years -- all that goes away. That's what repeal means. It would be bad for everybody. And the majority of Americans, even if they don't know that they're

benefitting from Obamacare, don't want to see these benefits and protections taken away from their families now that they have them. I guarantee you there are people who right now think they hate Obamacare. And if somebody told them, all right, we're repealing it, but now your kid who is on your plan is no longer on your plan, or now you've got a preexisting condition and you can't buy health insurance -- they'd be shocked. They'd be -- what do you mean?

So repeal is not the answer.

b) Mr. President, what about expanding Medicaid?

Here is what we can do instead to actually make the Affordable Care Act work even better than it's working right now. And I've already mentioned one.

Florida and every state should expand Medicaid. (Applause.) Cover more people. It's easy to do, and it could be done right now. You'd cover 4 million more Americans, help drive down premiums for folks who buy insurance through the marketplace. And, by the way, because the federal government pays for almost all of this expansion, you can't use as an excuse that, well, the state can't afford it -- because the federal government is paying it. States like Louisiana that just expanded Medicaid -- you had a Republican governor replaced by a Democratic governor. He said, I want that money. Expanded Medicaid, and found not only does it insure more people, but it's actually saved the state big money and makes people less dependent on expensive emergency room care. So that's step number one.

c) Mr. President, should we expand the Premium Tax Credit to the *Non-Tax Credit Protected Portion of the Marketplace Potential Users*?

Step number two. Since overall health care costs have turned out to be significantly lower than everyone expected since we passed Obamacare, since that's saved the federal government billions of dollars, we should use some of that money, some of those savings to now provide more tax credits for more middle-income families, for more young adults [that is, the *Non-Tax Credit Protected Portion of the Marketplace Potential Users*] to help them buy insurance. It will make their premiums more affordable. And that's not just good for them -- it's good for everybody. Because when more people are in the marketplace, everybody will benefit from lower premiums. Healthier people, younger people start joining the pool; premiums generally go down. That would be number two.

d) Mr. President, what about a "public option" or "public plan fallback" if there is a lack of competition?

The third thing we should do is add what's called a public plan fallback -- (applause) -- to give folks more options in those places where there are just not enough insurers to compete. And that's especially important in some rural communities and rural states and counties. If you live in L.A. right now, then it's working fine. There are a lot of insurers because it's a big market, there are a lot of providers. But if you're in some

remote areas, or you're near some small towns, it may be that the economics of it just don't work unless the government is providing an option to make it affordable. And, by the way, this is not complicated. Basically, you would just wait and see -- if the private insurers are competing for business, then you don't have to trigger a public option. But if no private insurers are providing affordable insurance in an area, then the government would step in with a quality plan that people can afford.

And, by the way, this is not a radical idea. This idea is modeled on something that Republicans championed under George Bush for the Medicare Part D drug benefit program. It was fine when it was their idea. The fact that they're now opposed to it as some socialist scheme is not being consistent, it's being partisan.

e) Mr. President, what can the states do?

And finally, we should continue to encourage innovation by the states. What the Affordable Care Act says is, here's how we propose you insure your populations, but you, the state, can figure out a different way to accomplish the same goal -- providing affordable, comprehensive coverage for the same number of residents at the same cost -- then go right ahead. There may be more than one way to skin a cat. Maybe you've got an idea we haven't thought of. Just show us, don't talk about it. Show us what the plan looks like.

19. Mr. President, what is your message to Republicans?

Republicans who claim to care about your health insurance choices and your premiums, but then offer nothing and block common-sense solutions like the ones that I propose to improve them -- that's not right. And my message to them has been and will continue to be: Work with us. Make the system better. Help the people you serve. We're open to good ideas, but they've got to be real ideas -- not just slogans, not just votes to repeal. And they've got to pass basic muster. You can't say, well, if we just do -- if we just plant some magic beans -- (laughter) -- then everybody will have health insurance. No, we've got to have health care economists and experts look at it and see if the thing would actually work.

20. Mr. President, how would you summarize your proposals to improve Obamacare?

So that's where we are. Number one, Obamacare is helping millions of people right now. The uninsured rate has never been lower. It's helping everybody who already has health insurance, because it makes their policies better. Number two, there are still too many hardworking people who are not being reached by the law. Number three, if we tweak the program to reach those people who are not currently benefitting from the law, it will be good for them and it will be good for the country. Number four, if we repeal this law wholesale that will hurt the people who don't have coverage right now. It will hurt the 20 million who are already getting help through the law. And it will hurt the country as a whole.

So this should be an easy choice. All it does -- all it requires is putting aside ideology, and in good faith trying to implement the law of the land. And what we've learned, by the way, is that when governors and state legislators expand Medicaid for their citizens and they hold insurance companies accountable, and they're honest with

uninsured people about their options, and they're working with us on outreach, then the marketplace works the way it's supposed to. And when they don't, the marketplaces tend to have more problems. And that shouldn't be surprising. If state leaders purposely try to make something not work, then it's not going to run as smoothly as if they were trying to make it work. Common sense. You don't even have to go to Miami Dade to figure that out. (Laughter.)

The point is, now is not the time to move backwards on health care reform. Now is the time to move forward. The problems that may have arisen from the Affordable Care Act is not because government is too involved in the process. The problem is, is that we have not reached everybody and pulled them in. . . .

We're not going to go back to discriminating against Americans with preexisting conditions. We're not going to go back to a time when people's coverage was dropped when they got sick. We're not going to go back to a situation where we're reinstating lifetime limits in the fine print so that you think you have insurance, and then you get really sick or you kid gets really sick, and you hit the limit that the insurance company set, and next thing you know they're not covering you anymore, and you got to figure out how you come up with another $100,000 or $200,000 to make sure that your child lives. We're not going to go back to that.

21. Mr. President, what about Republican claims that they will keep the good parts of Obamacare?

I hear Republicans in Congress object, and they'll say, no, no, no, no, we'll keep those parts of Obamacare that are popular; we'll just repeal everything else. Well, it turns out that the sum of those parts that are popular in Obamacare is Obamacare. (Applause.) It's just people don't always know it. And repealing it would make the majority of Americans worse off when it comes to health care.

22. Mr. President, is this really as complicated as it seems"

And as I said, part of this is just -- you know, health care is complicated. Think about this speech -- it's been pretty long, and you're just -- you're thinking, wow, I just want to take a picture with the President or something. (Laughter.) So it's hard to get people focused on the facts. And even reporters who have covered this stuff -- and they do a good job; they're trying to follow all the debate. But a lot of times they just report, "Premium increases." And everybody thinks, wow, my insurance rates are going up, it must be Obama's fault -- even though you don't get health insurance through Obamacare, you get it through your job, and even though your increases have gone up a lot slower. Or suddenly you're paying a bigger copay, and, ah, thanks Obama. (Laughter.) Well, no, I had nothing to do with that.

So part of it is this is complicated, the way it gets reported. There's a lot of hysteria around anything that happens. And what we need to do is just focus on this very specific problem -- how do we make sure that more people are getting coverage, and folks right now who are not getting tax credits, aren't getting Medicaid, how do we help them, how do we reach them. And we can do it.

23. **Mr. President, how should the next President and the Congress approach Obamacare?**

Instead of repealing the law, I believe the next President and the next Congress should take what we've learned over the past six years and in a serious way analyze it, figure out what it is that needs to get done, and make the Affordable Care Act better and cover even more people. But understand, no President can do it alone. We will need Republicans in Congress and in state governments to act responsibly and put politics aside. Because I want to remind you, a lot of the Affordable Care Act is built on Republican ideas.

In fact, Bernie Sanders is still mad at me because we didn't get single-payer passed. Now, we couldn't get single-payer passed, and I wanted to make sure that we helped as many people as possible, given the political constraints. And so we adopted a system that Republicans should like; it's based on a competitive, market-based system in which people have to a responsibility for themselves by buy insurance.

And maybe now that I'm leaving office, maybe Republicans can stop with the 60-something repeal votes they've taken, and stop pretending that they have a serious alternative, and stop pretending that all the terrible things they said would happen have actually happened, when they have not, and just work with the next President to smooth out the kinks.

Because it turns out, no major social innovation in America has ever worked perfectly at the start. Social Security didn't. Its benefits were stingy at first. It left out a whole lot of Americans. The same was true for Medicare. The same was true for Medicaid. The same was true for the prescription drug law. But what happened was, every year, people of goodwill from both parties tried to make it better. And that's what we need to do right now.

And I promise, if Republicans have good ideas to provide more coverage for folks like Amanda, I will be all for it. I don't care whose idea it is, I just want it to work. They can even change the name of the law to ReaganCare. (Laughter.) Or they can call it Paul Ryan Care. I don't care -- (laughter) -- about credit, I just want it to work because I care about the American people and making sure they've got health insurance.

U. What is the "public option" or what President Obama referred to as the "Public Plan Fall-Back" and what is Medicare Buy-In?"

In September 2016, the Urban Institute published an analysis (the Blumberg and Holahan, *Medicare Buy-In/Public Analysis*) of both (1) the Medicare Buy-In, and (2) the Public plan marketplace option.[425] As discussed below, both of these concepts have been proposed by Senator Clinton, and the public plan option has also been proposed by President Obama. The Urban Institute's analysis introduces as follows these two policy proposals:

> Presidential candidate Hillary Clinton has indicated interest in exploring both a Medicare buy-in option for those ages 55 to 64 and a public plan option for the Affordable Care Act's (ACA's) Marketplaces as mechanisms for increasing

[425] Blumberg and Holahan, *Medicare Buy-In/Public Analysis*, *infra* Bibliography.

the affordability of insurance available outside employer-sponsored insurance. Medicare buy-in proposals originally emerged before passage of the ACA as an approach to increasing access to comprehensive insurance for the near elderly (e.g., those age 55 to 64), who faced high rates of coverage denials and were charged high premiums for limited coverage in pre-ACA private nongroup insurance markets (Johnson, Moon, and Davidoff 2002; Smolka and Thomas 2009). Policy analysts have discussed a public option in the context of health care reform for the past 15 years, before and during the debate over the ACA, as both a catalyst for insurer competition and a backup to the private market if such competition did not emerge (Hacker 2008; Holahan and Blumberg 2009; Holahan, Nichols, and Blumberg 2001).

Medicare is an attractive basis for developing an insurance alternative (either a direct buy-in or a public option based in some way on Medicare rates) because the program generally has lower provider payment rates and lower administrative costs than private insurers. However, Medicare's structure and cost-sharing requirements are different from private insurers' as well. A Medicare-related proposal could provide more plan choice for those eligible, which would have a significant effect where few or even only one insurer offers coverage in the nongroup insurance market. Depending upon how the proposal is structured, it could reduce costs for younger adults in the private insurance market as older adults leave the risk pool. However, designing such programs raises myriad issues, each with specific implications for costs and benefits to different age groups.[426]

V. How would the public option operate?

The Blumberg and Holahan, *Medicare Buy-In/Public Analysis* gives the following basic description of how the public option would operate:

A public option is a qualified health plan that would be sold through the ACA's government-created Marketplaces (either federal or state). The public option would bear health insurance risk like other insurers, complying with the ACA's insurance reforms (e.g., modified community rating, guaranteed issue, and essential health benefits) and offering coverage in the same actuarial value tiers. Premiums would be set based on expectations about nongroup market enrollees' health care costs, using something like Medicare payment rates for participating health care providers, risk adjustment, and administrative costs. The public option could offer plans in all of the ACA's actuarial value tiers (i.e., 60, 70, 80, and 90 percent) or it could just offer plans in the tiers in which insurers are required to participate (silver [70 percent] and gold [80 percent] nationally; some state Marketplaces impose additional requirements). In addition to the public option ensuring that premiums were actuarially fair, it would require that premiums reflect the development of reserves. Taxpayers thus would not bear the risk for underpricing plans, and the public option would not competitively disadvantage private insurers. Marketplace premium tax credits and cost-sharing reductions would apply to public option plans with the same rules applied to other insurers.

[426] *Id*. at 1.

A public option avoids complexities associated with a Medicare buy-in for 55- to 64-year-olds. Because the option would be structured and operated in much the same way as any other Marketplace-qualified health plan, it would not have different actuarial values, cost-sharing structures, or premium structures than other Marketplace options. The appropriateness of applying a Marketplace subsidy[427]

W. What is the Congressional Resolution in support of a public option?

If adopted, Senate Resolution 561,[428] which was filed by several Democrat Senators on September 15, 2016, proposes the adoption of a public option. The resolution reads as follows:

> Resolved, That the Senate supports efforts to build on the Patient Protection and Affordable Care Act (Public Law 111–148; 124 Stat. 119) by ensuring that, in addition to the health coverage options provided by private insurers, every American has access to a
> public health insurance option, which, when established, will—
> (1) strengthen competition;
> (2) improve affordability for families by reducing
> premiums and increasing choices; and
> (3) save American taxpayers billions of dollars.

X. What would be the major budgetary and coverage effects of repealing Obamacare?

In its June 2015 report, *Budgetary and Economic Effects of Repealing Obamacare*, the CBO summarized as follows the effects of repealing *Obamacare*:

> **What Would Be the Major Effects of Repealing the ACA?** CBO and JCT estimate that repealing the ACA would have several major effects, relative to the projections under current law:
>
> - Including the budgetary effects of macroeconomic feedback, repealing the ACA would increase federal budget deficits by $137 billion over the 2016–2025 period (see Table 1). That estimate takes into account the proposal's impact on federal revenues and direct (or mandatory) spending, incorporating the net effects of two components:
> - Excluding the effects of macroeconomic feedback—as has been done for previous estimates related to the ACA (and most other CBO cost estimates)—CBO and JCT estimate that federal deficits would increase by $353 billion over the 2016–2025 period if the ACA was repealed. . . .

[427] *Id*. at 6.

[428] Senate Resolution 561—Supporting Efforts To Increase Competition And Accountability In The Health Insurance Marketplace, And To Extend Accessible, Quality, Affordable Health Care Coverage To Every American Through The Choice Of A Public Insurance Plan (U.S. Senate, September 15, 2016).

- Repealing the ACA also would affect the number of people with health insurance and their sources of coverage. CBO and JCT estimate that the number of nonelderly people who are uninsured would increase by about 19 million in 2016; by 22 million or 23 million in 2017, 2018, and 2019; and by about 24 million in all subsequent years through 2025, compared with the number who are projected to be uninsured under the ACA. In most of those years, the number of people with employment-based coverage would increase by about 8 million, and the number with coverage purchased individually or obtained through Medicaid would decrease by between 30 million and 32 million.[429]

Y. What are the budgetary effects of Republican sponsored "Repealing the Job-Killing Health Care Law Act?"

1. What is the "Repealing the Job-Killing Health Care Law Act?"

The Republican controlled House of Representatives has passed and considered many legislative efforts to repeal *Obamacare*. For example, in 2011 the House of Representatives passed H.R.2, the *Repealing the Job-Killing Health Care Law Act*. The CBO describes the bill as follows:

> [T]he Repealing the Job-Killing Health Care Law Act . . . would repeal the Patient Protection and Affordable Care Act (PPACA, Public Law 111-148) and the provisions of the Health Care and Education Reconciliation Act of 2010 (P.L. 111-152) that are related to health care [*i.e.*, would repeal *Obamacare*]. Both of those laws were enacted in March 2010.[430]

2. What was the CBO's estmate of the budgetary effects of the "Repealing the Job-Killing Health Care Law Act?"

As indicated in the following summary of its conclusions, the CBO projected that the House Republican Repeal bill would increase the deficit. Specifically the CBO concluded:

> CBO and JCT estimate that, on balance, the direct spending and revenue effects of enacting H.R. 2 would cause a net increase in federal budget deficits of $210 billion over the 2012-2021 period. By comparison, last March CBO and JCT estimated that enacting PPACA and the health-related provisions of the Reconciliation Act [*i.e.*, enacting *Obamacare*] would reduce federal deficits by $124 billion over the 2010-2019 period. The difference between the two estimates for the 10-year projection periods is primarily attributable to the different time periods they cover. Over the eight years that are common to the two analyses (2012-2019), enactment of PPACA and the health-related provisions of the Reconciliation Act was projected last March to reduce federal deficits by $132

[429] CBO, *Budgetary and Economic Effects of Repealing Obamacare*, *infra* Bibliography at 1-2.
[430] Letter from Douglas W. Elmendorf, Director, CBO to Honorable John Boehner, Speaker of the U.S. House of Representatives (Feb. 18, 2011).

billion, whereas the repeal of that legislation is projected now to increase deficits by $119 billion.[431]

Z. What is the position of the Department of Health and Human Services (HHS) on whether Obamacare is "Job-Killing?

The website of Department of Health and Human Services responds as follows to what it says is the myth that Obamacare is a job killer.

> Myth #6: The Affordable Care Act is killing jobs and driving up costs for everybody.
>
> You don't need to be a rocket scientist to know this just isn't true. Since the law passed, U.S. businesses have added 15.3 million jobs, and we've experienced 79 straight months of private sector job growth – the longest streak on record.
>
> For the 157 million Americans who have health insurance through their employer, premiums have grown more slowly since the Affordable Care Act passed. And overall health care prices have been rising at the slowest rate in 50 years.

AA. What is President Obama's response to the assertion that Obamacare is "Job Killing?"

In remarks on *Obamacare* at Miami Dade College in October 2016, President Obama answered as follows the claim that Obamacare is a "job-killer:"

> Working together, we've cut the unemployment rate in Florida by more than half. Across the country, we turned years of job losses into the longest streak of job creation on record. We slashed our dependence on foreign oil, doubled our production of renewable energy. Incomes are rising again -- they rose more last year than any time ever recorded. Poverty is falling -- fell more last year than any time since 1968. Our graduation rates from high school are at record highs. College enrollment is significantly higher than it was when we came into office.[432]

BB. What are Secretary Clinton's positions on healthcare and Obamacare?

1. What has been Secretary Clinton's involvement with the healthcare issue over the years?

Secretary Clinton's website states that "[a]ffordable health care is a basic human right," and the website describes as follows her involvement on the healthcare issue over the years:

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[431] *Id*. at 2.
[432] Obama, *October 2016 Remarks on Obamacare*, *infra* Bibliography.

Hillary led the fight to expand access to quality, affordable health care for decades—and she's not going to stop now. Throughout her career, Hillary led the fight to expand health care access for every American:

- In 1979, Hillary chaired the Arkansas Rural Health Advisory Committee, which focused on expanding health care access to isolated rural areas of the state.
- As first lady, she refused to give up when Congress defeated health care reform. Instead, she worked with Republicans and Democrats to help create the Children's Health Insurance Program, which now provides health coverage to more than 8 million children. Senator Ted Kennedy said that if not for Hillary, the Children's Health Insurance Program wouldn't be in existence today.
- As senator, she introduced legislation to reduce the cost of health insurance expenses.
- Following the terrorist attacks of September 11, 2001, Hillary pushed the Bush administration for $20 billion for recovery and to address health care needs of first responders who suffered lasting health effects from their time at Ground Zero.
- Going forward, Hillary will build on these efforts and fight to ensure that the savings from these reforms benefits families—not just insurance companies, drug companies, and large corporations.

2. What is the background of Secretary Clinton's October 2016 article on healthcare policy in the New England Journal of Medicine?

On October 27, 2016, Secretary Clinton published an article addressing her healthcare proposals in the prestigious New England Journal of Medicine.[433] The Journal explained as follows the background of Secretary Clinton's article and the absence of a similar article by Mr. Trump:

> The editors invited the Democratic and Republican presidential nominees, Hillary Clinton and Donald Trump, to answer the following question for Journal readers: What specific changes in policy do you support to improve access to care, improve quality of care, and control health care costs for our nation? Secretary Clinton responded. Mr. Trump did not respond.[434]

3. What is Secretary Clinton's general philosophy on healthcare?

In her article in the New England Journal of Medicine, Secretary Clinton sets out as follows her general philosophy on healthcare:

> For my entire career, I've fought to provide more fairness for families and more opportunities for children, so that every child growing up in our country can reach his or her God-given potential. That's why working to expand health care access for every American and improving the health and well-being of kids and families has been the most important cause of my life.

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[433] Clinton, *My Vision of for Health Care*, *infra* at Bibliography.
[434] *Id*.

In the last two decades, we've made tremendous strides in reducing the number of uninsured people to the lowest level in history and improving health outcomes for all Americans. Because of the Affordable Care Act (ACA), 20 million more Americans have health insurance and more than 8 million kids receive health coverage each year as a result of the Children's Health Insurance Program. As a result of the ACA, around 3 million African Americans and 4 million Hispanic Americans have gained coverage. What's more, expanded consumer protections and access to free preventive services — like vaccinations and cancer screenings — mean all Americans now have stronger, better health coverage.

Despite this progress, we still have real challenges ahead. Americans face rising out-of-pocket costs and a health care system that is too fragmented. We need to make health coverage affordable so people can access the care they need. We need to do more to break down barriers and achieve health equity across our communities. We need to expand Medicaid in every state so that everyone has access to care, regardless of their income and where they reside. And we need to devote more resources to the necessary scientific research into the diseases of our time.

As President, I will fight for every American to have access to affordable, quality health care — regardless of their ZIP Code, income, or medical history. Health care should be a right, not a privilege.[435]

4. What are Secretary Clinton's specific proposals for healthcare?

Secretary Clinton's website has an elaborate discussion of her proposals for healthcare. The following is a summary of her basic proposals; she says that she would:

- Defend and expand the Affordable Care Act, which covers 20 million people. Hillary will stand up to Republican-led attacks on this landmark law—and build on its success to bring the promise of affordable health care to more people and make a "public option" possible. She will also support letting people over 55 years old buy into Medicare.
- Bring down out-of-pocket costs like copays and deductibles. American families are being squeezed by rising out-of-pocket health care costs. Hillary believes that workers should share in slower growth of national health care spending through lower costs.
- Reduce the cost of prescription drugs. Prescription drug spending accelerated from 2.5 percent in 2013 to 12.6 percent in 2014. It's no wonder that almost three-quarters of Americans believe prescription drug costs are unreasonable. Hillary believes we need to demand lower drug costs for hardworking families and seniors. . . . .
- Fight for health insurance for the lowest-income Americans in every state by incentivizing states to expand Medicaid—and make enrollment through Medicaid and the Affordable Care Act easier.

[435] *Id*.

- Expand access to affordable health care to families regardless of immigration status. Hillary will expand access to affordable health care to families regardless of immigration status by allowing families to buy health insurance on the health exchanges regardless of their immigration status.
- Expand access to rural Americans, who often have difficulty finding quality, affordable health care. Hillary will explore cost-effective ways to make more health care providers eligible for telehealth reimbursement under Medicare and other programs, including federally qualified health centers and rural health clinics.
- Defend access to reproductive health care. Hillary will work to ensure that all women have access to preventive care, affordable contraception, and safe and legal abortion.
- Double funding for community health centers, and support the healthcare workforce: As part of her comprehensive health care agenda, Hillary is committed to doubling the funding for primary-care services at community health centers over the next decade. Hillary also supports President Obama's call for a near tripling of the size of the National Health Service Corp.

Also in her article in the New England of Medicine she says: "We need to improve and strengthen the ACA through enhanced tax credits to make coverage affordable[.]"[436]

5. What are Secretary Clinton's specific proposals for expanding Medicaid?

In elaborating on her above proposal to work for the expansion of Medicaid by the states that have not yet done so, Secretary Clinton's website says:

> Hillary will work with governors to expand Medicaid in every state, so that access to care no longer depends on where you live. It is a disgrace that 19 states have left 3 million Americans without health insurance because their states have refused to expand Medicaid. It is wrong that Republican governors and legislatures are leaving too many Americans without health insurance even though they qualify for coverage. Hillary will launch a national campaign to enroll people who are eligible but not already enrolled. She will expand access to affordable health care to families regardless of immigration status by allowing families to buy health insurance on the health Exchanges regardless of their immigration status.

6. What are Secretary Clinton's specific proposals for addressing increasing premiums?

In elaborating on her above proposal to control increases in premiums, Secretary Clinton's website says:

> Hillary will get health care costs under control so that those who have health insurance can afford the health care they need. She will not stand for unjustified health premium increases – she will make sure the Secretary of Health

[436] *Id*.

and Human Services has the authority to block or modify unreasonable health insurance premium rate increases so that coverage is more affordable.

Also, as indicated above, in her article in the New England of Medicine she proposed "enhanced tax credits to make coverage affordable[.]" In elaborating on this point in this article she explained:

> [T]o immediately relieve Americans of health cost burdens, I will extend a refundable tax credit of up to $5,000 per family for excessive out-of-pocket health costs.[437]

7. What are Secretary Clinton's specific proposals for the public option and the Medicare Buy-In?

In elaborating on her above proposal for a public option and a Medicare Buy-In, Secretary Clinton's website says:

> [C]onsistent with her previous proposals on public options, Hillary will pursue efforts to give Americans in every state in the country the choice of a public-option insurance plan, and to expand Medicare by allowing people 55 years or older to opt in while protecting the traditional Medicare program.

8. What are Secretary Clinton's specific proposals for addressing copays and deductibles?

In elaborating on her above proposal for addressing the increasing (1) costs of copays, and (2) amount of deductibles, Secretary Clinton's website says:

> [She will] lower out-of-pocket costs like copays and deductibles. The average deductible for employer-sponsored health plans rose from $1,240 in 2002 to about $2,500 in 2013. American families are being squeezed by rising out-of-pocket health care costs. Hillary believes that workers should share in slower growth of national health care spending through lower costs.

9. What are Secretary Clinton's specific proposals for the Cadillac Tax?

The Daily Tax Report indicates that Secretary Clinton supports the repeal of the "Cadillac Tax," which was enacted as part of Obamacare.[438] The article explains that under these the Cadillac Tax "[s]tarting in 2018, employer-based health insurance plans will face a 40 percent tax for costs over $10,200 for an individual and $27,500 for a family, with those caps pegged to inflation in future years." The article explains:

> Hillary Clinton called on Congress to repeal the "Cadillac tax" soon. "Too many Americans are struggling to meet the cost of rising deductibles and drug prices," Clinton said in a statement. "That's why, among other steps, I encourage Congress to repeal the so-called Cadillac tax, which applies to some employer-based health plans, and to fully pay for the cost of repeal."[439]

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[437] *Id*.

[438] Arit John, *Clinton Joins Growing Chorus Against 'Cadillac Tax'*, BNA Bloomberg, Daily Tax Report (Oct. 1, 2015).

[439] *Id*.

CC. What are Mr. Trump's position on Obamacare?

1. What in general is the Trump "Obamacare Repeal and Replacement Plan?"

In a speech on November 1, 2016, Republican Vice Presidential candidate, Governor Mike Pence, discussed the Trump "*Obamacare Repeal and Replacement Plan*."[440] He started by laying out the Republican base case against Obamacare:

> In 2009 and 2010, I was Chairman of the House Republican Conference, leading the fight with my fellow Republicans against Obamacare. I said then, and it has proven true, that when you mandate every American have a government-approved insurance whether they want it or need it, and when you create a government-run plan paid for with job-killing tax increases, that's a government takeover of health care. And that's the reason that not a single House or Senate Republican voted for Obamacare.[441]

And, he outlined as follows the Republican replacement plan:

> Since 2010, Republicans have united in our desire to replace Obamacare with free market health care solutions that work for the American people. Good things happen when Republicans stand united.[442]

He tied Secretary Clinton to Obamacare saying: "It's important to remember, as Hillary Clinton boasted a little bit earlier this year, and I'm quoting, 'before it was called Obamacare, it was called Hillarycare.'"[443] This is a reference to Secretary Clinton's failure to get a healthcare law enacted during President Clinton's Administration. Secretary Clinton often responds, however, that she was successful in helping enact the CHIP, children's health program.

2. What does Mr. Trump think are the defects in Obamacare?

Governor Pence laid out as follows what he and Mr. Trump believe are the fatal defects with Obamacare:

> Do you remember the promises that President Obama and Hillary Clinton made?
>
> -- President Obama said his health plan would cut the cost of family premiums by up to $2,500 a year, Not true.
>
> -- If you like your doctor, you can keep your doctor. Not true.
>
> -- If you like your health insurance plan, you can keep it. Not true.
>
> The truth is premiums for employer plans have gone up by almost $5,000 since President Obama took office. And last week the Obama administration announced that the average premiums under Obamacare on the Exchanges are going to go up another 25% nationally.
>
> But that average hides the specific states where families are about to be pummeled with unprecedented sticker shock: for a 27 year-old buying an

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[440] Trump/Pence, *Obamacare Repeal and Replacement Plan*, *infra* Bibliography.
[441] *Id*.
[442] *Id*.
[443] Id.

Obamacare plan, Arizona's premiums are going up by: 116%, Tennessee- 63%, Minnesota: 59%, Alabama: 58%, North Carolina: 40%. American wages haven't gone up by this much. Right here in Pennsylvania, it's a whopping 53% for next year, and a total of 69% increase when you add it to last year's rate hike. Your paycheck didn't go up by 53%!

In Pennsylvania almost 110,000 households will see their rates spike drastically with absolutely no help from the government.

I mean, even Bill Clinton said "costs are going up, coverage is going down, it's the craziest thing in the world." I guess even with the Clintons, sometimes the truth happens.

But don't be deceived by Bill Clinton's newfound skepticism, Hillary Clinton's plan is actually to introduce what we call 'single payer' into the system, government run health insurance.

She actually went to Canada and gave a speech and she told these Canadians and business groups that she wanted to get "universal health care coverage like you have here in Canada." Of course, we all know they've got socialized medicine in Canada. . . .

Almost 20% of Americans eligible for Obamacare will have only one Exchange insurer this year. , , , One plan is not a choice, it's a monopoly. At least 1.4 million Americans are about to lose their plan in 2017, and that's after millions already lost their plans in the first years of Obamacare. This means that too many people won't be able to continue seeing their doctor, which will interrupt treatment and care.

Part of the reason costs went up is because Obamacare dictates that Americans buy a government designed insurance plan… laden with expensive and unnecessary benefits.

No wonder that the young and healthy don't want to buy the plans. The coverage is expensive and the plans have huge deductibles that people can't afford. The average deductible for the so-called "cheapest" category of family plans this year is almost $12,000. That's more than 1/5th of the median household income in the U.S. What worse is that many of our best doctors have opted out of seeing patients with Exchange coverage.

And Obamacare is killing jobs and it is destroying small businesses across America. Obamacare's employer mandates and new taxes have been destructive to the economy by killing jobs and reducing wages and growth. Obamacare imposed more than $1 trillion in new taxes on providers, taxpayers and businesses to pay for its failed policies. It has reduced pay for workers in small businesses and reduced employment by more than 350,000 jobs nationwide. Obamacare's employer mandate raised the minimum cost of hiring a full-time worker to $10.30/hour for larger employers, without increasing take-home pay for workers. State and local officials have conceded that Obamacare forced municipal governments to cut hours of part-time employees.[444]

[444] *Id*.

3. What is Mr. Trump's replacement plan?

After saying that Mr. Trump would "repeal Obamacare lock, stock and barrel," he went on to lay out as follows the Trump replacement plan: bed as follows

a) Lower Cost

And when Donald Trump becomes President, we're going to replace Obamacare with healthcare reform that lowers the cost of health insurance without growing the size of government.

b) Free Market

We're going to reform health insurance in America with the power of the free market - that's the American way to meet our healthcare needs in an American future.

c) No Individual Mandate

A Trump plan will make health care affordable and will put people back in the driver's seat of their health care, not the government. We will get rid of the individual mandate, because the government shouldn't tell you how to spend your money.

d) Purchase Insurance Across State Borders

We will allow people to purchase insurance across state lines, just like you can with your auto or life or other insurance policies.

e) Transition Period for Subsidies

We will create a transition period for those receiving subsidies to ensure that Americans don't face disruption or other hardship in their coverage.

f) Health Savings Accounts

We will make it easier for Americans to open Health Savings Accounts (HSAs) that they can use to pay for health insurance. The idea of a tax-free account to pay for medical expenses was pioneered in my home state of Indiana to fix the flaws in our health care system.

Health Savings Accounts allow you to control your health care dollars, pick the doctors and treatments that work for you without interference from insurance or government bureaucrats. Instead of giving subsidies to big insurance companies, the way Obamacare does, we will provide assistance directly to the American people through their Health Savings Accounts.

There's an old saying that when everybody in your family is healthy, you have lots of problems. When one person in your family is sick, you have one problem. With a Health Savings Account, people can pick the insurance plan that works best for them and their family and gives them piece of mind if they get sick or have a major medical problem.

g) Fixing Medicaid

Medicaid started in 1965 as health insurance program for the poor. Fifty years later Medicaid is broke and failing. And Obamacare has put the majority of the new people receiving coverage into this broken Medicaid program.

In Indiana, we said, "thanks, but no thanks" and fought for almost two years to make coverage more widely available the right way, with the consumer-driven approach and Health Savings Accounts. We call it the Healthy Indiana Plan.

Donald Trump and I will work with Republican majorities in the House and Senate to free states from Washington's top-down approach to Medicaid. States know what's best for their people and Donald Trump and I will give states new freedom and flexibility through block granting Medicaid so states can innovate and reform and design programs that meet the unique needs of their citizens.

h) Lower Healthcare Cost

And health care costs will also come down when people have more control and know more about what their health care costs. As we empower Americans with greater control over their healthcare choices, we will also empower them with more information about the cost and quality of care in their hometown.

Today, people have very little transparency into the cost or quality of their care. It's easier to compare prices when you buy a car or TV than it is to find information about a hospital or doctor. Donald Trump will fix that.

When Americans can see the cost of their care, and have the power to make their own choices, the healthcare industry will give us lower costs and more options. Health care providers will be more responsive to patients' needs than they are to insurance and government bureaucrats.

i) Protect insurance for Pre-Existing Conditions

And we will protect Americans with pre-existing conditions so that they are not charged more or denied coverage, just because they have been sick, so long as they have paid their premiums consistently.

j) Reverse Federal Takeover of Insurance Industry

And we will reverse Obamacare's federal takeover of the insurance market. We didn't see the type of rate increases across the nation when the States were running things.[445]

[445] *Id*.

4. To what extent is Mr. Trump's opposition to Obamacare about philosophy?

In his closing remarks, Governor Pence showed how much the opposition to Obamacare is grounded in the different philosophical approaches to government taken by Republicans and Democrats:

> Obamacare – the debacle previously known as Hillarycare – was a government takeover of health care from the start, plain and simple. It upended the miracle of the marketplace. Competition was crushed and replaced with the heavy hand of government control.
>
> Obamacare is a catastrophic failure. Hillary Clinton says she wants to double-down on failure.
>
> Americans can choose a health care economy built on freedom, consumer choice and free market principles. It's just going to take all of us to do it.
>
> To those Republicans who believe we can have a health care system built on a free market economy and consumer choice, we need to say with one voice, it is time to come home. . . .
>
> And it is time to come home to bring their 30-year obsession with government-run health care to an end by ensuring that Hillary Clinton will never be elected President of the United States.[446]

DD. What is the position of the House Republican "A Better Way on Obamacare?"

The House Republican *A Better Way on Health Care* sets out the following general proposals on Obamacare?

> *High-Quality Health Care for All*. Americans deserve an accessible and affordable health care system that promotes quality care and peace of mind. It should empower patients and support innovation. Sadly, that is not the system we have today. Obamacare has limited choices for patients, driven up costs for consumers, and buried employers and health care providers under thousands of new regulations. It forced people into expensive plans they did not want and put the government in charge of one of the most personal decisions families will ever make.
>
> *House Republicans know there is a better way*. Republicans have put forward ideas ranging from complete alternatives to targeted, issue-specific proposals. The plan presented here unites these efforts under one complete vision that successfully reforms America's health care system. It recognizes that health care today is a wholly integrated system, consisting of providers, insurers, researchers, entrepreneurs, and others working to deliver the best quality care. Our proposal embraces this reality but also recognizes that people must come first. A health care system is only as good as its service of the patients who rely on it.
>
> *The proposal is built on five principles*:
>
> > *Repeal Obamacare*. The law that Democrats forced through Congress in 2010 was filled with special interest handouts, budget

[446] *Id*.

gimmicks, and tax increases. Nonpartisan analysts warned that the law's new mandates and regulations would lead to higher premiums and reduced access to care. Budget experts cautioned that the law's cuts to entitlement programs were unsustainable, while health professionals worried about declining quality of care. Now, six years later, it is clear these warnings have become reality, and the American public is bearing the consequences. This law cannot be fixed. Its knot of regulations, taxes, and mandates cannot be untangled. We need a clean start in order to pursue the patient-centered reforms the American people deserve.

Provide all Americans with more choices, lower costs, and greater flexibility. The nation's health care system is too bureaucratic and too expensive. It didn't work before Obamacare, and it most certainly does not work now. Insurance companies should be competing against each other to offer the most affordable, highest quality options for consumers. While Obamacare favors a one-size-fits all approach, we believe choice, portability, innovation, and transparency are essential elements of successful reform, and for too long they have been absent in health care.

Protect our nation's most vulnerable. Patients with pre-existing conditions, loved ones struggling with complex medical needs, and other vulnerable Americans should have access to high-quality and affordable coverage options. Obamacare's solution was to force millions of people onto Medicaid, a broken insurance program that has historically failed lower-income families. We reject this approach. Instead, we believe states and individuals should have better tools, resources, and flexibility to find solutions that fit their unique needs.

Spur innovation in health care. From new procedures to advanced, life-saving devices and therapies, the U.S. has always been at the forefront of medical discoveries. Unfortunately, we cannot say the same for our policies. Today, it costs $2 billion and takes 14 years to get a new drug through the byzantine clearance process at the Food and Drug Administration. Obamacare made the problem worse by levying a new tax on medical devices, driving out jobs, and slowing the development of new and innovative products that could help cure patients in need. Last year, the House passed the 21st Century Cures Act, which would pave the way for new ideas and support advancements in cures and treatments. Our plan builds on that legislation and promotes U.S. leadership in this area.

Protect and preserve Medicare. Today, more than 50 million seniors and individuals with disabilities rely on Medicare for access to health care. And millions more are counting on Medicare to provide health security when they reach retirement. Unfortunately, the program is unsustainable and will fail current and future Americans without significant reforms. The problem is driven by demographics, cost growth, and outdated payment systems that encourage overuse of health services. Despite this, Obamacare raided more than $800 billion from the program and beneficiaries it serves and used the funds to finance the law's open-

> ended expansion of entitlements. Republicans fundamentally reject this idea. Medicare must be protected for today's seniors, and it must be strengthened for future generations. We can do this without undermining Medicare's promise to current beneficiaries by slowly phasing in improvements that will provide future generations with greater choices.[447]

It appears to me that (1) the goals discussed above are consistent with the goals of Obamacare, and (2) the Republican strong opposition to Obamacare is likely motivated by politics and philosophy rather than a desire to provide the best health care to Americans. Like any large complex program, there will be implementation problems; hopefully we all can come together in an effort to provide effective health care at affordable prices to all Americans.

EE. What is my take on the economic effects of Obamacare?

1. What is my general take on Obamacare?

From a close reading of the positions on Obamacare of Secretary Clinton, Mr. Trump, President Obama, and others, I am of the firm opinion that the opposition to Obamacare is largely attributable to (1) politically motivation on behalf of those, such as the Republicans in Congress, who should know better, and (2) a lack of understanding of the law by conservatives who have no real idea of what the law does for them and their families.

First, every person of goodwill would have to conclude that the goal of Obamacare is admirable: that is, to extend affordable medical insurance to all Americans.

Second, it is unconscionable that certain Republican governors have refused to extend Medicaid to their most needy citizens. This stubbornness is obviously motivated by politics, that is, putting politics before the welfare of people. If Secretary Clinton is elected, I urge her to use every possible effort to extend Medicaid coverage to the citizens in these Republican controlled states.

Third, if Secretary Clinton is elected, she should make every possible effort to convince Congress to adopt a public option in those states where competition is inadequate. As discussed previously, the benefit of competition in keeping prices low for consumers is demonstrated in Chapter 22. The current Obamacare Marketplace shows that where there is competition, prices are low.

Fourth, if Secretary Clinton is elected, she should pursue the Medicare Buy-In she has proposed, as it is a sensible policy. I would also suggest that she consider extending the Buy-In option to all age groups.

Fifth, if Secretary Clinton is elected, she should urge Congress to extend the Premium Tax Credit to individuals with higher incomes than currently is the case.

Sixth, consideration should be given to increasing the penalty for those who can afford to purchase health insurance, but make a conscious decision not to. The next question discusses the justification for imposing this type of penalty.

Seventh, the one healthcare proposal of Mr. Trump that I agree with is that health insurance companies should be able to sell their products across state lines. Along with the grant of that authority, there should be uniform federal regulation of health insurance

[447] *A Better Way*, *infra* Bibliography, at 5-6.

companies, including review of their premiums for reasonableness. Insurance companies are similar to public utilities, and as pointed out in Chapter 21 there are sound economic grounds for having price regulation of public utilities.

Eighth, if Mr. Trump is elected, except, he should completely rethink his approach to healthcare and adopt the principles set out above.

2. What is my take on the individual mandate and the "free-rider" issue?

If a person does not have health insurance that he or she could have otherwise afforded, then he or she can "free-ride" on hospital emergency care facilities assuming he or she does not have the financial assets to pay the hospital bills. It seems that many who could have afforded health care insurance, do not have the assets needed to pay for their hospital coverage. This has the effect of passing the free-rider's costs onto the insured population in the form of higher insurance premiums.

I should emphasize that when I use the term "free-rider," I am only referring to those individuals who (1) could have afforded to purchase health insurance and did not, and (2) incurred emergency room and follow-on services that they could not pay for. Because it is impossible know on an *ex ante* basis whether a particular individual is going to become a free-rider, it is sensible to impose an appropriate fine on every person who can afford insurance but does not purchase it.

3. Do the opponents of Obamacare have health insurance for themselves and their families?

Virtually all of the opponents of Obamacare who appear on TV and radio have health care for themselves and their families. And, their principal argument against Obamacare is that the individual mandate is somehow an imposition on freedom. Yes, they are correct; it is an imposition on freedom; it is an imposition on the freedom of a person to "free-ride" on the backs of others. If I am not mistaken, this is one of the fundamental principles touted by conservative Republicans, which means they should be the biggest supporters of the mandate.

4. Will Obamacare contribute to long-term growth?

In the long run, Obamacare will contribute to economic growth by (1) reducing the deficit, (2) making the healthcare delivery system more efficient, and (3) most importantly, making the American population healthier and more productive. As discussed previously, human capital is an important element in economic growth, and Obamacare will clearly strengthen this element.

5. Is there a moral case in support of Obamacare?

Apart from the economic effect, there is a strong moral case for *Obamacare*: It promotes both (1) taking care of our needy brothers and sisters, and (2) responsible behavior through the individual mandate. The mandate prevents individuals who can afford healthcare from refusing to accept the financial responsibility for the healthcare they will inevitability receive when, as virtually all people do, they get sick and require medical attention, which must be provided to those in need of emergency service.

PART IV, THE IMPACT ON ECONOMIC GROWTH OF (1) EDUCATION POLICY; (2) IMMIGRATION POLICY; (3) INCOME AND WEALTH INEQUALITY; (4) REGULATORY POLICY; (5) ANTITRUST POLICY; AND (6) THE PROPOSALS OF SECRETARY CLINTON AND MR. TRUMP REGARDING THESE MATTERS

CHAPTER 18, WHAT IS THE IMPACT OF EDUCATION ON ECONOMIC GROWTH, AND WHAT ARE THE POSITIONS OF SECRETARY CLINTON AND MR. TRUMP?

A. What is in this Chapter?

This chapter explores various issues concerning the role of education in promoting economic growth. The focus is principally on the extensive proposals of Secretary Clinton, as Mr. Trump has only limited proposals addressing education. I also present my take on these issues.

B. How does education contribute to economic growth?

Education adds to human capital, which is one of the elements in promoting economic growth. As explained by Krugman: "Just as countries differ substantially in the rate at which they add to their physical capital, there have been large differences in the rate at which countries add to their human capital through education."[448] Obviously, strategies that are successful in promoting education in the U.S. will likely lead to an increase in corporate growth.

C. What are Secretary Clinton's strategies for promoting education?

1. What are Secretary Clinton's positions on education generally?

Secretary Clinton's website contains a detailed discussion of her proposals for addressing education at all levels: (1) pre-school; (2) K-12; (3) college; and (4) job training. It is obvious that she feels passionately about this issue. The following questions explore her principal proposals.

2. What are Secretary Clinton's positions on early childhood education?

Secretary Clinton's website contains an elaborate discussion of her proposals for early childhood education, and includes the following summary of her proposals:

- **Make preschool universal for every 4-year-old in America**. Despite research showing its benefits, only about half of the roughly 8.1 million 3- and 4-year-olds in the United States are enrolled in preschool, with only one in four enrolled in

[448] Krugman and Wells, *Macroeconomics Fourth*, *infra* Bibliography at 258.

publicly funded preschool. Hillary believes that every child deserves the same strong start. That's why she will work to ensure that every 4-year-old in America has access to high-quality preschool in the next 10 years.

- **Significantly increase child care investments so that no family in America has to pay more than 10 percent of its income to afford high-quality child care**. The cost of child care has increased by nearly 25 percent during the past decade, while the wages of working families have stagnated. While families across America are stretched by skyrocketing costs, child care has become more important than ever before—both as a critical work support for the changing structure of American families and as an essential component of a child's early development. These high costs severely squeeze working families, prevent too many children from getting a healthy start, and act as a disincentive for parents to stay in the workforce. Hillary will fight for every family in America to have access to high quality, affordable child care by significantly increasing the federal government's investment in child care subsidies and providing tax relief for the cost of child care to working families.
- **Improve the quality of child care and early learning by giving a RAISE to America's child care workforce.** One of the key drivers of high-quality child care is a supported and effective child care workforce. Yet, despite the high cost of child care, too many workers are not receiving a living wage, which fuels turnover and undermines the quality of care—and also causes many of those caring for and educating our children to live in poverty themselves. To increase the quality of child care in America and pay child care workers for the true value of their work, Hillary will create the Respect and Increased Salaries for Early Childhood Educators (RAISE) initiative. In line with Clinton's Care Workers Initiative, RAISE will fund and support states and local communities that work to increase the compensation of child care providers and early educators and provide equity with kindergarten teachers by investing in educational opportunities, career ladders, and professional salaries.
- **Double our investment in Early Head Start and the Early Head Start–Child Care Partnership program.** Early Head Start provides comprehensive services to our youngest learners and their families—including health, nutrition, and pre-literacy support with a strong focus on children's social and emotional development. The Early Head Start–Child Care Partnership program brings Early Head Start's evidence-based curriculum into the child care setting to provide comprehensive, full-day, high-quality services to low-income families. To ensure our children have a strong foundation to learn, Hillary will double the number of children served by Early Head Start and the Early Head Start–Child Care Partnership program.
- **Expand access to evidence-based home visiting programs**. There is increasing scientific evidence that brain development in the earliest years of childhood is crucial to economic success. That's why Hillary will double our investment in home visiting programs such as the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) program. These programs—which provide home visits by a social worker or nurse during and directly after pregnancy—significantly improve maternal and child health, development, and learning.

- **Award scholarships of up to $1,500 per year to help as many as 1 million student parents afford high-quality child care.** More than 25 percent of all college students are balancing school with raising a child. We should support them, not only because the economic benefit of a college degree lifts their own earning prospects, but also because it lifts the future earnings of their children too. To support America's student parents, Hillary will launch the Student Parents in America Raising Kids (SPARK) program. SPARK will award scholarships of up to $1,500 per year to as many as 1 million student parents. Recipients can use the awards for costs that create barriers to success—including child care and emergency financial aid.
- **Increase access to high-quality child care on college campuses by serving an additional 250,000 children**. Student parents face many challenges, with greater financial and time constraints than many of their peers. College students who are parents leave school with an average debt that is 25 percent higher than non-parents. The demands of parenting mean that student parents spend two hours less on average per day on educational activities. And while nearly half of student parents attend two-year colleges, less than half of all two-year college campuses in America offer on-campus child care services. Student parents need our support. Hillary will work to dramatically increase access to child care on campus by increasing funding for campus-based child care centers.

3. What are Secretary Clinton's positions on K-12 education generally?

Secretary Clinton's website contains an elaborate discussion of her proposals for K-12 education, and includes the following summary of her proposals:

- **Launch a national campaign to modernize and elevate the profession of teaching**. America is asking more of our educators than ever before. They are preparing our kids for a competitive economy, staying on top of new pedagogies, and filling gaps that we as a country have neglected—like giving low-income kids, English-language learners, and kids with disabilities the support they need to thrive. We ask so much of our educators, but we aren't setting them up for success. That's why Hillary will launch a national campaign to elevate and modernize the teaching profession, by preparing, supporting, and paying every child's teacher as if the future of our country is in their hands—because it is.
- **Provide every student in America an opportunity to learn computer science**. There are more than half a million open jobs that require computing skills—across the country and in every major industry. But the majority of schools in the United States don't offer computer science. Hillary will provide states and school districts funding to help scale computer science instruction and lesson programs that improve student achievement or increase college enrollment and completion in CS Ed fields.
- **Rebuild America's schools.** In cities and rural communities across America, there are public schools that are falling apart—schools where students are learning in classrooms with rodents and mold. That's unacceptable, and it has to change. That's why Hillary will build on the highly successful Build America Bonds program to provide cities and towns the capital they need to rebuild their

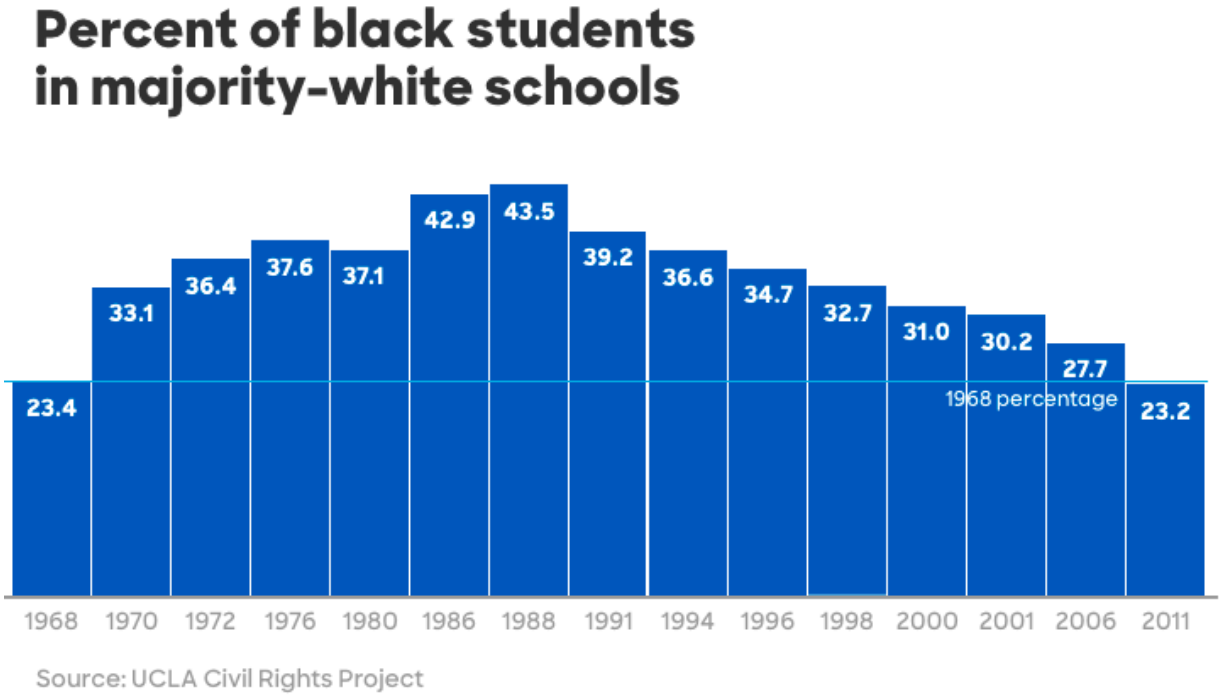
schools. These "Modernize Every School Bonds" will double the Build America Bonds subsidy for efforts to fix and modernize America's classrooms—from increasing energy efficiency and tackling asbestos to upgrading science labs and high-speed broadband.

- **Dismantle the school-to-prison pipeline**. Schools should be safe places for students to learn and grow. But in too many communities, student discipline is overly harsh—and these harsh measures disproportionately affect African American students and those with the greatest economic, social, and academic needs. Hillary will work to dismantle the school-to-prison pipeline by providing $2 billion in support to schools to reform overly punitive disciplinary policies, calling on states to reform school disturbance laws, and encouraging states to use federal education funding to implement social and emotional support interventions.

4. What are Secretary Clinton's positions on the education of our most vulnerable children; the Nine Charts?

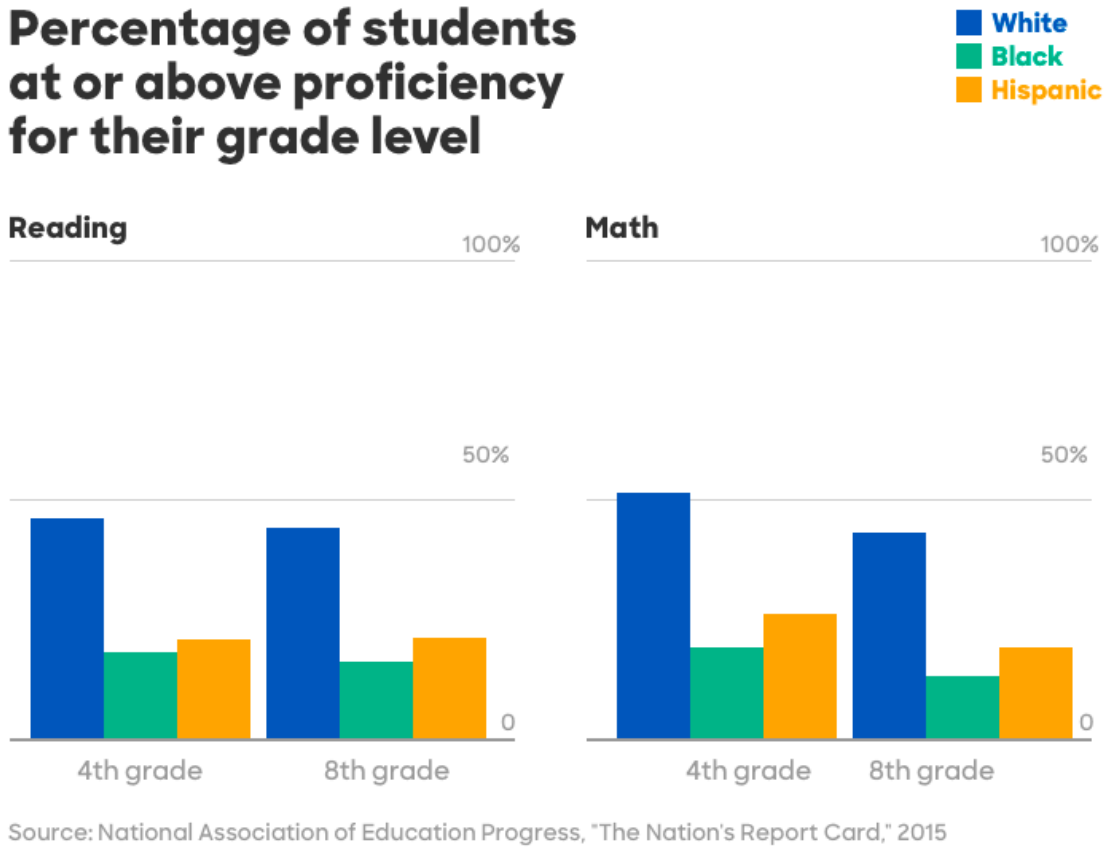
In a section of her website entitled "HOW OUR EDUCATION SYSTEM IS LEAVING THE MOST VULNERABLE CHILDREN BEHIND, IN 9 CHARTS," Secretary Clinton sets out "9 facts that show our education system is failing the most vulnerable—and why that hurts us all." The nine charts are:

1. OUR SCHOOLS ARE MORE SEGREGATED THAN THEY WERE IN 1968.

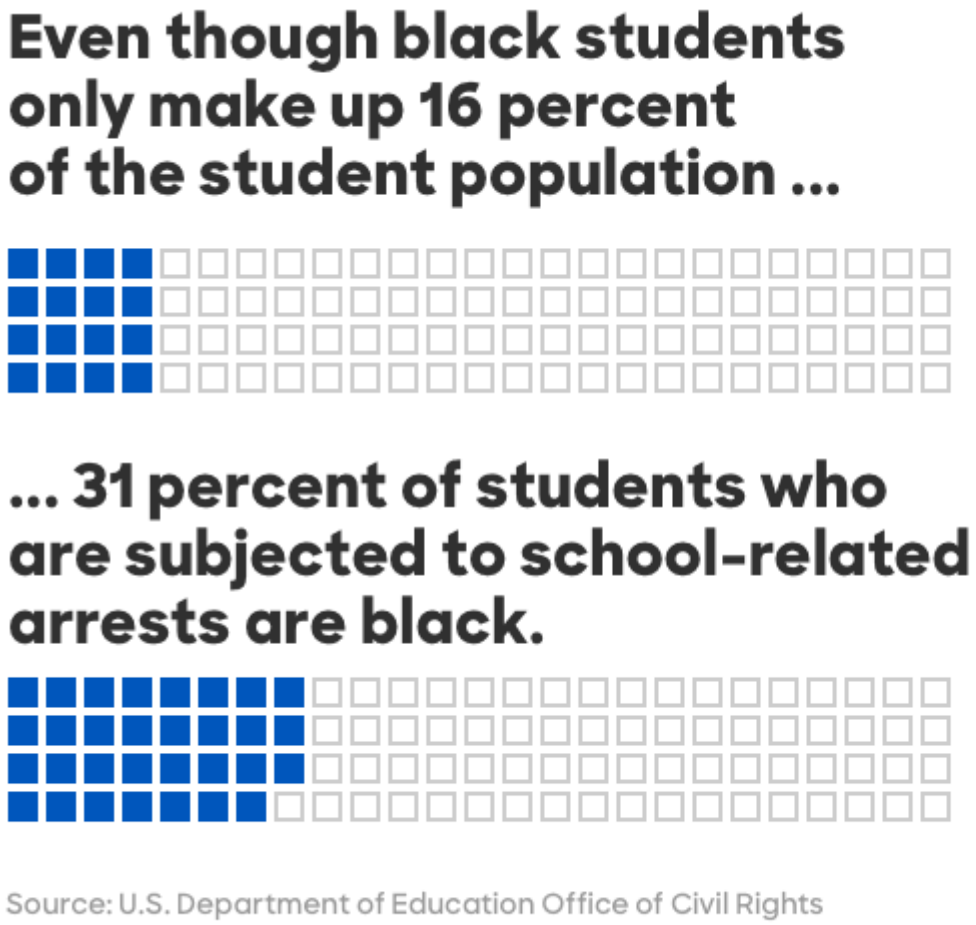


In 1954, the Supreme Court ruling in Brown v. Board of Education ended school segregation, declaring that so-called "separate but equal" schools for black and white students were unconstitutional. In the years that followed, we finally began to slowly integrate our schools. But by 2011, U.S. schools were more segregated than they were in 1968.

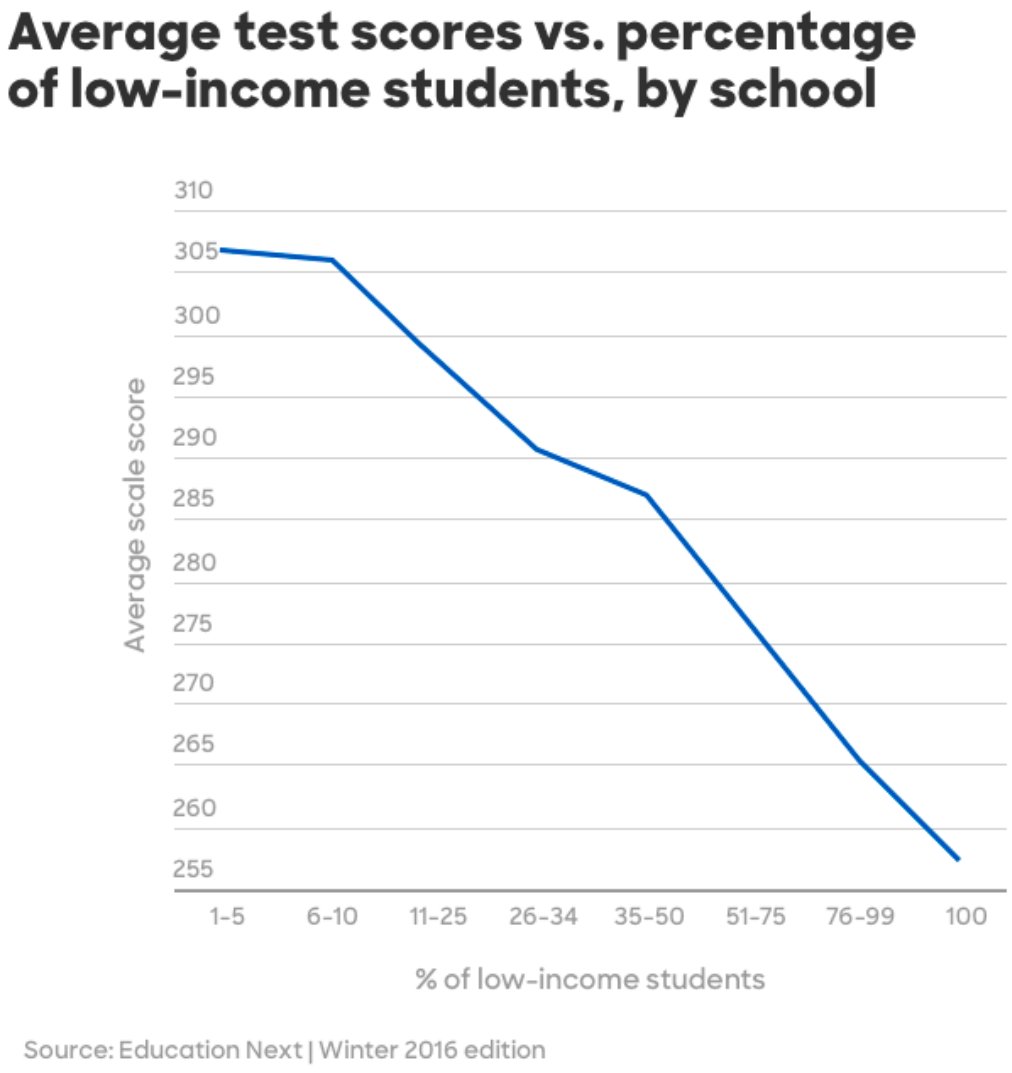
2. WE'VE MADE PROGRESS, BUT THERE'S STILL A BIG ACHIEVEMENT GAP BETWEEN WHITE STUDENTS AND THEIR BLACK AND HISPANIC PEERS.



3. THE SCHOOL-TO-PRISON PIPELINE TAKES MANY BLACK STUDENTS OUT OF THE CLASSROOM.

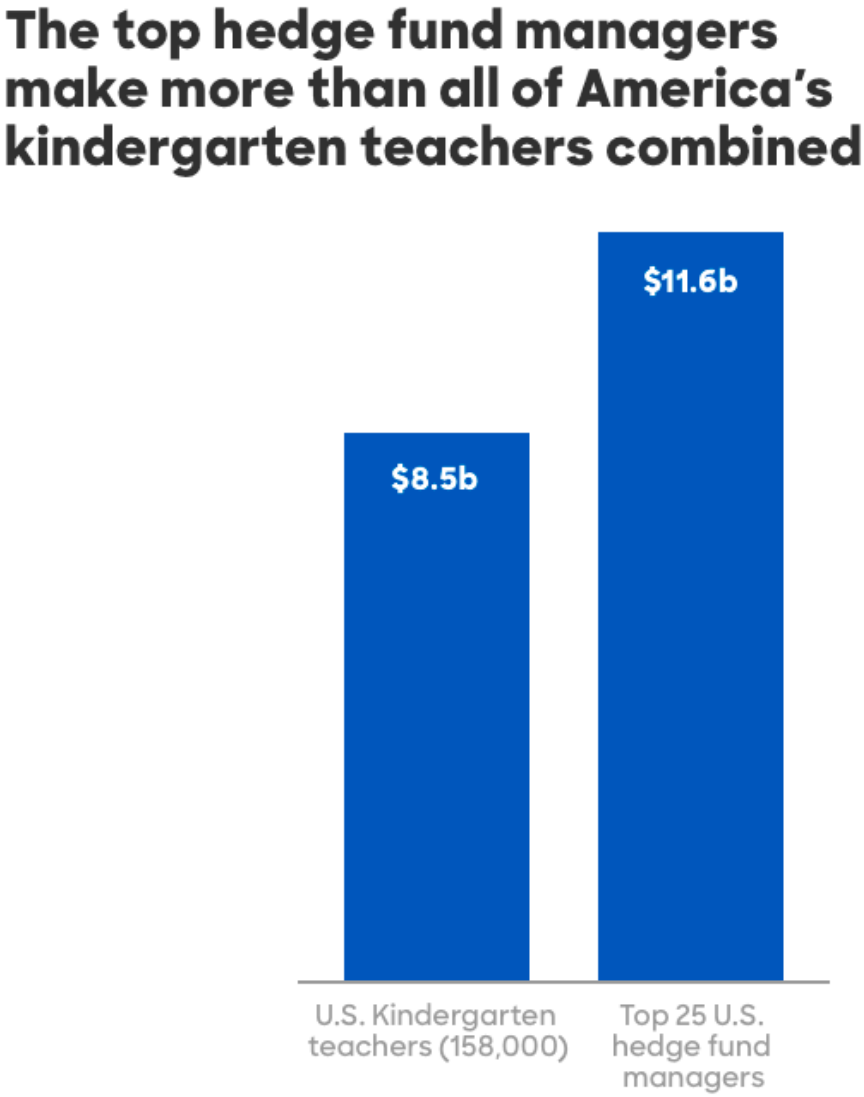


4. STUDENTS FROM LOW-INCOME FAMILIES HAVE A HARDER TIME SUCCEEDING.



There's a strong connection between a family's socioeconomic status and how well a child does in school. Often, students who are living in poverty need more support from schools in order to succeed—but many schools are not able to provide that support.

5. OUR TEACHERS AREN'T BEING PAID ENOUGH FOR THE VALUE OF THEIR WORK.

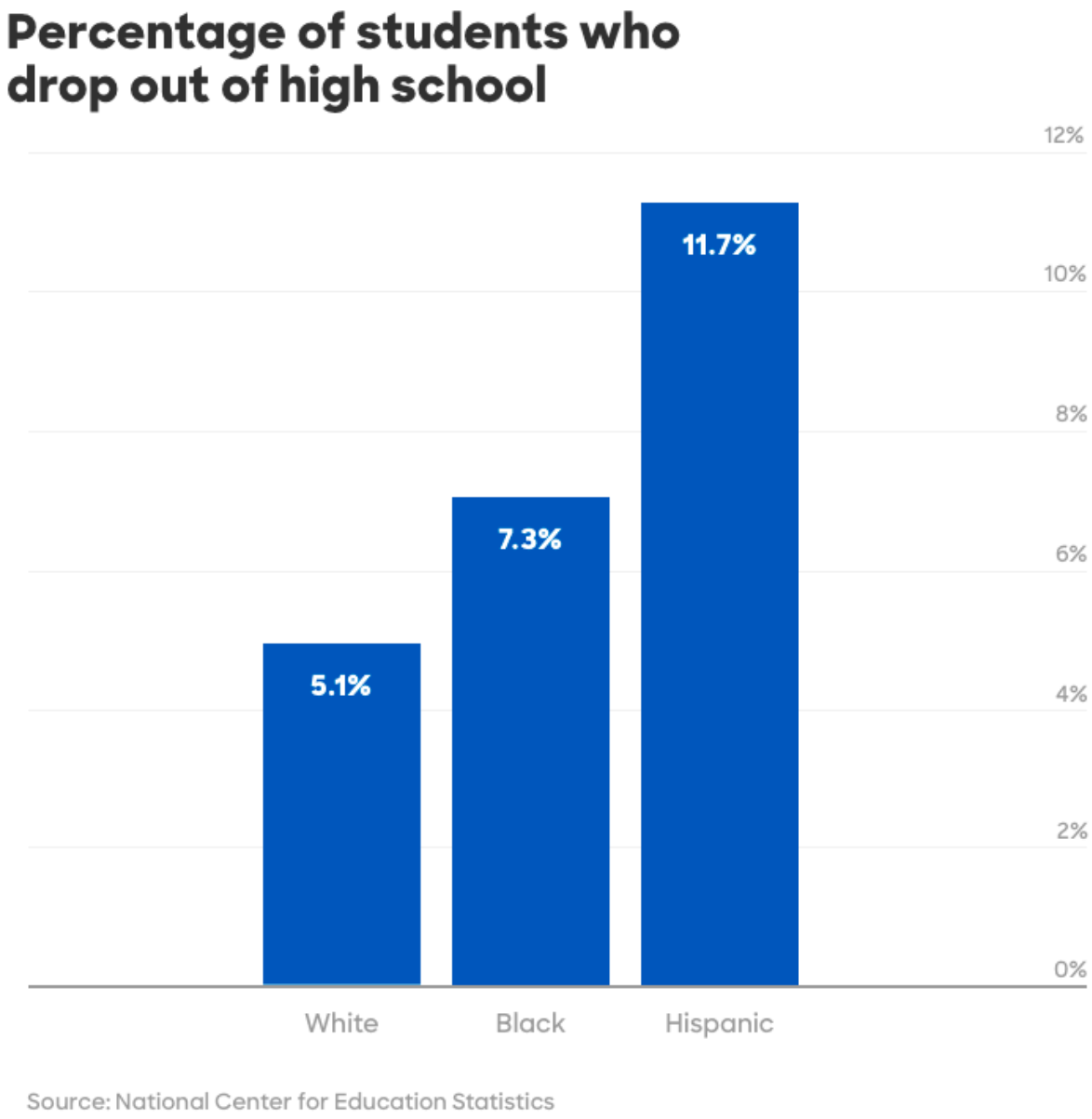


Source: http://www.politifact.com/truth-o-meter/statements/2015/jun/15/hillary-clinton/hillary-clinton-top-hedge-fund-managers-make-more-/

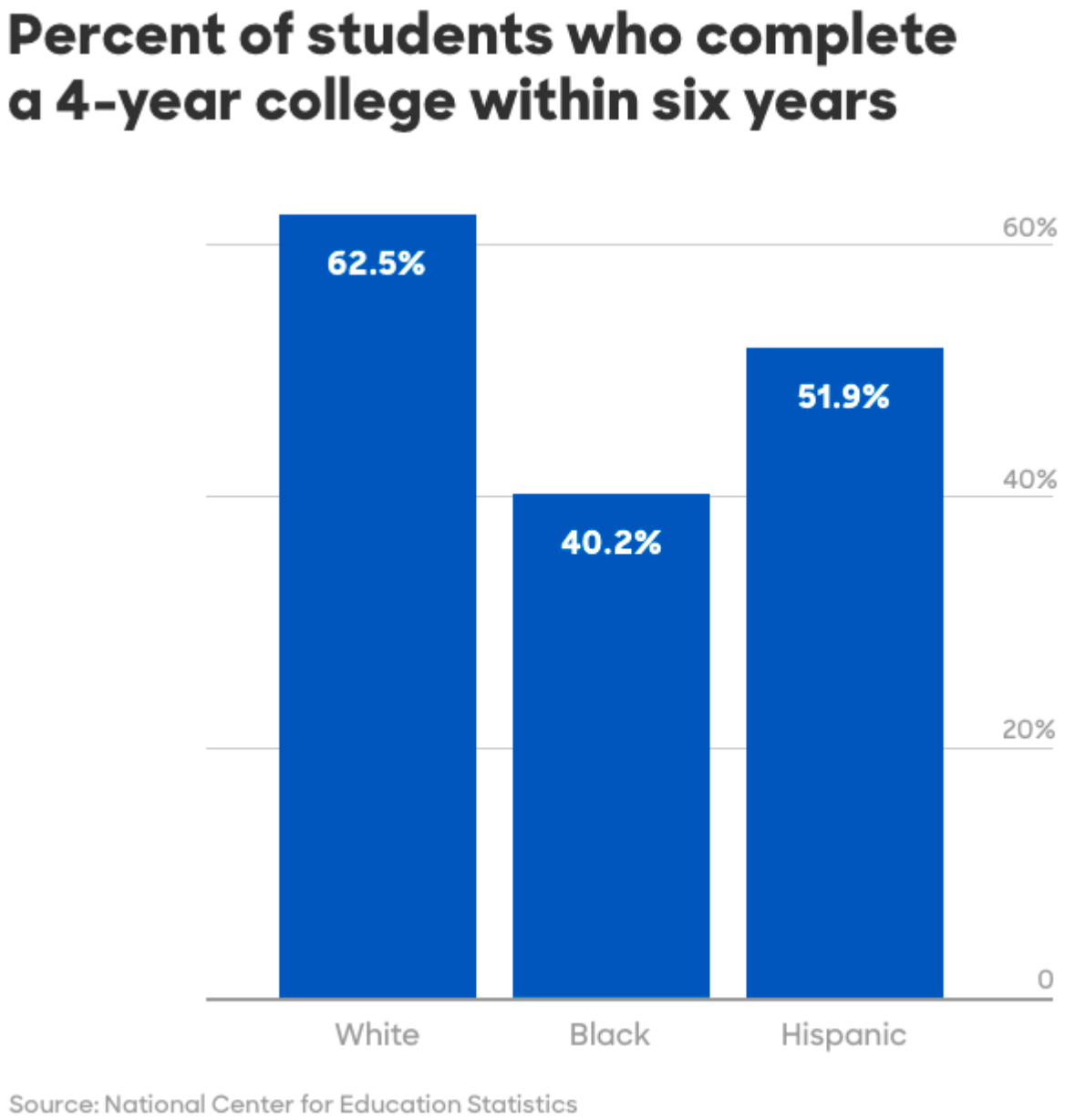
The average kindergarten teacher makes $53,480 a year, and there are about 158,000 kindergarten teachers in the United States. So in 2014, American kindergarten teachers made about $8.5 billion collectively.

By comparison, the top 25 hedge fund managers in America collectively earned $11.6 billion in 2015, according to Institutional Investor's Alpha magazine—and the magazine noted that 2015 was a bad year for hedge fund managers.

6. RACE PLAYS A ROLE IN DETERMINING WHETHER A STUDENT WILL FINISH HIGH SCHOOL.

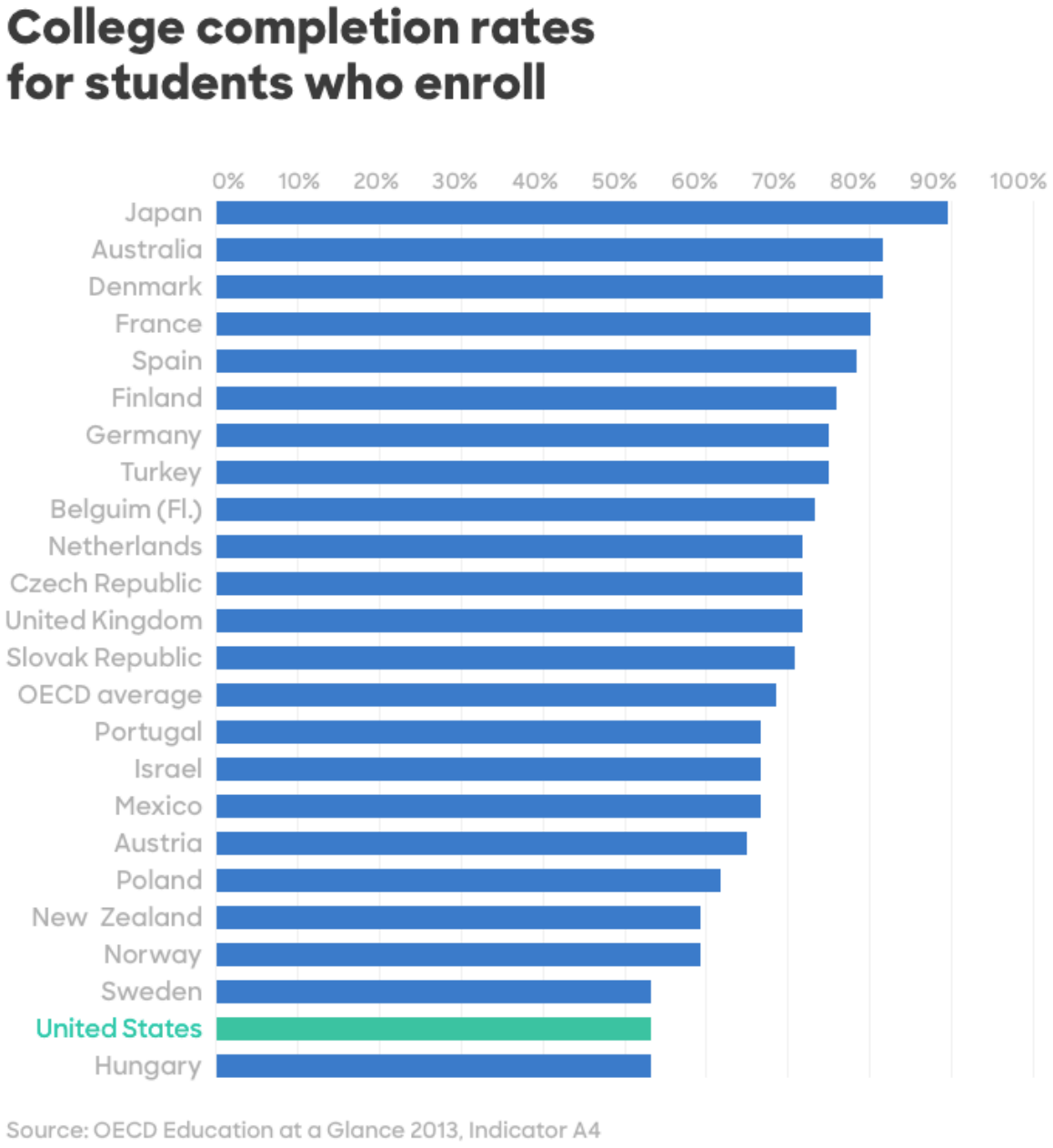


7. BLACK AND HISPANIC STUDENTS ARE LESS LIKELY TO COMPLETE COLLEGE THAN WHITE STUDENTS.



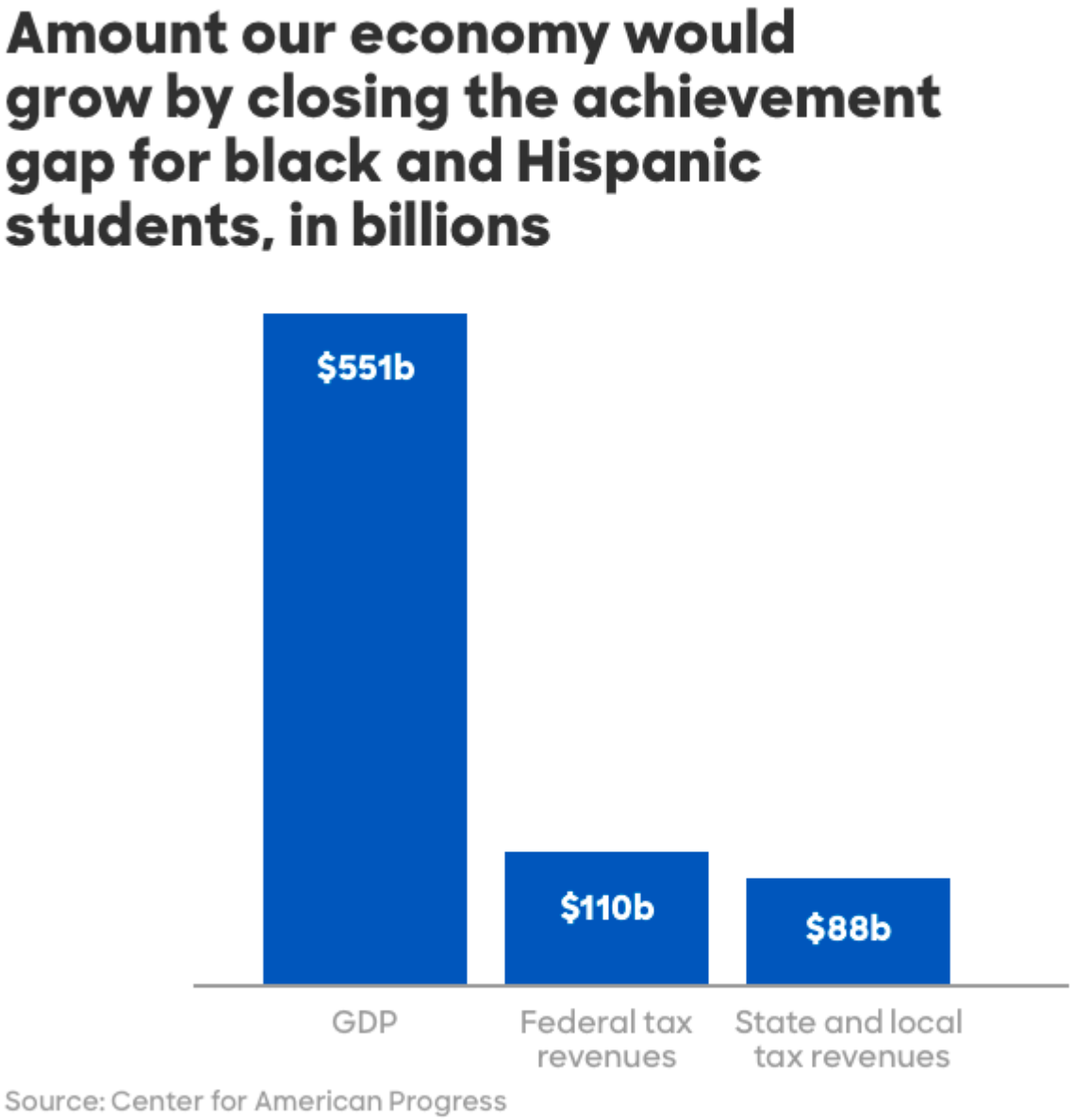
A great K–12 education can pay off in higher education, helping students to go to college and graduate with a degree. The difference in earnings between people who graduate from high school and those with college degrees is getting wider every year.

8. THE UNITED STATES IS BEHIND MANY INDUSTRIALIZED NATIONS WHEN IT COMES TO COLLEGE COMPLETION RATES.



Only about 50 percent of students who start college in the United States end up getting their degree—a percentage that is far lower than other nations.

9. THE MORE STUDENTS SUCCEED, THE BETTER OUR ECONOMY DOES!



5. What are my observations on these Nine Charts?

I am emotionally moved when I review these charts, for they clearly show (1) how much work we need to do with our educational system, and (2) how important education is to the lives of so many of our most vulnerable children.

The ninth chart, which shows the economic impact of improving educational performance, in many respects is the most important, because it shows that our overall economy would benefit significantly from our efforts to close the achievement gaps between (1) white students, and (2) black and Hispanic students. And, this chart does not show the potentially even larger benefit to the economy of enhancing the education achievements of all students, white, black, Hispanic, and other.

6. What are Secretary Clinton's positions on college education?

Pushed by Senator Bernie Sanders in the primary, Secretary Clinton has proposed making college debt-free. Specifically she has proposed:

- Every student should have the option to graduate from a public college or university in their state without taking on any student debt. By 2021, families with income up to $125,000 will pay no tuition at in-state four-year public colleges and universities. And from the beginning, every student from a family making $85,000 a year or less will be able to go to an in-state four-year public college or university without paying tuition.
- All community colleges will offer free tuition.
- Everyone will do their part. States will have to step up and invest in higher education, and colleges and universities will be held accountable for the success of their students and for controlling tuition costs.
- A $25 billion fund will support historically black colleges and universities, Hispanic-serving institutions, and other minority-serving institutions in building new ladders of opportunity for students. . . .
- The one-quarter of all college students who are also parents will get the support they need and the resources they deserve.

Secretary Clinton also says she will "provide immediate help to graduates who need relief from crushing debt" and that she would, *inter alia*, "fight to ensure that all borrowers can: (1) Refinance their student loans at current rates . . . [and] (2) Enroll in income-based repayment."

7. How would Secretary Clinton pay for all of her proposals?

As indicated in Chapter 15, which deals with the Great Deficit Debate, Secretary Clinton's tax increase proposals would more than pay for her spending initiatives, including her spending on education.

D. What are Mr. Trump's positions on education?

Mr. Trump's website does not contain specific proposals on education. However in his August 8, 2016 economic policy speech to the Detroit Economic Club, he said that his "education reforms will help parents send their kids to a school of their choice," and that Secretary Clinton "supports the education policies that deny your students choice, freedom and opportunity." Also in a proposal on child care advanced by Mr. Trump's daughter he has proposed tax relief for early childhood education and a program to ensure no family has to spend more than 10 percent of income on high-quality child care.

E. What is my take on education?

1. What is my general view on the proposals of Secretary Clinton and Mr. Trump?

Education is at the heart of economic growth. Without it, there would be no economic growth. I am very impressed with the thought and attention Secretary Clinton has given to this very important issue. She has focused on all levels of education, and she obviously has both (1) an understanding of the issues, and (2) a passion for addressing them. On the other hand, Mr. Trump's principal education policy is "choice." While choice can spur competition and lead to better results, it is not a panacea for addressing this very important and complex issue.

2. In regard to the education element of economic growth, what do I think about the impact of our current system of local control of primary and secondary education?

Primary and secondary public education is controlled by local school boards, and the effectiveness of this education is determined in significant part by the money the local school board can spend on education.

Since local public schools are funded principally by local property taxes, the money a school district can spend on education depends, in large part, on the wealth of the people in the local community. So, for example, this system results on balance in (1) a good to great education for the average kid growing up in a wealthy suburb, and (2) a not-so-good to bad education for the average kid growing up in a large American city.

This is a very inefficient manner in which to educate our children because (1) it reduces economic growth that could come from a better educated population, and (2) it reinforces the income disparity in this country, which is explored in Chapter 19, by making the rich richer, while the not so rich fall behind.

No doubt, there are many facets to this problem. However, in the interest of promoting economic growth and reducing income and wealth disparities, I propose that the Federal government ensure that every school district has sufficient funds to make sure its students can "read, write, and do arithmetic." The ability of our students to do these basic tasks is not just a local issue; it is a national issue because of the mobility of our population. For example, a student with an inadequate education from an inner-city school on the East coast could easily end up living in a rural area on the West coast.

It is sensible for local school boards to determine whether the high school will have a football or basketball team. On the other hand, it is economic folly to put in the hands of a local school board, which may have significant financial constraints, the power to determine whether the students under its control can "read, write, and do arithmetic."

Obviously, there would be many complexities and other challenges in implementing such a system. However, the positive impact on long-term economic growth makes a compelling case for this type of policy.

CHAPTER 19, WHAT IS THE IMPACT OF IMMIGRATION ON ECONOMIC GROWTH, AND WHAT ARE THE POSITIONS OF SECRETARY CLINTON AND MR. TRUMP?

A. What is in this Chapter?

This chapter explores how immigration affects economic growth, and the positions of Secretary Clinton and Mr. Trump on immigration. Also, this chapter presents my general take on these issues.

B. What was the bipartisan immigration bill?

In 2013, Senators Schumer, Democrat from New York, and Senator Rubio, Republican from Florida, among others, introduced in the Senate, *S. 744, the Border Security, Economic Opportunity, and Immigration Modernization Act*. The Modernization Act was generally received positively among liberal leaning groups and negatively by conservative leaning groups. For example, as discussed below, Senator Clinton generally supports the bill, and Mr. Trump vigorously opposes the bill.

The Congressional Budget Office did an *Analysis of Economic Impact of Immigration Modernization Act*, [449] and the summary of the analysis provides:

> The Border Security, Economic Opportunity, and Immigration Modernization Act (S. 744) would revise laws governing immigration and the enforcement of those laws, allowing for a significant increase in the number of noncitizens who could lawfully enter the United States permanently or temporarily. The bill also would create a process for many currently unauthorized residents to gain legal status, subject to their meeting conditions specified in the bill. The Congressional Budget Office (CBO) and the staff of the Joint Committee on Taxation (JCT) have prepared an estimate of the cost of that legislation to the federal government, including projections of the bill's effects on both federal spending and federal revenues.
>
> That cost estimate reflects some, but not all, of the effects that S. 744 would have on the economy. This supplemental report provides estimates of the overall economic impact of the legislation and of the incremental federal budgetary effects of changes in the economy that the cost estimate does not reflect. Ascertaining the effects of immigration policies on the economy and the federal budget is complicated and highly uncertain, even in the short run, and that task is even more difficult for longer periods; for that reason, this report addresses the next 20 years but does not attempt to look over a longer horizon.[450]

In addressing the question: *How Would the Economic Impact of the Legislation Affect Federal Budget Deficits?*, the CBO analysis generally concludes:

> Taking into account a limited set of economic effects, the cost estimate shows that changes in direct spending and revenues under the legislation would decrease federal budget deficits by $197 billion over the 2014–2023 period and by roughly $700 billion over the 2024–2033 period. The cost estimate also shows that implementing the legislation would result in net discretionary costs of $22 billion over the 2014–2023 period and $20 billion to $25 billion over the 2024–

[449] CBO, *Analysis of Economic Impact of Immigration Modernization Act*, *infra* Bibliography.
[450] *Id*. at 1.

2033 period, assuming appropriation of the amounts authorized or otherwise needed to implement the legislation.[451]

In addressing the question: *How Would the Legislation Affect the Economy?*, the CBO generally concludes:

S. 744 would boost economic output. Taking account of all economic effects (including those reflected in the cost estimate), the bill would increase real (inflation adjusted) GDP relative to the amount CBO projects under current law by 3.3 percent in 2023 and by 5.4 percent in 2033, according to CBO's central estimates. Compared with GDP, gross national product (GNP) per capita accounts for the effect on incomes of international capital flows and adjusts for the number of people in the country. Relative to what would occur under current law, S. 744 would lower per capita GNP by 0.7 percent in 2023 and raise it by 0.2 percent in 2033, according to CBO's central estimates. Per capita GNP would be less than 1 percent lower than under current law through 2031 because the increase in the population would be greater, proportionately, than the increase in output; after 2031, however, the opposite would be true.

CBO's central estimates also show that average wages for the entire labor force would be 0.1 percent lower in 2023 and 0.5 percent higher in 2033 under the legislation than under current law. Average wages would be slightly lower than under current law through 2024, primarily because the amount of capital available to workers would not increase as rapidly as the number of workers and because the new workers would be less skilled and have lower wages, on average, than the labor force under current law. However, the rate of return on capital would be higher under the legislation than under current law throughout the next two decades.[452]

C. What is the immigration study by the National Academy of Sciences and what are its basic findings?

The *Immigration Study by the National Academy of Sciences*,[453] which was released on September 21, 2016, is a study of *The Economic and Fiscal Consequences of Immigration*. The press release announcing the study says that the following are among the key findings and conclusions of the study:

- When measured over a period of 10 years or more, the impact of immigration on the wages of native-born workers overall is very small. To the extent that negative impacts occur, they are most likely to be found for prior immigrants or native-born workers who have not completed high school—who are often the closest substitutes for immigrant workers with low skills.
- There is little evidence that immigration significantly affects the overall employment levels of native-born workers. As with wage impacts, there is some evidence that recent immigrants reduce the employment rate of prior immigrants. In addition, recent research finds that immigration reduces the number of hours worked by native teens (but not their employment levels).

[451] *Id*. at 2.
[452] *Id*. at 3.
[453] *Immigration Study by the National Academy of Sciences*, *infra* at Bibliography.

- Some evidence on inflow of skilled immigrants suggests that there may be positive wage effects for some subgroups of native-born workers, and other benefits to the economy more broadly.
- Immigration has an overall positive impact on long-run economic growth in the U.S.
- In terms of fiscal impacts, first-generation immigrants are more costly to governments, mainly at the state and local levels, than are the native-born, in large part due to the costs of educating their children. However, as adults, the children of immigrants (the second generation) are among the strongest economic and fiscal contributors in the U.S. population, contributing more in taxes than either their parents or the rest of the native-born population.
- Over the long term, the impacts of immigrants on government budgets are generally positive at the federal level but remain negative at the state and local level — but these generalizations are subject to a number of important assumptions. Immigration's fiscal effects vary tremendously across states.

The study also says that immigration benefits, inter alia, "economic growth, innovation, and entrepreneurship — with little to no negative effects on the overall wages or employment of native-born workers in the long term."

D. What is Secretary Clinton's position on immigration?

Secretary Clinton's website contains an elaborate discussion of her immigration proposals. Her principal proposals include:

- **Introduce comprehensive immigration reform**. Hillary will introduce comprehensive immigration reform with a pathway to full and equal citizenship within her first 100 days in office. It will treat every person with dignity, fix the family visa backlog, uphold the rule of law, protect our borders and national security, and bring millions of hardworking people into the formal economy.
- **End the three- and 10-year bars**. The three- and 10-year bars force families—especially those whose members have different citizenship or immigration statuses—into a heartbreaking dilemma: remain in the shadows, or pursue a green card by leaving the country and loved ones behind.
- **Defend President Obama's executive actions—known as DACA [Deferred Action for Childhood Arrivals] and DAPA** [**Deferred Action for Parents of Americans and Lawful Permanent Residents**] —**against partisan attacks**. The Supreme Court's deadlocked decision on DAPA was a heartbreaking reminder of how high the stakes are in this election. Hillary believes DAPA is squarely within the president's authority and won't stop fighting until we see it through. The estimated 5 million people eligible for DAPA—including DREAMers and parents of Americans and lawful residents—should be protected under the executive actions.
- **Do everything possible under the law to protect families**. If Congress keeps failing to act on comprehensive immigration reform, Hillary will enact a simple system for those with sympathetic cases—such as parents of DREAMers, those with a history of service and contribution to their communities, or those who experience extreme labor violations—to make their case and be eligible for deferred action.

- **Enforce immigration laws humanely**. Immigration enforcement must be humane, targeted, and effective. Hillary will focus resources on detaining and deporting those individuals who pose a violent threat to public safety, and ensure refugees who seek asylum in the U.S. have a fair chance to tell their stories.
- **End family detention and close private immigration detention centers**. Hillary will end family detention for parents and children who arrive at our border in desperate situations and close private immigrant detention centers.
- **Expand access to affordable health care to all families**. We should let families—regardless of immigration status—buy into the Affordable Care Act exchanges. Families who want to purchase health insurance should be able to do so.
- **Promote naturalization**. Hillary will work to expand fee waivers to alleviate naturalization costs, increase access to language programs to encourage English proficiency, and increase outreach and education to help more people navigate the process.

E. What is Mr. Trump's position on immigration?

Mr. Trump's website sets out detailed proposals on immigration. The website outlines the following three "core principles:"

> When politicians talk about "immigration reform" they mean: amnesty, cheap labor and open borders. The Schumer-Rubio immigration bill was nothing more than a giveaway to the corporate patrons who run both parties.
>
> Real immigration reform puts the needs of working people first – not wealthy globetrotting donors. We are the only country in the world whose immigration system puts the needs of other nations ahead of our own. That must change. Here are the three core principles of real immigration reform:
>
> 1. A nation without borders is not a nation. There must be a wall across the southern border.
> 2. A nation without laws is not a nation. Laws passed in accordance with our Constitutional system of government must be enforced.
> 3. A nation that does not serve its own citizens is not a nation. Any immigration plan must improve jobs, wages and security for all Americans.

As everyone in America knows, Mr. Trump says he will make Mexico pay for the wall, and the website discusses as follows this principle:

> For many years, Mexico's leaders have been taking advantage of the United States by using illegal immigration to export the crime and poverty in their own country (as well as in other Latin American countries). They have even published pamphlets on how to illegally immigrate to the United States. The costs for the United States have been extraordinary: U.S. taxpayers have been asked to pick up hundreds of billions in healthcare costs, housing costs, education costs, welfare costs, etc. Indeed, the annual cost of free tax credits alone paid to illegal immigrants quadrupled to $4.2 billion in 2011. The effects on jobseekers have also been disastrous, and black Americans have been particularly harmed.
>
> The impact in terms of crime has been tragic. In recent weeks, the headlines have been covered with cases of criminals who crossed our border

illegally only to go on to commit horrific crimes against Americans. Most recently, an illegal immigrant from Mexico, with a long arrest record, is charged with breaking into a 64 year-old woman's home, crushing her skull and eye sockets with a hammer, raping her, and murdering her. The Police Chief in Santa Maria says the "blood trail" leads straight to Washington.

In 2011, the Government Accountability Office found that there were a shocking 3 million arrests attached to the incarcerated alien population, including tens of thousands of violent beatings, rapes and murders.

Meanwhile, Mexico continues to make billions on not only our bad trade deals but also relies heavily on the billions of dollars in remittances sent from illegal immigrants in the United States back to Mexico ($22 billion in 2013 alone).

In short, the Mexican government has taken the United States to the cleaners. They are responsible for this problem, and they must help pay to clean it up.

The cost of building a permanent border wall pales mightily in comparison to what American taxpayers spend every single year on dealing with the fallout of illegal immigration on their communities, schools and unemployment offices.

Mexico must pay for the wall and, until they do, the United States will, among other things: impound all remittance payments derived from illegal wages; increase fees on all temporary visas issued to Mexican CEOs and diplomats (and if necessary cancel them); increase fees on all border crossing cards – of which we issue about 1 million to Mexican nationals each year (a major source of visa overstays); increase fees on all NAFTA worker visas from Mexico (another major source of overstays); and increase fees at ports of entry to the United States from Mexico [Tariffs and foreign aid cuts are also options]. We will not be taken advantage of anymore.

Among other things, he would (1) triple the number of ICE officers, (2) establish Nationwide e-verify, (3) provide for mandatory return of all criminal aliens, and (4) defund sanctuary cities.

F. What is my general take on the immigration issue?

My observations here are based on only a cursory examination of the immigration issue.

The economic evidence seems to clearly show that on balance immigration is good for the economy. I think that few people would argue that we should not take action against illegal immigration, and the Obama Administration has been taking such action. Further, the *Immigration Modernization Act* would have taken such action. However, there is great dispute at the treatment of Dreamers and the path to citizenship set out in the *Immigration Modernization Act*. That approach is a sound practical approach to a very challenging problem. Hopefully, at some point in the future, Congress will enact immigration reform along the lines of the provisions in the *Immigration Modernization Act*.

The idea of building a wall seems to be a non-starter. Apart from its likely non-effectiveness, the symbol of a wall on our southern border would be a very bad signal to the rest-of-the-world.

A. What is in this Chapter?

This chapter explores various issues that are presented by the apparent growing inequality in wealth and income in this country. The chapter also presents the positions on the issues of Secretary Clinton, Mr. Trump, and the House Republican *A Better Way*. Finally, I present my take on the issues.

B. What is the CBO's assessment of income inequality?

1. What is the CBO's Study of the Distribution of Household Income?

In June 2016, the Congressional Budget Office published a study entitled, *The Distribution of Household Income and Federal Taxes, 2013*.[454] The study's summary gives the following picture of the average level of income during 2013:

> **Summary.** In 2013, according to the Congressional Budget Office's estimates, average household market income—a comprehensive income measure that consists of labor income, business income, capital income (including capital gains), and retirement income—was approximately $86,000. Government transfers, which include benefits from programs such as Social Security, Medicare, and unemployment insurance, averaged approximately $14,000 per household. The sum of those two amounts, which equals before-tax income, was about $100,000, on average. In this report, CBO analyzed the distribution of four types of federal taxes: individual income taxes, payroll (or social insurance) taxes, corporate income taxes, and excise taxes. Taken together, those taxes amounted to about $20,000 per household, on average, in 2013. Thus, average after-tax income—which equals market income plus government transfers minus federal taxes—was about $80,000, and the average federal tax rate (federal taxes divided by before-tax income) was about 20 percent.[455]

2. What is the Gini Index, which the CBO's Study of the Distribution of Household Income uses to measure income inequality?

In a section of the CBO, *2013 Distribution of Household Income* study entitled "*Trends in Income Inequality*," the study discusses the Gini index, a measure of income inequality, and compares the Gini index for the U.S. between 1979 and 2013. The study explains the Gini index as follows:

> A standard measure of income inequality is the Gini index, which summarizes an entire distribution in a single number that ranges from zero to one. A value of zero means that income is distributed equally among all income

[454] CBO, *2013 Distribution of Household Income*, *infra* Biblography.
[455] *Id*. at 1.

groups, and a value of one indicates that all of the income is received by the highest-income group and none is received by any of the lower-income groups.[456]

3. What is the CBO's Study assessment of the degree of income inequality in 2013 measured by the Gini Index?

The CBO, *2013 Distribution of Household Income* study gives an assessment of the level of income inequality in the U.S. in 2013 compared to the level of inequality in 2013. The assessment provides:

> As the distributions of income have shifted over time, so has the degree of inequality in market income, before- tax income, and after-tax income. . . . Inequality of all three measures of income was higher in 2013 than in 979, according to CBO's estimates (see Figure 14).
>
> The increase in inequality in both before-tax and after-tax income over the 35-year period stemmed largely from a significant increase in inequality in market income, mostly because of substantial income growth at the top of the market income distribution. In 1979, the Gini index for market income was 0.48. In 2013, the Gini index was 0.60, or approximately 25 percent higher than the index in 1979.
>
> Inequality as measured by the Gini index has been consistently lower for after-tax income than for before-tax income and consistently lower for before-tax income than for market income. Government transfers reduce income in equality because the transfers received by lower-income households are larger relative to their market income than are the transfers received by higher-income households. Federal taxes also reduce income inequality, because the taxes paid by higher-income households are larger relative to their before-tax income than are the taxes paid by lower-income households. The equalizing effects of government transfers were significantly larger than the equalizing effects of federal taxes from 1979 to 2013[457]

C. What is the Economic Report of the President's assessment of income inequality?

Chapter 1 of the *2015 Economic Report of the President*[458] is entitled *Middle-Class Economics: The Role of Productivity, Inequality, and Participation*. The chapter makes several insightful observations of the impact of inequality. A section of the Report entitled "*The Importance of Productivity, Inequality, and Participation*," makes the following observation on the impact of these three factors on middle-class incomes:

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[456] *Id*. at 22.

[457] [Footnote 31 from the original text refers, *inter alia*, to the following study of income inequality by Piketty and Saez who have studied the issue extensively. A presentation on this issue by Saez is discussed below.] 31. A significant body of research has examined changes in U.S. income inequality over time, using various data sources and measures of income. For example, Thomas Piketty and Emmanuel Saez rely on income tax data from the Internal Revenue Service's Statistics of Income; see Piketty and Saez, "Income Inequality in the United States, 1913–1998," Quarterly Journal of Economics, vol. 118, no. 1 (February 2003), pp. 1–39, http://eml.berkeley.edu/~saez/pikettyqje.pdf (471 KB). . . .

[458] *2015 Economic Report of the President*, *infra* Bibliography at 21.

> As productivity, the income distribution, and participation evolved over the past 65 years, middle-class incomes went from doubling once in a generation to showing almost no growth at all by some measures. But if these three factors had recently continued the strong trends observed in earlier periods, the outcome for typical families would be quite different. Four counterfactual thought experiments give a sense of the magnitudes involved in this dramatic change:
>
> *The impact of higher productivity growth.* What if productivity growth from 1973 to 2013 had continued at its pace from the previous 25 years? In this scenario, incomes would have been 58 percent higher in 2013. If these gains were distributed proportionately in 2013, then the median household would have had an additional $30,000 in income.
>
> *The impact of greater income equality.* What if inequality had not increased from 1973 to 2013, and instead the share of income going to the bottom 90 percent had remained the same? Even using the actual slow levels of productivity growth over that period, the 2013 income for the typical household would have been 18 percent, or about $9,000, higher.
>
> *The impact of expanded labor force participation.* What if female labor force participation had continued to grow from 1995 to 2013 at the same rate that it did from 1948 to 1995 until it reached parity with male participation? Assuming that the average earnings for working women were unchanged, and maintaining the actual histories of productivity and income distribution, the average household would have earned 6 percent more in 2013, or an additional $3,000.
>
> *The combined impact of all three factors.* Finally, if all three factors had aligned—if productivity had grown at its Age of Shared Growth rate, inequality had not increased, and participation had continued to rise—then these effects would have been compounded and the typical household would have seen a 98-percent increase in its income by 2013. That is an additional $51,000 a year.[459]

The report discusses as follows the specific impact of inequality on middle-class incomes:

> *Income Inequality*. The second important factor influencing the dynamics of middle-class incomes is inequality. This, too, is a global issue. In the United States, the top 1 percent has garnered a larger share of income than in any other G-7 country in each year since 1987 for which data are available, as shown in Figure 1-8. From 1990 to 2010, the top 1 percent's income share rose 0.22 percentage point a year in the United States versus 0.14 percentage point a year in the United Kingdom. While comparable international data are scarce after 2010, the gains of the top 1 percent continued since then in the United States, until a noticeable downtick in 2013.[460]

[459] *Id*. at 32.
[460] *Id*. at 35.

D. What are the views of Professors Piketty and Saez on the inequality issue?

As indicated above, Professors Piketty and Saez have extensively studied the income inequality issue. In a 2013 presentation at Stanford,[461] Professor Saez summarized as follows his conclusions on the status of income inequality since the beginning of the 20th century:

1) Dramatic reduction in income concentration during the first part of the 20th century
2) No Recovery in the 3 decades following World War II
3) Sharp increase in top 1% income share since 1970s
4) Top 1% income share today is similar to top 1% share in 1920s but "working rich" have partly replaced "rentiers."[462]

Professor Saez gave the following reasons for why we should care about income inequality:

1) Inequality matters because people evaluate their economic well-being relative to others, not in absolute terms . . .
2) Surge in US top 1% income share so large that income growth of bottom 99% is only half of average income growth
3) Surge in top incomes gives top earners more ability to influence political process (think-tanks, lobbying, campaign funds).[463]

Professor Saez laid out the following policy implications of the large income inequality:

1) US historical evidence and international evidence shows that tax policy plays a key role in the shaping the income gap
2) High top tax rates reduce the pre-tax income gap without visible effect [on] economic growth
3) In globalized world, progressive taxation will require inter-national coordination to keep tax avoidance/evasion low
4) Public will favor more progressive taxation only if it is convinced that top income gains are detrimental to the 99%.[464]

His second point is particularly important because it refutes the often heard argument that high marginal tax rates depress economic growth.

E. In view of the recent positive trends in the labor market, what have been the recent trends in the following measures of income inequality: (1) household income, (2) the poverty rate, and (3) health coverage?

Similar to a question in Chapter 7, which deals with employment, this section discusses the U.S. Census Bureau's September 2016 report on (1) real median household income, (2) the official poverty rate, and (3) the percentage of people without health insurance coverage. The report is consistent with the recent positive labor market trends

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[461] Emmanuel Saez, *Income Inequality: Evidence and Policy Implications* (Jan. 2013).
[462] *Id*. at Slide 11.
[463] *Id*. at Slide 8.
[464] *Id*. at Slide 24.

that are discussed above. A Census Bureau news release summarizes the report as follows:

> The U.S. Census Bureau announced today that real median household income increased by 5.2 percent between 2014 and 2015 while the official poverty rate decreased 1.2 percentage points. At the same time, the percentage of people without health insurance coverage decreased.
>
> Median household income in the United States in 2015 was $56,516, an increase in real terms of 5.2 percent from the 2014 median income of $53,718. This is the first annual increase in median household income since 2007, the year before the most recent recession.
>
> The nation's official poverty rate in 2015 was 13.5 percent, with 43.1 million people in poverty, 3.5 million fewer than in 2014. The 1.2 percentage point decrease in the poverty rate from 2014 to 2015 represents the largest annual percentage point drop in poverty since 1999.
>
> The percentage of people without health insurance coverage for the entire 2015 calendar year was 9.1 percent, down from 10.4 percent in 2014. The number of people without health insurance declined to 29.0 million from 33.0 million over the period.

These findings are contained in two reports: *Income and Poverty in the United States: 2015* and *Health Insurance Coverage in the United States: 2015.*[465]

F. What are the views of Secretary Clinton on the inequality issue?

A search of Secretary Clinton's website for the word inequality resulted in several references to the term and the following policy prescription for addressing inequality:

> *5 IMPORTANT STEPS HILLARY CLINTON WILL TAKE TO REDUCE INEQUALITY AND GROW OUR ECONOMY . . .*
>
> Hillary Clinton . . . has a vision for an economy that works for everyone—not just those at the top.
>
> Here are five ways she'll get us there:
>
> [1] Let's break through the dysfunction in Washington to make the biggest investment in new, good-paying jobs since World War II. . . . [*See* Chapter 10 dealing with infrastructure]
>
> In her first 100 days as president, Hillary will work with both parties on a plan to create the next generation of good-paying American jobs. That plan will include the biggest investment in American infrastructure in decades—including connecting every household to broadband by 2020; building a cleaner, more resilient energy grid; recommitting to scientific research that can create new industries; and cutting red tape so that small businesses can get off the ground.
>
> [2] Let's make college debt-free for all and transform the way we prepare Americans for the jobs of the future. . . . [See Chapter 18]
>
> Every American deserves access to quality, affordable education—from cradle to college. Hillary's plan starts with making preschool available to every

[465] Census Bureau, News Release, *Income, Poverty and Health Insurance Coverage in the United States: 2015* (Sept. 13, 2016).

family in every community within 10 years. And she's laid out a plan to ensure students never have to borrow for tuition at public colleges or universities—and the countless Americans already saddled with student debt can refinance at a lower rate.

[3] Let's rewrite the rules so more companies share profits with their employees and fewer ship jobs and profits overseas. . . .

More money in the pockets of hardworking Americans is good for businesses—and our economy. Yet, too many companies have forgotten that American workers are their biggest asset. As president, Hillary will make it a national priority to ensure companies share their profits with the employees whose hard work makes them successful. And she'll make companies that send jobs overseas give back the tax breaks they've received in the U.S.

She'll crack down on wage theft, enforce overtime laws, and stand with unions to make it easier for workers to bargain collectively. And she'll strengthen regulations on Wall Street—including big banks and the shadow banking system—to protect Americans from another financial crisis.

[4] Let's make sure that Wall Street, corporations, and the super-rich pay their fair share of taxes. [*See* Chapter 23]

Our tax code is riddled with scams, loopholes, and special breaks that let hedge fund managers pay a lower tax rate than teachers and nurses. It's not just unfair—it's bad economics, and Hillary will put a stop to it. She'll also ask the wealthiest Americans to pay more in taxes, including a new tax on multimillionaires, to help pay for the investments our country needs without increasing the national debt.

[5] Let's put families first and make sure our policies match how you actually work and live in the 21st Century.

Our workforce model has changed dramatically over the past few decades: Women are the sole or primary breadwinners in more families than ever, workers no longer expect to stay at one company for their entire careers, and many are freelancing or cobbling together part-time work.

Hillary believes our economic success should be measured by how much incomes rise for working families, how many Americans can find good-paying jobs, and how many children can climb out of poverty—a vision that couldn't stand in sharper contrast with her Republican opponent's.

It's time for our economy to meet the needs of the modern workforce. That's why Hillary is fighting for family-friendly workplace policies like paid leave and to expand social security [*see* Chapter 16] to ensure families have a secure retirement. As president, she'll provide tax relief for working families to help ease the cost of health care, prescription drugs, and housing. And she'll set a goal of ensuring families spend no more than 10 percent of their income on child care.

As will be discussed in Chapter 23, which deals with tax policy, Secretary Clinton's tax policies would reduce after-tax income inequality.

G. What are the views of Mr. Trump on the inequality issue?

A search for the term "inequality on Mr. Trump's website resulted in no hits. Although some of his policies may have the effect of reducing income inequality, as will be discussed in Chapter 23, which deals with tax policy, unlike Secretary Clinton's tax policies, which would reduce after-tax income inequality, Mr. Trump's tax proposals would increase after-tax income inequality.

H. What are the proposals of the House Republican "A Better Way on Poverty, Opportunity, and Upward Mobility?"

In June 2016, the House Republican *A Better Way on Poverty* set out several proposals for addressing poverty, opportunity, and upward mobility. A detailed analysis of these proposals is beyond the scope of this chapter. However, the general thrust of the proposals is captured in the following *Introduction* and *Conclusion* to the proposals:

> *Introduction*. The American Dream is the idea that, no matter who you are or where you come from, if you work hard and give it your all, you will succeed. But for too many people today, that's simply not true. Thirty-four percent of Americans raised in the
> bottom fifth of the income scale are still stuck there as adults. In fact, the rates at which people move up the ladder of opportunity have stayed remarkably stable over the past several generations. In that sense, Americans are no better off today than they were before the War on Poverty began in 1964.
>
> That's why House Republicans created the Task Force on Poverty, Opportunity, & Upward Mobility. No amount of government intervention can replace the great drivers of American life: our families, friends, neighbors, churches, and charities. And americans do not need more one-size-fits-all, top-down government programs that limit their ability to get ahead. Instead, they need opportunities to help them escape poverty and earn success. The federal government needs to build public-private partnerships to bring out the best of what each sector has to offer.
>
> So through listening sessions, hearings, and collaboration across the entire conference, the task force has developed a blueprint for reforming our welfare, workforce, and education programs that will empower Americans to achieve the American Dream. . . .
>
> *Conclusion*. In this report we have begun to chart a path forward for all Americans to achieve the American dream. All too often, our current system of welfare programs and education programs are too complex, or don't provide the assistance that
> individuals need in their unique circumstances. And the ability to save for retirement shouldn't be frustrated by red tape in Washington. Whether you are a young mother who wants to attain greater skills to provide for your family, or someone struggling to put food on the table, our goal for government programs should be to provide a way to increase salaries, build wealth and ensure eventual independence from government programs.
>
> House Republicans believe there is a better way. While this task force is concentrated on reducing poverty and improving upward mobility, all of our work will help build a confident America. As we continue to roll out our agenda, House

Republicans will put forward policies that will help expand opportunity for struggling Americans through tax and regulatory reform. Low-income Americans will also see greater access to health care, lower premiums, and higher quality care as we replace a broken health care law with a patient-centered alternative.

This is the beginning of a conversation. House Republicans will continue to collaborate and solicit ideas on how best to improve outcomes for lower-income Americans, and we will continue to craft policies to ensure that no matter who you are or where you come from, if you work hard and give it your all, you will succeed.[466]

If one did not know the author of the above proposals, one likely would conclude that the proposals were made by a liberal Democratic group. It is encouraging to know that under the leadership of Speaker Ryan, the House Republicans are addressing issues of poverty, opportunity, and upward mobility.

I. What is my take on the income inequality issue?

1. What is my general position?

I strongly support policies that would reduce income inequality, including the progressive tax policies discussed in Chapter 23, and many of the policies advanced by Secretary Clinton.

2. Is there a relationship between income equality and economic growth?

As discussed in Chapter 23, which deals with tax policy, some have noted a negative relationship between economic growth and a significant unequal distribution of income, that is, countries with a significant unequal distribution of income experience lower economic growth. For example, in an article, Alesina and Rodrik have found that "income inequality is negatively correlated with subsequent economic growth."[467] Further, a research paper by Fishman and Simhon finds that when the capital stock of a country is large as in the U.S. "greater equality increases investment in specialization and leads to a greater division of labor and higher growth."[468]

Although it cannot be determined with certainty whether a more or less equal distribution of income and wealth in the U.S. will promote economic growth, on the basis of the available evidence it seems reasonable to conclude that long-term economic growth in the U.S. is more likely to be fostered by policies that lead to a more, rather than a less, equal distribution of income. This conclusion is intuitively appealing from the following common sense perspective.

There is a high correlation between income and education. Further, there is a high correlation between an educated workforce and productivity. Thus, to the extent that the tax system is structured to get more after-tax income into the hands of the lower income

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[466] *A Better Way on Poverty*, *infra* Bibliography, at 4 and 35.

[467] Alberto Alesina and Dani Rodrik, *Distributive Politics and Economic Growth*, 109 Quarterly Journal of Economics 465, 481 (May 1994).

[468] Arthur Fishman and Avi Simhon, *The Division of Labor, Inequality and Growth*, 14, at www.ssrn.org (December, 2001).

classes, the more likely these classes will be able to afford enhancements in education. These enhancements will, in turn, lead to more productivity and economic growth. Thus, it seems that the resolution of distributional issues can have an impact on the long-term growth of the economy and that policy makers at a minimum should be cautious in adopting tax policies that contribute to a less equal distribution of income, that is, policies that cause the tax system to be less progressive.

These observations are consistent with the following June 2012 evaluation of the U.S. economy by the OECD, an organization of developed and some developing countries:

> Income inequality and relative poverty [in the U.S.] are among the highest in the OECD. . . . [T]here is no consensus in the economic literature that reducing inequality would be harmful to economic growth. High income inequality is attributable to a significant degree to the large dispersion of earned income . . . To reduce both income inequality and distortions in resource allocation, tax expenditures that disproportionately benefit high earners should be limited over time.[469]

[469] *2012 Economic Survey*, *infra* Bibliography at Summary.

CHAPTER 21, REGULATORY POLICY: WHAT ARE THE APPROACHES OF SECRETARY CLINTON AND MR. TRUMP TO THE USE OF REGULATION TO ADDRESS NEGATIVE EXTERNALITIES LIKE POLLUTION?

J. What is in this Chapter?

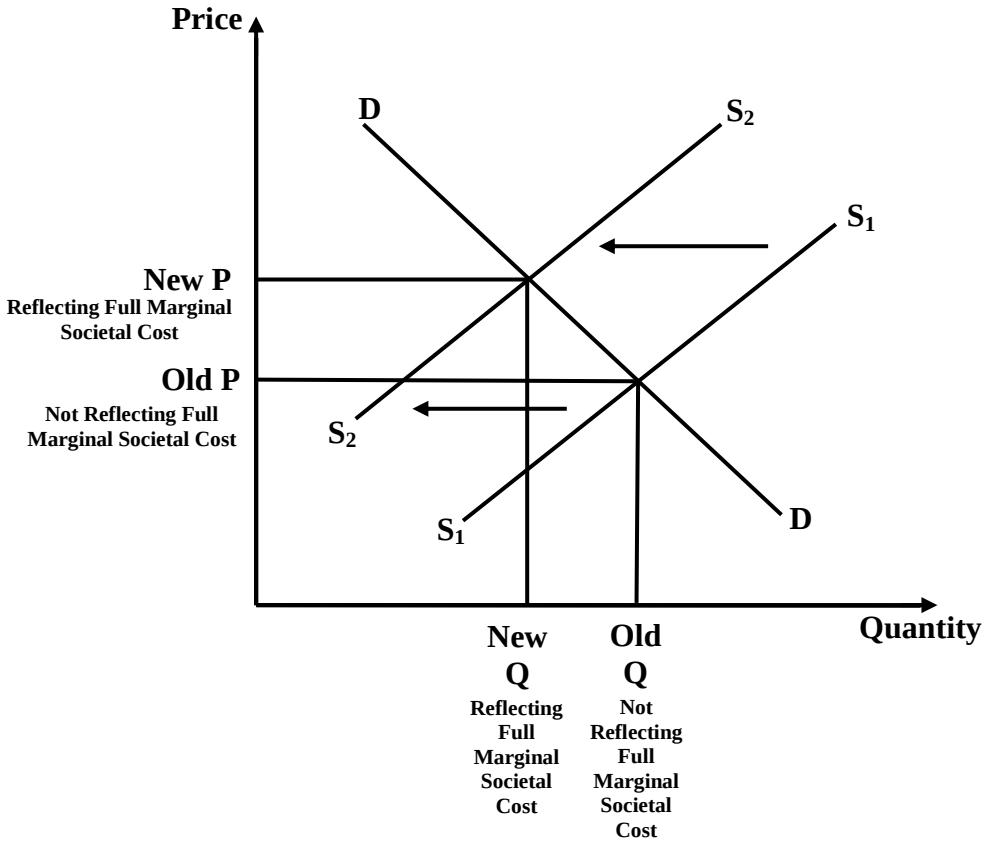
Chapter 2, which deals with the supply and demand curves of microeconomics, introduced the concepts of externalities and the market failure that can arise from negative externalities, such as pollution. This chapter elaborates on the impact of market failure and addresses the approaches of Secretary Clinton, Mr. Trump, and the House Republican *A Better Way* to the use of regulatory policy to address market failure arising from negative externalities. I also give my take on the issues.

K. What impact do externalities have on an industry's supply curve?

As discussed in Chapter 2, the industry supply curve reflects the marginal private costs incurred by the industry in the production process. However, there can be other societal costs generated in the production process that are not reflected in the industry's marginal private costs and, therefore, in the industry supply curve. Economists refer to these extra costs as externalities. Externalities can be both beneficial and detrimental; the focus in this chapter is on detrimental externalities, which arise from market failure, which in this context means the failure of the market to internalize all of the cost of production.

The classic example of a detrimental externality is the air or water pollution caused by an industry's factories. The pollution imposes a cost on society that is not, in the absence of government regulation, fully reflected in the industry's marginal private costs and in its supply curve. Consequently, the industry supply curve is lower than it should be, and the intersection of the industry's demand and supply curves thereby results in greater production and a lower price than is economically efficient. This is shown in Graph 21-A by the intersection of the demand curve and the initial supply curve, S_1.

Graph 21-A
Illustration of an Externality: Supply Curve that Does and Does Not Reflect Full Marginal Societal Cost of Production



L. How can government deal with negative externalities?

Government can attempt to deal with a detrimental externality by imposing additional costs (that is, taxes or other charges) on the industry to reflect the cost of an externality, such as pollution. The government would then use the taxes or charges collected to cure the problem. The imposition of the additional taxes or charges would ensure that the industry's supply curve fully reflected the marginal societal costs. This would shift the supply curve inward and upward. As a consequence, production would be less, and the price would be higher. This is shown on Graph 21-A, where the intersection of the demand curve and supply curve S_2, which fully reflects the marginal societal cost of production, results in lower production and higher price.

Obviously, determining the full cost of the externality and designing mechanisms, such as pollution taxes, to shift those costs is a difficult problem. However, the above analysis is the basic economic justification for environmental and other regulation that is designed to remedy detrimental externalities.[470]

M. What are the positions of Secretary Clinton on the use of regulatory initiatives to address detrimental externalities?

Secretary Clinton has several climate change initiatives and she has opposed the Keystone Pipeline, which the Obama Administration opposes. Her approach to environmental regulation seems to be similar to the benefit-cost approach of the Obama Administration. President Obama's *2012 Economic Report of the President* discusses as follows, this "benefit-cost" approach to what it calls, "Smart Regulation:"

> Many . . . regulations are intended to improve the quality of life by correcting market failures that lead to unsafe living or working environments. Effective regulations put into place rules that correct for significant market failures and thus achieve greater social benefits. "Smart regulations" are those that maximize the net benefits of a regulatory action to society. Benefit-cost analysis attempts to quantify and assign dollar values to the various effects of a regulation, which can be used to determine how it can reach its goal in the most efficient manner—that is, how it can generate the largest net benefits (the difference between total benefits and total costs) to society. . . .
>
> Smart regulations . . . seek to use the best information available in order to maximize net benefits by setting regulatory stringency at the most efficient level—the point at which the incremental benefits are equal to the incremental costs. For example, even though the marginal costs of seat belt standards increased . . ., those costs were far outweighed by the corresponding number of lives saved per year by seat belts. . . .
>
> The use of benefit-cost analysis in evaluating Federal regulations has become widespread since 1981, when President Reagan issued Executive Order 12291, formally requiring that "regulatory action shall not be undertaken unless

[470] For more on externalities see, for example, Baumol and Binder, *Economics 2003*, *infra* Bibliography at 234.

the potential benefits to society for the regulation outweigh the potential costs to society and that regulatory objectives shall be chosen to maximize the net benefits to society."[471]

Specifically, Secretary Clinton's website says that she will pursue the following environmental initiatives:

- Defend, implement, and extend smart pollution and efficiency standards, including the Clean Power Plan and standards for cars, trucks, and appliances that are already helping clean our air, save families money, and fight climate change.
- Launch a $60 billion Clean Energy Challenge to partner with states, cities, and rural communities to cut carbon pollution and expand clean energy, including for low-income families. . . .
- Invest in clean energy infrastructure, innovation, manufacturing and workforce development to make the U.S. economy more competitive and create good-paying jobs and careers. . . .
- Ensure safe and responsible energy production. As we transition to a clean energy economy, we must ensure that the fossil fuel production taking place today is safe and responsible and that areas too sensitive for energy production are taken off the table. . . .
- Reform leasing and expand clean energy production on public lands and waters tenfold within a decade.
- Cut the billions of wasteful tax subsidies oil and gas companies have enjoyed for too long and invest in clean energy.
- Cut methane emissions across the economy and put in place strong standards for reducing leaks from both new and existing sources.
- Revitalize coal communities by supporting locally driven priorities and make them an engine of U.S. economic growth in the 21st century, as they have been for generations. . . .
- Make environmental justice and climate justice central priorities by setting bold national goals to eliminate lead poisoning within five years, clean up the more than 450,000 toxic brownfield sites across the country, expand solar and energy efficiency solutions in low-income communities, and create an Environmental and Climate Justice Task Force. . . .
- Promote conservation and collaborative stewardship. Hillary will keep public lands public, strengthen protections for our natural and cultural resources, increase access to parks and public lands for all Americans, as well as harness the immense economic potential they offer through expanded renewable energy production, a high quality of life, and a thriving outdoor economy.

N. What are the positions of Mr. Trump on the use of regulatory initiatives to address detrimental externalities?

Mr. Trump's website deals briefly with regulatory issues, and his approach is captured in the following statement on the website:

Trump also seeks to reverse much of the Obama administration's climate change and energy agenda by defending the coal industry, rescinding

[471] *2012 Economic Report of the President*, *supra* note 1, at 233-34.

environmental rules and asking TransCanada to renew its Keystone pipeline permit application if he is elected.

O. What are the positions on regulation in the House Republican "A Better Way on the Economy?"

The Executive Summary of the House Republican *A Better Way on the Economy* focuses as follows on the need for regulatory reform:

> The last recession ended in 2009, but the economy has been limping along ever since. Job growth has been weak. Household income has stayed put. Business investment has barely budged. In all this time, the economy has never grown by more than 3 percent in a single year. In fact, according to one report, only 7 percent of American county economies have fully recovered to their pre-recession levels. One likely contributor is the growing federal regulatory burden.
>
> Sensible regulations can be compatible with a strong economy, and it is the federal government's responsibility to set clear, firm rules that all Americans can live by. But bad or unnecessary regulations can slow the economy down significantly, and the evidence suggests red tape is holding back the recovery. The federal government has taken very few outdated regulations off the books, while constantly adding new ones: 3,408 in 2015 alone. The American people now spend $1.89 trillion every year just to comply with Washington's rules—approximately $15,000 per household.
>
> From heath care and finance to manufacturing and energy, job creators spend more time jumping through hoops than expanding opportunities. For example, since the Dodd-Frank Act became law, our country has lost on average one community financial institution per day. All this red tape especially hurts small businesses, startups, and the energy sector—which are the engines of economic growth. It also puts American companies at a disadvantage against global competition.
>
> The costs filter down to consumers, raising the price of goods and services and disproportionately hurting low-income households. Everything from electric bills to the price of a new car is higher than it would otherwise need to be. In some cases, useful products have been regulated out of usefulness or even existence. Any American who has had to struggle with today's fuel cans for their mowers knows this only too well, but they probably don't know that the Environmental Protection Agency has made it so.
>
> Despite their substantial impact on the daily lives of the American people, federal regulations receive little scrutiny and few constraints. In fact, there are no limits on the amount of regulatory costs Washington can impose every year. None.
>
> Clearly, it is time for serious and fundamental reform. Every step in the process needs to be revamped: whether to regulate, how to regulate, and follow-up review of regulations. Agencies should write regulations only when necessary, make them minimally intrusive, stay within the legal mandate, and avoid creating barriers for new and small businesses.
>
> When regulating, agencies must take into account all costs---direct and indirect--- including the impact on jobs and on low-income households. Scientific

data used to support regulations must be done in the open, reproducible, and based on sound science. The process should include fair opportunities for public comment as well as judicial review. Paperwork should be kept to a minimum, especially for small businesses. Regulators should avoid locking in the status quo and thus blocking technological breakthroughs. Federal agencies must be required to consider the cumulative impacts of their actions.

It is time for Congress to take greater responsibility for federal regulations. Old laws that delegate broad and vague authority to regulatory agencies need to be revisited. Current regulations should be reviewed for possible reform or repeal. Congressional approval should be required for major new regulations. Congress should also consider a first-ever regulatory budget that would place limits on the amount of regulatory costs federal agencies can impose each year. Regulations are just another tax on our economy and citizens --- agencies should not be able to level such new taxes at will and without restraint.

Building on the regulatory reform legislation already introduced, republicans will address these and other concerns to ensure that federal regulations at all times promote the interests of the American people.[472]

P. What are my views on the use of regulatory initiatives to address detrimental externalities?

In my view, regulation is an important factor in combating negative externalities. For example, as discussed in Chapter 12, which deals with the Financial Crisis, the absence of regulation of the subprime mortgage market was a major factor leading to the Great Recession and the many detrimental externalities resulting from it.

Secretary Clinton seems to follow President Obama in acknowledging that regulation is a necessary element in dealing with our complex economy, and pursuing "smart" regulation, which I believe is a sensible approach to regulation.

Q. Have businesses overstated the regulatory burden?

For understandable reasons, businesses want less regulation because they want to internalize as little as possible the costs of the detrimental externalities resulting from their activities. For this reason, some business leaders and their political allies have, at a minimum, overstated the regulatory "burden" businesses have experienced. This conclusion was reinforced by a conversation I had with a CEO of one of our leading publicly held firms concerning regulatory burdens imposed by the Obama Administration. He said that for the most part the claims were principally about politics.

R. Is the mandate in Obamacare designed to address a detrimental externality?

The mandate in Obamacare requiring all financially able individuals to purchase health insurance or pay a fine is an example of a sensible regulation because it prevents individuals from "free-riding." Without a mandate, individuals who are otherwise financially able to purchase health insurance can decide to "free-ride" by shifting the cost

[472] *A Better Way*, *infra* Bibliography, at 5.

of their health care to the hospital that must, by law, take care of them in the case of an emergency, which virtually everyone faces at some point. Thus, the mandate is designed to address one of the detrimental externalities in the pre-Obamacare healthcare system.

S. Can a complex world be governed by simple regulation?

Finally, we live in a complex world; the most complex world the world has ever known. It is simplistic to assume that simple regulation can adequately deal with complex business activities. This point was made at a corporate tax conference in the 1980s by Ron Pearlman, the Assistant Secretary of Tax Policy in the Reagan Administration. In responding to the claim of some of the conferees that we needed to simplify corporate tax principles, the Assistant Secretary said something like: "It is unrealistic to think that simple corporate tax principles can properly address complex business transactions."

CHAPTER 22, ANTITRUST POLICY: WHY IS THERE A PREFERENCE UNDER THE ANTITRUST LAWS FOR COMPETITIVE MARKETS OVER MONOPOLY MARKETS, AND WHAT ARE THE ANTITRUST ENFORCEMENT POLICIES OF SECRETARY CLINTON AND MR. TRUMP?

A. What is in this Chapter?

Although this book focuses principally on macroeconomic analysis, it is important to take a look at basic microeconomic principles. In addressing these principles, this chapter first presents a brief analysis of the economic models of a competitive market and a monopoly market and then briefly examines the role of the U.S. antitrust laws in protecting competition and competitive markets. In this connection, a brief analysis of the Department of Justice's anti-monopoly case against Microsoft is presented as an illustration of the antitrust laws in action.

This chapter elaborates on the general principles of supply and demand discussed in Chapter 2 by focusing on a hypothetical market for PCs with a simple set of price/cost and quantity numbers illustrating the demand and supply sides of the market. These numbers are used first to construct a model of a competitive PC market and then to construct a model of a monopoly PC market. The models are used to compare the price and output decisions under competition with such decisions under monopoly. The analysis is based in part on Thompson, *Economics of Antitrust Merger Guidelines*.[473]

It is first assumed that (1) the PC market has ten producers, (2) each producer has one tenth of the market, and (3) all ten producers have the same cost structure. None of the producers has any power over the market price and the producers have not formed a cartel to agree on price; consequently, the market is competitively organized. From the price/cost and quantity numbers we will determine the particular price and output in this competitively organized market.

We then assume that all ten firms merge into one firm, with a monopoly of the PC market. We assume that there are significant barriers to entry into the PC market, such as patents and know-how, so that the monopoly will be durable. We then determine the price and output in the monopoly market. We will not examine the price and output decisions in the intermediate case, that is, in markets with just a few producers, which are generally referred to as oligopolies. Thus, this chapter compares the price and output results in a competitive PC market with the price and output in a monopoly PC market.

Finally, this chapter (1) addresses the impact competitive and monopoly markets may have on economic growth, and (2) briefly examines the approaches of Secretary Clinton and Mr. Trump to antitrust enforcement.

B. What is the Price and Output in the Competitive PC Market?

The analysis must start with a view of the state of demand in the market, and Table 22-A is a hypothetical PC Market Demand Schedule, which shows that the lower

[473] Samuel C. Thompson, Jr., *Economics of Antitrust Merger Guidelines*, *infra*, Bibliography.

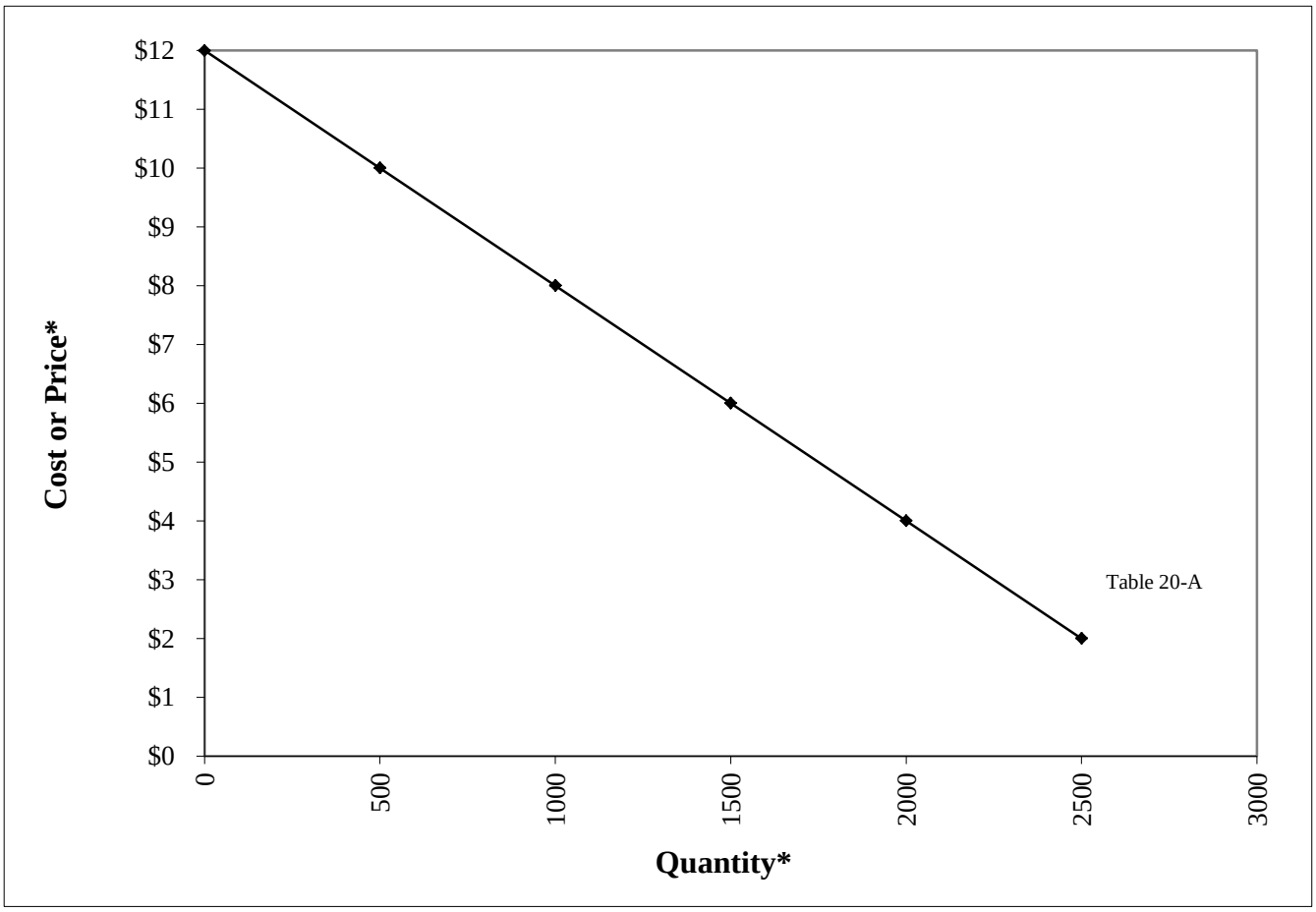
the price the more consumers will purchase. As indicated, Price is shown in $100s and Quantity (*i.e.*, Output) is shown in 1000s.

Table 22-A
PC Market Demand Schedule
(Price in $100, Quantity in 1000s)

Price Per Unit ($100)	Quantity Demanded (1000)
12	0
10	500
8	1000
6	1500
4	2000
2	2500

The Demand Curve is set out on Graph 22-A.

Graph 22-A
Demand Curve for PCs
(Price or Cost in $100, Quantity in 1000s)



*Price and Costs are in the $100s and Quantity is in the 1000s.

Turning to the supply side of the market, Table 22-B sets out various elements of the PC industry's cost structure. The Total Fixed Cost, column [2], is the cost that would be incurred without regard to the number of PCs produced, and the Average Fixed Cost, column [5], is the Total Fixed Cost divided by the number of PCs produced. Column [5] illustrates that Average Fixed Cost falls continuously as production increases. The Total Variable Costs, column [3], is the cost that varies with the level of production of PCs; that is, as the number of PCs produced increases, the Total Variable Cost increases. The Average Variable Cost, column [6], is the average cost of producing the particular level of PCs. The Average Variable Cost first falls as the firm experiences economies of scale and then rises as the firm experiences diseconomies of scale. The Average Total Cost, column [7], is the average of the sum of Total Fixed Cost and Total Variable Cost, column [4]. Like the Average Variable Cost curve, it first falls and then rises. These amounts reflect the horizontal summation of the relevant costs of each of the firms in the market, which is assumed to be the same for each firm.

Table 22-B
Aggregate Cost Data for All
Firms in the PC Market
(Cost in $100, Output in 1000s)

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Amount of Total Output	**Total Fixed Cost**	**Total Variable Costs**	**Total Cost (2) +(3)**	**Average Fixed Cost [2] ÷ [1]**	**Average Variable Cost [3] ÷ [1]**	**Average Total Cost (4) ÷ (1)**
500	$ 500	$ 2500	$ 3000	$ 1.00	$ 5.00	$ 6.00
1000	$ 500	$ 4000	$ 4500	$ .50	$ 4.00	$ 4.50
1500	$ 500	$ 5000	$ 5500	$ .33	$ 3.33	$ 3.66
2000	$ 500	$ 7000	$ 7500	$ .25	$ 3.50	$ 3.75
2500	$ 500	$10000	$10500	$ .20	$ 4.00	$ 4.20

Column [8] of Table 22-C is an approximation of the Industry Marginal Cost Curve. This curve, which is computed from the Average Variable Cost Curve, is a measure of the cost of producing the last or "incremental" or "marginal" unit. To more accurately reflect the actual Marginal Cost, the Marginal Costs are computed at the midpoint of the output range, which is column [7]. Like the Average Variable Cost Curve, the Marginal Cost Curve first falls during the time the firm realizes economies of scale and then rises as the firm realizes diseconomies of scale.

Table 22-C
Approximation of Industry Marginal Cost Per Marginal Unit
(Cost in $100, Output in 1000s)

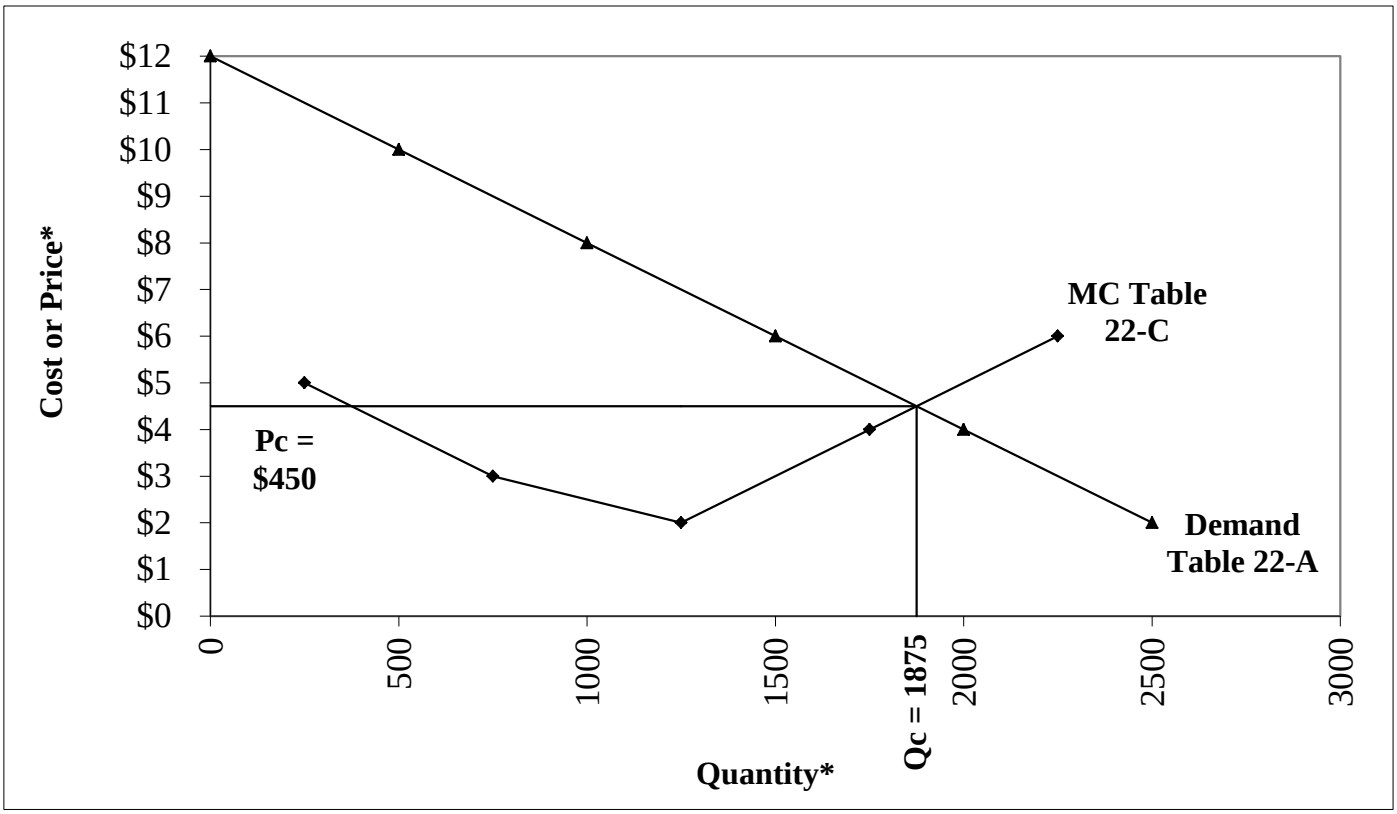
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Amount of Total Output	**Amount of Variable Output**	**Total Variable Costs***	**Variable Cost of Next Lower Level of Output****	**New Increase In Variable Cost [3] – [4]**	**Average Marginal Cost per Marginal Unit*** [5] ÷ [2]**	**Midpoint of Output Range**	**Marginal Cost at Midpoint of Output Range**
500	500	$ 2500	$0	= $ 2500	$ 5	250	$ 5
1000	500	$ 4000	$2500	= $ 1500	$ 3	750	$ 3
1500	500	$ 5000	$4000	= $ 1000	$ 2	1250	$ 2
2000	500	$ 7000	$5000	= $ 2000	$ 4	1750	$ 4
2500	500	$10000	$7000	= $ 3000	$ 6	2250	$ 6

* From Column [3] of Table 22-B.
** The next lower level of output here is -0- for 500 units of output, 500 for 1000 units of output, 1000 for 1500 units of output, and so on.
*** This column computes the average marginal cost over a range of output as opposed to the additional cost of the last unit produced, which is the true marginal cost. The indicated marginal cost is a more accurate reflection of the midpoint of the output ranges, as computed in column [8]. For example, it would be more accurate to place a marginal cost of $6 at an output of 2250 as opposed to 2500, which is done in column [8].

The Supply Curve is the portion of the Marginal Cost Curve above the Average Variable Cost Curve, and this is in the upward sloping portion of the Marginal Cost Curve. For ease of presentation and because, as will be seen later, the Marginal Cost Curve is important in the monopoly model, the analysis below shows the full Marginal Cost Curve and not just the portion of the Marginal Cost Curve that is the Supply Curve.

It is assumed that the ten firms in the PC Industry act competitively; therefore, the price consumers pay for PCs and the number of PCs sold can be determined by the intersection of the Demand Curve from Table 22-A and the upward sloping portion of the Marginal Cost Curve (which gives the Supply Curve) from Table 22-C. This is set out in Graph 22-B.

Graph 22-B
Price and Output under Competition
(Price and Cost in $100, Output in 1000s)



*Price and Costs are in the $100s and Quantity is in the 1000s.

Thus, under competition, the price of PCs will be $450 and the quantity produced will be 1,875,000, which is determined by the intersection of the portion of the Marginal Cost Curve that makes up the Supply Curve and the Demand Curve. At this point the profits of the firms are maximized because Marginal Cost, which includes the cost of capital, equals Marginal Revenue, which is also equal to Price (*i.e.*, MC=MR=P). This condition exists in a competitively organized market. It is important to intuitively grasp the point that this is a profit maximizing position for firms:

First, it would not make economic sense for firms to produce and sell more units because as illustrated on the Marginal Cost Curve, the cost of production would exceed the market price that would be received on sale, and

Second, it would not make economic sense for the firms to sell fewer units because they could earn greater profits by selling more units at the market price. This, of course, assumes that there is no price discrimination, that is, selling to different consumers at different prices, which is generally the case in normal markets.

C. What is the Price and Output in the Monopoly PC Market?

If the ten firms merge to form a durable monopoly, to compute the price and output levels that would obtain, it would be necessary to compute the Marginal Revenue Curve faced by the new firm. Although the Marginal Revenue for the firms in a competitively organized market is the price that exists in the market, the Marginal Revenue of the monopolist is not the market determined price because the monopolist can choose to sell anywhere along the demand curve, that is, the monopolist can sell fewer items at a higher price or more items at a lower price. Thus, the Marginal Revenue Curve of the monopolist will be downward sloping from the left and below the Demand Curve. The Marginal Revenue is the increment to total revenue that is realized by selling one additional unit (say the 500th unit) at the lower price that applies to all 500 units than the sale of one less unit (say the 499th unit) at the higher price that would apply to all 499 units. This also assumes no price discrimination. In other words, the Marginal Revenue from the sale of the 500th unit is the difference between (1) the total revenue realized from the sale of all 500 units at the lower price applicable to such units, and (2) the total revenue realized from the sale of all 499 units at the higher price applicable to such units. Table 22-D sets out the actual Marginal Revenue Curve for the above Demand Curve, which is derived through the use of calculus, which is not set out here.

Table 22-D
Computation of Actual
Marginal Revenue Curve Using Calculus
(Marginal Revenues in $100, Output in 1000s)

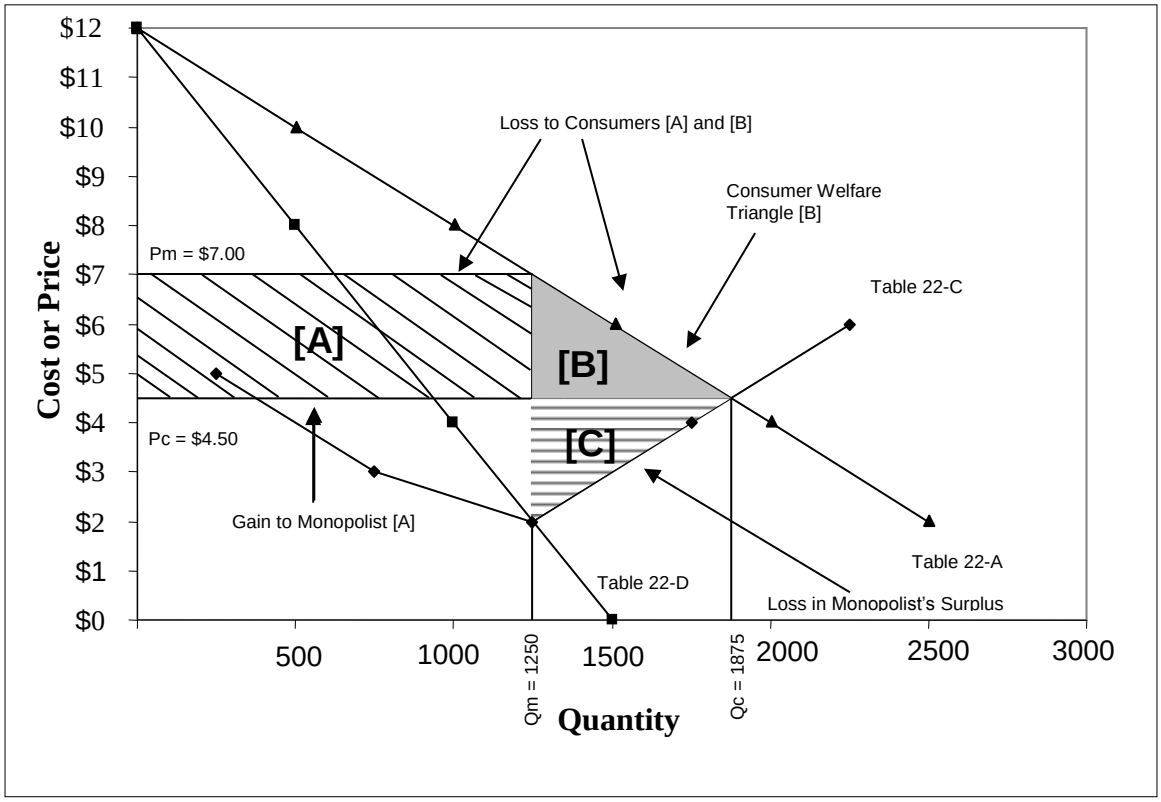
Amount of Total Output	Marginal Revenue
0	$12
500	$8
1000	$4
1500	$0

Note that the *Marginal Revenue* at a zero level of output is $1200, which means at a price of $1200, no PCs would be sold, and there would be no revenue.

The output under monopoly is determined by the intersection of the Marginal Revenue Curve, as computed previously, and the Marginal Cost Curve shown on Graph 22-B above, that is, output is determined at the point where Marginal Cost equals Marginal Revenue. As demonstrated in Graph 22-C, this intersection results in production of 1,250,000. The monopoly price however, is determined by reference to the price associated with the Demand Curve at the 1,250,000 level of production, which, as Graph 22-C shows, is $700. Thus, as a result of this merger to monopoly, production decreases significantly and the price to consumers goes up significantly.

With the Demand Curve, the Marginal Revenue Curve, and the Marginal Cost Curve, Graph 22-C sets out (1) the price ($450) and the output (1,875,000) under competition (*see also* Graph 22-B); (2) the price ($700) and output (1,250,000) under monopoly; and (3) the welfare effects of the monopoly.

Graph 22-C
Consumer Welfare Triangle and Loss in Producer Surplus
(Price and Cost in $100, Output in 1000s)



Pc means Price under competition, which is $4.50, that is, $450..
Pm means Price under monopoly, which is $7.00, that is, $700.

The welfare effects are determined by comparing how much benefit (welfare) goes to consumers and producers under competition and monopoly. Under competition, consumers' welfare is the triangle made by the intersection of (1) the demand curve; (2) the line running from the vertical price/cost axis to the point of intersection of the marginal cost curve and the demand curve, which is the competitive price (the price line); and (3) the vertical price/cost axis. This triangle represents the dollar amount consumers have saved in the aggregate as a result of the low competitive price that all take advantage of, that is, with perfect price discrimination, consumers would have paid this much more. Producer surplus is the amount below the price line and above the marginal cost curve.

Thus, as Graph 22-C demonstrates, the move from competition to monopoly has the following welfare effects. First, there is a loss in consumer welfare under monopoly, which includes the welfare triangle [B] and the gain to the monopolist [A]. Second, there is a loss in producer welfare (or surplus) [C], but this is more than offset by the gain in producer welfare [A]. In other words, as a result of moving from competition to monopoly, consumers suffer a loss in welfare in the amount of A plus B, and producers realize a gain in welfare of A and a loss in welfare of C. Virtually everyone agrees (including economists who are not concerned about the higher price paid by consumers under monopoly) that this type of merger should be prohibited because total welfare is reduced, that is, the welfare loss to consumers is more than the welfare gain to the monopolist.

D. What is the role of the Antitrust Laws in dealing with Competition, Monopoly, and Oligopoly?

As indicated in a GAO report, the Federal "antitrust laws are based on a belief that a competitive market system provides optimum use of economic resources and maximizes consumer benefits. As such, the laws seek to both prevent anticompetitive behavior and preserve and promote competition."

The two principal Federal antitrust laws are the Sherman Antitrust Act, which was enacted in 1890, and the Clayton Antitrust Act, which was enacted in 1914 and significantly amended in 1950. The Sherman Act principally addresses (1) combinations of firms for anticompetitive purposes, such as price fixing, and (2) monopolization by a single firm. The most important provision of the Clayton Act prohibits certain anticompetitive mergers. These statutes are not very long and it is helpful to focus on the actual words of the statutes:

SECTION 1 OF THE SHERMAN ACT

> Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce . . . is hereby declared to be illegal.

SECTION 2 OF THE SHERMAN ACT

> Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce . . . shall be deemed guilty of a felony . . . .

SECTION 7 OF THE CLAYTON ACT

> No person . . . shall acquire . . . [the stock or assets of another person] where in any line of commerce . . . in any section of the country, the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly. . . .

Read literally, Section 1 of the Sherman Act would prohibit all types of contracts, because by operation contracts "restrain trade;" however, in interpreting this statute the courts have adopted a *rule of reason* approach, which has the effect of exempting most standard contracts from the reach of the statute. On the other hand, courts have adopted a *per se* illegal approach for other contracts that have an obvious anticompetitive purpose of raising prices above the competitive level, such as price fixing agreements or agreements to divide markets among competitors. The OPEC oil cartel is an example of the type of price fixing arrangement that would be prohibited by Section 1 were it not for an exemption for such arrangements by foreign governments.

Also, read literally, Section 2 of the Sherman Act would prohibit a firm from acquiring a monopoly of a market through superior performance. However, the courts have made it clear that to violate Section 2 of the Sherman Act a firm both (1) must have a monopoly position in the market, and (2) must have taken some anticompetitive action in either acquiring the monopoly position or protecting the monopoly position. The Microsoft antimonopoly case illustrates the point.

E. What was the impact of Section 2 of the Sherman Antitrust Act in the Microsoft Case?

Both the U.S. district judge and the D.C. Court of Appeals, which reviewed the decision, found that Microsoft had a monopoly position in operating systems for PCs because Microsoft provided somewhere between 85% and 95% of such systems. To have a monopoly position under Section 2 it is not necessary to have 100% of the market, and some courts have found a monopoly position to exist with a market share of around 66%. Thus, Microsoft clearly had a monopoly position in the market for operating systems. However, this was not the basis for a finding of liability under Section 2 of the Sherman Act. Rather, both courts also found that Microsoft had taken various anticompetitive actions to protect its monopoly position, and it was the combination of (1) its monopoly position, and (2) its anticompetitive actions to protect the monopoly position that gave rise to liability under Section 2.

F. What is the impact of Section 7 of the Clayton Act in Mergers?

In prohibiting mergers where the "effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly," Section 7 of the Clayton Act is a prophylactic statute designed to prevent a market from moving in the direction of a monopoly through merger. The statute applies where the effect of the merger "may be" anticompetitive, not "will be" anticompetitive. Thus, for example, if there are four firms of equal size in a market and two of the firms are planning to merge, Section 7 will likely

prohibit a merger on the grounds that "the *effect* of such acquisition may be substantially to lessen competition." This illustrates the prophylactic effect of Section 7 of the Clayton Act, because it is unlikely that this type of merger would be prohibited by either Section 1 (contracts in restraint of trade) or Section 2 (monopolization) of the Sherman Act.

In applying each of these statutes, particularly Section 2 of the Sherman Act and Section 7 of the Clayton Act, it is generally necessary to properly define both the relevant product market and the relevant geographic market in which the potential anticompetitive effect may be occurring. In defining the relevant markets, the microeconomic tools used in constructing a demand curve are employed. One of the foundational concepts used in market definition is the cross elasticity of demand. Basically, the cross elasticity of demand is used to determine what would happen to the demand curve for a particular product, say PDAs, if there is a slight price increase for another product, say PCs. If, as a result of a price hike for PCs, there would be a shift in the demand curve for PDAs there may be a high cross elasticity of demand between PDAs and PCs indicating that they belong in the same market. Consequently, in a merger of two PC firms, in assessing the concentration in the market, it would be necessary to include the market shares of all firms producing both PCs and PDAs.

G. Who enforces the Antitrust Laws?

The Federal antitrust laws are enforced by three different governmental bodies: The Department of Justice's Antitrust Division, The Federal Trade Commission, and the attorneys general of the various states acting on behalf of their states or states' residents. Only the Antitrust Division can bring criminal antitrust actions. In addition, private individuals injured as a result of violations of the Federal antitrust laws may bring civil antitrust actions in federal district courts and, if successful, recover three times their actual damages. To prevent duplication of activities, the Antitrust Division and the FTC coordinate responsibility for investigations under a formal liaison or "clearance" agreement pursuant to which the two Federal Agencies decide on which organization will conduct the investigation.

H. What impact do Competitive and Monopoly Markets have on economic growth?

This is a difficult question, and this section simply offers a few basic observations. First, since prices are higher under monopoly, if a competitively organized industry is monopolized the resulting monopoly price may contribute to inflation (for example, assume that the U.S. oil industry were monopolized), and to the extent high inflation deters economic growth, it could adversely affect growth.

Second, as indicated in Chapter 2, technical progress is key to high rates of economic growth, and most economists believe that competitive markets are more effective in promoting technical progress than monopoly markets. This is because the principal way for a firm to earn high profits in a competitive market is to produce a better product through increases in efficiency, thereby moving its marginal cost curve out to the right and temporarily gaining a competitive edge until its competitors catch up. This clearly is beneficial not just to consumers who realize lower prices as the basic microeconomic model shows, but it also promotes economic growth. Thus, enhanced efficiency in particular markets contributes positively to economic growth. On the other

hand, some economists believe that monopoly can spur technical progress because the firm will have excess profits to devote to research and development. Others respond that at least some of the excess profits likely will be used on wasteful spending (for example, on lobbying governmental officials) designed to protect the monopoly position.

On balance, it seems clear that competitively organized markets are more likely to contribute positively to economic growth than monopoly markets.

I. What is Secretary Clinton's position on antitrust enforcement?

Secretary Clinton's website has the following statement regarding antitrust enforcement: "Strengthen our antitrust laws and enforcement so businesses get ahead by competing and benefitting their customers – not by unfairly concentrating markets." In October 2016, AT&T and Time Warner announced their merger, and Secretary Clinton expressed concern with the merger; this concern is consistent with the statement on her website concerning her antitrust enforcement policy. As indicated below, Mr. Trump also expressed concern with the transaction.

J. What is Mr. Trump's position on antitrust enforcement?

Mr. Trump's website does not address antitrust; however, as discussed above, he expressed concern with the AT&T-Time Warner merger. This could signal that his administration would vigorously enforce the antitrust laws.

K. What is my view on antitrust enforcement?

Although I agree with the use of economic analysis in antitrust enforcement, I believe that many in the judiciary and in the antitrust agencies are too inclined to accept economic arguments as grounds for not applying the antitrust laws to a questionable business practice or merger.

I agree with the vigorous approach to antitrust enforcement set forth on Secretary Clinton's website.

PART V, THE IMPACT ON ECONOMIC GROWTH OF THE TAX POLICY PROPOSALS OF SECRETARY CLINTON AND MR. TRUMP

CHAPTER 23, HOW WOULD VARIOUS TAX POLICY PROPOSALS OF SECRETARY CLINTON AND MR. TRUMP AFFECT ECONOMIC GROWTH?

A. What is in this Chapter?

Both Secretary Clinton and Mr. Trump have set forth many tax proposals; however, this chapter focuses principally on an analysis of the major tax proposals of these two candidates. This chapter starts the analysis by looking at the basic structure of (1) the Federal income taxation of individuals, (2) the Federal income taxation of corporations and other business entities, (3) the Federal income tax rules governing the foreign business operations of U.S. controlled foreign corporations (CFCs), and (4) the significance of distributional issues in tax analysis.

The chapter then turns to several major issues with the Federal Income Tax and discusses the positions of Secretary Clinton and Mr. Trump on these issues. Also, I give my views on each of the topics covered. Further on many of the issues, the book looks at the 2016 "*A Better Way on Tax*" proposals of the House Republicans.

The chapter starts this analysis by first looking at the taxation of high-income taxpayers, capital gains, and carried interests.

The chapter then examines the taxation of corporations, including the appropriate manner of taxing the foreign business income of U.S. CFCs. As discussed subsequently, the current deferral treatment of CFCs gives rise to the second largest corporate tax expenditure, that is, reduction in what would otherwise be corporate tax liability. Next the chapter examines the tax treatment of inversions, which involve U.S. companies re-incorporating under a foreign holding company in order, *inter alia*, to avoid certain U.S. anti-avoidance rules governing CFCs.

The chapter then looks at the proposals of Secretary Clinton and Mr. Trump on the Federal Estate Tax. The chapter next focuses on a National sales or value added tax (VAT). Finally, the chapter looks at the Grover Pledgers, that is, public officials who have pledged not to raise taxes.

Because the Social Security and Medicare taxes present large and unique issues, they are taken up separately in Chapter 16.

The 2004 version of this book examined the positions of President Bush and Senator Kerry on two issues that have now been addressed by Congress: (1) the codification of the economic substance doctrine, which is designed to curtail the use of abusive tax shelters, and (2) the curtailment of inversion transactions, which, as discussed below, continue to be an issue. Senator Kerry supported and President Bush opposed both proposals. I supported Senator Kerry's position, and I am happy to report that Congress adopted both of these proposals.

B. What is the basic structure of the individual Federal Income Tax?

The Federal Income Tax code requires a taxpayer to first determine her gross income, which basically includes all income from whatever source derived, except for certain specifically excluded items of income, such as interest on state and local bonds. The taxpayer then deducts from her gross income certain items that the code specifically

identifies as deductible, such as the interest on home mortgages. Certain deductions are phased-out as income increases. After taking the allowed deductions from gross income, the result is taxable income. The taxpayer then applies the applicable tax rates to her taxable income to arrive at her tax liability.

Ordinary taxable income, that is, taxable income other than capital gains (for example, gains from the sale of stock) and dividends, is presently taxed at marginal rates that run from a bottom rate of 10% to a top rate of 39.6%. Once the taxpayer has determined her tax liability, she may then utilize any credits provided under the tax code, such as the Child Tax Credit, to offset her tax liability dollar-for-dollar. Although both Secretary Clinton and Mr. Trump have made proposals relating to reform of the Child Tax Credit, this provision is not examined here.

Some taxpayers can be subject to the alternative minimum tax (AMT), which cuts back on certain deductions.

The rate structure is progressive, meaning the more income a taxpayer has the greater the proportion of the income the taxpayer pays in tax. As discussed in Chapter 16, unlike the Income Tax, the Social Security tax has features that are both proportional, which means all income is taxed at the same rate, and regressive, meaning the higher the income, the lower the proportion of the income the taxpayer pays in tax.

Since these are marginal rates, they apply to taxable income above a specific level. For example, for 2016, for married couples filing joint returns, the 39.6% maximum marginal rate is projected to apply to taxable income above $466,951. The levels at which the various brackets kick in are dependent on the taxpayer's status, for example, whether married or single, and the levels are indexed for inflation. Because these are marginal rates, taxpayers in higher brackets receive the benefit of the lower rates that apply to lower levels of income. This means that even though a taxpayer may have some of her income taxed at the highest marginal rate, because she has other income taxed at lower marginal rates, her effective rate of tax, that is, her tax liability as a percentage of taxable income, will be less than the marginal rate.

C. How does the Federal Income Tax apply to corporations and the owners of flow-through entities?

C Corporations. Regular corporations, known as C corporations, are subject to a maximum tax rate of 35%, with lower rates applicable to income below certain levels. Dividends to individual shareholders are subject to tax at a maximum rate of 23.8%. Thus, both the C corporation and its shareholders are subject to tax, and this is referred to as the double tax on a C corporation's income: (1) a 35% maximum rate on the C corporation, and (2) a 23.8% maximum rate on the shareholders upon the distribution of dividends from the after-tax profits of the C corporation. The combined double rate is approximately 50%. Also, if a shareholder sells her stock at a gain, the gain is treated as a capital gain that is taxed at the same 23.8% maximum rate that applies to dividends from C corporations. The 23.8% rate represents a standard 20% maximum rate, plus a 3.8% rate that is imposed by Obamacare on Net Investment Income of high income individuals.

S Corporations, Partnerships and LLCs. Notwithstanding entity level and shareholder level tax on C corporations, certain non-public corporations can elect to be treated as S corporations and avoid the corporate tax. The shareholders of S corporations

are taxed directly on their proportionate shares of the S corporation's income, whether or not that income is distributed, at the maximum rate of 39.6%. Thus, the tax treatment of S corporations is the same as the tax treatment of partnerships and most limited liability companies (LLCs): the entity is not subject to tax and the owners are taxed on their proportionate shares of any income and deduct their proportionate shares of any loss. Thus, S corporations, partnerships, and LLCs are referred to as flow-through entities and the maximum rate of tax on the owners is 39.6% compared to the approximate 50% maximum rate that applies to C corporations and their shareholders.

D. What is the basic structure of the Federal income taxation of U.S. controlled foreign corporations, that is, CFCs?

The U.S. taxes income on a worldwide basis. This means that, generally, the income of a U.S. resident is subject to taxation without respect to where the income is earned. Thus, assume that a U.S. corporation sets up a foreign branch, that is, a foreign division of the U.S. corporation. In such case, under the worldwide system, the foreign income of the branch is subject to U.S. taxation as the income is earned. To avoid double taxation of the income by both the U.S. and the foreign jurisdiction where the branch is operating, the U.S. corporation receives, subject to limitation, a foreign tax credit against its U.S. tax liability for the foreign income taxes paid by the branch.

On the other hand, assume that the U.S. corporation sets up a foreign subsidiary, that is, a separately incorporated foreign corporation the stock of which is owned by the U.S. corporation. In such case, the foreign business income of the foreign sub is generally not subject to U.S. taxation until that income is repatriated, that is, distributed as a dividend by the foreign sub to its U.S. parent. Thus, the income is "deferred" from U.S. taxation until repatriated, at which time the U.S. parent is taxed on the income, subject to a foreign tax credit for foreign taxes paid on the deferred income. This is referred to as the deferral principle.

To prevent the use of foreign subsidiaries for tax avoidance purposes, the controlled foreign corporation (CFC) provisions of the tax code contain limitations on the deferral principle and tax on a current as earned basis certain income of CFCs, including significant amounts of passive income, such as interest dividends and capital gains. These CFC provisions are examined further in the subsequent discussion of international tax policy.

E. What are "tax expenditures?"

Tax expenditures are deductions and other reductions from gross income in computing taxable income. The Joint Committee on Taxation prepares an annual report on tax expenditures,[474] and for example, the 2012 Report describes as follows the tax expenditure concept:

> Tax expenditures are defined under the Congressional Budget and Impoundment Control Act of 1974 (the "Budget Act") as "revenue losses attributable to provisions of the Federal tax laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a

[474] JCT, *2012 Tax Expenditure Report*, *infra* Bibliography.

> preferential rate of tax, or a deferral of tax liability." Thus, tax expenditures include any reductions in income tax liabilities that result from special tax provisions or regulations that provide tax benefits to particular taxpayers.
>
> Special income tax provisions are referred to as tax expenditures because they may be considered to be analogous to direct outlay programs, and the two can be considered as alternative means of accomplishing similar budget policy objectives. Tax expenditures are similar to those direct spending programs that are available as entitlements to those who meet the statutory criteria established for the programs.[475]

The House Republican *A Better Way on Taxes* defines a tax expenditure as "special-interest giveaways that are masked as tax breaks instead of direct grants."[476] The document goes on to say:

> For fiscal year 2016, such "spending" through the tax code amounts to more than $1.4 trillion, or almost three-fourths of the amount of revenue raised by the entire Federal income tax. When Washington picks winners and losers with the tax code, the American people ultimately pay higher tax rates and keep less of their hard-earned money.[477]

F. What are the principal individual tax expenditures?

The largest tax expenditure for individuals is the "[e]xclusion of employer contributions for health care, health insurance premiums, and long-term care insurance premiums."[478] The second largest expenditure for individuals is the "[d]eduction for mortgage interest on owner occupied residences."[479] The third largest individual tax expenditure is the "[r]educed rates of tax on dividends and long-term capital gains,"[480] which as indicated above are taxed at a maximum rate of 23.8%.

In addressing the taxation of individuals, the subsequent discussion addresses the tax expenditures for dividends and capital gains and also looks at the individual rate structure and the Estate Tax.

Although many of the numerous tax expenditures are of questionable utility from an economic and tax policy perspective, this chapter only addresses the treatment of dividends and capital gains. However, I pause here to briefly address a tax expenditure that should definitely be cutback: the deduction for mortgage interest. Currently, an individual can deduct interest on a mortgage that does not exceed $1 million. Also, interest is deductible on mortgages on second residences, and the $1 million limit applies to the combined mortgages on the primary and second residences. This policy is unsupportable. It very well may make tax policy sense to give taxpayers a deduction on mortgage interest on principal residences, but the mortgage cap should be much less than $1 million, and the deduction should not extend to second residences.

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[475] *Id*. at 3.
[476] *A Better Way on Taxes*, *infra* Bibliography, at 9.
[477] *Id*.
[478] JCT, *2012 Tax Expenditure Report*, *infra* Bibliography, at 42.
[479] *Id*. at 36.
[480] *Id*. at 37.

G. What are the principal corporate tax expenditures?

The largest corporate tax expenditure is the "[d]eferral of active income of controlled foreign corporations."[481] The second largest corporate tax expenditure is the "[d]epreciation of equipment in excess of the alternative depreciation system."[482]

In addressing the taxation of corporations, the chapter discusses my proposal to broaden the corporate base by moving from (1) the current deferral system of taxing foreign income earned by U.S. controlled foreign corporations (CFCs), to (2) an imputation system for taxing such income. This change would generate significant revenues, and I propose that the revenues be used to significantly reduce the corporate tax rate.

H. Is base broadening and rate reduction the "Mother and Apple Pie" of tax policy?

Virtually every person who considers tax policy argues that both individual and corporate income tax rates should be reduced by broadening the individual and corporate tax bases, that is, by eliminating tax expenditures. Indeed, base broadening with rate reduction is the "Mother and Apple Pie" of tax policy.

For example, in 2011, President Obama urged Republicans to join him in "eliminating loopholes, eliminating some deductions and engaging in a tax reform process that could . . . lower[] rates generally while broadening the base."[483] In *Believe in America*, Governor Romney says that he "recognizes that we need both to lower rates and to broaden the tax base so that taxation becomes an instrument for promoting economic growth. The Deficit Commission stated: "We need to lower tax rates, broaden the base, simplify the tax code, and bring down the deficit."[484] And, one of the tax goals set out in Mr. Trump's website is: "Eliminate special interest loopholes [and], make our business tax rate more competitive[.]

Thus, while there is no dispute about the need to broaden the base and reduce tax rates, there is significant dispute about how to accomplish the base broadening needed to significantly reduce rates. As President Clinton is fond of saying: "The devil is in the details." The CBO has set out the "details" for base broadening in its *Budget Options*.[485]

I. What is the position of the House Republican "A Better Way" on the relationship between tax reform and economic growth?

1. What is in this section and how does it relate to other sections of this Chapter dealing with "A Better Way on Taxes?"

The tax reform proposals contained in the House Republican's *A Better Way on Taxes* relating to the taxation of high-income individuals, corporations, and international

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[481] *Id*. at 32.
[482] *Id*. at 38.
[483] Remarks by President Obama (July 22, 2011).
[484] *Deficit Commission Proposal*, *infra* Bibliography, at 12.
[485] *See e.g.* CBO, *2007 Budget Options*, *infra* Bibliography.

business activity are discussed where those issues are addressed in this chapter. This section addresses the assertion in *A Better Way on Taxes* that the current tax system curtails economic growth and that the proposals in *A Better Way* would promote economic growth.

2. What is "A Better Way on Taxes'" basic premise on the relationship between tax reform and economic growth?

The tax reform proposals contained in the House Republican's *A Better Way on Taxes* relating to the taxation of high-income individuals, corporations, and international business activity are discussed where those issues are addressed in this chapter. This section addresses the assertion in *A Better Way on Taxes* makes the following argument to the effect that our current tax system stifles economic growth:

> *The Current Tax Code Stifles Economic Growth*. Our broken tax code does more than just impose unnecessarily burdensome paperwork requirements, subsidize some industries at the expense of others, punish savings and investment, and force businesses to move overseas. The broken tax code also undermines economic growth – the growth that has been our country's engine of prosperity for generations.
>
> Promoting robust economic growth is nothing less than a national imperative – it fuels our standard of living, makes balancing our Federal budget less challenging, and ensures that there is opportunity for all Americans. But in recent years the rapid expansion of opportunity that Americans once enjoyed and have come to expect is slipping away. For example, here's how economist Douglas Holtz-Eakin summarized recent economic growth trends at a February 2016 Committee on Ways and Means hearing:
>
>> The trend growth rate of postwar GDP per capita (a rough measure of the standard of living) has been about 2.1 percent. . . . [A]t this pace of expansion an individual could expect the standard of living to double in 30 to 35 years. . . . In contrast, the long-term growth rate of GDP in the most recent CBO projection is 2.0 percent. When combined with population growth of 1.0 percent, this implies the trend growth in GDP per capita will average 1.0 percent. At that pace of expansion, it will take 70 years to double income per person. The American Dream is disappearing over the horizon.
>
> Holtz-Eakin concluded that "Raising the trend rate of growth is central to retaining the American dream and the nation's place on the globe."[486]

A Better Way explains that tax policy affects economic growth through four channels: (1) labor supply, (2) physical capital, (3) human capital, and (4) technological innovation. These four elements are, as explained in Chapter 3.L, the elements of economic growth and the production function. A Better Way further explains that the non-partisan Joint Committee on Taxation (JCT) provides the following helpful framework for thinking about taxes and growth in broad terms:

> To understand how tax policy may impact GDP through labor supply, physical capital, human capital, and technological innovation, it is useful to think

[486] *A Better Way on Taxes*, *infra* Bibliography, at 11-12.

> of GDP as being the product of the amount of labor supplied in the economy and the average productivity of that labor. The productivity of workers in the economy is a reflection of a number of factors, including workers' human capital, the physical capital with which they have to work, and the technology available to them.
>
> Tax policy can directly influence the level of labor supply, physical capital, human capital, and technology in an economy by changing the after-tax returns to certain economic activities or changing the cost of pursuing them. Lowering individual tax rates on wages, for example, can increase labor supply by raising the after-tax returns to labor. Reductions in business income tax rates increase the after-tax return to capital and can encourage businesses to invest in physical capital, which could make workers more productive.[487]

A Better Way goes on to assert: "Given currently low levels of labor force participation, capital investment, and productivity growth it is important that tax reform operate on all of these channels to revive economic growth."[488] And in addressing the labor factor and productivity growth, *A Better Way* argues:

> Two key factors driving our economic potential are growth in the size of the labor force (those who are employed or seeking work) and the productivity of those workers (the output they can produce per hour). However, recent years have seen sharp declines in each, causing trend growth to sink to historic lows. Even the anemic 2 percent future of growth that the Congressional Budget Office (CBO) projects might be too optimistic.
>
> Importantly, the recent slowdown in labor-force growth is not related solely to Baby Boomers moving from employment to retirement. As has been noted by a wide array of economic analysts, troubling declines in labor-force participation are occurring even among workers in their prime earning years. This suggests more serious structural problems with the economy.
>
> Productivity growth also has been persistently weak in recent years. Over the past three years, productivity growth has averaged a mere 0.4 percent – a far cry from the historical average of 2.1 percent. And while productivity growth may seem like an abstract economic concept, it is widely accepted as the key to growth in incomes. For example, according to President Obama's Council of Economic Advisers (CEA), if productivity had grown from 1973-2013 at the same rate it had from 1948-1973, the median household income would be $30,000 higher today – an increase of over 50 percent. The effect of worker productivity on incomes dwarfed every other effect that CEA studied.
>
> One likely reason for the productivity slowdown is the fact that current levels of investment are dismal by historical standards. Without sufficient levels of investment, workers will miss out on new innovations and capital that make them able to produce more output per hour. Net domestic investment averaged 4.4 percent of gross domestic product (GDP) per year between 1960 and 2008. Today, however, it is a mere 2.8 percent of GDP – a level that was more commonly associated with recession years during the past two generations.[489]

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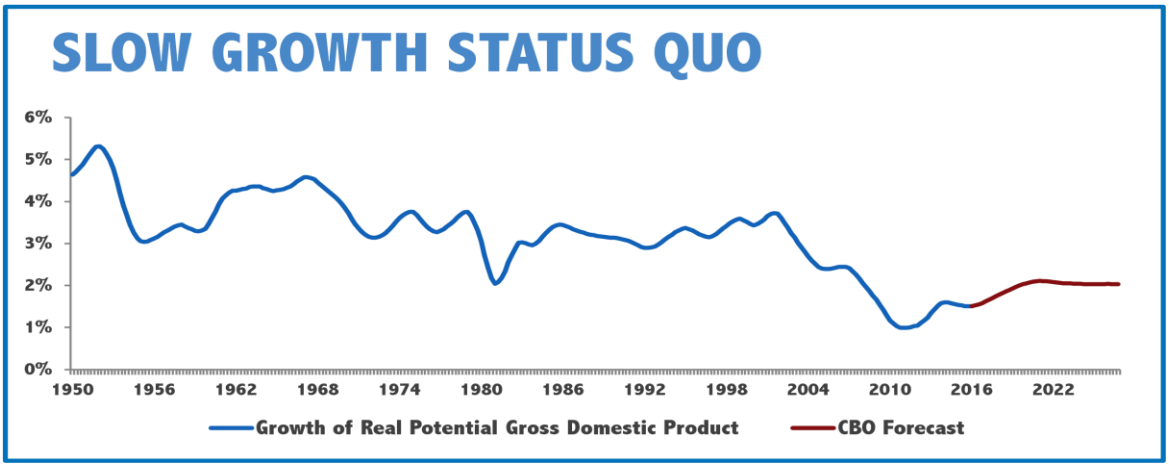
[487] *Id*. at 12.
[488] *Id*.
[489] *Id*. at 12-13.

3. What about "A Better Way on Taxes'" argument that that reform is needed because slow growth has become the "status quo?"

Graph 23-A is the reproduction of a graph included in *A Better Way* entitled "*Slow Growth Status Quo*:"

Graph 23-A
Slow Growth Status Quo, *A Better Way on Taxes*, *infra* Bibliography at 13



A Better Way argues that this graph supports its position that tax reform is needed to return us to the high growth that we had in past years. I disagree with this conclusion, and I think this graph shows just the opposite. For example, interestingly, growth was highest from 1950 through 1968, the period during which marginal tax rates were the highest of any of the marginal rates during the entire period from 1950 through 2016. In fact, throughout the high-growth 1950s the highest marginal rate for individuals was 90% and for corporations was in excess of 40%. Also, note that economic growth:

(1) fell after the enactment of President Reagan's Tax Reform Act of 1986, during which tax rates were substantially reduced,

(2) increased modestly during the Clinton Administration in 1990, during which tax rates were increased,

(3) fell precipitously during the Bush Administration in the early 2000s, during which period rates were decreased, and

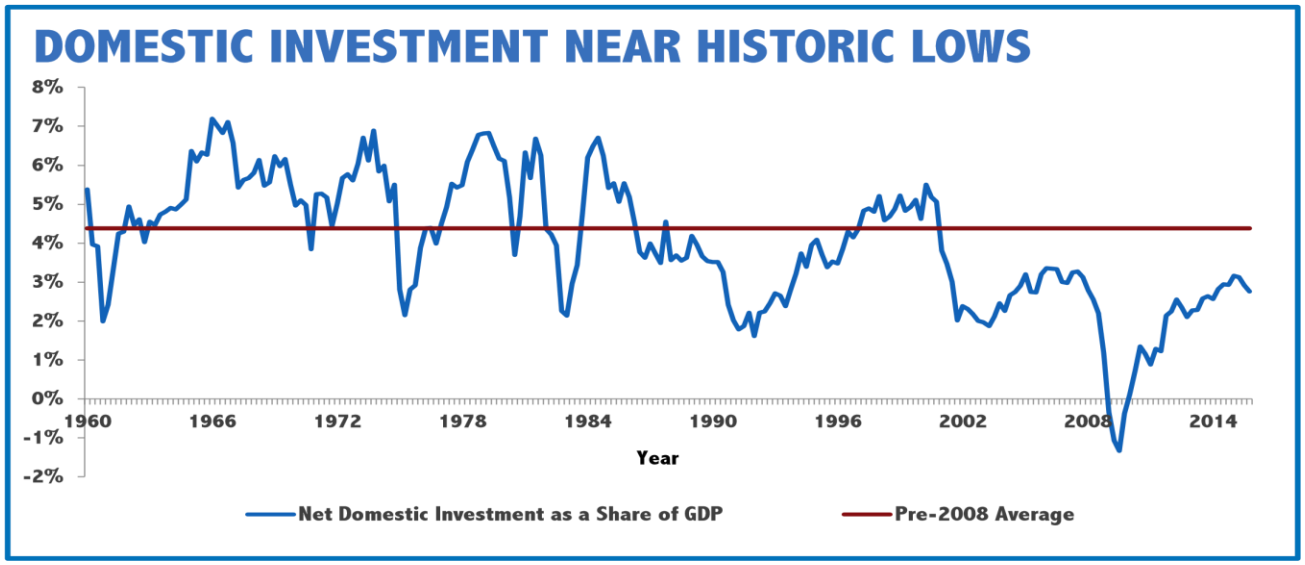
(4) increased modestly after 2010 during a period of the Obama Administration during which rates were increased.

While the above observations are not a reason to keep rates high, they do demonstrate that the benefits of tax reform should not be overstated, because many factors, as well as tax, have an impact on economic growth.

4. **What about "A Better Way on Taxes'" argument that tax reform is needed because investment is near historic lows?"**

Graph 23-B is the reproduction of a graph included in *A Better Way* entitled "*Domestic Investment Near Historic Lows*:"

Graph 23-B
Domestic Investment Near Historic Lows, *A Better Way on Taxes*, *infra* Bibliography at 14



From this graph, *A Better Way* argues: "America's broken tax code discourages investment, which means workers have fewer resources and are less productive. This Blueprint creates an environment in which job creators and American families can thrive. For many of the reasons discussed with respect to Graph 23-A, this Graph 23-B does not support the assertion in *A Better Way*. For example, note that domestic investment: (1) fell precipitously after the enactment of the tax rate reductions in the Reagan Tax Reform Act of 1986, and (2) increased smartly during the Clinton Administration, which significantly raised tax rates.

5. What does "A Better Way on Taxes" say is at stake with tax reform: Higher GDP and Lower Deficits?

A Better Way On Taxes discusses as follows what is says are the stakes with tax reform:

To get a sense of what is at stake, consider how increases in growth from tax reform could translate into higher incomes for a family of four. For example, over the next ten years, growth is expected to average 2.1 percent – far below the prerecession average of 3.5 percent. If instead, as a result of tax reform, we average 3 percent growth, the level of GDP would be over 9 percent higher in 2026, and income for a family of four would be about $23,000 higher than it otherwise would be (measured in GDP per capita terms and in 2016 inflation-adjusted dollars).

Similarly, more rapid economic growth would significantly improve our nation's gloomy fiscal outlook. The same boost in growth described in the example above would reduce projected Federal budget deficits over the coming decade by almost $3 trillion.

J. Does the distribution of the tax burden matter?

1. What are distributional issues?

Distributional issues focus on the share of the tax burden that people in various income or wealth classes bear. Thus, distributional issues are closely linked to the question of whether a tax or the tax system is regressive (that is, those with less income pay a greater share of their income as taxes), proportional (that is, all income classes pay the same share of their income as taxes), or progressive (that is, those with more income pay a greater portion of their income as taxes). As indicated in the previous discussion, the Income Tax is progressive, and the Social Security tax has features that are both proportional and regressive. In many cases, an analysis will be done of the distributional impact of a particular tax proposal, such as a tax cut or a tax increase.

2. What can economics tell us about the best way to distribute the tax burden and is there a correlation between income equality and economic growth?

Many economists believe that distributional issues in the tax system are political in nature and that economics cannot be used to arrive at an ideal distribution of the tax burden, because these issues are inherently based on notions of fairness, a non-economic concept. Many economists claim that economics focuses on expanding the pie and politics focuses on dividing the pie. This is particularly the case in the field of microeconomics.

However, in the realm of macroeconomics, some have noted a negative relationship between economic growth and a significant unequal distribution of income, that is, countries with a significant unequal distribution of income experience lower economic growth. For example, in an article, Alesina and Rodrik have found that "income inequality is negatively correlated with subsequent economic growth."[490] Further, a research paper by Fishman and Simhon finds that when the capital stock of a country is large as in the U.S. "greater equality increases investment in specialization and leads to a greater division of labor and higher growth."[491]

Although it cannot be determined with certainty whether a more or less equal distribution of income and wealth in the U.S. will promote economic growth, on the basis of the available evidence it seems reasonable to conclude that long-term economic growth in the U.S. is more likely to be fostered by policies that lead to a more, rather than a less, equal distribution of income. This conclusion is intuitively appealing from the following common sense perspective.

There is a high correlation between income and education. Further, there is a high correlation between an educated workforce and productivity. Thus, to the extent that the

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[490] Alberto Alesina and Dani Rodrik, *Distributive Politics and Economic Growth*, 109 Quarterly Journal of Economics 465, 481 (May 1994).

[491] Arthur Fishman and Avi Simhon, *The Division of Labor, Inequality and Growth*, 14, at www.ssrn.org (December, 2001).

tax system is structured to get more after-tax income into the hands of the lower income classes, the more likely these classes will be able to afford enhancements in education. These enhancements will, in turn, lead to more productivity and economic growth. Thus, it seems that the resolution of distributional issues can have an impact on the long-term growth of the economy and that policy makers at a minimum should be cautious in adopting tax policies that contribute to a less equal distribution of income, that is, policies that cause the tax system to be less progressive.

These observations are consistent with the following June 2012 evaluation of the U.S. economy by the OECD, an organization of developed and some developing countries:

> Income inequality and relative poverty [in the U.S.] are among the highest in the OECD. . . . [T]here is no consensus in the economic literature that reducing inequality would be harmful to economic growth. High income inequality is attributable to a significant degree to the large dispersion of earned income . . . To reduce both income inequality and distortions in resource allocation, tax expenditures that disproportionately benefit high earners should be limited over time.[492]

K. What are Secretary Clinton's proposals for the tax treatment of high-income individuals?

Secretary Clinton's website sets out several proposals for taxing high income individuals, and she says that her proposals will "raise between $400 and $500 billion in revenue over 10 years for investments that will drive strong growth and raise the pay of middle-class families." The proposals are as follows:

- *Implement a multi-millionaire "Fair Share Surcharge."* Clinton is calling for a multi-millionaire surcharge as a direct way to ensure that the most fortunate pay their fair share. As a result of loopholes and the "private tax system" of lawyers and accountants who enable complex strategies to shelter and lower the bill on income for the most fortunate, some of the wealthiest taxpayers continue to pay low effective rates on their income. Today, one-quarter of the top 400 taxpayers who make on average $250 million per year pay less than a 20 percent effective Federal income tax rate – and the top 400 taxpayers pay an overall effective rate that is around 7 percentage points lower than the mid-1990s, a period of strong, shared economic growth. As part of her plan for expanding on the Buffett Rule, Clinton's plan calls for a 4 percent multi-millionaire "Fair Share Surcharge" on the top 0.02 percent of taxpayers on their income above $5 million per year – affecting roughly 2 out of every 10,000 taxpayers. The experience of the past few years shows that a surcharge can directly raise the effective rates on the very-highest-income taxpayers, in ways even their tax maneuvers cannot game: as a result of President Obama securing the end of the high-income Bush tax cuts and other measures, the effective rate paid by the top 400 taxpayers rose from less than 17 percent to the most recent rate of 23 percent.
- *Shut down the "private tax system" for the wealthiest, starting by immediately closing specific egregious loopholes*. Some of the most fortunate taxpayers in the

[492] *2012 Economic Survey*, *infra* Bibliography at Summary.

country – often those making multiple millions per year, or with billions of dollars in wealth – are able to game the system by sheltering their income or using exotic tax gaming to avoid paying their fair share. As a recent New York Times story explained, "Operating largely out of public view…the wealthy have used their influence to steadily whittle away at the government's ability to tax them. The effect has been to create a kind of private tax system, catering to only several thousand Americans."

- *Hillary is committing to shutting down the private tax system for the ultra-wealthy, by closing loopholes that exist today, and remaining vigilant for new loopholes lawyers and accountants try to find next*. The ultra-wealthy should not be able to exploit loopholes and leave middle-class families who play by the rules holding the bag. Today, she is announcing several examples of proposals to crack down on specific tax shelters and strategies, and will continue make closing egregious loopholes a priority throughout her administration:
  - *End the Bermuda reinsurance loophole, and tax gaming through complex derivative trading:* High-income money managers have used loopholes related to foreign reinsurance – often located in Bermuda – to avoid paying their fair share. And they take advantage of complex derivative trades to lower their tax bill. Clinton would build on proposals from both Democrats like President Obama and Republicans in Congress to close down these two loopholes.
  - *Close the "Romney Loophole" that allows sheltering multiple millions in retirement accounts:* According to data from the Government Accountability Office, roughly 1,000 taxpayers have accumulated close to $100 billion dollars in tax-preferred retirement accounts, with balances of more than $10 million per taxpayer. Clinton believes that we should encourage robust retirement savings by American families – but that retirement accounts should not become a shelter from taxation for the most fortunate. She would build on proposals by President Obama in calling for closing down the so-called "Romney Loophole" by limiting the ability of the very wealthiest to game the system by sheltering large incomes in tax-preferred accounts.
  - *Close the "carried interest" loophole:* For almost a decade, since she was a Senator, Clinton has called for closing the "carried interest" loophole that allows hedge fund, private equity, and other Wall Street money managers to avoid paying ordinary income rates on their earnings. With the top 25 hedge fund managers making more than every kindergarten teacher in the country combined, there is absolutely no reason for this tax loophole.
  - *Commit to tax fairness beyond closing these specific loopholes – especially on capital income:* Beyond these specific loopholes, Hillary will continue to take steps to ensure the most fortunate cannot game the system and avoid paying their fair share. Already in this campaign, she has called for raising capital gains rates for short-term trading, in order to encourage long-term investment. [The 23.8% rate would only be available for assets held for more than six years. Higher rates would apply for capital assets sold held for less than six years.] But long-termism should never be an excuse for persistently and continuously sheltering income from fair taxation. That is why Clinton will go beyond the loopholes identified above to reform capital taxation, and explore

additional measures to prevent high-income taxpayers from misclassifying income as capital gains or avoiding paying tax on some income at all. She will make strong enforcement against the "private tax system" for the extremely wealthy a priority for her administration. . . .

- *Ensure millionaires can no longer pay a lower rate than their secretary* [*The Buffett Rule*]. When Hillary stood with Warren Buffett last month, he pointed to his own taxes as proof of the fundamental unfairness of our tax system. He has earned billions and yet, year after year, he pays a lower effective tax rate than his secretary. In addition to the surcharge and specific loophole closers outlined above, Clinton is reiterating her call for the Buffett Rule, which ensures that millionaires [i.e., taxpayers with adjusted gross income above $1 million] must pay at least a 30 percent effective rate. Plain and simple, this rule of basic fairness ensures that the wealthiest Americans no longer pay a lower effective tax rate than the middle class.

L. Can you summarize Secretary Clinton's proposals for the tax treatment of high-income individuals?

To summarize the above proposals, Secretary Clinton would:

(1) retain the current 39.6% top marginal rate on taxpayers making in today's dollars approximately $450,000, with the threshold indexed for inflation;

(2) impose a 4% Fair Share Surcharge taxable income in excess of $5 million;

(3) tax carried interest as ordinary income; and

(4) lengthen the holding period for capital gains so that the 23.8% rate only kicks in after a six year holding period.

M. What is the distributional impact of Secretary Clinton's proposal?

Secretary Clinton's proposal would significantly raise the taxes paid by high income taxpayers, while not increasing the burden on lower income taxpayers. Further as indicated in the following statement on her website, she would provide tax relief to certain "working families:"

Provide tax relief to working families from the rising costs they face. For too many years, middle-class families have been squeezed by rising costs for everything from child care to health care to affording college. Hillary will offer relief from these rising costs, including tax relief for Americans facing excessive out-of-pocket health care costs and for those caring for an ill or elderly family member.

N. What are Mr. Trump's proposals for the tax treatment of high-income individuals?

Mr. Trump's website describes as follows his proposals for taxing high-income individuals:

- Ensure the rich will pay their fair share, but no one will pay so much that it destroys jobs or undermines our ability to compete.

- Eliminate special interest loopholes, make our business tax rate more competitive to keep jobs in America, create new opportunities and revitalize our economy.
- The Trump Plan will collapse the current seven tax brackets to three brackets. The rates and breakpoints are as shown below. The tax brackets are similar to those in the House GOP tax blueprint.
    - Brackets & Rates for Married-Joint filers:
      Less than $75,000: 12%
      More than $75,000 but less than $225,000: 25%
      More than $225,000: 33%
      *Brackets for single filers are ½ of these amounts
- The Trump Plan will retain the existing capital gains rate structure (maximum rate of 20 percent) with tax brackets shown above. Carried interest will be taxed as ordinary income.
- The 3.8 percent Obamacare tax on investment income will be repealed, as will the alternative minimum tax. . . .
- Business Tax
    - The Trump Plan will lower the business tax rate from 35 percent to 15 percent, and eliminate the corporate alternative minimum tax. This rate is available to all businesses, both small and large, that want to retain the profits within the business [thus, shareholders of S corporations, and owners of partnerships and LLCs presumably get the benefit of the 15% rate on retained earnings but not on income distributed to the shareholders or owners].

There has been considerable confusion concerning Mr. Trump's proposal to extend the 15% rate to the retained earnings of "all businesses, both small and large." The Tax Foundation describes the confusion as follows:

Pass-Through Taxation in the Trump Plan

> One policy question that has received some attention since the release of the speech is the tax rate on individual income derived from pass-through businesses. . . .
>
> The Trump plan, as described on the website as of today, "will lower the business tax rate from 35 percent to 15 percent . . . . This rate is available to all businesses, both big and small, that want to retain the profits within the business."
>
> The current state of the plan has led to multiple interpretations of the way that pass-through businesses would be taxed under the Trump plan. For example, two different facts were reported Friday by The Wall Street Journal alone, on the same information. An editorial piece states: "Mr. Trump is more consistent on the corporate side, recommending a more globally competitive income-tax rate of 15% for all businesses including pass-throughs." This editorial likely based its interpretation on the language of "all businesses, both big and small."
>
> In contrast, a news article in The Journal reported it very differently: Mr. Trump would lower the corporate tax rate from 35% to 15%. He also appeared to abandon a core plank of his earlier tax plans, which called for a 15% top tax rate on business income reported on individual tax returns, instead of taxing such income at the same rates as ordinary income.

Small-business groups had praised the single business tax rate but the Clinton campaign criticized what it called the "Trump loophole," because much of Mr. Trump's business income is taxed on his own return and could have gotten the lower rate.

The Trump campaign revised its website on this throughout Thursday. A late-day version suggested but didn't say clearly that the lower rate is only available for corporations.[493]

The words of the proposal seem to say that even pass-through entities get the benefit of the 15% rate as long as the earnings are retained, and consequently, that is the interpretation I have given it here.

O. Can you summarize Mr. Trump's proposals for the tax treatment of high-income individuals?

To summarize the above proposals, Mr. Trump would:

(1) reduce the maximum marginal rate from 39.6% to 33% on taxpayers making in today's dollars approximately $225,000, with the threshold indexed for inflation;

(2) tax carried interest as ordinary income,

(3) impose a 15% tax rate on corporations and the business income of individuals earned directly or through S corporations, partnerships, or LLCs, provided the income is retained in the business; and

(4) tax long-term capital gains at the 20% rate.

P. What is the distributional impact of Mr. Trump's proposal?

Richard Auxier of the Tax Policy Center gives the following analysis of the distributional impact of Mr. Trump's individual tax proposals:

> [Mr. Trump's] tax plan would cut taxes for households across the income spectrum, but the largest benefits—in both dollar and percentage terms—would go to the highest-income taxpayers. Those in the lowest income quintile would receive an average tax cut of roughly $130 (about a 1 percent boost in after-tax income) and middle-income households would get about $2,700 (a 5 percent increase in after-tax income). In contrast, the highest-income 1 percent would see their after-tax income go up by an average of over $275,000 (17.5 percent) and the top 0.1 percent would get an average of $1.3 million (19 percent of after-tax income).[494]

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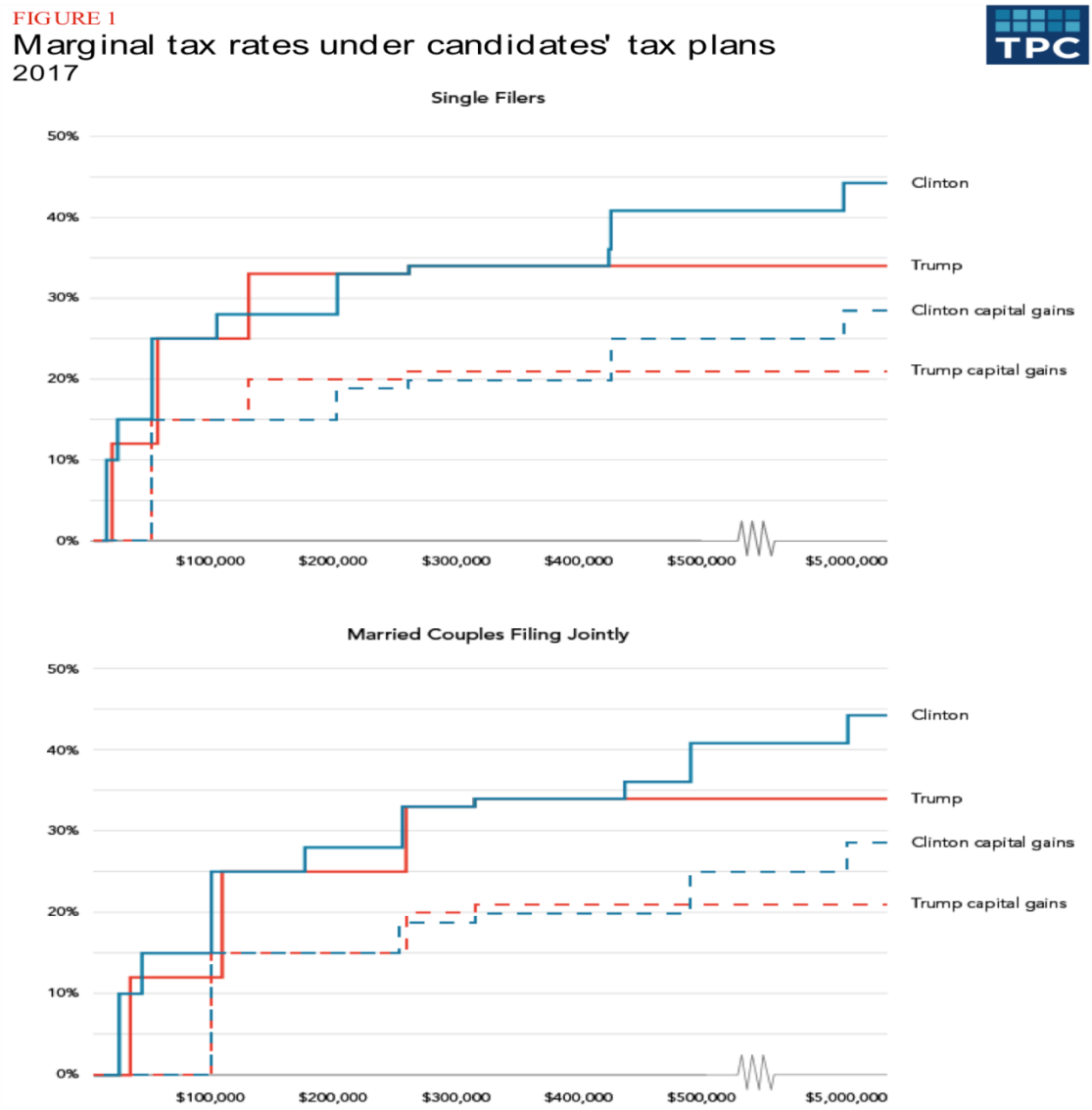
[493] Alan Cole, Tax Foundation, Details And Analysis Of The Donald Trump Tax Reform Plan, (September 2016).

[494] Richard C. Auxier, How Would Trump's Tax Cuts Affect Different Taxpayers?, Tax Policy Center (July 21, 2016).

Q. How do the rate proposals of Secretary Clinton and Mr. Trump compare?

The Tax Policy Center provided the following graph comparing the individual marginal tax rate proposals of Secretary Clinton and Mr. Trump for single and married taxpayers

Graph 23-C
Tax Policy Center, Marginal Tax Rate Proposals of Secretary Clinton and Mr. Trump for Single and Married Taxpayers Filing Jointly, Figure 1 of Leonard E. Burman, Trump and Clinton Tax Rates, Tax Policy Center (Nov. 2, 2016)



Source: Urban-Brookings Tax Policy Center calculations.
Notes: Marginal tax rates include the phase out of itemized deductions and the ACA surtax. They assume filers earn labor income and take the standard deduction. The chart assumes itemized deductions equal 10% of AGI and ignores the effect of the AMT, Clinton's Buffett Rule, or Trump's limit on the value of itemized deductions.

R. What are the propose top individual marginal rate structures for business and non-business income in the House Republican "A Better Way?"

The House Republican's *A Better Way on Taxes* would collapse the current seven individual rates into three brackets with the highest bracket being 33%, compared to the current 39.6% maximum rate. *A Better Way on Taxes* would also impose a 25% maximum rate on business income of individuals, including income earned through partnerships, S corporations, and LLCs.

A Better Way explains as follows the basic treatment of business income earned by individuals:

> Millions of small and closely held businesses are organized as pass-through entities – such as partnerships and S corporations – that are taxed under the individual rate structure rather than at the corporate rate. These businesses often compete directly with businesses that are subject to the corporate tax, with the differential in tax treatment creating potential distortions and inequities. As discussed below, the Tax Reform Blueprint will create a new business tax rate for small businesses that are organized as sole proprietorships or pass-through entities, which means that small business income will no longer be subject to the top individual tax rate – not even the lower 33 percent top rate in this Blueprint – thus leading to a maximum tax rate of 25 percent on small business income. This approach to the tax treatment of business income will build on concepts developed by Rep. Vern Buchanan of Florida in his Main Street Fairness Act (H.R. 5076).[495]

In a section entitled, "The Rate Structure for Small Business," *A Better Way* elaborates as follows this treatment of business income earned by individuals:

> Today, 95 percent of businesses in the United States are operated as sole proprietorships or pass-through entities such as partnerships, limited liability companies (which are taxed in the same manner as partnerships), and S corporations. Moreover, more than 50 percent of business income in the United States is earned through sole proprietorships or passthrough entities.
>
> Business income earned through a sole proprietorship or a pass-through entity today is reported by the owner or owners of the business on their individual tax returns and is taxed at an income tax rate as high as 44.6 percent.
>
> This Blueprint will limit the tax rate that applies to small business and pass-through income to the 25 percent bracket. In other words, the 33 percent bracket will not apply to the active business income of sole proprietorships and pass-through entities. This represents the lowest top tax rate on the income of such businesses since before World War II.
>
> Under this new approach for taxing small businesses, sole proprietorships and pass-through businesses will pay or be treated as having paid reasonable compensation to their owner-operators. Such compensation will be deductible by the business and will be subject to tax at the graduated rates for families and individuals. The compensation that is taxed at the lowest individual tax bracket

[495] *A Better Way on Taxes*, *infra* Bibliography, at 17.

rate of 12 percent effectively will further reduce the total income tax burden on these small businesses and pass-through entities. . . .

As discussed in more detail below, under this Blueprint, both small businesses organized as sole proprietorships or passthrough entities and larger businesses organized as C corporations will benefit from the approach that focuses on business cash flow and provides the benefit of the full and immediate write-off of business investments in tangible and intangible assets. [496]

S. Who is correct on the top marginal rate structure issue: Secretary Clinton or Mr. Trump?

Secretary Clinton would retain the current maximum 39.6% rate on ordinary income and the maximum 23.8% rate on dividends and capital gains. She would also apply the Buffett Rule to taxpayers making more than $1 million to ensure that they pay at least a 30% effective rate, and the 4% Fair Share Surcharge on taxpayer with more than $5 million of income.

Mr. Trump would reduce the maximum rate to 33% and apply a 20% rate to capital gains and dividends. He would also apply a 15% rate to business income that was retained in the business. Both Secretary Clinton and Mr. Trump would tax carried interest as ordinary income, although under Mr. Trump's plan if the income were retained in the business it would be taxed at the 15% business rate.

The debate between Secretary Clinton and Mr. Trump on the marginal rate structure presents at bottom the following question: How progressive should the system be?[497]

T. What is my proposal for the top marginal rates (i.e., the Thompson Proposal)?

In my article *Beyond the "Buffett Rule" Making the Income Tax More Progressive* (Thompson, *Beyond the Buffet Rule*),[498] I argue for an increase in the progressivity of the Federal Income Tax that would go "*Beyond the Buffet Rule*." And, although Secretary Clinton had not made the 4% Fair Share Surcharge proposal at the time the article was published, my proposal goes beyond the 4% Fair Share Surcharge proposal. Thus, while I think Secretary Clinton's proposals go in the right direction, for the reasons addressed by the questions in this section, I also believe that her proposal does not go far enough for taxpayers with super high levels of income. .

1. What are the elements of the Thompson Proposal?

Under the Thompson Proposal, the starting point for imposing the 39.6% rate on ordinary income would be $500,000 of taxable income (rather than the current $466,000). This threshold would apply to married taxpayers filing jointly, with appropriate adjustments for the starting point for the 39.6% rate for other taxpayers. (The balance of the discussion of this issue focuses only on the rate structure for married taxpayers filing

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[496] *Id*. at 23-24

[497] The questions in this section are based on a discussion in Thompson, *Beyond the Buffet Rule*, *infra* Bibliography.

[498] Thompson, *Beyond the Buffet Rule*, *infra* at Bibliography.

jointly.) In addition, as discussed further in a following question, the Thompson Proposal would add a 45% and a 50% marginal rate for super-high levels of income.

2. Under the Thompson Proposal, what would be the rate structure beyond the starting point for the 39.6% (say, 40%) rate?

In addition to the 39.6% (say, 40%) rate for ordinary taxable income in excess of $500,000, under the Thompson Proposal, this rate would apply only to taxable income not exceeding $1,000,000. In addition, (1) a 45% rate would apply to taxable income of such taxpayers in excess of $1,000,000, but not over $5,000,000, and (2) a 50% rate would apply to taxable income of such taxpayers in excess of $5,000,000. Thus, under the Thompson Proposal, the rate structure for high-income married taxpayers filing jointly would be as set forth in Table 23-A.

Table 23-A
Thompson Proposed Tax Rates on Ordinary Income of High-Income Married Taxpayers Filing Jointly

Taxable Income	**Rate of Tax**
Over $500,000 but not over $1,000,000	40%
Over $1,000,000 but not over $5,000,000	45%
Over $5,000,000	50%

As discussed previously, appropriate adjustments would be made to the rates for other classes of taxpayers under the Code, such as unmarried taxpayers. In addition, as with the lower brackets, these brackets would be adjusted for future inflation as is currently provided under Section 1(f)(3) of the Code.

3. How do the proposals of Secretary Clinton, Mr. Trump, and Thompson compare with each other?

Table 22-B summarizes the proposals of Secretary Clinton, Mr. Trump, and Thompson:

Table 23-B
Secretary Clinton, Mr. Trump and Thompson Proposed Rate Structures for Ordinary Income of High-income Married Taxpayers Filing Jointly

Taxable Income	Mr. Trump	Secretary Clinton Proposed Tax Rates	Thompson Proposal: Rate of Tax
Business Income of Partners, Owners of S Corporations and LLC	15% if reinvested, otherwise taxed at the 33% maximum rate applicable below	No lower rate for business income of individuals	No lower rate for business income of individuals
Over $500,000 but not over $1,000,000	33%, note that this rate applies to income in excess of $250,000	40%	40%
Over $1,000,000 but not over $5,000,000	33%	40%, but with a 30% minimum tax	45%
Over $5,000,000 but not over $10,000,000	33%	40%, but with a 30% minimum tax, plus the 4% Fair Share Surcharge	50%
Over $10,000,000	33%	40%, but with a 30% minimum tax, plus the 4% Fair Share Surcharge	50%

4. What is the rationale behind the Thompson Proposal?

Now, why do I make this proposal for significantly increasing the progressivity of the Income Tax system? Let me address several reasons.

a) First, are U.S. taxes too low when measured as a percentage of GDP?

The purpose of this answer is to demonstrate that (1) U.S. taxes are too low when measured as a percentage of GDP, and (2) it is important to undertake measures that increase the progressivity of the individual Income Tax in moving the U.S. percentage to a more appropriate and higher level of GDP.

"Tax revenues as a percentage of GDP" is a common metric used by the Organization for Economic Co-operation and Development (OECD) and other

organizations. The OECD is dedicated to global economic development and has 34 member countries from around the world. Its members include developed countries, like the U.S. and all of its major trading partners, and developing countries, like Mexico and Chile.

"Tax revenues as a percentage of GDP" allows for an "apples to apples" cross-country comparison of taxes raised. The 2015 edition of the OECD, *Revenue Statistics*[499] provides a wealth of cross-country comparisons, including comparisons of tax revenues as a percentage of GDP. Table 23-C, which is based on OECD, *Revenue Statistics*, presents this percentage for each of the years 1965, 1995, and 2009 for the following: the U.S., several other developed countries, two developing countries, and the OECD average.

[499] OECD, *Revenue Statistics*, *infra* Bibliography.

Table 23-C
Total Tax Revenues as a Percentage of GDP for 1965, 1995, 2009, and 2013 for the following Countries: the U.S., Canada, Germany, U.K., Mexico, and Chile, and OECD Average

Years/ Countries	U.S	Canada	Germany	U.K.	Mexico	Chile	OECD Average
1965	23.5	25.3	31.6	29.3	NA	NA	24.8
1995	26.4	35.6	36.2	31.9	14.9	19.0	33.6
2009	23.0	31.4	36.1	32.3	17.2	18.4	32.7
2013	25.4	30.5	36.5	32.9	19.7	19.2	34.2

Source: OECD, *Revenue Statistics*, *infra* Bibliography at Table A Total Tax Revenue as Percentage of GDP

Table 23-C shows that for each of these years, the percentage for the U.S. was (1) not only lower than the OECD average, but (2) also was lower than the percentage in any other country except for Mexico and Chile. In fact, for 2013, the only OECD countries with a lower percentage were Mexico, Chile, and Korea.[500] Further, an October 2016 Tax Policy Center article by Howard Gleckman points out: "All taxes in the US take about 25 percent of Gross Domestic Product, far less than the OECD average of about 34 percent."[501]

In addition, the U.S. percentage of GDP dropped from (1) 26.4% in 1995 during the high growth Clinton Administration and after the increase in the maximum rate from 35% to 39.6%, to (2) 25.4% in 2013, a low growth year in which the maximum rate of tax was 39.6%. This shows that higher taxes will not necessarily be bad and could be very good for the economy.

It is interesting to focus on what the effect on the budget deficit for 2013 would have been if the U.S. percentage for that year had been the same as the OECD Average percentage. Assume, for example, that for 2013 the U.S. tax revenues had been 34.2% of GDP, the OECD average percentage for that year, rather than 25.4%, the actual U.S. percentage for that year. In such case, Federal tax revenues would have been higher by approximately 8.8% of GDP (34.2-25.4= 8.8). GDP for 20 was approximately $16.6 trillion,[502] and this means revenues would have been higher by approximately $1.4 trillion (.088X$16.6 trillion = $1.4 trillion). The deficit for 2013 was approximately $720 billion;[503] consequently, with the increase in revenues and assuming no additional spending, the deficit would have been converted into a surplus of $680 billion.

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[500] OECD, *Revenue Statistics*, *infra* Bibliography at Table A.
[501] Howard Gleckman, *Is It Time To Rethink The Scale and Progressivity of the Tax System?*, Tax Policy Center (Oct. 25, 2016).
[502] *2016 Economic Report of the President*, *infra* Bibliography at Table B-1.
[503] CBO, Budget and Economic Outlook: Historical Budget Data, *Revenues, Outlays, Deficits, Surpluses, and Debt Held by the Public, 1970 to 2014* (Jan. 2014).

This analysis assumes, however, that GDP would have been at the same level notwithstanding the higher taxes. As a result of the increased taxes, GDP could have been lower; on the other hand, as a result of the absence of a significant budget deficit, GDP could have been higher. In any event, if the U.S.'s tax percentage for 2009 had been closer to the percentage for Canada (30.5%), Germany (36.5%), or the U.K (32.9%), three of the U.S.'s most important trading partners, the deficit for 2013 would have been substantially smaller. It is also interesting to note that even with its universal health coverage and significant Social Security benefits, Canada with its 30.5% does not have the same budget problems the U.S. faces.

This analysis leads inextricably to the conclusion that Congress should increase the Federal tax rate. For the reasons discussed subsequently, in moving to a higher percentage, the Thompson Proposal should be at least one of the measures taken. In considering the Thompson Proposal, it should be noted that as pointed out by Howard Gleckman of the Tax Policy Center:

> The US tax code is among the most progressive of all Organisation for Economic Cooperation and Development (OECD) countries. That level of progressivity—where high-income households pay a larger share of their income in taxes than lower-income households—has been a bedrock goal of Democrats for decades.[504]

b) Second, who does the Thompson Proposal raise revenues from?

The Thompson proposal would raise significant revenues from a group that is clearly in the best position of any taxpayers to contribute to deficit reduction. In the words of Mr. Buffett: "While the poor and middle class fight for us in Afghanistan, and while most Americans struggle to make ends meet, [the] mega-rich continue to get our extraordinary tax breaks."[505]

c) Third, what level of revenues would be raised by the Thompson Proposal?

The Thompson Proposal for a 45% and 50% rate should raise significant revenues that could contribute to deficit reduction. Also, in dealing with raising revenues for deficit reduction, it is important to remember what Senator Dirksen, a Republican leader in the U.S. Senate, is reported to have said: "A billion here and a billion there, and pretty soon you are talking about real money."

d) Fourth, would the Thompson Proposal have an adverse impact on GDP growth?

Many will claim that the higher marginal rates in the Thompson Proposal will deter work effort and will otherwise be a drag on economic efficiency. For example, in its *2007 Budget Options*, the CBO discusses as follows the potential deleterious effects of high marginal rates:

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[504] Howard Gleckman, *Is It Time To Rethink The Scale and Progressivity of the Tax System?*, Tax Policy Center (Oct. 25, 2016).
[505] Buffett, *Coddling the Rich*, *infra* Bibliography.

> Higher marginal tax rates distort various decisions—for example, by encouraging people to shift income from taxable to nontaxable forms (which could be accomplished by substituting tax exempt bonds for other investments or tax-free fringe benefits for cash compensation). Higher rates also motivate people to spend more on tax-deductible items, such as home mortgage interest and charitable donations. Lower tax rates can reduce those distortions and allow investment to be allocated to whatever use has the highest economic return, thus leaving people better off. Lower marginal tax rates can also encourage people to work and save more (unlike lower *average* tax rates, which can encourage people to work and save less).[506]

There are several responses to these concerns in connection with the Thompson Proposal. The economic distortions outlined in the *2007 CBO Options* are all speculative and operate, if at all, at a microeconomic level. It is, however, appropriate to ask what impact these arguable microeconomic distortions are likely going to have on macroeconomic activity, in particular, the growth of gross domestic product (GDP), the broadest measure of our economic well-being.

We have the perfect laboratory to examine the macroeconomic question: the 1993 increase in the rate structure, which included moving the top marginal rate from 35% to 39.6%. Many opponents of that tax increase predicted doom and gloom, but that tax increase was followed by the greatest economic boom in post-World War II history. One of the main reasons for that boom was the low interest rates resulting from the market's perception that deficits would decrease as a result of the rate increase, which in fact was the case.

Thus, it cannot be claimed with any degree of confidence that the Thompson Proposal would likely have an adverse effect on the growth of GDP, and there are strong reasons for believing that it would be a positive factor in increasing the growth of GDP by contributing to the decrease in the long-term deficit.

e) Fifth, would the Thompson Proposal be a "Job Killing Tax Hike?"

I now address the impact of the 45% and 50% marginal rates on taxpayers with taxable incomes exceeding $1,000,000. A close examination of the above excerpt from the *2007 Budget Options* indicates the following concerns with higher marginal rates: (1) encouraging people to shift income from taxable to nontaxable forms, (2) motivating people to spend more on tax-deductible items, such as home mortgage interest and charitable donations, (3) decreasing work effort, and (4) decreasing savings.

None of these distortions is likely to have a large impact on the taxpayers who would be subject to the 45% and 50% rates.

First, such taxpayers already have an incentive to seek nontaxable income, which is a powerful reason for moving to comprehensive tax reform by broadening the base.

Second, most of these taxpayers will already be up against the $1,000,000 mortgage principal limit for home mortgage interest, and to the extent charitable giving is increased, the change would have a positive effect.

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[506] CBO, *2007 Budget Options*, *infra* Bibliography, at 258.

Third, many, if not a significant number, of these super-high income taxpayers are highly driven people, and it is unlikely that they are going to work less because they face a 50% as opposed to a 35% or 40% marginal tax rate; in fact, they might even work harder. For example, it was reported that the Chairman of Goldman Sachs, who received a salary of $45 million in 2006, has trouble sleeping at night because he always has his job on his mind.

Fourth, personal savings may decline with the higher marginal rates, but national savings will increase in the amount of the taxes collected (or the deficit will be reduced in the amount of such taxes).

In addition, it is helpful to repeat here Warren Buffet's explanation of why higher marginal rates will not deter high bracket taxpayers from investing:

> Back in the 1980s and 1990s, tax rates for the rich were far higher, and my percentage rate was in the middle of the pack. According to a theory I sometimes hear, I should have thrown a fit and refused to invest because of the elevated tax rates on capital gains and dividends.
>
> I didn't refuse, nor did others. I have worked with investors for 60 years and I have yet to see anyone — not even when capital gains rates were 39.9 percent in 1976-77 — shy away from a sensible investment because of the tax rate on the potential gain. People invest to make money, and potential taxes have never scared them off. And to those who argue that higher rates hurt job creation, I would note that a net of nearly 40 million jobs were added between 1980 and 2000. You know what's happened since then: lower tax rates and far lower job creation.[507]

The bottom line is that it cannot reasonably be claimed that these proposed 45% and 50% rates will hurt the economy. For example, during World War II marginal rates were as high as 90% and yet real economic growth ranged from 8.1% in 1944 to 18.5% in 1942.[508] Professor Tim Canova makes the following point concerning the economic growth during the early 1940s:

> With the 1940s Federal Reserve accommodating the administration's hyperactive fiscal policy, the U.S. economy grew at a real annual rate of 15 percent to 20 percent and more than doubled in output during the war. Private investment was crowded in, not out, as much of the spending went for contracts with the private sector, and a buoyant economy allowed consumers to purchase goods produced by America's corporations. Industry boomed and businesses returned to profitability. . . . By the end of the war, with the jobless rate at 1.2 percent, full employment was a reality for perhaps the first and only time in American history, and the distribution of income became much more equitable as a result of the strong economy, low yields on Treasury securities, and progressive taxation.[509]

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[507] Buffett, *Coddling the Rich*, *infra* Bibliography.

[508] Department of Commerce, Bureau of Economic Analysis, Gross Domestic Product, Percent Change from Preceding Period, at www.doc.gov.

[509] Canova, *The Federal Reserve We Need*, *infra* Bibliography.

In addition to this combination of high marginal rates and high growth in the 1940s, the highest marginal tax rates in the early 1960's were above 50% and economic growth was quite robust, ranging from 4.4% in 1963 to 6.5% in 1965.[510]

Thus, those who predict doom and gloom if marginal rates are increased on high-income taxpayers ignore the economic record. There is no economic support behind the following mantra of many Republicans: "We will not support job killing tax hikes." However, there is real economic support behind the following mantra of many (like Nobel Laureate Economist Professor Krugman) who respond as follows to the efforts of many Republicans to cut current (as opposed to long-term) spending: "You are supporting job killing spending cuts." A New York Times article elaborates:

> Joel Prakken, chairman of Macroeconomic Advisers, a forecasting firm, and Laurence H. Meyer, its co-founder and a former Federal Reserve governor, called the [near term] reductions "job-killing spending cuts" — playing on Republicans' mantra against "job-killing tax increases."[511]

f) Sixth, what impact would the Thompson Proposal have on progressivity?

Adoption of the Thompson Proposal for new 40%, 45%, and 50% marginal rates for high-income taxpayers will restore some of the progressivity in the income tax system that has been eroded over the past 20 years. In the words of Warren Buffett:

> In 1992, the top 400 had aggregate taxable income of $16.9 billion and paid federal taxes of 29.2 percent on that sum. In 2008, the aggregate income of the highest 400 had soared to $90.9 billion — a staggering $227.4 million on average — but the rate paid had fallen to 21.5 percent.[512]

g) Seventh, is the Thompson Proposal moral?

In challenging a similar rate structure proposal I made in 2007, Chris Hesse asked: "What is the moral case for doing so?"[513] I respond by asking: What is the moral and economic justification for the type of erosion in progressivity that would come with the marginal tax rate structure Mr. Trump has proposed. Apart from morality, for the reasons discussed above, the economic justification is overwhelming for reversing this trend.

Further, high-income taxpayers generally have a greater economic stake in the country than middle and low-income Americans (*e.g*., more expensive houses) and, therefore, get a disproportionately higher economic benefit from our national defense and publicly provided infrastructure. Since they get a disproportionately higher benefit, they should also be subject to higher tax rates. Also, for obvious reasons, high-income

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[510] Department of Commerce, Bureau of Economic Analysis, Gross Domestic Product, Percent Change from Preceding Period at www.doc.gov.

[511] Jacike Calmes, *G.O.P on Defensive as Analysts Question Party's Fiscal Policy*, New York Times (Apr. 12, 2011), available at www.nyt.com.

[512] Buffett, *Coddling the Rich*, *infra* Bibliography.

[513] Christopher W. Hesse, *The Morality of Tax Increases, Chris Hess Responds to Prof. Samuel C. Thompson's Tax Increase Proposal*s, 115 Tax Notes 85 (Apr. 2, 2007). *See also* Christopher W. Hesse, *Still Looking for the Moral Case for a Progressive Income Tax*, 115 Tax Notes 585 (May 7, 2007). Hesse, *Morality*, supra note 12.

taxpayers have a greater "ability to pay" than low income taxpayers, and one of the fundamental principles of taxation is that "people should contribute to the cost of government in line with their 'ability to pay'."[514]

Finally, it is generally accepted that the after one earns sufficient income to provide for basic needs, the benefit one receives from the receipt of additional income tends to decline as income increases. For example, on average, the benefit taxpayer A with $50,000 of taxable income gets from an extra $100 of income is greater than the benefit taxpayer B with $1,000,000 of taxable income gets from the receipt of an extra $100 of income. Consequently, it is completely logical to tax the extra $100 received by B at a higher rate than the extra $100 received by A. This principle alone, which is embodied in the current progressive rate structure of the Federal Income Tax and in the rate structures of virtually every developed country in the world, justifies taxing taxpayers with super-high incomes at higher rates.

5. Would the 40%, 45% and 50% rates under the Thompson Proposal be adjusted if there is substantial base broadening of the individual income tax?

The proposal for new 40%, 45%, and 50% marginal rates is based on the current structure of the Federal Income Tax. If there is significant base broadening (*i.e.*, elimination of significant tax expenditures), then it would be appropriate to reduce these rates to account for such action.

U. What are the positions of Secretary Clinton and Mr. Trump on the tax rate on capital gains?

To fully understand the positions of Senator Clinton and Mr. Trump on capital gains, it is necessary to start with an understanding of the structure of the capital gains tax.

1. What are capital gains, capital losses and the rate structure for taxing capital gains?

Capital gains are the gains from the sale of capital assets such as stock. Capital losses are the losses from such sales. Taxpayers are required to net their capital gains for a tax year against their capital losses for such year.

If the taxpayer has a net gain and such gain is attributable to capital assets held for more than one year, then the gain is taxed at a maximum rate of 20%. In addition, high income individuals are subject to the Obamacare 3.8% tax on net investment income, which includes capital gains, dividends, and interest. Thus, for high-income individuals, the combined tax rate on capital gains is 23.8%.

Although corporations can have capital gains and losses, such gains do not qualify for a reduced rate and, therefore, are subject to the maximum 35% corporate rate.

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[514] Richard A. Musgrave and Peggy B. Musgrave, Public Finance in Theory and Practice, 232 (4th Ed. 1984).

2. What is Secretary Clinton's Proposal for the taxation of capital gains?

Secretary Clinton's website says: "Hillary will revamp the capital gains tax to reward farsighted investments that create jobs." An article published by the Tax Foundation gives the following description of the manner in which this principle would be applied:

> Secretary Clinton's proposal would stick to the general principles of the current system, but elongate the decline. Gains with a holding period of one to two years would also be subject to the 39.6 percent statutory rate. Gains of two to three years would be subject to a 36 percent statutory rate, and thereafter the statutory rate would decline by four percentage points per year until reaching the current long-term rate of 20 percent at six years.[515]

For purposes of the discussion here, it is assumed that the capital gains rate is 23.8% reflecting the base 20% rate plus the 3.8% Obamacare tax on Net Investment Income.

3. What is Mr. Trump's proposal for the taxation of capital gains?

Mr. Trump would tax capital gains at the maximum rate of 20%; however, he would repeal the Obamacare 3.8% tax on Net Investment Income.

4. Who is correct on the capital gains issue: Secretary Clinton or Mr. Trump?

Secretary Clinton's graduated holding period rate structure would add significant complexity to the computation of the capital gains tax; it would also encourage taxpayers to hold their capital assets for the six year holding period that is the condition to 20% rate. Thus, there is a major lock-in effect with her proposal. On balance, it clearly would be less complex and might be more efficient to reduce the holding period to, say, two years without a sliding scale.

Apart from the sliding scale proposed by Secretary Clinton, the main difference between the capital gains proposals of Secretary Clinton and Mr. Trump is that Mr. Trump would repeal, and Secretary Clinton would retain, the Obamacare tax on Net Investment Income. In my judgment, (1) the Obamacare tax on Net Investment Income should be retained as Secretary Clinton proposes, and (2) Secretary Clinton's sliding scale rate structure should be replaced with an extension of the holding period for capital gains to two years.

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[515] Alan Cole, *The Details of Hillary Clinton's Capital Gains Tax Proposal*, Tax Foundation (July 28, 2015).

V. What are carried interest and what are the positions of Secretary Clinton and Mr. Trump on the taxation of "carried interests" as capital gains?

1. What is a "carried interest?"

Owners of private equity and similar firms receive part of their compensation as carried interests that are taxed as capital gains. The Congressional Budget Office describes as follows carried interests and the taxation thereof:

> Investment funds—such as private equity, real estate, and hedge funds—are typically organized as partnerships with one or more general partners managing the fund. The general partners determine investment strategy; solicit capital contributions; acquire, manage, and sell assets; arrange loans; and provide administrative support for all of those activities. Such partnerships also typically include limited partners, who contribute capital to the partnership but do not participate in the fund's management. General partners can invest their own financial capital in the partnership, but such investments usually represent a small share of the total funds invested.
>
> General partners typically receive two types of compensation for managing a fund: a fee tied to some percentage of the fund's assets under management; and a profit share, or "carried interest," tied to some percentage of the profits generated by the fund. A common compensation agreement gives general partners a 2 percent fee and 20 percent in carried interest. The fee, less the fund's expenses, is taxed as ordinary income (and thus is subject to regular income tax rates). In contrast, the carried interest that general partners receive is taxed in the same way as the investment income passed through to the limited partners. For example, if that investment income consists solely of capital gains, the carried interest is taxed only when those gains are realized and at the lower capital gains rate. [T]he general partners' share of dividends is also taxed at the lower rate.[516]

2. What are the positions of Warren Buffet, President Obama and Governor Romney on the taxation of carried interest?

Buffet has argued for the taxation of carried interests as ordinary income and not as capital gain.[517] President Obama is of the same view.[518] As an investor and manager of Bain Capital, a private equity firm, Governor Romney has benefited greatly from carried interest. Such interests have contributed to making him a very wealthy man, with, for many years, an effective tax rate of less than 15%. Prior to his 2012 presidential campaign, Governor Romney had opposed increasing taxes on carried interests; however, his position during the presidential campaign is, as of the middle of June 2012, not clear. An article in CNN Money explains:

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[516] CBO, *2011 Spending and Revenue Options*, *infra* Bibliography at 157.
[517] Buffett, *Coddling the Rich*, *infra* Bibliography.
[518] Treasury, *Green Book*, *infra* Bibliography, at 134-135.

During Romney's failed campaign for the Republican presidential nomination in 2007, there was no mystery about Romney's thoughts on carried interest.

"With regard to carried interest associated with venture capital, real estate, private equity, I do not believe in raising taxes," Romney told an interviewer.

"It is a capital gain because those individuals do make an investment," Romney said. "I would treat capital gains as capital gains instead of trying to re-categorize them as normal income."

The candidate's position is much less clear this [campaign] cycle.[519]

3. What is the position of Secretary Clinton and Mr. Trump on the taxation of "carried interest?"

Both Secretary Clinton and Mr. Trump support the taxation of carried interest as ordinary income and not capital gains. However, under Mr. Trump's proposal for a 15% tax on business income retained in the business, including business income earned by individuals through a partnership, S corporation, or LLC, taxing the carried interest as ordinary income could reduce the tax on such income from the current 23.8% to 15%.

4. What is my view on the taxation of carried interest?

In my view the case for taxing carried interests as ordinary income is beyond compelling because these interests are, as a matter of substance, compensation for services. If Mr. Trump's 15% proposal becomes law, there should be a rule treating the carried interest as ordinary income and not business income. In such case, the maximum 33% rate proposed by Mr. Trump would apply.

W. What is the current treatment of corporate income and what are the positions of Secretary Clinton and Mr. Trump on the taxation of corporate income?

1. What is the current treatment of corporate income?

Corporations are currently subject to a maximum rate of 35% of taxable income. Lower rates apply to corporations with small amounts of taxable income, but this discussion focuses on corporations that are subject to the 35% maximum rate, which fully kicks-in at $15 million of taxable income. As noted below, dividends paid to individuals that are shareholders out of after-tax income are also subject to tax, and the maximum rate of tax is 23.8%, which includes a tax of 20% on the dividend and a tax of 3.8% on Net Investment Income under Obamacare.

The House Republican *A Better Way on Taxes* gives the following (1) background on the double tax of corporate income, and (2) example of the impact of the double tax:

Problem #3: The Current Code Penalizes Savings and Investment. The United States has one of the highest levels of taxation on capital in the world. We tax capital once at the corporate level and then again at the individual level — with integrated tax rates on certain investment income exceeding 50 percent. The

[519] Charles Riley, *Romney's confounding position on carried interest*, @CNN Money (June 18, 2012).

overall taxation of capital in the United States is higher than all but four of the 38 countries that make up the Organization for Economic Co-operation and Development (OECD) and the BRIC countries (Brazil, Russia, India and China).

The following example illustrates how the Federal government can take more than half of an individual's savings. Assume an individual purchases shares in a corporation that pays out all of its profits in the form of dividends. The corporation earns $1,000 and pays $350 in corporate income tax, leaving $650 to distribute as dividends. A saver in the top tax bracket must pay the 20-percent dividend rate on that $650 ($130) and the 3.8-percent net investment income tax (which was enacted as part of the "Obamacare" legislation) on the same $650 ($24.70). In addition, the so-called Pease limitation requires the taxpayer to reduce his or her itemized deductions by $3 for every $100 in additional income, or $19.50. That loss of deductions increases taxable income by $19.50, and at a 39.6-percent rate generates $7.72 of additional tax liability. The sum of all these taxes on that original $1,000 in income is $512.42, or an effective tax rate of 51 percent. With State taxes on top of that, savers in some parts of the country pay an effective tax rate of over 60 percent on their investments.[520]

This series of questions does not deal with the taxation of the income of pass-thru entities, that is, partnerships, S corporations, LLCs, and sole proprietorships. The individual owners of these entities are taxed on the income of the entities and the treatment of this income is discussed above in connection with the discussion of the taxation of individuals. It is shown there that Mr. Trump has proposed to tax such business income at a 15% rate assuming the income is retained in the business.

2. What is Secretary Clinton's proposal for taxing corporations?

Secretary Clinton has not proposed to change the 35% corporate rate. One source reported that she plans to address reform of the corporate tax system after the election. She also proposed to impose a tax on high-frequency trading, but this tax is not discussed here. Further, her proposal for taxing inversions is discussed in a separate set of questions below.

As discussed in the questions below relating to the taxation of dividends, Secretary Clinton would continue to tax dividends received by individuals at a maximum rate of 23.9%, including the 3.8% Obamacare tax on Net Investment Income. The combined 35% rate at the corporate level and 23.8% at the individual level would be 50.47%. This can be illustrated as follows: Assume that a corporation has $100 million of taxable income. The corporate tax would be $35 million, and there would be $65 million after tax. If this $65 million were distributed as a dividend, it would be taxed at a 23.8% rate or $ 15.47 million. Consequently the combined corporate level tax and the individual level tax would be $50.47 million.

[520] *A Better Way on Taxes*, *infra* Bibliography, at 9.

3. What is Mr. Trump's proposal for taxing corporations?

As discussed previously, Mr. Trump has proposed to tax all business income (including income of corporations) that is retained in the business at a 15% rate. He has proposed to close some corporate loopholes. As discussed in the questions below relating to the taxation of dividends, Mr. Trump would tax dividends received by individuals at a maximum rate of 20%. The combined 15% rate at the corporate level and 20% rate at the individual level would be 32%. This can be illustrated as follows: Assume that a corporation has $100 million of taxable income. The corporate tax would be $15 million, and there would be $85 million after tax. If this $85 million were distributed as a dividend, it would be taxed at a 20% rate or $17 million. Consequently, the combined corporate level tax and the individual level tax would be $32 million, which is one percentage point lower than the 33% rate Mr. Trump proposes as the highest individual rate on ordinary income.

4. What is the appropriate way to compare corporate tax rates: statutory rates or effective rates?

It is often inappropriate to focus on marginal corporate rates.[521] For example, a report issued on May 5, 2006 by the Tax Foundation said:

> A wave of corporate income tax reduction is sweeping through many countries in the Organization for Economic Cooperation and Development (OECD), but not the United States. . . . The United States has the second-highest overall corporate income tax rate (39.3 percent combined federal and sub-federal) among all OECD countries.[522]

This report focuses on statutory rates and not effective rates. It is likely that the effective corporate tax rate in the U.S. is not anywhere near the highest in the OECD. For example, for the year 2000, the corporate rate in the U.K. was 30%, and the U.K. corporate tax produced revenues amounting to 3.7% of the U.K.'s GDP. On the other hand, for the same year, the corporate rate in the U.S. was 39.4%, and the corporate tax produced revenues equal to 2.5% of our GDP. This indicates that there are many more tax expenditures (*i.e.*, loopholes) in the U.S. corporate tax than in the U.K. corporate tax. For 2004, for all OECD countries, the average percent of GDP attributable to corporate tax was 3.6%, more than a full percentage point higher than in the U.S.[523]

Also, an article by Professors Avi-Yonah and Lahav reached the following conclusion on the effective rates on U.S. and E.U. corporations:[524]

> We believe that this study indicates that U.S.-based multinationals do not face a tax-induced competitive disadvantage in competing against EU-based multinationals. Even though the U.S. statutory rate is ten percentage points higher

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[521] This section is based on testimony given by Samuel C. Thompson, Jr. at Hearing on Corporate Tax Reform before the U.S. House of Representatives Committee on Ways and Means, Subcommittee on Select Revenue Measures (May 9, 2006).

[522] The Tax Foundation, *U.S. Lagging Behind OECD Corporate Tax Trends* (May 5, 2006).

[523] OECD, *Recent Tax Policy Trends and Reforms* (2004).

[524] Reuven S. Avi-Yonah and Yaron Lahav, *The Effective Tax Rate of the Largest US and EU Multinationals*, University of Michigan Law School Scholarship Repository Articles Faculty Scholarship (2012).

than the average corporate statutory rate in the European Union, the effective U.S. corporate tax rate is the same or lower than the effective EU corporate tax rate for the largest U.S. and EU multinationals.

Presumably, the reason for this result is that while the EU countries have a lower statutory rate, their tax base is larger because it has fewer exceptions.[525]

This analysis leads to the conclusion that the Congress should take steps to eliminate many of the loopholes in our corporate tax, and a good starting point would be enactment of an imputation system.

5. What is the rate structure for corporations proposed by the House Republican "A Better Way on Taxes?"

The House Republican *A Better Way on Taxes* gives the following background on the recent history of the maximum corporate tax rate in the U.S.:

> *Tax Rate Structure for Large Businesses*. Today, businesses operated through C corporations are subject to corporate tax at a statutory rate of 35 percent. The Tax Reform Act of 1986 reduced the top corporate tax rate from 46 percent to 34 percent. The corporate tax rate was increased to 35 percent several years later and has remained there ever since. This stands in stark contrast to what our major trading partners have done over the past 30 years. In 1986, when the United States enacted tax reform that significantly reduced the top U.S. corporate tax rate, the average corporate tax rate in the other OECD countries was 47.2 percent. Today, that average has dropped to 24.8 percent while the U.S. corporate tax rate remains at 35 percent.
>
> In addition, income earned through a C corporation today is subject to double taxation, with a second layer of tax imposed on such income at the shareholder level through the individual tax on dividends and capital gains recognized on disposition of corporate shares. At the top effective individual tax rate applicable to dividends and capital gains, this yields a total tax burden on the earnings of C corporations that exceeds 50 percent today.
>
> Finally, corporations today face the added burden of the corporate alternative minimum tax (AMT), which requires a second, separate tax calculation. The corporate AMT is imposed at a rate of 20 percent and generally applies above an exemption amount of $40,000, with an exemption for certain small corporations. The tax base for the corporate AMT reflects the effective add-back of many business tax deductions that are allowed for regular tax purposes but not AMT purposes. Corporations are required to pay the higher of the regular tax and the AMT and receive a credit for AMT paid that is carried forward to be applied to offset regular tax in future years.[526]

A Better Way goes on to set out the following structure for taxing corporate income and also discusses the implication of the dividend taxation provisions it proposes, which are discussed above:

> This Blueprint will lower the corporate tax rate to a flat rate of 20 percent. This represents the largest corporate tax rate cut in U.S. history. The Tax Reform

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[525] *Id*.

[526] *A Better Way on Taxes*, *infra* Bibliography, at 24-25.

Act of 1986 reduced the corporate tax rate by 26 percent (12 percentage points). This Blueprint will reduce the corporate tax rate by 43 percent (15 percentage points). Economists at the OECD and elsewhere have identified the corporate income tax as the most harmful of all forms of taxation in terms of the adverse effect on growth. This dramatic reduction in the corporate tax rate will mean a dramatic reduction in the drag on American economic growth that results from the corporate income tax. (For further discussion, see the Appendix.)

At the same time, the effective double taxation of corporate income will be reduced through the reduction in the tax on dividends and capital gains of individual shareholders. As discussed above, individuals will be taxed at just half the regular individual tax rate on both dividends paid on corporate shares and capital gains recognized on dispositions of corporate shares.

In addition, this Blueprint will repeal the corporate alternative minimum tax (AMT). Like the individual AMT, the corporate AMT imposes burdens in the form of both direct tax costs and the cost of complexity. In its 2001 tax simplification report, the Joint Committee on Taxation concluded that the AMT "no longer serves the purposes for which it was intended" and recommended its repeal. The Blueprint follows that recommendation, putting an end to the unnecessary burdens of the corporate AMT.[527]

6. What is the treatment of depreciation proposed by the House Republican "A Better Way on Taxes?"

For the following reasons, the House Republican *A Better Way on Taxes* proposes the immediate write off of the costs of acquiring business property:

Benefit of Immediate Write-off of Business Investments. Today, job creators face a complex array of schedules and systems of cost recovery for their investments in tangible and intangible assets to maintain and grow their operations. For each asset, they must determine the period over which the asset may be depreciated or amortized and the method that must be used to determine the annual allowance with respect to the asset. For many assets, the cost must be spread over many years for tax purposes. This means that businesses are taxed today on the earnings they reinvest in growing their operations and can recover the cost of that investment only many years later.

Current depreciation rules imperfectly measure the actual decline in the value of the asset in comparison to economic depreciation. The result effectively is different tax rates on different forms of investment, which distorts the allocation across asset classes. Today's cost recovery rules also fail to take into account inflation. This means that investors do not recover the full value of their investments, because inflation erodes the value of their deductions over time.

This Blueprint will provide businesses with the benefit of fully and immediately writing off (or "expensing") the cost of investments. This represents a 0 percent marginal effective tax rate on new investment.[528]

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[527] *Id*. at 25.
[528] *Id*.

7. What is my view on the taxation of corporations?

In my view, the 35% corporate tax rate is too high, and we should broaden the base and reduce the corporate rate on a revenue neutral basis. As discussed below in connection with my proposal for the adoption of an imputation system for taxing the income of controlled foreign corporations, the adoption of such a system would raise significant revenues from the closing of the current deferral benefit, which is the largest corporate tax expenditure, and such revenues could be used to reduce the corporate tax.

As indicated in Table 23 D, the OECD, *Revenue Statistics* indicates that when considering the *Taxes on Income and Profits as a Percentage of GDP*, the U.S. is largely in line with the percentages in Canada, Germany, the U.K. and the OECD average. This Table is a measure of business income of both individuals and corporations. This is another indication that the U.S. could on a revenue neutral basis significantly reduce the corporate tax rate while simultaneously eliminating corporate tax expenditures.

Table 23-D
Taxes on Income and Profits as a Percentage of GDP for 1965, 1995, 2009, and 2013 for the following Countries: the U.S., Canada, Germany, U.K., Mexico, and Chile, and OECD Average

Years/ Countries	U.S	Canada	Germany	U.K.	Mexico	Chile	OECD Average
1965	11.3	9.7	10.7	10.8	NA	NA	8.7
1995	12.0	16.2	11.0	11.8	3.7	4.6	11.5
2009	9.2	14.9	10.4	12.4	4.6	5.4	11.0
2013	12.9	14.5	11.3	11.7	6.0	6.9	11.5

Source: OECD, *Revenue Statistics*, *infra* Bibliography at Table B Taxes on Income and Profits as Percentage of GDP

X. What is the current treatment of dividends and what are the positions of Secretary Clinton and Mr. Trump on the taxation of dividends?

1. What is the current tax treatment of dividends?

Dividends received by individuals are currently subject to a maximum 20% rate plus the 3.8% Obamacare tax on Net Investment Income, which is imposed on high-income taxpayers.

2. What are Secretary Clinton's and Mr. Trump's positions on the taxation of dividends?

Secretary Clinton would retain the current structure for taxing dividends, including the 3.8% Obamacare tax on Net Investment Income. Mr. Trump would retain this treatment but without the 3.8% Obamacare tax.

3. What is my position on the taxation of dividends?

In a 2003 article analyzing the claim that dividends are over-taxed, I showed that, under the rate structure at that time, while low-bracket taxpayers are overtaxed on corporate dividends and, therefore, should be given relief on dividend taxation, high-income taxpayers are generally not overtaxed on dividends.[529] This may seem counterintuitive; however, there are many twists and turns in analyzing the taxation of dividends. Here are the principal ones as they existed at the time of my article in 2003.[530]

First, corporations may receive certain tax preferences, such as accelerated depreciation, and therefore, the effective corporate tax rate is generally less than 35%.

[529] Samuel C. Thompson, Jr., *President's Dividends Plan Undertaxes High-Income Taxpayers*, 98 Tax Notes 389 (Jan. 20, 2003).
[530] This answer is based on a discussion in Thompson, *Beyond the Buffet Rule*, *infra* Bibliography.

Second, dividends are not taxed until paid; thus, there is the possibility of deferring the shareholder tax between the time the corporation earns income and the time the shareholder receives the dividend.

Third, if the shareholder holds appreciated stock until death, there is a step-up in the basis of the stock to its fair market value at death, and therefore, the shareholder's beneficiary can sell the stock and avoid both the capital gains tax and the tax on dividends.

My 2003 analysis shows that on average, after taking into account these and other factors, taxpayers in the 35% or higher bracket are not, on average, overtaxed on dividends. On the other hand, taxpayers in the lower brackets are, on average, overtaxed. This means that there is a case for dividend relief for such lower bracket taxpayers.

On the basis of the above analysis, I agree with President Obama in urging Congress to reinstate the taxation of dividends as ordinary income for taxpayers in the 35% and higher brackets. However, for taxpayers in brackets lower than 35%, Congress should provide appropriate relief, such as a flat $200 exclusion, which would further the fundamental concept of progressivity reflected in the Code. The revenues resulting from this change should be substantial. Buffett apparently also would treat dividends as ordinary income.

The points made above in 2003 also seem applicable under the corporate tax proposals of both President Clinton and Mr. Trump. Consequently, under both of these proposals, in my view, dividends received by high-income individuals should be subject to taxation at the highest marginal rate.

Y. What is the proposed treatment of dividends, interest and capital gains in the House Republican "A Better Way on Taxes?"

For the reasons discussed as follows, *A Better Way on Taxes* would impose a maximum 16.5% rate on dividends, interest, and capital gain:

> *Income from Savings and Investment*. Under an income tax, income from savings and investment is subject to double taxation, with investments made out of after-tax earnings and the returns on those investments also subject to tax. Thus, an income tax creates a bias against savings. The current tax code only partially mitigates this double taxation by providing a special rate structure for certain types of investment income. This rate structure applies to adjusted net capital gain and qualified dividends, with a top statutory tax rate of 20 percent. When the 3.8-percent tax on net investment income and the effects of the so-called Pease limitation on itemized deductions are taken into account, the top effective tax rate on capital gains and dividends reaches roughly 25 percent (exclusive of corporate-level income taxes).
>
> This Blueprint provides for reduced tax on investment income. Families and individuals will be able to deduct 50 percent of their net capital gains, dividends, and interest income, leading to basic rates of 6 percent, 12.5 percent, and 16.5 percent on such investment income depending on the individual's tax bracket. This approach is similar to how relief from double taxation of savings and investment was structured for several years after the enactment of the first round of Reagan tax cuts in 1981. However, this Blueprint also includes interest

income within the reduced tax on investment income, as part of the move in the direction of a cash-flow tax.[531]

Z. What are the positions of Secretary Clinton and Mr. Trump on the taxation of U.S. controlled foreign corporations?

The questions in this section look at (1) the current deferral system for taxing the income of U.S. controlled foreign corporations, which are known as controlled foreign corporations (CFCs), and (2) the principal alternatives to the deferral system: a territorial system and an imputation system.

3. What are the principal options for taxing the foreign income of U.S. controlled foreign corporations?

The principal options for taxing foreign business income of U.S. controlled foreign corporations, such as a foreign subsidiary of a U.S. parent corporation, are (1) the current deferral system; (2) a territorial system, which would exempt foreign business income from U.S. taxation; and (3) the polar opposite of a territorial system, an imputation system that would subject the foreign income of U.S. controlled foreign corporations (CFCs) to U.S. tax as such income is earned, with an appropriate credit for foreign taxes paid.

As will be discussed, there are several problems with a deferral system, and virtually no individual or group is in favor of retaining it without modification. As discussed below, Secretary Clinton has not proposed any changes to the current deferral system, and Mr. Trump has proposed a modified imputation system. Along with various other international tax professionals, I have proposed that we move to a pure imputation system.[532] I have also proposed that we use the significant revenues that would be raised with the adoption of an imputation system to lower the corporate tax rate on a revenue neutral basis.[533]

4. How does the current deferral system operate?

Assume that a Pennsylvania corporation headquartered in State College, Pennsylvania, let's call it State Oil Corp, sets up a subsidiary corporation in China, let's call it China Oil Sub. Under our current deferral system and controlled foreign corporation (CFC) regime, State Oil Corp's active business income is not taxed at the time China Oil Sub earns the income but it is taxed at the time China Oil Sub pays dividends to State Oil Corp. Upon receipt of dividends, State Oil Corp receives, within limits, a foreign tax credit against its U.S. tax liability for Chinese taxes paid by China Oil Sub. Certain tax haven income, including passive income, earned by State Oil Corp (*i.e.*, subpart F income) is subject to immediate taxation in the U.S.

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[531] *A Better Way on Taxes*, *infra*, Bibliography, at 18.

[532] Thompson, *Statement on Imputation to Senate Finance Committee*, *infra* Bibliography. *See also* Samuel C. Thompson, Jr., *An Imputation System for Taxing Foreign Source Income*, 130 Tax Notes 567 (Jan. 31, 2011) and 61 Tax Notes International 691 (Feb. 28, 2011).

[533] Thompson, *Statement on Imputation to Senate Finance Committee*, *infra* Bibliography, at 8.

A principal problem with the deferral system is that there is a tax incentive for a U.S. company to invest through a subsidiary in a foreign country that has a low tax rate. As long as the income stays overseas and is invested in an active trade or business, the higher U.S. tax is deferred; The deferred income is only subject to U.S. tax at the time of repatriation to the U.S. Some have estimated that there is nearly $2 trillion of foreign earnings of CFCs deferred from U.S. tax.

5. How would a territorial system operate?

Under a territorial system, State Oil Corp would not be taxed on the business income earned by China Oil Sub either at the time the income was earned or at the time the income was brought back (that is, repatriated) to the U.S. in the form of dividends paid by China Oil Sub to State Oil Corp. This is the case without respect to the Chinese tax rate applicable to China Sub.

A territorial system has even a greater tax incentive for a U.S. company to invest through a subsidiary in a foreign country that has a low tax rate, because the income earned will not be subject to U.S. tax at any point, including when it is repatriated.

6. How would an imputation system operate?

Under an imputation system, State Oil Corp would be taxed in the U.S. on all of the income earned by China Oil Sub, and State Oil Corp would receive a credit against its U.S. tax liability for taxes China Oil Sub pays to China.

For example, assume that China Sub has $10 million of income earned in China and pays 20% or $2 million in Chinese taxes on this amount. Also, assume that State Oil has a U.S. tax rate of 35%. In such case, the $10 million of income of China Sub would be imputed to State Oil, and State Oil would be subject to a $3.5 million tax on the $10 million but would also receive a $2 million credit for the Chinese taxes paid by China Sub. This would leave State Oil with a $1.5 million U.S. tax on China Sub's earnings.

7. What is the "lock-out" problem with the current deferral system?

Under the current deferral system, U.S. parent companies are reluctant to repatriate earnings of foreign subs because of the U.S. tax that would be imposed on the repatriated earnings. This has been referred to as the "lock-out" or "trapped income" problem, which curtails investment in the U.S. It has been estimated that $2 trillion of income is trapped overseas.

Further, it has been argued that because of the "trapped income" problem, U.S. companies are using significant cash holdings in foreign subs to engage in foreign, as opposed to U.S., mergers and acquisitions. Apparently, this is the situation with Microsoft's acquisition of Skype, a company organized in Luxembourg.

8. What is President Obama's proposal on the taxation of U.S. controlled foreign corporations?

The 2012 *President's Framework for Business Tax Reform*[534] sets out President Obama's modifications to the current deferral system. To cut back on the benefits of

[534] *President's Framework for Business Tax Reform*, *infra* Bibliography.

deferral, the President proposed the establishment of a "new minimum tax on foreign earnings—while repealing deductions for shipping jobs overseas and providing new incentives for bringing jobs back home."[535] In addressing the proposed minimum tax the *Framework* explains: "The President believes we must prevent companies from reaping the benefits of locating profits in low-tax countries, put the United States on a more level playing field with our international competitors, and help end the race to the bottom in corporate tax rates."[536] The *Framework* further elaborates:

> Specifically, under the President's proposal, income earned by subsidiaries of U.S. corporations operating abroad must be subject to a minimum rate of tax. This would stop our tax system from generously rewarding companies for moving profits offshore. Thus, foreign income deferred in a low-tax jurisdiction would be subject to immediate U.S. taxation up to the minimum tax rate with a foreign tax credit allowed for income taxes on that income paid to the host country. This minimum tax would be designed to balance the need to stop rewarding tax havens and to prevent a race to the bottom with the goal of keeping U.S. companies on a level playing field with competitors when engaged in activities which, by necessity, must occur in a foreign country.[537]

President Obama also has proposed that a 14% tax apply to the one-time repatriation of the previously deferred income, and the *Framework* calls for "Goodbye" tax penalties on U.S. firms moving abroad, and "Welcome back" tax benefits for U.S. companies moving their foreign operations back to the U.S. On these Goodbye and Welcome Back proposals, the *Framework* explains:

> The tax code currently allows companies moving operations overseas to deduct their moving expenses—and reduce their taxes in the United States as a result. The President is proposing that companies will no longer be allowed to claim tax deductions for moving their operations abroad. At the same time, to help bring jobs home, the President is proposing to give a 20 percent income tax credit for the expenses of moving operations back into the United States.[538]

9. What is the principal argument in support of a territorial system: the "horizontal competitiveness" claim?

In 2005, the Advisory Panel on Federal Tax Reform, appointed by President George W. Bush, suggested that the U.S move to a territorial regime. Many other groups and individuals have made similar suggestions. The principal reason the Panel gave for this move was "competitiveness," and this was also the reason given by Senator Grassley, formerly the Chairman of the Senate Finance Committee, in his August 2011 letter to President Obama.[539] The Senator suggested that we move to a "territorial tax system to ensure that the United States remains competitive in the global marketplace."[540] In other words, the Panel and Senator Grassley argue that a territorial system will make U.S. firms

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[535] *Id*. at 14.
[536] *Id*.
[537] *Id*.
[538] *Id*.
[539] Sen. Grassley, Letter to President Obama on Tax Reform (August 11, 2011) (suggesting that we move to a "territorial tax system to ensure that the United States remains competitive in the global marketplace").
[540] *Id*.

competitive with other firms doing business in, for example, China, by subjecting the U.S. firm's Chinese operations to the same tax rate that applies to other companies doing business in China that are either Chinese owned firms or subsidiaries of firms located in countries with territorial systems. I refer to this argument as the "horizontal" competitiveness claim, in that it supports similar tax treatment for firms investing in a particular country.

10. What are the defects in the "horizontal competitiveness" claim: the "vertical competitiveness" rejoinder?

This competitiveness claim is, at a minimum, overstated. For example, in his testimony before this Senate Finance Committee at the September 8, 2011 hearing on International Tax Issues, Professor Reuven Avi-Yonah made it clear that the facts do not support this competitiveness claim.[541]

In addition, adoption by the U.S. of a territorial regime would create a clear competitiveness issue for businesses conducted in the U.S., because it would create an unleveled playing field between business conducted in the U.S., for example, in State College, and business conducted in, for example, China. I refer to this problem as the "vertical" competitiveness problem, because it is a competitiveness problem between the U.S. and foreign investment destinations. President Bush's Tax Reform Panel, and other proponents of territoriality, including the House Republican *A Better Way* proposal, do not address this "vertical" competitiveness problem.

As an illustration of the flaw in the Horizontal Competitiveness argument, the House Republican *A Better Way* proposal says: "[N]o . . . build-up [of foreign earnings] will occur under the [territorial] international tax rules provided in this Blueprint, as businesses will be free to bring home their foreign earnings to be invested to create American jobs and grow their U.S. operations." This statement is false: with a territorial regime, as long at the foreign tax rate is lower than the U.S. tax rate, there would continue to be a tax incentive for foreign investment over U.S. investment, thus continuing the vertical competitiveness problem.

Although under a territorial system, foreign earning are not "locked-out" of the U.S. by reason of the *de jure* tax that would apply on repatriations in the current deferral system, such earnings would be subject to the *de facto* "lock-out" by reason of the attractiveness of any lower rates abroad. In fact, a territorial system promotes a "race to the bottom," for with such a system, the country with the lowest corporate tax rate has a tax advantage over all other countries. These types of *de jure* and *de facto* "lock-out" effects would not occur with an imputation system.

11. Would an imputation system eliminate the lock-out problem?

The "lock-out" problem with a deferral system would be eliminated with an imputation system because the earnings of a foreign sub would be taxed when earned and not when distributed. Thus, it could be expected that foreign earnings would be deployed

[541] Testimony of Prof. Reuven Avi-Yonah, Hearing on International Tax Issues, Senate Finance Committee 3 (September 8, 2011).

in the U.S. or a foreign country without regard to the Federal income tax treatment of the investment, because foreign earnings would not be "locked out" of the U.S.

Although some argue that a territorial regime would also address the "lock-out" problem, as indicated above, a territorial regime creates a tax incentive for foreign over domestic investment, and this incentive will work against any repatriation. Further, there are other significant problems with such a system.

12. Would an imputation system help preserve the U.S. tax base?

Preserving the U.S. tax base is another benefit that can be achieved by adopting the imputation system. Under the territorial system, income earned abroad is lost forever from the U.S. tax base, while under the imputation system, all income earned abroad is reflected in the tax base.

An imputation system would ensure that U.S. companies could not completely avoid the U.S. tax system by operating overseas. This problem exists under our current system as indicated in a March 2011 article in the New York Times that reports:

> General Electric, the nation's largest corporation, had a very good year in 2010. The company reported worldwide profits of $14.2 billion, and said $5.1 billion of the total came from its operations in the United States. Its American tax bill? None. In fact, G.E. claimed a tax benefit of $3.2 billion.[542]

The article goes on to explain that the "most lucrative" tax benefits received by GE allow it to "operate a vast leasing and lending business abroad with profits that face little foreign taxes and no American taxes as long as the money remains overseas."[543] The imputation system proposed here provides a simple antidote to the GE "no tax" problem: the U.S. tax would be based on worldwide earnings.

13. Would an imputation system reduce transfer pricing abuse and prevent a stealth tax cut for corporations?

An imputation system would also reduce transfer pricing abuse. Transfer pricing issues arise, for example when there are sales between a U.S parent and its foreign sub. Under the current deferral system, there is a large incentive for the transfer price to be set so that most of the inter-company income is allocated to a low tax foreign jurisdiction. An imputation system would eliminate this problem, because income earned in foreign countries would be subject to tax at the U.S. rate, with a credit for foreign taxes paid. Therefore, no matter where the profits are earned, they will be taxed at the same rate. On the other hand, adoption of a territorial regime would increase transfer pricing abuse, because any allocation of income to a foreign sub would eliminate forever any tax on the income.

This incentive for off-shoring of income is what the OECD's Base Erosion and Profit Shifting (BEPS) project is all about.[544] Countries with territorial regimes, which

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[542] David Kocieniewski, *G.E.'s Strategies Let It Avoid Taxes Altogether*, New York Times (March 24, 2011).
[543] *Id*.
[544] The discussion here of BEPS is based on my article *Territoriality Would Make All U.S. Companies De Facto Inverters*, *infra* Bibliography.

most OECD countries employ, especially have been seeing an erosion of their tax bases through base erosion (BE) and profit shifting (PS). The BEPS project, which was adopted at the November 2015 G-20 meeting in Turkey,[545] is designed to cut back on BEPS.

As an illustration of the magnitude of the BEPS problem, the *Introduction* to the final BEPS report explains: "The affiliates of [Multinational Enterprises] in low tax countries report almost twice the profit rate (relative to assets) of their global group, showing how BEPS can cause economic distortions."[546]

To be clear, embedded in our current deferral system is an incentive for engaging in BEPS, but there is even a greater incentive for engaging in BEPS in a territorial system. Further, a move to a territorial system with the inherent increase in the problem with BEPS effectively would be bestowing on American business a large *stealth* corporate tax cut.

For example, under our current deferral system, State College, Inc. (SCI), a fictious corporation operating in State College, PA and subject to a corporate tax rate of 35%, has an incentive to divert its taxable income to its foreign subsidiary (FS) operating in a country with a low tax rate, say 10%. For every dollar of taxable income SCI can divert to FS, SCI saves 25 cents in immediate tax. However, if SCI repatriates FS's 90 cents of after-tax income, there would be a U.S. tax of 25 cents, thus bringing the total tax to 35%.[547]

On the other hand, under a territorial system, if SCI can successfully divert the dollar of income to FS, SCI can bring the dollar back to state college without any additional U.S. tax, thus getting a stealth corporate tax cut. It should be obvious to policy makers that with the adoption of territoriality, in the search of the stealth tax cut, tax advisers would be advising their clients to pursue even more aggressive BEPS schemes than are currently utilized under our deferral system.

14. Would a territorial system make U.S. companies *de facto inverters*?[548]

Introduction to Inversions. Inversions, which are addressed in greater detail below, are transactions in which a U.S. firm, such as Pfizer, merges with a foreign firm, such as Allergan, an Irish company, with the Pfizer shareholders ending up with a controlling interest in the resulting company, which is generally a new holding company that holds the stock of both Pfizer and Allergan. As noted below, as a result of action taken by the Treasury the Pfizer-Allergan inversion was abandoned.

Inversions present significant tax policy issues, and as discussed in detail below, both Senator Clinton and Mr. Trump have opposed inversions. The purpose of the

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[545] White House Fact Sheet: The 2015 G-20 Summit in Antalya, Turkey, *A Modern, Fair International Tax System* (Nov. 16, 2015).

[546] OECD/G20 Base Erosion and Profit Shifting Project, *Explanatory Statement*, 2015 Final Reports (Nov. 2015), at Introduction, paragraph 2.

[547] As a general matter, under the foreign tax credit and related provisions, upon receipt of the 90 cents from FS, SCI would (1) include in its income $1 (*i.e.*, the 90 cents, plus the gross-up of the 10 cents foreign tax); (2) be subject to U.S. tax on the $1 at 35%, or 35 cents; and (3) be allowed a foreign tax credit of 10 cents against the 35 cents U.S. tax, which results in a U.S. tax of 25 cents.

[548] The discussion here is based on my article Thompson, *Territoriality Would Make All U.S. Companies De Facto Inverters*, *infra* Bibliography.

discussion here is to address the following issue: *Would a Territorial System Make U.S. Companies De Facto Inverters*?

As an indication of the tax policy significance of inversions, in a press release commenting on the Treasury's November 2015 Inversion Notice, Senator Orin Hatch, the Chairman of the Senate Finance Committee said: "[T]he best way to resolve [the inversion] issues would be through a comprehensive tax overhaul that lowers the corporate tax rate and shifts the U.S. to a territorial tax system[.]"[549]

Senator Hatch's statement is consistent with Republican orthodoxy on this issue, as all of the Republican presidential candidates who addressed the issue, except for Donald Trump,[550] proposed moving to a territorial regime, and many mentioned that such a move would eliminate inversions. For example, Jeb Bush, who had one of the most detailed tax plans, said: "We will end the practice of world-wide taxation on U.S. businesses, which fosters the insidious tactic called corporate 'inversions.'"[551]

Purpose of Actual or De Jure Inversions. A major purpose of actual or *de jure* inversions, like the Pfizer-Allergan inversion, is to give Pfizer the benefit of Ireland's territorial regime so that it can avoid the U.S deferral system on future income earned by its non-Irish foreign subs.[552] Thus, it is not as though Pfizer is going to have significant amounts of its income taxed in Ireland; rather, it is using Ireland so that it can have significant amounts of its foreign income (including income diverted from the U.S. through BEPS) taxed only in other low tax foreign jurisdictions, many with lower tax rates than Ireland's.

Territoriality Would Create De Facto Inverters. The argument that territoriality would eliminate actual or *de jure* inversions is absolutely accurate. This is because territoriality would grant the benefits of a *de jure* inversion to every U.S. business, including large publicly held corporations, small closely held corporations, partnerships, and LLCs. With territoriality, every U.S. owned business would automatically have the benefits that come with a *de jure* inversion without going through the mechanics of such an inversion; thus every U.S. firm could become a *de facto* inverter.

The principal benefit offered to *de facto* inverters is the same benefit offered to current *de jure* inverters: the ability, through the use of BEPS and other tax avoidance techniques to take advantage of lower tax rates offered by certain countries, particularly tax havens. With territoriality every U.S. business, whether large or small would have an incentive to deflect income to foreign subs operating in tax havens, so that in the words

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[549] Senate Finance Committee, *Hatch Statement on Latest Anti-Inversion Tax Guidance from Treasury* (Nov. 19, 2015).

[550] Thompson, *Hooray for Trump's Proposal to End Deferral*, *infra* Bibliography.

[551] Jeb Bush, Presidential Website, Taxes: Reform and Growth, available at https://jeb2016.com/?lang=en, visited on Oct. 28, 2015. Jeb Bush proposes to assess a one-time tax of 8.75% payable over 10 years, on the more than $2 trillion in corporate profits sitting overseas. The other Republican candidates have made similar proposals.

[552] Prior to the issuance of the Treasury's 2014Inversion Notice (IRS Notice 2014-52, I.R.B. 2014-42 (Oct. 14, 2014)), U.S. inverters were avoiding the U.S. tax on repatriation of previously deferred foreign income through "hop scotch loans" made from the controlled foreign subs of the U.S. parent corp to the new post inversion foreign parent. The 2014 Notice states the Treasury position that such loans result in a repatriation tax in the U.S. As a consequence, it can be expected that inverters will avoid "hop scotch loans."

of the BEPS report, the foreign subs operating in "low tax countries [have a significantly higher] profit rate (relative to assets) [than that] of their global group[.]"

The Imputation Alternative to Territoriality and the Impact on De Jure Inversions. I have argued in several Tax Notes articles, the latest in my *Hooray for Trump* article,[553] that we should move to an imputation system for taxing foreign income of U.S. corporations.

As indicated above one of the principal benefits of an imputation system is that it would preserve the U.S. tax base by significantly reducing, if not completely eliminating, the problem with BEPS in the context of foreign investment by U.S. firms. Also, adoption of an imputation system would generate significant revenue, because as discussed previously, the deferral of foreign income is the largest corporate tax expenditure. The increased revenues from the elimination of deferral could be used to significantly reduce the corporate tax rate for all corporations on a revenue neutral basis.

Although under an imputation system, it would be necessary to retain anti-inversion provisions to address *de jure* inversions like the Pfizer-Allergan transaction, this result is far superior to giving every U.S. firm the potential of becoming a *de facto* inverter, which would happen with the adoption of a territorial system. Also, the lowered corporate tax rate that could accompany adoption of an imputation system would decrease the incentive for entering *de jure* inversions.

Continuing Anti-Inversion Measures. Without respect to whether or not an imputation system is adopted, as long as a territorial system is not adopted, it is wise tax policy to adopt the policies, discussed below in connection with a direct examination of inversions, regarding *de jure* inversions.

15. How much revenue would be (1) generated with a move to an imputation system, and (2) lost with a move to a territorial system?

Another benefit of an imputation system is the additional revenue it would generate. The Joint Committee on Taxation's October 2008 Tax Expenditure Report[554] shows that only the allowance for accelerated depreciation for equipment produces a larger corporate tax expenditure (*i.e.*, reduction in tax liability) than the deferral provision. Thus, of the nearly 150 corporate tax expenditures covered in the Report, only one produces a greater revenue loss than the deferral provision. As a practical matter, this means that any meaningful amendment to the corporate tax would have to take a hard look at the deferral tax expenditure, which the Joint Committee estimates will result in the loss of $ 62.9 billion in tax revenues over the period 2008-2012. It is not clear if this estimate takes into account all of the detriments associated with transfer pricing abuse under the current deferral system. If such abuses are not included in this revenue estimate, then the tax revenue gain from moving to an imputation system would be even greater.

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[553] *Hooray for Trump*, *infra* Bibliography, *see also* Thompson, *Logic Says No to Options Y, Z, and C, but Yes to Imputation*, *infra* Bibliography, and Thompson, *An Imputation System for Taxing Foreign-Source Income*, *infra* Bibliography.

[554] Staff of the Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2008-2012*, Table 4 (Oct. 31, 2008).

I do not have a revenue estimate for a territorial system, because the loss will depend on the "system's design."[555] However, it could be expected that any territorial system would result in significant loss in tax revenue.

16. Should the increased revenues from the adoption of an imputation system be used to lower the corporate tax rate?

There is no doubt that adoption of an imputation system could, on a revenue neutral basis, provide the revenue needed to significantly reduce the maximum corporate tax rate from the current 35%. One analysis projects that the maximum corporate rate could be reduced from 35% to 28%.[556] Thus, the trade-off with this type of revenue neutral policy would be (1) increasing the tax rate on some U.S. companies investing abroad, and (2) reducing the maximum tax rate from 35% to 28% on all companies, both those investing abroad and those investing domestically.

Under this approach, investment in the U.S. would be more attractive for both U.S companies and for foreign companies because the 28% rate would also apply to foreign companies operating in the U.S.[557] Also, although there would be immediate imputation of foreign income, the imputed income would be taxed at a lower rate than the current 35% rate applicable to companies that earn foreign income and immediately repatriate it to the U.S. Thus, those U.S. companies that currently repatriate low-taxed foreign income on an "as earned" basis would receive a tax reduction.

17. Is there an inconsistency in my proposal to increase marginal rates for individuals but to decrease the marginal rate for corporations?

One may claim that there is an inconsistency in my proposal to increase marginal rates on individuals at the same time I would decrease marginal rates on corporations. For the following reasons, there is no inconsistency.

First, the increase in marginal rates for individuals is designed to both increase revenues and increase the overall progressivity of the Federal Income Tax system. Also, as indicated, the proposal for the 40%, 45% and 50% marginal rates is based on the current structure of the individual Federal Income Tax. If there is significant base broadening of the individual tax, then these rates would be reduced.

Second, the proposal to both adopt an imputation system and reduce the maximum corporate tax is designed to meet the following two purposes: (1) rationalize our international tax system, and (2) increase the attractiveness of corporate investment in the U.S.

The Discounted Cash Flow model, discussed in Chapter 25, shows that in making decisions to invest in plant and equipment, corporations take into account corporate, but

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[555] Testimony of Philip R. West, United States Senate Committee on Finance, Tax Reform Options: International Issues 5 (Sept. 8, 2011) [West Testimony].

[556] Roy Clemons, *U.S. International Tax Policy: Is Significant Reform on the Way?*, 55 Tax Notes Int' l 965 (Sept. 14, 2009).

[557] This is because foreign companies operating businesses in the U.S. pay the same corporate rate as U.S. companies operating U.S. businesses.

not individual, taxes. Thus, to spur the investment component of GDP, the proposal here is designed to both (1) broaden the base by eliminating the deferral incentive for foreign investment, and (2) create an incentive for domestic investment through a lower corporate tax.

18. What is Secretary Clinton's position on the taxation of CFCs?

Secretary Clinton has not proposed to significantly modify the current deferral rules, although she has said that she intends to promote corporate tax reform after in office. Presumably, such reform would include the reform of the current deferral system.

19. What is Mr. Trump's position on the taxation of CFCs: Hooray for Mr. Trump?

Mr. Trump has proposed the adoption of an imputation system for taxing foreign subsidiaries, and he has also proposed a 10% tax on the $2 trillion of deferred income trapped in CFCs. I discuss his position in a 2015 article in Tax Notes entitled: *Hooray for Trump's Proposal to End Deferral*. This discussion in this section is based on the *Hooray* article. The article explained Mr. Trump's proposal to end deferral as follows:

In his tax proposals released on September 28, 2015, Donald Trump proposes, *inter alia*, to (1) tax business income at a 15 percent rate, (2) tax at a one-time 10 percent rate the accumulated deferred foreign income in foreign subsidiaries that are owned by U.S. corporations, and (3) eliminate on a going-forward basis the deferral of U.S. tax on foreign earnings of foreign subsidiaries of U.S. corporations. On the elimination of deferral, the Trump plan says:

> An end to the deferral of taxes on corporate income earned abroad. Corporations will no longer be allowed to defer taxes on income earned abroad, but the foreign tax credit will remain in place because no company should face double taxation.

This statement means that Mr. Trump supports an imputation system for taxing foreign income on a going-forward basis and that (1) under an imputation system, the income (and loss) of a foreign sub would be imputed up to the U.S. parent corporation; and (2) the imputed income would be subject to tax at the U.S. corporate rate, which under the Trump plan would be 15 percent, subject to reduction for any foreign tax credit.

Although this position was specified early in the primary season, I am not aware of any position Mr. Trump has taken that is consistent with his imputation proposal.

Assuming that Mr. Trump continues to support an imputation system, I say: "Hooray for Trump's proposal to end deferral!" To my knowledge, Trump is the first and only presidential candidate or sitting president since John F. Kennedy in 1962 to propose the elimination of deferral. While I am a liberal Democrat, I have criticized President Obama's international tax proposals for being "too timid"[558] in not proposing an imputation system like that proposed by Trump. I am delighted to support Trump on this very sensible and logical proposal, which runs completely counter to Republican orthodoxy, and which supports, without apparent dissent, a move to a territorial system.

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[558] Samuel C. Thompson Jr., *Obama's International Tax Proposal Is Too Timid*, Tax Notes, May 11, 2009, p. 738.

As discussed above, a territorial system would not subject foreign business earnings of U.S. firms and their foreign subsidiaries to any U.S. tax, either at the time of earning or at the time of repatriation of the earnings to the United States.

20. Please summarize the benefits of an imputation like the one proposed by Mr. Trump?

As discussed previously, the adoption of an imputation system would have many salutary effects, including the following, which I discuss in greater detail above and in my Tax Notes articles[559] on this topic. One of the major benefits of an imputation system is that it would eliminate the incentive for foreign investment over domestic investment; an imputation system would level the tax playing field for foreign and domestic investment. On the other hand, a territorial system would exaggerate the incentive for foreign over domestic investment that is in our current deferral system because under a territorial system, foreign business income earned by foreign subsidiaries of U.S. corporations would be subject to tax only in the foreign jurisdiction. Why would we want to adopt a tax policy that would encourage investment in China over investment in the United States, which a territorial system could do?

Another benefit of an imputation system is that it would preserve the U.S. tax base by eliminating the inappropriate shifting of domestic earnings to foreign subsidiaries. Specifically, by enacting an imputation system, U.S. multinational corporations would no longer have an incentive to abuse the transfer pricing rules by deflecting income to foreign subsidiaries or to enter into abusive transactions to deflect expenses of foreign subs to U.S. parents. Those abuses are significant in the current deferral system and would be even greater with a territorial system.

This is because with a territorial system, every penny that can be diverted to a foreign low or no tax jurisdiction will be subject to tax only in that jurisdiction and then can be repatriated to the United States without tax. While Congress would attempt to erect barriers against this type of tax-free round-tripping with a territorial system, clever tax professionals will come up with schemes designed to penetrate the barriers.

With an imputation system, the lockout of trapped foreign income would be eliminated because there would be no tax detriment to repatriation of foreign income, as is the case with the current deferral system. While a territorial system would reduce the lockout effect, it would not eliminate it, because there would still be a major tax incentive for investing and reinvesting abroad in jurisdictions with tax rates that are lower than the U.S. rate. Under the current deferral system, the United States loses billions of dollars in tax revenue; however, an imputation system would eliminate that revenue loss and permit a significant reduction in the corporate tax rate on a revenue-neutral basis. A reduction in the corporate tax rate would lead to an increase in both domestic-controlled and foreign-controlled investment inside the United States. That is, foreign corporations, like Mercedes-Benz, would be taxed on their U.S. operations at the same lower U.S. tax rate that would apply to GM.

While I doubt that on a revenue neutral basis, the corporate tax rate could be reduced to 15 percent as proposed in Trump's plan, I have no doubt that on a revenue

[559] Samuel C. Thompson, *Logic Says No to Options Y, Z, and C, but Yes to Imputation*, Tax Notes, May 5, 2014, p. 579; Samuel C. Thompson, *An Imputation System for Taxing Foreign-Source Income*, Tax Notes, Jan. 31, 2011, p. 567.

neutral basis, the elimination of deferral and the adoption of an imputation system would result in significant revenues that could be used to significantly reduce the corporate tax rate.

21. What are the territorial and destination proposals of the House Republican "A Better Way on Taxes?"

In June 2016, the House Republican *A Better Way on Taxes* proposal also emphasizes the competitiveness problem as a justification for moving to a territorial system. This proposal says:

> **Territorial Taxation of Global American Companies.** This Blueprint will replace the existing outdated worldwide tax system with a 100-percent exemption for dividends from foreign subsidiaries. This will allow American-based companies to compete in global markets on an equal footing. It also will eliminate the "lock-out effect" of current law, allowing American-based companies to bring home their foreign earnings to be reinvested in United States without additional tax cost.
>
> The existing U.S. international tax regime has led to trillions of dollars in foreign earnings of American-based companies being "stranded" overseas because the tax rules discourage companies from bringing those earnings back to reinvest at home. As part of the move to the modern territorial approach to international taxation, this Blueprint will provide rules that will allow foreign earnings that have accumulated overseas under the old system to be brought home. Accumulated foreign earnings will be subject to tax at 8.75 percent to the extent held in cash or cash equivalents and otherwise will be subject to tax at 3.5 percent (with companies able to pay the resulting tax liability over an eight-year period). This will free up the more than $2 trillion in foreign earnings that have been locked out of the United States by the current tax rules. And no such build-up will occur under the international tax rules provided in this Blueprint, as businesses will be free to bring home their foreign earnings to be invested to create American jobs and grow their U.S. operations.[560]

In addition to the proposal for a territorial system, *A Better Way* also proposes as follows a destination-basis tax system:

> This Blueprint eliminates the existing self-imposed export penalty and import subsidy by moving to a destination-basis tax system. Under a destination-basis approach, tax jurisdiction follows the location of consumption rather than the location of production. This Blueprint achieves this by providing for border adjustments exempting exports and taxing imports, not through the addition of a new tax but within the context of the transformed business tax system. The Blueprint also ends the uncompetitive worldwide tax approach of the United States, replacing it with a territorial tax system that is consistent with the approach used by our major trading partners. These two fundamental structural changes in turn allow other important aspects of the international tax rules to be simplified and streamlined significantly.[561]

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[560] *A Better Way on Taxes*, *infra* Bibliography at 27-28.
[561] *Id*. at 27.

A Better Way elaborates on the rationale for exempting exports from U.S. taxation:

> *Treatment of Cross-Border Sales, Services and Intangibles*. Today, all of our major trading partners raise a significant portion of their tax revenues through value-added taxes (VATs). [The VAT is discussed *infra*.] These VATs include "border adjustability" as a key feature. This means that the tax is rebated when a product is exported to a foreign country and is imposed when a product is imported from a foreign country. These border adjustments reduce the costs borne by exported products and increase the costs borne by imported products. When the country is trading with another country that similarly imposes a border-adjustable VAT, the effects in both directions are offsetting and the tax costs borne by exports and imports are in relative balance. However, that balance does not exist when the trading partner is the United States. In the absence of border adjustments, exports from the United States implicitly bear the cost of the U.S. income tax while imports into the United States do not bear any U.S. income tax cost. This amounts to a self-imposed unilateral penalty on U.S. exports and a self-imposed unilateral subsidy for U.S. imports.
>
> Because this Blueprint reflects a move toward a cash-flow tax approach for businesses, which reflects a consumption-based tax, the United States will be able to compete on a level playing field by applying border adjustments within the context of our transformed business and corporate tax system. For the first time ever, the United States will be able to counter the border adjustments that our trading partners apply in their VATs. The cash-flow based approach that will replace our current income-based approach for taxing both corporate and non-corporate businesses will be applied on a destination basis. This means that products, services and intangibles that are exported outside the United States will not be subject to U.S. tax regardless of where they are produced. It also means that products, services and intangibles that are imported into the United States will be subject to U.S. tax regardless of where they are produced. This will eliminate the incentives created by our current tax system to move or locate operations outside the United States. It also will allow U.S. products, services, and intangibles to compete on a more equal footing in both the U.S. market and the global market.
>
> The rules of the World Trade Organization (WTO) include longstanding provisions regarding the use of border adjustments. Under these rules, border adjustments upon export are permitted with respect to consumption-based taxes, which are referred to as indirect taxes. However, under these rules, border adjustments upon export are not permitted with respect to income taxes, which are referred to as direct taxes. This disparate treatment of different tax systems is what has created the historic imbalance between the United States, which has relied on an income tax – or direct tax in WTO parlance – for taxing business transactions, and our trading partners, which rely to a significant extent on a VAT – or indirect tax in WTO parlance – for taxing business transactions. Under WTO rules, the United States has been precluded from applying the border adjustments to U.S. exports and imports necessary to balance the treatment applied by our trading partners to their exports and imports. With this Blueprint's move toward a

consumption-based tax approach, in the form of a cash-flow focused approach for taxing business income, the United States now has the opportunity to incorporate border adjustments in the new tax system consistent with the WTO rules regarding indirect taxes.[562]

AA. What are the positions of Secretary Clinton and Mr. Trump on inversions?

1. First, what is an inversion?

Inversions are transactions in which a U.S. publicly held corporation, such a Pfizer, that has significant foreign business operations conducted through foreign subsidiaries, which are known as controlled foreign corporations (CFCs), combines with a foreign corporation, such as Allergan, an Irish company. The transaction is generally effectuated by two mergers in which the U.S. company, Pfizer, and the foreign company, Allergan, become wholly-owned subsidiary corporations of a new foreign holding company, for example, Irish Holding Company. As a result of the mergers the shareholders of Pfizer and Allergan exchange the shares in those corporations for shares in the new Irish Holding Company. For reasons discussed below, the shareholders of Pfizer end up owning more than 50% but less than 80% of the shares of the Irish Holding Company, and the shareholders of Allergan end up owning more than 20% but less than 50% of such shares. Because the shareholders of the U.S. corporation generally end up with most of the shares of the foreign holding company, generally the U.S. corporation is referred to as the acquiror and the foreign corporation is referred to as the target.

The transaction is referred to as an inversion because on the completion of the transaction, the ownership of the U.S. corporation, Pfizer, has been inverted so that Pfizer is a subsidiary of a foreign holding company, Irish Holding Company. For reasons set out below, under Section 7874 of the Internal Revenue Code, the new foreign holding company will not be treated as a foreign corporation and will be treated as a domestic corporation unless the shareholders of the U.S corporation own less than 80% of the stock of the foreign corporation.

2. What is the "right-sizing" requirement in inversions?

As noted above, to effectuate an inversion, the shareholders of the foreign target corporation must hold more than 20% of the stock of the foreign holding company, for under Section 7874 of the Code, if they own 20% or less of the stock the foreign holding company, such corporation is treated as a domestic corporation and there are no tax benefits arising out of the transaction. Thus, there must be "right-sizing" between the U.S. acquiror and the foreign target. Because the U.S. acquiror is likely to be larger than the foreign target, the parties may take pre-transaction steps to accomplish the right-sizing. This could principally involve "skinnying down" the U.S. acquiror, or "bulking-up" the foreign target. The Treasury has issued regulations designed to curtail such skinnying down and bulking up pre-inversion transactions.

[562] *Id*. at 28.

3. What tax savings strategies have traditionally motivated American corporations to engage in inversion transactions?

Corporations have traditionally entered into inversions to accomplish the following three principal tax benefits:

(1) avoidance of the CFC provisions of the Internal Revenue Code by having future foreign investments made through foreign subsidiaries of the Foreign Holding Company so that such subsidiaries will not be subject to the CFC provisions of the Code, which provide for immediate taxation of passive and other Subpart F income, and deferral of business income until repatriated (Future Avoidance of CFC Strategy);

(2) interest and earnings stripping by having the U.S. corporation pay interest or other deductible payments to the Foreign Holding Company or one of its foreign subsidiaries that is not a CFC (Interest and Earnings Stripping Strategy): and

(3) access the trapped deferred income by having the CFCs make "hopscotch" loans to the Foreign Holding Company, which loans would trigger U.S. tax if the loan were made to the U.S. parent corporation (Hopscotch Loan Strategy).

4. What is the general complaint with inversions?

Secretary Clinton's website sets out elaborates on the standard argument against inversions. In this regard, the website says:

> Inversions and related transactions let corporations avoid paying their fair share. In the past decade, nearly 50 companies have chosen to leave the United States for a foreign country on paper, saving billions of dollars in taxes through these so-called "inversions" and related transactions. For example, Pfizer's recently announced expatriation could help it permanently avoid paying its fair share of taxes on as much as $70-$150 billion in foreign profits stashed offshore and even more easily shift profits made here to low-tax countries overseas. Inversions and related loopholes distort our tax code, erode the tax base, and undermine fair competition between multinationals and domestic companies:
>
> Inversions let corporations take advantage of loopholes to permanently avoid paying their fair share and erode the tax base – even as inverted companies benefit from the U.S. economy: Companies that invert move abroad on paper, but keep their headquarters and operations in the U.S. They still benefit from America's talented workforce and legal system – as well as public investment in infrastructure and research. However, inversions erode the U.S. tax base by tens of billions of dollars. For example, inverted companies can take advantage of additional loopholes, like "earnings stripping," to further shift income abroad and avoid U.S. taxes. And such loopholes can, in some cases, allow inverted companies to more easily access foreign earnings without paying their fair share of taxes. Domestic competitors are thereby disadvantaged, and all of us have to make up the shortfall in revenues.
>
> Domestic U.S. businesses are put at a competitive disadvantage by inversions: Unlike large multinational companies, small businesses and domestic

companies located entirely in the United States cannot take advantage of international tax loopholes to lower the tax rates that they pay. As a result, inversions put smaller American businesses at a disadvantage.

Inverting companies often already face low effective tax rates: Even though the U.S. has a 35% top statutory rate, loopholes and distortions mean that some of the largest U.S. multinationals that are pursuing inversions already often face low effective tax rates. That is true of Pfizer: Reuters reported that it pays a lower share of its profits in overall income taxes than other competing pharmaceutical companies, and the Wall Street Journal highlighted its low tax rate using reporting practices for other companies. One study found that effective tax rates for the largest U.S. multinationals were lower than effective tax rates for the largest E.U. multinationals in eight of the ten years from 2001-2010.

5. What action has the Treasury taken to fight against inversions generally and against their tax savings strategies?

The Treasury has taken aggressive regulatory action against inversions, including (1) promulgating regulations under Code Section 385 that attack the Interest Stripping Strategy by treating debt issued by the U.S. corporation to the foreign holding company as equity, thereby denying the deduction for interest paid by the U.S. corporation to the foreign holding company, and (2) treating a hopscotch loan from a CFC of the U.S. company to the foreign holding company as a constructive loan to the U.S. company that triggers a repatriation tax on the amount of the loan.

These regulatory actions have had a deterring effect on inversions. For example, the promulgation in April 2016 by the Treasury of the proposed debt-to-equity regulations under Section 385, which were finalized in October 2016, caused Pfizer to cancel its proposed $150 billion inversion with Allergan.

6. What legislative proposals have the Obama Administration made for dealing with inversions?

The Obama Administration's 2016 Green Book, which sets out the Administration's tax legislative proposals, proposes that Congress reduce the threshold in Section 7474 for determining whether the foreign holding company is a domestic corporation. As indicated above, currently, if the shareholders of the U.S. company own 80% or more of the stock of the foreign holding company, that company is treated as a domestic corporation, thereby avoiding an inversion. Under the Administration's proposal, if the shareholders of the U.S. company own 50% or more of the stock of the foreign holding company, that company is treated as a domestic corporation. Also, under the proposal, even if the 50% test were not met, the foreign holding company would be treated as a U.S. corporation if it were "managed and controlled in the U.S."

7. What is Secretary Clinton's position on inversions?

Secretary Clinton's website contains an elaborate discussion of inversions and of her proposals to curtail them: For example, the website says:

Today, as part of her plan to create jobs and kick-start wage growth, Clinton is releasing a proposal to stop so-called "inversions" where companies leave the United

States on paper to lower their taxes. She will use the proceeds of this plan to encourage and reward investment in good-paying jobs here in the United States.

Hillary believes that we need a broader conversation on reforming our business tax code, but we simply cannot wait to prevent inversions and related transactions that threaten to further erode our tax base as Republicans in Congress use gridlock to allow them to continue.

Congress should act immediately to prevent corporations from engaging in inversions, where businesses move their corporate residence abroad on paper in order to escape paying their fair share of taxes. Without immediate action, inversions and transactions like the recently announced Pfizer-Allergan deal – in which Pfizer is merging with Allergan, giving up its identity as a U.S. company, and becoming "Irish" for the purpose of lowering its tax bill – will continue to erode the U.S. tax base. [As noted above, the Pfizer deal was abandoned after the Treasury issued in April 2016 the proposed debt to equity regulations under Section 385.] These corporations benefit from access to the most talented workforce in the world, billions of dollars in public investment in basic research, and the robust American legal system, yet trade in their U.S. identity to avoid paying their fair share. Inversions and transactions like Pfizer's could be stopped if the Republicans were not standing in the way of legislation to prevent them. It is time for Republicans in Congress to stop thwarting action, and stop using tax games as a method of tilting the tax code even further toward the largest multinational corporations. * * *

HILLARY CLINTON HAS A PLAN TO: Restrict "inversions" and related transactions that let companies forego their U.S. identity to lower their taxes, through both Congressional and regulatory action. Clinton's plan will call on Congress to prevent "inversions" and end transactions like the Pfizer-Allergan deal. This includes imposing a commonsense 50% threshold for foreign company shareholder ownership after a merger before an American company can give up its U.S. identity [this is the same proposal as that of the Obama Administration discussed above], and an "exit tax" to ensure multinational companies that change their identity pay a fair share of the U.S. taxes they owe on earnings stashed overseas. If Congress has not acted to address inversions and related loopholes, Hillary is also calling for Treasury to use its full legal authority to prevent inversions and restrict the tax loopholes they allow, including cracking down on "earnings stripping," one of the key benefits of inversions. [As noted above, the Treasury has issued, what appear to very effective regulations preventing interest stripping.] * * *

And while preventing inversions is a first, immediate step that cannot wait, Clinton believes in the need for broader changes in the business tax code and will discuss her approach over the course of the campaign. * * *

In combination, these measures would help ensure that, when a U.S. corporation merges with a foreign corporation and moves its residence, the transaction is being done for good business reasons and not to game the tax system:

- Entirely block inversions that are likely to be the most abusive through a 50% merger threshold [this is the same proposal as that of the Obama Administration discussed above]: Today, a company can give up its U.S. identity to avoid taxes through a merger with a smaller foreign company where only a small stake of ownership – one-fifth of the combined company – goes to the foreign company's shareholders. This is indefensible. Clinton's plan would require that no U.S.

company could pretend to be a foreign company to avoid paying U.S. taxes unless its merger partner is the same size or larger. And she would call for Congress to make this restriction retroactive to May 2014, following proposals introduced by Democrats in Congress and President Obama's Treasury Department. In the past, Republican and Democratic presidents have signed or proposed retroactive legislation applying to inversions and other loopholes.

- Ensure that companies leaving the U.S. pay an "exit tax" on what they owe on their overseas earnings: In addition to barring inversions between a U.S. company and a smaller foreign company, Clinton would call on Congress to impose an "exit tax" on the untaxed overseas earnings of multinational companies that leave the U.S. to avoid the taxes they owe on these earnings. Under the current system, U.S. companies can defer taxes on their overseas earnings until they bring the money back to the U.S. As a result, U.S. corporations hold trillions of dollars overseas, deferring the U.S. taxes that they owe. Companies that shift their residence abroad often have an advantage in using tax planning to access earnings stashed overseas without paying the taxes that are supposed to be paid when foreign earnings are accessed. Clinton believes that if a company does give up its U.S. identity, it should pay taxes on the unrepatriated profits that it made as a U.S. company, benefiting from U.S. infrastructure, our investments in human capital, and the efforts that the government makes on behalf of U.S. corporations – from basic research to enforcing trade treaties. When an American citizen renounces their citizenship, there are rules intended to make sure they pay the taxes that they owe. The same should be true for corporations' unrepatriated offshore earnings.
- Limit the ability of multinationals to engage in "earnings stripping:" Multinational corporations use a practice called "earnings stripping" to shift profits from the United States to countries with lower tax rates, and to maximize high deductions in the United States. This loophole reduces the taxes they pay in the U.S. – putting them at an advantage over domestic and smaller competitors, and leaving others to pick up the burden. Earnings stripping is much easier for a foreign-based multinational to do. For instance, a foreign-based multinational can load up a U.S. subsidiary with debt through loans from one part of the company to another and claim a large deduction for the interest here in the United States – all while sending the interest income abroad to a country with low tax rates. This is one of the main benefits of inversions and related transactions, and potentially a benefit of the Pfizer-Allergan deal – making it easier to strip profits out of the United States. Ending the practice of earnings stripping would close a loophole that costs taxpayers as much as $60 billion over 10 years. [As noted above, the Treasury has issued, what appear to very effective regulations preventing interest stripping.]

8. What is Mr. Trump's position on inversions?

Mr. Trump has spoken out against inversions, but he has not set out any specific proposals for addressing inversions. It would seem, however, that he would generally be supportive of anti-inversion measures. His website says that the adoption of his proposed 15% rate on corporations would eliminate inversions. Specifically, the website says: "The lower rate makes corporate inversions unnecessary by making America's tax rate one of the best in the world." This assertion is not accurate; U.S. companies would still

have an incentive to engage in inversions that could reduce the effective rate below 15%. So even with a 15% corporate rate, there would still be a need for anti-inversion legislation.

BB. What is the position on inversions in the House Republican "A Better Way?"

The House Republican *A Better Way* proposal on taxes discusses as follows the impact of its international tax proposals on inversions:

> Taken together, a 20 percent corporate rate, a switch to a territorial system, and border adjustments will cause the recent wave of inversions to come to a halt. American businesses invert for two reasons: to avail themselves of a jurisdiction with a lower rate, and to access "trapped cash" overseas. Those problems are solved by the lower corporate rate and the territorial system, respectively. In addition, border adjustments mean that it does not matter where a company is incorporated; sales to U.S. customers are taxed and sales to foreign customers are exempt, regardless of whether the taxpayer is foreign or domestic.[563]

It is true that the adoption of the 20% corporate rate proposed in *A Better Way* together with a territorial system with a destination principle would reduce the incentives for *de jure* inversions. However, for the reasons stated previously, such a system would make all U.S. corporations *de facto* inverters, which would significantly increase both the incentive and opportunity for base erosion techniques.

CC. What is my position on inversions?

I strongly support anti-inversion measures, including the proposals made by President Obama and Secretary Clinton.

DD. What are the positions of Secretary Clinton and Mr. Trump on the Estate Tax?

1. How did the estate tax rate structure change from the Bush Administration to the Obama Administration?

After taking office in 2001, the Bush Administration proposed to eliminate the Federal estate tax, which the President referred to as an unfair "death tax," which applied to property that had already been subject to tax. Also the Bush Administration argued that repeal of the estate tax would help family farmers, who otherwise might be forced to sell their farms to pay an estate tax bill. However, David Cay Johnston, at the time a tax writer for the *New York Times*, pointed out that the Administration could cite no family farm that had been lost due to the estate tax; he argued that the real motivation behind the proposed repeal is to benefit the wealthy.[564]

As a result of President Bush's proposal, the Congress gradually phased out the estate and related taxes as explained by the Staff of the Joint Committee on Taxation:

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[563] *A Better Way on Taxes*, *infra* Bibliography, at 27.
[564] *Perfectly Legal*, *infra* Bibliography, at 71-91.

> Under the conference agreement, in 2002, the 5-percent surtax (which phases out the benefit of the graduated rates) and the rates in excess of 50 percent are repealed. In addition, in 2002, the unified credit effective exemption amount (for both estate and gift tax purposes) is increased to $1 million. In 2003, the estate and gift tax rates in excess of 49 percent are repealed. In 2004, the estate and gift tax rates in excess of 48 percent are repealed, and the unified credit effective exemption amount for estate tax purposes is increased to $1.5 million. (The unified credit effective exemption amount for gift tax purposes remains at $1 million as increased in 2002.) In addition, in 2004, the family owned business deduction is repealed. In 2005, the estate and gift tax rates in excess of 47 percent are repealed. In 2006, the estate and gift tax rates in excess of 46 percent are repealed, and the unified credit effective exemption amount for estate tax purposes is increased to $2 million. In 2007, the estate and gift tax rates in excess of 45 percent are repealed. In 2009, the unified credit effective exemption amount is increased to $3.5 million. In 2010, the estate and generation-skipping transfer taxes are repealed.[565]

Due to certain budgetary limitations, the Estate Tax was temporarily eliminated, but only in 2010. In a compromise between President Obama and the Republicans in Congress, it was reinstated with a rate of 40 percent beginning in 2013 on taxable estates of greater than $5 million for individuals, and $10 million for married couple, both adjusted for inflation.

2. What is Secretary Clinton's proposal on the Estate Tax?

Senator Clinton has made significant proposals relating to the Federal Estate Tax. Specifically, she has proposed to:

(1) substantially increase the rate of the Federal Estate Tax, and

(2) adopt a carryover basis for certain property that passes at death.

Currently, property that passes at death has a fair market basis in the hands of the beneficiary. The Committee for a Responsible Budget describes as follows the Secretary's estate tax proposal:

> Progressive Estate Tax Increase. Previously, Clinton proposed restoring the estate tax to 2009 levels by increasing the rate from 40 to 45 percent, reducing the exemption from $5.45 million to $3.5 million, and reducing loopholes used to avoid the estate tax. Relative to current law, these changes alone will raise about $160 billion over a decade. * * *
>
> In addition to a 45 percent rate for estates larger than $3.5 million (and twice as high for couples), Clinton's plan would now include a rate of 50 percent on the value of estates over $10 million, 55 percent over $50 million, and 65 percent over $500 million ($1 billion for couples).[566]

The Committee for a Responsible Budget describes as follows her the capital gains at

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[565] Staff of the Joint Committee on Taxation, *Summary of Provisions Contained in the Conference Agreement for H.R. 1836, The Economic Growth and Tax Relief Reconciliation Act Of 2001*, 9-10 (May 26, 2001).

[566] Committee for a Responsible Federal Budget, *Clinton Proposes New Taxes to Offset New Proposals* (Sept 22, 2016).

death proposal:

> Taxation of Some Capital Gains at Death. Under current law, individuals generally pay taxes on capital gains in the year assets are sold. But if assets are instead inherited upon death, the basis value of most assets is "stepped" up and thus the tax on those gains to that point is essentially forgiven. For example, if someone bought a share of stock for $1 and sold it for $100, they would pay capital gains taxes on $99 of gains. But if they passed that stock to an heir when it was valued at $90 before the heir sold it at $100, taxes would only be paid on $10 of gains. The other $89 of gains would never be taxed.
>
> To help pay for her new tax breaks, Clinton would largely eliminate the "step-up basis" of capital gains at death, treating inheritance like a sale of a stock and thus taxing capital gains at that point.
>
> Although the Clinton campaign has not outlined specific parameters, it has expressed support for a variety of exemptions to prevent the tax from applying to taxpayers making less than $250,000 and to limit its impact on various non-financial assets such as farms, businesses, and real estate.[567]

3. What is Mr. Trump's proposal on the Estate Tax?

Mr. Trump, in following Republican orthodoxy, would repeal the Estate Tax, but he would provide for a carryover basis at death for certain taxpayers. Mr. Trump's website explains that Mr. Trump would eliminate the "death tax, which falls especially hard on small business and farmers." In further elaboration the website says:

> *Death Tax*. The Trump Plan will repeal the death tax, but capital gains held until death and valued over $10 million will be subject to tax [subject to an exemption for] small business and family farms. To prevent abuse, contributions of appreciated assets into a private charity established by the decedent or the decedent's relatives will be disallowed.

4. What is the House Republican "A Better Way on Taxes" proposal on the Estate Tax?

The House Republican *A Better Way* would repeal the Estate Tax. The document explains:

> *Estate and Generation-Skipping Transfer Taxes*. Under current law, the estate tax applies under specified circumstances to transfers of wealth when a person dies. An additional tax may apply to generation-skipping transfers, which generally involve a person making a gift that skips one or more generations – for example a gift from a grandfather to a grandchild or great grandchild.
>
> This Blueprint will repeal the estate and generation-skipping transfer taxes. This will eliminate the Death Tax, which can result in double, and potentially even triple, taxation on small businesses and family farms.[568] As a

As an additional explanation of the rationale for repeal, *A Better Way* asserts: "[A]nother significant compliance cost for family-owned businesses is the death tax. While the government collects only about $20 billion in revenues from estate and gift

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[567] *Id*.

[568] *A Better Way on Taxes*, *infra* Bibliography, at 23.

taxes, they represent a cost of $19.6 billion per year to individuals who must comply with these rules."[569] It is not clear if this costs estimate is under the current Estate Tax, with its $10 million exemption. In any event, compliance costs should be a factor in structuring any tax.

EE. Who is correct on the Estate Tax and the treatment of capital gains at death: Secretary Clinton or Mr. Trump?

The Estate Tax. While it may serve as powerful political rhetoric, it seems clear that repealing the estate tax has nothing to do with saving the family farm as many Republicans claim. On this point, David Cay Johnston reports that Professor Michael Graetz of the Columbia Law School, who was a Treasury tax policy official in the first Bush administration, has said: "The super-rich were using the myth about family farms to get a tax break for themselves."[570] There are several important reasons for continuing the Estate Tax.

First, repeal of the Estate Tax would add dollar for dollar to the deficit; that is, the deficit would go up for each dollar the Estate Tax went down. Thus, the government would have to borrow to pay for this tax relief for the very rich.

Second, repeal of the tax would obviously decrease the progressivity in the over-all tax system, and for reasons outlined previously, this could have a long-term adverse effect on economic growth.

Third, economists have noted that there is evidence that large inheritances can reduce the incentives of the heirs that receive them. For this reason, several very wealthy and successful business people have been strong supporters of the estate tax. They include: Warren Buffett, George Soros, Bill Gates Sr., and Andrew Carnegie. Buffett has said that repealing the estate tax is "the equivalent in economic terms of choosing our Olympic team by picking the eldest son of the gold-medal winners in the 2000 Olympics."[571]

The bottom line is that there is no sound argument for repealing the estate tax, and Secretary Clinton is clearly correct on this issue. She is also correct in proposing an increase in the rates of the tax.

Capital gains at Death. Turning to the treatment of capital gains at death, as explained above, under current law, there is no capital gains tax at death because the beneficiary's tax basis for property received is the fair market value of the property, that is, there is a step up in basis. Consequently, in large part the estate tax is not a double tax but rather is a backstop for the absence of a capital gains tax. Secretary Clinton has proposed that certain large estates be subject to capital gains at death, and Mr. Trump has proposed that certain large estates be subject to a carryover basis rule at death. Thus, both Secretary Clinton and Mr. Trump have proposed that the current fair market value at death basis rule be replaced. In my view, Mr. Trump is right on this issue and there should be a carryover basis at death in the case of certain large estates.

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[569] *Id*. at 9.
[570] *Perfectly Legal*, *infra* Bibliography, at 75.
[571] *Id*. at 84.

FF. What are the positions of Secretary Clinton and Mr. Trump on a National VAT?

1. What is a VAT?

A value added tax (VAT) is a tax at each stage of production and distribution, with each firm paying the tax on the value added by the firm. The value added is essentially the difference between the selling price the firm receives and the cost of the goods or services sold by the firm. A VAT is similar to a retail sales tax that is imposed by most states, except the VAT applies at all stages in the production and distribution process, not just on the final retail sale; however, the revenues collected from, for example, a 10% VAT should approximate the revenues generated from at 10% retail sales tax. Like the retail sales tax, the VAT generally does not apply to sales outside of the jurisdiction. There is no Federal VAT in the U.S. although many nations, including virtually all, if not all, of the states of the EU, employ a VAT in addition to an Income Tax.

2. Does a VAT or an income tax penalize savings?

Since a VAT is a consumption tax, it does not penalize savings because savings are not subject to the tax. Recall from Diagram 4-A that Disposable Personal Income is divided between consumption and savings, and a VAT, as a consumption tax, does not apply to savings. Also, the earnings on savings are not subject to the VAT. The tax only applies when the savings and earnings are spent.

On the other hand, the Federal Income Tax generally imposes a tax on income that is saved and on the earning on the savings, and thus, provides a penalty on savings. However, the tax code permits taxpayers to make tax-deductible contributions to tax-qualified pension, IRA and similar plans. Also, the Federal Income Tax does not apply to the earnings on the funds in a tax-qualified plan. At the time funds are taken from the tax-qualified plan, which will generally be the time that they are spent on consumption, an Income Tax is imposed. Thus, the tax treatment of savings through a tax-qualified plan is essentially the same as the tax treatment of savings under a VAT.

The above analysis shows that a VAT does not tax any savings and the Income Tax generally taxes all savings except for savings through tax-qualified plans. However, as explained by two leading tax economists, Joel Slemrod and Jon Bakija: "The best guess of most economists is that private savings is probably not very responsive to the after-tax rate of return, so that switching to a consumption tax would be unlikely to increase the quantity of savings much."[572] This observation is at odds with the claim by some that switching to a VAT would cause the economy to grow significantly faster principally because of a significant increase in savings as a result of moving to a VAT.

Although exemptions or rebates could be structured under a VAT for the poor or on payments for necessities, the flat rate and the treatment of savings under the VAT make it less progressive than the Income Tax. This general lack of progressivity of a VAT is one of the reasons why virtually all nations that employ the VAT also employ an Income Tax.

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[572] *Taxing Ourselves*, *infra* Bibliography, at 213.

3. What is the relationship between a VAT and a Flat Rate Income Tax?

Flat tax proposals, such as the flat tax proposal of former presidential candidate Steve Forbes, call for broadening the base of the Income Tax, while exempting all types of savings, allowing immediate expensing of business capital purchases, denying interest deductions, and imposing a flat rate. The effect is similar to a VAT. For example, Slemrod and Bakija point out that the Income Tax could be "almost entirely" converted to a type of VAT in three steps: "(1) exempt all interest, dividends, and capital gains from the tax; (2) replace depreciation deductions with expensing of all investment, while eliminating depreciation deductions on past investment; and (3) eliminate all interest deductions."[573] Thus, the interest deduction on home mortgages would be eliminated. Slemrod and Bakija go on to point out that with these changes, revenues would fall substantially and the "largest gains . . . would go to people at the top of the income distribution, since they are the ones most likely to have unsheltered capital income under the current system."[574]

4. Would a VAT help with U.S. Exports?

Under the rules of the World Trade Organization (WTO), while a VAT can be imposed on imports, a country can exempt its exports from this tax. However, a country cannot exempt exports from the corporate Income Tax. For this reason, some have argued that it is sensible to move to a VAT. Gary Hufbauer and Paul Grieco of the Institute for International Economics explain:

> The World Trade Organization (WTO) rules for border tax adjustments further disadvantage US firms. Border tax adjustments occur when a tax is imposed on imports but is not assessed (or is rebated) on exports. For example, when a US firm exports goods to the European Union, it may be hit with a 20 percent value added tax (VAT). However, when the EU firm exports to the United States, it gets a rebate on the 20 percent VAT and at most pays a small state sales tax.
>
> The idea behind border tax adjustments is to impose the tax in question on final purchases in the country imposing the tax. However, under WTO rules . . . direct business taxes (such as the corporate Income Tax) cannot be adjusted at the border, but indirect business taxes (such as VAT) can be. Under WTO rules, therefore, US firms incur these taxes when they sell into Europe, Canada, Latin America, and most other countries; meanwhile their competitors sell into the US market virtually free of tax.[575]

Although this observation is correct, to the extent that a National VAT were to replace the current corporate Income Tax, the exemption for exports would mean that there would be a decrease in revenues as compared with the current corporate tax and this decrease would either add to the deficit or have to be compensated for in the form of a higher rate. The point is: someone will have to pay for the exemption for exports.

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[573] *Id*. at 205-06.
[574] *Id*. at 206.
[575] Gary Clyde Hufbauer and Paul Grieco, *Senator Kerry on Corporate Tax Reform: Right Diagnosis, Wrong Prescription*, Institute for International Economics, International Economics Policy Briefs, Number PB04-3 (April 2004).

5. What are Secretary Clinton's and Mr. Trump's positions on a National VAT?

Neither Secretary Clinton nor Mr. Trump seem to have taken a position on the advisability of a VAT.

6. What is "A Better Way on Taxes'" position on a VAT?

Although *A Better Way on Taxes* does not propose a VAT, it does move the income tax in the direction of a VAT. *A Better Way* explains:

> This Blueprint represents a dramatic reform of the current income tax system. This Blueprint does not include a value-added tax (VAT), a sales tax, or any other tax as an addition to the fundamental reforms of the current income tax system. The reforms reflected in this Blueprint will deliver a 21st century tax code that is built for growth and that puts America first.[576]

In elaborating on the VAT features of its proposed income tax reforms, *A Better Way* explains:

> Movement toward a consumption-based system need not involve a shift to an explicit consumption tax, such as a retail sales tax [or VAT], but instead could result from reforms which exclude certain features of the income tax base. Those changes would achieve similar economic results albeit through different administrative rules.
>
> Consumption-based tax systems are widely regarded to be more pro-growth than income-based tax systems like the current tax code. The reason involves the treatment of capital income – that is, the return to saving. An income tax includes saving in the tax base and thus penalizes saving, whereas a consumption-based system – as the name suggests – taxes only what is consumed, not what is saved.
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> As a result, income-based systems discourage savings and investment, which means slower capital accumulation, lower productivity, and therefore slower economic growth. The current tax code is mainly an income-based system (with limited features meant to mitigate the double taxation of savings, such as tax-preferred savings accounts). This broken tax code, however, does not go nearly far enough to mitigate the double taxation of saving. Substantial empirical evidence shows that moving more in the direction of consumption taxation would have significant economic benefits.[577]

As discussed above, in moving in the direction of a VAT, *A Better Way on Taxes*, imposes a maximum 16.5% rate of tax on dividends, interest, and capital gains, and allows a complete deduction for purchases of equipment and buildings.

7. Should we move to a VAT?

Notwithstanding the support of a VAT by many outstanding economists, including Alan Krueger, a Princeton University economics professor and the current

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[576] *A Better Way on Taxes*, *infra* Bibliography at 15.
[577] *Id*.

Chairman of the Council of Economic Advisers, prior to assuming that position, was on record as supporting a VAT, [578] a VAT should be rejected for several reasons.

First, proponents of a VAT have overstated the potential benefits from such a tax. As indicated previously, the current Income Tax has many features of a VAT tax with regard to tax-qualified pension and related savings, and in any event, there is little evidence that moving to a VAT tax would increase savings.

Second, replacing the Income Tax with a VAT would most likely significantly decrease the progressivity in the overall tax system, and for the reasons discussed previously, this could hurt as oppose to foster economic growth.

Third, although an exemption from the VAT for exports could help to encourage exports, the revenue loss from such an exemption would have to be made up somewhere, possibly in a higher VAT rate.

Fourth, no major country has a VAT without an Income Tax, and it would be risky for the U.S to be the first to pursue those uncharted waters.

Finally, most states have a retail sales tax, and a National VAT would simply add to this burden on consumers.

GG. Is a "Class War" being waged against middle and low income taxpayers?

Many on the right assert that those who propose progressive tax measures, like the ones advanced by Secretary Clinton, President Obama, and Warren Buffett, are engaging in class warfare. For example, Chris Mathews, the host of MSNBC's Hardball, described these charges as follows:

> Now conservatives are going after the poor, saying they need to be taxed more, while asking the rich to contribute nothing, all the while charging Obama with engaging in class warfare.[579]

Warren Buffett has shown the irony in this claim: "There's class warfare, all right, but it's my class, the rich class, that's making war, and we're winning."[580] The fact that as of 2012, the only OECD countries with a "Revenue to GDP" ratio lower than the U.S.'s ratio are Turkey, Chile, and Mexico is confirmation of Mr. Buffet's observation.

A good illustration of the manner in which many in the "Rich Class" are attacking the poor in this country is an August 22, 2011 Wall Street Journal critique of Buffett and Obama by Harvey Golub, the former Chairman and CEO of American Express and a member of the executive committee of the conservative American Enterprise Institute. Golub argues:

> Almost half of all filers pay no income taxes at all. Clearly they earn less and should pay less. But they should pay something and have a stake in our government spending their money too.[581]

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[578] Joe Weisenthal, *Barack Obama Leaves the Door Wide Open for a VAT Tax*, Business Insider (April 21, 2010).

[579] 'Hardball with Chris Matthews' for Wednesday, August 3rd, 2011, at http://www.msnbc.msn.com/id/44111508/ns/msnbc_tv-hardball_with_chris_matthews/t/hardball-chris-matthews-wednesday-august-rd/.

[580] GoodReads, Warren Buffett's Quotes, at http://www.goodreads.com/quotes/show/123058.

[581] Golub, *My Response to Buffett and Obama*, *infra* Bibliography.

This may seem like a sensible proposal, but the facts behind the claim actually support the policies of Buffett and Obama. First, the "half of all filers" Golub seems to be referring to are individuals and families with very low incomes. For example, for 2010, a single individual without children could begin paying income tax after making more than $9,350 of gross income.[582] Second, virtually all of these "filers [that] pay no income taxes at all" pay significant Social Security and Medicare taxes even though many of them will not live long enough to collect Social Security or get medical treatment under Medicare. Thus, they have a very big "stake in our government." Third, the fact that half of all filers have such small taxable incomes evidences the level of poverty in this country.

Fourth, in 2000, the last year Golub served as CEO of American Express, he made over $4,000,000 in salary and bonus, not including his long-term compensation, such as stock options.[583] Thus, when he was working in 2000, Golub made, in salary and bonus, more than $15,000 for every work day in 2000. Given this figure, his single work day income was nearly twice the income level at which a single taxpayer had to begin paying income tax on his or her 2010 taxable income. Yet, Golub claims that these non-paying poor should be paying something while he should not be paying any more.[584] Galob's position is an illustration of the absurdity of the arguments being made by some of those fighting in the class war on behalf of the "Rich Class."

This class war is not new; it has been vigorously pursued on behalf of the "Rich Class" over the past 30 years or so, as many conservatives fight to reduce the contribution the "Rich Class" makes to the government. As Buffet says, there has been open and obvious class warfare by many in the "Rich Class" against poor and middle-income Americans.

Now, to be sure, as Buffett shows with the proposal in his *Coddling the Rich* article, not all members of the "Rich Class" are fighting this class war. However, others, such as Steve Forbes, the wealthy publisher of Forbes magazine, certainly have been engaged in the fight.

For example, in the early 1990's, Steve Forbes was running for president on a flat tax plan, a plan that would have dramatically reduced the progressivity in the Federal income tax. An analysis I did of his plan at that time, showed that if he had been successful in getting elected and enacting the flat tax, the tax savings he would have personally received from the enactment of the flat tax would have exceeded the substantial personal funds he was spending on his election. The point is that Steve

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[582] For 2010, the deduction for the personal exemption was $3,650 and the standard deduction was $5,700 giving total deductions of $9,350. Thus, for that year, unless a single person without children earned more than $9,350, such person would not owe any tax. *See* IRS Instructions for Form 1040 for Tax Year 2010, available at www.irs.org.

[583] American Express Company, Schedule 14A, 25 (Mar. 16, 2001).

[584] On his objection to paying more taxes, Golob says:

> Over the years, I have paid a significant portion of my income to the various federal, state and local jurisdictions in which I have lived, and I deeply resent that President Obama has decided that I don't need all the money I've not paid in taxes over the years, or that I should leave less for my children and grandchildren and give more to him to spend as he thinks fit. I also resent that Warren Buffett and others who have created massive wealth for themselves think I'm "coddled" because they believe they should pay more in taxes. I certainly don't feel "coddled" because these various governments have not imposed a higher income tax. After all, I did earn it.

Golub, *My Response to Buffett and Obama*, *infra* Bibliography.

Forbes has a personal monetary stake in promoting a flat tax; that is, he has a conflict of interest when he argues against progressivity. On the other hand, Warren Buffett has nothing to gain monetarily in arguing for a more progressive tax system.

A fundamental principle of the common law is that actors who have a conflict of interest should be dealt with cautiously. Following this principle, the public should be particularly circumspect when considering the arguments made by Steve Forbes, Golub, and others who have a significant monetary stake in the outcome of the progressivity debate.

HH. Are Grover's Pledgers brainwashed?

One of the Generals on the side of the "Rich Class" is Grover Norquist, the President of Americans for Tax Reform (ATR), "a taxpayer advocacy group he founded in 1985, presumably at President Reagan's request."[585] The ATR Web site explains:

> ATR is a coalition of taxpayer groups, individuals and businesses opposed to higher taxes at the federal, state and local levels. ATR organizes the TAXPAYER PROTECTION PLEDGE, which asks all candidates for federal and state office to commit themselves in writing to oppose all tax increases. In the 112th Congress, 236 House members and 41 Senators have taken the pledge. On the state level, 13 governors and 1249 state legislators have taken the pledge.[586]

What about the Pledge of Allegiance to America? How could a presidential candidate, congressman or senator make a pledge to Grover Norquist to "oppose all tax increases?" As one who had the privilege of serving this country as a Captain in the Marine Corps during the Viet Nam War, it is my opinion that these "Grover pledgers" have in substance converted the Pledge of Allegiance to America into a pledge to "one nation under *Grover*, indivisible, with liberty and justice for the *Rich Class*."

The irony here is that many of these pledgers, particularly those in the House of Representatives, are acting against the best interest of themselves and their families. Many of the Grover pledgers are middle-income taxpayers who come from middle-class families. For a person to sign a pledge to work against his or her own family's self-interests is the height of either ignorance or deceitfulness.

But Grover Norquist and the other Generals for the "Rich Class" have done an effective, though nefarious, job in "brainwashing" many of these pledgers. Grover Norquist has transformed them into foot soldiers in the class war many in the "Rich Class" are waging with a vengeance against the poor and middle class.

II. Have the 2016 Republican Presidential candidates signed Grover's Pledge?

An article in the August 13, 2015 edition of the Washington Post entitled *Nearly all the GOP candidates bow down to Grover Norquist*,[587] reports:

> Four years ago this week, all the Republican candidates for president were asked in a debate what would happen if they were presented a deal to tackle the

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[585] Americans for Tax Reform, Who is Grover Norquist, at http://www.atr.org/print/printpage.php.
[586] *Id*.
[587] Paul Waldman, *Nearly all the GOP candidates bow down to Grover Norquist*, Washington Post (Aug. 13, 2015).

> federal deficit, and the deal would yield $10 in budget cuts for every $1 of tax increases. “Who on this stage would walk away from that deal?” asked Fox News’s Bret Baier. Every single one of them raised their hands, so deeply offensive did they find the notion of any tax increase at all, even one that would allow enormous progress on another goal they claimed to hold dear.
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> While the same question wasn’t asked in the first GOP debate of this season, perhaps it will be in one of the upcoming debates. And when it does, the answer may be the same, or nearly so. Grover Norquist’s Americans for Tax Reform has announced that Chris Christie has signed “The Pledge,” ATR’s blood oath in which Republican politicians promise to never, ever, ever raise taxes for any reason.
>
> Norquist has become a kind of high priest of tax purity, with the power to declare which Republicans have kept the faith and which are vile apostates who must be cast out of the temple. As the group’s news release about Christie says, “In 2012, all candidates for the Republican nomination for president signed the Taxpayer Protection Pledge, with the lone exception of former Utah Gov. Jon Huntsman. Huntsman finished seventh in Iowa and third in New Hampshire before dropping out of the race.” So don’t get any ideas.
>
> And in this election, they’re having almost as much success. Other candidates who have signed the Pledge either this year or in the past include Marco Rubio, Rand Paul, Ted Cruz, Rick Perry, Carly Fiorina, Rick Santorum, Ben Carson, Bobby Jindal, Scott Walker, Lindsey Graham, John Kasich, Jim Gilmore and Mike Huckabee. In other words, only three of the 17 candidates haven’t taken the pledge: George Pataki, Donald Trump and Jeb Bush.[588]

An October 11, 2016 CNN article,[589] written less than a month before the election, reports that Mr. Trump had not as of that date signed the pledge:

> With less than a month until election day, Americans for Tax Reform President Grover Norquist said Republican presidential nominee Donald Trump has yet to sign on to his signature pledge to never raise taxes.
>
> "If asked, the answer is Trump has not made the commitment in writing," Norquist told CNN's "Party People" podcast hosts Kevin Madden and Mary Katherine Ham in a recent conversation.
>
> Norquist continued, "He has to his credit publicly said to Time magazine and out loud, 'I will never support a tax increase' and his tax plan is fine."
>
> Madden followed up, "He's also publicly said things and then publicly said he did not say those things."
>
> "That is why -- and not just for Trump -- that is why we want it in writing for everyone," Norquist said. "So, I'm not going off his verbal statement. We are waiting for the pledge. I do expect that we will eventually get it."[590]

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[588] *Id*.

[589] Jedd Rosche, Grover Norquist: Donald Trump still hasn't signed tax pledge, CNN (Oct. 11, 2016).

[590] *Id*.

JJ. Can the brainwashing be reversed?

Indeed, a war is being waged, but it is important to remember that in any war, battles ebb and flow. As Buffett points out, recently the victories have gone with the "Rich Class," but these victories have come from deceit and the brainwashing that has led middle-income congressmen to act against their own and the country's best interest. Granted, Grover Norquist and the other Generals in the army of the "Rich Class" have been effective at brainwashing many congressional leaders; however, as we know, brainwashing can be reversed.

I am confident that the battles in this war, which may never end, will turn against the "Rich Class" as long as those like Warren Buffet, President Obama, and Senator Clinton (1) continue to educate the public on the devious tactics and flawed logic employed by the Generals for the "Rich Class," and (2) push for sensible policies that will both (a) increase the progressivity of our tax system, and (b) move the U.S. away from Mexico's Revenue to GDP ratio and towards the average ratio for OECD countries. In fact, there is recent evidence that the reversal of the brainwashing may be beginning. For example, a July 6, 2012 article in the Huffington Post entitled *Grover Norquist Pledge Against Taxes Attracts Fewer Republican Candidates*, explains that Republican House member Scott Rigell of Virginia has said: "My advice and counsel to [Republican House candidates] would be to not sign the Americans for Tax Reform pledge."

KK. Are there potential constitutional and legal issues with these pledges?

In addition to the concerns expressed above regarding Grover's Pledgers, as pointed out in a draft article entitled *Pledge Allegiance to Grover Norquist and the Americans for Tax Reform*, Steve Anderson addresses the following constitutional and legal issues with these pledges:

> First, there are constitutional considerations that elected representatives should account for. Primarily, signing a pledge like the ATR Pledge may conflict with the oath of office that Senators and Representatives are required to take and the duty of loyalty that Senators and Representatives owe their constituents. In addition, signing a pledge like the ATR Pledge may interfere with the public's First Amendment right to petition the government. Finally, by allowing Americans for Tax Reform to interpret the ATR Pledge and determine what may be a tax increase, Senators and Representatives are delegating their legislative duties to a third party, violating the non-delegation doctrine. In addition to these Constitutional concerns, elected officials need to consider whether the structure of these pledges implicate Federal bribery statutes.[591]

[591] Stephen Anderson, *Pledge Allegiance to Grover Norquist and the Americans for Tax Reform* (Draft May 27, 2012).

PART VI, SUMMARY OF MAJOR CONCEPTS DISCUSSED IN THIS BOOK

CHAPTER 24, WHAT ARE SOME OF THE MAJOR PRINCIPLES COVERED IN THIS BOOK, AND WHAT ARE THE MAJOR POLICY POSITIONS OF SECRETARY CLINTON AND MR. TRUMP?

A. What is in the Chapter?

This chapter provides a summary of some of the major concepts covered in this book. This summary is not designed to be comprehensive. The summary does not address many of the qualifications set out in the Question and Answer (Q&A) and is not a substitute for reading the applicable Q&A.

B. Please list the issues addressed in this book for which the positions of Secretary Clinton and Mr. Trump are discussed?

Table 24-A sets out a list of the issues addressed in this book for which the positions of Secretary Clinton and Mr. Trump are discussed. There are also references to the specific chapter where the issue is discussed. Table 24-A is also set out as Table 1-D.

Table 24-A
Economic Issues Addressed in this Book for which Positions of Secretary Clinton and Mr. Trump are Discussed

TOPIC	CHAPTER
The minimum wage and other employment policies	7
Infrastructure spending proposals	10
Trade proposals	11
Financial Crisis proposals	12
Monetary Policy	14
The Deficit Debate	15
Social Security and Medicare	16
Obamacare	17
Education Policy	18
Immigration Policy	19
Inequality and economic growth	20
Regulatory Policy	21
Antitrust Policy	22
Tax Policy	23

C. What is the relationship between the performance of the economy and the political party of the president?

The performance of the economy can have a significant impact on a president's bid for reelection. *See* Chapter 1.N and O. On virtually all of the measures of economic growth and employment considered in Chapter 1, Democratic presidencies on average outperformed Republican presidencies. Of course, this does not tell us how the economy will perform under any particular president, Democratic or Republican.

D. What is the importance of the supply and demand curves of microeconomics?

The supply and demand curves used in the model of a microeconomic market, such as the market for PCs, is a fundamental tool in economic analysis. The model is a building block for more advanced economic analysis, and for that reason, the model is discussed in Chapter 2.

E. What are the key elements of economic growth?

Economists explain the concept of economic growth by focusing on the following four elements: (1) entrepreneurship, (2) capital, (3) human capital, and (4) technical progress. See Chapter 3.L.

F. What is "Supply Side" economics?

Supply side economics argues that economic growth will be increased by policies that promote greater economic efficiency, reduce regulation, and increase the incentives for working and investing. These policies are referred to as supply side initiatives because they are designed to shift the aggregate supply curve outward to the right and thereby increase GDP without increasing inflation. *See* Chapter 3.P.

G. What is Gross Domestic Product (GDP) and what are its components?

GDP, which is sometimes referred to as the economy's output, is the total amount spent, measured in dollars, on final goods and services produced in the U.S. economy by labor and assets located in the U.S. during a specified period such as a year. GDP consists of the following four components:

(1) Personal Consumption Expenditures (C), which includes consumer purchases of durable goods, non-durable goods, and services;

(2) Gross Private Domestic Investment (I), which includes business investment in structures, equipment, software, and changes in inventory, and investment by people in new residential housing;

(3) Government Purchases of Goods and Services (G), which include Federal spending on defense and non-defense goods and services and all state and local spending on goods and services; and

(4) Net Exports of Goods and Services (NX), which is the difference between exports and imports.

See Chapter 4.B and E.

H. What is the Aggregate Demand (AD)-Aggregate Supply (AS) model?

In the AD-AS model, the intersection of the AD and the AS curves determines the current level of GDP or output. The equilibrium level of GDP is equal to the spending on C, I, G and NX that occurs on the AD curve at its point of intersection with the AS curve. *See* Chapter 6.C.

In an effort to generate economic growth, monetary and fiscal policy can attempt to shift the AD curve outward. *See* Chapter 6.J. In the long run, the AS curve can be shifted outward by incentives to promote such things as saving, education, and know how. *See* Chapter 6.K. For this reason, I have proposed that the Federal government have a larger role in ensuring that all children are taught to "read, write, and do arithmetic." *See* Chapter 18.E.

Chapter 4.M contains a diagram of the relationships of the components of GDP, and Chapter 5 is a guide to how GDP can be tracked.

I. What is the Aggregate Demand-Aggregate Supply (AD-AS) model?

The AD-AS model is a model of the macroeconomic economy, and the model is used in setting monetary and fiscal policy. The AD-AS model is different from the Demand Curve-Supply Curve microeconomic model. *See* Chapter 6.

J. What is the relationship between the rate of economic growth and the employment rate?

Although there are many aspects to the answer to this question, in general, periods of high rates of growth are accompanied by declines in the unemployment rate. *See* Chapter 7.

K. What are the views of Secretary Clinton and Mr. Trump on the minimum wage?

Secretary Clinton supports an increase in the Federal Minimum Wage. Mr. Trump has been both against and presumably for an increase in the Federal Minimum Wage. *See* Chapter 7.S.

My view is that the Federal Minimum Wage should be increased generally but with (1) a lower rate for teenage part-time workers, and (2) an exception for regions of the country where the Federal rate would be out of line with economic conditions.

L. What is the relationship between the rate of economic growth and the inflation rate?

The answer here also has many aspects. However, in general, periods of high rates of growth rates are accompanied by an increase in the rate of inflation. *See* Chapter 8.

M. What are the tradeoffs among economic growth, unemployment and inflation?

Economic growth (a good) can generate low unemployment (a good) and high inflation (a bad). *See* Chapter 9.

N. What is the multiplier effect of spending on GDP?

An autonomous increase in spending on Consumption, Investment, Government, or Net Exports will have a multiplier effect because those who receive this spending (the

first order of spending) will themselves spend a portion of the income received in a second order of spending. The recipients of this second order of spending will in turn spend a portion of their income in a third order of spending and so forth. Thus, for example, an additional $1 of Government spending will generate more than a dollar of GDP. *See* Chapter 10.

O. What is the position of Secretary Clinton and Mr. Trump on infrastructure spending?

Both Senator Clinton and Mr. Trump support more spending on infrastructure. However, Senator Clinton's proposals are more specific, and Mr. Trump's proposal is more grand and less specific. See Chapter 10.N to V. In my judgment, there is a critical need for more spending on infrastructure and that spending will have a significant multiplier effect. Further, given the continued slack in the economy, a significant increase in infrastructure spending is unlikely to result in harmful inflation. However, even if the slack in the economy is eliminated, there is still a strong case for spending on infrastructure, for do we as a country let our roads, bridges, water treatment plants, and other critical infrastructure systems atrophy for fear that improving them may increase inflation in the labor market? I think not! As Professor Krugman says: "To provide good infrastructure an economy must not only be able to afford it, but it must also have the political discipline to maintain it."[592]

P. How do Net Exports impact the U.S. economy?

The U.S. economy is highly interconnected with other economies around the world. So, for example, an economic slowdown in the Eurozone could have a significant negative impact on the U.S. economy. The principal cause of such an adverse effect would be a reduction in the Net Export component of GDP resulting from a slowdown in exports to the Eurozone, which is one of our largest trading partners. *See* Chapter 11.

Q. What are the continuing effects of the financial crisis of 2007-2008?

The financial crisis has had an adverse effect on economic growth; however, there has been a sustained period of economic growth since the crisis, albeit at a slow rate, around 2% annually. *See* Chapter 12.X and Y.

Secretary Clinton and Mr. Trump have nearly polar opposite positions on the Dodd-Frank Act, which was enacted to address problems that led to the financial crisis. Secretary Clinton supports the Act, while Mr. Trump says he would essentially repeal it. However, Secretary Clinton does not support a reinstatement of the 1930s Glass-Steagall Act, which required a separation of banking and investment banking, while Mr. Trump has supported such a reinstatement.

[592] Krugman and Wells, *Macroeconomics Fourth*, *infra* Bibliography at 260

R. How is monetary policy employed by the Fed to help stabilize the economy?

Stabilization polices include government policies designed to affect the level of economic growth by shifting the AD curve. They can be either monetary policies, which are under the control of the Fed, or fiscal policies, which are under the control of Congress and the president. Anti-recessionary stabilization policies are designed to shift the AD curve to the right, thereby increasing GDP and possibly the price level.

Standard or conventional monetary policy conducted by the Fed principally involves (1) targeting the fed funds rate through the purchase of short-term governmental obligations, (2) adjusting the rate on discount loans, and (3) modifying the reserve ratio. If the Fed is faced with an economic crisis, like the Financial Crisis, standard monetary tools may not be sufficient to generate economic growth. As a consequence, the Fed may be required to turn to non-standard or non-conventional "expansionary" monetary policies, such as the Quantitative Easing (QE) that occurred in 2011 and 2012..

By lowering interest rates through its monetary policies, the Fed can help to promote more spending on the Investment component of GDP. *See* Chapters 13 and 14.

S. What are the views of Secretary Clinton and Mr. Trump on the great deficit debate?

Secretary Clinton's tax and spending proposals would result in a slight reduction in the deficit. On the other hand, Mr. Trump's tax and spending proposals would significantly increase the deficit. Neither Secretary Clinton nor Mr. Trump seem to be "Deficit Hawks." *See* Chapter 15.

T. What are the views of Secretary Clinton and Mr. Trump on Social Security and Medicare?

Secretary Clinton would slightly expand Social Security and Medicare, while Mr. Trump would leave these two programs largely untouched. *See* Chapter 16.

As a way of addressing the looming crises with the funding of these programs, I have proposed "means testing" both Social Security and Medicare. *See* Chapter 16.

U. What are the views of Secretary Clinton and Mr. Trump on Obamacare?

Obamacare has twice been found by the Supreme Court to be constitutional. Secretary Clinton supports Obamacare and would like to expand it and also institute policies that would help to control costs, including (1) the public option, and the Medicare Buy-In. Mr. Trump says that he will repeal and replace Obamacare. In the past he has been supportive of national healthcare programs.

In my view, Obamacare will become a popular law among most consumers of healthcare. Also, while I am certain that parts of Obamacare can, and will, be improved upon, I am of the view that it is an effective piece of legislation that will contribute to the long-term economic growth of the U.S. by making the American population healthier.

Also, I believe that there is essentially no chance that the law will be completely repealed, even if Mr. Trump is elected president. *See* Chapter 17.

V. What are the views of Secretary Clinton and Mr. Trump on education?

Secretary Clinton has many education proposals, from pre-school to college. While Mr. Trump does not have extensive education proposals, he supports school choice. *See* Chapter 18.

I think education is so important to our country that the teaching of reading, writing and arithmetic cannot be under local control. The Federal government should ensure that every kid in this country has an equal opportunity to learn to read, write and do arithmetic. *See* Chapter 18.E.

W. What are the views of Secretary Clinton and Mr. Trump on immigration?

Mr. Trump's views on immigration are very well known, as his political rise has been significantly aided by his opposition to illegal immigration. While Secretary Clinton is not in favor of illegal immigration, she is supportive of a path to citizenship for people who are here illegally. This was also an approach taken by the bipartisan immigration bill. A CBO analysis of that bill showed that it would increase GDP by 3.3 percent in 2023 and by 5.4 percent in 2033. *See* Chapter 19.

X. What are the views of Secretary Clinton and Mr. Trump on income and wealth inequality?

Secretary Clinton has many proposals that are designed to reduce wealth and income inequality. Mr. Trump has made not such proposals, and unlike Secretary Clinton's tax policies, which would reduce after-tax income inequality, Mr. Trump's tax proposals would increase after-tax income inequality. *See* Chapter 20.

Y. What are the views of Secretary Clinton and Mr. Trump on regulatory policy?

Secretary Clinton is generally supportive of "smart" regulatory policies, such as regulation of the environment. Mr. Trump has criticized many regulations, including environmental regulations. He has said he will support the production of more coal. *See* Chapter 21.

Z. What are the views of Secretary Clinton and Mr. Trump on antitrust policy?

Both Secretary Clinton and Mr. Trump have expressed concerns with the merger of AT&T and Time Warner, which was announced in October 2016. This may indicate that both of them would be vigorous enforcers of the antitrust laws. *See* Chapter 22.

AA. What are the views of Secretary Clinton and Mr. Trump on tax policy?

Secretary Clinton and Mr. Trump have polar opposite tax policies for high-income taxpayers and corporations. Secretary Clinton would dramatically raise the marginal rates on high-income taxpayers, whereas, Mr. Trump would lower the top

marginal rate on high-income taxpayers from 39.6% to 33%. Also, Mr. Trump would reduce the top rate on corporate income from 35% to 15%, and this 15% rate would also apply to individuals who are engaged in business and retain the income in the business. Secretary Clinton has not proposed to lower the corporate rate. *See* Chapter 23.

On the international tax side, Senator Clinton had not made specific proposals to replace our current deferral system; however, Mr. Trump has proposed to replace our deferral system with an imputation system. I strongly support Mr. Trump on this proposal, which was first proposed by President Kennedy in 1962. *See* Chapter 23. I elaborate on this point in the next question.

Both Secretary Clinton and Mr. Trump have spoken out against inversions, which are transactions in which a U.S. corporation, like Pfizer, moves its corporate headquarters to a foreign country, like Ireland. Secretary Clinton has several specific proposals to curtail inversions. *See* Chapter 23.

BB. Could we reduce corporate tax rates by moving to an imputation system for taxing foreign source income?

Under the current Federal Income Tax system, foreign source business income of U.S. controlled foreign corporations (CFCs) generally is not subject to tax until it is repatriated back to the U.S. in the form of dividends. This is known as the deferral system.

Virtually all Republicans, except Mr. Trump, have proposed that this system be replaced with a territorial system under which such income earned in the future would never be subject to U.S. tax. (Virtually all parties agree that the past foreign earnings of CFCs that is now trapped overseas should be subject to current U.S. tax at a low rate.) In rejecting the argument for a territorial system, President Obama has argued that the current system does and a territorial system would provide a tax incentive for setting up foreign as opposed to U.S. businesses, and he has proposed to limit the deferral benefit associated with the current system.

I think that both President Obama and the Republicans are wrong on this issue. In my view, which presumably is also Mr. Trump's view, foreign source business income of CFCs should be subject to U.S. tax the same way U.S. source business income is subject to U.S. tax, with a foreign tax credit for any foreign taxes paid on the income. The adoption of this type of imputation system would (1) eliminate the tax incentive for shipping businesses overseas, (2) eliminate many abuses under the current deferral system and under a territorial system which involve the diversion of domestic income to untaxed foreign income, and (3) result in significant revenues that could be used to reduce the corporate tax rate from the current 35% to 28% or lower. Thus, the trade-off here is that with the adoption of a revenue neutral imputation system, U.S. corporations with foreign operations would pay higher taxes on such income, but all corporations would realize a significant reduction in the corporate tax rate on both domestic and foreign income. *See* Chapter 23.W.

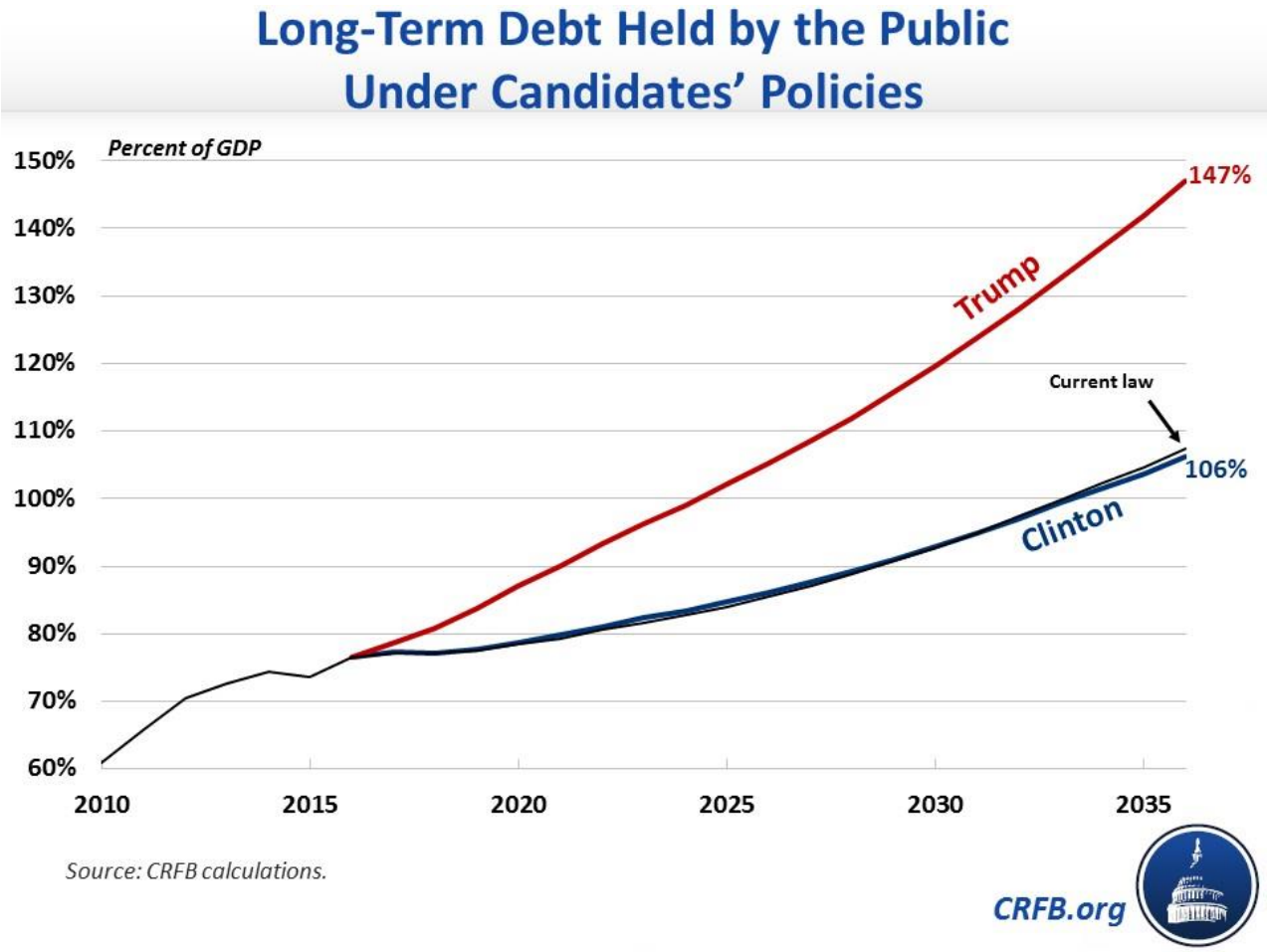
This imputation approach was proposed by President Kennedy in the early 1960s, but was rejected by the congress. To my knowledge Mr. Trump is the only Presidential Candidate to propose an imputation system. It should be noted, however, that he has also proposed a 15% corporate tax rate

CC. What is the position of the non-partisan Committee for a Responsible Federal Budget on the impact on the debt of the tax and spending proposals of Secretary Clinton and Mr. Trump?

An analysis of the tax and spending proposals of the non-partisan Committee for a Responsible Federal Budget concludes that "neither Hillary Clinton nor Donald Trump would reverse the unsustainable growth of the national debt over the next decade, and Trump would significantly worsen it."[593] The following Graph 24-A, which is the same as Graph 15-A illustrates this point:

[593] *Looking at the Long Term under the Candidates' Plans*, Committee for a Responsible Federal Budget (Oct 26, 2016),

Graph 24-A
Committee for a Responsible Federal Budget, *Long-Term Debt Held by the Public Under Candidates' Policies*



Graph 24-A shows that Secretary Clinton's tax and spending policies would do essentially nothing to reverse or deter the currently projected ratio of the growth of (1) the debt held by the public, to (2) GDP. The graph also shows that Mr. Trump's tax and spending policies would significantly exceed the currently projected ratio of the growth of (1) the debt held by the public, to (2) GDP. Thus, it is fair to say that neither Secretary Clinton nor Mr. Trump is concerned with the current and projected levels of our debt.

DD. What is the Assessment of Moody's Analytics of the Macroeconomic Consequences of Secretary Clinton's Economic Policies?

Moody's Analytics, an investment firm, did a macroeconomic analysis of both Secretary Clinton's and Mr. Trump's economic policies. While this is just one assessment, Moody's is a respected firm and their analysis of both Senator Clinton's and

Mr. Trump's proposals are discussed here. The following are their essential conclusions in their analysis of Secretary Clinton's policies:[594]

> Secretary Clinton's economic proposals will result in a somewhat stronger U.S. economy. Near-term growth is supported by the stimulus provided by her spending plans in combination with much stronger foreign immigration. Increased government spending, particularly more infrastructure investment financed primarily by higher taxes on the well-to-do, acts as an economic stimulant. Greater government spending adds directly to GDP and jobs, while the higher tax burden has an indirect impact through the spending and saving behavior of high-income households. This mitigates the near-term negative impact on GDP and jobs since these households will not reduce their spending one-for-one in response to their higher tax bills and will use their savings and other financial resources. The higher minimum wage also crimps employment.
>
> Longer-term growth under Secretary Clinton's policies is somewhat stronger because on net they expand the supply side of the economy—the quantity and quality of labor and capital needed to produce goods and services. . . . [T]here are also some long-term economic costs from the higher tax rates in the secretary's proposals, as they reduce the incentives to save, invest and work.
>
> Her proposals also do little to directly promote increased private sector investment. The campaign has suggested that a proposal to reform the corporate tax code that would presumably promote business investment is forthcoming, but this is not included in this analysis as it has not been formally proposed.
> It is noteworthy that the secretary would use tax policy in an effort to influence the behavior of businesses and financial institutions. This includes tax penalties for corporate inversions, in which U.S. domiciled companies become foreign companies to avoid U.S. taxation, and higher capital gains taxes on shorter-term investments. She also hopes that the proposed tax on high-frequency traders will reduce unproductive volatility in stock and bond prices, and the fee on large financial institutions will reduce their risk-taking. The macroeconomic consequences of these policy steps are difficult to determine, but are small.
>
> The secretary has strongly embraced the need to increase the federal minimum wage, while this will have a negative employment affect, they will be modest given the long proposed phase in. And as long as her ambivalence over greater global trade, as reflected in her opposition to the Trans-Pacific Partnership trade deal, does not intensify, it too should mean little for the economy over the 10-year horizon of this analysis. . . .
>
> Under the scenario in which all of Secretary Clinton's stated policies become law in the manner proposed, the economy will grow somewhat more strongly.
>
> Even allowing for some variability in the accuracy of the economic modeling and underlying assumptions that drive our analysis, four basic conclusions regarding the impact of Secretary Clinton's economic proposals can be reached: 1) They will result in a somewhat stronger U.S. economy with

[594] Mark Zandi, Chris Lafakis, and Adam Ozimer, *The Macroeconomic Consequences of Secretary Clinton's Economic Policies*, Moody's Analytics (July, 2016).

increased GDP and more jobs; 2) they will mostly benefit middle- and lower-income households; 3) they have little impact on the nation's fiscal situation, as they result in somewhat larger deficits but a mostly unchanged debt-to-GDP ratio; and 4) they exhibit faith in the ability of government policy to positively influence economic behavior.[595]

EE. What is the Assessment of Moody's Analytics of the Macroeconomic Consequences of Mr. Trump's Economic Policies?

As indicated above, Moody' Analytics, an investment firm, did a macroeconomic analysis of both Secretary Clinton's and Mr. Trump's economic policies. The following are their essential conclusions in their analysis of Mr. Trump's policies:[596]

> Broadly, Mr. Trump's economic proposals will result in a more isolated U.S. economy. Cross-border trade and immigration will be significantly diminished, and with less trade and immigration, foreign direct investment will also be reduced. While globalization has created winners and losers in the U.S. economy in recent decades, it contributes substantially to the ongoing growth of the U.S. economy. Pulling back from globalization, as Mr. Trump is proposing, will thus diminish the nation's growth prospects.
>
> Mr. Trump's economic proposals will also result in larger federal government deficits and a heavier debt load. His personal and corporate tax cuts are massive and his proposals to expand spending on veterans and the military are significant. Given his stated opposition to changing entitlement programs such as Social Security and Medicare, this mix of much lower tax revenues and few cuts in spending can only be financed by substantially more government borrowing. Driven largely by these factors, the economy will be significantly weaker if Mr. Trump's economic proposals are adopted. Under the scenario in which all his stated policies become law in the manner proposed, the economy suffers a lengthy recession and is smaller at the end of his four-year term than when he took office. By the end of his presidency, there are close to 3.5 million fewer jobs and the unemployment rate rises to as high as 7%, compared with below 5% today. During Mr. Trump's presidency, the average American household's after-inflation income will stagnate, and stock prices and real house values will decline.
>
> Under the scenarios in which Congress significantly waters down his policy proposals, the economy will not suffer as much, but would still be diminished compared with what it would have been with no change in economic policies.
>
> Those who would benefit most from Mr. Trump's economic proposals are high-income households. Everyone receives a tax cut under his proposals, but the bulk of the cuts would go to those at the very top of the income distribution, and the job losses resulting from his other policies would likely hit lower- and middle-

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[595] *Id*. at 1-2.

[596] Mark Zandi, Chris Lafakis, Dan White, and Adam Ozimer, *The Macroeconomic Consequences of Mr. Trump's Economic Policies*, Moody's Analytics (June, 2016).

income households the hardest. The decline in wealth caused by weaker stock prices and housing values would be felt by all households.

Even allowing for some variability in the accuracy of the economic modeling and underlying assumptions that drive the analysis, four basic conclusions regarding the impact of Mr. Trump's economic proposals can be reached: 1) they will result in a less global U.S. economy; 2) they will lead to larger government deficits and more debt; 3) they will largely benefit very high-income households; and 4) they will result in a weaker U.S. economy, with fewer jobs and higher unemployment.[597]

[597] *Id*. at 1-2.

PART VII, FROM GENERAL ECONOMIC PRINCIPLES TO PERSONAL INVESTMENT DECISIONS

CHAPTER 25, HOW CAN THE PRINCIPLES AND POLICIES DISCUSSED IN THIS BOOK, TOGETHER WITH BASIC PRINCIPLES OF FINANCE, ASSIST A PERSON IN MAKING HIS OR HER INVESTMENT DECISIONS?

A. What is in the Chapter?

This chapter provides some fundamental guidance on the impact of the principles discussed in preceding chapters and basic finance concepts on personal investment decisions. For illustrative purposes, this chapter refers, among other things, to the organization and initial public offering of Facebook.

The chapter starts with a discussion of the three principal financial statements utilized by all forms of business and then discusses the types of business organizations, focusing on closely-held corporations and publicly-traded corporations. The initial public offering (*i.e*., transaction in which a closely-held corporation sells stock to the public) of both Google and Facebook are examined as illustrations of how closely-held corporations may become publicly-traded corporations.

The chapter then turns to the discounted cash flow (DCF) model and the Capital Asset Pricing Model (CAPM), which are generally used by businesses in making decisions to invest in new plant and equipment. An understanding of these models can be helpful to an individual in making the decision to purchase for investment the stock of a publicly held corporation, which is a focus of this chapter. The chapter next discusses the use of the principles in the DCF model and CAPM in valuing stocks with the Discount Dividend Method (DDM). As an alternative valuation method, the chapter discusses the use of the relative valuation concept with an illustration of the use of this technique in valuing Facebook.

The chapter then examines some of the economic principles involved in investing in bonds. Finally, the chapter focuses on the main points to be taken from this chapter—(1) the link between the performance of the economy and the performance of stocks, and (2) the need to diversify one's investment portfolio.

It must be emphasized that this chapter is merely an introduction to investment concepts.

B. What are the three principal financial statements of a business?

All publicly-traded companies and virtually all closely-held companies will have the following three principal financial statements: (1) the balance sheet, (2) the income statement, and (3) the statement of cash flows. Each of these financial statements is discussed in following questions.

C. What is a balance sheet?

A balance sheet presents a snap-shot as of a particular date, such as the end of the company's fiscal year, of the company's assets, liabilities, and shareholder net worth. The sum of:

(1) the company's assets, such as cash, accounts receivables (*e.g.*, amounts due from the sale by the company of its products or services), inventory, equipment, and plant, must equal

(2) the sum of (a) the company's liabilities, such as accounts payables (*e.g.*, amounts owed to short-term creditors, such as trade creditors), bank loans and bonds, and (b) the shareholders' equity or net worth, which is equal to (i) the amount contributed by the shareholders, (ii) plus any retained earnings, and (iii) minus any losses and dividends or other distributions.

For example, Facebook's balance sheet for December 31, 2011 at the time it went public, had (1) total assets of $6.3 billion, (2) total liabilities of $1.4 billion, and (3) total shareholders' equity of $4.9 billion.[598] Note that the net worth of $4.9 billion is equal to the total assets of $6.3 billion minus the total liabilities of $1.4 billion.

D. Does a balance sheet show how much a company is worth?

A balance sheet is based on historical numbers, such as the original cost of equipment minus depreciation (*i.e.*, allowance for wear and tear) on the equipment taken after the date of acquisition. The balance sheet does not reflect the current fair market value of assets, such as equipment and plant. Also, the balance sheet does not reflect the value of the good will generated from operation of the business. However, good will purchased (for example, on the acquisition of another business) is reflected on a balance sheet.

For example, although as of March 31, 2012, Facebook had $5.6 billion in shareholders' equity, the fair market value of its shareholders' equity as determined by the $38 offering price of its shares in the IPO, discussed subsequently, was $104 billion. This was the market capitalization (*i.e.*, stock price multiplied by number of shares outstanding) immediately after the IPO. The price of the shares dropped shortly after the IPO erasing a significant part of the $104 billion but still showing shareholders' equity (market capitalization) that was much more than the balance sheet shareholders' equity.

E. What is an income statement?

An income statement measures the performance of a business over a specified period, such as a year. The income statement starts with revenues (*i.e.*, sales) and then deducts the expenses incurred in generating the revenue. The result is net income, which is generally reported on both a gross and per-share basis. The deductions taken in computing net income include (1) the cost of goods (*i.e.*, inventory) or services sold; (2) Selling, General & Administrative (SG&A) expenses; (3) depreciation, and (4) taxes. For example, Facebook reported $1 billion of net income for 2011, which amounted to 46 cents per share on a fully diluted (*i.e.*, taking into account unexercised stock options) basis.

F. What is a statement of cash flows?

While an income statement shows the net income or loss from operations, the cash flow statement shows the actual cash generated by the business from (1) Cash flow

[598] *Facebook Prospectus*, *infra* Bibliography at F-3.

from operating activities (*i.e.*, the cash from normal operations); (2) Cash flow from investing activities, including purchases and sales of plant, equipment, marketable securities, and businesses; and (3) Cash flow from financing activities, such as issuing or purchasing stock or debt in the corporation.

G. Why and how are business entities organized—corporation, limited liability company, or partnership?

Whenever two or more persons join together to operate a business, they will generally choose one of the following business entities: a corporation, a limited liability company (LLC), or a partnership. The formation of the entity will allow for a separation of the ownership interests in the entity (*i.e.*, stock in a corporation, an LLC interest, or a partnership interest) from the management of the entity. Also, in the case of a corporation or LLC the owners will not have any personal liability for the debts of the entity. Although, partners in a general partnership have liability for the partnership's debts, in a limited partnership, the limited partners have limited liability and only the general partners are liable for the debts of the partnership. Corporations, LLCs, and partnerships are organized under state law. The discussion here focuses only on corporations. For Federal income tax purposes, corporations are divided between C corporations and S corporations. As discussed in Chapter 23, C corporations are subject to a maximum tax of 35%, and the shareholders are taxed on dividends paid out of the corporation's after-tax earnings at a maximum rate of 23.8%. On the other hand, S corporations are certain closely-held corporations that are not subject to tax; rather, the shareholders pay tax on their share of the corporation's income at a maximum rate of 39.6%

As an illustration, Facebook started in Mark Zuckerberg's dorm room at Harvard as an unincorporated proprietorship and was later incorporated as a Delaware corporation in 2004.

H. What is the difference between a closely-held corporation and a publicly-traded corporation?

The normal closely-held corporation has only one or a few shareholders. A publicly-traded corporation is traded on an exchange and generally has many shareholders. The line between closely-held and publicly-traded can be difficult to ascertain in certain cases, but for the purpose of the discussion here the stock of a publicly-traded corporation is traded on an exchange such as the New York Stock Exchange or the NASDAQ Stock Market. The stock of most well-known domestic (and many foreign) publicly-traded corporations are traded on these two exchanges. For example, the stock of IBM and GM are traded on the NYSE and the stock of Google and Facebook are traded on the NASDAQ.

I. How do closely-held corporations raise funds for their businesses—organizers, banks, venture capitalists?

The initial capital for most closely-held corporations comes from contributions from their initial organizing shareholders who receive in exchange for their contributions common stock in the corporation. Common stock has the right to the residual assets of

the firm after the firm makes the required payments on first on its debt and then on its preferred stock. Additional capital can be raised from, among other sources, the following: (1) the plowing back of retained earnings into the business; (2) purchases of newly issued common stock by friends, family, and business associates; (3) bank loans; (4) purchases of newly issued common or preferred stock by financial institutions, such as insurance companies; and (5) purchases of newly issued convertible preferred stock or convertible debt by venture capital firms.

J. What is a venture capital firm and what is convertible preferred stock or debt?

Venture capital firms focus on making investments in start-up businesses, and the investments are often made in the form of convertible preferred stock or convertible debt. These instruments give the venture capitalist a claim on the assets of the firm if things go badly and the right to convert to common stock and participate in the upside, possibly by participating in an initial public offering (IPO), discussed subsequently, if things go well. Venture capital firms have a different focus than private equity firms, which are focused on acquiring publicly-traded firms and making them privately held.

For example, many venture capital firms invested in Facebook when it was a closely-held corporation by purchasing convertible preferred stock, which was converted to common stock and sold in the IPO.

K. How do publicly-traded corporations raise funds for their businesses—retained earnings, banks, bonds, stocks?

Publicly-traded corporations raise funds from the following three principal sources: (1) the plowing back of earnings into the business (*i.e*., retained earnings); (2) bank loans; (3) the private or public sale by the corporation of its bonds, which are purchased by individuals and institutions that as bondholders become creditors of the corporation; and (4) the sale to the public of newly issued common or preferred stock.

A company that plans to sell stock or bonds to the public must do so pursuant to a registration statement filed with the Securities and Exchange Commission (SEC). Once the registration statement becomes effective, the stock or bonds are sold pursuant to a prospectus that sets out all of the information concerning the company and the offering.

For example, on December 31, 2011, Facebook had $1.6 billion of retained earnings, and in May 2012 Facebook raised additional funds from the sale of common stock in an IPO through the medium of a prospectus.

L. How is stock of a publicly-traded corporation bought and sold?

Without going into detail, stock of a publicly-traded corporation that is listed on an exchange is bought and sold on the exchange through the medium of the brokerage operations of a professional securities firm, such as a full service firm like Merrill Lynch or a discount broker like E*Trade.

The purchasing shareholder will place an order to buy with her broker, and the selling shareholder will place an order to sell with her broker. Orders can be either to (1) buy or sell at the prevailing market price, or (2) to buy or sell once the stock reaches a

particular price, which are known as limit orders. Orders to buy and to sell are matched on the exchange. Orders for a small number of shares may be matched through a computer program.

M. How does a corporation go from being closely-held to being publicly-traded?

The most common way for a closely-held corporation to become a publicly-held corporation is for the corporation to engage in an initial public offering (IPO). In the most common IPO, the closely-held corporation (and possibly its controlling shareholders) sells shares in the corporation to a group of underwriters (*i.e.*, securities firms, such as Goldman Sachs) who in turn sell the shares to public shareholders. This type of IPO transaction is referred to as a firm commitment underwriting, which means that the underwriters have a contractual obligation through an underwriting agreement with the IPO firm to purchase the shares from the firm even if the underwriters cannot resell the shares to the public.

The IPO can raise significant funds for the firm, and after the firm becomes publicly-traded it may be able to raise additional funds by selling additional stock or bonds to public shareholders. For example, in the Facebook IPO, Facebook raised approximately $6.8 billion from the sale of its stock and certain shareholders of Facebook, including venture capital firms, received more than that amount from the sale of their shares.

In most cases, after the IPO, the shares are traded on the NYSE or the NASDAQ Stock Market. To the extent the closely-held corporation, as distinguished from its controlling shareholders, sells its shares in an IPO, the sales are referred to as sales in the "primary" market. On the other hand, post-IPO sales of shares on an exchange are referred to as sales in the "secondary" market.

For example, in May 2012, Facebook engaged in an IPO, thereby becoming a publicly-traded corporation listed on the NASDAQ Stock Market. Although prior to the IPO, Facebook's shares were held by a broad group of shareholders and it was not technically a closely-held corporation, its shares were not publicly-traded on an exchange. Even though Facebook became a publicly-traded corporation, as explained as follows in the prospectus, its founder Mark Zuckerberg continued to own a controlling interest in the company:

> **Mr. Zuckerberg's Voting Rights and Our Status as a Controlled Company.** Mr. Zuckerberg, who after our initial public offering will control approximately 55.9% of the voting power of our outstanding capital stock, will have the ability to control the outcome of matters submitted to our stockholders for approval, including the election of our directors, as well as the overall management and direction of our company.[599]

N. What is the "Tale of Two IPOs"—Google and Facebook?

This section discusses the Google IPO in 2004, which was very successful, and the Facebook IPO in 2012, which was problem ridden. The discussion shows the

[599] *Id*. at 6.

potential benefits and detriments that can result from the purchase by an investor of shares in an IPO. Thus, this section presents a "Tale of Two IPOs."

1. What is the tale of the Google IPO?

Prior to August 2004, Google, the Internet search company, was a privately held company and had raised cash in a series of private offerings. Google then completed an IPO in which it raised $1.67 billion in selling 19.6 million shares at $85 each, pursuant to a prospectus and registration statement that was cleared by the SEC.

After issuance the shares were traded on the Nasdaq Stock Market, and the price of the shares on this market jumped to approximately $100 per share immediately after the offering. This gave those shareholders who purchased shares in the IPO and those shareholders who acquired their shares when Google was private, such as the co-founders Sergey Brin and Larry Page, an immediate 18% return. After the IPO, Brin and Page still each owned 38 million shares, and because of the 18% increase in price, the holdings of each man rose almost $600 million in value to approximately $3.8 billion. Thus, this illustrates that in addition to providing funding for the issuing company in an IPO, the creation of a public market for the shares can provide liquidity for the founding shareholders and others who purchased in the IPO. As of early April 2012, the shares of Google were trading at approximately $630 per share.

2. What is the tale of the Facebook IPO?

On May 18, 2012, Facebook went public through an IPO on the NASDAQ stock market. The performance of the Facebook IPO, at least the performance in and immediately after the IPO, was significantly different from the performance of the Google IPO during this same period.

Facebook went public at $38 per share and raised $16 billion for the company and certain early shareholders who sold shares in the IPO. The IPO price was higher than the $28-35 price range that was set out in the preliminary prospectus. The final prospectus describes as follows the methodology used in determining the selling price of the Facebook Class A Common shares, which were sold to the public and the Class B Common shares, which were held principally by insiders:

> **Offering Price**. In early May 2012, in consultation with the underwriters, we [Facebook] determined the anticipated initial public offering price range to be $28.00 to $35.00 per share. Subsequently, in mid-May 2012 we increased the anticipated initial public offering price range to $34.00 to $38.00 per share. The assumptions supporting the revised anticipated initial public offering price range represented management's best estimates and discussions between us and the underwriters about indications of interest from potential investors after approximately one week of marketing of the offering, and involved complex and subjective judgments. It should be noted that the fair value of our Class B common stock as of January 31, 2012, which was $30.89 per share, was determined through a different methodology. The January 31, 2012 valuation followed the methodologies used in 2011 and was influenced in large part by third-party private stock sale activity that occurred in January 2012 and also took into account a marketability or illiquidity discount. The revised anticipated initial public offering price range was based on the assumption that our initial public

> offering had occurred and that a public market for our Class A common stock had been created, and therefore excluded any marketability or illiquidity discount.[600]

Trading in Facebook stock immediately after the IPO drove the trading price to $42 per share. However, this price did not hold, and Facebook's shares had dropped by 16% to $32 by May 23, 2012. During this same May 18 to May 23 period, while Facebook shares were falling, the NASDAQ Composet Index, an index of NASDAQ shares, rose slightly.[601] By the close of trading on June 7, Facebook shares were trading at $25.87. One reason for the precipitous drop may have been the allocation of significant shares in the IPO to hedge funds that, rather than holding for the long-term, immediately sold their shares.[602] Also, there was concern that Facebook might not be able to continue growing it revenues.

In addition to the unanticipated drop in the trading price of Facebook's shares, as explained by Reuters, there were problems with the execution of the IPO:

> Trading glitches on Nasdaq OMX Group Inc's exchange led to a 30-minute delay in Facebook's highly anticipated market debut on May 18, after which market makers - who facilitate trades for brokers - failed to receive confirmations of their opening orders for about two hours, leading to more than $100 million of losses.[603]

Bloomberg reports that "Facebook's IPO has had the worst two-week performance of the 30 largest new stock offerings since January 2011."[604] Bloomberg further explains that "Facebook's 27 percent drop is more than three times larger than the next biggest fall of 8 percent registered by Oaktree Capital Group."[605]

O. What is the relationship between the decision of a business to invest in plant and equipment and the decision of an individual investor to invest in stocks of a publicly-traded corporation?

As discussed in greater detail in the answer to the next question, businesses will invest in plant and equipment when the cost of the equipment is less than the present value of the free cash flows to be generated by the plant or equipment. When this occurs, the investment is said to have a positive net present value.

Similarly, an investor should purchase a stock when the cost of the stock is less than the present value of the future earnings, properly measured, to be generated by the stock.

P. How do businesses apply the Discounted Cash Flow (DCF) Model and the Capital Asset Pricing Model (CAPM) in making decisions to (1) purchase plant and equipment, or

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[600] *Id*. at 79.
[601] *Facebook's flotation, That sinking feeling*, The Economist (May 26, 2012), at www.economist.com.
[602] *Id*.
[603] *Facebook IPO mishandling hurt investor confidence -TD Ameritrade*, Reuters (June 7, 2012), at www.reuters.com.
[604] *Facebook IPO Has Worst Two-Week Performance*, Bloomberg News (June 6, 2012, at http://www.businessweek.com/news/2012-06-06/facebook-ipo-has-worst-two-week-performance.
[605] *Id*.

(2) acquire another company in a merger or acquisition transaction?

Most businesses use some version of the discounted cash flow (DCF) model and the Capital Asset Pricing Model (CAPM) in deciding whether to (1) purchase plant and equipment, and (2) acquire another company in a merger or acquisition transaction. As indicated previously, the purchase of new plant and equipment adds to the investment component of GDP. On the other hand, purchases of previously used plant or equipment or the acquisition of another company does not have an impact on the investment component.

The DCF model, which is forward looking, has the following four steps:

First, a projection of the free cash flows (FCFs) to be realized from the investment;

Second, an estimate of the required *cost of capital* associated with the particular investment, which generally requires the application of CAPM;

Third, the discounting of the FCFs to present value at the cost of capital; and

Fourth, a comparison of the cost of the investment with the aggregate present value of the FCFs to see if the investment has a positive net present value (Net PV).

The business will make the investment only if it has a positive Net PV. As will be discussed in greater detail subsequently, CAPM is generally used in determining the cost of capital.

1. **What are Free Cash Flows?**

FCFs are not the accounting profits from the investment but are an estimate of the positive or negative cash that will be generated by the investment for each period the investment will be held. There is usually an assumption that after a period of five to ten years during which periodic FCFs are received, the investment will be sold for what is known as the terminal FCF.

2. **What is the Cost of Capital?**

The cost of capital is the rate of return investors would require on the investment given the particular risks and returns associated with the type of investment. One of the principal models used for determining the cost of capital of an investment is the capital asset pricing model (CAPM). Obviously, the greater the risk, the greater the required return. For example, using the capital asset pricing model, the cost of capital on an investment made by IBM in one of its core businesses likely would be less than the cost of capital facing a startup computer firm on an investment in an unproven technology. The cost of capital is particularly sensitive to interest rates, because the higher the interest rate, the higher the cost of capital. Simple logic can illustrate why this is true. Investors can avoid all risk by investing in Treasury bonds. For example, in October 2016, the interest rate on ten-year Treasury bonds (technically called Treasury notes) was around 2.0%. So no investor would invest in a risky investment that had an expected return of only 2.0%, because the investor could invest in Treasury bonds and get a guaranteed 2.0% return. To induce investment in risky projects, the return offered, that is, the cost of capital, must reflect the risk and rewards associated with the investment. An increase in the Treasury bond rate generally will lead to an increase in other interest rates and also an increase in the cost of capital for all investments.

3. How does the DCF Model utilize Free Cash Flows and the Cost of Capital?

With the determination of the FCFs and the cost of capital, under the DCF model, the FCFs for each period, including the terminal FCF, are discounted back to present value, that is, the amount the FCF would be worth at present if it were represented by an investment with a return equal to the required cost of capital. For example, assume that the FCF expected from an investment after one year is $110,000 and the cost of capital is 10%. In such case, the present value of this FCF is $99,000, reflecting the 10% cost of capital for one year (.1X110,000=11,000). Also, there is an assumption of a compounding of interest in computing present values, and this makes the present value lower than would otherwise occur if there were no compounding.

A fundamental principle in computing present values is that the greater the time to the receipt of the FCF, the lower the present value of the FCF. For example, if a FCF of $110,000 is expected at the end of the second year, and the cost of capital is 10%, the present value would be approximately $90,000, reflecting the required 10% interest for two years. Another fundamental principle is that the higher the cost of capital, the lower the present value. For example, if in the above example of the $110,000 FCF to be received after one year, the cost of capital were 5% instead of 10%, the present value of the FCF would have been slightly less than $104,500 as opposed to $99,000 (.05X110,000=5500). To summarize: the longer the period to run before the FCF is received and the higher the cost of capital, the lower the present value of a FCF.

4. How is the Net Present Value computed in the DCF model?

The present value of an investment is determined by summing all of the present values of each of the periodic and terminal FCFs. The Net Present Value (Net PV) is determined by subtracting the cost of the investment from this aggregate present value. If the resulting number is positive, that is, the aggregate present value exceeds the cost of the investment, the investment is said to have a positive Net PV, and the investment generally will be made.

While this DCF process may seem complex, once the FCFs and cost of capital are determined, the computations can easily be done on a financial calculator or in an Excel spread sheet by first entering the cost of the investment as a negative number, second entering each of the FCFs as positive numbers for the applicable period, third, entering the cost of capital, and finally, computing the Net PV.

5. Are the DCF and CAPM valid?

The validity of the DCF model and CAPM can be seen from the discussion in the *1999 Economic Report of the President* of the reasons for the investment boom in plant and equipment during the 1990s.[606] The first two factors given in this *Report*--rapid output growth and robust corporate profits--indicate that FCFs for many investments were increasing significantly thereby increasing the likelihood that a particular investment would show a positive Net PV. The third factor given in the *Report*, the ready availability of

[606] *1999 Economic Report of the President*, *infra* Bibliography, at 69-73.

external funding at relatively low rates, indicates that the cost of capital for many investments was relatively low, thereby also increasing the likelihood that a particular investment would show a positive Net PV.

Q. What are some of the common tools used by investors in deciding whether to purchase stock of a publicly-traded corporation?

Just as corporations use the DCF model and CAPM in making decisions to invest in plant and equipment, investors use these and other tools in deciding whether to purchase or sell stock of publicly-held corporations. The next question looks at (1) the commonly used Dividend Discount Model (DDM), which employs both the DCF model and CAPM, and (2) the price to earnings (P:E) relative value model.

R. What is the Dividend Discount Model (DDM)?

The DDM model can be used for determining the price at which a stock should currently trade. It is only available for stocks that pay dividends. It is determined by dividing (1) the current dividend, by (2) the cost of capital of the stock (generally determined by CAPM), minus the growth rate of the dividend. The formula can be written as follows:

Current Dividend
Divided By:
Cost of Capital of Stock (r) minus Growth Rate of Dividend (g)

In order for this formula to work the Cost of Capital must exceed the growth rate of the dividend.

The DDM was one of the models used in valuing J.P. Morgan Chase by the Henry Fund Research at the University of Iowa. This valuation report states: "We believe that JPMorgan Chase is undervalued on cash flow and dividend discount valuations."[607] It should be noted that the two elements in the denominator of the DDM model are determined by macroeconomic factors. As discussed previously, the cost of capital determined by CAPM is a function in part of the current state of interest rates under Fed policy (*see* Chapter 14) and the growth rate of the dividend in many cases is a function of the growth rate of GDP.

S. What is the price to earnings (P:E) relative value model and how was it used in valuing Facebook?

In the price to earnings (P:E) relative value model, the P:E ratio of the firm being valued (the target) is compared to the P:E ratio of a group of comparable companies. The key is to accurately identify the comparable companies and to insure that the capital structures and other key attributes of the comparable companies are indeed comparable to

[607] Henry Fund Research, University of Iowa, J.P. Morgan Chase & Co. 12 (Sept. 19, 2011).

those of the target. If the comparability principle is satisfied, the P:E ratio of the target should approximate the average P:E ratio of the comparable firms.

Because earnings can vary depending on accounting conventions, in many cases as a substitute for, or adjunct to, the P:E relative value approach, the analyst may use a Price to Sales (P:S) or Price to Earnings Before Interest and Taxes (P:EBIT) valuation approach. These two approaches are less susceptible to accounting and other potential distortions in the relative value approach.

As an illustration Bill Maurer, a stock analyst, values Facebook (FB) using a relative valuation model treating LinkedIn (LNKN), Zynga (ZNGA), Groupon (GRPN), and Pandora (P) as comparable firms. Shortly after the May 2012 IPO, he concluded:

> Now let's look at where the valuations stand . . . based on the expectations for 2012 and 2013 fiscal years.

Valuation	FB	LNKD	ZNGA	GRPN	P
P/S (2012)	11.15	10.57	2.91	2.63	4.00
P/S (2013)	8.54	7.12	2.40	2.04	2.79
P/E (2012)	47.91	136.76	21.22	54.39	N/A
P/E (2013)	39.80	76.23	15.49	13.99	205.60

> The chart above shows the ratio of (1) the price of the stock of each firm, to (2) the firm's sales and earnings. Thus, P/S is the price to sales ratio, and P/E is the price to earnings ratio.
>
> In terms of price to sales, Facebook is the most expensive stock, way above most of the other names. When you look at 2013, the stock appears extremely overvalued. . . . [W]hen you look at price to earnings, Facebook is still expensive, although it appears that LinkedIn is even more expensive. Remember though, LinkedIn is cheaper on a price to sales basis, and LinkedIn offers a larger amount of growth, when it comes to both revenues and earnings. I don't think Facebook currently justifies the valuation it trades at, meaning I think there is more room to the downside.[608]

T. What are the basic economics of investing in corporate bonds?

This answer focuses only on the basic economics regarding purchases of corporate bonds both (1) from the corporate issuer of the bond on initial sale, and (2) on the market after issuance. Corporate bonds are generally traded in dealer markets (*i.e.*, dealers buy and sell bonds), although some bonds are listed on the New York Stock Exchange. Many of the economic principles governing corporate bonds are similar to such principles governing U.S. Treasury bonds discussed in Chapters 13 and 14.

[608] Bill Maurer, *Facebook's Valuation Seems Socially Unacceptable*, Seeking Alpha (June 6, 2012), at http://seekingalpha.com/article/640951-facebook-s-valuation-seems-socially-unacceptable?source=google_news.

1. What are corporate bonds?

Corporate bonds are debt instruments of a corporation issuer that are initially issued to a group of investors. Thus, rather than receiving the proceeds of a loan from a bank, the corporate debtor in essence receives the proceeds of a loan from many institutions, such as insurance companies and individuals, who purchase the bonds from the corporate debtor. Where bonds are issued to the public, they must be registered with the SEC.

2. What is a bond indenture?

While U.S. Treasury securities are simply IOUs of the Treasury Department, corporate bonds are generally issued pursuant to an indenture**.** In the indenture, the corporate issuer of the bonds promises to a trustee, usually a bank acting for the purchasers, that the issuer will comply with certain conditions relating to the offering, such as limitations on the amount of additional debt that can be issued by the corporation. Also, in certain cases, the indenture gives the trustee the power to act for the bondholders as a group thereby eliminating a collective action problem that could arise if each bondholder had to act in an independent capacity.

3. What is the risk of default?

Corporate bonds have a risk of default that is not applicable with U.S. Treasury bonds: the higher the risk of default, the higher the required interest rate for the particular maturity period of the bond.

Corporate bonds are rated by the rating agencies, such as S&P, with respect to their risk of default. The rating scales go from Investment Grade Bonds, which have in the opinion of the credit rating agency a low risk of default down to High Yield (or Junk) Bonds, which have a significant risk of default. For example, the S&P ratings start at the top Investment Grade rating of AAA and go down to D, which indicates that the bond is in default. S&P's highest High Yield Bond rating is BB+.

Obviously, the greater the risk, the higher the required interest rate. This is illustrated on Table 25-A, which presents the required interest rates on (1) ten-year Treasury Bonds, (2) ten-year Goldman Sachs Investment Grade Bonds with an S&P rating of A-, and (3) ten-year Sprint Nextel High Yield Bonds with an S&P rating of B+.

Table 25-A
Required Interest Rate (Yield to Maturity) on Various Bonds, June 20, 2012

Issuer Years to Maturity of the Bond	S&P Rating of the Bond	Required Interest Rate or Yield to Maturity
Treasury Ten-year Bond	Downgraded from AAA to AA+ in August of 2011	1.7%
Goldman Sachs Group Inc., Ten-year Bond	Investment Grade, A-	5.1%
Sprint Nextel Corp., Ten-year Bond	High Yield, B+	8.8%

Source: Wall Street Journal, *Bonds, Rates and Credit Markets* (June 20, 2012) Product 1963-2011

Table 25-A demonstrates clearly that as the risk of default of a bond increases, the required interest rate on the bond also increases.

4. How is the price of a bond determined?

As indicated in the discussion in Chapter 13 of Treasury obligations, the trading value of outstanding Treasury bonds is determined by (1) the stated interest rate on the bond, (2) the remaining years to maturity of the bond, and (3) the current applicable rate on Treasury bonds with similar remaining years to maturity. For example, on June 20, 2012, ten-year Treasury Bonds (*i.e.*, Treasury Bonds that would mature in 10 years) had a required interest rate (*i.e.*, yield to maturity) of 1.7%, and 30-year Treasury Bonds had a required interest rate of 2.7%. The higher interest rate with longer term bonds is a reflection, in part, of the greater potential for inflation. Thus, if on June 20, 2012, the Treasury had sold newly issued ten-year bonds, the interest rate (*i.e.*, coupon rate) would have been 1.7%, and if it sold newly issued 30-year bonds, the coupon rate would have been 2.7%.

Although these ten- and 30-year interest rates are the rates that the Treasury would have to pay on newly issued ten- and 30-year Treasury Bonds, the interest rates on previously issued outstanding Treasury Bonds were set at the time those bonds were issued. However, as discussed previously, the price that a holder of an outstanding Treasury bond could get on the sale of the bond would depend on (1) the stated interest rate on the bond, (2) the remaining years to maturity of the bond, and (3) the current applicable rate on Treasury bonds with similar remaining years to maturity. If the coupon rate were higher than the required rate, the price of the bond would be more than the principal amount, and if the coupon rate were lower than the required rate, the price of the bond would be less than its principal amount.

The trading price of outstanding corporate bonds is not only determined by the factors applicable to the valuation of Treasury bonds (*i.e.*, the stated interest rate, the years to maturity, and the current rate on bonds with a similar maturity), but is also a function of the riskiness associated with the bond. This principle can be illustrated as follows:

Assume that a corporate bond (CB) is issued with a triple A rating from the rating agencies. Further, assume that because of financial difficulties, before maturity CB is downgraded to junk status, meaning that there is significant risk of non-repayment. Also assume that the current rate on Triple A rated bonds is less than the rate at the time CB was issued, and as a consequence, Triple A rated bonds with a similar remaining years to maturity trade at a 1% premium to the their principal amounts. Although if CB had retained its Triple A rating, it would be trading at a 1% premium over it stated principal, because it is now a junk bond, it will trade at a discount to its stated principal.

U. What is the relationship between movement in GDP and movement in the stock market?

The stock market generally is correlated with the growth or lack thereof of GDP. When there is strong GDP growth, there is generally a strong stock market, and when GDP slows or goes into a recession, the stock market generally falls. However, increases or decreases in the stock market may be a leading indicator of an acceleration or deceleration in the growth of GDP. On this point, Baumol and Binder say: "The statistical evidence is that, over the long run stock prices as a whole have followed a fairly marked upward trend, perhaps reflecting the long-term growth of the economy."[609]

V. How does the projected growth of GDP impact the valuation of stocks?

The projected growth of GDP can be an important factor in determining the price of stock of a corporation. For example, Table 25-B shows the impact of the overall performance of the economy on the valuation by Morgan Stanley, a large investment bank, of a share of stock of JP Morgan Chase, the country's largest bank:

[609] Baumol and Binder, *Economics 2009*, *infra* Bibliography at 190.

Table 25-B
Morgan Stanley's Valuation of J.P. Morgan Chase Shares, June 10, 2012

Economic Case	Description of Case	Projection of JPM Stock Price
Bull	Faster, Stronger U.S. Economy	$60
Base	Modest U.S. Recovery	$54
Bear	Double Dip, U.S. Recession	$25

Source: Morgan Stanley, J.P. Morgan & Chase Com. June 10, 2012

W. What is the main lesson of this chapter, diversification?

In their chapter on *Investing in Business: Stocks and Bonds*, Baumol and Binder say: "The main lesson of this chapter is that for good reason, the future behavior of the stock market is virtually unpredictable."[610] This is also the main lesson of this chapter. As explained by Jason Unger:

> [I]nvesting in passive, low-cost index funds will out-earn actively managed funds in the long-run, and . . . most fund managers can't even outperform the indexes they're trying to beat over time.
>
> The underlying theme . . . is that stock market "experts" aren't really experts at all. They may be able to get lucky over a short period of time, but the longer they invest, the less likely they are to continuously beat the market. (Even Warren Buffett says that most investors should choose index funds.)[611]

The diversification should generally extend to investments in foreign as well as domestic stocks.

X. What is the bottom line on the need for diversification of an investment portfolio?

Since it is difficult for anyone, including the Fed, to predict the rate of growth of GDP, it is completely understandable that investors will have difficulty predicting future price movements in the stock market, because such movements are closely correlated with the rate of growth of GDP.

If it is difficult for professional stock analysts to beat the market, it is less likely that a casual investor would be able to do so. Consequently, most investors should take the advice of Warren Buffett and invest in low cost index mutual funds. These funds attempt to mimic movements in the broader market, such as the S&P 500 stocks, with little turnover of securities, and are able to keep expenses low.

In addition to investing in a diversified portfolio of stocks, an investor should also consider allocating a portion of investable funds to bonds and real estate, thereby further diversifying the overall portfolio.

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[610] *Id*. at 177.
[611] Jason Unger, *Can Monkeys Pick Stocks Better than Experts?,* AutomaticFinances, at http://www.automaticfinances.com/monkey-stock-picking/.

Y. What does the efficient capital markets hypothesis say about the need to diversify?

The efficient capital markets hypothesis holds that the prices of stocks and other securities will quickly reflect all available information. Thus, this hypothesis says that it is very difficult for an investor to beat the market, because all relevant information regarding a security is quickly and efficiently impounded into the market price of the security. This theory is further support for the proposition that the average investor should diversify his or her portfolio. The efficient capital markets theory is similar in concept to the rational expectations theory discussed in Chapter 14.

BIBLIOGRAPHY

- *1999 Economic Report of the President* means Clinton Administration, *Economic Report of the President* (February 1999).
- *2003 Economic Report of the President* means Bush Administration, *Economic Report of the President* (Feb. 2003).
- *2004 Economic Report of the President* means Bush Administration, *Economic Report of the President* (Feb. 2004).
- *2004 Budget and Economic Outlook* means Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2004 to 2014* (Jan. 20004).
- *2008 Economic Report of the President* means Bush Administration, *Economic Report of the President* (Feb. 2008).
- *2011Budget and Economic Outlook* means Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2011 to 2021* (Jan. 2011).
- *2012 Budget and Economic Outlook* means Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2012 to 2022* (Jan. 2012).
- *2016 Budget and Economic Outlook* means Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2016 to 2026* (Jan. 2016).
- *2012 Economic Report of the President* means Obama Administration, *Economic Report of the President* (Feb. 2012).
- *2016 Economic Report of the President* means Obama Administration, *Economic Report of the President* (Feb. 2016).
- *2016 Social Security and Medicare Report* means Trustees of the Social Security and Medicare Trust Funds, *Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds 2016 Annual Report* (June 22, 2016).
- *A Better Way on the Economy* means House Republicans, *A Better Way on the Economy* (June 14, 2016).
- *A Better Way on Health Care* means House Republicans, *A Better Way on Health Care* (June 22, 2016).
- *A Better Way on Poverty* means House Republicans, *A Better Way on Poverty, Opportunity, and Upward Mobility Health Care* (June 7, 2016).
- *A Better Way on Taxes* means House Republicans, *A Better Way on Taxes* (June 24, 2016).
- Baumol and Binder, *Economics 2003* means William J. Baumol and Alan S. Binder, *Economics Principles and Policy*, (9th Ed. 2003).
- Baumol and Binder, *Economics* 2009 means William J. Baumol and Alan S. Binder, *Economics Principles and Policy*, (11th Ed. 2009).
- Barr, *The Financial Crisis* means Michael S. Barr, *The Financial Crisis and the Path of Reform*, 29 Yale J. on Reg. 91 (Winter, 2012).
- Bernanke, *Lecture 1* means Ben Bernanke, *Origins and Mission of the Federal Reserve*, Slides for a Lecture given at George Washington University, Spring 2012, www.frb.gov.
- Bernanke, *Lecture 2* means Ben Bernanke, *The Federal Reserve After World War II*, Slides for a Lecture given at George Washington University, Spring 2012, www.frb.gov.

- Bernanke, *Lecture 3* means Ben Bernanke, *The Federal Reserve's Response to the Financial Crisis*, Slides for a Lecture given at George Washington University, Spring 2012, www.frb.gov.
- Bernanke, *Lecture 4* means Ben Bernanke, *The Aftermath of the Crisis*, Slides for a Lecture given at George Washington University, Spring 2012, www.frb.gov.
- CBO, *2007 Budget Options* means Congressional Budget Office, *Budget Options* 259 (February 2007).
- CBO, *2011 Analysis of Obamacare* means CBO, Statement of Douglas W. Elmendorf, Director, *CBO's Analysis of the Major Health Care Legislation Enacted in March 2010*, before the Subcommittee on Health Committee on Energy and Commerce U.S. House of Representatives, at Summary (March 30, 2011).
- CBO, *2011 Spending and Revenue Options* means Congressional Budget Office, *Reducing the Deficit, Spending and Revenue Options* (March 2011).
- CBO, *2012 Economic Effect of the Fiscal Cliff*, means Congressional Budget Office, *Economic Effects of Reducing the Fiscal Restraint That Is Scheduled to Occur in 2013* (May 2012).
- CBO, *2016 Long-Term Budget Outlook* means Congressional Budget Office, *The 2016 Long-Term Budget Outlook* (July 2016).
- CBO, *Analysis of Economic Impact of Immigration Modernization Act* means CBO, *The Economic Impact of S. 744, the Border Security, Economic Opportunity, and Immigration Modernization Act* (June 2013).
- CBO, *Budgetary and Economic Effects of Repealing Obamacare* means CBO, *Budgetary and Economic Effects of Repealing the Affordable Care Act* (June 2015).
- CBO, *Premiums and Policy* means CBO, Private Health Insurance Premiums and Federal Policy (Feb. 2016).
- Buffett, *Coddling the Rich* means Warren E. Buffett, *Stop Coddling the Super-Rich*, New York Times (Aug. 14, 2011), available at www.nyt.com.
- Canova, *The Federal Reserve We Need* means Timothy Canova, The Federal Reserve We Need, The American Prospect (June 10, 2010), available at http://prospect.org/article/federal-reserve-we-need.
- *Deficit Commission Proposal* means *The Moment of Truth, Report of the National Commission on Fiscal Responsibility* (December 2010). The Commission, which was appointed by President Obama, was chaired by former Republican Senator, Alan Simpson of Wyoming and Democrat Erskine Bowles, former Chief of Staff to President Clinton.
- *Dictionary of Economics* means Jae K. Shim and Joel G. Siegel, *Dictionary of Economics* (1995).
- *Dodd-Frank Act* means the Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010).
- *Dodd-Frank Act Brief Summary* means U.S. Senate Banking Committee, *Brief Summary of the Dodd-Frank Wall Street Reform and Consumer Protection Act* (2010).

- *Economics of Money* 2004 means Frederic S. Mishkin, *The Economics of Money, Banking, and Financial Markets* (7th Ed. 2004).
- *Facebook Prospectus* means Final Facebook Prospectus, Filed with the Securities Exchange Commission on May 18, 2012.
- Fed, *2012 Family Finances Study* means Federal Reserve Board, *Changes in U.S. Family Finances from 2007 to 2010: Evidence from the Survey of Consumer Finances*, Federal Reserve Bulletin (June 2012).
- *Fed 2012 Monetary Report* means Board of Governors, Federal Reserve System, *Monetary Policy Report to the Congress*, Submitted pursuant to section 2B of the Federal Reserve Act (Feb. 29, 2012).
- *Fed 2016 Monetary Report* means Board of Governors, Federal Reserve System, *Monetary Policy Report to the Congress*, Submitted pursuant to section 2B of the Federal Reserve Act (Feb. 10, 2016).
- *Fed FAQs* means Federal Reserve Board, *FAQs*, at http://www.federalreserve.gov/faqs/about_12594.htm (May 13, 2012).
- Golub, *My Response to Buffett and Obama* means Harvey Golub, *My Response to Buffett and Obama*, Wall Street Journal (Aug. 22, 2011), at www.wsj.com.
- IMF, *2012 World Economic Outlook* means International Monetary Fund, World Economic Outlook (April 2012).
- *Immigration Study by the National Academy of Sciences* means National Academy of Sciences, *The Economic and Fiscal Consequences of Immigration* (Sept. 21, 2016).
- JCT, *2012 Tax Expenditure Report* means Congress's Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2011-2015* (Jan. 17, 2012).
- Krugman, *End this Depression Now* means Paul Krugman, *End this Depression Now!* (2012).
- Krugman and Wells, *Macroeconomics Third* means Paul Krugman and Robin Wells, *Macroeconomics* (3rd Ed. 2013).
- National Commission, *Financial Crisis Report* means National Commission, *The Financial Crisis* (January 2011).
- New York Times, *Obamacare Premium Increase is Fixable* means New York Time's Editorial Board, *Affordable Care Act Premium Increases Are a Fixable Problem*, (Oct. 25, 2016).
- *Obamacare* means the 2010 Health Care Legislation, which encompassed the Patient Protection and Affordable Care Act of 2010 (PPACA) as amended by the Health Care and Education Reconciliation Act of 2010 (HCERA), which made significant substantive changes to PPACA. PPACA was the original Senate Health Care Bill and HCERA reflects the House amendments to the Senate Bill.
- *Obama/Biden, Reelection Campaign* means Obama/Biden, Reelection Web site at http://www.barackobama.com/record/economy? (May 20, 2012).
- Obama, *October 2016 Remarks on Obamacare* means President Obama, *Remarks on the Affordable Care Act*, Miami Dade College (Oct. 20, 2016).
- *Obama Proposal* means Remarks of President Obama on Fiscal Policy, George Washington University (April 13, 2011).

- OECD, *2012 Economic Survey*, U.S. means OECD, Economic Surveys, United States, Overview (June 2012).
- OECD, *Revenue Statistics* means OECD, *Revenue Statistics* 1965-2014 (2015).
- *Perfectly Legal* means David Cay Johnston, *Perfectly Legal* (2003).
- President Obama, *October 2016 Remarks on Obamacare* means President Obama, *Remarks on the Affordable Care Act*, Miami Dade College (Oct. 20, 2016).
- *President's Framework for Business Tax Reform* means The White House and the Department of the Treasury, *The President's Framework for Business Tax Reform* (Feb. 2012).
- Romney, *Believe in America* means Romney, *Believe in America, Mitt Romney's Plan for Jobs and Economic Growth*, available on his campaign Web site, http://www.mittromney.com/jobs (April 6, 2012).
- *Ryan Proposal* means *The Path to Prosperity, Fiscal Year 2012 Budget Resolution*, House Committee on the Budget, Chairman Paul Ryan of Wisconsin (April 5, 2911). A similar document was published March 20, 2012, but the discussion here focuses on the April 5, 2011 document.
- Senate, *Financial Collapse Report* means U.S. Senate, Permanent Subcommittee on Investigations, *Wall Street and the Financial Crisis: Anatomy of a Financial Collapse* (April 13, 2011).
- *Taxing Ourselves* means Joel Slemrod and Jon Bakija, *Taxing Ourselves* (3rd Ed. 2004).
- *The Three Proposals* means the *Deficit Commission Proposal*, the *Ryan Proposal*, and the *Obama Proposal*.
- Thompson, *A Buffett Rule for Social Security and Medicare* means Samuel C. Thompson, Jr, *A Buffett Rule for Social Security and Medicare: Phasing Out Benefits For High Income Retirees*, 50 U. Louis. L. Rev. 603 (2012).
- Thompson, *An Imputation System for Taxing Foreign-Source Income* means Samuel C. Thompson, *An Imputation System for Taxing Foreign-Source Income*, Tax Notes 567 (Jan. 31, 2011).
- Thompson, *Beyond the Buffet Rule* means Samuel C. Thompson, Jr., *Beyond the "Buffett Rule" Making The Income Tax More Progressive*, 133 Tax Notes 705 (Nov. 7, 2011).
- Thompson, *Economics of the Antitrust Merger Guidelines* means Samuel C. Thompson, Jr., *Practitioner's Guide to the Economics of the Antitrust Merger Guidelines* (1997).
- Thompson, *Hooray for Trump's Proposal to End Deferral* means Samuel C. Thompson, Jr. *Hooray for Trump's Proposal to End Deferral*, 149 Tax Notes 157 (Oct. 5, 2015).
- Thompson, *Logic Says No to Options Y, Z, and C, but Yes to Imputation* means Samuel C. Thompson, Jr. *Logic Says No to Options Y, Z, and C, but Yes to Imputation*, Tax Notes 579 (May 5, 2014), p. 579 (2014 TNT 87-4).
- Thompson, *Mergers, Acquisitions, and Tender Offers* means Samuel C. Thompson, Jr., *Mergers, Acquisitions, and Tender Offers* (PLI, 2010, updated periodically).

- Thompson, *Statement on Imputation to Senate Finance Committee* means Samuel C. Thompson, Jr., *Statement for Inclusion in The Hearing Record of: Hearing on Tax Reform Options: International Issues Held September 8, 2011, Before U.S. Senate Finance Committee* (Sept. 18, 2011).
- Thompson, *Territoriality Would Make All U.S. Companies De Facto Inverters* means Samuel C. Thompson, *Territoriality Would Make All U.S. Companies De Facto Inverters*, 149 Tax Notes 1403 (Dec. 14, 2015).
- Treasury, *Green Book* means U.S. Treasury, *General Explanations of the Administration's Fiscal Year 2013 Revenue Proposals* (Feb. 2012).
- Trump/Pence, *Obamacare Repeal and Replacement Plan* means Mike Pence *Introduces Obamacare Repeal and Replacement Plan* (Nov. 1, 2016).
- U.S. Treasury, *Citizens Report on TARP* means U.S. Treasury, Citizen's Report on The Troubled Asset Relief Program for Fiscal Year 2011 (Feb. 15, 2012).
- U.S. Treasury, *Citizen's Report on TARP 2015* means U.S. Treasury, Citizen's Report on The Troubled Asset Relief Program for Fiscal Year 2015 (Nov. 23, 2015).
- Wessels, *Economics* 2006 means Walter J. Wessels, *Economics* (4th Ed 2006).