



Figure B
The Totem Pole Approach:
The Ranking of Three Economists (Smith, Keynes, and Marx)
According to Economic Freedom and Growth

Income of England (1100–1995)

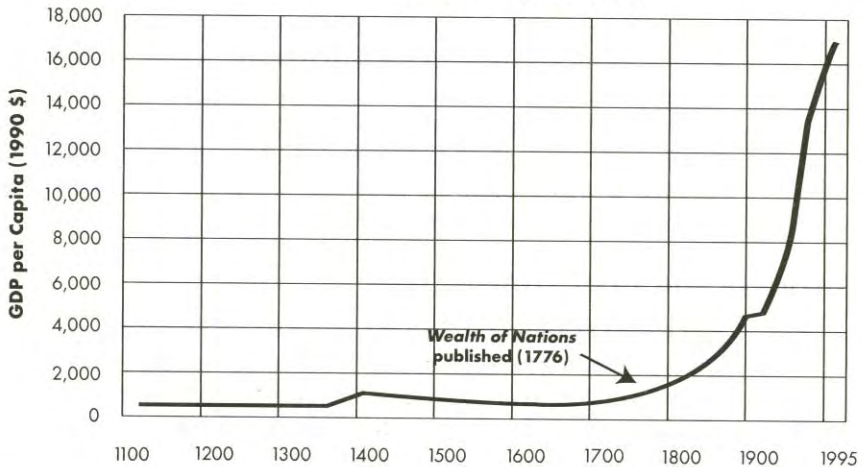


Figure 1.1

The Rise in Real Per Capita Income, United Kingdom, 1100–1995

Courtesy of Larry Wimmer, Brigham Young University.

UPDATE 1: FREE ECONOMIES ARE RICHER

Has economic freedom led to higher living standards? If Adam Smith were alive today, he would undoubtedly credit a free and democratic capitalism with the widespread increase in the standard of living. An exhaustive study by James Gwartney, Robert A. Lawson, and Walter Block (1996) and updated subsequently each year by Gwartney and Lawson (2007) appears to confirm this Smithian view that economic freedom and prosperity are closely related. They painstakingly constructed an index measuring the level of economic freedom for more than a hundred countries, based on five criteria (size of government, property rights and legal structure, sound money, trade, and regulations). Then they compared the level of economic freedom with their growth rates, based on per capita income in purchasing power parity terms. Their conclusion is documented in the remarkable graph in Figure 1.2.

According to this study, the greater the degree of freedom, the higher the standard of living, as measured by real per capita gross domestic product (GDP) in purchasing power parity terms.

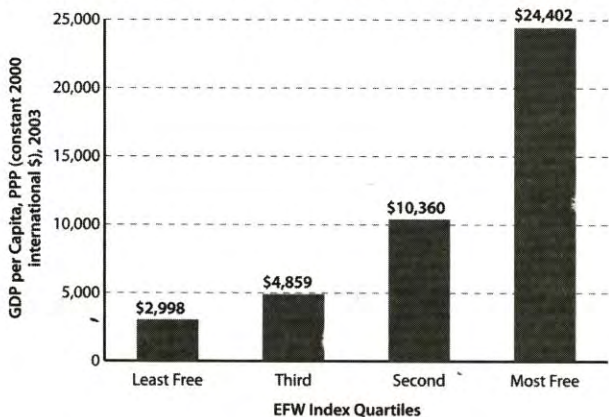
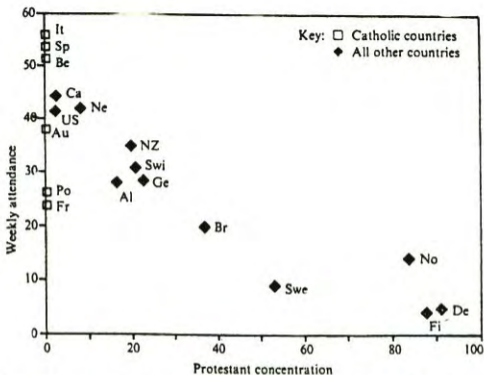


Figure 1.2

Relationship Between Economic Freedom and Per Capita GDP, 2005

Source: Gwartney and Lawson (2007). Courtesy of the Fraser Institute, Vancouver, B.C.



Notes: Al = Australia, Au = Austria, Be = Belgium, Br = Britain, Ca = Canada, De = Denmark, Fi = Finland, Fr = France, Ge = West Germany, It = Italy, Ne = Netherlands, NZ = New Zealand, No = Norway, Po = Portugal, Sp = Spain, Swe = Sweden, Swi = Switzerland, US = United States.

Figure 1.3

Church Attendance and Religious Concentration in Selected Countries

Sources: Iannaccone (1991: 157); West (1990: 161). Reprinted by permission of Sage Ltd.

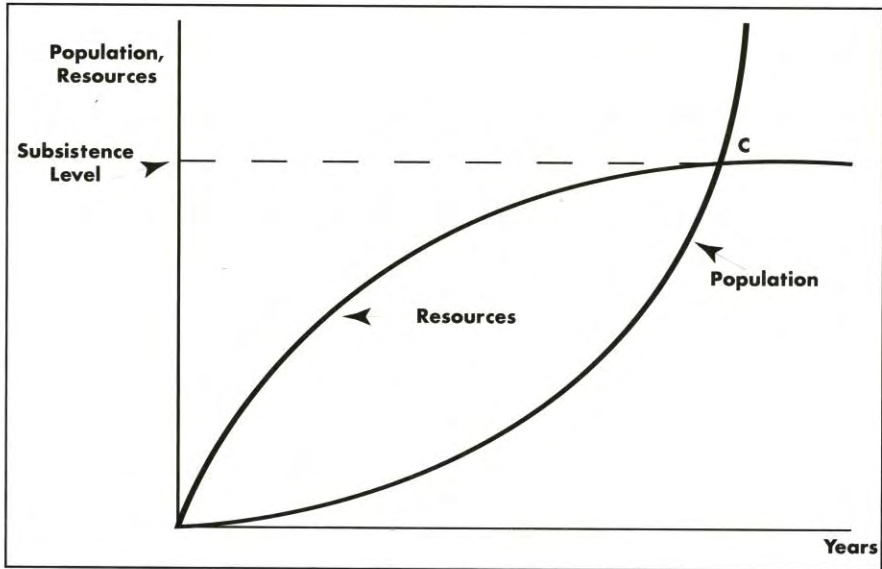


Figure 3.1
Growth of Population, Resources, and Subsistence

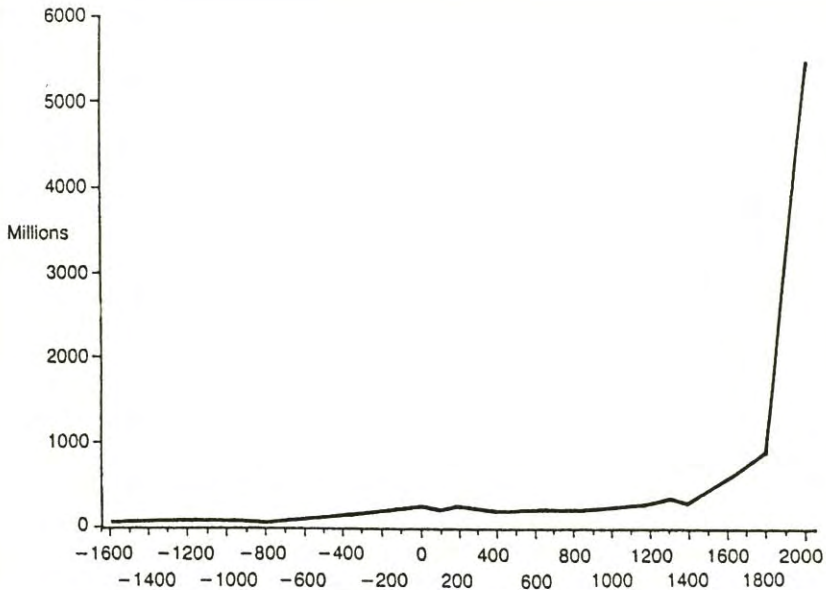


Figure 3.2

Estimated World Population, 1600 B.C. to A.D. 2000

Source: Simon (1995: 35). Reprinted by permission of Blackwell Publishers.

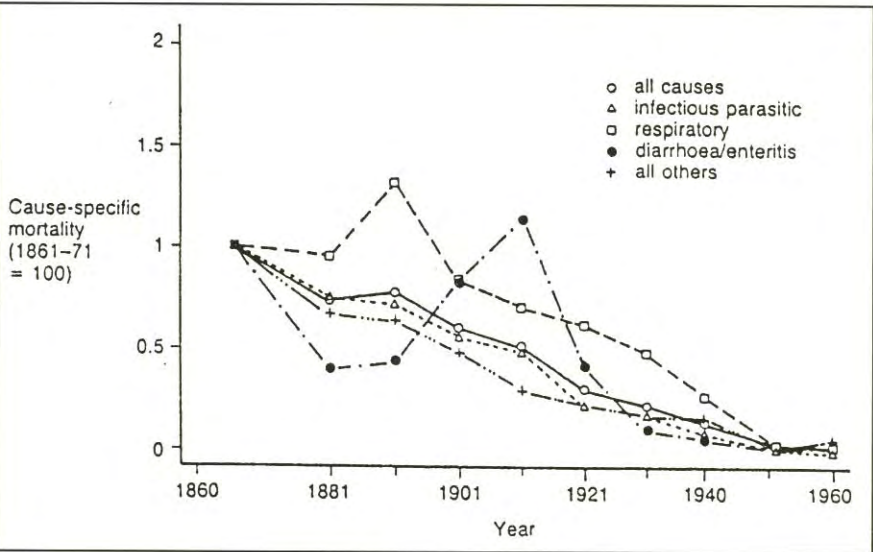


Figure 3.3

Falling Mortality Rates in Various Countries, 1860-1960

Source: Simon (1995: 43). Reprinted by permission of Blackwell Publishers.

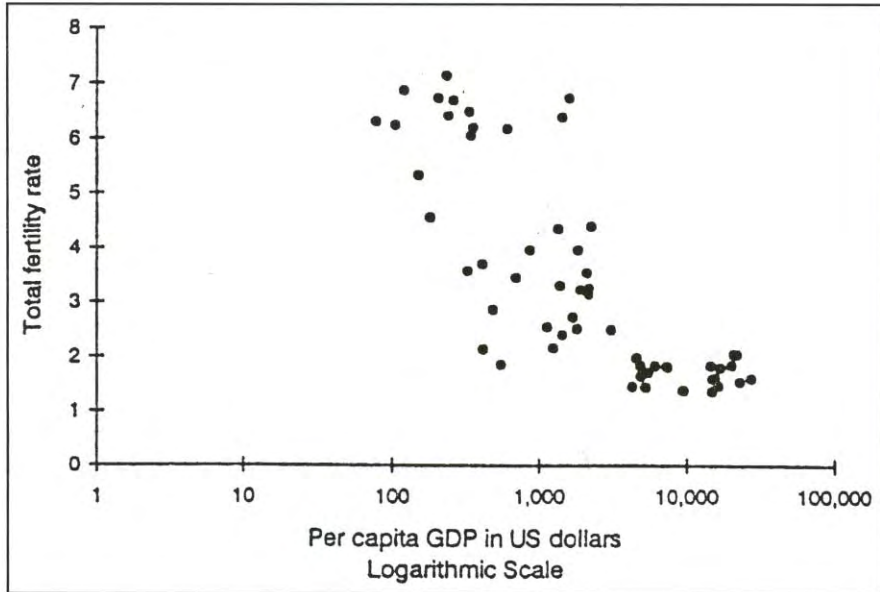


Figure 3.4

Per Capita Income and Birthrates for Selected Nations

Source: Simon (1996: 353). Reprinted by permission of Princeton University Press.

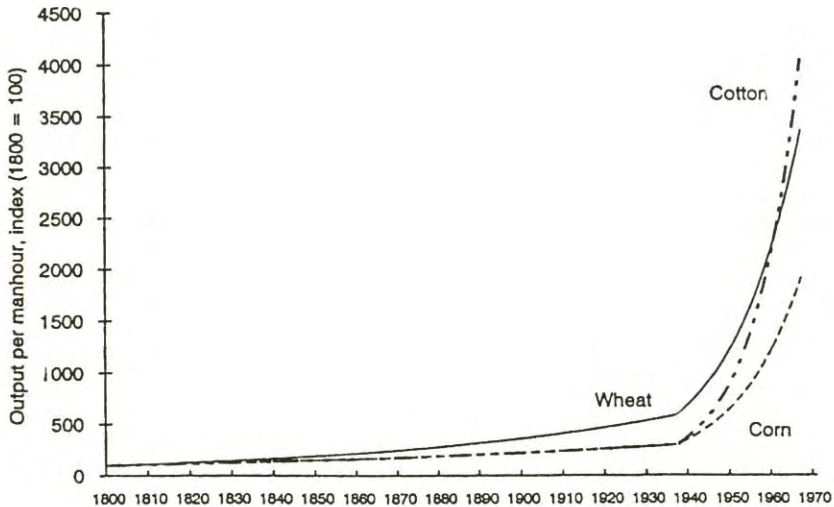
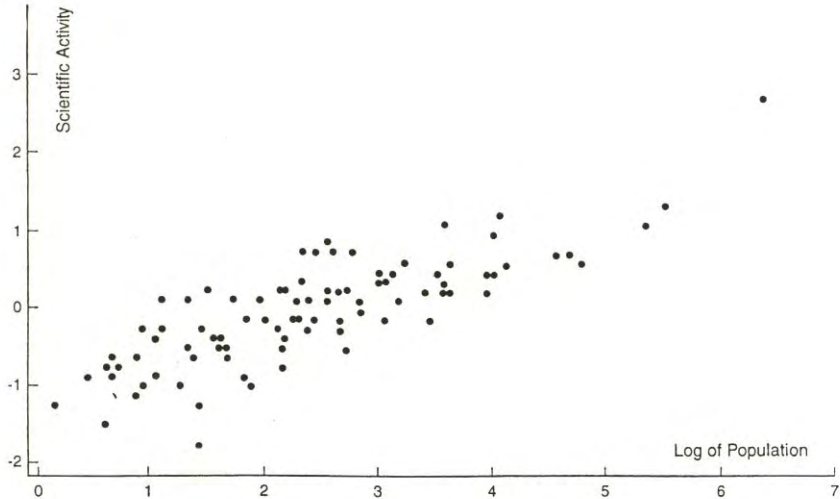


Figure 3.5

U.S. Farm Labor Productivity in Corn, Wheat, and Cotton, 1800–1967

Source: Simon (1995: 375). Reprinted by permission of Blackwell Publishers.



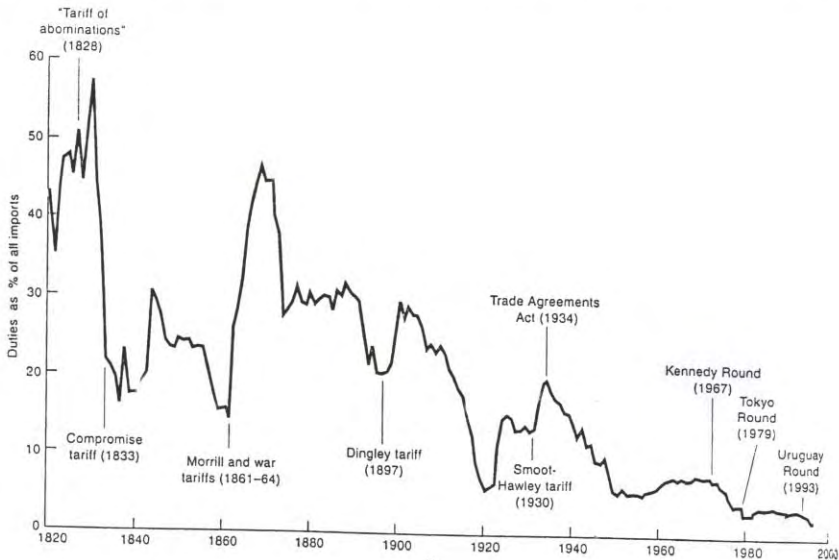
This diagram illustrates the close relationship between the total amount of scientific activity and the population of countries, after per capita income is allowed for in the 1970's. This fits with the idea that more people imply faster increases in technology and economic growth. Technically, this is a plot of log population versus the residuals of the model $\log(\text{authors in country}) = a + b \log(\text{per capita income})$.

Figure 3.6

Relationship of Scientific Activity to Population Size, After Per Capita Income Is Allowed, 1970s

Source: Simon (1996: 381). Reprinted by permission of Princeton University Press.

The chart in Figure 4.1 shows the history of duties in the United States since 1820:



Duties were high for most of our nation's history, but trade negotiations since the 1930s have lowered tariffs significantly.

Figure 4.1

**The Gradual Decline in U.S. Tariffs, 1820–2000:
Duties Calculated as a Percentage of Dutiable Imports**

Source: Samuelson (1998: 708). Reprinted by permission of McGraw-Hill.

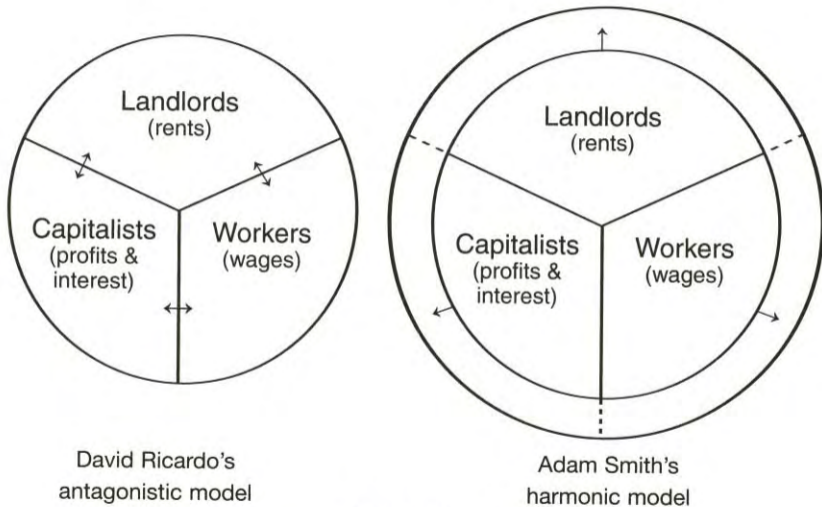
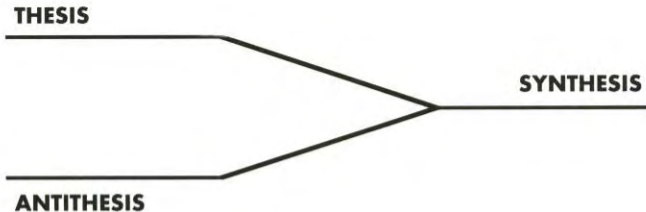


Figure 4.2
Two Models of the Economy



Figure 6.1

**A Phrenological Chart Shows the
Supposed Relation of Personal Abilities, Talents,
and Emotions to the Shape of the Head**



The Hegelian Dialectic

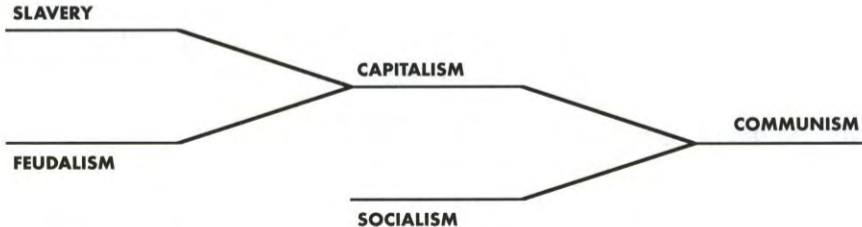
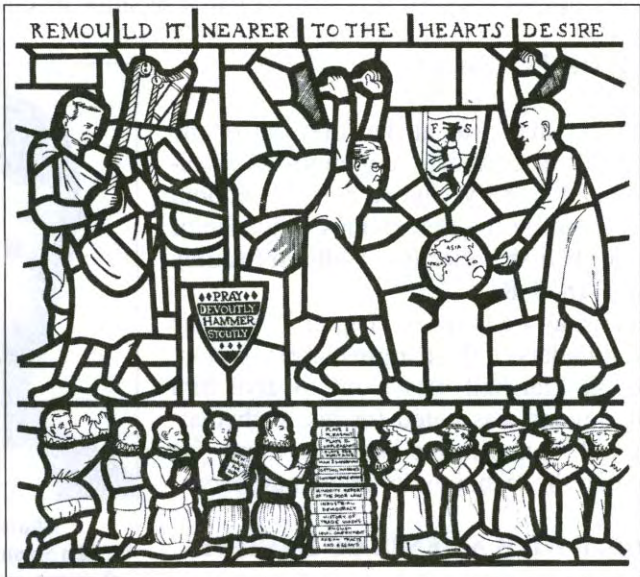


Figure 6.2

The Hegelian Dialectic Used to Describe the Course of History



The pen and ink rendering is from a photographic reproduction. Artist, William Discourt.

Figure 8.1
The Fabian Window

Source: Dobbs (1964). Courtesy of the Veritas Foundation.

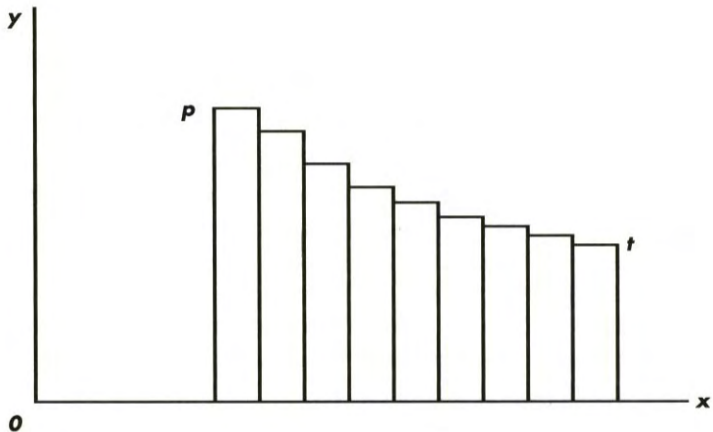


Figure 8.2

Jevons's Demonstration of the Law of Diminishing Marginal Utility

Source: Jevons (1965: 53).

To represent the equilibrium of demand and supply geometrically we may draw the demand and supply curves together as in Fig. 19. If then OR represents the rate at which production is being actually carried on, and Rd the demand price is greater than Rs the supply price, the production is exceptionally profitable, and will be increased. R , the amount-index, as we may call it, will move to the right. On the other hand, if Rd is less than Rs , R will move to the left. If Rd is equal to Rs , that is, if R is vertically under a point of intersection of the curves, demand and supply are in equilibrium

This may be taken as the typical diagram for stable equilibrium for a commodity that obeys the law of diminishing return. But if we had made SS' a horizontal straight line, we should have represented the case of "constant return," in which the supply price is the same for all amounts of the commodity. And if we had made SS' inclined negatively, but less steeply than DD' (the necessity for this condition will appear more fully later on), we should have got a case of stable equilibrium for a commodity which obeys the law of increasing return. In either case the above reasoning remains unchanged without the alteration of a word or a letter; but the last case introduces difficulties which we have arranged to postpone.

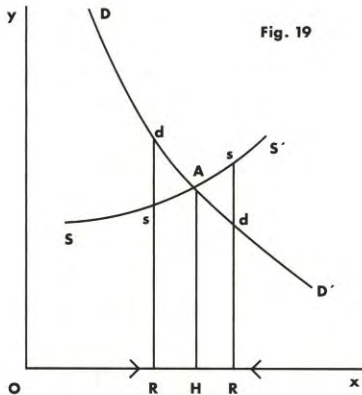


Fig. 19

Figure 8.3

Supply and Demand in Marshall's Principles of Economics

Source: Marshall (1920: 346).

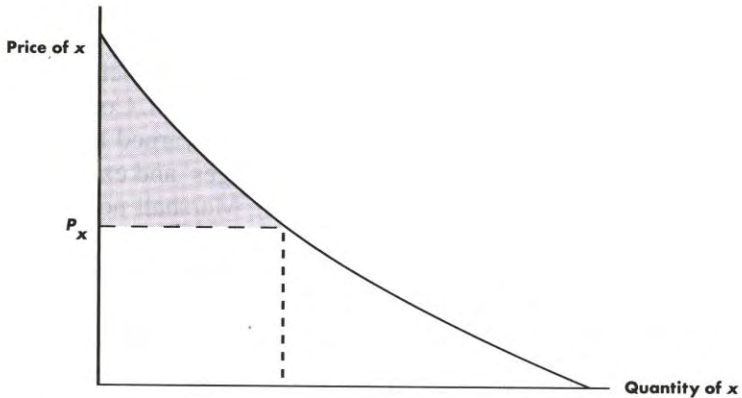
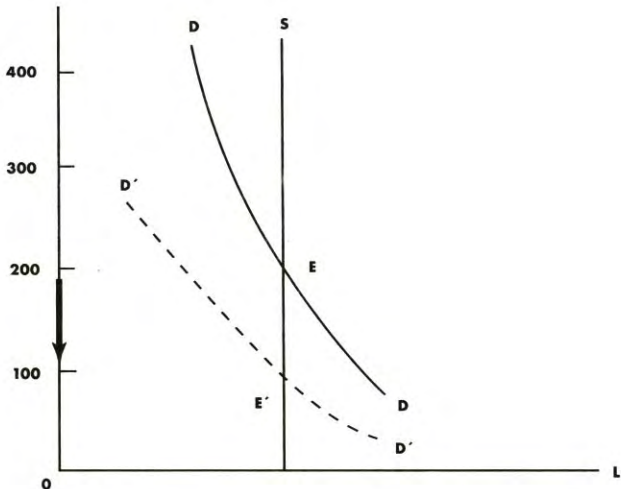


Figure 8.4
Marshall's Consumer's Surplus Concept



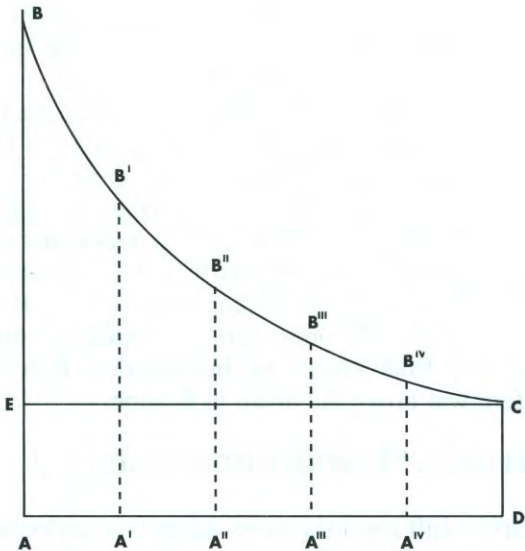
Tax on Fixed Land Is Shifted Back to Landowners, with Government Skimming Off Pure Economic Rent.

A tax on fixed land leaves prices paid by users unchanged at E but reduces rent retained by landowners to E' . What can the landowners do but accept a lower return? This provides the rationale for Henry George's single-tax movement, which aimed to capture for society the increased land values that result from urbanization.

Figure 9.1

Samuelson's Defense of Henry George's Land Tax

Source: Samuelson and Nordhaus (1998: 250). Reprinted by permission of McGraw-Hill.



The average wage level (DC) is determined by the marginal product (AB). The firm keeps adding workers until the marginal product equals the wage.

Figure 9.2
Clark's Marginal Theory of Wages

Source: Clark (1965: 198).

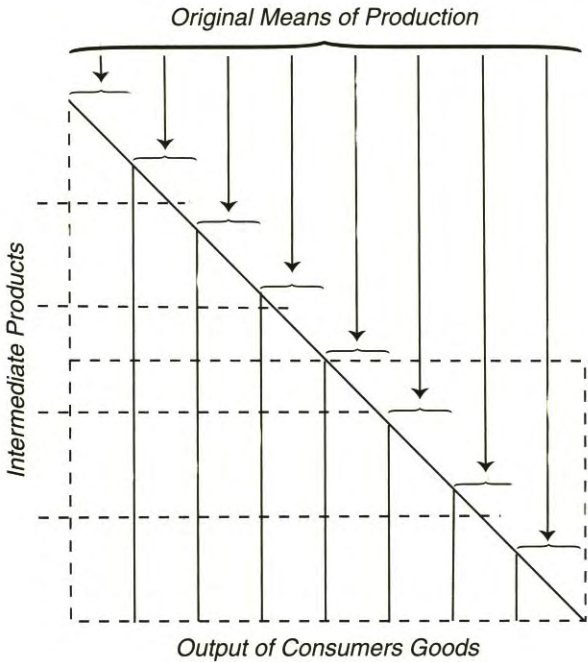


Figure 12.1

Hayek's Triangle—A Time-Structural Model of the Economy

Source: Hayek (1935: 39).

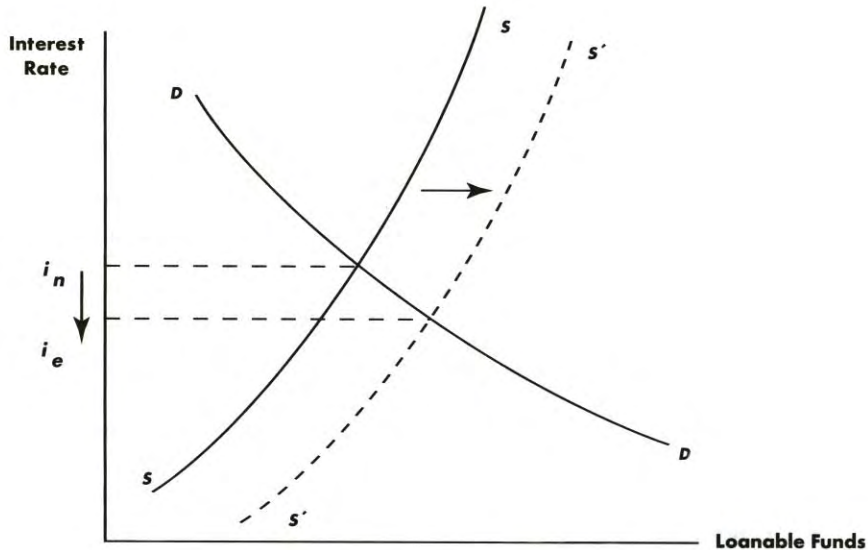


Figure 12.2
Conditions Under Which the Government Pushes
the Market Rate Below the Natural Rate of Interest

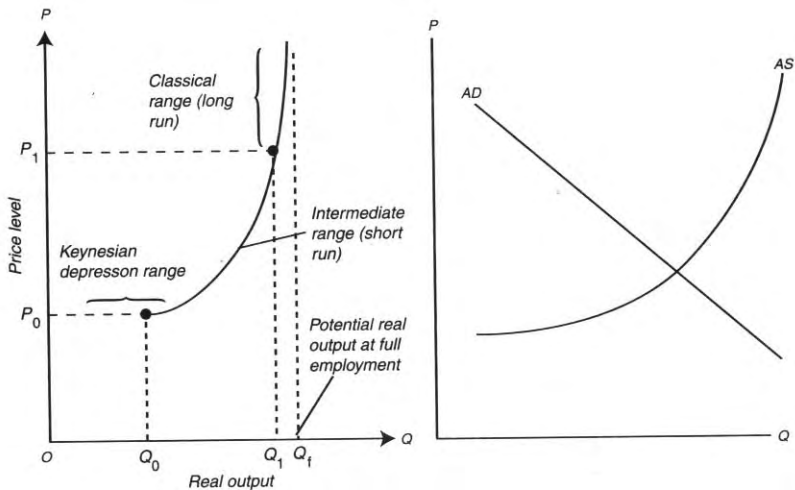


Figure 13.1 An Illustration of Keynes's Theory of Unemployed Equilibrium: General and Classical Models

Source: Byrns and Stone (1987: 311). Reprinted by permission of Scott, Foresman and Co.

HOW SAVING AND INVESTMENT DETERMINE INCOME

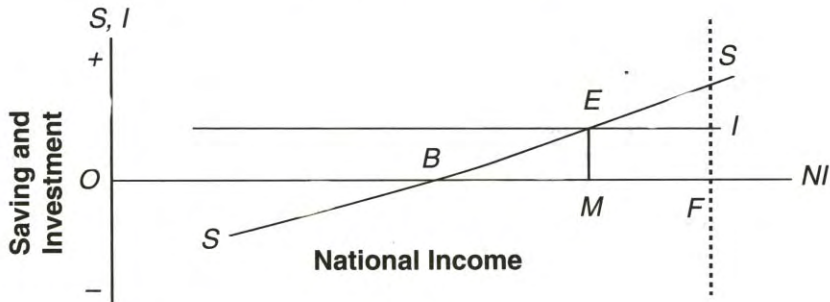


Figure 14.1

**The Keynesian Cross of National Income Determination:
How Saving and Investment Determine Income**

Source: Samuelson (1948: 259). Reprinted by permission of McGraw-Hill.

Saving and Investment Diagram Shows How Thriftiness Can Kill Off Income

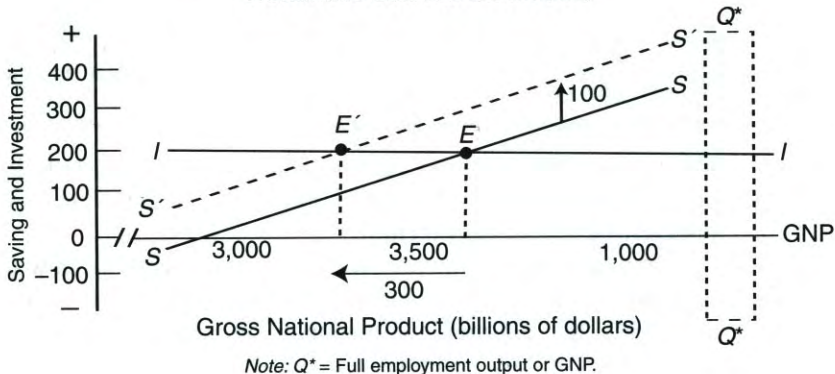
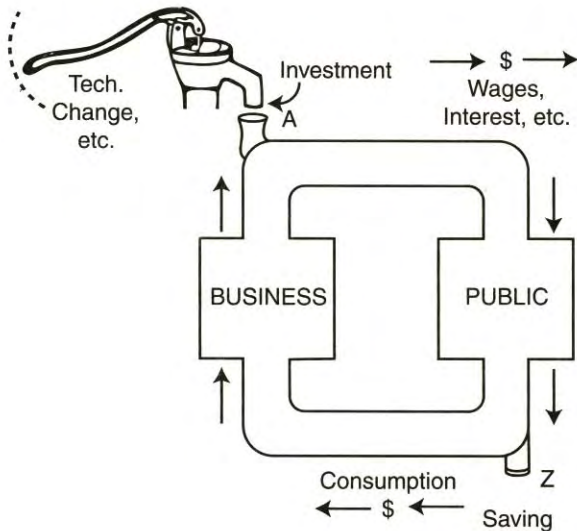


Figure 14.2

Samuelson's "Paradox of Thrift"

Source: Samuelson and Nordhaus (1989: 184). Reprinted by permission of McGraw-Hill.



Technological change, population growth, and other dynamic factors keep the investment pump handle going. Income rises and falls with changes in investment, its equilibrium level, at any time, being realized only when intended saving at Z matches intended investment at A.

Figure 14.3

Saving Leaks Out of the System While the Hydraulic Investment Press Pumps Up the Economy

Source: Samuelson (1948: 264). Reprinted by permission of McGraw-Hill.

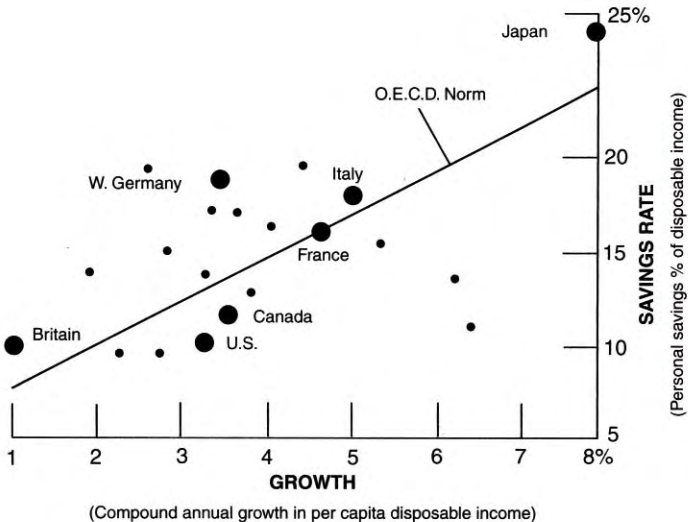


Figure 14.4

**Saving and Growth Go Hand in Hand:
Growth Rates and Saving Rates in Select Countries**

Source: Modigliani (1986: 303). Reprinted by permission of the Nobel Foundation.

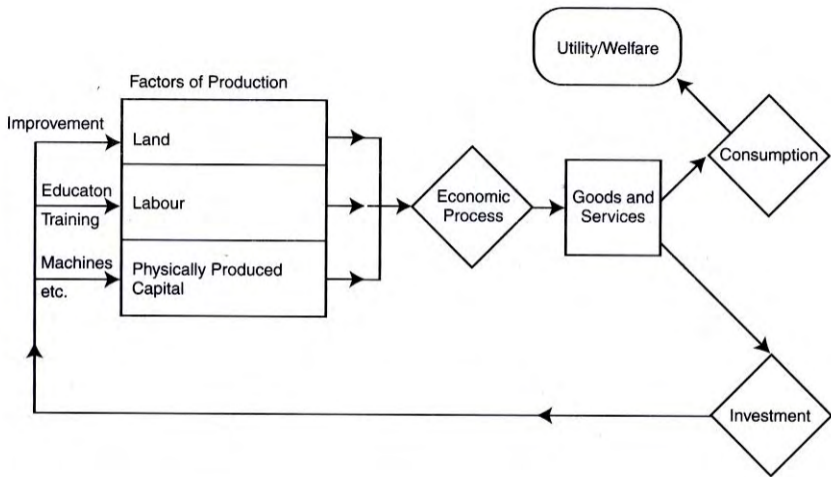


Figure 14.5

How Saving Is Invested into the Economic System

Source: Ekins and Max-Neef (1992: 148). Reprinted by permission of Routledge.

Solow growth model diagram

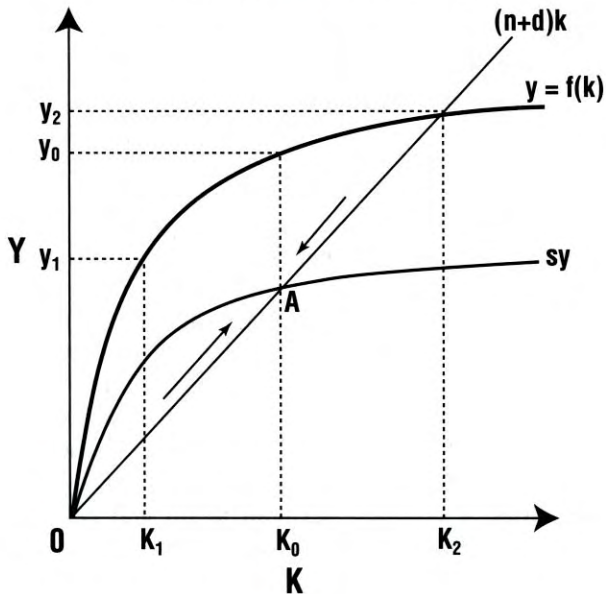


Figure 14.6

Increased Saving Has Diminishing Returns on National Output

TRADE-OFF BETWEEN INFLATION AND FULL EMPLOYMENT

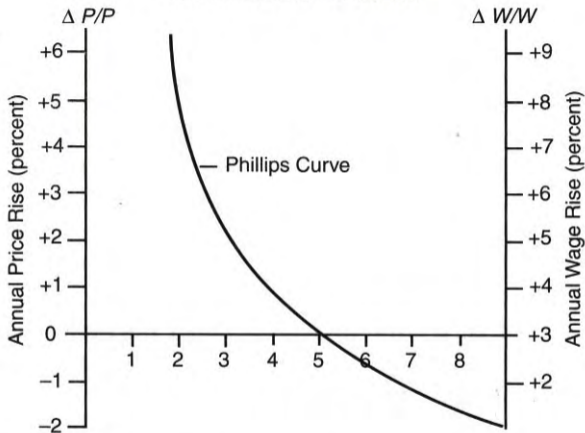
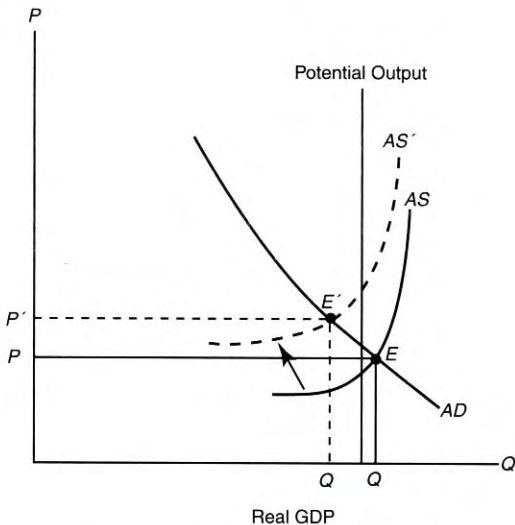


Figure 14.7

The Phillips Curve: Trade-Off Between Inflation and Full Employment

Source: Samuelson (1970: 810). Reprinted by permission of McGraw-Hill.



Real GDP

Sharply higher oil, commodity, or labor costs increase the costs of doing business. This leads to stagflation—stagnation combined with inflation. In the AS-AD framework, the higher costs shift the AS curve up from AS to AS' , and the equilibrium shifts from E to E' . Output declines from Q to Q' , while prices rise. The economy thus suffers a double whammy—lower output and higher prices.

Figure 14.8

Effects of Supply Shocks—Aggregate Supply Shifts Backward, Raising Prices and Cutting Output, Characteristics of an Inflationary Recession

Source: Samuelson (1998: 385). Reprinted by permission of McGraw-Hill.



Photograph 15.2

Milton Friedman (1912–2006)

**“He is the greatest stand-up
debater in the
economics profession.”**

Courtesy of Milton Friedman.

But then again the graphologist said my handwriting demonstrated a “good teacher and lecturer,” an “original” thinker, and a person “sensitive to the feeling of others.” Hey, maybe Friedman is onto something.

Notably, in an age of typewriters and personal computers, Friedman wrote all his articles and books by hand until he was in his eighties. His papers could keep graphologists busy for decades. Write on, Mr. Friedman!

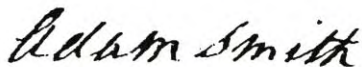
A handwritten signature in cursive script that reads "Adam Smith". The letters are connected and fluid, with a prominent 'A' and 'S'.A handwritten signature in cursive script that reads "K. Marx". The letters are more compact and less connected than the previous signature.A handwritten signature in cursive script that reads "J.M. Keynes". The signature is quite stylized and somewhat difficult to read due to the cursive.A handwritten signature in cursive script that reads "Milton Friedman". The signature is very fluid and elegant, with a long, sweeping tail on the 'n'.

Figure 15.1

Four Famous Economists' Signatures: Can You Tell Which One Is the Pessimist?

THE GREAT CONTRACTION
The Stock of Money and Its Proximate Determinants, Monthly,
1929–March 1933

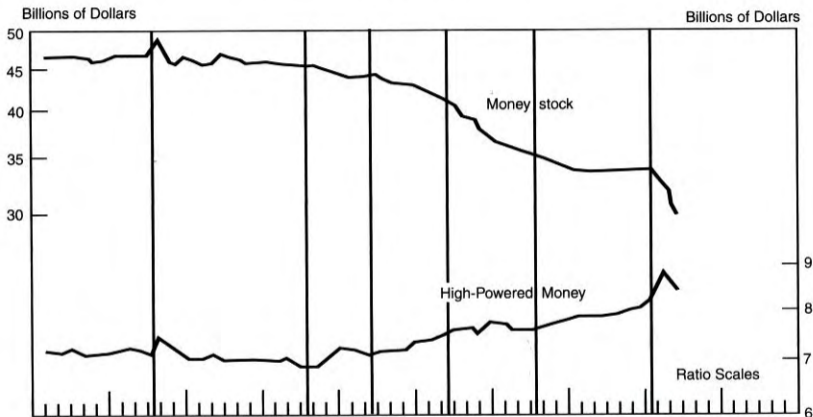


Figure 15.2

The Dramatic Decline in the Money Stock, 1929–33

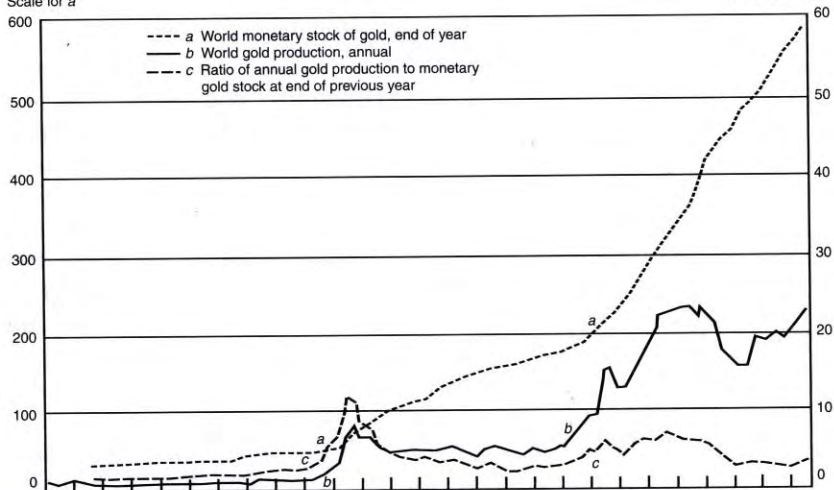
“The stock of money fell by over a third.”

(Friedman and Schwartz 1963: 333). Reprinted by permission of Princeton University Press.

World Gold Stock and Gold Production, 1800–1932

Scale for *a*

Scale for *b* and *c*



Note: Unit for gold stock and for production is million fine ounces: for the ratio of production to stock, 1 percent.

Figure 15.3

The Gradual Increase in Monetary Metal Under a Gold Standard, 1800–1932

Note that line *a*, representing the world gold stock, never declines.

Source: Tucker (1934: 12).

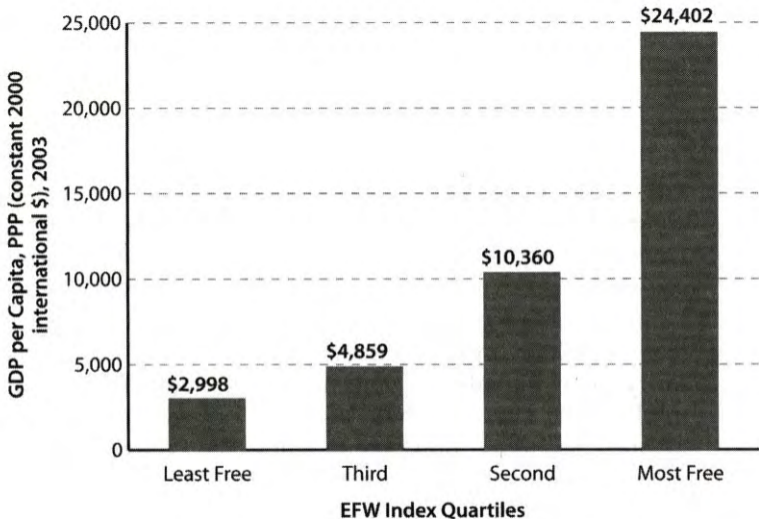


Figure 16.1

Positive Correlation Between Economic Freedom and Per Capita Income, 2005

Source: Gwartney and Lawson (2007). Reprinted by permission of the Fraser Institute.

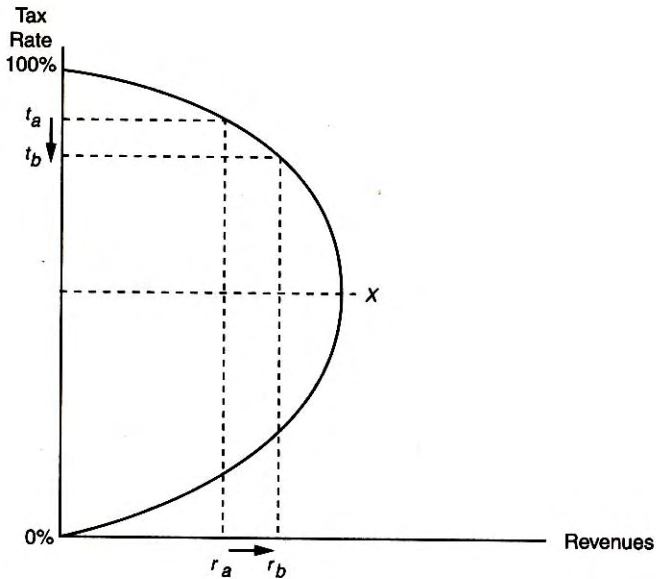


Figure 17.1
Laffer Curve

A tax cut can increase tax revenues.

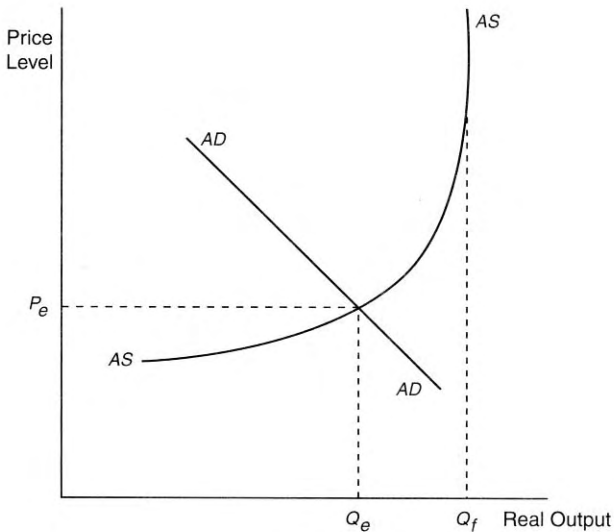


Figure 17.2

Aggregate Supply (AS) and Demand (AD) at Less Than Full Employment

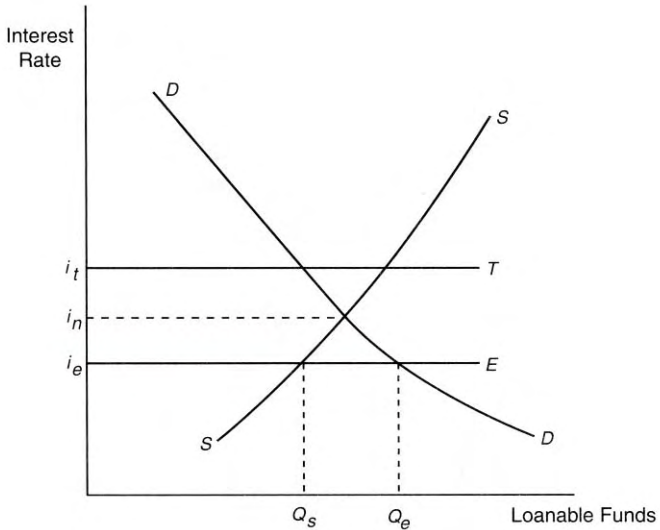


Figure 17.3
Wicksell's Natural Interest Rate Model

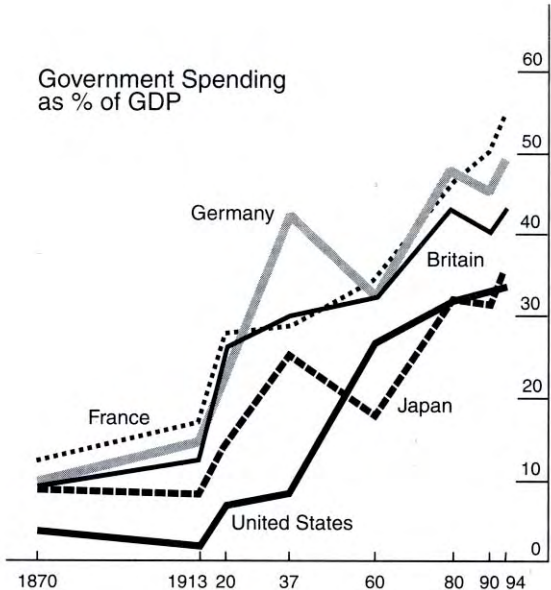


Figure 17.4

The Growth of Government in Five Industrial Nations

Source: *Economist* (April 6, 1996). Reprinted by permission.