### I. ECONOMIC GROWTH

### **Contents**

Overheads Discussion Questions

"An Economic '800-Pound Gorilla'", Los Angeles Times, August 30, 1996
Barro, "Eastern Germany's Long Haul", The Wall Street Journal, May 3, 1991
Krugman, "The Myth of Asia's Miracle", Foreign Affairs, November/December 1994
"Where Hong Kong Has the Edge", The Economist, August 22, 1992
"Is the Vaunted 'Asian Miracle' Really Just an Illusion?", The Associated Press, October 20, 1995
"When Nations Play Leapfrog", The Economist, October 16, 1993
"Economic Growth: The Poor and the Rich", The Economist, May 25, 1996
Feldstein, "Why Capital Gains Taxes Are Unfair", The Wall Street Journal, November 21, 1994
"Whatever Happened to That Rainy Day?", The Economist, January 21, 1995
Ayittey, "How Africa Ruined Itself", The Wall Street Journal, December 9, 1992

This module deals with one of the most important questions in macroeconomics – what determines the long-run rate of growth of the economy.

Mankiw begins by presenting the standard neoclassical growth model with a constant population and technology. A major implication of this model is that an economy cannot grow forever simply by accumulating more capital. The model leads to another important prediction called <u>convergence</u>. The convergence hypothesis states that all countries with similar economic institutions, similar saving rates, and similar production technology will converge over time to the same level of per capita output, regardless of the level of income from which they start.

Mankiw then adds population growth to the model. He makes clear two important predictions of the standard growth model. One prediction is that, other things equal, a country will have a lower standard of living the higher its population growth rate. The second prediction (which also applies to an economy with a stable or declining population) is that a country will have a higher standard of living, although not a higher growth rate, the higher its saving rate.

The last piece of the standard growth model adds exogenous technical progress. This is the only factor that can generate continued growth in the standard of living.

We conclude this module by briefly considering some material that goes beyond the standard growth model. This material includes endogenous technical progress and evidence that the convergence hypothesis does not hold for all countries.

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#### **II. MONEY, INFLATION, AND INTEREST RATES**

#### **Contents**

Overheads Discussion Questions

- "Chinese Inflation Rate Still Tops 20%, Keeping Pressure on Nation's Leaders", *The Wall Street Journal*, September 8, 1994
- "Special, Today Only: Six Million Dinars For a Snickers Bar", *The Wall Street Journal*, August 4, 1993
- "Moscow Puts Moderate in Charge of Finances: Ruble Off Sharply As Banks Cut Losses", *The Wall Street Journal*, September 16, 1998
- "Of Beef, Bushels and Bonds", The Economist, May 25, 1996
- Dueker, "When Are Low-Inflation Policies Credible?", Federal Reserve Bank of St. Louis *Monetary Trends*, January 1996
- "Disney Amazes Investors With Sale of 100-Year Bonds", The Wall Street Journal, July 21, 1993

This module adds a monetary sector to the real economy we have studied up to this point. We will consider several important features of a monetary economies, but some of this material is best left until later in the course. This module begins with a simple analysis of the long-run consequences of ongoing money growth. It shows how money growth affects the rate of inflation and how inflation affects interest rates.

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# **III. BUSINESS CYCLES**

### **Contents**

Overheads Discussion Questions

Notes on a Simple Keynesian Model Notes on Investment Notes on the Government Sector

"Taking the Business Cycle's Pulse", *The Economist*, October 28, 1995
"Recycling Old Myths", *The Economist*, October 28, 1995
"Japan's Inconspicuous Consumption", *The Economist*, April 18, 1998
Bartlett, "If It Ain't Broke, Don't Fix It", *The Wall Street Journal*, December 2, 1992
"Broad Stock Sell-Off Signals Change in Market: Cyclical Issues Take Command", *The Wall Street Journal*, August 18, 1997
"How Much Should Capital Cost?", *The Economist*, September 21, 1991

Modules 1 and 2 dealt with the long-run behavior of the economy. The first module dealt with the real sector of the economy and the second with the monetary sector. We now turn to the short-run behavior of the economy, starting as before with the real sector. We present the standard real business cycle (RBC) model that deals with the nonmonetary aspects of business cycles. The study of RBC models is motivated not by the view that monetary factors are unimportant, but rather by the belief that understanding simple nonmonetary economies is necessary before proceeding to more complicated monetary models (which we will do in Module 4).

This module examines in detail one of the household's major economic decision – the choice about how much of its income to devote to current consumption and how much to save. Consumption is the largest component of GDP. After dealing with consumption, we take up the investment decision made by firms. We also study unemployment and the effectiveness of government fiscal policy in counteracting business cycles.

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# **IV. MONETARY POLICY**

### **Contents**

Overheads Discussion Questions

Notes on the Effects of Money on Interest Rates

"Schools Brief: Paradigm Lost", *The Economist*, November 3, 1990
"Schools Brief: A Cruise Around the Phillips Curve", *The Economist*, February 19, 1994
"Schools Brief: Rules v. Discretion", *The Economist*, March 2, 1991
"Fed Cuts Short-Term Rates by 0.25 Point", *The Wall Street Journal*, September 30, 1998
"Dow Industrials Jump 380.53 to 8020.78: Point Gain Sets Record; Joy Is Muted", *The Wall Street Journal*, September 9, 1998
Thornton, "Does The Fed Influence Interest Rates?", Federal Reserve Bank of St. Louis *Monetary Trends*, January 1995
Barro, "What the Fed Can't Do", *The Wall Street Journal*, August 19, 1994
Barro, "Keep Political Hands Off the Fed", *The Wall Street Journal*, August 26, 1992
"Admiring Those Shapely Curves", *The Economist*, April 4, 1998

This module continues the study of the long-run behavior of the economy, turning now to the monetary sector. It gives particular attention to the central bank's conduct of monetary policy and the effects of monetary policy on the real economy.

The module begins with an examination of the Federal Reserve system, financial intermediation, and the money supply process. The primary analytical material is a portion of chapter 18 of Mankiw.

The module then examines the short-run effects of monetary policy on the economy. An important feature of the monetary sector studied up to this point is that money is *neutral*. The real sector of the economy affects the monetary sector, but not vice versa. This feature of the economy is called the *classical dichotomy*. The classical dichotomy is a good characterization of the long-run behavior of the economy.

Most economists believe that the classical dichotomy between the monetary and real sectors holds only in the long run but breaks down in the short run. We now break the classical dichotomy and study how money affects real variables in the short run, beginning with the simplest case of a closed economy. The main analytical readings for this class are three "Schools Briefs" from *The Economist*. The central result is that an unexpected increase in the money supply (or in its growth rate) results in a temporary increase in real output and a temporary decline in unemployment. In the long run, however, a change in the money supply is fully perceived

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and ceases to have any real effects on the economy.

Economists have not yet come up with a single, fully satisfactory model that reconciles the short-run non-neutrality of money with long-run neutrality. The "Schools Briefs" articles describe several alternative theories. Chapter 11 of Mankiw, which is optional, describes four alternative models in more detail. The truth may consist of some combination of these theories and possibly of others that we have not yet thought of.

Some of the theories described in the "Schools Briefs" imply that business cycles are a natural, efficient, and optimal result of the workings of a market economy, and that government should not try to eliminate cycles or reduce their magnitude. Other models imply that business cycles lead to inefficiently low output and employment during recessions. If government were wise and skillful enough, it could and presumably should pursue countercyclical macroeconomic policies to reduce the cost of recessions. There is serious dispute about whether government is skillful enough to pursue these policies effectively, however. This is the question of rules versus discretion. Chapter 12 of Mankiw, which is also optional, deals with this debate in more detail.

# V. THE GOVERNMENT BUDGET

### **Contents**

Overheads Discussion Questions

"Russia Faces Pressure to Push New Fiscal Plan", *The Wall Street Journal*", June 1, 1998
"Pensions in Chile Pay Off Handsomely", *Los Angeles Times*, September 28, 1993
Becker and Ehrlich, "Social Security: Foreign Lessons", *The Wall Street Journal*, March 30, 1994
"The Outlook: As Populations Age, Fiscal Woes Deepen", *The Wall Street Journal*, September 11, 1995
Feldstein and Feldstein, "Social Security Has Been a So-So Deal", *Los Angeles Times*, January 7, 1997
Kotlikoff and Sachs, "Fix Social Security for Good", *Los Angeles Times*, April 5, 1998

Government budget deficits and the resulting public debt are the subjects of hot debate among macroeconomists, government policy makers, and many in the business community. Mankiw's chapter 16 discusses these issues in detail. The additional readings by Barro and Summers provide a concise summary of the controversy over whether deficits adversely affect the economy and apply the competing views to an analysis of the large U.S. government budget deficits of the early 1980s.

Finally, we devote some class time to a discussion of public pension systems, which are becoming an increasingly important political issue. As we shall see, public pensions are analytically similar to national debt and may have important macroeconomic effects.

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