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Debates in Macroeconomics: Monetarism, New Classical Theory, and Supply-Side Economics

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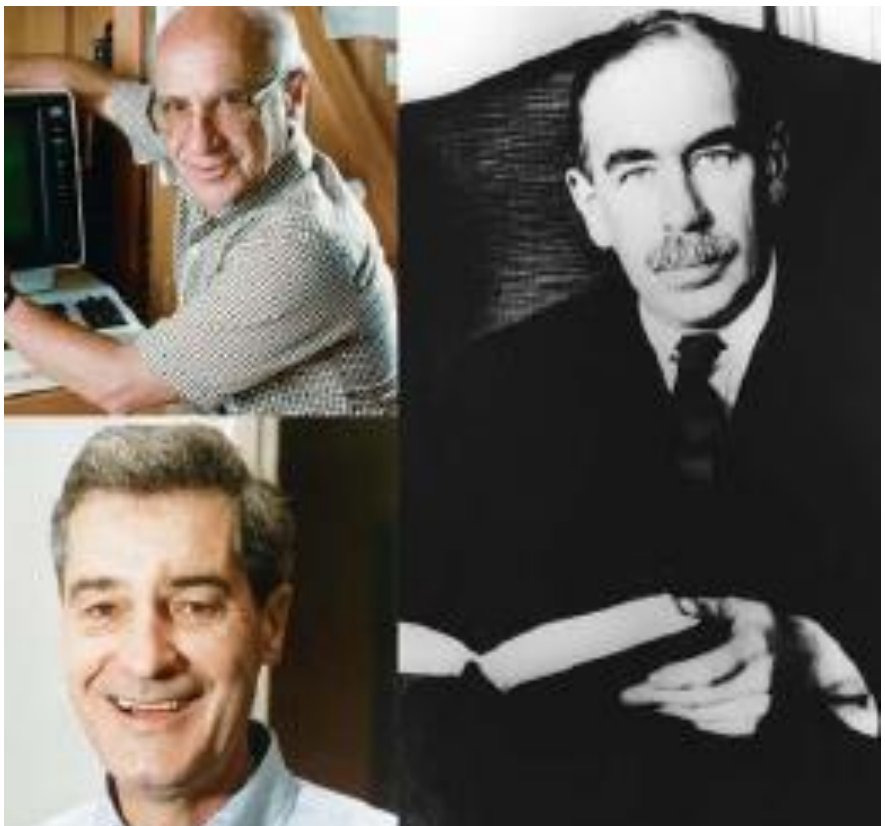

Chapter Outline

Keynesian Economics

Monetarism
The Velocity of Money
The Quantity Theory of Money
Inflation as a Purely Monetary Phenomenon
The Keynesian/Monetarist Debate

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The Development of New Classical Macroeconomics
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Real Business Cycle Theory

Supply-Side Economics
Evaluating Supply-Side Economics

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KEYNESIAN ECONOMICS

In a broad sense, Keynesian economics is the foundation of modern macroeconomics.

In a narrower sense, Keynesian refers to economists who advocate active government intervention in the economy.

Two major schools decidedly against government intervention developed: monetarism and new classical economics.

MONETARISM

The main message of monetarists is that money matters.

Monetarism, however, is usually considered to go beyond the notion that money matters.

MONETARISM

THE VELOCITY OF MONEY

velocity of money The number of times a dollar bill changes hands, on average, during a year; the ratio of nominal GDP to the stock of money.

The income velocity of money (*V*) is the ratio of nominal GDP to the stock of money (*M*):

$$V \equiv \frac{GDP}{M}$$

MONETARISM

We can expand this definition slightly by noting that nominal income (*GDP*) is equal to real output (income) (*Y*) times the overall price level (*P*):

$$GDP \equiv P \times Y$$

Through substitution:

$$V \equiv \frac{P \times Y}{M}$$

or

$$M \times V \equiv P \times Y$$

MONETARISM

quantity theory of money The theory based on the identity $M \times V \equiv P \times Y$ and the assumption that the velocity of money (V) is constant (or virtually constant).

MONETARISM

THE QUANTITY THEORY OF MONEY

The key assumption of the quantity theory of money is that the velocity of money is constant (or virtually constant) over time. If we let $\overline{V}$ denote the constant value of *V*, the equation for the quantity theory can be written:

$$M \times \overline{V} = P \times Y$$

MONETARISM

Testing the Quantity Theory of Money

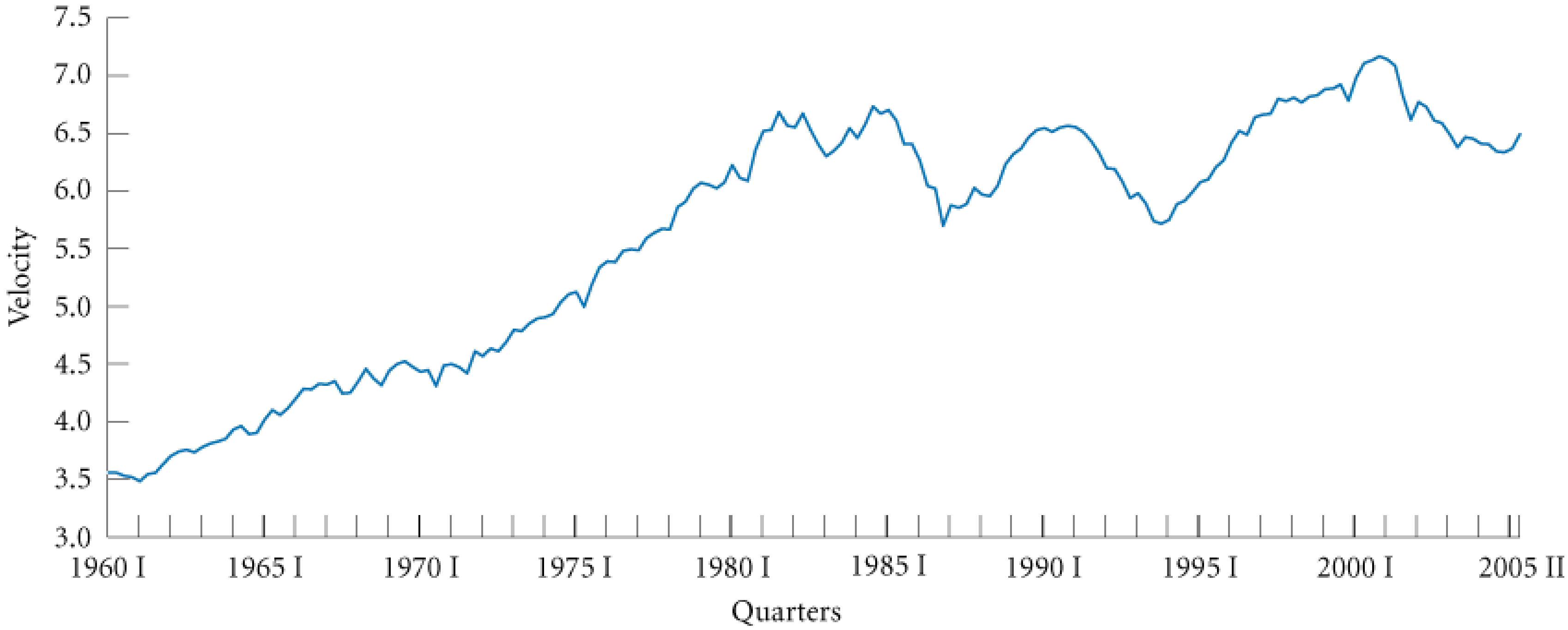


FIGURE 19.1 **The Velocity of Money, 1960 I–2005 II**

MONETARISM

INFLATION AS A PURELY MONETARY PHENOMENON

Inflation is always a monetary phenomenon. If the money supply does not change, the price level will not change.

The view that changes in the money supply affect only the price level, without a change in the level of output, is called the “strict monetarist” view.

Almost all economists agree that *sustained* inflation is purely a monetary phenomenon.

Inflation cannot continue indefinitely without increases in the money supply.

MONETARISM

THE KEYNESIAN/MONETARIST DEBATE

Milton Friedman has been the leading spokesman for monetarism over the last few decades.

Most monetarists do not advocate an activist monetary policy stabilization.

Monetarists advocate a policy of steady and slow money growth, at a rate equal to the average growth of real output (*Y*).

Keynesianism and monetarism are at odds with each other.

NEW CLASSICAL MACROECONOMICS

The challenge to Keynesian and related theories has come from a school sometimes referred to as the *new classical macroeconomics*. Like *monetarism* and *Keynesianism*, this term is vague. No two new classical macroeconomists think exactly alike, and no single model completely represents this school.

NEW CLASSICAL MACROECONOMICS

THE DEVELOPMENT OF NEW CLASSICAL MACROECONOMICS

On the theoretical level, new classical macroeconomists argue that traditional models have assumed that expectations are formed in naive ways.

Naive expectations are inconsistent with the assumptions of microeconomics. If people are out to maximize utility and profits, they should form their expectations in a smarter way.

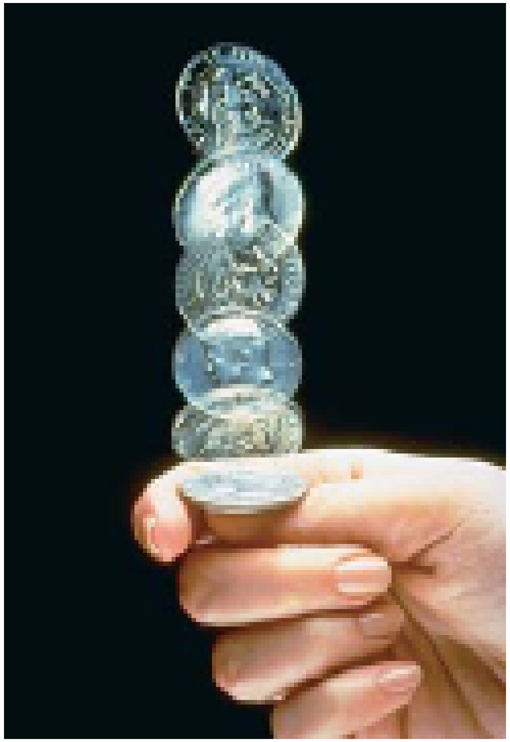
New classical theories were an attempt to explain the apparent breakdown in the 1970s of the simple inflation-unemployment trade-off predicted by the Phillips Curve.

NEW CLASSICAL MACROECONOMICS

RATIONAL EXPECTATIONS

rational-expectations hypothesis The hypothesis that people know the “true model” of the economy and that they use this model to form their expectations of the future.

NEW CLASSICAL MACROECONOMICS



Even though uncertainty exists, if you know the “model” generating the uncertainty, it is possible to have expectations about the future that are “on average” correct. You do not know whether a random coin toss will come up heads or tails. You do know that if you toss a fair coin 100 times, it will come up heads about 50 times.

NEW CLASSICAL MACROECONOMICS

Rational Expectations and Market Clearing

If firms have rational expectations and if they set prices and wages on this basis, then, on average, prices and wages will be set at levels that ensure equilibrium in the goods and labor markets.

NEW CLASSICAL MACROECONOMICS

The Lucas Supply Function

Lucas supply function The supply function embodies the idea that output (*Y*) depends on the difference between the actual price level and the expected price level.

$$Y = f(P - P^e)$$

price surprise Actual price level minus expected price level.

NEW CLASSICAL MACROECONOMICS

Policy Implications of the Lucas Supply Function

Rational-expectations theory combined with the Lucas supply function proposes a very small role for government policy in the economy.

NEW CLASSICAL MACROECONOMICS

EVALUATING RATIONAL-EXPECTATIONS THEORY

If expectations are not rational, there are likely to be unexploited profit opportunities—most economists believe such opportunities are rare and short-lived.

The argument against rational expectations is that it required households and firms to know too much. People must know the true model (or at least a good approximation of the true model) to form rational expectations, and this knowledge is a lot to expect.

NEW CLASSICAL MACROECONOMICS

REAL BUSINESS CYCLE THEORY

real business cycle theory An attempt to explain business cycle fluctuations under the assumptions of complete price and wage flexibility and rational expectations. It emphasizes shocks to technology and other shocks.

SUPPLY-SIDE ECONOMICS

Orthodox macro theory consists of demand-oriented theories that failed to explain the stagflation of the 1970s.

Supply-side economists believe that the real problem was that high rates of taxation and heavy regulation had reduced the incentive to work, to save, and to invest. What was needed was not a demand stimulus but better incentives to stimulate *supply*.

SUPPLY-SIDE ECONOMICS

The Laffer Curve

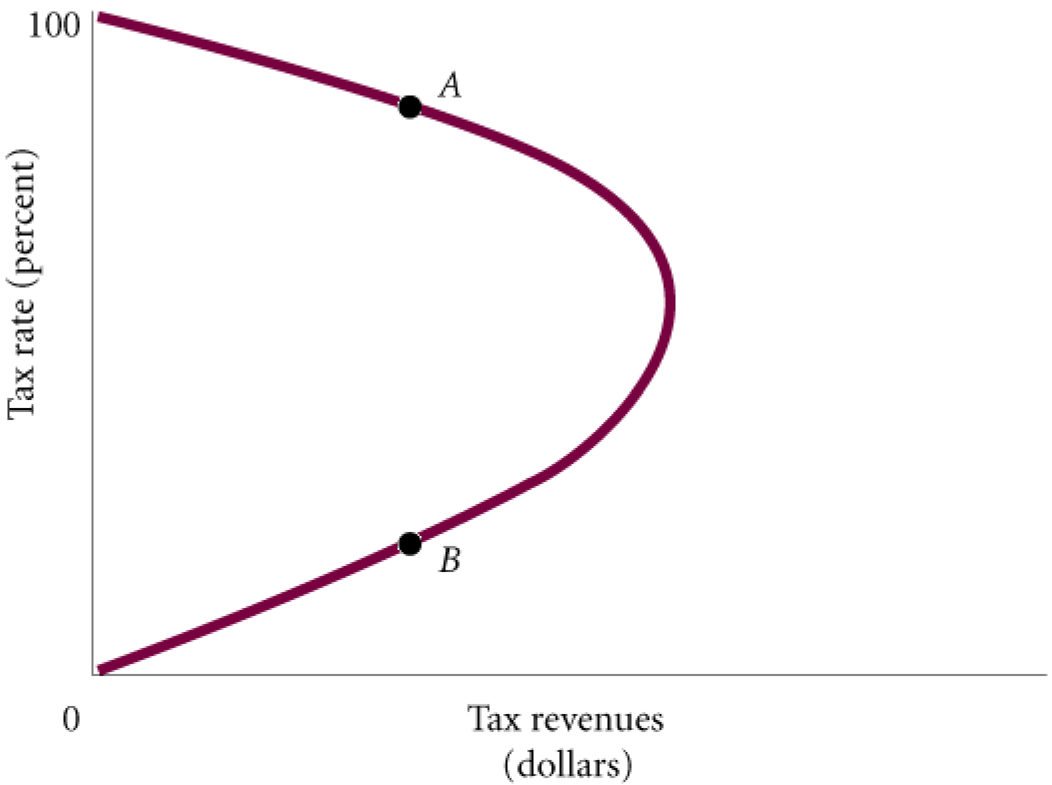


FIGURE 19.2 The Laffer Curve

SUPPLY-SIDE ECONOMICS

Laffer Curve With the tax rate measured on the vertical axis and tax revenue measured on the horizontal axis, the Laffer Curve shows there is some tax rate beyond which the supply response is large enough to lead to a decrease in tax revenue for further increases in the tax rate.

SUPPLY-SIDE ECONOMICS

EVALUATING SUPPLY-SIDE ECONOMICS

Among the criticisms of supply-side economics is that it is unlikely a tax cut would substantially increase the supply of labor.

When households receive a higher after-tax wage, they might have an incentive to work more, but they may also choose to work less.

TESTING ALTERNATIVE MACROECONOMIC MODELS

Models differ in ways that are hard to standardize.

If people have rational expectations, they are using the true model, but there is no way to know what model is in fact the true one.

There is only a small amount of data available to test macroeconomic hypotheses—only eight business cycles since 1950.

REVIEW TERMS AND CONCEPTS

Laffer Curve

Lucas supply function

price surprise

quantity theory of money

rational-expectations hypothesis

real business cycle theory

velocity of money (*V*)

$$V \equiv \frac{GDP}{M}$$

$$M \times V \equiv P \times Y$$

$$M \times \overline{V} = P \times Y$$

