

Intermediate Macro

Chapter 24: Epilogue

The Story of Macroeconomics

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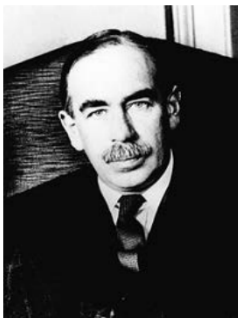
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Genesis of Modern Macroeconomics

24.1 Keynes and the Great Depression



John Maynard Keynes

- The history of modern macroeconomics starts with the publication of John Maynard Keynes's *General Theory of Employment, Interest, and Money* in 1936.
- The General Theory is in fact **business cycle theory** that emphasizes **effective demand** (*aggregate demand*): Effective demand determines output.

Building Blocks of Modern Macroeconomics

24.1 Keynes and the Great Depression

Keynes built the building blocks of modern macroeconomics:

- The relation of consumption, to income and the multiplier effects
- Liquidity preference in the demand for money that explains how monetary policy affect interest rates and aggregate demand
- The importance of expectations in affecting consumption and investment, and shifts in expectations (*animal spirits*) behind shifts in demand and output

Integration of Keynes's Ideas and Earlier Economists

24.2 The Neoclassical Synthesis

By the 1950s, a consensus, called the **neoclassical synthesis**, has emerged.



Paul Samuelson

"In recent years, 90 percent of American economist have stopped being 'Keynesian economists' or 'Anti-Keynesian economists.' Instead, they have worked toward a synthesis of whatever is valuable in older economics and in modern theories of income determination. The result might be called neo-classical economics and is accepted, in its broad outlines, by all but about five percent of extreme left-wing and right-wing writers."

24.2 The Neoclassical Synthesis

- The $IS - LM$ model, developed earlier by John Hicks and Alvin Hansen, was used to formalize Keynes's ideas.
- Franco Modigliani and Milton Friedman independently developed the modern theory of consumption (Chapter 15) that emphasizes the importance of expectations in determining current consumption decision.



Franco Modigliani



Milton Friedman

Progress on All Fronts (2)

24.2 The Neoclassical Synthesis

- John Tobin developed the the modern theory of investment (Chapter 15), which was further developed by Dale Jorgenson.
- In light of rapid growth in the 1950s and 1960s, Robert Solow developed the growth model (Chapters 11 and 12) for us to think about the determinants of growth.



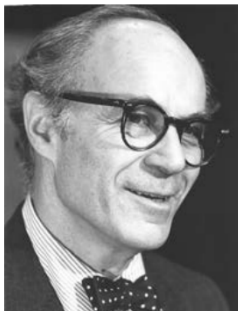
James Tobin



Robert Solow

Progress on All Fronts (3)

24.2 The Neoclassical Synthesis



Lawrence Klein

- All these contributions were integrated in larger and larger macroeconomic models, the first of which (16 equations) was developed by Lawrence Klein in the early 1950s for the United States.
- The most impressive effort was the construction of the MPS (MIT-Penn-SSRC) model developed during the 1960s as an expanded version of the $IS - LM$ model, plus a Phillips curve mechanism.

Keynesians versus Monetarists (1)

24.2 The Neoclassical Synthesis

- In the 1960s, there were heated debates between "Keynesians" and "monetarists", centering around three issues:
 - ① the effectiveness of monetary versus fiscal policy,
 - ② the Phillips curve, and
 - ③ the role of policy
- Keynes had emphasized fiscal rather than monetary policy as the key to fighting recessions.

Keynesians versus Monetarists (2)

24.2 The Neoclassical Synthesis



Anna Schwartz

- Friedman and Anna Schwartz painstakingly reviewed the evidence on monetary policy in the United States over a century.
- Their conclusion was not only that monetary policy was powerful but that movements in money explained most of the fluctuations in output.

Keynesians versus Monetarists (3)

24.2 The Neoclassical Synthesis

- Milton Friedman and Edmund Phelps also challenged the Keynesian view of a reliable trade-off between unemployment and inflation, even in the long run.
- In contrast to the Keynesians' call for an active role of policy, Friedman argued for the use of simple rules, such as steady money growth (Chapter 23).
- This debate on the role of macroeconomic policy has not been settled.



Milton Friedman



Edmund Phelps

Rational Expectation Revolution

24.3 The Rational Expectations Critique

- In the early 1970s, Robert Lucas, Thomas Sargent, and Robert Barro led a strong attack against mainstream macroeconomics.



Robert Lucas



Thomas Sargent



Robert Barro

The Three Implications of Rational Expectations

24.3 The Rational Expectations Critique

- Lucas and Sargent's main argument was based on three implications of rational expectations, all highly damaging to Keynesian macroeconomics.
 - ① Existing macroeconomic models could not be used to design policy, known as the **Lucas critique**.
 - ② With rational expectations, only *unanticipated changes in money* should affect output.
 - ③ Game theory, rather than optimal control in Keynesian models, was the right tool to design policy.

The Integration of Rational Expectations

24.3 The Rational Expectations Critique

- The role of rational expectations has been integrated in different markets.
- Robert Hall showed that if consumers are foresighted, then consumption behavior became **random walk**, which is unpredictable.
- Rudiger Dornbusch showed that the large swings in exchange rates under flexible exchange rates were fully consistent with rationality rather than the result of speculation by irrational investors.
- Stanley Fischer and John Taylor showed that, due to staggering of wage and price decisions, the adjustment of prices and wages in response to changes in unemployment can be slow even under rational expectations.

Overhaul of Macroeconomics

24.3 The Rational Expectations Critique

- By the end of the 1980s, the rational expectation critique had led to an overhaul of macroeconomics.



Robert Hall



Rudiger Dornbusch



Stanley Fischer



John Taylor

New Classical Economics and RBC Theory

24.4 Developments in Macroeconomics up to the 2009 Crisis



Edward Prescott

- From the late 1980s to the crisis, the **new classicals** developed the **real business cycle** (RBC) models based on two premises:
 - ① Macroeconomic models should be constructed from explicit microfoundations.
 - ② Movements in actual output could be seen as movements in the potential level of output
- Prescott argued that fluctuations could indeed be interpreted as coming from the effects of technological shocks in competitive markets with fully flexible prices and wages.

New Keynesian Economics

24.4 Developments in Macroeconomics up to the 2008 Crisis

- **New Keynesians** recognized rational expectations but believed that much remained to be learned about the nature of market imperfections and their implications for macroeconomic fluctuations.
- Their work included studying the nature and implications of **nominal rigidities**, and the **menu cost**, and **efficiency wages**.



George Akerlof



Janet Yellen



Ben Bernanke

New Growth Theory (1)

24.4 Developments in Macroeconomics up to the 2008 Crisis

- When growth theory faded in the late 1960s, two major issues were left largely unresolved.
 - ① One was the role of increasing returns to scale.
 - ② The other was the determinants of technological progress.
- Since the late 1980s, contributions of growth theory went under the name of **new growth theory**, led by Robert Lucas and Paul Romer.



Robert Lucas



Paul Romer

New Growth Theory (2)

24.4 Developments in Macroeconomics up to the 2009 Crisis

- Philippe Aghion and Peter Howitt developed a theme first explored by Joseph Schumpeter in the 1930s: the notion that growth is a process of *creative destruction* in which new products are constantly introduced, making old ones obsolete.



Philippe Aghion



Peter Howitt

New Growth Theory (3)

24.4 Developments in Macroeconomics up to the 2009 Crisis

- Research also tried to identify the precise role of specific institutions in determining growth.
- Andrei Shleifer explored the role of different legal systems in affecting the organization of the economy.
- Daron Acemoglu explored how to go from correlation between institutions and growth to causality from institutions to growth.



Andrei Shleifer



Daron Acemoglu

Toward an Integration (1)

24.4 Developments in Macroeconomics up to the 2009 Crisis

- Michael Woodford and Jordi Gali built the *new Keynesian model* that embodies utility and profit maximization, rational expectations, and nominal rigidities (You can think of it as a high-tech version of the model presented in Chapter 16).
- This model proved extremely useful and influential in the redesign of monetary policy.
- These models, which are now standard workhorse in most central banks, are known as "*dynamic stochastic general equilibrium*" (DSGE) models.

Toward an Integration (2)

24.4 Developments in Macroeconomics up to the 2009 Crisis



Michael Woodford



Jordi Galí

Lessons Learned from the Crisis

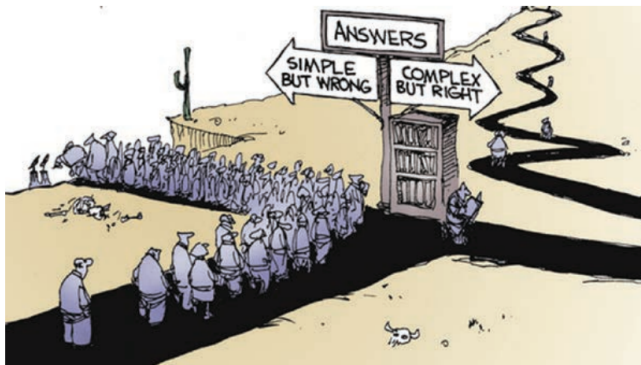
24.5 First Lessons for Macroeconomics after the Crisis

- The crisis reflects a major failure of macroeconomics to realize that a relatively small shock like the decrease in U.S. housing prices, could lead to a major financial and macroeconomic global crisis.
- Much of the work to understand the crisis was carried out outside macroeconomics, in the fields of finance or corporate finance.
- Researchers have turned their attention to the financial system, the nature of macro financial linkages, and integration of those pieces into large macroeconomic models.

Outro

24.5 First Lessons for Macroeconomics after the Crisis

- Modern macroeconomics is the result of a long and rich process of construction, crises, and reconstruction.
- Macroeconomics is complex, but it helps us to understand where we are and where to go.



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