Lecture 1: Schools of Macroeconomic Thoughts

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Introduction

- Instructor: Dr. Lei Pan
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  - Office hours: Monday 11:00am-12:00 noon
- Lecture Times
  - Monday 8:00-11:00am, Room 119, Bld 306

Topics

- Topic 1: Schools of Macroeconomic Thoughts
- Topic 2: Solow-Swan Model
- Topic 3: The Diamond Model
- Topic 4: The Ramsey Model
- Topic 5: New Growth Theory
- Topic 6: The Business Cycle Model
- Topic 7: An Overview of Fiscal Policy and the Effects of Government Debt on Capital and Saving
- Topic 8: Money and Monetary Policy

Textbooks and Journal Articles

- Advanced Macroeconomics, 5th Edition, By David Romer: It is useful for growth theories and RBC models (real business cycle model)
- We use some chapters from other books and notes
- Journal articles: will be posted on Blackboard

Assessments

- Problem set 1 (30% of your grade)
  - Questions will be posted on Blackboard on 21-March and due on 1-April
- Problem set 2 (30% of your grade)
  - Questions will be posted on Blackboard on 9-May and due on 20-May.
- Major essay (40% of your grade)
  - The topics for the major essay will be assigned in Week 7 seminar (11-April).

This Lecture: Schools of Macroeconomic Thought

- To give a historical view
  - Classical economics
  - Keysian economics
  - Neoclassical economics
- After mathematical formalism became more common place, the main schools of modern macroeconomic thought
  - Monetarism
  - New classical
  - New Keynesian
- Useful reading: "Modern macroeconomic models as tools for economic policy" by Narayana Kocherlakota, 2010.

Classical Economics

- It is the first modern school of economic thought, developed in the 18th and 19th centuries, a period in which capitalism was emerging from a past feudal society and the industrial revolution was leading to vast changes in society.
- Economists: Adam Smith (The Wealth of Nations, 1776), David Ricardo, and others.
- A theory of price was developed by classical economists to investigate economic dynamics.
- Main idea: Adjustments in prices would automatically equate demand to supply (prefer NO government intervention).

Keynesian Economics (1 of 3)

- Until the 1930s most economic analysis did not separate out individual economics behaviour from aggregate behaviour. With the Great Depression, the field of macroeconomics began to expand.
- Particularly influential was the ideas of John Maynard Keynes, as put in his book *The General Theory of Employment, Interest and Money*, 1936.
- Keynes, pointing to the sharp fall in employment and output in the early 1930s, argued that there is no strong automatic tendency for output and employment to move toward full employment level. This thought conflicts with the tenets of classical economics.

Keynesian Economics (2 of 3)

- Keynes asserted the importance of aggregate demand as the driving factor for output and employment, especially in downturns. So government policies should be used to stimulate demand at a macro level to fight high unemployment and deflation.
- Early Keynesianism advocated active government policy (emphasized fiscal policy) to manage aggregate demand to stabilize the economy.
- In the post-WWII years, Keynes's economic ideas were widely accepted and adopted by most western governments, instructed by a clear model IS-LM (invented by John Hicks) and an empirical observation – Phillips curve (William Phillips, 1958).
- Through the 1950s and 60s, the use of active fiscal and monetary counter-cyclical policies had been successful.

Keynesian Economics (3 of 3)

- However, with the oil shock of 1973 and other problems of the 70s, many economies experienced stagflation. This called for both expansionary and contractionary policies.
- This dilemma led to the collapse of the Keynesian consensus on the economy. Instead, ideas based upon more classical analysis rose, in particular, the new classical economics.

Neoclassical Economics (1 of 2)

- It refers to a general **approach** (a "metatheory") to economics based on supply and demand which depends on individuals operating **rationally**, each seeking to maximise their individual utility or profit by making choices based on available information.
- It emphasizes the notion of **equilibria**, where equilibria are the solutions of individual maximisation problems. All economic phenomena can be ultimately explained by aggregating over the behavior of individuals.
- Neoclassical economics is originated from classical economics, further developed by Marshall, Walras, Hicks, Arrow, Debreu, etc. It has gained dominance in Anglo-American universities after World War II.

Neoclassical Economics (2 of 2)

- Mainstream economics is largely neoclassical in its assumptions (rationality, individual maximization). There have been many critiques of neoclassical economics, often incorporated into newer versions.
- Main criticisms
  - Some key assumptions are unrealistic: The assumption that individuals act rationally may ignore important aspects of human behaviour.
  - The focus on individuals in the economy may obscure analysis of wider long term issues.
  - Relying too heavily on complex mathematical models (such as those used in general equilibrium theory, game theory, dynamic programming, and econometrics) without enough regard to whether these actually describe the real economy.

Monetarism (1 of 2)

- Monetarism is an economic theory that regards the supply of money and the demand for money as the primary means by which economic activity is regulated.
- It began in the late 1940s with the work of Milton Friedman (Friedman and Schwartz 1963, A Monetary History of the United States, 1867-1960), who was among the generation of economists to accept Keynesian economics and then critique it on its own terms.
- Critique of Keynesian economics
  - Regarded inflation as solely being down to the variations in the money supply, rather than as being a consequence of aggregate demand: "inflation is always and everywhere a monetary phenomenon".
  - The "crowding out" effects would deprive fiscal policy of its positive effect, so monetary policy is more favourable.

Monetarism (2 of 2)

- It advocates a central bank policy aimed at keeping the supply and demand for money at equilibrium so as to maintain price stability. This objective could be met by targeting the growth rate of the money supply.
- Monetarism has been generally accepted in central banking practice since late 1970s (e.g. Alan Greenspan).
- Criticism:
  - Demand for money is hard to measure and predict.
  - The relationship between inflation and money supply growth is weak when inflation is low.

New Classical Economics (1 of 3)

- It emerged as a school in macroeconomics during the 1970s as a response to the failure of Keynesian economics, with two papers by Robert Lucas, one on **rational expectation**, and another **Lucas critique**.
- As opposed to Keynesian macroeconomics, New Classical economics builds its analysis on an entirely neoclassical framework.

Lucas Critique

- Basic idea: It is naive to try to predict the effects of a change in economic policy entirely on the basis of relationships observed in historical data as such estimated relationship could change as policy regime changes.
- It casted doubt on standard Keynesian models built on reduced form equations as tools for macro policy (recall that there is no description of individual's behaviour in the IS-LM model).
- How can macroeconomists get around the Lucas critique? The key is to build macro models based on more fundamental features of the economy that are beyond the control of the government, such as the technology of firms and people's preferences.
- That is, the Lucas critique called for building microfoundations for macro models. Microfoundations had always been thought to be desirable; Lucas critique made it clear that they were essential.

New Classical Economics (2 of 3)

- The main contribution of New Classicals is that it emphasizes the importance of rigorous microfoundations in constructing macro models. A series of macroeonomic models were built up from optimising behaviour of individual agents.
- The twin axioms of this school of thought are the premiss of rational expectations and the premiss of perfect flexibility of prices and wages.
- The development of this school led to the growing use of what we call "modern macro" models, pioneered by the work of real business cycle economists in 1980s.

New Classical Economics (3 of 3)

- Early real business cycle theorists (such as Finn Kydland and Edward Prescott) argued, using a calibrated stochastic neoclassical growth model, that a large fraction of aggregate fluctuations could be understood as an efficient response to supply shocks that affected the entire economy, implying that there was little role for government stabilization policy.
- Though its finding was quite controversial, the RBC theory has pioneered the use of dynamic stochastic general equilibrium (DSGE) models and a set of analytical tools, which have now become the standard methodology for modern macro models (see Kocherlakota for the five key features of modern macro models).
- Other new classical economists: Tom Sargent, Neil Wallace, Robert Barro, among others.

New Keynesian Economics (1 of 2)

- It was developed partly in response to new classical economics (see Kocherlakota (2010) for the "fresh water-salt water" digression).
- It strives to provide microeconomic foundations to Keynesian economics by showing how imperfect markets can justify the demand management by government or its central bank.
- The main assumption that distinguishes it from new classical economics is that wages and prices do not adjust instantly (nominal stickiness) to allow the economy to attain full employment, thus non-clearing markets can exist and persist, even when rational expectations apply.

New Keynesian Economics (2 of 2)

- New Keynesians attempt to explain the stickiness of wages and prices with microeconomic analysis of price adjustment, including menu cost, coordination failure, limited participation, and etc.
- At the same time, New Keynesian economists also adopt the same modeling methodology (DSGE) as new classical economists.
- In recent years, a lot of central banks, including the RBA and RBNZ, start to apply New Keynesian models for monetary policy analysis.
- Economists: Samuelson, Tobin, Modigliani, Mankiw, Christiano, Woodford, etc.

Final Remark

- Macroeconomics is an ever evolving area of research. With the advent of better computers, better theory and better programming, it is possible to solve a much wider class of modern macro models that incorporate insights from different schools of macro.
- As a result, the division among different schools have gradually disappeared.
- In policy practice, the IS-LM model of Keynesian economics, as a first approximation of how an economy works, is still widely used. In recent years, many central banks began to use modern macro models with price rigidities for forecasting and policy evaluations.
- If you are interested, you may read Seven Schools of Macroeconomic Thought by Phelps (1990).