Advanced Macroeconomics II

Course Outline:

I. Introduction (and Review of Intermediate Macroeconomics)

II. Mathematical Tools (Dynamic Optimization)

III. Economic Growth

IV. Economic Fluctuations

V. Inflation and Monetary Policy

VI. Unemployment and Coordination Failure

I Introduction (and Review of Intermediate Macro)

1 Brief History

- Pre-1936: Monetary theory (quantity theory of money) and business cycle theory
- The Keynesian revolution (J.M. Keynes, 1936): Effective demand, involuntary unemployment, unemployment equilibrium, repudiation of Say's Law, liquidity preference
- The neoclassical synthesis (1950s and 1960s): Refinement of Keynesian theory [Microfoundations for the consumption function (Modigliani), the theory of liquidity preference (Tobin) and investment theory (Tobin); Neoclassical growth model (Solow); Belief in the necessity and capacity of counter-cyclical fiscal and monetary policy and the Phillips curve as a menu for stabilization policy (Phillips, Samuelson-Solow)]
- The monetarist counter-revolution (Milton Friedman, 1956): Belief in inherent stability of the market economy, distrust of politicians, rejection of activist, counter-cyclical stabilization policy in favor of non-activist rule-based policy and rejection of Phillips trade-off as a long-run proposition (M. Friedman, 1968)
- The rational expectations revolution (Robert E. Lucas, 1970s): Attack on Keynesian tradition for its lack of microfoundations, new paradigm based on optimizing agents and market clearing, Lucas Critique and policy ineffectiveness and inconsistency of optimal plans (Kydland and Prescott, 1977)
- Real business cycle (RBC) theory (Lucas, Plosser, Prescott, 1980s - today): Productivity shocks

- New Keynesian macroeconomics (Dornbusch, Fischer, Taylor, Akerlof, Obstfeld and Rogoff, late 1970s - today): Integration of rational expectations and intertemporal optimization into Keynesian paradigm and microfoundations of nominal rigidities
- New growth theory (Lucas, Romer, Grossman and Helpman, Aghion and Howitt, late 1980s - today): Endogenous technological progress and human capital formation

2 Key Macroeconomic Issues

- Economic Growth
- Economic Fluctuations
- Unemployment
- Inflation
- Macroeconomic Policy
- Open-economy Macroeconomics

3 Review of Intermediate Macroeconomics

- Macroeconomics: The study of the structure and performance of national economies and of the policies that governments use to affect economic performance.

3.1 Economic Growth

- Growth accounting
- Sources of economic growth: Saving rate (physical capital), infrastructure, human capital, R&D and quality of institutions
- Convergence vs divergence

3.2 Business Cycles

- Fluctuations of aggregate economic activity
- Business Cycle Facts
- Business Cycle Theories
  - ◇ Real business cycle theory
  - ◇ Misperceptions theory
  - ◇ Keynesian theory

3.3 Unemployment

- Types of unemployment: Frictional and structural unemployment (natural rate of unemployment) and cyclical unemployment
- Costs of unemployment: Loss of output and personal or psychological cost
- Theories of unemployment:
  - ◇ Efficiency-wage theory
  - ◇ Insider-outsider theory
  - ◇ Search and matching models

3.4 Inflation

- Money: Assets that are widely used and accepted as payment.
- Functions of money: Medium of exchange, unit of account and store of value.
- Demand for money: Price level, real income, interest rates, wealth, risk, liquidity, payment technology
- Money growth and inflation
- Costs of perfectly anticipated inflation: Shoe leather costs and menu costs
- Costs of unanticipated inflation:
  - ◇ Uncertainty associated with wealth redistribution
  - ◇ Resources used in forecasting inflation
  - ◇ Efficiency loss associated with confusing price signals
- Costs of hyperinflation: Greater costs and tax collection problem
- Controlling inflation: Lowering inflation expectations
- Trade-off between unemployment and inflation (the "twin evils"): (Expectations - augmented) Phillips curve
  - ◇ Classicals: No
  - ◇ Keynesians: Yes

3.5 Macroeconomic Policy

A Monetary Policy

- Money supply determination: Central bank, depository institutions and the public (individuals and firms)
- Central bank's control:
  - ◇ Open-market operations
  - ◇ Reserve requirements
  - ◇ Discount window lending (the discount rate)
- Central bank's intermediate targets: Monetary aggregates and short-term interest rates
- Problems facing central banks:
  - ◇ Lags in the effects of monetary policy (preemptive strikes)
  - ◇ Uncertainty about the policy transmission channels (interest rate channel, exchange rate channel and credit channel)
- Conduct of monetary policy: Rules vs discretion
  - ◇ Rules (e.g. Taylor rule): Little scope for using monetary policy to smooth business cycles, central banks cannot use monetary policy effectively, credibility
  - ◇ Discretion: Flexibility
- Central bank credibility:
  - ◇ Rules
  - ◇ "Tough" central bankers
  - ◇ Central bankers' incentives
  - ◇ Central bank independence

A Fiscal Policy

- Government spending and taxes
- Effects of fiscal policy:

  ♢ Aggregate demand (automatic stabilizer)

  ♢ Government (physical and human) capital formation

  ♢ Incentive effects

- Government deficits and Recardian equivalence:

  ♢ Support: Recardian equivalence holds true

  ♢ Departures: Borrowing constraints, shortsightedness, failure to leave bequests and non-lump-sum taxes

- Government deficits and inflation: Printing money ⇒ seignorage ⇒ inflation

3.6 Open-economy Macroeconomics

- International trade and capital flows: Balance of payments accounts (current account, capital account and official reserve transactions)
- Exchange rates and the exchange rate system
- Current exchange rate system: Managed float for major industrialized countries and basically fixed exchange rates for many developing countries.
- Advantages of exchange rate flexibility:

  ♢ Policy independence: exchange rate flexibility removes potential conflicts between internal balance and external balance, so policymakers can concentrate on internal goals

- ◊ Insulation from foreign shocks

- Arguments for a return to a fixed exchange rate system:
  - ◊ Exchange rate risk and trade and investment
  - ◊ Exchange rate fluctuations and adjustment costs
  - ◊ Exchange rate instability and speculation

- Monetary and fiscal policy in open economies (Mundell-Fleming model)