LECTURE NOTES

Chapter 11: New Classical Economics

- Keynesian and monetarist models are developed in the context of the Great Depression. Policy did have an effect on the short-run.
  - Monetarist: Monetary policy
  - Keynesians: Either fiscal or monetary policy
  - Keynes rejected the classical model because it could not explain large unemployment (because aggregate supply is vertical)
- New Classical economics appears during the 1970s.
  - Stagflation: If there’s a monetary shock, why there is no increase in output?
  - New Classical economics argue that the classical model can explain large unemployment if we assume rational expectations (see below)

1. The New Classical Position

- Systematic (predictable) monetary and fiscal policy have no effect on output (and therefore on employment) even in the short-run
- The Rational Expectations concept and its implications
  - New classical economics disagree with both, monetarist and Keynesian short-run
  - The focus of the criticism is the assumption concerning price expectations
  - Why would rational economic agents rely on past prices and not predict the price level? Why would they persist on systematic errors?
  - New classical economics sustain that agents will form rational expectations such that there are no systematic errors
    - $E[P] = P_T$ [unbiased expectations]
    - There are errors, but errors are not systematic
    - Rational expectations: “Expectations formed on the basis of all available relevant information concerning the variable being predicted. Moreover, economic agents are assumed to use available information intelligently; that is, they understand the relationships between the variables they observe and the variables they are trying to predict.”
  - Keynesian/monetarist expectations are backward looking
  - Rational expectations are forward looking
If expectations are rational and unbiased, then the short-run effects disappear. Expectations adjust immediately and the economy goes directly to the long-run.

Recall: \( N^S = g \left( \frac{W}{P^e} \right) \) where \( P^e = P \). This is (almost) the classical model.

Clarification 1: Expectations are model-dependent (which macroeconomic model are the agents living in?)

Clarification 2: Rational expectation are used to maximize utility/profits of the economic agents, not to maximize social welfare.

The short-run aggregate supply is still upward sloping because it depends on the relationship between \( P \) and \( P^e \).

Assume a predictable monetary shock that increases money supply from \( M_0 \) to \( M_1 \)
- Expectations adjust immediately
- Short-run aggregate supply shifts immediately
- There is no short-run effect, the model is already in the long-run
- The rational expectations assumption eliminates skips the short-run effect of Keynesian and monetarist models

Assume an unpredictable monetary shock that increase money supply from \( M_0 \) to \( M_1 \)
- Labor supply does not adjust price expectations
- Then there is the short-run effect predicted by monetarist and Keynesian models (systematic errors)
- Note: By construction, with backward looking expectations all shocks are unpredictable or unexpected
FIGURE 11-2  Effects of an Increase in the Money Supply: The New Classical View

a. Aggregate Supply and Demand

The increase in the money supply shifts the aggregate demand schedule from $Y^d(M_0, \ldots)$ to $Y^d(M_1, \ldots)$. By itself, this change would increase output to $Y'_1$ and the price level to $P'_1$. The increase in the price level would shift the labor demand schedule from $N^d(P_0)$ to $N^d(P'_1)$, and employment would rise to $N'_1$. However, because the increase in the money supply was anticipated, there is also an increase in the expected money supply. This increase shifts the aggregate supply schedule to the left from $Y^d(M_0, \ldots)$ to $Y^d(M'_1, \ldots)$ and shifts the labor supply schedule to the left from $N^e(M'_0, \ldots)$ to $N^e(M'_1, \ldots)$. These shifts cause employment and output to fall back to their initial levels, $N_0$ and $Y_0$.  

b. Labor Market

$W_1$ $W_0$ $N_0$ $N'_1$ $N^d(P'_1)$ $N^d(P_1)$ $N^d(P_0)$
• New Classical policy conclusions
  o Assume a predictable shock (i.e. a fall in investment) [Figure 11-3]
    ▪ Because expectations are rational labor supply adjust automatically when a shock is predictable
    ▪ Therefore there is no need for a stabilizing policy
  o Assume an unpredictable shock (i.e. a fall in investment) [Figure 11-3]
    ▪ Labor supply fails to immediately adjust to the shock
    ▪ Fiscal/monetary policy is desirable but not feasible
    ▪ By definition, an unpredictable shock is unpredictable; therefore the policy makers could not have foreseen it. If they would, so would economic agents and therefore the shock would be predictable
  o There is no useful role for policy that aims to stabilize aggregate demand
  o New classical economics is non-interventionist like the classical and monetarist models
  o Monetary policy: New classical economics tend to favor a monetary rule for monetary policy because it reduces the number and size of unexpected shocks [Chapter 17]
  o Fiscal policy: New classical economics tend to avoid excessive and inflationary stimuli. Such policies increase uncertainty
    ▪ Some Unpleasant Monetarist Arithmetic (Sargent and Wallace, 1981)
      • Deficit can be financed either with bonds or by issuing money
      • If growth rate is less than the interest rates on debt, then the situation is unstable because there is a point where deficit (which includes the debt service) cannot be financed with bonds
      • Either: (1) fiscal reform, (2) high inflation (issue money to finance the deficit), or (3) default the debt
An autonomous decline in investment shifts the aggregate demand schedule from $Y^d(T_0)$ to $Y^d(T_1)$. This shift would reduce output from $Y_0$ to $Y_1$ and lower the price level from $P_0$ to $P_1$. The fall in the price level shifts the labor demand schedule from $N^d(P_0)$ to $N^d(P_1)$, and as a result employment falls from $N_0$ to $N_1$. These are the only effects if the decline in investment was not anticipated. If the decline in investment was anticipated, the expected level of autonomous investment ($\bar{I}$) will also fall (from $\bar{I}_0$ to $\bar{I}_1$). The aggregate supply schedule will shift from $Y^s(\bar{I}_0)$ to $Y^s(\bar{I}_1)$, and the labor supply schedule will shift from $N^s(\bar{I}_0)$ to $N^s(\bar{I}_1)$. Those shifts cause output and employment to return to their initial levels.
2. A Broader View on the New Classical Position

- New classical economics also reject the idea of sticky wages
- New classical economics is critical of the Keynesian approach:
  - Naïve theory of expectations
  - Theory should focus on economic agents behavior, not in consumption aggregates
- For new classical economics, a consistent model should adhere to the following assumptions:
  - Agents optimize in their own self-interest (versus macroeconomic aggregates)
  - Markets clear (otherwise there is a market intervention or an implicit assumption of irrationality)
  - These are called *microfoundations of macroeconomics* [micro and macro should be consistent with each other]
3. The Keynesian Countercritique

- Keynesians: There are some valid points, especially the criticism to the expectations theory.
- But some issues remain
- (1) The Question of Persistence
  - Keynesians:
    - If the new classical model is correct, how does the model explain large periods of unemployment?
      - Great Depression (UK and US)
      - Crisis of 1970s, 1980s, and the 2008 subprime crisis
  - New Classical:
    - The unexpected shock may have a short life, but the effect might persist in time
    - Great Depression: A combination of a big shock (money supply fell by 1/3) plus massive government intervention in the economy (the “New Deal”)
- (2) The Extreme Informational Assumption of Rational Expectations
  - Keynesians:
    - Rational expectations err in assuming that economic agents are unrealistically sophisticated forecasters (especially in the labor market)
    - To use all available information, the cost of acquiring said information should be zero. This is unrealistic
    - Rational expectations seem more plausible in the long-run, once economic agents learn and therefore can predict the behavior of policy makers in a constant economic environment (i.e. no business cycles). But this is not the case in the short-run with an economic crisis
    - If expectations are not rational, then there is room for aggregate demand policy stabilization
    - New classical models skip the short-run and reach non-surprising conclusions (in the long-run policy effects go away)
  - New Classical:
    - Yes, rational expectations is unreal, but so are all models
    - Which unreal (simplified) expectation theory is better:
      - Backward looking expectations
      - Forward looking expectations
• (3) Auction Market versus Contractual Views of the Labor Market
  o Auction market: When prices adjust quickly, like in an auction
  o Contractual market: When prices are set by a contract and an adjustment needs to wait for the contract to expire
  o Keynesians:
    ▪ Because of contracts, wages are sticky even in the presence of rational expectations
    ▪ Social conventions as well: reduce wages to avoid layoffs (or, what is the same, replace an expensive employee with a cheaper one)
  o New Classical:
    ▪ Yes, labor market is at least in part characterized by long-term contracts
    ▪ They doubt these effects are too significant
      • Non-price (wage) variables can adjust [benefits provided by the employee]

• Digression
  o Expectations can be:
    ▪ (1) Irrational (backwards looking)
    ▪ (2) Rational (forward looking)
    ▪ (3) Rational
  o Rational expectations
    ▪ The economic agent that forms expectations is not just a calculator
    ▪ Each economic agent subjectively process the received information and therefore expectations may differ
    ▪ Subjective differences is not irrationality
      • Example: What would the psychology of the president of a Big Player like a central bank dictate him to do? There’s no rational prediction of such problem
      • Big Player: A simple economic agent that its capable of changing markets conditions with his own behavior