LECTURE NOTES

Chapter 10: Output, Inflation, and Unemployment: Alternative Views

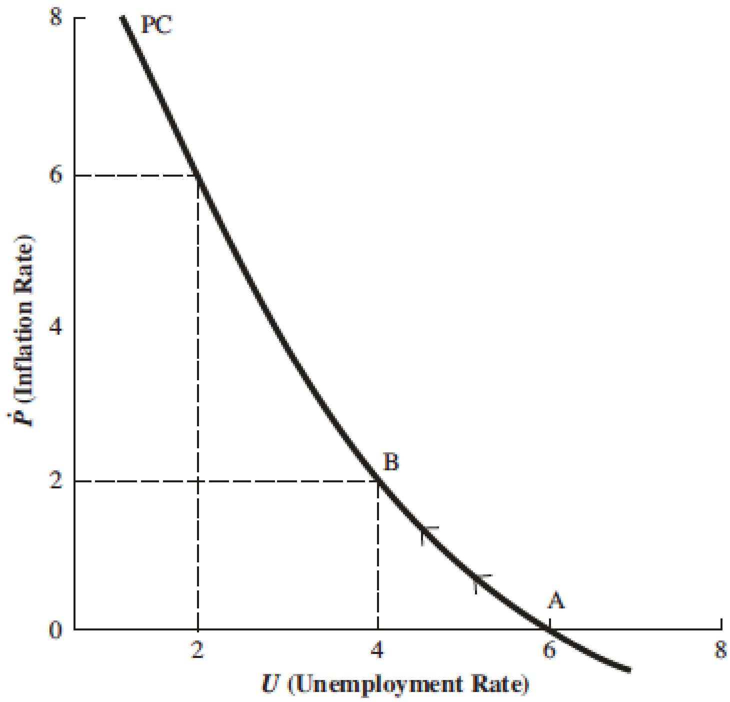
1. The Natural Rate Theory

- Natural rate of unemployment (M. Friedman): The unemployment rate at the output equilibrium (no output gap).
    - The natural rate of unemployment (μ_N) depends on real factors (long-term) equilibrium
    - $\mu_N \geq 0$
    - The term "natural" comes from Wickell's natural rate of interest (the rate at which the demand and supply of capital goods in the loan market are equal)
- $\mu = \frac{Unemployed}{Labor\ Force} = \frac{Unemployed}{Employed + Unemployed}$
- In the short-run: $\mu \neq \mu_N$
- In the long-run: $\mu = \mu_N$
- Since Keynesian macroeconomics (Keynesian system or monetarist) has labor as the key variable for short-term changes in output, policy turns to the labor market (natural rate of unemployment), not to the capital goods market (natural rate of interest)

2. Monetary Policy, Output, and Inflation: Friedman's Monetarist View

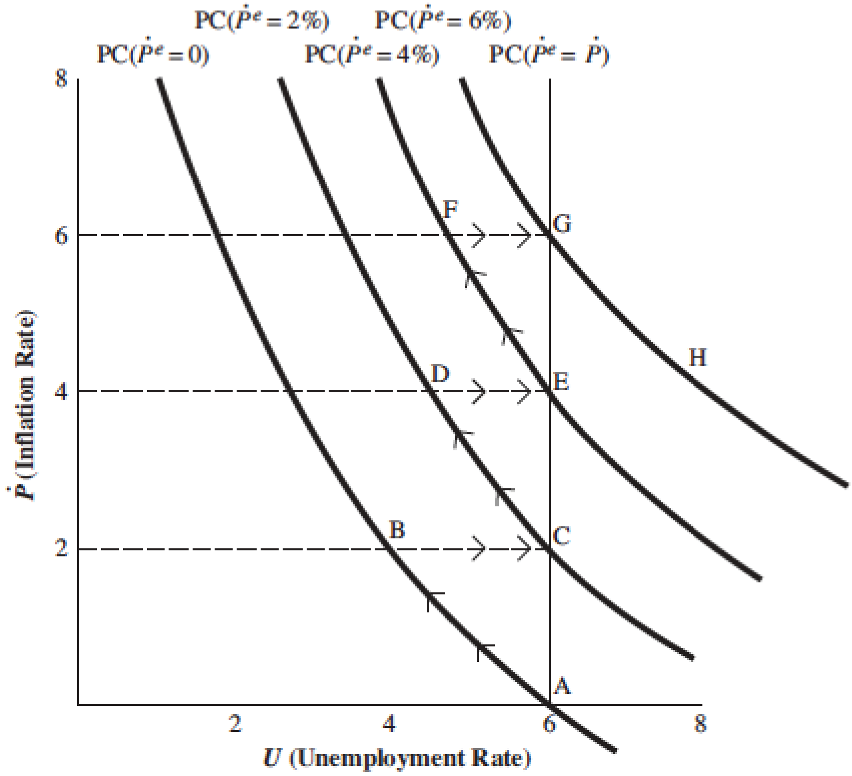
- Monetary Policy in the Short Run
  - Because $\pi > \pi^e$, economic agents think the increase in *P* is real, not nominal (inflation)
  - Until expectations are adjusted, there is a short term effect on employment and therefore on output
  - Once expectations are adjusted, the short run effect dissolves and in real terms the economy is back to its original position
  - Phillips Curve: Relationship between inflation and unemployment
    - Negative relationship (in the short run) between <u>inflation rate</u> (not the price level) and the <u>unemployment rate</u>
- Monetary Policy in the Long Run
  - There's an excess demand of labor $(\mu < \mu_N)$
  - Then real wages will increase as expectations adjust and the unemployment rate returns to the natural level
  - To prolong the short run effect $(\mu < \mu_N)$ higher inflation rates are needed such that $\pi > \pi^e$ again
  - If this policy is continued, eventually inflation becomes a more serious problem than unemployment
  - End result: Same level of unemployment (μ_N) but a higher <u>inflation rate</u> (not a just a higher price level)
    - To reduce the inflation rate a *disinflation policy* is needed

FIGURE 10-2 The Phillips Curve



In the short run, an increase in the rate of growth in the money supply moves the economy from point A to point B along the short-run Phillips curve (PC). Unemployment declines, and inflation rises.

FIGURE 10-4 Effect of an Attempt to "Peg" the Unemployment Rate

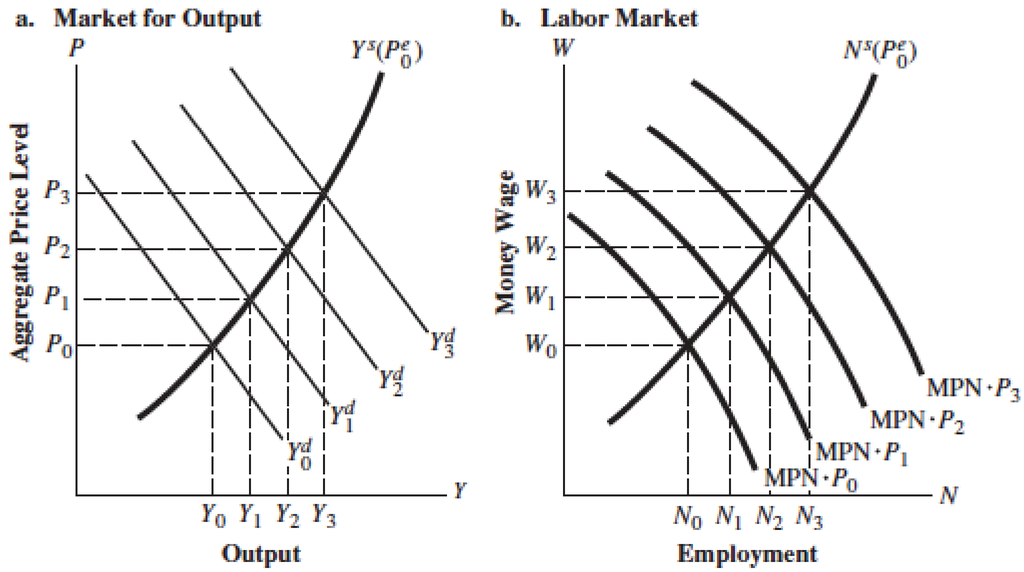


Increases in money growth, to 5 percent, then 7 percent, then 9 percent, result in temporary reductions in unemployment (movements from C to D and from E to F, for example). But in the longer run, we simply move up the vertical Phillips curve (to points E and G, for example).

3. A Keynesian View of the Output-Inflation Trade-Off

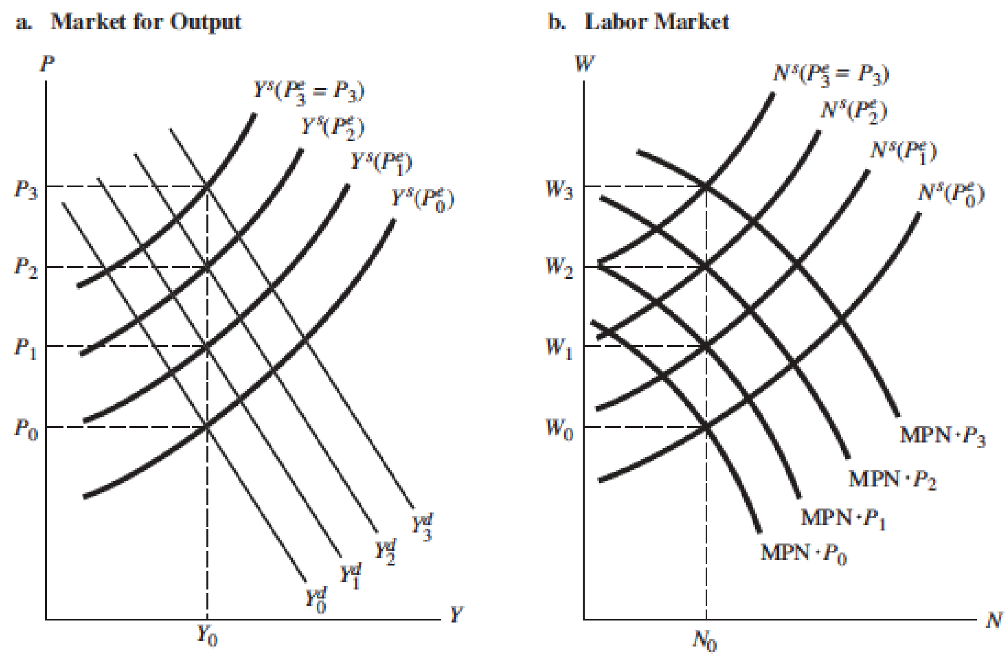
- The Phillips Curve: A Keynesian Interpretation
    - The Keynesian PC is the short run relationship between inflation and unemployment
    - The Monetarist PC is the long run relationship between inflation and unemployment
- Stabilization Policies for Output and Employment: The Keynesian View
    - If Keynesian accept the same long run effects than monetarists, why do they advocate policies with no effects in the long run?
        - Because Keynesian policies are aimed at stabilizing the economy <u>in the short run</u>
        - If in the long run there is no harm, why not be Keynesian in the short run?
        - Monetarists: Because we do not know enough about how the market works and we'll do more harm than good

FIGURE 10-5 Short-Run Effects of Increases in Aggregate Demand in the Keynesian Model



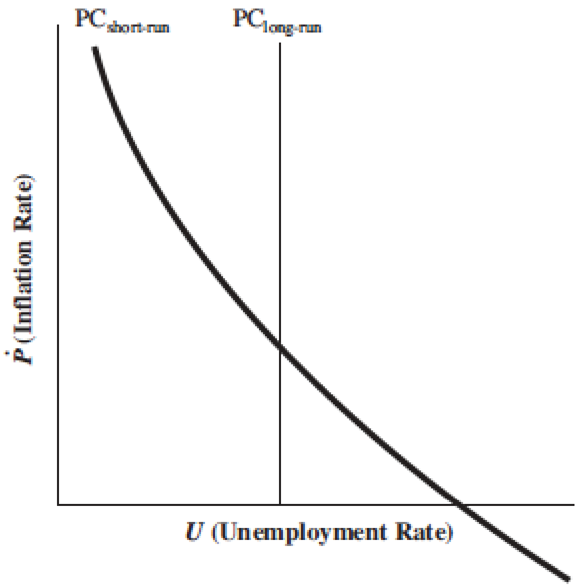
An expansionary aggregate demand policy, such as an increase in the rate of growth in the money supply, will cause a series of shifts to the right in the aggregate demand schedule (from Y^d_0 to Y^d_1, to Y^d_2, to Y^d_3). In the short run, output, the price level, and employment all rise.

FIGURE 10-7 Long-Run Effects of Increases in Aggregate Demand in the Keynesian Model



In the long run, leftward shifts in the labor supply and the aggregate supply schedules reverse the increases in output and employment that result from the expansionary aggregate demand policy. Output and employment return to their initial levels, Y_0 and N_0.

FIGURE 10-6 The Phillips Curve: The Keynesian Perspective



In the short run, the Phillips curve implied by the Keynesian model is downward sloping. In the long run in the Keynesian model, as in Friedman's analysis, the Phillips curve is vertical.

4. Evolution of the Natural Rate Concept

- Monetary policy cannot reduce unemployment (below the natural level) permanently
- But what determines its level?
    - Types of unemployment:
        - (1) cyclical: business cycles, economic crisis
        - (2) frictional: labor turn-over in the market
        - (3) structural: market changes (i.e. typewriters becoming obsolete)
    - Natural rate of unemployment = frictional + structural
- Hysteresis
    - When a variable (i.e. the unemployment rate) is shocked away from equilibrium (or initial value) it shows no tendency to return to its original value
    - An economic crisis or business cycle is a shock to the unemployment rate
- What can produce hysteresis in the labor market and make the natural rate of unemployment change?
    - Labor market restrictions
        - Minimum wages
        - Unions
        - Labor market regulation
        - Immigration regulation

5. Create Employment or Create Value?

- To create value resources need to be employed
- To create employment is not the same than to create economic value
    - Recall Keynes example: Increase employment by digging holes if necessary
    - What if the job creation program is not so obviously a non-value creating job?
- Recall: Good economic performance produces low unemployment rates, but you cannot conclude from low unemployment rates there is good economic performance (value creation) –*post hoc ergo propter hoc* [fallacy of the converse]