CHAPTER 36

CHAPTER 36 - EXTENDING THE ANALYSIS OF AGGREGATE SUPPLY

From Short Run to Long Run

• Short run aggregate supply

• **Short run vs long run** - has to do with the flexibility of the input prices. Input prices are inflexible in the short run but totally flexible in the long run

• Assumptions:

- 1. Initial price level is P₁
- 2. Firms and workers have established nominal wages on the expectation that this price level will persist
- 3. The price level is flexible

From Short Run to Long Run

Short run aggregate supply

- Short run effects of changes in the price level:
 - 1. P₁ to P₂, at P₂ firms' revenues go up because nominal wages and input prices are fixed, profits rise. These higher profits will make firms raise their output from Q_f to Q₂ as the economy moves from a₁ to a₂ on AS₁
 - 2. P₁ to P₃, at P₂ firms' revenues goes down because nominal wages and input prices are fixed, profits decline. These lower profits will make firms lower their output from Q_f to Q₃ as the economy moves from a₁ to a₃ on AS₁



From Short Run to Long Run

Long run aggregate supply

- In the long run changes in nominal wages
 - 1. P₁ to P₂, will move the economy from a₁ to a₂ along AS₁. The economy is producing at more than its potential output. There is high demand for productive inputs, so that input prices will begin to rise. In particular, the high demand will increase nominal wages. Because nominal wages are one of the determinants of AS, the AS₁ will shift leftward to AS₂. The shift will move the economy from a₂ to b₁. Real output falls back to its full employment level Q_f and unemployment rate rises to its natural rate. (Opposite is true P₁ to P₃)



Long run equilibrium points b1, a1, and c1 will give us the long run AS curve

Long-Run Equilibrium in the AD-AS Model

- **Short run equilibrium** where the short run, down sloping AD and up sloping AS curves intersect.
- In the long run equilibrium, the short run AS curve adjusts, hence the long run equilibrium price level P1 and level of real output Q_f occur at the intersection of AD₁ AS_{LR} and AS₁.



Applying the Extended AD-AS Model

- Demand Pull Inflation in the Extended AD-AS Model
- **AD**₁ to **AD**₂, prices rise, output increases, **a** to **b**. But in the long run, **nominal wages rise**, and the short run **AS curve shifts to the left, to c**. Real output returns to its prior level, price level is at P₃.



AS₁ to AS₂, a to b. If the government steps in to counter the decrease in real output and moves AD₁ to AD₂, the economy moves to c. Price are higher but output is restored. If the government allows a recession to occur, nominal wages will eventually fall and AS shifts rightward back to its original location. The economy moves back to a.





Recession and the Extended AD - AS Model

AD₁ to AD₂, a to b. If prices and wages are flexible downward, we move from P₁ to P₂. With the economy in recession at point b, wages will eventually fall, shifting the AS₁ to AS₂. The price level declines to P3 and the real output returns to Q_f. The economy moves to c.



Applying the Extended AD-AS Model

• Economic Growth and Aggregate Supply



The Inflation-Unemployment Relationship

- **The Phillips Curve -** the Phillips curve shows the relationship between inflation and unemployment
- Phillips curve in the long run increases in AD, temporarily will boost profits, output and employment, a₁ to b₁. But nominal wages will eventually catch up to sustain real wages. When they do, profits will fall, negating the previous stimulus and the economy moves from b₁ to a₂. PC is a roughly vertical line at NRU.



The Inflation-Unemployment Relationship

- **The Laffer Curve** (Arthur Laffer) shows the relationship between tax rates and tax revenues.
- Tax rates lower than m will increase tax revenues. Tax rates higher than m will adversely affect incentives to work and produce reducing the size of the tax base to the extent that revenue will decline.

