Ch 27 Aggregate Supply and Aggregate Demand

Principles of Macroeconomics

Econ 102

Outline

- Aggregate Supply
- Aggregate Demand
- Explaining Macroeconomic Trends and Fluctuations
- Macroeconomic School of Thoughts

Aggregate Supply (1)

- Quantity of real GDP supplied is the total quantity of goods and services that firms produce during a given period
  - They are measured based on the base year price
- The quantity that is supplied depends on:
  - The quantity of labor
  - The quantity of physical and human capital
  - The state of technology
- From the firms' perspective, the higher the price the higher the quantity that should be supplied to the market

Aggregate Supply (2)

- Definition: the relationship between the quantity of real GDP supplied and the price level
- Two different type of analysis:
  - Short run → based on short run aggregate supply
  - Long run → based on long run aggregate supply

Short run Aggregate Supply (SRAS)

- In the short run, Aggregate Supply shows the relationship between real GDP supplied and price level when these factors are constant:
  - Money wage rate
  - Prices of other resources
  - Potential GDP
- If there is a shock that changes the price level, firms will adjust the quantity of real GDP that they supply

Long run Aggregate Supply (LRAS)

- Long run does not necessarily mean long term
- In the long run, the real GDP has to be at potential GDP
  - Full employment is reached
  - Quantity of real GDP supplied is fixed at potential GDP
- The LRAS is independent of price level
  - In the long run, when there is a shock that causes the price level to change, adjustments will happen to bring it back to potential GDP

Changes in Aggregate Supply

- When potential GDP changes, both LRAS and SRAS changes
  - A shift in both LRAS and SRAS
  - Potential GDP can increase if:
    1. There is an increase in the full-employment quantity of labor
    2. There is an increase in the quantity of capital
    3. There is an advancement in technology
- When money wage rate changes, only SRAS would change
  - A shift in SRAS and a movement along the LRAS
  - Money wage rate can increase if:
    1. Full employment is not reached
    2. Expectations about inflation

Aggregate Supply (3)

Aggregate Demand (1)

- Definition: the quantity of real GDP demanded and the price level
- What is the real GDP demanded?
  - From the consumers perspective, it is about the purchases made by consumers
  - AE = C + I + G+ X – M
- The relationship between real GDP demanded and price level comes in 2 forms:
  1. Wealth effect → when the price rises, real wealth decreases and causes a drop in consumption
  2. Substitution effect → when the price rises, interest rate raises as well since there is less *real money* in the economy. (another way to think about is when your purchasing power decreases, you want to turn your asset into cash to compensate. Hence, selling bonds and causes the interest rate to rise)

Changes in Aggregate Demand

- Movement vs shift in the Aggregate Demand
- Movement happens when price level changes → affecting the quantity of real GDP demanded
- Shift happens when there is a shock to aggregate spending (AE) without any change to price level
  - Expectations
  - Fiscal policy and monetary policy
  - The world economy

Aggregate Demand (2)

Macroeconomic Equilibrium

- Combining Aggregate Supply and Aggregate Demand will result in macroeconomic equilibrium
- 2 types of macroeconomic equilibrium
  1. Short run → based on SRAS
  2. Long run → based on LRAS

Short Run Equilibrium

- In the short run, the money wage rate is fixed
  - Actual unemployment may not be equal to full employment
  - Real GDP can be greater than potential GDP

Long run Equilibrium

- In the long run, the money wage rate adjusts
  - The real GDP moves toward potential GDP
  - Full employment

Long Run Equilibrium

- A shock to AD will only result in a change of price level
- A shock in SRAS will only result in a change of price level
- Only a shock to potential GDP will have an affect on Long Run macroeconomic equilibrium

Business Cycle in the AD-AS (1)

- Business cycle happens because AD and AS fluctuate but the money wage rate does not adjusts quickly enough
  - Real GDP fluctuates around potential GDP
- When the equilibrium has higher employment rate than the full-employment, then <u>inflationary gap</u> happens

Business Cycle in the AD-AS (2)

- When the equilibrium has lower employment rate compared to full-employment, then <u>recessionary gap</u> happens

Fluctuation in AS

- Commonly, we would expect the AD that fluctuates more compared to AS
  - Firms react to consumers choice and preference, instead of the other way around
- Stagflation happens when the economy is in a recession and the price level increases

Macroeconomic School of Thoughts (1)

- Classical View
  - Economy is always at full employment
  - AD fluctuation happens because of technological advancement
    - Increases capital productivity vs lengthens the useful life of capital goods
  - Money wage rate adjusts quickly to maintain equilibrium
  - Tax should be minimized
- Keynesian View
- Monetarist View

Macroeconomic School of Thoughts (2)

- Classical View
- Keynesian View
  - When left alone, the economy would not be at full employment
  - Fiscal and monetary policy are required
  - Fluctuations in AD due to expectations
  - Money wage rate is sticky (does not go down). <u>Sticky wage</u>
- Monetarist View

Macroeconomic School of Thoughts (3)

- Classical View
- Keynesian View
- Monetarist View
  - The economy will normally operate at full employment if:
    1. Monetary policy are not erratic
    2. The pace of money growth is steady
  - Fluctuations in AD is mainly due to quantity of money
  - Sticky wage
  - No real policy is needed when the quantity of money is growing steadily