

# Chapter 9 Economic Fluctuations

## 1 Time Horizons in Macroeconomics

- The Short Run
  - Prices are sticky  $\implies$  Capital and labor are sometimes not fully employed.
- The Long Run (Chapter 3 and 4): several years
  - Prices are flexible  $\implies$  Capital and labor are fully employed.
  - Taking as fixed  $F(K, L)$
- The Very Long Run (Chapter 7 and 8): several decades or longer
  - the Solow Model

## 2 Aggregate Demand

### 2.1 The Quantity equation as Aggregate Demand

$$MV = PY$$

1. The aggregate demand curve shows the relationship between the price level  $P$  and the quantity of goods and services demanded at  $Y$ .
2. It is drawn for a given value of the money supply  $M$  and velocity  $V$ .
3. The aggregate demand curve slopes downward.

Shifts in the Aggregate Demand Curve

### 3 Aggregate Supply

1. Aggregate supply is the relationship between the quantity of goods and services supplied and the price level.
2. The aggregate supply relationship depends upon the time horizon.
  - The long run: the vertical aggregate supply curve
  - The short run: the horizontal aggregate supply curve

## 3.1 The Long Run

$$Y = F(\bar{K}, \bar{L}) = \bar{Y}$$

Definition 3.1 *The long run level of output,  $\bar{Y}$ , is called the full-employment or natural level of output. It is the level of output at which the economy's resources are fully employed or, most realistically, at which unemployment is at its natural rate.*

Characteristics of the long run: aggregate supply curve (classical dichotomy)

Effect of the changes in aggregate demand in the long run

## 3.2 The Short Run

Assume that all prices are stuck at predetermined level in the short run, the short run aggregate supply curve is horizontal.

Effect of the changes in the aggregate demand in the short run

## 3.3 From the Short Run to the Long Run

Case study: the Contraction of the 1870s

## 4 Stabilization Policy

Definition 4.1 *A shock that shifts the aggregate demand curve is called a demand shock.*

Definition 4.2 *A shock that shifts the aggregate supply curve is called a supply shock.*

### 4.1 Shocks to Aggregate Demand

Example: An increase in  $V$ .

### 4.2 Shocks to Aggregate Supply

Example: a drought, international oil cartel and etc.

Definition 4.3 *Stagflation combines stagnation (falling output) with inflation (rising prices).*

The policy dilemma of dealing with a supply shock