

## Business Cycles



# Assessment Objectives

<b>Specific Expectations</b>	
2.A	Define (using graphs and data as appropriate) turning points and phases of the business cycle.
2.A	Explain (using graphs and data as appropriate) turning points and phases of the business cycle.

# Business Cycles

- **Business cycles** fluctuations in an economy's aggregate output and employment can be illustrated in an economic model known as the business cycle.
  - ▶ **Business cycles** consist of short-term fluctuations in the growth of real output, which are alternating periods of expansion (increasing real output) and contraction (decreasing real output).
  - ▶ The business cycle shows how a country's real GDP fluctuates over time because of changes in aggregate supply and/or aggregate demand.
- 1. An **expansion** is a phase of the business cycle during which GDP increases
  - During expansions, employment of resource increases, and the general price level of the economy (which is an average over all prices) usually begins to rise more rapidly.

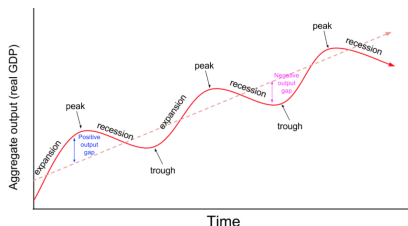
2. A **peak** is the turning point at which GDP stops increasing and begins decreasing.
  - A peak represents the cycle's maximum real GDP, and marks the end of the expansion.
  - When the economy reaches a peak, unemployment of resources has fallen substantially, and the general price level may be rising quite rapidly; the economy is likely experiencing inflation.
3. A **contraction** is the phase of the business cycle during which GDP decreases.
  - If the contraction lasts six months (two quarters) or more, it is termed a **recession** characterized by falling GDP and growing unemployment of resources.
  - Increase in the price level may slow down a lot, and it is even possible that prices in some sectors may begin to fall.

# Business Cycles

4. A **trough** is the turning point at which GDP stops decreasing and begins increasing. A trough represents the cycle's minimum level of GDP, or the end of the contraction.
  - There is now widespread unemployment. A trough is followed by a new period of expansion (also known as a recovery), marking the beginning of a new cycle.
- ▶ Expansions and recession can lead to positive and negative output gaps, which occurs when an economy is producing at a level of output that is above or below what it would be achieving if it produced on its long-run growth trend line.
- ▶ Positive output gaps occur in an economy that is overheating and are resolved when the business cycle reaches a peak and enters a recession.
- ▶ Negative output gaps occur in an economy that is producing below its full employment level of output because of a recession.
- ▶ Potential output is also called the full-employment level of output. It is the level of GDP where unemployment is equal to the natural rate of unemployment.

# Business Cycles: Short-term fluctuations

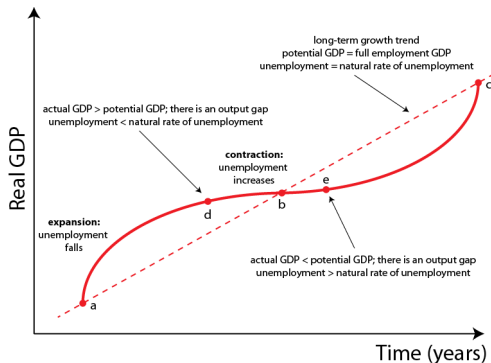
- The **Long-term growth trend** in the business cycle diagram, refers to the line that runs through the business cycle curve, representing average growth over long periods of time.
  - ▶ Shows how output grows over time when cyclical fluctuations are ironed out.
  - ▶ The output represented by the long-term growth trend is known as **potential output**.



# Relation between Unemployment and Potential Output

- When GDP fluctuates it does so together with other macroeconomic variables.
  - ▶ When GDP grows in the **expansion phase**, unemployment falls.
    - Real GDP increase because firms produce more output; to do this, they hire more labour (and other resources) and unemployment falls.
  - ▶ In the **contraction phase** when GDP falls, unemployment increases.
    - In a contraction, real GDP falls because firms cut back on production; as they lay off workers, unemployment increases
- For every economy, there is a level of GDP at which the economy experiences “**full employment**” .
  - ▶ This is the full employment level of output, or full employment level of real GDP.
  - ▶ Whenever an economy produces its “full employment level of output”, there is still some unemployment, known as the “natural rate of unemployment” .

# Relation between Unemployment and Potential Output



- ▶ When the economy's actual GDP is at points **a**, **b** and **c**, actual GDP is equal to potential GDP and the economy is achieving full employment, when unemployment is equal to the natural rate of unemployment (NRU).

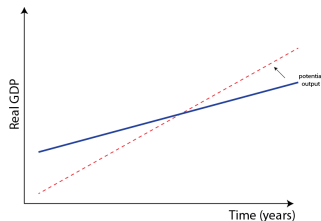
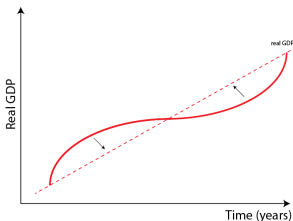


# Relation between Unemployment and Potential Output

- ▶ When the economy's actual GDP is greater than potential GDP, such as at point **d**, there is an output gap, and unemployment falls to less than the natural rate.
- ▶ When actual GDP is less than potential GDP, such as at point **e**, there is an output gap where unemployment is greater than the natural rate.

# Business Cycle

- Using the business cycle, we can understand macroeconomic objectives to include:
  - ▶ Reducing the intensity of expansions and contractions; this is aimed at making output gaps as small as possible, by flattening the cyclical curve. This would lessen the problems of rising price levels or inflation expansions and unemployment contractions.
  - ▶ Increasing the steepness of the line representing potential output, by achieving more rapid economic growth over long periods of time.



# Summary

- **Enduring Understanding**

- ▶ The economy fluctuates between periods of expansion and contraction in the short run, but economic growth can occur in the long run.

- **Essential Knowledge**

- ▶ Business cycles are fluctuations in aggregate output and employment because of changes in aggregate supply and/or aggregate demand.
- ▶ The phases of a business cycle are recession and expansion.
- ▶ The turning points of a business cycle are peak and trough.
- ▶ The difference between actual output and potential output is the output gap.
- ▶ Potential output is also called full-employment output. It is the level of GDP where unemployment is equal to the natural rate of unemployment.