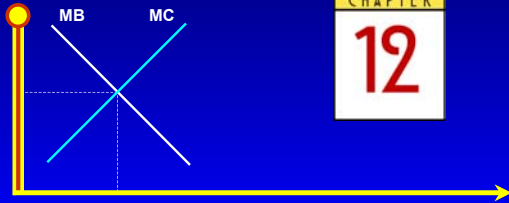


## Short-Term Economic Fluctuations: An Introduction

CHAPTER  
**12**



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## Recessions and Expansions

- Recession (or contraction)
  - A period in which the economy is growing at a rate significantly below normal
- Depression
  - A particularly severe or protracted recession

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## Fluctuations in U.S. Real GDP, 1920-2001



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## Recessions and Expansions



### Economic Naturalist

- Calling the 2001 recession
  - ◆ Business cycle dating committee of the National Bureau of Economic Research
  - ◆ March 2001

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## Some Facts About Short-term Economic Fluctuations

- Economic fluctuations are irregular in length and severity
- Economic fluctuations are felt throughout the economy and may have a global effect

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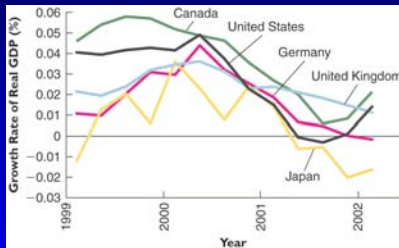
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## Real GDP Growth in Five Major Countries, 1999-2002




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## Some Facts About Short-term Economic Fluctuations

- Unemployment is a key indicator of short-term economic fluctuations.
- Industries that produce *durable* goods are more affected than *nondurable* & *service* industries.

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## Some Facts About Short-term Economic Fluctuations

- Recessions are usually followed by a decline in inflation and many have been preceded by an increase in inflation.

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## U.S. Inflation, 1960-2001




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## Output Gaps and Cyclical Unemployment

- Potential Output,  $Y^*$  (or potential real GDP or full-employment output)
  - The amount of output (real GDP) that an economy can produce when using its resources, such as capital and labor, at normal rates
  - **EMPHASIS on NORMAL RATES**

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## Output Gaps and Cyclical Unemployment

- Explaining the variation in the growth in output:
  - Changes in the rate at which the country's potential output is increasing
  - Actual output does not always equal potential output

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## Output Gaps and Cyclical Unemployment

- Output Gap
  - $Y^*$  (potential output) -  $Y$  (actual output)
- Recessionary Gap
  - $Y^* > Y$
- Expansionary Gap
  - $Y > Y^*$

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**Output Gaps and Cyclical Unemployment**

- **Recessionary Gap:  $Y^* > Y$** 
  - Capital and labor resources are not fully utilized
  - Output and employment are below normal levels

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**Output Gaps and Cyclical Unemployment**

- **Expansionary Gap:  $Y > Y^*$** 
  - Higher output and employment than normal
  - Demand for goods exceed the capacity to produce them and prices rise
  - High inflation reduces economic efficiency

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**Output Gaps and Cyclical Unemployment**

- **The Natural Rate of Unemployment and Cyclical Unemployment**
  - Recessionary gaps are characterized by high unemployment.
  - Expansionary gaps are characterized by unusually low unemployment.

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**Output Gaps and Cyclical Unemployment**

- The Natural Rate of Unemployment and Cyclical Unemployment
  - Types of unemployment (revisited)
    - ◆ Frictional
    - ◆ Structural
    - ◆ Cyclical

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**Output Gaps and Cyclical Unemployment**

- The Natural Rate of Unemployment and Cyclical Unemployment
  - Natural rate of unemployment,  $u^*$ 
    - ◆ Attributable to frictional and structural unemployment
    - ◆ Cyclical unemployment equals zero
    - ◆ No recessionary or expansionary gap
    - ◆ Cyclical unemployment =  $u - u^*$ 
      - total unemployment - natural rate

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**Output Gaps and Cyclical Unemployment**

- The Natural Rate of Unemployment and Cyclical Unemployment
  - During recessionary gaps:
    - ◆  $u > u^*$  and cyclical unemployment is positive

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## Output Gaps and Cyclical Unemployment

- The Natural Rate of Unemployment and Cyclical Unemployment
  - During expansionary gaps:
    - ◆  $u < u^*$  and cyclical unemployment is negative

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## Output Gaps and Cyclical Unemployment

- Okun's Law
  - Each extra percentage point of cyclical unemployment is associated with about a 2 percentage point increase in the output gap, measured in relation to potential output

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## Example 12.1

Year	$u$	$u^*$	$Y^*$
1982	9.7%	6.1%	3,433
1991	6.8	5.8	6,093
1998	4.5	5.2	8,563

**1982**  
 •  $u - u^* = \text{cyclical unemployment}$   
 •  $9.7 - 6.1 = 3.6\%$   
 • Output gap =  $2 \times 3.6 = 7.2\%$   
 • Output gap =  $3,433 \times .072 = \$247 \text{ billion}$

**1991**  
 •  $6.8 - 5.8 = 1\%$   
 • Output gap =  $6,093 \times .02 = \$122 \text{ billion}$

**1998**  
 •  $4.5 - 5.2 = -0.7$   
 • Output gap =  $8,563 \times -.014 = -\$120 \text{ billion}$

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## Output Gaps and Cyclical Unemployment

- Okun's Law
  - The 1982 output gap per capita
    - ◆ \$247 billion/230 million = \$1,074 or \$4,300 for a family of four
    - ◆ In 2001 dollars it equals \$7,100 for a family of four

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## Why Do Short-Term Fluctuations Occur? A Preview and a Parable

- Why Do Short-Term Fluctuations Occur?
  1. Prices may not adjust in the short-run and firms adjust output to meet demand.
  2. When firms meet demand at preset prices, changes in economywide spending are the primary cause of output gaps.

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## Why Do Short-Term Fluctuations Occur? A Preview and a Parable

- Why Do Short-Term Fluctuations Occur?
  3. Firms will eventually adjust prices to eliminate output gaps.
  4. In the long-run, output is determined by productive capacity and spending influences only inflation.

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