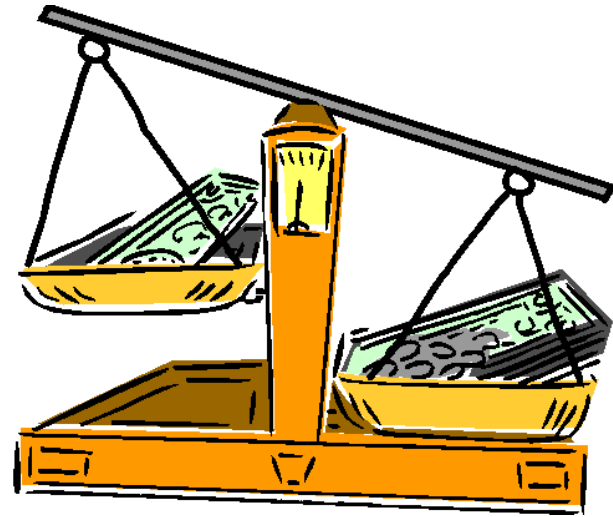


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Introduction to Economic Growth and Instability

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Chapter Objectives


- **The Business Cycle and its Primary Phases**
- **How Economic Growth is Measured and Why is it Important**
- **How Unemployment and Inflation are Measured**
- **The Types of Unemployment and Inflation and their Various Economic Impacts**

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Economic Growth

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- Increase in Real GDP – Inflation adjusted increase in GDP over time (year or quarter)
- Increase in Real GDP Per Capita – Inflation adjusted increase in GDP per person over time (year or quarter)
- Growth as a Goal – increases the standard of living, lessens the burden of scarcity
- Arithmetic of Growth - Rule of 70 –  W 7.1 shows how long it takes something to double

Approximate number of years required to double real GDP = $\frac{70}{\text{annual percentage rate of growth}}$

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Economic Growth

- Main Sources of Growth
 - Increases in Inputs – additional factors of production become available (1/3)
 - Increases in Resource Productivity – the factors of production we already have become more efficient (2/3)
- Productivity in the United States – has grown on average 3.5% per year from 1950-2005
 - Improved Products and Services
 - Added Leisure
 - Other Impacts

Key Terms



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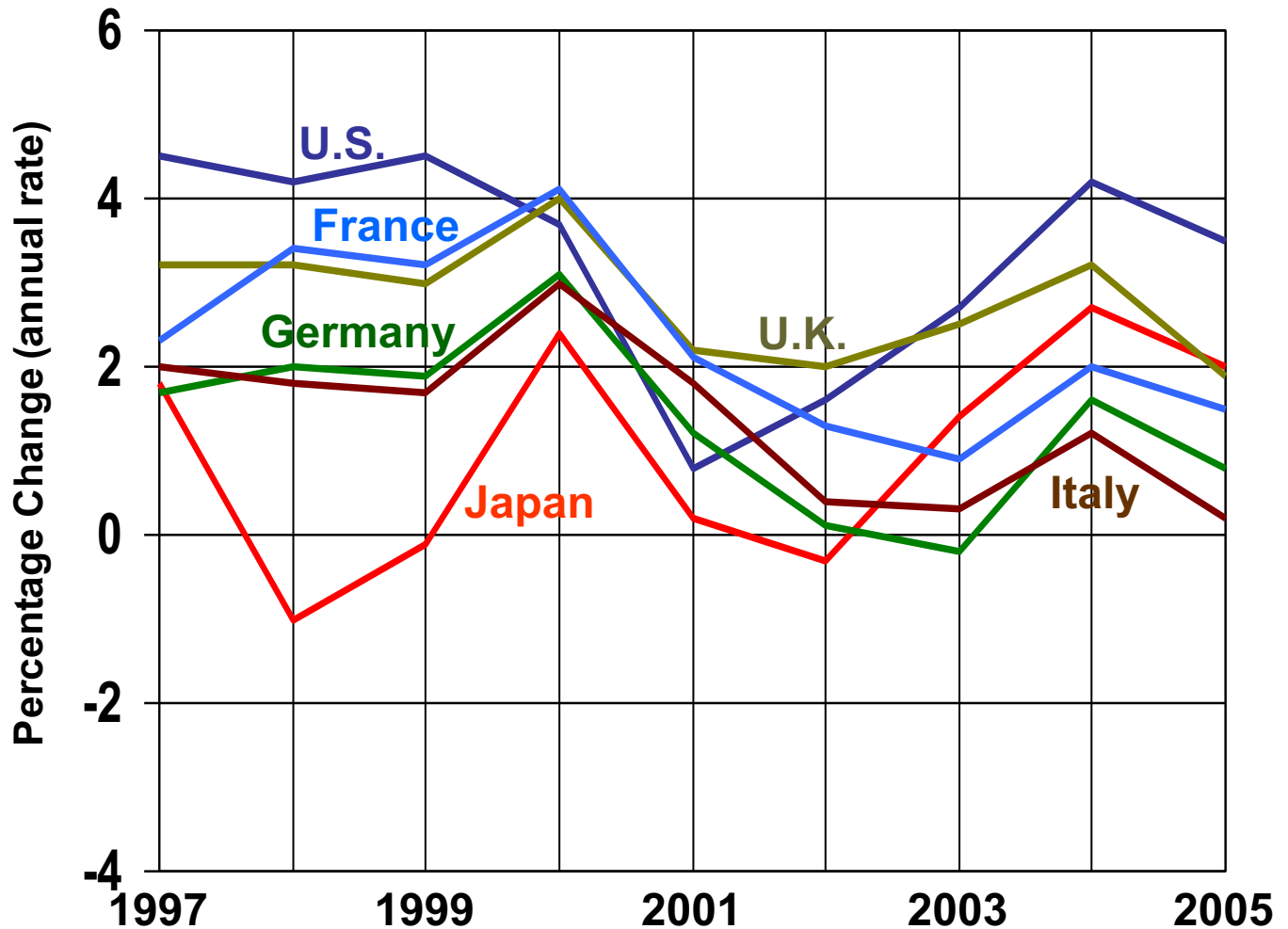


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Selected Growth Rates



GLOBAL PERSPECTIVE



Source: Economic Report of the President, 2006

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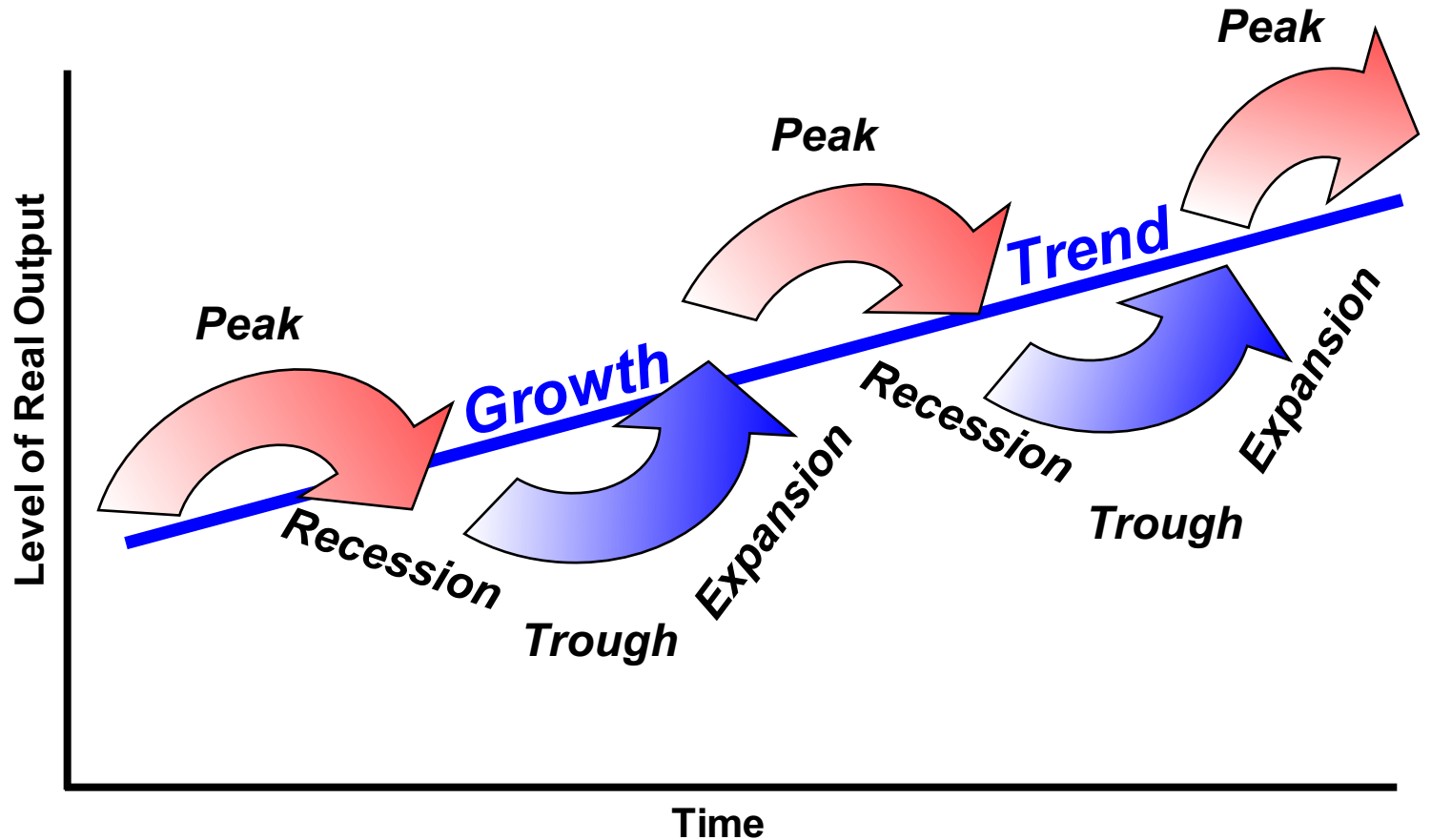
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The Business Cycle

Phases of the Business Cycle



07.1



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Cyclical Impact: Durables and Nondurables

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The Business Cycle

- Peak – business activity at max, at or near full employment, real output at or near capacity (inflation!)
- Recession (contraction) – period of decline in output, income, and employment, real GDP falling, (unemployment!)
- Trough – economy has “bottomed out”, output and employment at lowest levels (unemployment!)
- Expansion/Recovery (growth) – income and employment rise, real GDP increases, output increases (inflation!)

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Unemployment

- Twin Problems of the Business Cycle
 - Unemployment (recession, contraction, depression, trough)
 - Inflation (expansion, recovery, peak)
- Measurement of Unemployment – random survey of households to determine the unemployment rate
- Labor Force – over 16, willing and able to work



W 7.2

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Unemployment

- Unemployment Rate – percentage of the labor force that is unemployed

- Part-Time Employment – BLS counts all workers as fully employed (even though some may be underemployed)

- Discouraged Workers – unemployed workers who have given up looking for work are not counted in the labor force



W 7.2

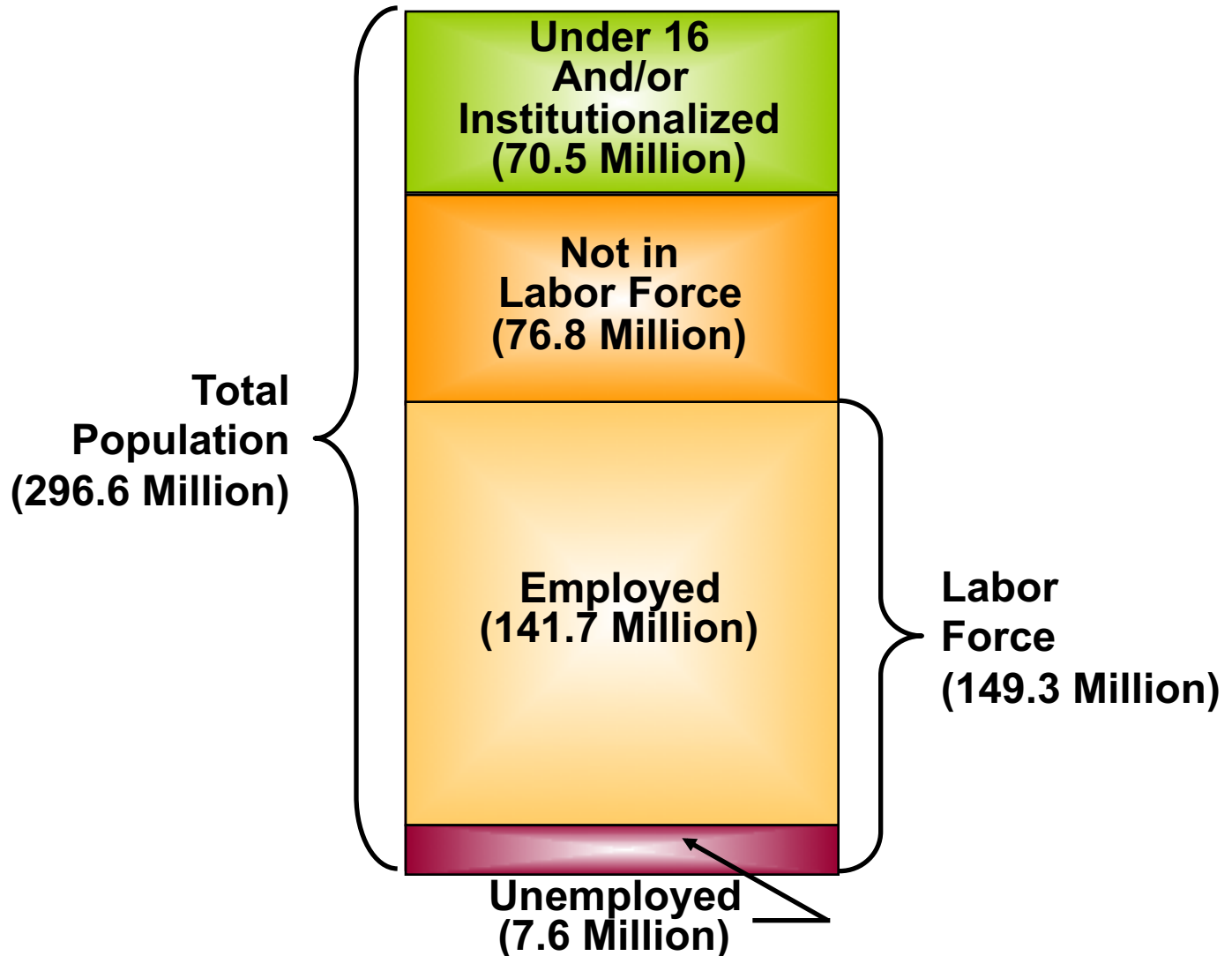
$$\text{Unemployment Rate} = \frac{\text{Unemployed}}{\text{Labor Force}} \times 100$$

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Unemployment

Labor Force, Employment, and Unemployment, 2005

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Unemployment

- Types of Unemployment
 - Frictional Unemployment – “between jobs”, temporary unemployment while people look for jobs or wait for jobs, inevitable, can be a positive
 - Structural Unemployment – job skills don’t match job market, geographic shifts in labor market, tends to be more long-term
 - Cyclical Unemployment – caused by a decline in total spending, decreased demand for goods and services, (recession phase of business cycle)

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Unemployment

- Full Employment Defined – occurs when there is no cyclical unemployment (frictional and structural unemployment is accepted)
- Full-Employment Rate of Unemployment – the unemployment rate when the economy is “fully employed” (no cyclical unemployment)
- Natural Rate of Unemployment (NRU) - the # of job seekers = # of job vacancies, the economy is producing its potential output, usually between 4-6%

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Unemployment



W 7.3

- Economic Cost of Unemployment – forgone output (inside the PPC)
- Potential Output – GDP when the economy is operating at the NRU.
- GDP Gap – difference between actual GDP and potential GDP (can be + or -)
- Okun's Law – every 1% that the actual unemployment exceeds NRU, a 2% negative GDP gap occurs
- EX: UE=8%, 3% beyond NRU=6% below potential GDP

$$\text{GDP Gap} = \text{Actual GDP} - \text{Potential GDP}$$

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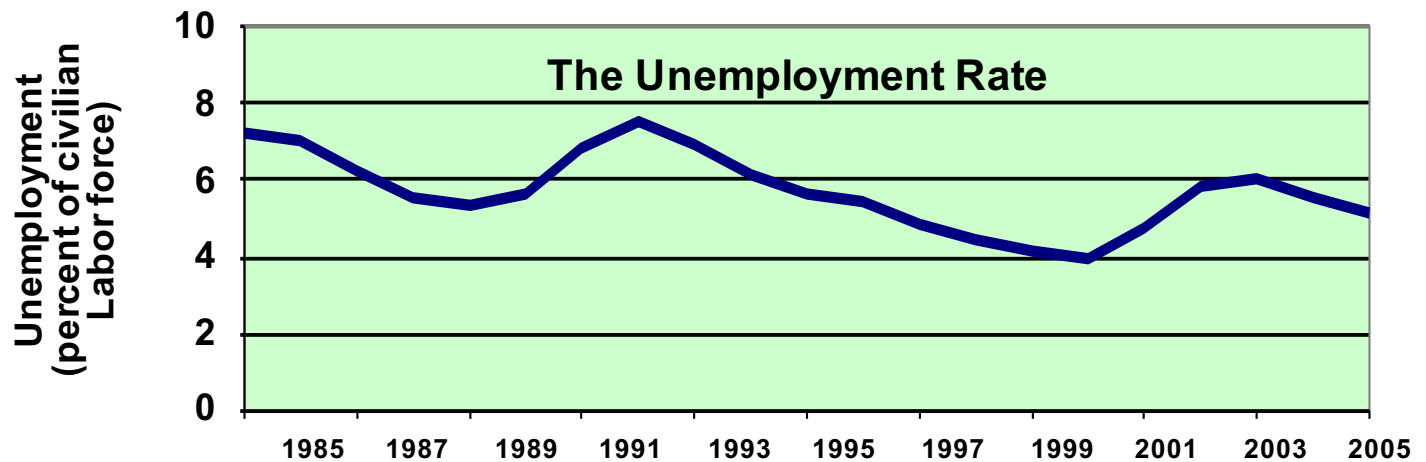
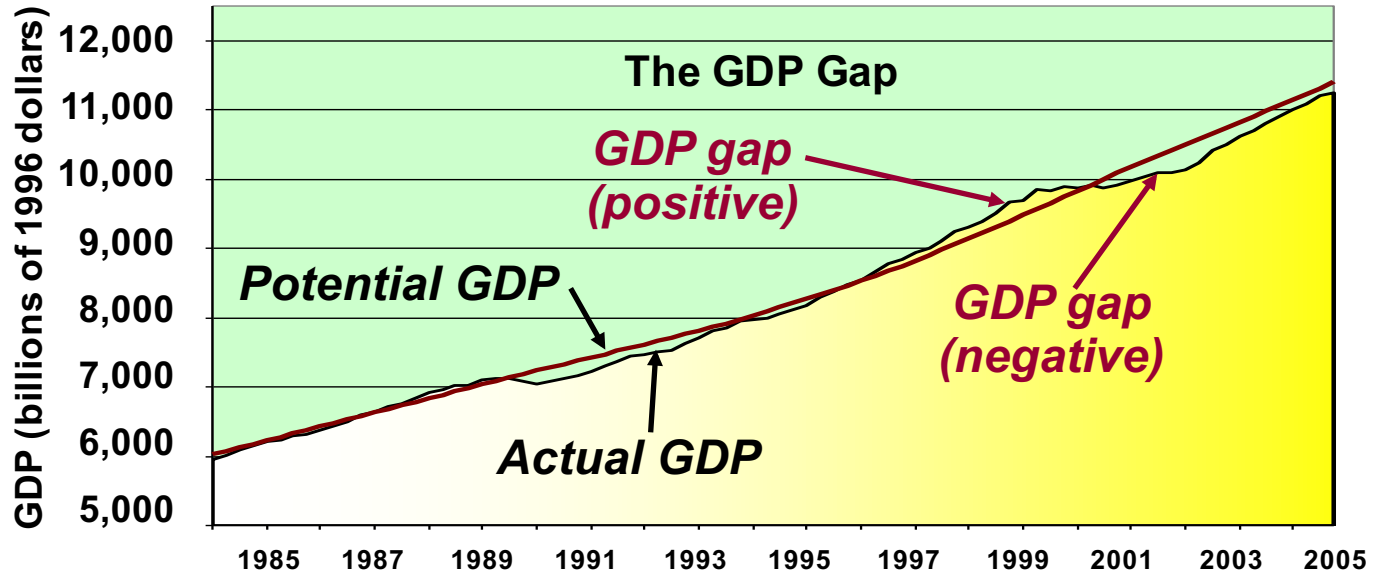
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Unemployment

Actual and Potential GDP and the Unemployment Rate



Source: Congressional Budget Office & Bureau of Economic Analysis

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Unemployment

- Unequal Burdens
 - Occupation (lower skills = higher unemployment)
 - Age (teenagers have higher unemployment)
 - Race and Ethnicity (whites have lower unemployment)
 - Gender (no significant difference)
 - Education (lower education = higher unemployment)
 - Duration (most unemployment lasts 15 weeks or less – exception: recessions)
- Noneconomic Costs – depression, social unrest, racial tension, political instability

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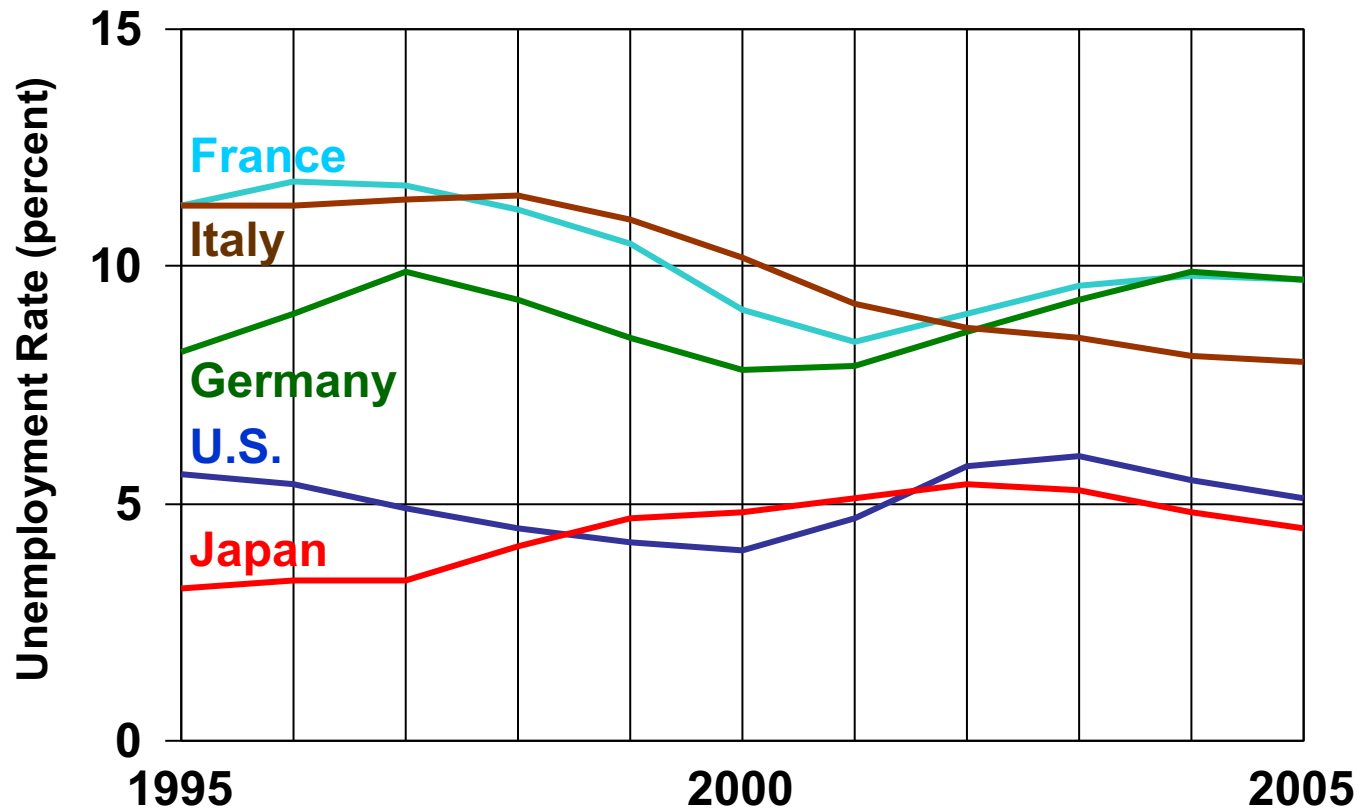
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Unemployment



GLOBAL PERSPECTIVE

Unemployment Rates in Five Industrial Nations, 1995-2005



Source: Bureau of Labor Statistics

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Inflation

- Inflation Defined – rise in the general level of prices
- Measurement of Inflation – Consumer Price Index (CPI), compiled by the Bureau of Labor and Statistics (BLS), used to adjust SS benefits and tax brackets.

$$\text{CPI} = \frac{\text{Price of the Most Recent Market Basket in the Particular Year}}{\text{Price of the Same Market Basket in 1982-1984 (Base Period)}} \times 100$$

$$\text{Inflation Rate} = \frac{\text{CPI current} - \text{CPI base}}{\text{CPI base}} \times 100$$

Key Terms



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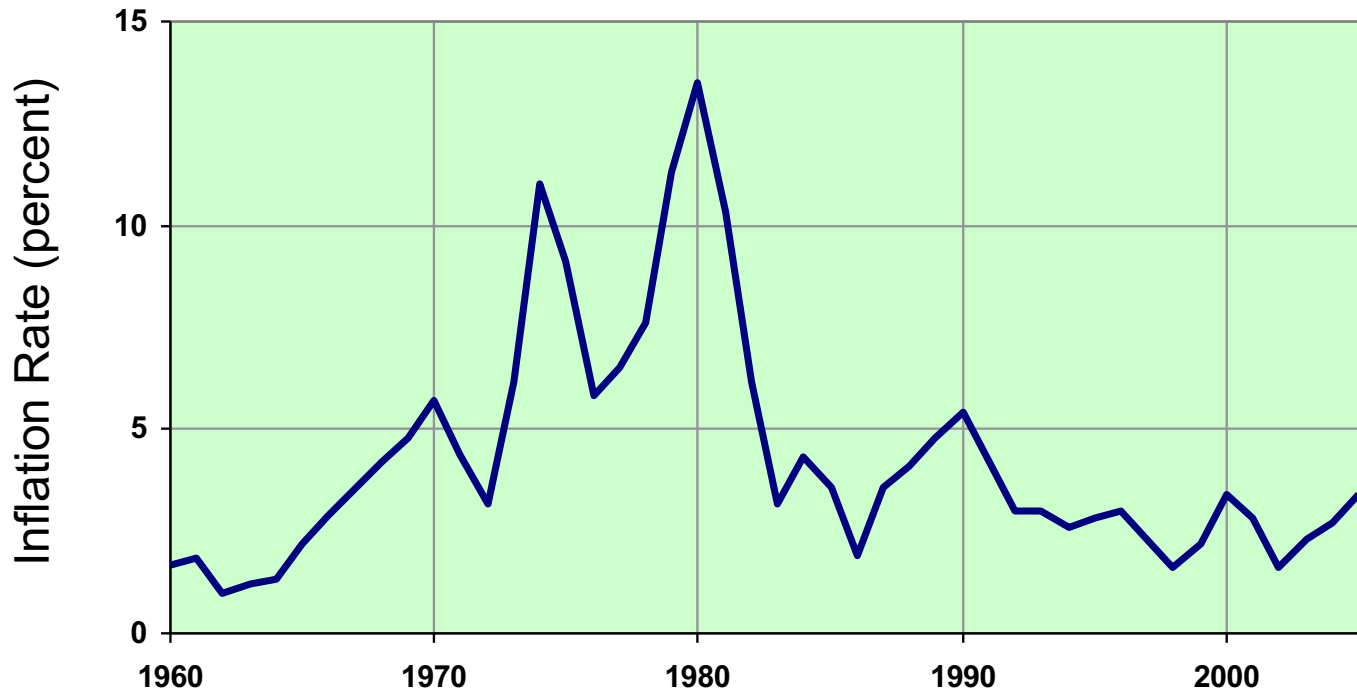


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Inflation

Annual Inflation Rates in the United States, 1960-2005

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Source: Bureau of Labor Statistics

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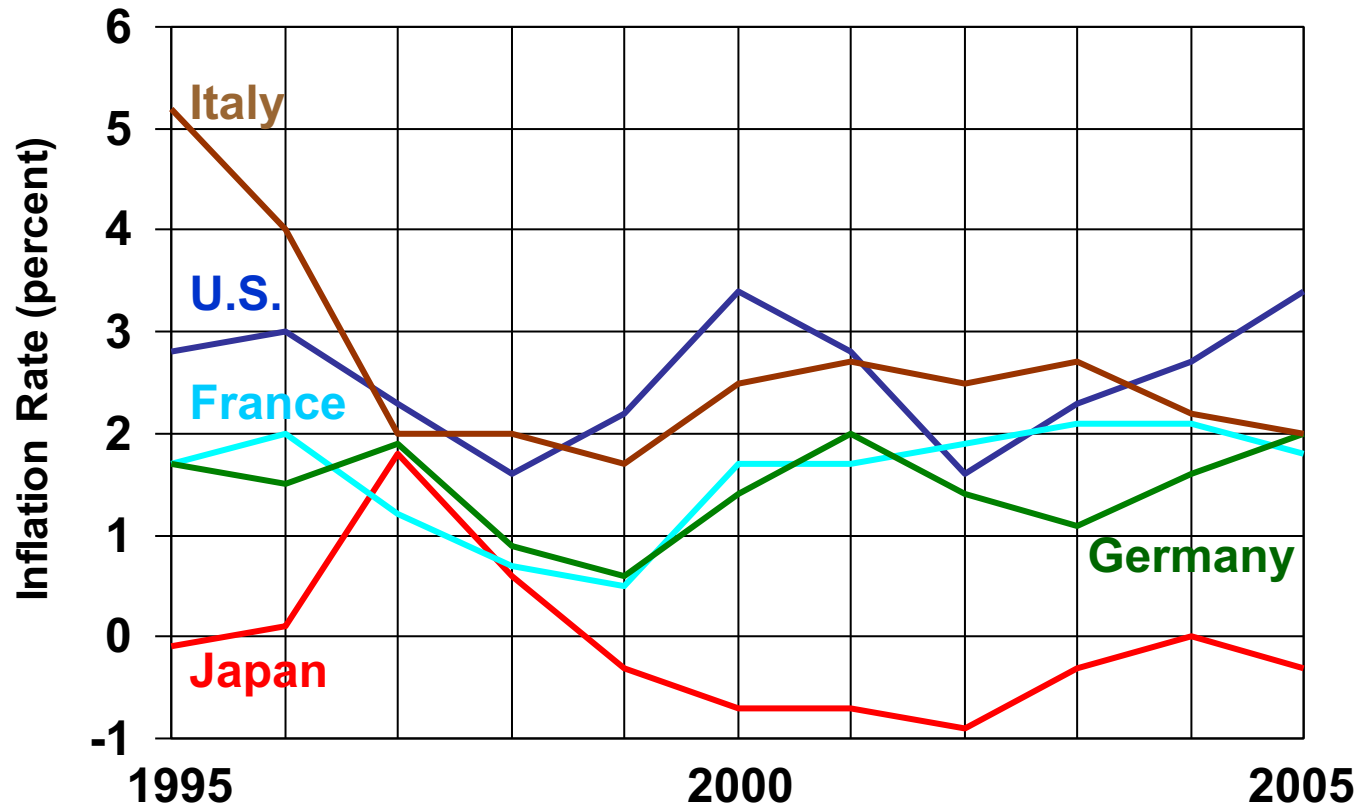
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GLOBAL PERSPECTIVE

Inflation Rates in Five Industrial Nations, 1995-2005



Source: Bureau of Labor Statistics

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Inflation

- Types of Inflation
 - Demand Pull Inflation – increases in prices caused by increased demand by consumers (total spending ↑)
 - Cost-Push Inflation – increases in prices caused by higher production costs (price of inputs ↑, *supply shocks*, can cause recession)

Key Terms



End Show



Chapter 7

Inflation

- Redistributive Effects
 - Nominal Income- number of dollars received as wages, rent, interest, or profits
 - Real Income – the purchasing power of nominal income
 - Real Income = $\frac{\text{nominal income}}{\text{price index (in hundredths)}}$
 - Anticipations
 - Anticipated Inflation – people can plan ahead/make adjustments, effects of inflation are lower for workers, savers, lenders, etc.
 - Unanticipated Inflation – no adjustment possible, impact is largest on everyone.

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Inflation

- **Who is Hurt by Inflation?**
 - Fixed-Income Receivers
 - Savers
 - Creditors
- **Who is Unaffected or Helped by Inflation?**
 - Flexible-Income Receivers
 - Cost-of-Living Adjustments (COLAs)
 - Debtors



W 7.4

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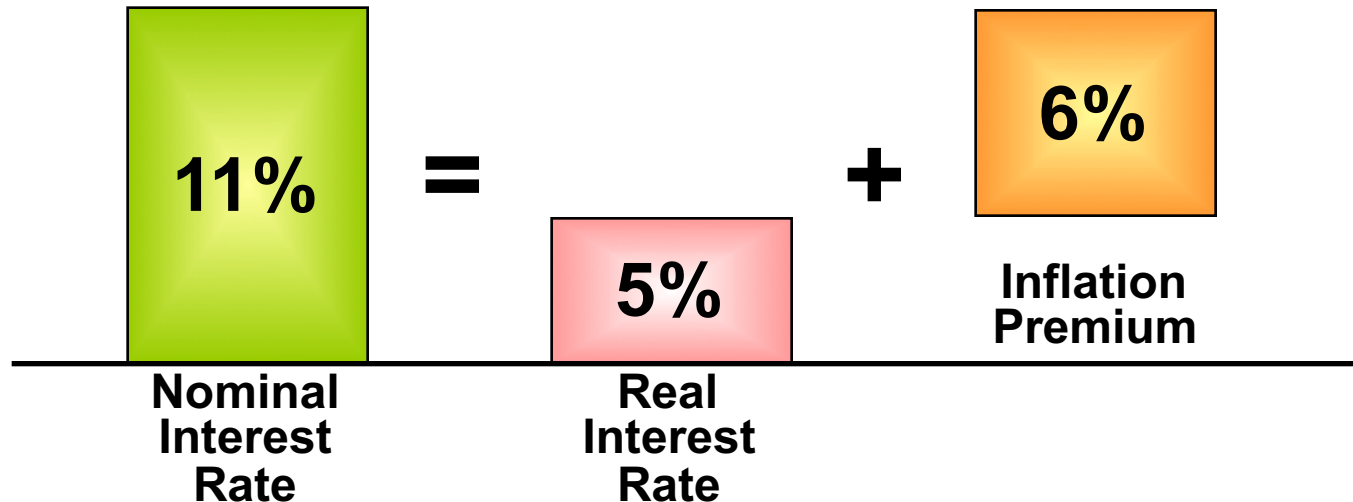
Inflation

- Anticipated Inflation

- Nominal Interest Rate – % increase in money that the borrower pays the lender
- Real Interest Rate – % increase in purchasing power that the borrower pays the lender
- Inflation Premium – raising the interest rate by the amount of expected inflation



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Inflation

- Deflation – decline in the general price level (opposite impact of inflation)
- Mixed Effects – savers, fixed income, lenders helped, debtors hurt, most people are a mix of both
- Cost-Push Inflation - reduces Real Output
- Demand-Pull Inflation - impact on Real Output is unclear
- Hyperinflation – extraordinarily rapid inflation is devastating to both real output and employment! (see p. 141)

Key Terms



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Chapter 7

The Stock Market and the Economy

Last Word

Do Stock Prices Affect Macroeconomic Instability?

- Supply and Demand in the Stock Market
- Collective Expectations of Future Profits and Losses
- Dow Jones Industrial Average (DJIA)
- Volatility of the Stock Market
- Wealth Effect
- Investment Effect
- Studies Show Consumption and Investment Unaffected
- Little Impact on Macroeconomy
- Stock Market Bubbles Do Have an Impact
- Stock Price Cycle Predictions
- Index of Leading Indicators
- Stock Prices Not a Reliable Predictor Alone

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Key Terms

- economic growth
- real GDP per capita
- rule of 70
- productivity
- business cycle
- peak
- recession
- trough
- expansion
- labor force
- unemployment rate
- discouraged workers
- frictional unemployment
- structural unemployment
- cyclical unemployment
- full-employment rate of unemployment
- natural rate of unemployment (NRU)
- potential output
- GDP gap
- Okun's law
- inflation
- Consumer Price Index (CPI)
- demand-pull inflation
- cost-push inflation
- per-unit production costs
- nominal income
- real income
- anticipated inflation
- unanticipated inflation
- cost-of-living adjustments (COLAs)
- real interest rate
- nominal interest rate
- deflation
- hyperinflation

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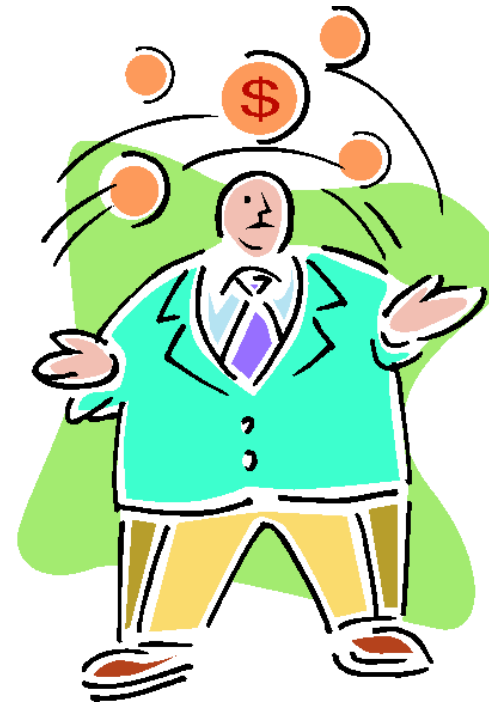
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Next Chapter Preview...



Basic Macroeconomic Relationships

Chapter 8!