

# Unemployment and Inflation

Unemployment  
Inflation

# Costs of Unemployment

- ⊕ **Personal Cost**
  - ▣ Loss of income
  - ▣ Loss of self-esteem
  - ▣ Increase in stress related psychological problems
  - ▣ Increase in incidence of crime, suicide, and mental illness
  
- ⊕ **Economic Cost**
  - ▣ Loss in output

# Labor Force

- ⊕ **Civilian Noninstitutional Adult Population**
  - ▣ All civilians 16 years of age and older
  - ▣ Excludes institutionalized in prisons or mental hospitals
  - ▣ Excludes those in military
  - ▣ Refer to the "adult population" in this chapter
  
- ⊕ **Labor force**
  - ▣ in the adult population
  - ▣ either working or looking for work

# Measuring Unemployment

- ⊕ **Unemployed**
  - ▣ Those with no job who are looking for work
  
- ⊕ **Unemployment rate**
  - ▣ Percentage of those in the labor force who are unemployed
  - ▣ Equals the number unemployed divided by the number in the labor force
  - ▣ Does not include discouraged workers
  
- ⊕ **Discouraged workers**
  - ▣ Those who are no longer looking for work but are unemployed

## Labor Force Participation Rate

- ❑ Number in the labor force divided by the adult population
- ❑ Increased from 60% in 1970 to approximately 67% in 1990
- ❑ Convergence of the participation rates of men and women over last 40 years as more women enter the labor force

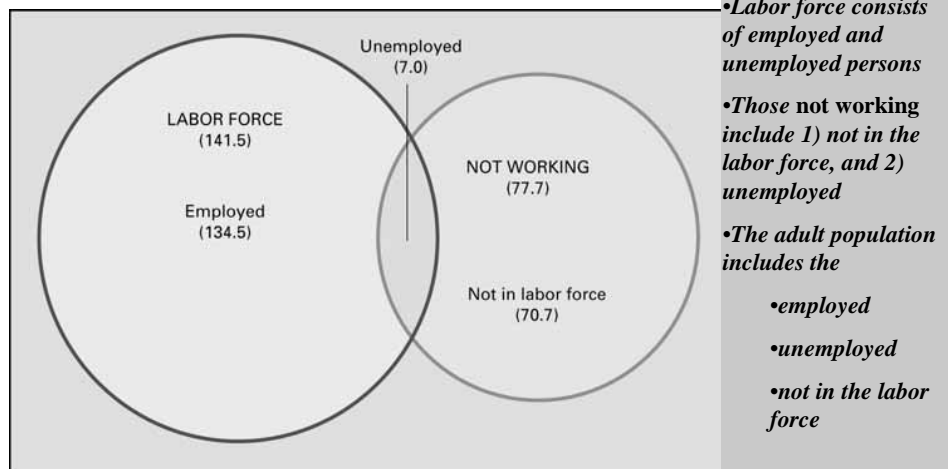
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## Trend of Unemployment Rate

- ⊕ Decline in the unemployment rate over last 20 years
  - ❑ Overall growth in the economy
  - ❑ Fewer teenagers in the work force
- ⊕ Unemployment rate says nothing about who is unemployed or for how long
  - ❑ Unemployment rates differ across
    - Race
    - Gender
    - Age
    - Geographical area
    - Occupational (職業) group

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## Composition of Adult Population, (in millions)



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## Types of Unemployment

- ⊕ Four sources of unemployment
  - ❑ Frictional unemployment
  - ❑ Structural unemployment
  - ❑ Seasonal unemployment
  - ❑ Cyclical unemployment

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## ***Frictional Unemployment***

- ⊕ ***Time required to bring together labor suppliers and labor demanders***
  - ▣ Employers need time to learn about the talent available
  - ▣ Job seekers need time to learn about employment opportunities
  
- ⊕ **Generally short-term and voluntary**

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## ***Structural Unemployment***

- ⊕ **Unemployed workers**
  - ▣ do not have the demanded skills
  - ▣ do not live where their skills are in demand
    - A mismatch of skills or geographic location
    - More of a problem than is frictional unemployment
  
- ⊕ **Changes in tastes, technology, taxes, or competition**
  - ▣ reduce the demand for certain skills and increase the demand for other skills

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## ***Seasonal Unemployment***

- ⊕ **Unemployment caused by seasonal changes in labor demand**
  - ▣ Ex:
    - Winter → the demand for farm hands declines
    - Christmas season → demand for retail employees increases
  
- ⊕ **To eliminate the impact, monthly unemployment statistics are seasonally adjusted to smooth out these factors**

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## ***Cyclical Unemployment***

- ⊕ **Occurs because of business cycle fluctuations in output**
  - ▣ occurred during recessions
  
- ⊕ **Government policies to stimulate aggregate demand to reduce this type of unemployment**

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## Full Employment

- ⊕ Changes in the market alter the supply and demand for particular types of labor
  - ▣ In a healthy economy, there will be frictional, structural, and seasonal unemployment
- ⊕ Full employment
  - ▣ Occurs when the only unemployment is frictional, structural, or seasonal
  - ▣ Does not mean zero unemployment
  - ▣ Counts only cyclical unemployment

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## Unemployment Compensation

(失業救済金)

- ⊕ Applies to unemployed workers who meet certain qualifications
  - ▣ Last for up to six months – longer in certain cases like high unemployment rate
  - ▣ Exclude:
    - Just enter or reenter labor force
    - Quit last job voluntarily
    - Fired for absenteeism or theft
  - ▣ Replaces on average about 40% of a person's take home pay

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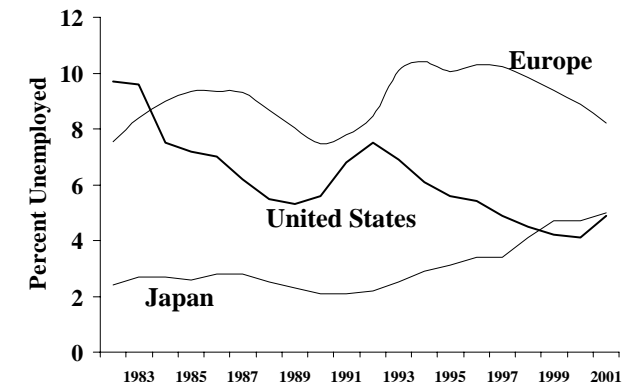
## Unemployment Compensation

- ⊕ Problems with unemployment compensation
  - ▣ Unemployed workers who receive benefits tend to search less actively
  - ▣ Reduce the urgency of finding work, increasing
    - average duration of unemployment
    - unemployment rate
- ⊕ On the plus side:
  - ▣ it allows for a higher-quality job search

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## Unemployment Rates

In the last two decades, the unemployment rate:  
Remained high in Europe    Fell in the U.S.    Rose in Japan



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## International Comparisons

- ⊕ Why are unemployment rates so high in Europe?
  - ❖ Ratio of unemployment benefits to average pay is higher
  - ❖ Unemployment Benefits last longer, sometimes years
  - ❖ Government regulations make employers in Europe reluctant to hire new workers because firing them is quite difficult

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## (新聞) 法國工會學生會慶祝廢黜新法

- ⊕ 法國政府推出的旨在改善青年就業難現象的新勞工法，遭到學運和工會組織的一致反對。
- ⊕ 總理維爾潘在接受電視專訪時重申，雖然政府方面錯誤估計了民間的牴觸情緒，但是定立新勞工法確實目的在於改善缺乏工作經驗的年輕人大批失業的現狀。
- ⊕ 一些專家提議，政府向那些願意雇用年輕人的公司企業提供國家資助，以鼓勵雇主雇用年輕人。

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## Problems with Unemployment Figures

- ⊕ Unemployment figures understate the actual amount of unemployment because of
  - ❖ *Discouraged workers*
    - those who have stopped looking for work
  - ❖ **Underemployment**
    - Find only part-time jobs
    - Vastly overqualified for their job

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## Unemployment and Inflation

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Inflation

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## Terminologies about Inflation

- **Inflation** is a sustained increase in the average price level
- **Hyperinflation**: Extremely high inflation
- A sustained decline in the average price level is called deflation
- A reduction in the rate of inflation is called disinflation

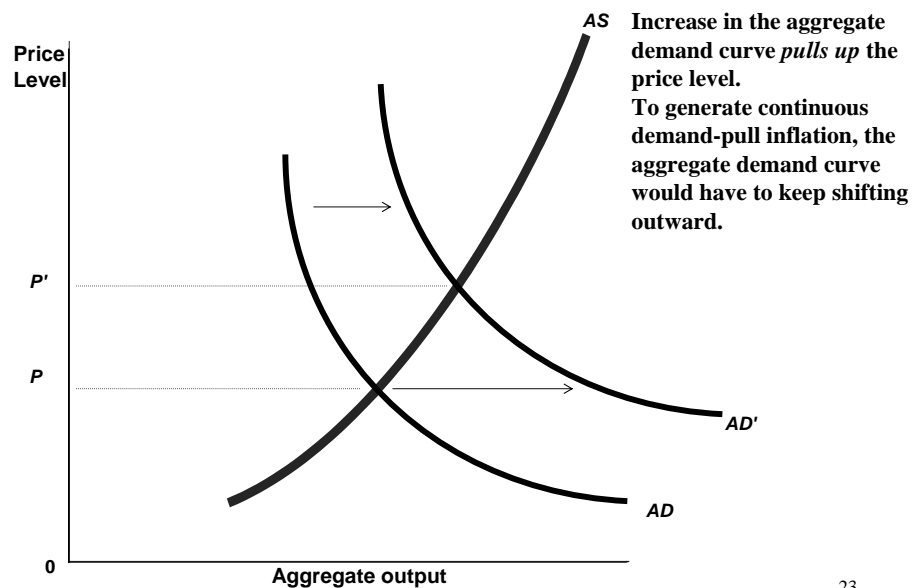
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## Inflation

- Typically measure inflation on an annual basis
- **Annual inflation rate**
  - ▣ the percentage increase in the average price level from one year to the next
- Two sources of inflation
  - ▣ Demand-pull inflation
  - ▣ Cost-push inflation

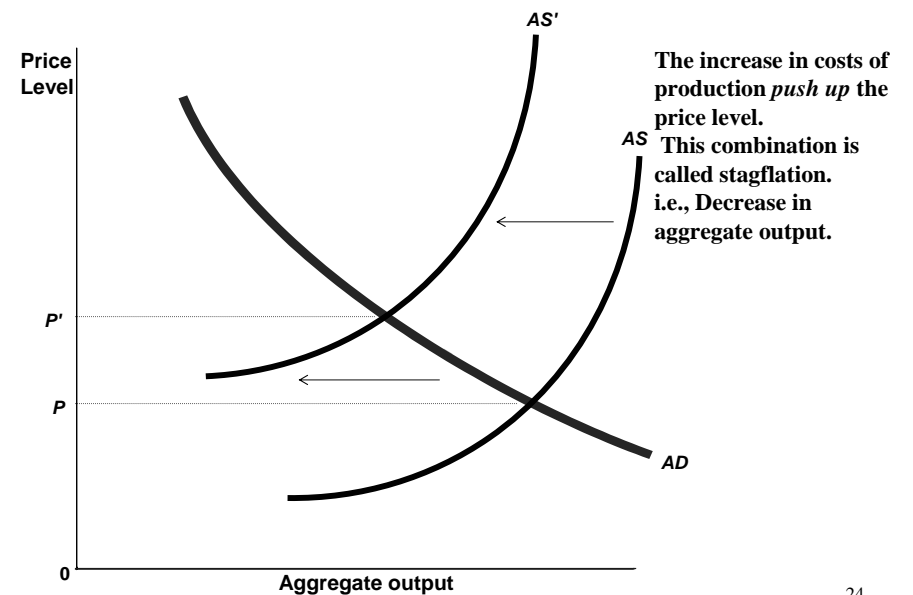
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## Demand-pull Inflation



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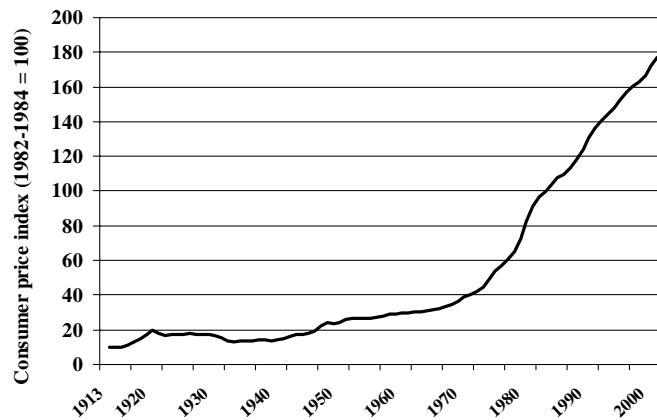
## Cost-push Inflation



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## CPI

CPI, consumer price index, measures the cost of a “market basket” of consumer goods and services over time.

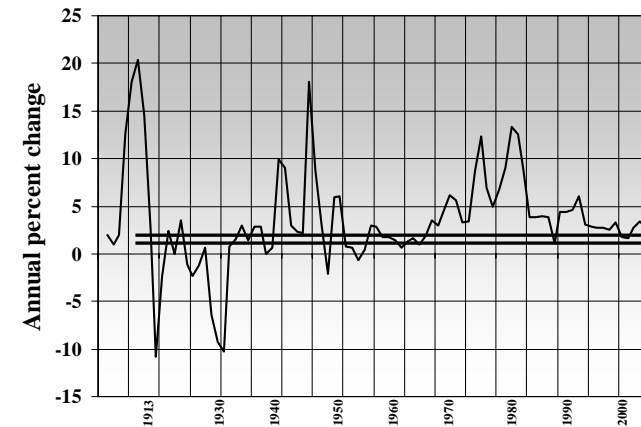


Source: The CPI Home page of the U.S. Bureau of Labor Statistics at [http://ftp.bls.gov/pub/special requests.cpi/cpia.html](http://ftp.bls.gov/pub/special%20requests.cpi/cpia.html)

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## Annual Change of CPI

Shows the annual rate of change in the CPI, or the annual rate of inflation or deflation



Source: The CPI Home page of the U.S. Bureau of Labor Statistics at [http://ftp.bls.gov/pub/special requests.cpi/cpia.html](http://ftp.bls.gov/pub/special%20requests.cpi/cpia.html)

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## Anticipated versus Unanticipated Inflation

- ⊕ **Unanticipated** inflation creates more problems for the economy than does *anticipated* inflation
  
- ⊕ **If inflation is higher or lower than anticipated, it arbitrarily creates winners and losers**
  - ▣ If it is higher than expected, the
    - Winners: contracted to pay a price, borrower
    - Losers: agreed to sell at that price, lender
  - ▣ If inflation is lower is lower than expected, the situation is reversed

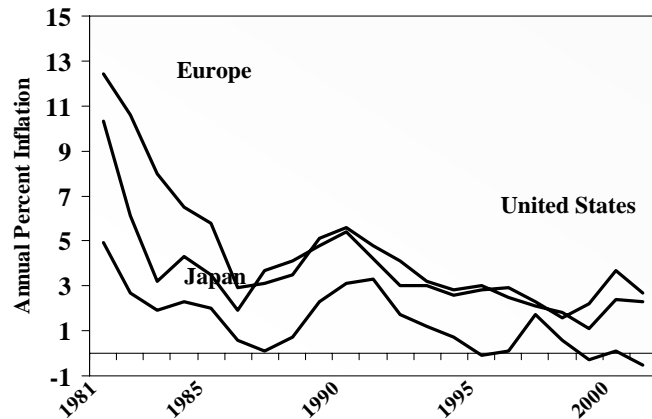
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## Transaction Costs of Inflation

- ⊕ **When prices are stable, people believe that they can predict future prices and can plan accordingly**
  - ▣ If inflation changes unexpectedly,
    - planning gets harder
    - undermines the ability of money to serve as a link between the present and the future
    - might not anticipate how the value of the dollar change relative to foreign currencies

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## Inflation Rates in Major Economies Have Trended Lower in Last Two Decades



Developed from annual CPI inflation reported in *OECD Economic Outlook*, 69 (June 2001), Annex Table 16. Europe averages France, Germany, Italy, and U.K. For latest data go to [www.oecd.org/eo/](http://www.oecd.org/eo/).

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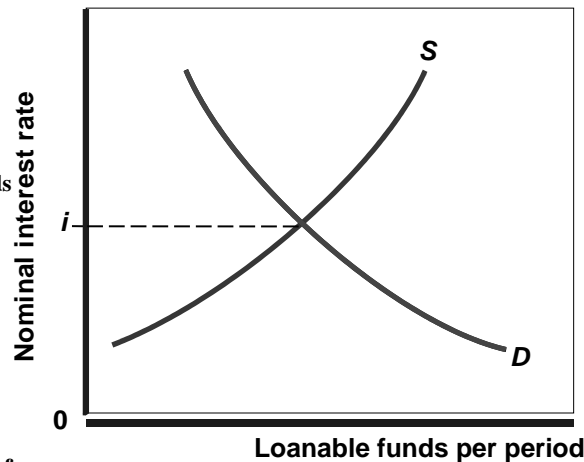
## Inflation and Interest Rates

- **Interest** is the dollar amount paid by borrowers to lenders
  - Lenders are rewarded for forgoing present consumption
- The interest rate is the interest per year as a percentage of the amount loaned
- Next slide provides information on the loanable funds market

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## The Market for Loanable Funds

The higher the interest rate, the higher cost of borrowing → the quantity of loanable funds demanded decreases → The demand curve for loanable funds is downward sloping.



The equilibrium interest rate is determined by the intersection of the supply of and demand for loanable funds.

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## Interest Rates

- **Nominal interest rate**
  - Measures interest in terms of the current dollars paid
  - Appears on the borrowing agreement
  - The rate quoted in the news media
- **Real interest rate**
  - nominal interest rate - inflation rate
  - Expressed in dollars of constant purchasing power

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## Interest Rates

- ⊕ **With no inflation,**
  - ⊞ Nominal interest rate = real interest rates
- ⊕ **With inflation, the nominal interest rate exceeds the real interest rate**
  - ⊞ If the inflation rate is high enough, the real interest rate is negative
    - lenders would lose purchasing power
    - This is why lenders and borrowers are concerned more about the real interest rate

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## Interest Rates

- ⊕ **Because the future is uncertain, lenders and borrowers must form expectations about inflation**
- ⊕ **They base their willingness and expectations to lend and to borrow**
  - ⊞ The higher the expected rate of inflation,
    - the higher the nominal rate of interest
    - Expected real interest rate =  
nominal interest rate - expected inflation rate

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## Why is Inflation Unpopular?

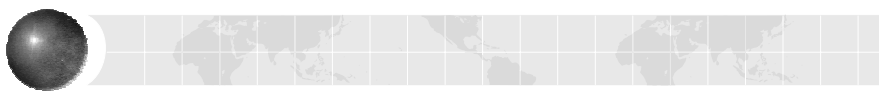
- ⊕ **Perspectives on inflation**
  - ⊞ In terms of spending:
    - Paying higher prices
  - ⊞ In terms of higher money incomes –
    - higher wages – inflation is not all bad
- ⊕ **Most individuals view**
  - ⊞ higher incomes as deserved rewards for their labor
  - ⊞ see inflation as a penalty that unjustly robs them of purchasing power

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## Why is Inflation Unpopular?

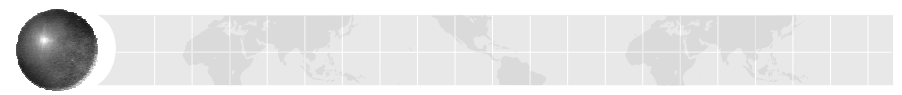
- ⊕ **Problems with unanticipated inflation**
  - ⊞ It hits those whose incomes are fixed in nominal terms
  - ⊞ Arbitrarily redistributes income and wealth from one group to another
  - ⊞ Reduces the ability to make long-term plans
    - The more unpredictable inflation is, the greater the difficulty of negotiating long-term contracts
  - ⊞ Forces buyers and sellers to pay more attention to prices
    - Spend more time coping with uncertainty created by inflation, they have less time for production → overall productivity of economy falls

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## 課堂報告

- ⊕ 請解釋何謂Labor force
- ⊕ 請舉例說明再何種狀況下會發生Seasonal Unemployment
- ⊕ 請說明何謂Structural Unemployment
- ⊕ 請說明何謂discouraged worker 和 underemployment
- ⊕ 請解釋何謂demanded pull inflation
- ⊕ 請解釋何謂nominal interest rate和 real interest rate



## Homework

- ⊕ 16 Measure the unemployment rate
- ⊕ 18 Measure the inflation rate