



ECONOMICS

PRIVATE AND PUBLIC CHOICE

16TH EDITION

GWARTNEY – STROUP – SOBEL – MACPHERSON

Economic Fluctuations, Unemployment, and Inflation

Full Length Text — Part: 3 Chapter: 8

Macro Only Text — Part: 3 Chapter: 8

To Accompany: “***Economics: Private and Public Choice, 16th ed.***”

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Slides prepared by Joseph Connors with the assistance of Charles Skipton & James Gwartney

Swings in the Economic Pendulum

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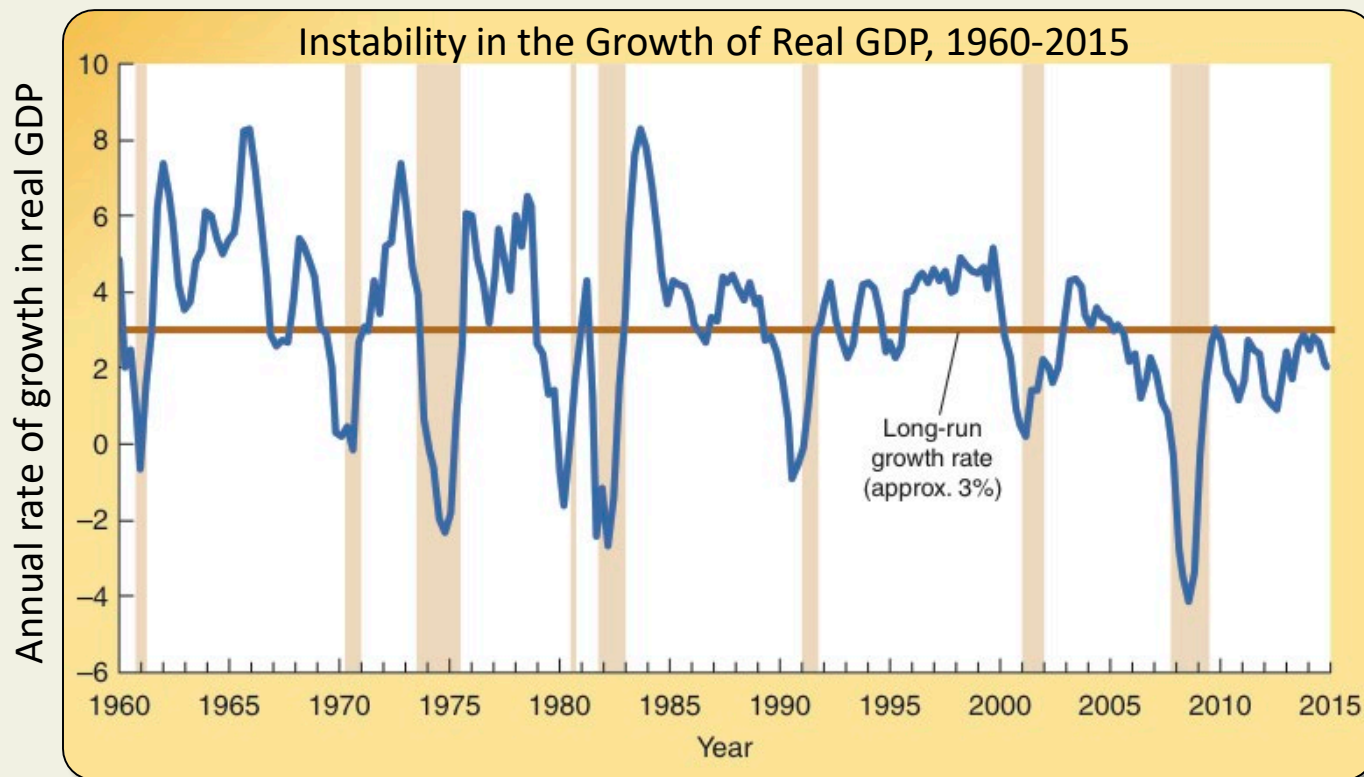
Instability in the Growth of Real GDP: 1960-2015

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- Although real GDP in the United States has grown at an average rate of approximately 3%, the growth has been characterized by economic ups-and-downs.

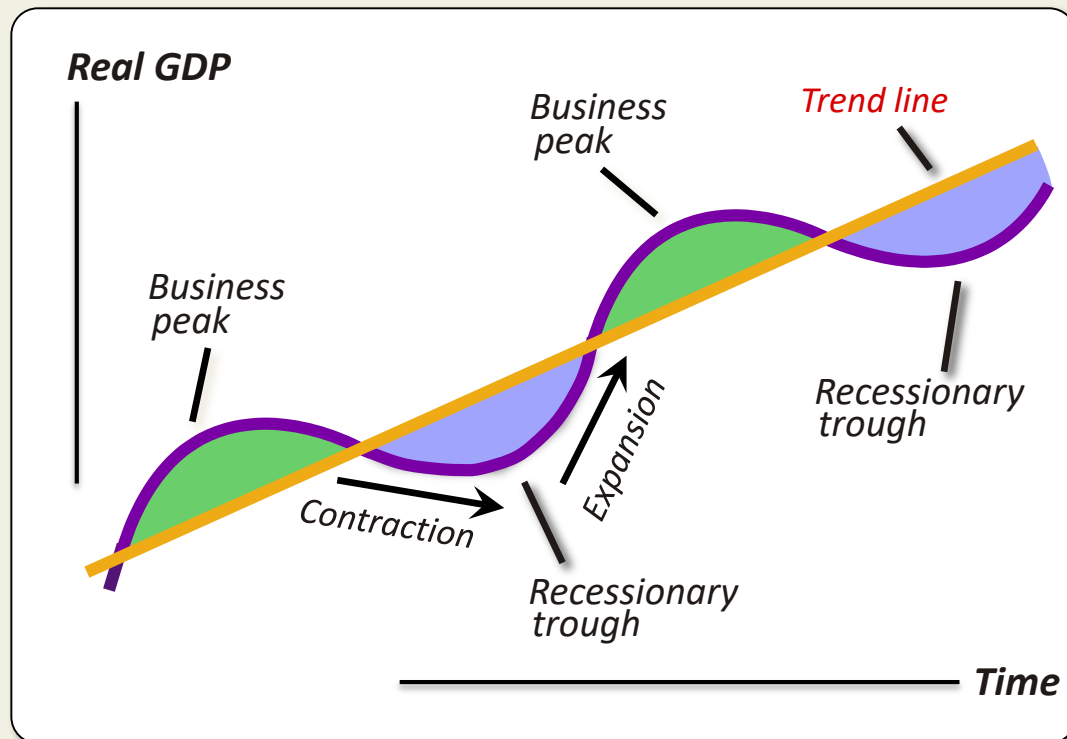
Note: periods of recession are indicated with shading.



Source: *Economic Report of the President* (Washington, DC: Government Printing Office, various issues).

The Hypothetical Business Cycle

- The four phases of the **hypothetical business cycle** are expansion, peak, contraction, and recessionary trough.
- In contrast with the business cycle represented here, as the previous exhibit illustrated, real world business cycles are characterized by expansions and contractions of varying duration and magnitude.



Economic Fluctuations and the Labor Market

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Labor Market Classifications

- **Employed** – a person (16 years old or over) who is:
 - working for pay at least one hour per week,
 - self employed, or,
 - working 15 hours or more each week without pay in a family-operated enterprise.
- **Unemployed** – a person not currently employed who is:
 - actively seeking a job, or,
 - waiting to begin a job, or,
 - on layoff, waiting to return to a previous job.

Labor Market Classifications

- ***Civilian Labor force*** – civilians (16 years & older) who are:
 - either employed or unemployed.
- ***Not in the labor force*** – persons (16 years & older) who are:
 - neither employed nor unemployed (like retirees, students, homemakers, or disabled persons).

Labor Market Indicators

- The non-institutional civilian adult population is grouped into two broad categories:
 - Persons *not in the labor force*, and,
 - persons ***in the labor force*** (this group includes both the employed and unemployed).

$$\text{Labor Force Participation Rate} = \frac{\text{\# in the Labor Force}}{\text{Civilian population (16+)}}$$

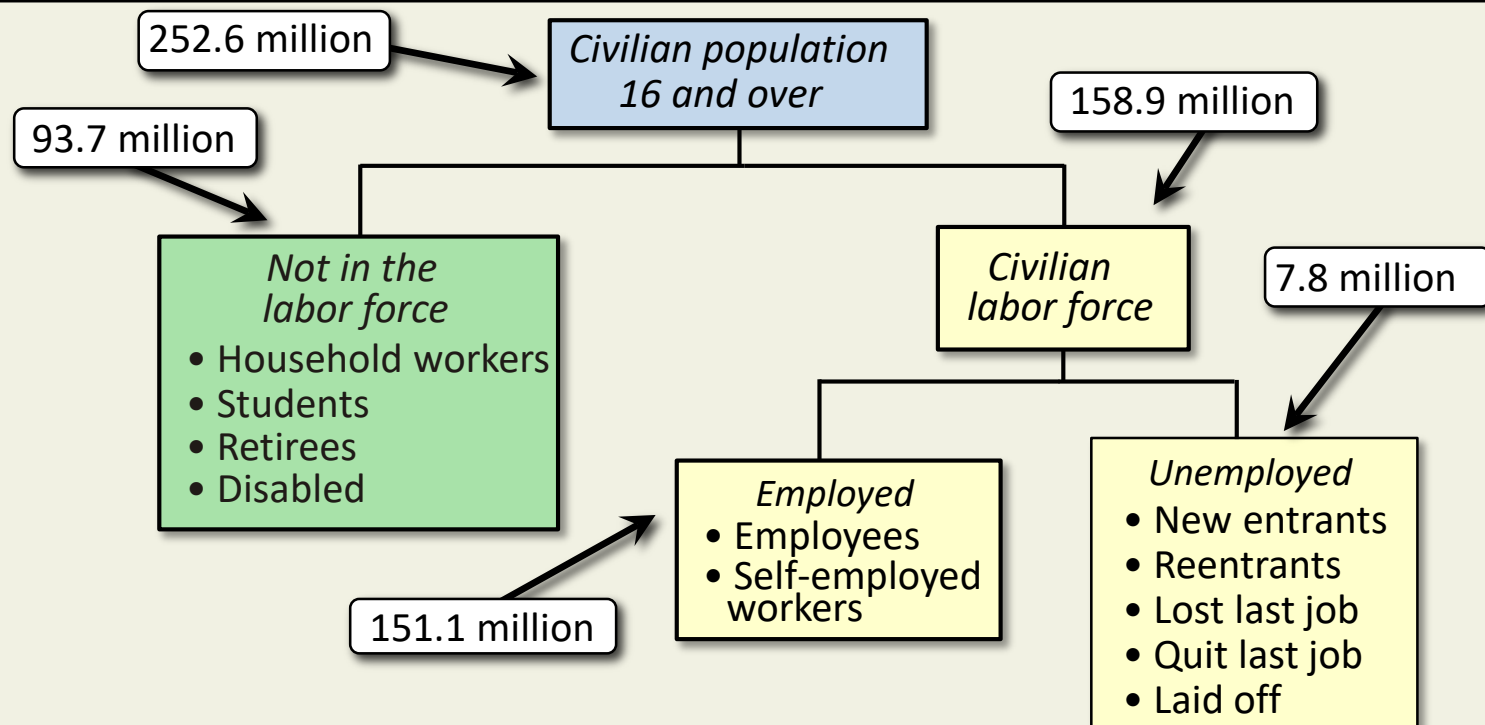
Recall the **Labor Force** =

Employed + Unemployed

U.S. Population, Employment, and Unemployment: February 2016

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$$\text{Labor Force Participation Rate} = \frac{\text{Civilian labor force}}{\text{Civilian population (16+)}} = \frac{158.9}{252.6} = 62.9\%$$

$$\text{Employment / Population Ratio} = \frac{\text{Number employed}}{\text{Civilian population (16+)}} = \frac{151.1}{252.6} = 59.8\%$$

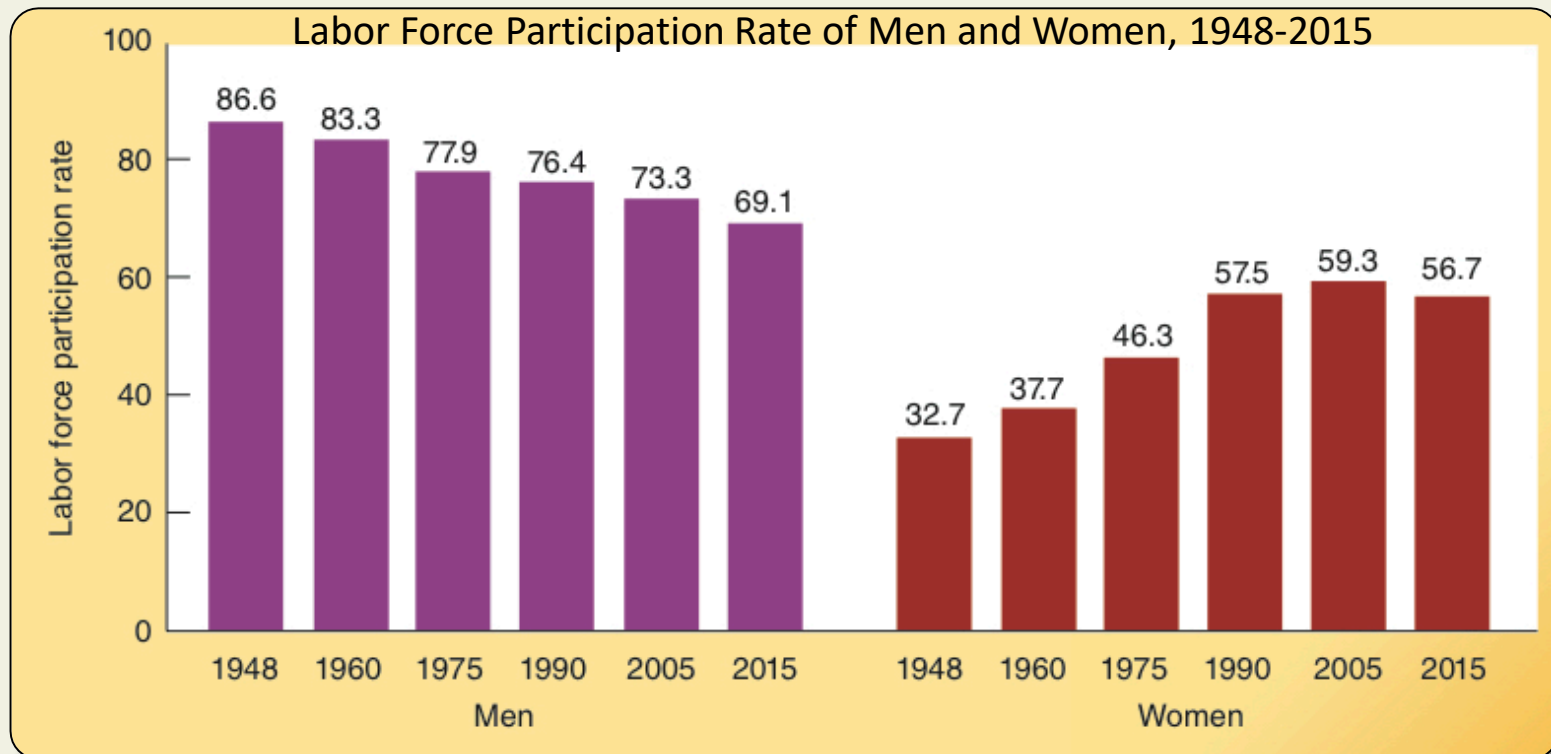
$$\text{Rate of Unemployment} = \frac{\text{Number unemployed}}{\text{Civilian labor force}} = \frac{7.8}{158.9} = 4.9\%$$

Labor Force Participation Rate of Men and Women, 1948-2015

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- The labor force participation rate of women has been steadily increasing for several decades.
- During the same period the rate of men has been falling.



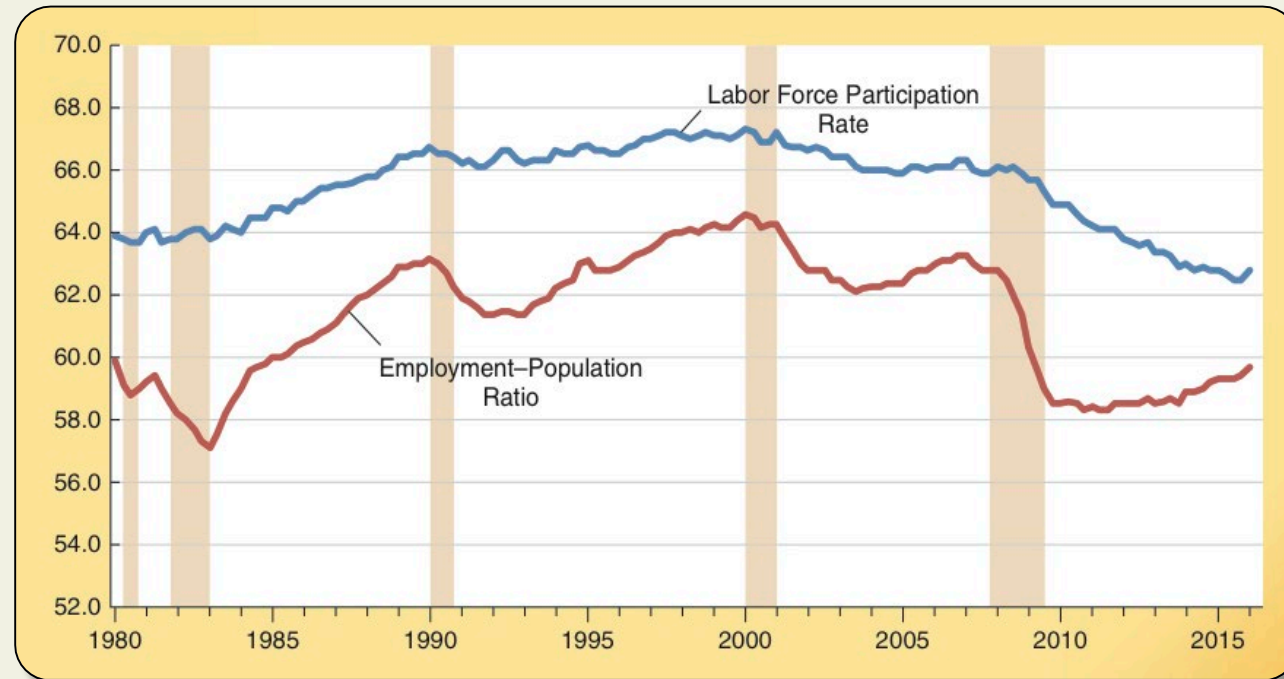
Source: www.bls.gov.

Labor Force Participation Rate and Employment-Population Ratio: 1980-2016

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- Both the labor force participation rate and the employment-population ratio trended upward from 1980-2000, but have been declining since.
- Both figures fell sharply during the 2008-2009 recession. Each has had a weak rebound during the recovery phase of this business cycle. In 2016, both were still below their 2007 levels.



Sources: Willem Van Zandweghe, "Interpreting the Recent Decline in Labor Force Participation," Federal Reserve Bank of Kansas *Economic Review* (Quarter 1, 2012): 5-34; and Daniel Aaronson, Jonathan Davis, and Loujia Hu, "Explaining the Decline in the U.S. Labor Force Participation Rate," *Chicago Fed Letter*, no. 296, (March 2012):1-4.

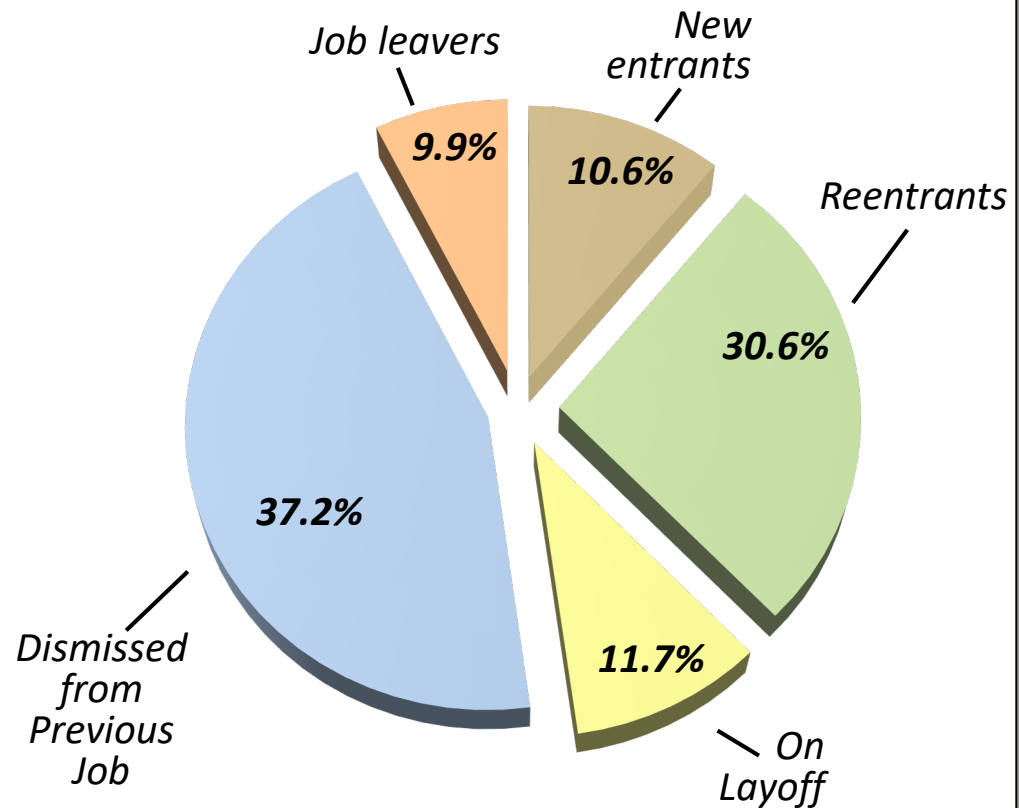
Composition of the Unemployed by Reason in 2016 (February)

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- There are various reasons why persons were unemployed in February of 2016.
- Nearly two-fifths (37.2%) of the unemployed were dismissed from their previous jobs.
- More than two-fifths (42.3%) of the unemployed were either new entrants or reentrants into the labor force.

Breakdown of Unemployed 2016 (February)

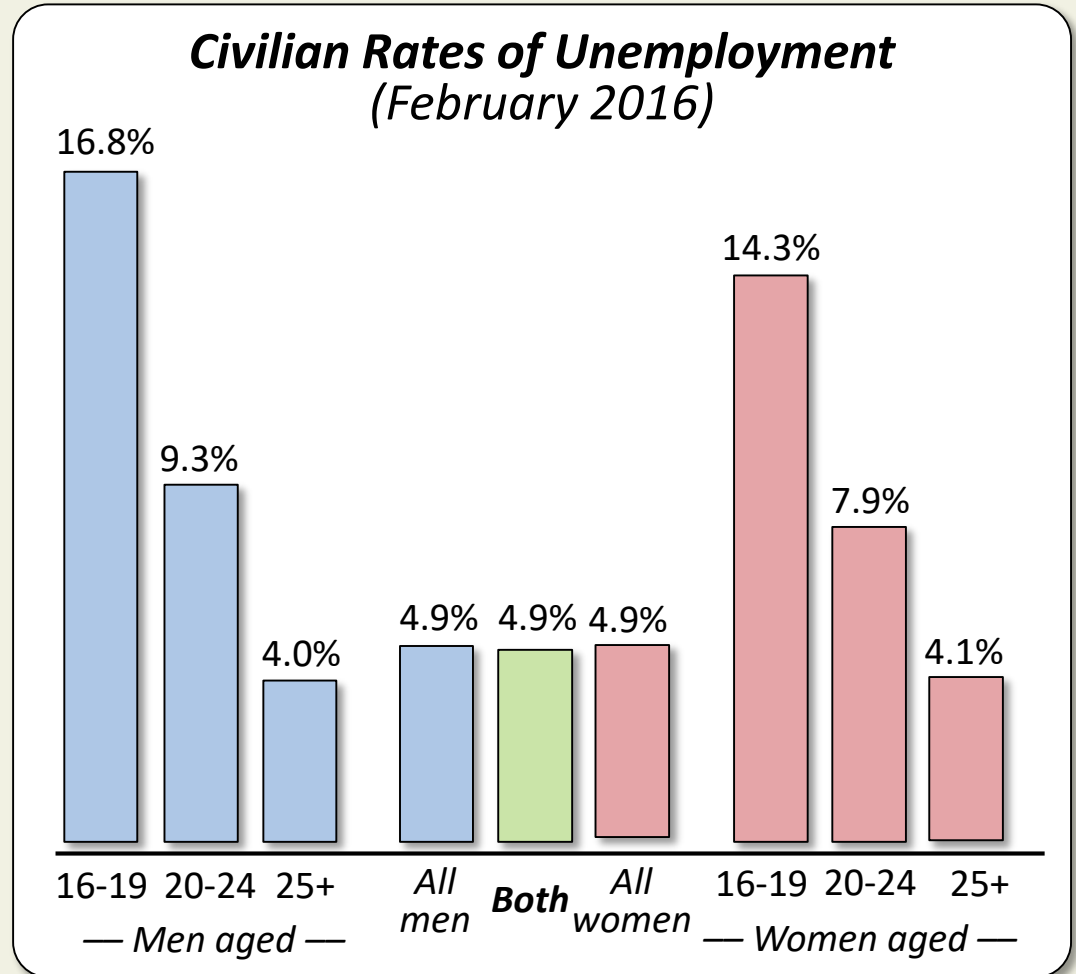


The Unemployment Rate By Age and Gender: February 2016

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- In 2016, the unemployment rate was 4.9% for men and women.
- The unemployment rates of younger men are higher than the rates for women.
- The unemployment rate itself was also much higher for those under the age of 25 than for those over the age of 25.



Source: www.bls.gov.

Three Types of Unemployment

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Three Types of Unemployment

- ***Frictional Unemployment:***
 - Caused by *imperfect information*.
 - Occurs because:
 - employers are not aware of all available workers and their qualifications, and,
 - available workers are not fully aware of all the jobs being offered by employers.

Three Types of Unemployment

- ***Structural Unemployment:***
 - Reflects an imperfect match of employee skills to skill requirements of the available jobs.
 - Also reflects structural and demographic characteristics of the labor market.
- ***Cyclical Unemployment:***
 - Reflects business cycle conditions
 - When there is a general downturn in business activity, cyclical unemployment increases.

Employment Fluctuations: The Historical Record

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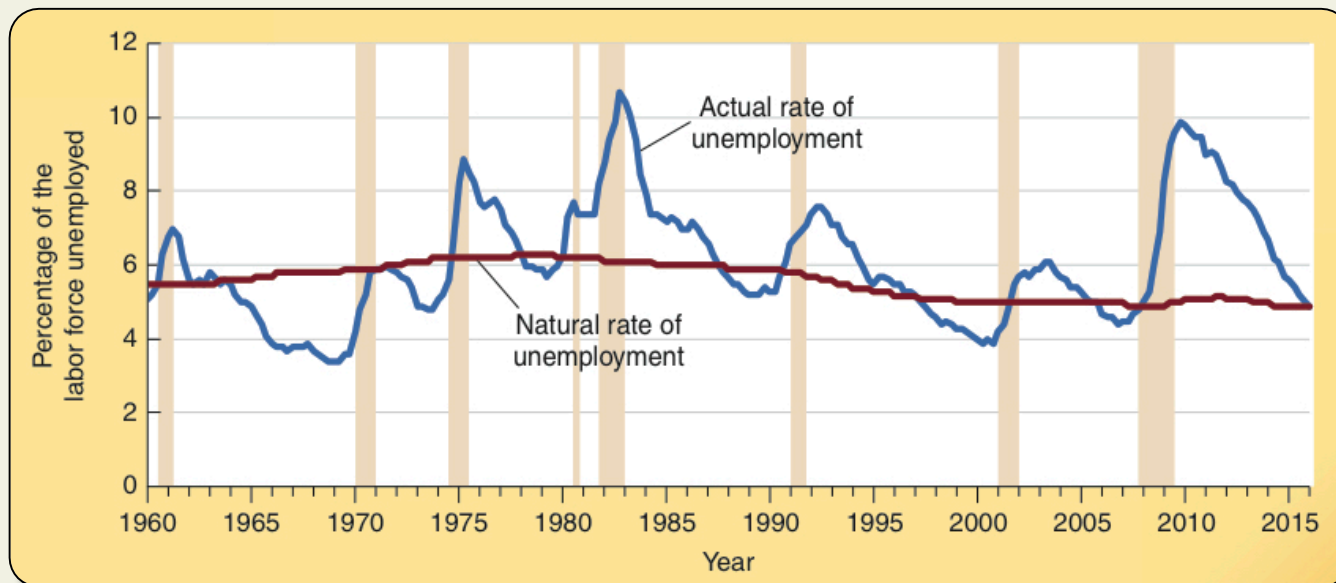
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Unemployment and Output Are Linked Over the Business Cycle

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- The unemployment rate from 1960-2016 is illustrated here.
- As expected, unemployment rose rapidly during each of the eight recessions (the shaded years indicate periods of recession).
- In contrast, after each recession ended, the unemployment rate began to decline soon after the economy moved into an expansionary phase of the business cycle.
- Note that the actual rate of unemployment was greater than the natural rate during and immediately following each recession.



Source: <https://research.stlouisfed.org/fred2/>.

The Concept of Full Employment

- ***Full Employment:***

Level of employment resulting when the rate of unemployment is normal, considering both frictional and structural factors.

- Full employment is closely related to the concept of the *natural rate of unemployment*.

- ***Natural Rate of Unemployment:***

Level of unemployment that reflects “job shopping” in an economy of imperfect information and dynamic change.

The Concept of the Natural Rate of Employment

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- The *natural rate of unemployment* is:
 - neither a temporary high nor temporary low.
 - a rate that is both achievable and sustainable.
 - the level of unemployment accompanying an economy's "maximum sustainable rate of output."
- Both demographic factors (e.g. young workers as a share of the labor force) and public policy (e.g. the level of unemployment benefits) influence the *natural rate of unemployment*.
- Actual rate of unemployment generally rises above natural rate during a recession and falls below the natural rate during a boom.

Actual and Potential GDP

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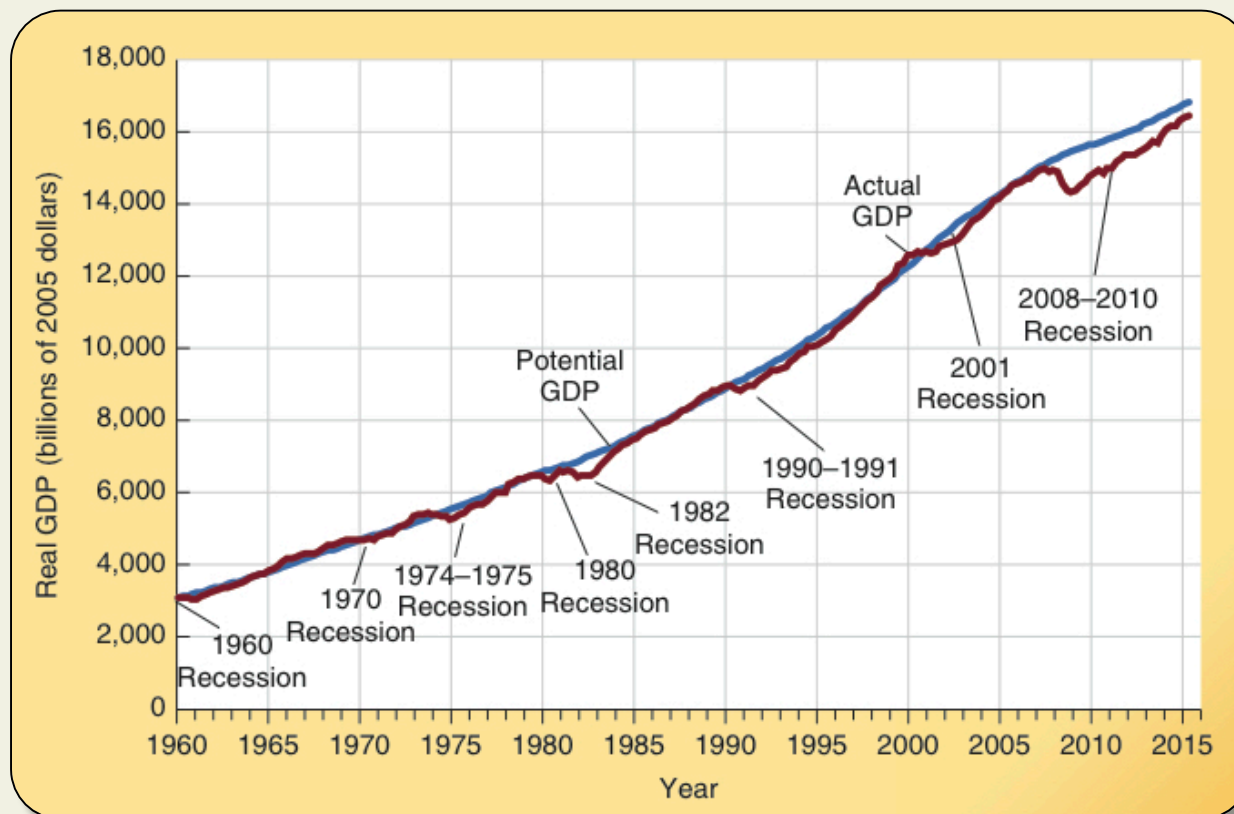
Actual and Potential GDP

- ***Potential output:***
Maximum sustainable output level consistent with the economy's resource base, given its institutional arrangements.
- *Actual and potential output* will be equal when the economy is at full employment.

Actual and Potential GDP, 1960-2016

- Here we illustrate both **actual GDP** & **potential GDP**.

- Note the gap between actual and potential GDP during periods of recession.



Source: <http://www.bls.gov>

The Effects of Inflation

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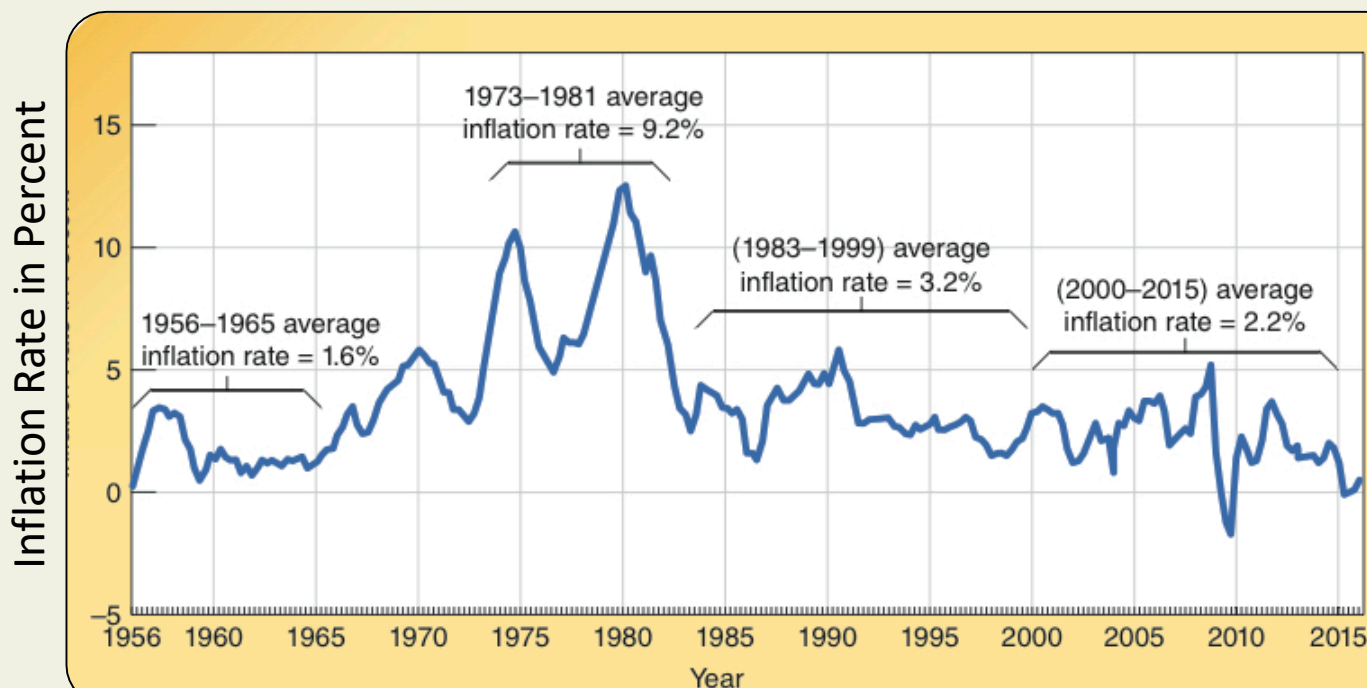
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Inflation

- ***Inflation*** is a change in the general level of prices as measured by a price index such as the GDP deflator or the consumer price index.
 - Inflation is generally measured at an annual rate.
 - When inflation is high, the year-to-year changes in the inflation rate are nearly always highly variable, making them difficult to predict.

The Inflation Rate, 1956-2015

- Between 1956 and 1965, the general price level increased at an average annual rate of only 1.6%.
- In contrast, the inflation rate averaged 9.2% from 1973 to 1981, reaching double-digits during several years.
- During 1983-1999 the inflation rate was much lower (3.2%).
- Since 2000, the inflation rate has been lower still (2.2%).



Unanticipated and Anticipated Inflation

- There are two different kinds of inflation:
 - ***Unanticipated inflation:***
An increase in the price level that comes as a surprise, at least for most individuals.
 - ***Anticipated inflation:***
A widely expected change in the price level.

Effects of Inflation

- High and variable rates of inflation are harmful for several reasons:
 - Because unanticipated inflation alters the outcomes of long-term projects like the purchase of a machine or operation of a business, it will both increase the risks and retard the level of investment.
 - Inflation distorts the information delivered by prices.
 - People will respond to high and variable rates of inflation by spending less time producing and more time trying to protect their wealth and income from the uncertainty created by inflation.

What Causes Inflation?

- Nearly all economists believe that rapid expansion in the money supply is the primary cause of inflation.