

Unit 2

Economic Indicators and the Business Cycle

Measurement of Economic Performance

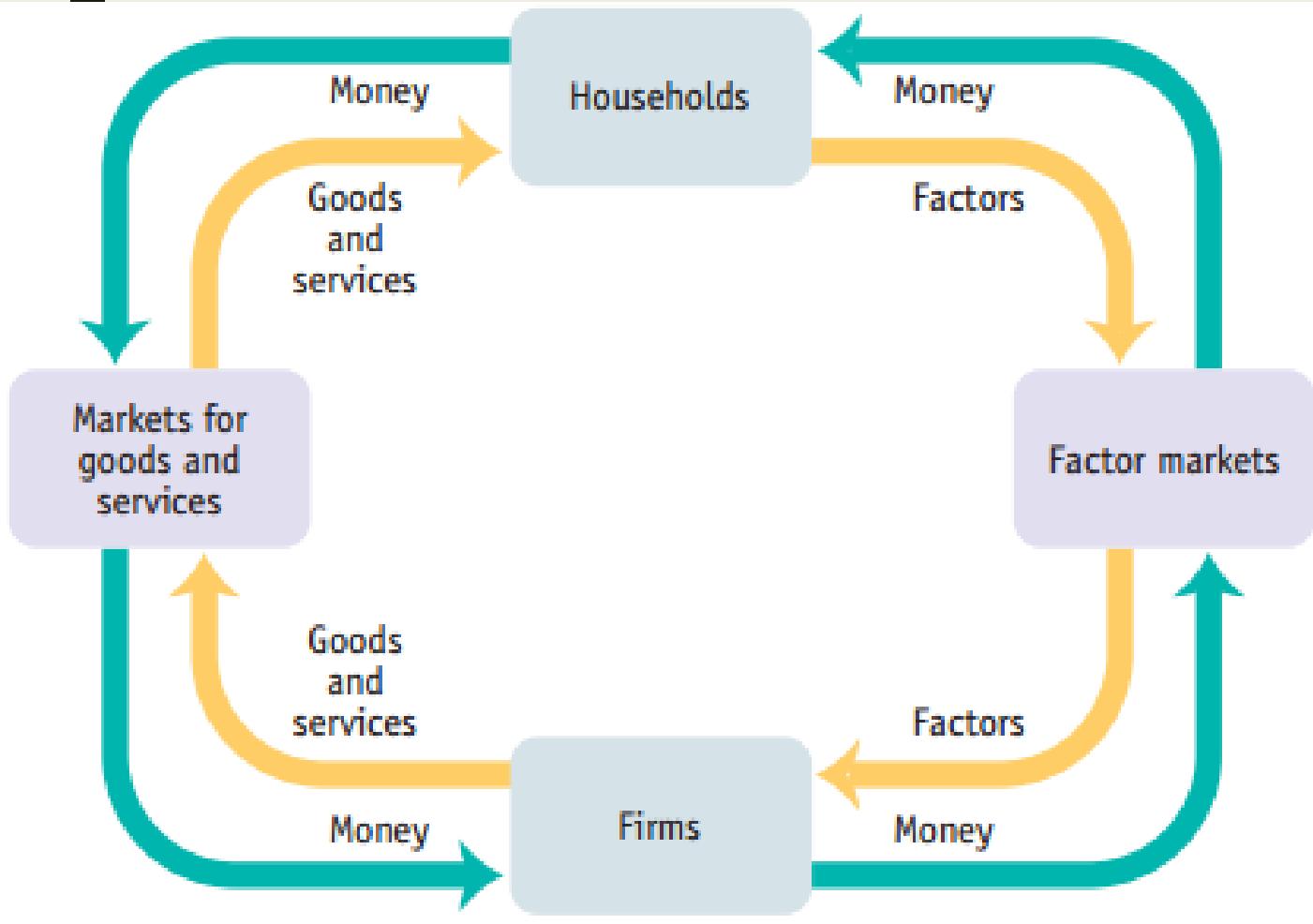
- To provide an overview of how the economy works, the course should start with a model of the circular flow of income and products that contain the four sectors: households, businesses, government, and international. It is important to identify and examine the key measures of economic performance: gross domestic product, unemployment, and inflation.
- In studying the concept of gross domestic product, it is also important that students learn how gross domestic product is measured, have a clear understanding of its components, and be able to distinguish between real and nominal gross domestic product.
- The course should examine the nature and causes of unemployment, the costs of unemployment, and how the unemployment rate is measured, including the criticisms associated with the measurement of the unemployment rate. It is also important to understand the concept of the natural rate of unemployment and the factors that affect it. Students should also have an understanding of inflation and how it is measured. In this section, the course should cover the costs of inflation, the main price indices, such as the consumer price index (CPI), and the gross domestic product deflator. Students should learn how these indices are constructed and used to convert nominal values into real values, as well as to convert dollar values in the past to dollar values in the present. It is also important to highlight the differences between the two price indices as a measure of inflation, as well as the problems associated with each measure.

Assessing the Economy's Performance

- National Income Accounting measures economy's overall performance
- The Bureau of Economic Analysis, an agency of the Department of Commerce, compiles the data and reports it in National Income and Product Accounts.
 - *Assess health of economy*
 - *Track long run course*
 - *Formulate policy*
- National income accounting does for the economy what private accounting would do for an individual household or business.
- This information is used by economists and policymakers in formulating decisions for the best interest of the nation.

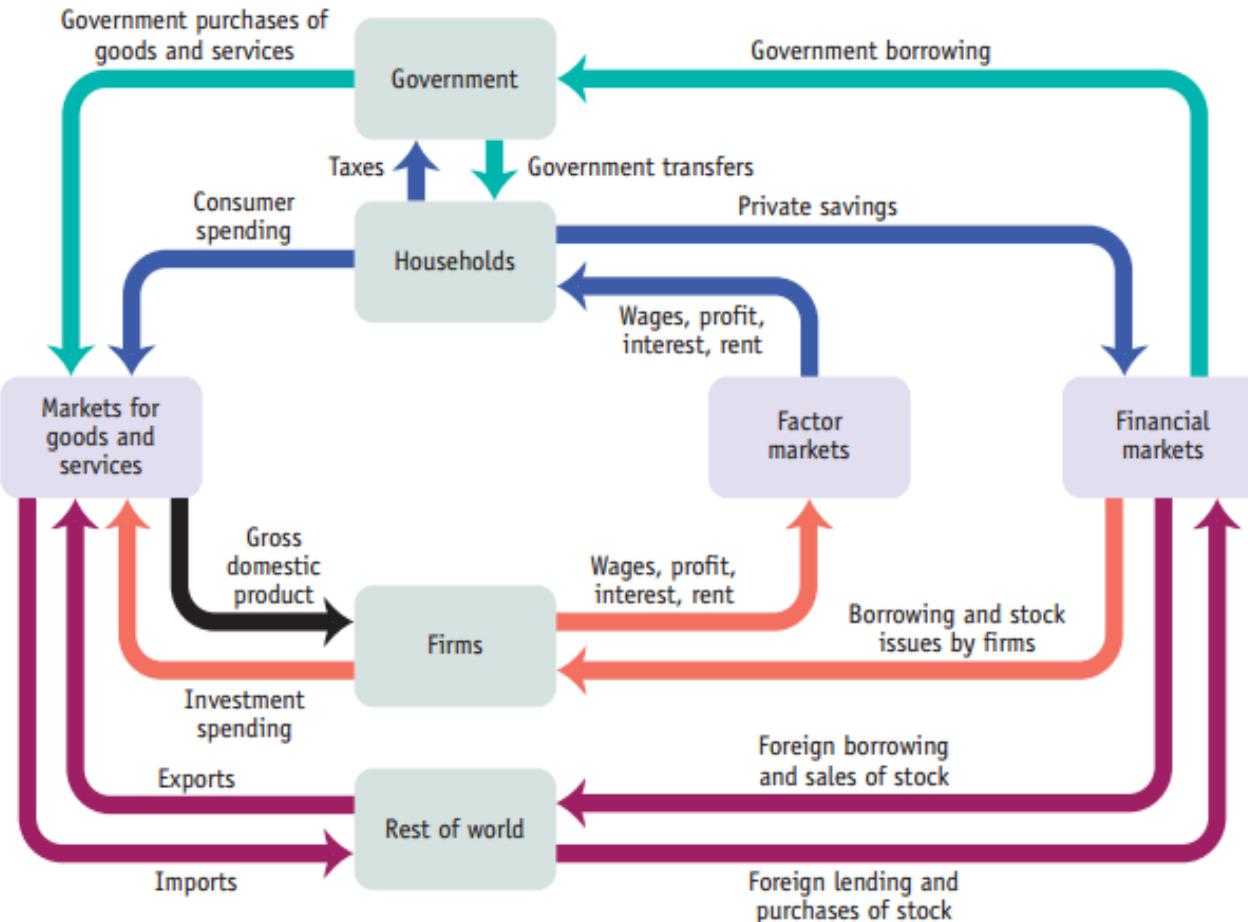
Circular Flow Model

- Measures flows of physical things, such as goods and services, and the money that pays for these things.



- What key factors are missing from this simplified version?

Expanded Circular Flow Model



- What has been added?
- What has been removed?
- What goes in must come out.
- Total money inputted must go somewhere.

Gross Domestic Product

- The single most important measure of the economy's overall performance.
- It is measured by adding up the dollar amount of all final goods and services produced within a country's national borders in a year and then multiplying them by their price.
- Because it is a measure of voluntary transactions between both parties, a larger GDP usually indicates more people are better off than before.
- Foreign produced goods are not included, although goods produced within the countries' borders by an outside firm do count.

What is GDP?

GDP represents the total dollar value of all goods and services produced over a specific time period. In short, it's everything produced by people and businesses, including salaries of workers.

GDP figures are calculated and released every business quarter by the Bureau of Economic Analysis, which is part of the Department of Commerce. The BEA often revises estimates—either up or down—as it receives better data throughout the next quarter. (More on this later)

Usually, GDP is a comparison to the previous quarter or year. For example, if the second quarter GDP is up 3 ,percent this means that the economy has grown by 3 percent over the first quarter.

Estimating Gross Domestic Product

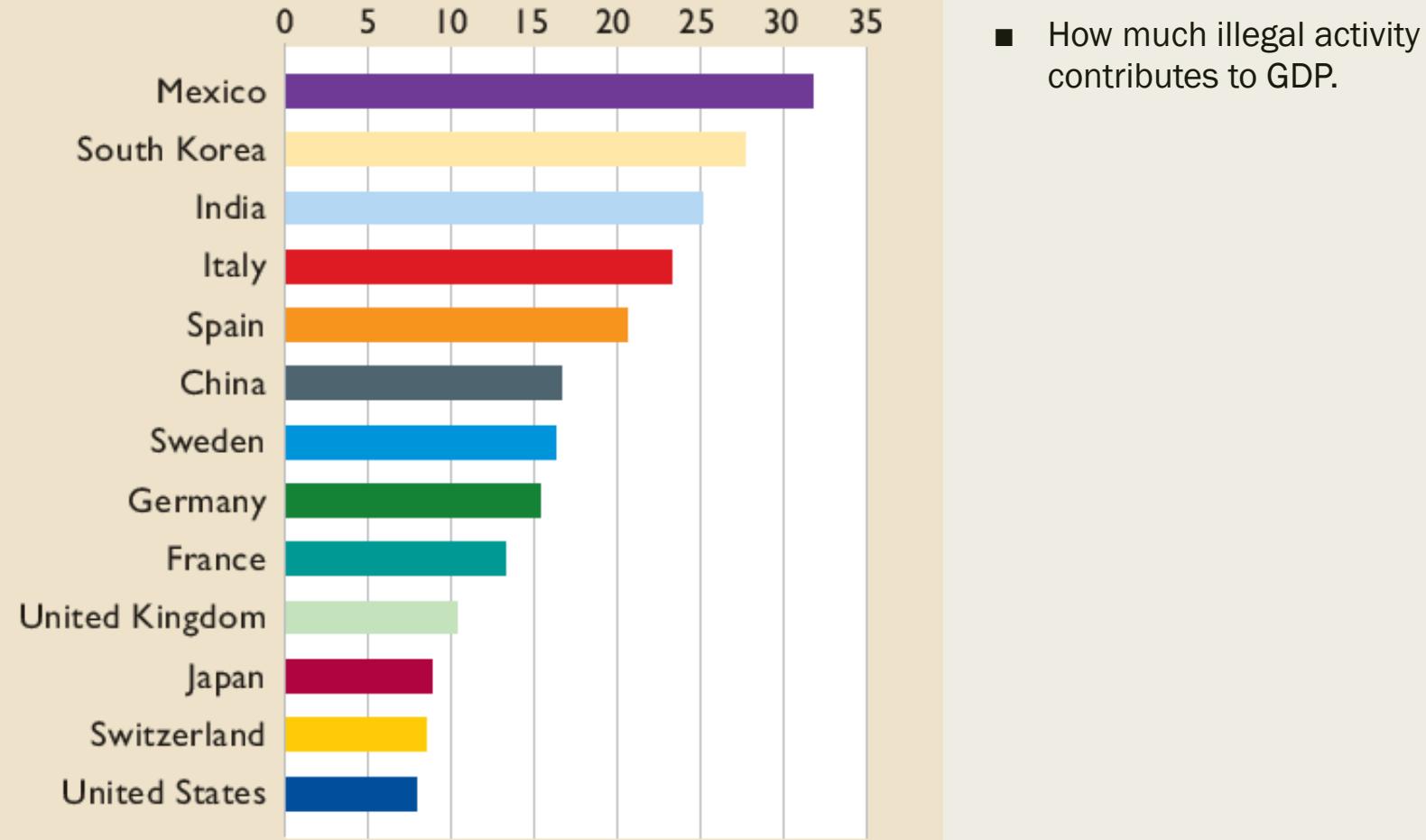
Product		Quantity (millions)	Price (per 1 unit)	Dollar Value (millions)
Goods	Automobiles	6	\$20,000	\$120,000
	Replacement Tires	10	\$60	\$600
	Shoes	55	\$50	\$2,750
	...*	...*	...*	...*
Services	Haircuts	150	\$8	\$1,200
	Income Tax Filings	30	\$150	\$4,500
	Legal Advice	45	\$200	\$9,000
	...*	...*	...*	...*
Structures	Single Family	3	\$75,000	\$225,000
	Multifamily	5	\$300,000	\$1,500,000
	Commercial	1	\$1,000,000	\$1,000,000
	...*	...*	...*	...*

Total Gross Domestic Product = \$9 trillion

Gross Domestic Product

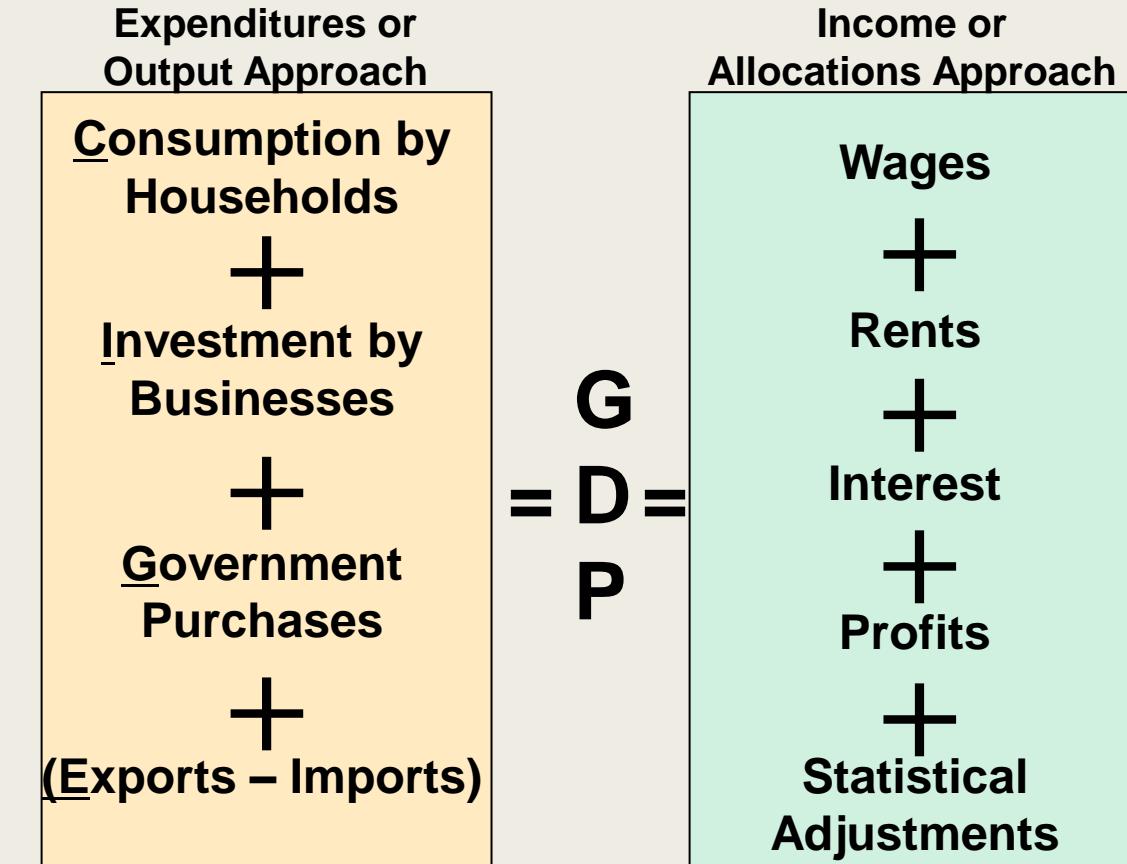
- Measure of aggregate output of all final goods and services produced in an economy during a given period (Yearly)
- Avoid multiple counting
 - *Only the market value of final goods*
 - *Ignore intermediate goods*
- Exclude financial transactions
 - *Public transfer payments (social security, welfare)*
 - *Private transfer payments (cash app)*
 - *Stock (and bond) market transactions (financial investments)*
- Exclude second hand sales
 - *Sell used car to a friend*
- Excludes Black Market Transactions
 - *Illegal Activity*
 - *Under the table work*

Percentage of GDP



Three Approaches to GDP

- Expenditure approach
 - Count sum of money spent buying the final goods
- Income approach
 - Count income derived from production
 - Wages, rental income, interest income, profit
- Value Added Approach
 - Adding the value at each stage of production.



Expenditure Approach:

GDP = C + I + G + X_n

- Personal consumption expenditures (C)
 - *Durable consumer goods*
 - *Nondurable consumer goods*
 - *Consumer expenditures for services*
 - *Domestic plus foreign goods produced*
- Gross private domestic investment (I)
 - *Does not include depreciation (The replacement of capital due to wear and tear)*
 - *Machinery, equipment, and tools*
 - *All construction*
 - *Changes in inventories*
 - *Creation of new capital assets*
 - *Noninvestment transactions excluded*

- Government purchases (G)
 - *Expenditures for goods and services*
 - *Expenditures for publicly owned capital*
 - *Excludes transfer payments*
- Net exports (X_n)
 - *Add exported goods*
 - *Subtract imported goods*
 - $X_n = \text{exports} - \text{imports}$

The Income Approach

Income approach

1 Suppose an economy's entire output is cars and trucks.

2 All employed citizens, therefore, would work in the car and truck industry, or for its suppliers.

3 The combined selling price of all the cars and trucks reflects the money paid to all the people who helped build the vehicles.

4 The economy's GDP for this year, then, is the sum of the income of all its working citizens, or \$350,000.



Engineers

Designers

Planners

Assembly-line
workers

Managers

Suppliers
(metal, glass,
etc.)

Combined income = \$350,000

- Compensation of employees
- Rents
- Interest
- Proprietor's income
- Corporate profits
 - *Corporate income taxes*
 - *Dividends*
 - *Undistributed corporate profits*
- Taxes on production and imports

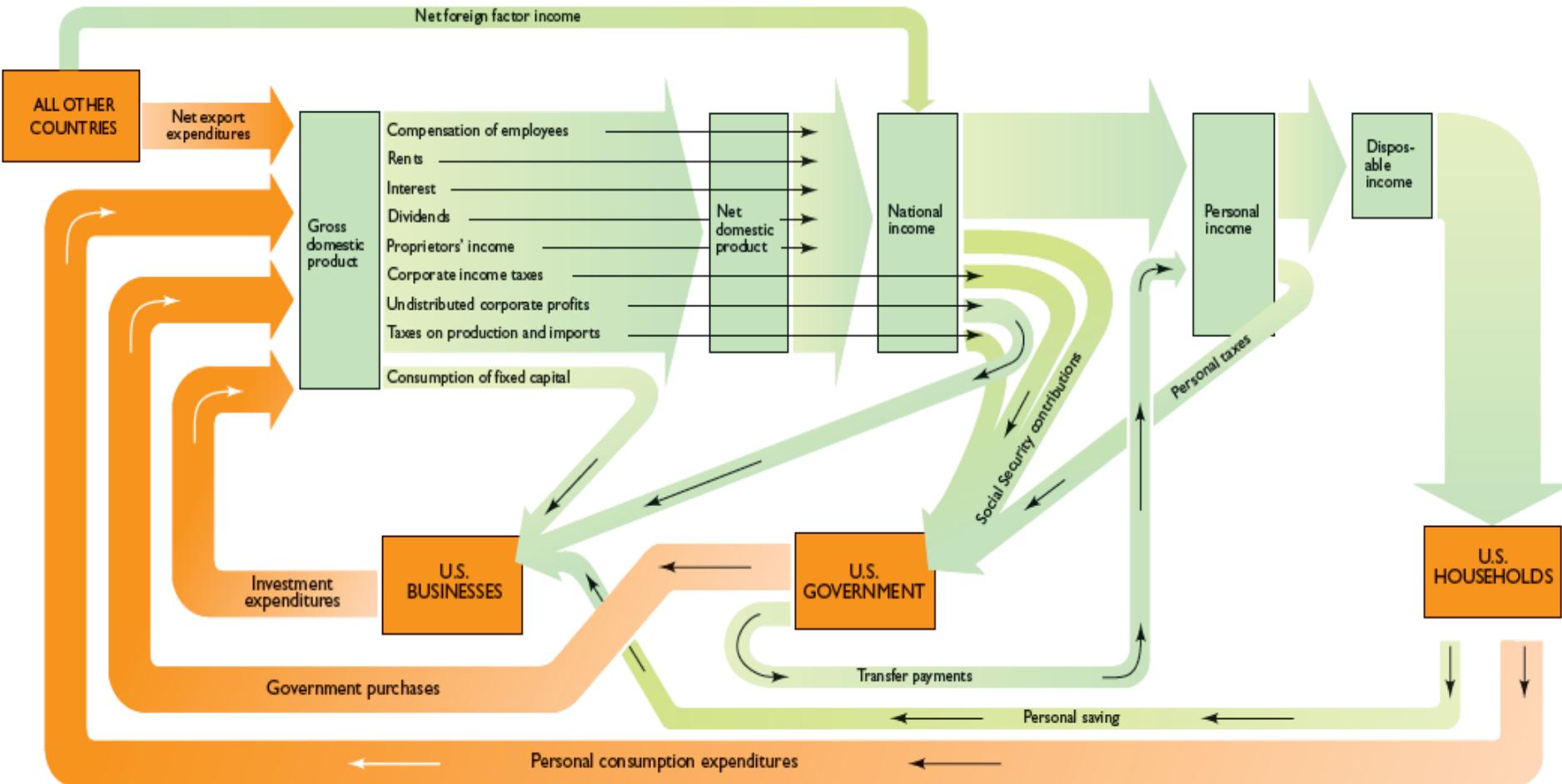
Aggregate spending on domestically produced final goods and services = \$21,500

	American Ore, Inc.	American Steel, Inc.	American Motors, Inc.	Total factor income
Value of sales	\$4,200 (ore)	\$9,000 (steel)	\$21,500 (car)	
Intermediate goods	0	4,200 (iron ore)	9,000 (steel)	
Wages	2,000	3,700	10,000	\$15,700
Interest payments	1,000	600	1,000	2,600
Rent	200	300	500	1,000
Profit	1,000	200	1,000	2,200
Total expenditure by firm	4,200	9,000	21,500	
Value added per firm =	4,200	4,800	12,500	
Value of sales – cost of intermediate goods				

*Total
payments
to factors
= \$21,500*

Sum of value added = \$21,500

Circular Flow Revisited



Nominal vs Real GDP

Year 1 Nominal GDP

1 Suppose an economy's entire output is cars and trucks.

2 This year the economy produces:

10 cars at \$15,000 each = \$150,000

+ 10 trucks at \$20,000 each = \$200,000

Total = \$350,000

3 Since we have used the current year's prices to express the current year's output, the result is a nominal GDP of \$350,000.

Year 2 Nominal GDP

1 In the second year, the economy's output does not increase, but the prices of the cars and trucks do:

10 cars at \$16,000 each = \$160,000

+ 10 trucks at \$21,000 each = \$210,000

Total = \$370,000

2 This new GDP figure of \$370,000 is misleading. GDP rises because of an increase in prices. Economists prefer to have a measure of GDP that is not affected by changes in prices. So they calculate real GDP.

Year 2 Real GDP

1 To correct for an increase in prices, economists establish a set of constant prices by choosing one year as a base year. When they calculate real GDP for other years, they use the prices from the base year. So we calculate the real GDP for Year 2 using the prices from Year 1:

10 cars at \$15,000 each = \$150,000

+ 10 trucks at \$20,000 each = \$200,000

Total = \$350,000

2 Real GDP for Year 2, therefore, is \$350,000.

What does it mean when there's a general increase in prices?

- How do we measure when prices have increased?

Figure 13.4 CPI Market Basket Items

Category	Examples
Food and drinks	cereals, coffee, chicken, milk, restaurant meals
Housing	rent, homeowners' costs, fuel oil
Apparel and upkeep	men's shirts, women's dresses, jewelry
Transportation	airfares, new and used cars, gasoline, auto insurance
Medical care	prescription medicines, eye care, physicians' services
Entertainment	newspapers, toys, musical instruments
Education and communication	tuition, postage, telephone services, computers
Other goods and services	haircuts, cosmetics, bank fees

Source: Bureau of Labor Statistics

- What is in the Market Basket?

Nominal vs. Real GDP

- Nominal (Current) = GDP measured in current prices
 - *Not useful to measure economic growth over time.*
 - *Think of how inflation will affect nominal GDP from year to year.*
- Real = GDP measured in constant, unchanging, prices with comparison to a base year's prices.
 - *Measures aggregate output over time.*
 - *To calculate Real GDP, you need to calculate a price index. (a percentage increase in prices) (May also be known as a price level or a deflator).*

$$\text{Price Index In Given Year} = \frac{\text{Price of Market Basket In Specific Year}}{\text{Price of Same Basket In Base Year}} \times 100$$

Gas in 2015:
\$2.00
Gas in Base Year (2009):
\$4.00

How to Calculate Real GDP

$$\text{Real GDP} = \frac{\text{Nominal GDP}}{\text{Price Index (in hundredths)}}$$

or

$$\text{Real GDP} = 100 \times \frac{\text{Nominal GDP}}{\text{Price Index}}$$

GDP Price Index

■ Calculating Real GDP (Base Year = Yr 1)

Year	(1) Units of Output	(2) Price of Pizza Per Unit	(3) Price Index (Year 1 = 100)	(4) Unadjusted, or Nominal, GDP (1) X (2)	(5) Adjusted, or Real, GDP
1	5	\$10	100	\$ 50	\$50
2	7	20	200	140	70
3	8	25	250	200	80
4	10	30	---	---	---
5	11	28	---	---	---

Problem # 1: Fill in years 4 and 5 of the chart by correctly calculating the price index, nominal and real GDP.

Calculate the Real GDP of each of the following years.

Year	Nominal GDP	GDP Deflator
1980	\$14,000	70
1990	\$18,000	100
2000	\$22,000	220
2010	\$50,000	200
2015	\$60,000	300

Using Percentages to Measure Real GDP growth.

- $\% \Delta$ real GDP = $\% \Delta$ nominal GDP - $\% \Delta$ price index
- Nominal GDP Increased 10 % and Price Index Increased 8 %, how much changed occurred in Real GDP?
- Δ = Change

What GDP and Real GDP do not tell us

- Nonmarket activities
 - Leisure
 - Quality of life
 - Improved product quality
 - The underground economy
 - GDP and the environment
 - Composition and distribution of the output
 - Noneconomic sources of well-being
-
- GDP Per Capita
 - Gross Domestic Product divided by the population
 - Used to get an overall representation of how much of the GDP there is per person in a country.
 - <http://data.worldbank.org/indicator/NY.GDP.MKTP.CD>
 - http://www.bea.gov/iTable/index_nipa.cfm
 - <http://www.nytimes.com/2007/08/26/world/asia/26china.html?scp=1&sq=green%2520gdp%26st=cse>

The economy of Britannica produces three goods: computers, DVDs, and pizza. The accompanying table shows the prices and output of the three goods for the years 2008, 2009, and 2010.

Year	Computers		DVDs		Pizza	
	Price	Quantity	Price	Quantity	Price	Quantity
2008	\$900	10	\$10	100	\$15	2
2009	1,000	10.5	12	105	16	2
2010	1,050	12	14	110	17	3

- What is the percent change in computer production from 2008 to 2009?
- What is the percent change in the price of pizza from 2009 to 2010?
- Calculate nominal GDP in Britannica for 2008.
- Calculate real GDP in Britannica for 2008 using 2008 as the base year.
- Calculate real GDP in Britannica for 2010 using 2008 as the base year.

Practice problem # 2

To find price levels, subtract the original nominal gdp from the new nominal GDP number. Then divide by the original GDP.

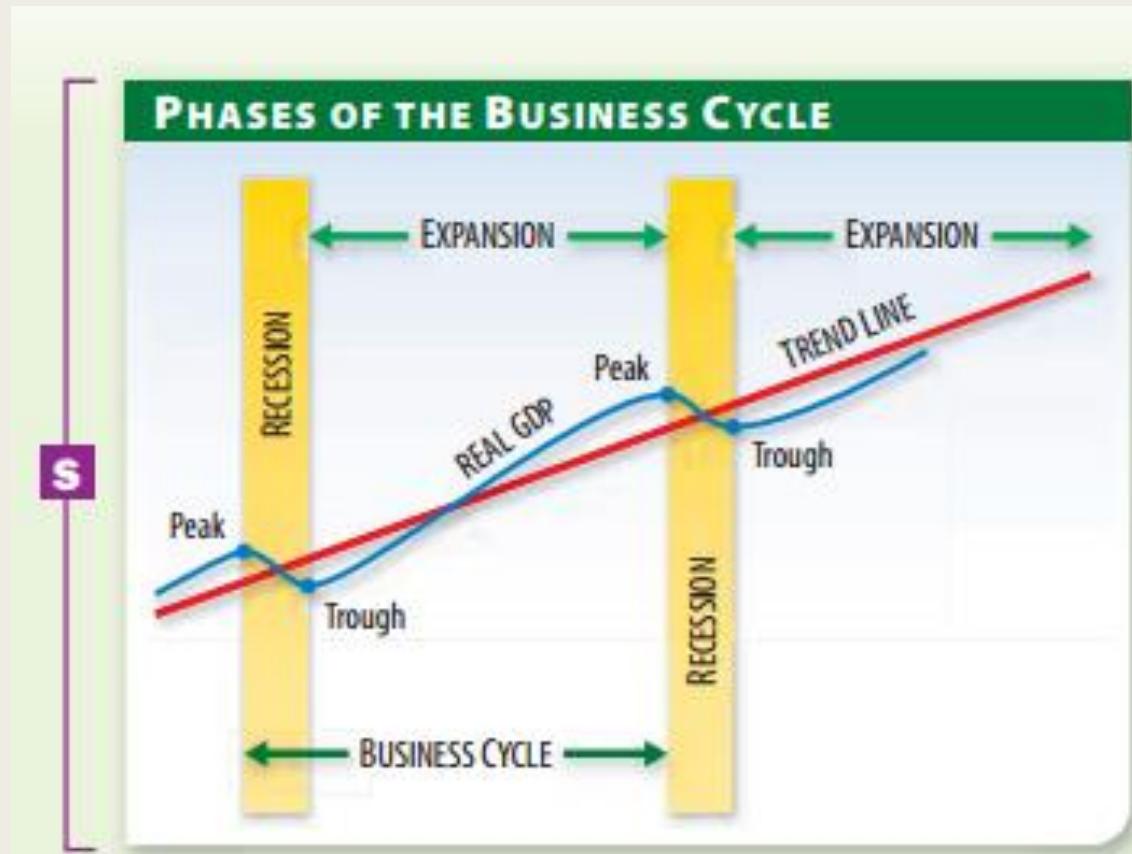
$$(4000-2000)/2000 =$$

2. Use the information in the table below to answer the following questions.
- Calculate the percent increase in nominal GDP between 2005 and 2010 for each country.
 - What happened to the price level in each country between 2005 and 2010?
 - Calculate real GDP in each country in 2010, using 2005 as the base year.
 - Calculate the percent increase in real GDP between 2005 and 2010 for each country.
 - Compare the two countries' real GDP per capita in 2010 using 2005 as the base year.

Year	Nominal GDP	Price Level	Population
Country A			
2005	\$2,000	\$100	10
2010	4,000	100	20
Country B			
2005	\$2,000	\$100	10
2010	6,000	200	15

The Business Cycle

- ❖ Recession: A period when Real GDP declines for at least two quarters.
- ❖ Trough: Where real GDP stops going down.
- ❖ Expansion: A period of recovery from a recession.
- ❖ Peak: The point where real GDP stops going up.
- ❖ Depression: a strong recession with large unemployment, shortages.



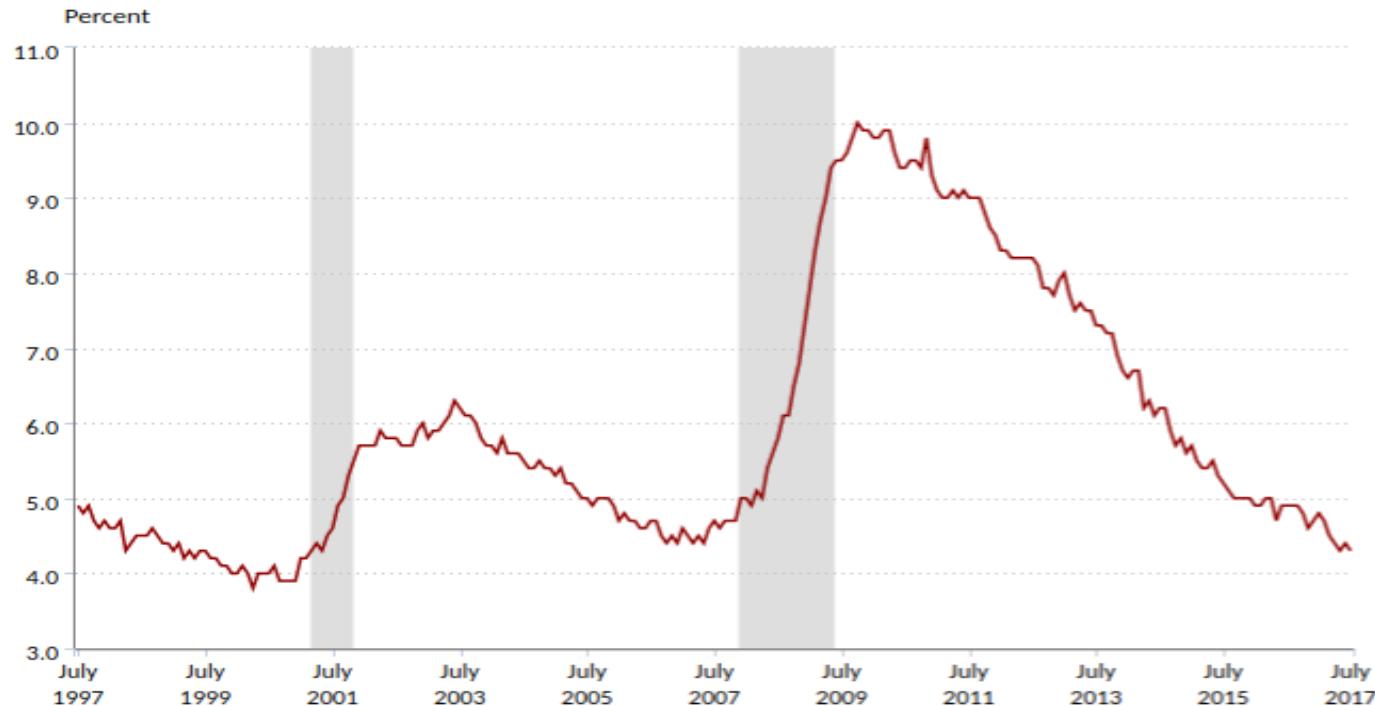
Effects of the Business Cycle?

- Unemployment: Percentage of the Labor Force that is not employed but actively looking for work.
 - *Labor Force = Employed + Unemployed*
 - *High unemployment occurs during recessions.*
- Aggregate Output: Rises during expansions, declines during recessions. During one year periods.
- Inflation: A rise in the overall price level
 - *Deflation: A fall in price level*
 - *Price stability is important*
- Economic Growth: Goes past the business cycle and shows sustained output increases in the overall economy.
 - *Economic growth is seen in a rise in Real GDP per Capita. (The amount of output per person)*

Civilian unemployment rate, seasonally adjusted

Click and drag within the chart to zoom in on time periods

Total Men, 20 years and over Women, 20 years and over 16 to 19 years old
White Black or African American Asian Hispanic or Latino



Hover over chart to view data.

Note: Shaded area represents recession, as determined by the National Bureau of Economic Research.

Persons whose ethnicity is identified as Hispanic or Latino may be of any race.

Source: U.S. Bureau of Labor Statistics.



Recessions have averaged 10 months while expansions average 57 months (Since WW I)

Unemployment Rates

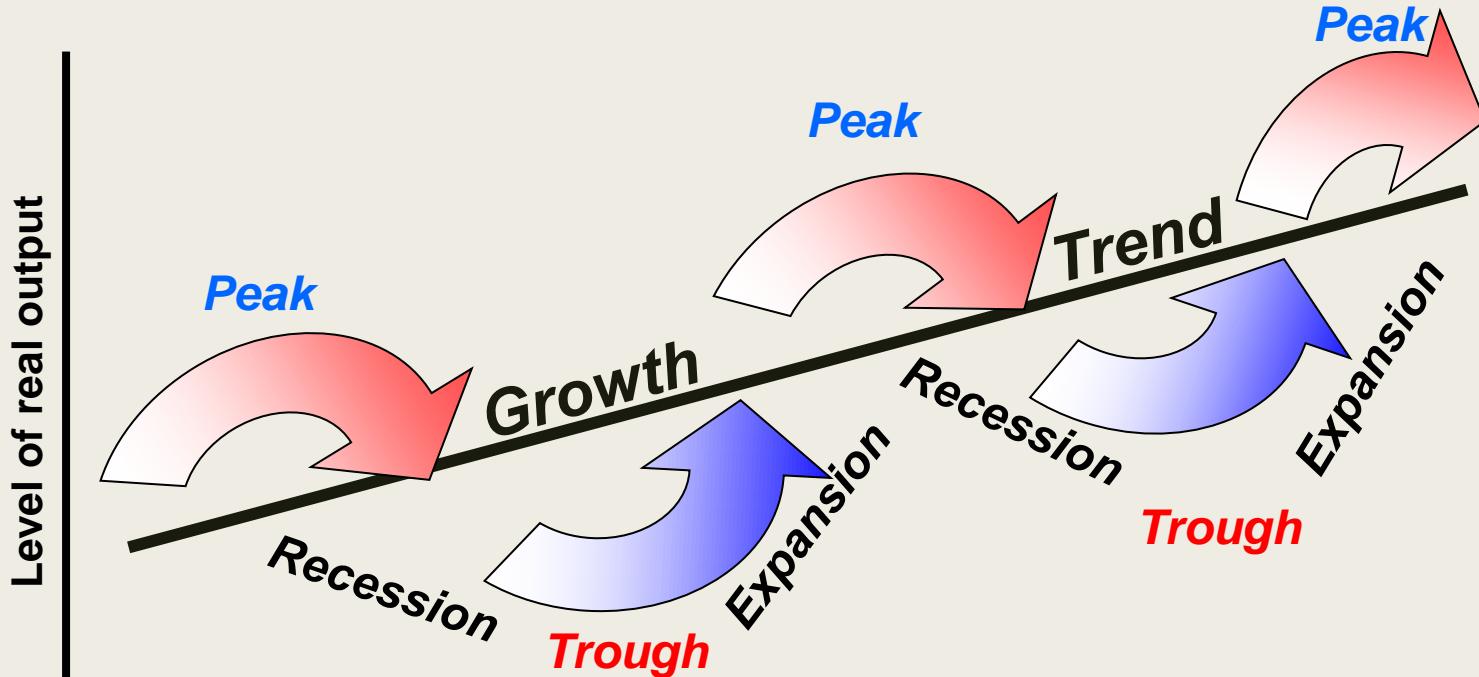
 • <https://data.bls.gov/timeseries/LNS14000000>

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2010	9.8	9.8	9.9	9.9	9.6	9.4	9.4	9.5	9.5	9.4	9.8	9.3
2011	9.1	9.0	9.0	9.1	9.0	9.1	9.0	9.0	9.0	8.8	8.6	8.5
2012	8.3	8.3	8.2	8.2	8.2	8.2	8.2	8.1	7.8	7.8	7.7	7.9
2013	8.0	7.7	7.5	7.6	7.5	7.5	7.3	7.2	7.2	7.2	6.9	6.7
2014	6.6	6.7	6.7	6.2	6.3	6.1	6.2	6.1	5.9	5.7	5.8	5.6
2015	5.7	5.5	5.4	5.4	5.6	5.3	5.2	5.1	5.0	5.0	5.1	5.0
2016	4.9	4.9	5.0	5.0	4.8	4.9	4.8	4.9	5.0	4.9	4.7	4.7
2017	4.7	4.6	4.4	4.4	4.4	4.3	4.3	4.4	4.2	4.1	4.2	4.1
2018	4.1	4.1	4.0	4.0	3.8	4.0	3.8	3.8	3.7	3.8	3.7	3.9
2019	4.0	3.8	3.8	3.6	3.6	3.7	3.7	3.7	3.5	3.6	3.5	3.5
2020	3.6	3.5	4.4	14.7	13.3	11.1	10.2	8.4				

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	8.0	7.7	7.5	7.6	7.5	7.5	7.3	7.2	7.2	7.2	6.9	6.7
2014	6.6	6.7	6.7	6.2	6.3	6.1	6.2	6.1	5.9	5.7	5.8	5.6
2015	5.7	5.5	5.4	5.4	5.6	5.3	5.2	5.1	5.0	5.0	5.1	5.0
2016	4.8	4.9	5.0	5.1	4.8	4.9	4.8	4.9	5.0	4.9	4.7	4.7
2017	4.7	4.6	4.4	4.4	4.4	4.3	4.3	4.4	4.3	4.2	4.2	4.1
2018	4.0	4.1	4.0	4.0	3.8	4.0	3.8	3.8	3.7	3.8	3.8	3.9
2019	4.0	3.8	3.8	3.6	3.7	3.6	3.7	3.7	3.5	3.6	3.6	3.6
2020	3.5	3.5	4.4	14.7	13.2	11.0	10.2	8.4	7.9	6.9	6.7	6.7
2021	6.3	6.2	6.1	6.1	5.8	5.9	5.4	5.2	4.8	4.5	4.2	3.9
2022	4.0	3.8	3.6	3.6	3.6	3.6	3.5	3.7	3.5	3.7	3.6	3.5
2023	3.4	3.6	3.5	3.4	3.7	3.6	3.5	3.8				

GDP Deflator

- Utilizing the prices of the goods and services that make up GDP to make up a price index.
- Nominal GDP is deflated, with this price index, to create real GDP.
 - $\text{GDP Deflator (Same as finding the price index)} = (\text{Nominal GDP}/\text{Real GDP}) \times 100$
- This brings us back to the Business Cycle, where economic activity is measured by Real GDP.



What causes the cycle to change?

- Changes in investment and spending
- Innovations and Inventions
- Monetary Policy by the Federal Reserve Banks
- External shocks (Supply shock, wars, natural disasters)

Indicate whether each of the following is counted in the United States gross domestic product for the year 2006. Explain each of your answers.

- (a) The value of a used textbook sold through an online auction in 2006
- (b) Rent paid in 2006 by residents in an apartment building built in 2000
- (c) Commissions earned in 2006 by a stockbroker
- (d) The value of automobiles produced in 2006 entirely in South Korea by a firm fully owned by United States citizens

Inflation

A general increase in prices.

Caused by declining purchasing power.

- As prices rise, the purchasing power of money declines.
- One dollar buys you less now than it did even five years ago.

- http://www.bls.gov/data/inflation_calculator.htm

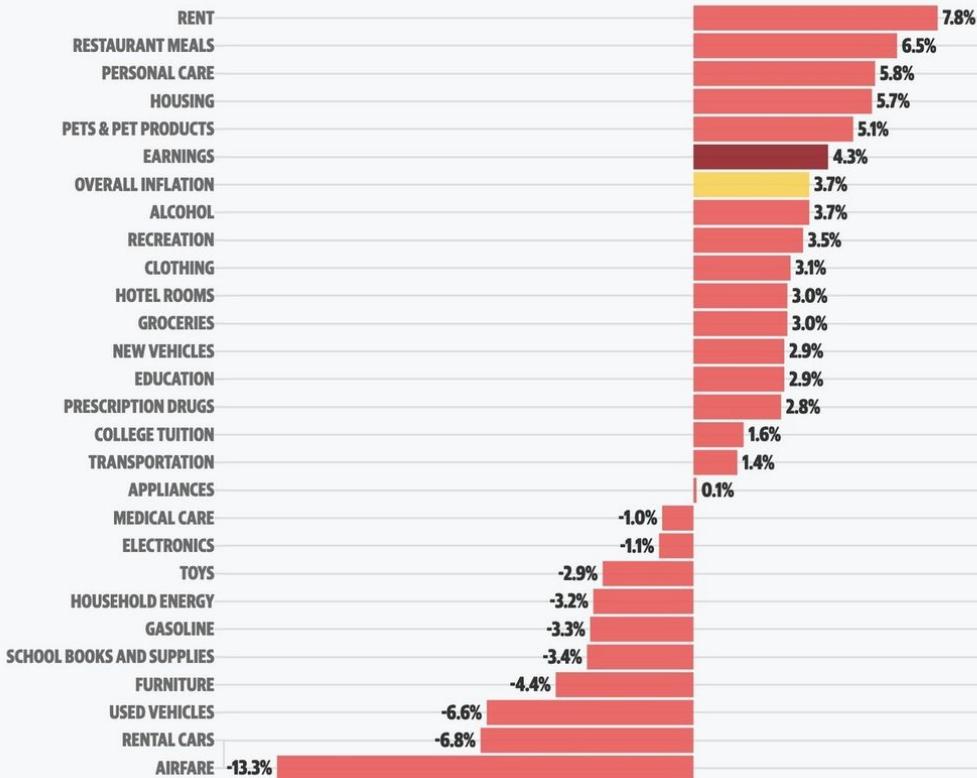


The image shows three women standing side-by-side, each wearing a different style of dress. The woman on the left wears a blue dress with a red embroidered yoke. The woman in the middle wears a black long-sleeved shift dress. The woman on the right wears a black crew-neck tee dress.

Dress Style	Item Description	Original Price	Discounted Price	Save More Offer
Embroidered-Yoke Shift Dress	Embroidered-Yoke Shift Dress for Women	\$39.94	\$32.00	Save More with Code at Checkout
Printed Shift Dress	Printed Shift Dress for Women	\$34.94		Save More with Code at Checkout
Crew-Neck Tee Dress	Crew-Neck Tee Dress for Women	\$26.94	\$18.00-\$21.00	Save More with Code at Checkout

WHERE INFLATION IS... AND ISN'T

12-month change in the price of:



SOURCE: BUREAU OF LABOR STATISTICS. DATA AS OF AUGUST 2023



Jordan Mens Ultra Fly Basketball Shoe

\$87⁸⁷ - \$199⁹⁹ ✓Prime

★★★★★ ▾ 24



Jordan Mens Ultra Fly Basketball Shoe

\$87⁸⁷ - \$199⁹⁹ ✓Prime

★★★★★ ▾ 24



Nike Jordan Men's Air Jordan 1 Basketball Shoe

\$69⁹⁹ - \$272⁶⁵ ✓Prime

★★★★★ ▾ 383



Nike Jordan Men's Air Jordan 1 Basketball Shoe

\$69⁹⁹ - \$272⁶⁵ ✓Prime

★★★★★ ▾ 383



Nike Jordan Men's Jordan Ultra.Fly Basketball Shoe

\$87⁸¹ - \$175⁰⁰ ✓Prime

★★★★★ ▾ 1



Nike Jordan Men's Jordan True Flight Basketball Shoe

\$107⁷² - \$239⁹⁵ ✓Prime

★★★★★ ▾ 29



STUART
WEITZMAN

Stuart Weitzman Annamimic Gold Noir ...
\$319.99 ✓Prime



GZ

Giuseppe Zanotti Women's I50160 Dre...
from \$1,305.59 ✓Prime



SCHUTZ

Schutz Women's Caiolea Dress Pump
from \$172.26 ✓Prime



SCHUTZ

Schutz Women's Peep Toe Platform Pu...
from \$39.62 ✓Prime



Sebastian

Sebastian Women's Black Tipped Silv...
from \$109.26 ✓Prime



CASADEI

Casadei Women's Dragonfly Coutour Dr...
from \$189.68 ✓Prime



BADGLEY
MISCHKA

Badgley Mischka Women's Giana D'Or...
from \$99.95 ✓Prime



LAUREN
RALPH LAUREN

Lauren Ralph Lauren Women's Philen...
from \$150.00 ✓Prime



Disney Frozen Sing-A-Long Elsa Doll

\$20⁰⁰ \$39.99 Prime

Only 2 left in stock - order soon.

More Buying Choices

\$20.00 new (115 offers)

FREE Shipping on eligible orders

Manufacturer recommended age: 3 - 5 Years

Show only Frozen items

293



The Tin Box Company 497807-12 Disney Frozen Scoop Purse Tin

\$6⁹⁹ \$10.99 Prime

Get it by **Tomorrow, Jan 31**

More Buying Choices

\$6.99 new (46 offers)

FREE Shipping on eligible orders

Manufacturer recommended age: 3 - 15 Years

Show only The Tin Box Company items

399



Disney Frozen Toy Camera Featuring Elsa & Anna

\$9⁹¹ \$9.95 Prime

Get it by **Tomorrow, Jan 31**

More Buying Choices

\$9.52 new (10 offers)

FREE Shipping on eligible orders

Show only Disney items

25

Best Seller



Star Wars Galactic Heroes Galactic Rivals Action Figure

\$27⁵⁵ ~~\$29.99~~ ✓Prime

Get it by **Tomorrow, Jan 31**

More Buying Choices

\$27.55 new (22 offers)

\$23.97 used (3 offers)

FREE Shipping on eligible orders

Manufacturer recommended age: 3 - 7 Years

Show only Star Wars items

★★★★★ ▾ 57



Uncle Milton - Star Wars Science - Death Star Planetarium

\$17⁰⁰ ~~\$29.99~~ ✓Prime

In Stock

More Buying Choices

\$11.95 new (65 offers)

\$10.04 used (11 offers)

FREE Shipping on eligible orders

Manufacturer recommended age: 8 - 15 Years

Show only Uncle Milton items

★★★★★ ▾ 290



Revell 85-1636 Star Wars Snaptite Build and Play Imperial AT-ACT Cargo Walker Building Kit

by Revell

\$19⁹⁹ ✓Prime

Get it by **Tomorrow, Jan 31**

More Buying Choices

\$19.99 new (16 offers)

FREE Shipping on eligible orders

Show only Revell items

★★★★★ ▾ 45

For the Woman Who

\$4.45
Cap-in Pump With Detachable Beaded Strap
1502614—Beaded Satin.
Size, 7½ to 8. Wide widths only. We sure to
please the fanciest "Tico" fan. Black or rosewood satin
with a wide black leather band. The band has a
beaded strap, which is made with elastic cord to fit
any size. The toe is pointed and the heel is
wood heel with Goodyear Wingfoot top stitching and extra
wide sole.

\$3.48
The Popular New "Tico" Tie
1502778—Tan Leather.
1502779—Black Patent Leather.
Size, 7½ to 8. Wide widths only. Be sure to state size.
Shipping wt., 1 lb. 10 oz.

\$4.95
Superb in Style!
1502615—Size, 7½ to 8. Wide widths
only. Shipping wt., 1 lb. 10 oz.

Sophisticated style and design and quality
of materials make this a favorite. The
collar has a field morocco color leather back. A very attractive
feature is the bow at the toe. This is
especially appealing to women of exquisite taste,
which is the most important factor in
women's accessories. Has the Field
military look. The leather high with
a wide black leather band. The wood
heel adds to its attractiveness.

All Shoes on This Page Feature Little Color Lines That Prevent the Selling of the Most Delicate Shades of Hues.

\$2.98
Practical as Well as Up to Date and Dressy
1502623—Size, 7½ to 8. Wide widths only.
Be sure to state size.
Another one-over "Tico"
practical and dressy. It has
as well as up to date and
dresy. It has leather
leather inlay on a
medium round toe
last. Has a low
toe, which is
very high, with
a leather band
1½".
This is a
but attrac-
tive
style.
Size to
please.

\$2.98
Stylish Smart
1502767—Tan Leather.
1502768—Patent Leather With
Satin, 7½ to 8. Wide widths only.
Shipping wt., 1 lb. 10 oz.

One of the prettiest
for the well dressed woman. The special
feature is the leather
inlay. The toe is
a straigh model. Comes in either all
tan or tan on the new French heel and has a
width of 1½". The leather high with
a leather band 1½".

\$3.98
Newest in Ties
1502736—Size, 7½ to 8. Wide widths only.
Be sure to state size. Shipping wt., 1 lb. 10 oz.
This is sure to be very popular.
The toe is pointed and the
leather underlay. It has a
wide black leather band
and a bow. It has a
low toe, 1 inch
high, with a
wood heel top stitching.

\$3.95
Well Dressed Woman's Choice
1502606—Size, 7½ to 8. Wide
widths only. Be sure to state size.
The well dressed woman's choice
this is a favorite. The toe is
a straight model. Comes in either all
tan or tan on the new French heel
and has a width of 1½". The leather
high with a
wood military
style heel top stitching.

\$3.98
2½" Heel
1502727—Size, 7½ to 8. Wide widths only.
Be sure to state size. Shipping wt., 1 lb. 10 oz.

One of the prettiest direct
from France. Every woman
is sure to like this
style. It has a
wide leather band
with a bow. The
leather inlay
makes a pretty
accessory. Has a
wide military
style heel top stitching.

Patent Leather

COTTON 3-PIECE

Washfast harlequin check
with white cotton pique

all 3 pieces
for only **\$3.98**

YOU GET ALL THIS:

1. Strapless sundress
2. Cute bolero midriff
3. Action-cut shorts

Priced very low at Sears
for this quality fashion.

Crisp white cotton pique combined with a dazzling 80-square cotton harlequin check. Halter sundress has figurewise, elasticized bodice, a wide swirling skirt. Bolero midriff ties in bow, is trimmed with checks. Shorts are front-pleated, have smartly checked cuffs. All washfast.

Girls' sizes 7, 8, 10, 12, 14.
Please state size. Shipping
weight 1 pound 3 oz.

077 K 5201—White pique
with red and white checks
Outfit. \$3.98



GIFT BOXED!
All pieces
Pretty Packed
in a Gift Box.
All Ready to
Be Wrapped.

Luxurious Nightwear for Gifts
Luxurious, Yes...but NOT Expensive!

All Descriptions Are
on the Opposite Page

Here's a Real Bargain
Beauty in Rayon Satin
\$1.00

④ \$3.98 Negligee and Gown Ensemble in Printed Rayon Satin
2-Pc. Set

For Our 49th Birthday Party—



Genuine
BEAVER
BRAND

Accordion
WAS \$12.50
SPECIAL NOW
\$9.95

- Mahogany Finish Full Frames. Size 6x11 in. Composition Buttons.
- Stradella Metal Corners. Leather Hand Straps.
- Handsome Nickel Plated Metal Grille. Four Sets of Genuine Steel Reeds Mounted on Aluminum Plates.

Once in a blue moon a bargain like this! Now save almost $\frac{1}{2}$ during our mammoth 49th Birthday Celebration! It's a really great accordion . . . has won thousands of friends with its rich organ-like tone, fine construction and all-around good looks. Beautifully decorated with impressed rose designs in rich gold color. Easy to play if you follow the instructions we include. (Made in Germany). Shipping weight, 11 pounds.

12 W 632

Now only **\$9.95**

**6 Records
FOR ONLY 49c**



Six records for less than the price of one!! Special Surprise Package made up specially for this Anniversary Event. Majority are regular 75c double side records . . . electrically recorded. Group includes popular dance selections, late ballads, standards, and a few hill billy numbers. (Our choice only . . . but we guarantee to please you.) Records are Victor, Columbia, Brunswick, Conqueror and Perfect.

12 W 6109—Shpg. wt., 3 lbs. 12 oz. 6 Records for . . . **49c**



EASILY WORTH
\$8.50

The
Biggest
Guitar
Value
in Years!
ONLY
\$4.45

—Grand Concert Size. —Two-tone Mahogany Finish. —Birch Body; Black Celluloid Guard Plate. —Vertical Patent Machine Heads. —Ebonized Fingerboard with 14 Frets Clear of Body. Attractive Position Ornaments. —Neat White Striping Around Edge of Top and Sound Hole. —Sturdily Constructed, Braced and Lined. —Instruction Book, Pick and Certificate for 12 Lessons for Only \$1.00 Included. (See our General Catalog).

We repeat this General Catalog favorite because we want you to get the advantage of this outstanding bargain . . . it's a special value at this price . . . worth \$8.50.

Grand concert size adapts it to any kind of playing—with dance orchestra, for solos in large auditoriums, for parties, picnics, or radio broadcasting. Beautifully finished and finely constructed. Has bigger and mellower tone because of its size. Patterned after the expensive guitars you've seen professional players use. A real bargain if we've ever seen one! Shipping weight, 11 pounds.

12 W 210—Grand Concert Size. **\$4.45**
12 W 2210—With Canvas Case. Shpg. wt., 13 lbs. . . . **\$5.95**

TENOR GUITAR

Four String style for playing like a tenor banjo or ukulele. Shipping weight, 11 pounds.

12 W 225 **\$4.45**
12 W 2225—With canvas case. Shpg. wt., 13 lbs. **\$5.95**

Sears, Roebuck 327

BOP 'EM...they beep 'n blink!

Inflatable vinyl Punch-me's with weighted bottoms
to keep 'em bobbing back for more.



34-inch Punch-me's

Your choice \$1.66

1. **Yogi Bear** the wily, carrot-chomping rabbit.
49H225-Wt. 1 lb. 8 oz.\$1.66

2. **Elmer Fudd**, Stone Age son of "The Flinstones" neighbor.
49H219-Wt. 1 lb. 8 oz.\$1.66

42-inch Punch-me's Your choice \$2.44

3. **Superman**, Fatuous flying fighter for law and order.
Shipping wt. 2 lbs. 12 oz.
Wt. 2 lbs. 12 oz.
49H201 \$2.44

4. **Huckleberry Hound**, big, brawny bumbler of TV fame.
Shipping wt. Wt. 2 lbs. 12 oz.
Wt. 2 lbs. 12 oz.
49H200 \$2.44

5. **Woody**, the red-headed woodpecker full of tricks and fun.
Shipping wt. Wt. 2 lbs. 12 oz.
Wt. 2 lbs. 12 oz.
49H206 \$2.44

52-inch Punch-me's Your choice \$3.22

6. **Batman**, Gotham City's favorite and fearless crime fighter.
Beeps when you hit him in the utility belt.
Shipping wt. Wt. 4 lbs. 8 oz.
49H2477 \$3.22

7. **Popeye**, that muscle-bound, spinach-eatin' sailor with corn cob pipe.
Wt. 4 lbs. 8 oz.
49H2424 \$3.22

8. **Yogi Bear** of Jellystone Park with his best buddy Boo Boo on his back.
Wt. 4 lbs. 8 oz.
49H2504 \$3.22

"It's SUPERMAN!"



\$4.99

\$4.99

Superman . . . no mistaking him as he speeds to the rescue in his suit and cape of Sanforized® cotton, max. shrinkage 1%. A real trim, ready-for-action look. Sizes S, M, L; see size chart on facing page.
49N730F-Wt. 1 lb. \$4.99

Batman . . . comes alive and ready to fight crime when he wears this washable cotton outfit. Shirt, pants, cape, hood, mask. Sizes S, M, L.
49N807F-Wt. 1 lb. \$4.99

SEARS
1964 SEARS 559

Complete set... packed
with action and intrigue



JAMES BOND

and the world of **007**

Get a realistic 4-scene stage,
10 lifelike handcolored figures
—plus all these working units:

1. Laser-beam Torture Machine
2. Flame-shooting Dragon Tank
3. M's bulletproof Office Desk
4. Revolving top Pool Table
5. Customized Aston-Martin Car
6. Two-section Hydrofoil Yacht

*Everything to
recreate Bond's
most thrilling
adventures*

All
this
for
only
\$9.99

Help James Bond challenge ruthless villains and their
cunning gadgets. Every item authentically repre-
sented from original artwork and scenes from the
four James Bond movies: "Dr. No,"
"Goldfinger," and his later—"Thunderball."

With orders from M, head of British intelligence,
and many secret service agents or other sources to put in each
unit's control panel. There are four scenes to choose
from. But you can't decide which Bond's
newspaper sales on the fuel price (there's
plenty to stage). Plastic models. 14 in. x 14 in. Approx.
45 lb. \$9.99. Shipping wt. 5 lbs. If you'll wait until
Nov. 25, \$9.99.



Our \$1.55 Revolver.



No. 883 Forehand & Wadsworth Safety hammer, double action Revolver, full nickel plated, rubber stock, rifled barrel, rebounding lock, safe, reliable and accurate, 32 caliber, 2½ inch octagon barrel, 6 shot, weight 12 ounces.

Our price.....\$1.55

No. 884 38 caliber, 2½ inch octagon barrel, 5 shot, weight 15 oz. Our price.....\$1.55
Postage, extra, 17c.

Console prices, adjusted for inflation



\$796

1977- Atari 2600
Original price: \$200



\$935

1979- Intellivision
Original price: \$300



\$410

1982- ColecoVision
Original price: \$175



\$412

1986- Master System
Original price: \$200



\$595

1995- Saturn
Original price: \$400



\$289

1996- Nintendo 64
Original price: \$200



\$272

1999- Dreamcast
Original price: \$200



\$395

2000- Playstation 2
Original price: \$300



\$412

1986- NES
Original price: \$200



\$346

1989- Genesis
Original price: \$190



\$365

1989- TurboGrafx 16
Original price: \$200



\$1,125

1990- NeoGeo
Original price: \$650



\$259

2001- Gamecube
Original price: \$200



\$389

2001- Xbox
Original price: \$300



\$348

2005- Xbox 360
Original price: \$300



\$567

2006- Playstation 3
Original price: \$500



\$332

1991- SNES
Original price: \$200



\$1,095

1993- 3DO
Original price: \$700



\$391

1993- Jaguar
Original price: \$250



\$446

1995- Playstation
Original price: \$300



\$284

2006- Wii
Original price: \$250



\$300

2012- Wii U
Original price: \$300



\$400

2013- Playstation 4
Original price: \$400



\$500

2013- Xbox One
Original price: \$500

Inflation

- General rise in the price level
- Inflation reduces the “purchasing power” of money

$$\text{Inflation Rate} = \frac{\text{Price in Year 2} - \text{Price in Year 1}}{\text{Price in Year 1}} \times 100$$

- 1. So if the price of a burrito goes from \$6.00 in 2015 to \$8 in 2016, how much was the rate of inflation?
- 2. If the price index goes from 55 % in 2015 to 60% in 2016.

Inflation

- The GDP Price Deflator is a price index that measures an increase in price levels of all items that compose GDP, but is that really relatable to a typical consumer?
 - *Example, SpaceX constructing a space shuttle with funding from NASA.*
- Not only that, but many, MANY, consumer goods are not produced within the US and therefore not included in the gdp price deflator.
- To account for this, the Bureau of Labor Statistics (BLS), compiles the data for the Consumer Price Index (CPI).
 - *They also measure the Producer Price Index to calculate the changes in commodities like steel, coal, oil etc.*
- They create a “market basket” of about 400 items and compare the prices to a base year (Usually it is somewhere between 1982 – 1984).
 - *To keep up with data, they conduct monthly surveys in urban markets.*

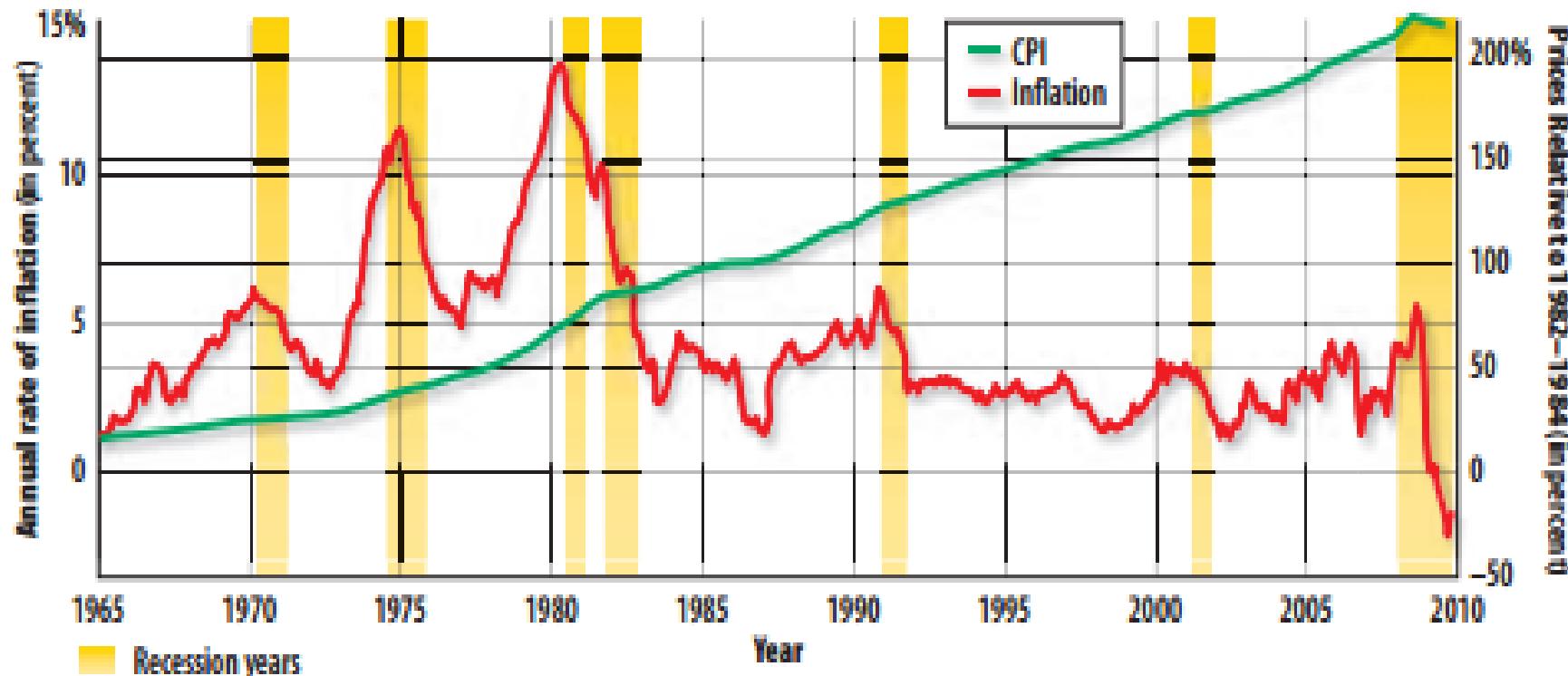
$$\text{CPI} = \frac{\text{Price of the Most Recent Market Basket in the Particular Year}}{\text{Price estimate of the Market Basket in 1982-1984}} \times 100$$

If the consumer price index increases from 200 to 240 in a one-year period, then the inflation rate is

- (A) 16.67 percent
- (B) 20 percent
- (C) 25 percent
- (D) 40 percent
- (E) 140 percent

Item	Description	Price Base Period (1982–1984)	Price Second Period (1998)	Price Third Period (September 2009)
1	Toothpaste (7 oz.)	\$1.40	\$1.49	\$3.80
2	Milk (1 gal.)	1.29	1.29	3.20
3	Peanut butter (2-lb. jar)	2.50	2.65	4.70
4	Lightbulb (60 watt)	.45	.48	.65
.....
364	Automobile engine tune-up	40.00	42.00	84.75
Total cost of market basket		\$1,792.00	\$2,925.00	\$3,868.00
<u>Current market basket cost</u>		<u>$\frac{\\$1,792}{\\$1,792} = 1.000$</u>	<u>$\frac{\\$2,925}{\\$1,792} = 1.632$</u>	<u>$\frac{\\$3,868}{\\$1,792} = 2.158$</u>
Index Number (%):		100 (%)	163.2 (%)	215.8 (%)

THE RATE OF INFLATION AND THE CONSUMER PRICE INDEX, 1965–2009



Source: Bureau of Labor Statistics; inflationdata.com; National Bureau of Economic Research

Deficiencies of the CPI

- Substitution Effect: When prices go up using market basket items, consumers find substitutes. This might make the base year comparisons inaccurate.
- Differences in Quality: As products get better in quality, we may see an increase in price, however, this should not be reflected in the CPI but it is difficult to calculate. (Cars, Computers, Phones, etc).
- Evolving Goods: The Base Year of 1984 was very different than today, what kinds of goods would probably be in that base year but left off of it today? What types of goods should be included in this year's CPI that didn't exist in 1984?

Effects of Inflation

- ✖ Purchasing Power goes down.
 - + *If inflation is at 10%, a dollar will only buy you 90 cents worth of goods.*
- ✖ Income can be affected if you have a fixed income or it does not rise to meet inflation.
 - + *Think of retired people who have a fixed income if it does not get adjusted for inflation.*
- ✖ Interest rates may be wiped out if they do not exceed the inflation rate.
 - + *If a bond pays you 6% interest, but inflation goes up 5% this year, you only have a 1% increase in purchasing power.*
 - + *Also causes loans you take out to have higher interest rates, affecting the sale of durable goods like real estate and cars.*

Hurt by Inflation:

Fixed-income receivers

- Real incomes fall

Savers

- Value of accumulated savings deteriorates

Creditors

- Lenders get paid back in “cheaper dollars”

Unaffected by Inflation:

Flexible-income receivers

- Social Security recipients
- Union members

Debtors

- Pay back the loan with “cheaper dollars”

Income and Inflation

- Nominal Income: Income in today's money
- Real Income: Income deflated by the CPI to calculate actual increase in purchasing power.
- $\text{Nominal Income}/\text{CPI} \times 100 = \text{Real Income this year.}$
- **Practice # 3:**
- John made 41,000 in 2022 and the CPI was 125. In 2023, John made \$43,000 and the CPI was 150.
 - A. What was his real income in 2022? In 2023?
 - B. How much did his purchasing power go up by?
 - C. Assume that in a different scenario, John made \$41,000 in 2023 as well, getting no nominal increase, what happened to his purchasing power?

Unexpected Inflation

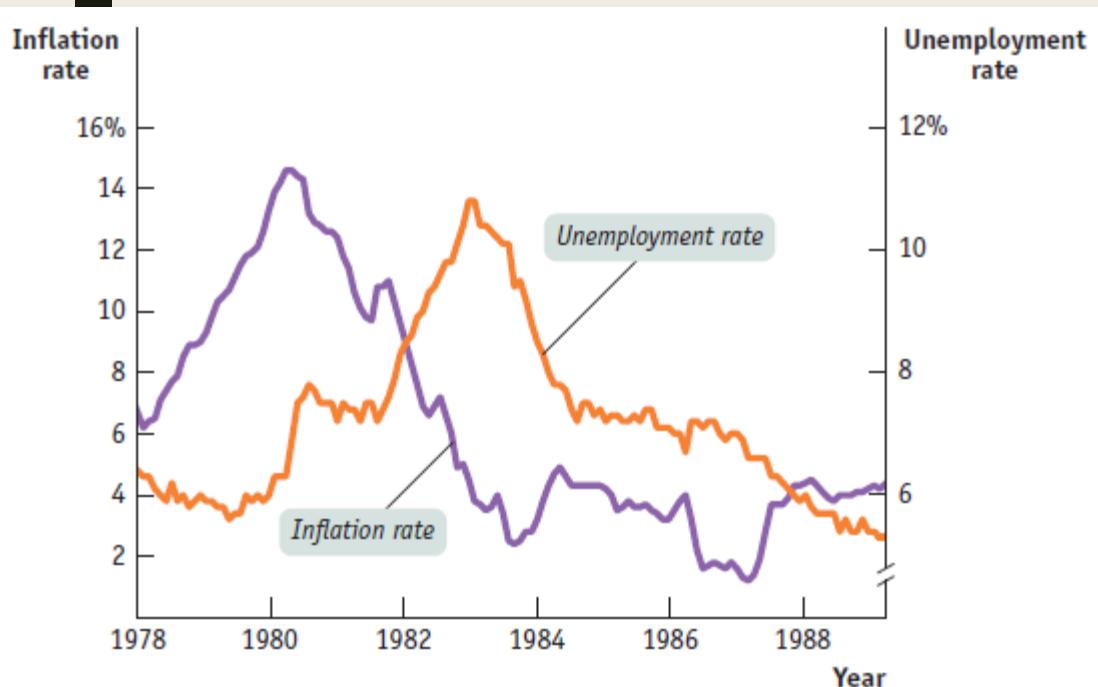
- Employees and Employers: If real income of workers is falling because of high inflation, employers are benefitting.
 - ie: Price of goods go up by 8%, nominal wages only go up by 4%.
- Fixed Income Recipients: Hurt by high inflation.
 - ie: retirees, landlords who lease properties at a guaranteed rate.
- Savers and Borrowers: Purchasing power is greatly diminished if your money is in a savings account and the interest rate is lower than the rate of inflation.
 - Borrowers come out winning if inflation is higher than the interest rate because the money they pay back is worth less than the money they borrowed.

Anticipating Inflation

- If inflation can be expected and predicted, banks, governments and businesses can adjust for the inflation.
 - *Rational Expectation Theory of Inflation: Using available information and statistics to form expectations about future inflation*
- As long as the actual inflation is identical to the expected inflation, most people and businesses are not harmed by the increase.
- Cost of living adjustments are made in certain industries to adjust for expected inflation.
- Banks account for this with the interest rate that they charge for borrowing and saving money.
- The rate the bank offers is called the *real rate* of interest.
 - By adding the expected inflation to the real rate, you get a *nominal interest rate*.
 - So nominal interest rate = *Real Interest Rate + Expected Inflation*.
- **Practice Problem # 4:**
 - a) With \$200 in a savings account at the bank, the bank offers me a 1% interest rate, but inflation rises by 2%. How has my purchasing power changed?
 - b) What if they offer me a nominal interest rate of 3% and inflation remains at 2%. How is my purchasing power different from above?
- Would this example change any for borrowing money from a bank?

BLS Inflation Calculator

http://www.bls.gov/data/inflation_calculator.htm



- Why is disinflation bad?
- Inflation can usually be counted on and predicted, disinflation is difficult because it is not as predictable.
- Inflation/Deflation and Unemployment are correlated.
- As inflation increases, unemployment decreases.
- As inflation decreases, unemployment increases. This is usually temporary.

Inflation

- <http://money.cnn.com/2018/05/18/news/companies/amazon-mcdonalds-chipotle-walmart-prices/index.html>

Cost of Living Calculator

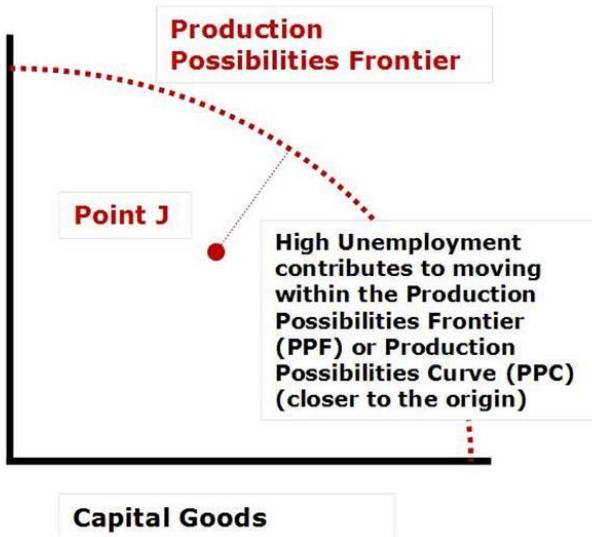
- <https://www.payscale.com/cost-of-living-calculator?fbclid=IwAR0ZiDbeyPT5v8zF7g2Ems0X63ckKbAwcLQRjYFZwlhRsSI6ho2aSHLCenO>

DISINFLATION vs DEFLATION

Basis	<u>Disinflation</u>	<u>Deflation</u>
Meaning	When the rate of inflation slows temporarily	When there is a fall in the general price level
Frequency	More frequent	Less frequent
Factors	Due to a pull down in the business cycle, use of tight monetary policy, etc.	Drop in consumer spending, investment, money supply, govt. expenditure, etc.
Example	Almost every economy goes through this.	The Great Depression in the 1930s
Stock Markets	The stock market may or may not go down.	Stock market doesn't perform well and witnesses a drop.
Impact	It isn't believed to be negative for the economy	Deflation isn't good for the economy
Economy	Positive and stable.	Weaker and negative
Time period	Will continue until the inflation rate is zero	Will continue until inflation rate is positive or zero

Unemployment and GDP

Consumer Goods



- Unemployment related to labor will always cause an economy to function within the production possibilities frontier.
- To measure unemployment, you first need to know who is considered unemployed.
- The BLS categorizes anyone over the age of 16 as Employed, Unemployed, or Out of the Labor Force.
 - *If you work at least 1 hour a week, you are EMPLOYED.*

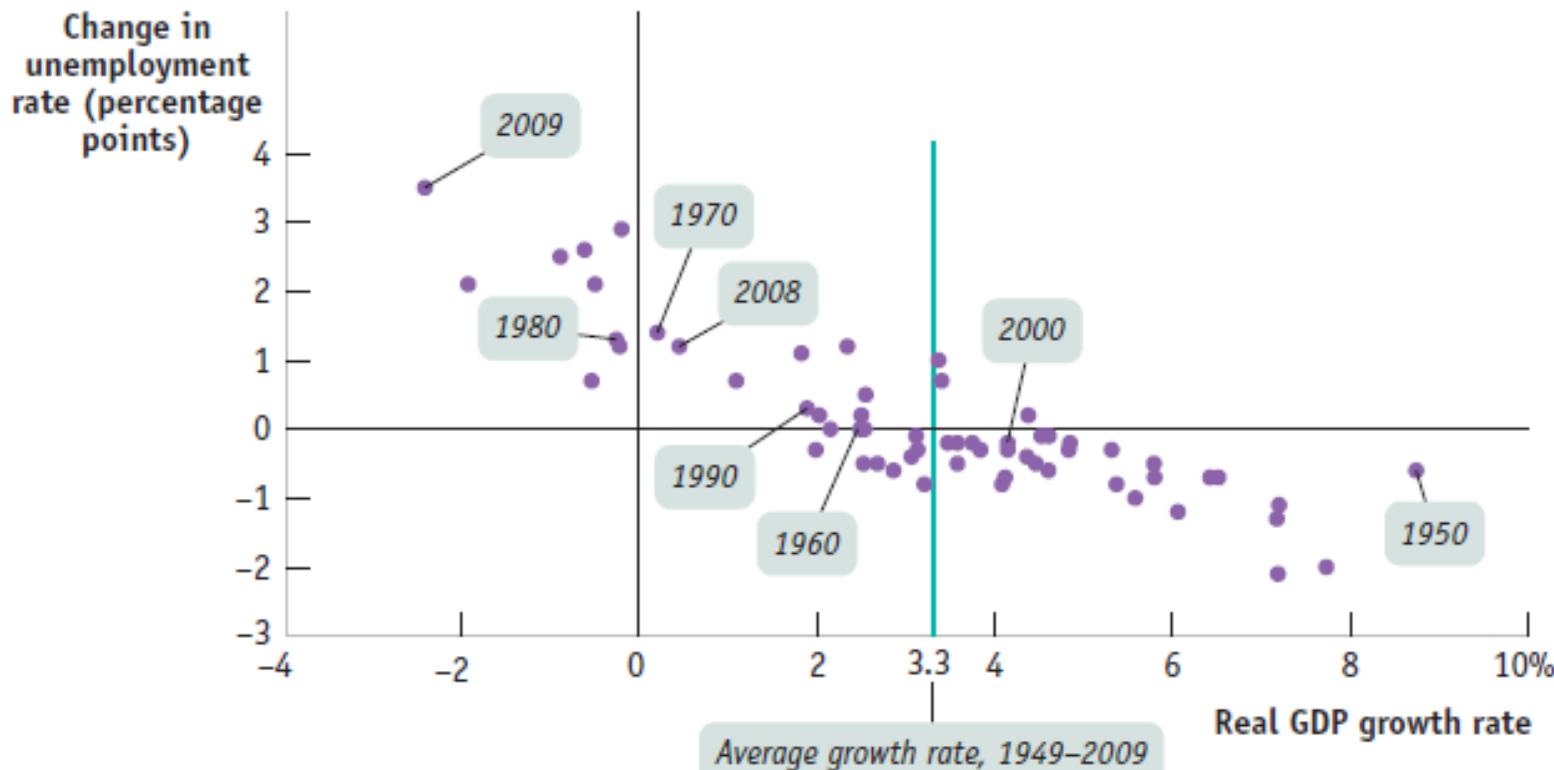
Unemployment Calculations

- Therefore, the Labor Force (LF) is equal to those employed (E) and those who are unemployed (U) and are actively looking for work.
 - $LF = E + U$
- To get the Unemployment Rate, you must find the ratio of the unemployed with the entire labor force or:
 - $UR = (U/LF) \times 100$
- Lastly, the percent of people in the country who are eligible and able to work is called the Labor Force Participation Rate.
 - $LFPR = LF/Population \times 100$

Growth and Unemployment

figure 12.5

Growth and Changes in Unemployment, 1949–2009

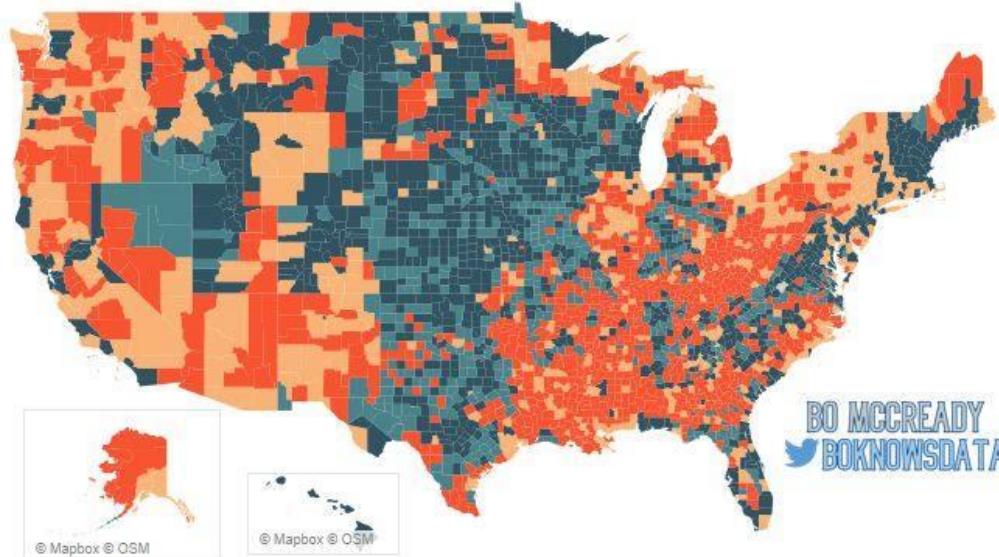
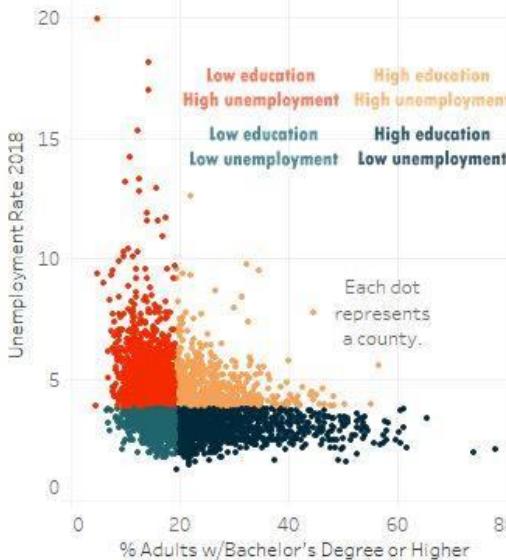


Problems with the Unemployment Rate

- As in the previous example, a **discouraged worker** can be removed from the unemployment list, resulting in a lower unemployment rate, but that does not mean that the economy is in a better condition.
- The unemployment rate also omits the **underemployed** worker who has a part time job but would prefer to be working full time but they cannot find a full time job.
- **Marginally attached workers** are folks who recently looked for work and would prefer to have a job, but are not currently looking for employment.
- The BLS measures all of these together, including unemployment and comes up with a broad measure called “U6”. The number will be much higher, but will run in parallel to the Unemployment Rate.
- http://www.nytimes.com/interactive/2009/11/06/business/economy/unemployment-lines.html?_r=0
- The type of unemployment is also very telling about what is happening in the economy.
 - *What is the difference between someone who lost their job over after Christmas compared to someone who lost their job because it became automated (ie Sun Pass)?*

EDUCATION AND UNEMPLOYMENT

This map shows counties in the US colored into four categories based on educational attainment (as measured by the percent of adults 25+ with a bachelor's degree or higher 2013-2017) and unemployment rate (based on 2018 unemployment) relative to the median for all counties. Data comes from the USDA Economic Research Service.



Types of Unemployment

Frictional

(Can be beneficial)

- Short term – Time spent searching for jobs.
- Not as serious
- Can be voluntary (in between jobs or switching fields)
- Can also be caused by being fired for poor work habits (Sleeping on the job)

Structural

(Can be beneficial in the long run)

- Serious and long term.
- The results of fundamental change in the economy.
- Jobs may have been outsourced or replaced by technology (automated).
- Flexible skills of workers help to find a new job or place within the firm.
- Change in minimum wages can be a cause.
- Labor Unions can also cause higher wages which leaves people wanting to work without a job.
- Public Policy, such as unemployment benefits, can reduce the incentive to quickly find new work. (Especially in countries with more lenient policies)

Types of Unemployment (Continued)

Cyclical	<p>Related to swings in the business cycle. Industries lay off workers as businesses try to deal with recessions. Takes place over a few years. Felt throughout the economy. To find the actual unemployment rate, you add</p>
Seasonal	<p>Changes in the weather or demand for certain products. It takes place within a year. Agricultural employment with changing seasons. Workers during summer jobs and winter jobs. (Pools and Ski Resorts) The BLS accounts for this and does not affect the published unemployment rate</p>
Full Employment	<p>Also called the Natural Rate of Unemployment. (about 5 to 6% in the US). Exists when there is zero cyclical unemployment. Actual 100% employment is never possible in a modern economy. This is considered the long run equilibrium of unemployment in a country.</p>
	$\text{Actual Unemployment} = \text{Natural Unemployment} + \text{cyclical unemployment}$

■ Practice Problem # 5

- Doral's population in 2022 = 55,000
 - Employed = 45,000
 - Unemployed = 5,000
 - Out of the labor force = 5,000
- a) What is the unemployment rate for Doral
 - b) What if at the beginning of 2023, 1000 people who were unemployed have given up looking for work. What is the new unemployment rate?
 - c) What does that mean about the overall economy?
 - d) What is the labor force participation rate for Doral?

- <https://www.reviewecon.com/games-activities#>