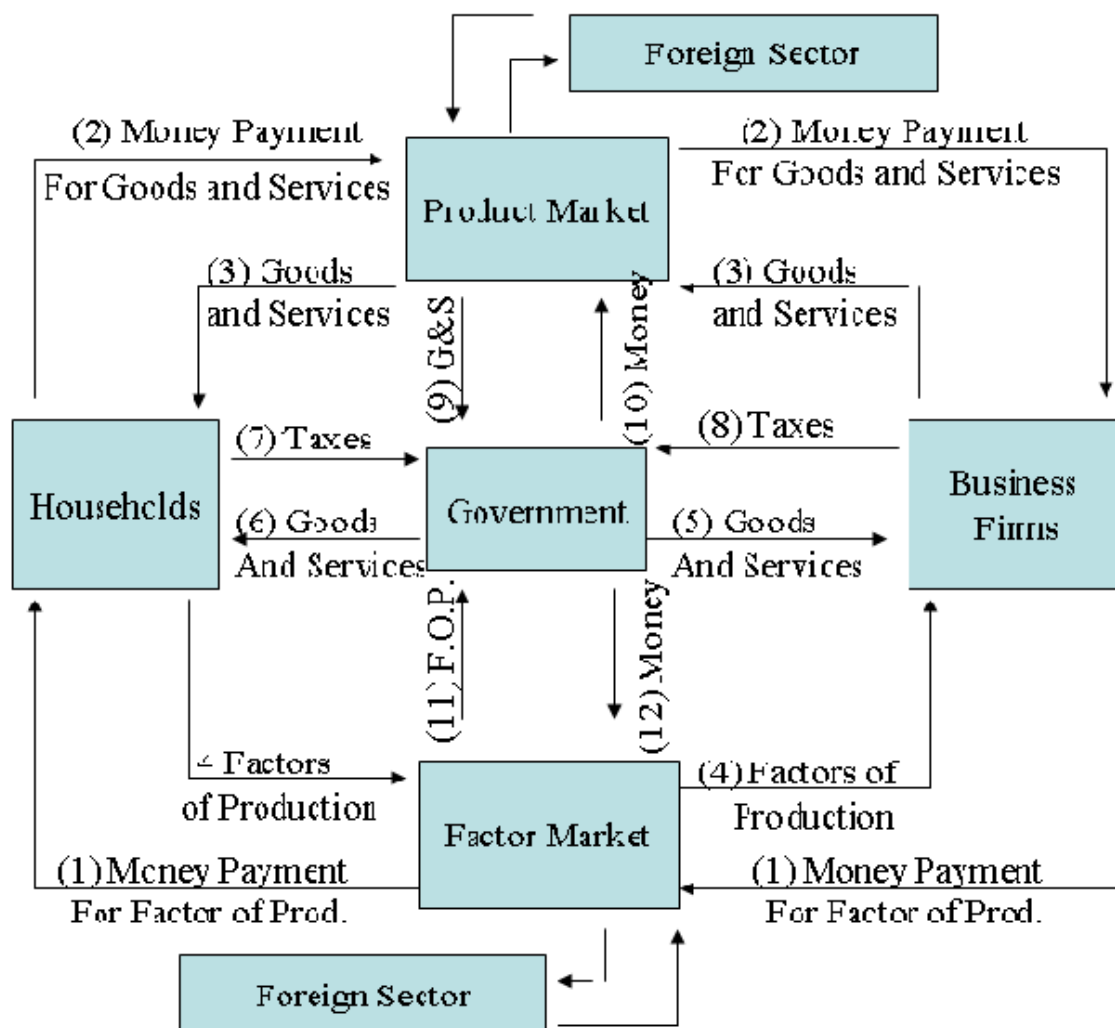


Unit Two, Day One (pages 860-889, 585-608)

What is the difference between macro and micro?

National Debt v. Deficit (NOT THE SAME THING)

National Debt	Deficit



In the circular flow the seller receives exactly the same amount that the buyer buys (exclude tax)

In the circular flow diagram, how do we account for profits?

What happens if there is a disruption in the circular flow diagram?

Disruption on the Businesses side –

Disruption on the Households side –

Individuals are concerned with income distribution. (wages)

GROSS DOMESTIC PRODUCT AND GROSS NATIONAL PRODUCT

Gross Domestic Product: value of the total goods and services **produced** within the boundaries of the United States, whether by American or foreign supplied resources.

Notice that these resources do not have to be sold in that year.

1) GDP is a monetary measure: the reason for this is so that we can compare apples and oranges.

EX. If we produce 1000 C.D.'s 1200 paperback books this year and then next year produce 1000 paperback books and 1200 C.D.'s in which year was our GDP the highest?

2) intermediate goods: (goods and services are used for further processing and manufacturing or resale) are used in production and **are not counted in GDP**.

You can only count the final goods: goods and services being purchased for final use and not for resale or further processing or manufacturing. This process avoids double counting goods and therefore exaggerating the GDP.

3) GDP excludes non-production transactions such as

a) Financial Transactions:

ex: Public transfer payments: A transfer payment is where the government takes money from one group and gives it to another. For example, social security, welfare...Since nothing is produced transfer payments are not counted.

ex: private transfer payments: gifts of money from relatives... Nothing produced so not counted.

ex: security transactions: buying and selling of stocks and bonds. This is just an exchange of paper assets so it is not counted.

b) secondhand sales: there is no current production. These goods have already been counted in a previous GDP. Therefore, they are not counted the second time.

Problems with GDP:

Does not measure underground economy. (illegal sales, sales not reported to government (for example someone that paints your house for cash is most likely not reporting the business to the government. They do this to avoid paying taxes. This means it will not be included in GDP.

Does not measure goods bartered

Does not measure goods produced and sold at home unless this is reported.

Cool GDP Websites

<http://research.stlouisfed.org/fred2/series/GDPC1?cid=106>

Unit Two, Day Two (pages 585-608)

Expenditures approach to GDP

$$\text{GDP} = C + I + G + X_n$$

Households (C) Households job in economy is to Consume. As spenders must consider the following:

1. Personal taxes: Government in the middle
2. Savings: (bank accounts, savings, insurance...)
Saving is correlated to income. Dissave: spend savings or borrow
Reasons to save? Security vs. Speculation

3. Consumption: Includes all of the following:

Durables: expected life multiple year (cars, appliances...)

Non-durables: expected life less than a year (food, clothing)

Service: (over 1/2 of our income goes to services)

Consumption is the largest component of GDP.

Businesses (I) Businesses job is to Invest in capital goods.

1. All final purchases on machinery, equipment and tools.
2. All construction: this includes all construction done even private home (because they could be rented), buildings and apartments.
3. Changes in inventory: You must look at additions to inventory at year end (ignore subtractions – they've already been calculated into the previous year's GDP).

(Ig): Gross Private Domestic Investment: production of all investment goods - those which replace machinery, equipment and buildings used up in the current year's production plus any net additions to the economy's stock of capital (replacement capital and new capital). NOTICE: this is Ig. Definite indicator of future productive capacities.

Net private domestic investment: refers only to the added investment in the current year.

: Growing economy: If Gross Private Domestic Investment (Ig) exceeds depreciation.

: Static economy: If Gross Private Domestic Investment (Ig) is equal to depreciation

: Declining economy: If Gross Private Domestic Investment (Ig) is less than depreciation.

Legal forms of business enterprises: **(Unless needed I'm not going to lecture over this material. You need to read it on your own. I'll happily answer any questions about it. It will be on the test).**

Sole Proprietorship: A business owned by one person (ex. Lemonade stand)

Advantages of sole proprietorships

- Ease of start-up. An idea, hard work and a little bit of capital. Ex: lawn mowing service, baby sitting....

- Ease of Management: you make the decisions (flexibility). No need to consult anyone.
- You keep all profits
- You do not have to pay any business taxes. Your income is taxed as personal income.
- Psychological advantages: freedom, you are the boss, personal satisfaction of ownership
- Ease of exit: If you want out, you close the door and walk out.

Weakness of sole proprietorship

- Unlimited Liability: you have total responsibility for all debts and liabilities of the company
- Difficulty in raising financial capital: Bankers are not eager to loan money without collateral
- Limited size and efficiency: larger business usually are more productive due to specialization
- Limited managerial experience: Proprietor must be the idea man/woman, operator, accountant, salesman, etc.
- Difficulty in attracting qualified employees: Larger firms have an advantage because they can afford better benefits.
- Limited Life: the business dies with the owner. All contracts expire when he dies. Estate taxes must be paid. Bank loans become due.

Partnerships: Businesses jointly owned by two or more people (ex. Azzip)

Advantages of Partnerships

- Ease of establishment: includes lower startup cost because spread between partners.
- Ease of Management: each partner has different things to offer
- No special business taxes
- Easier to raise financial capital than sole proprietorship
- Can get larger than sole proprietorship
- Easier to attract qualified workers than sole proprietor

Disadvantages of Partnerships

- Unlimited liability: even responsible for your partner's mess ups
- Limited Life: If one person quits or dies the partnership ends and either company dies or new one must be made up.
- Conflict between partners

Corporation: a form of business set up by state law. (ex. Chick Fil A)

Forming a Corporation is very formal and a very legal arrangement. It is much more difficult than forming a sole proprietorship or partnership. It is, literally, an artificial person (in the eyes of the government) having the right to do business.

Corporations often sell stock (shares of ownership in the corporation.) This means the stockholders have ownership in the corporation. You must then listen to their input. If you sell more than 50% of your stock, you could lose control of your own company. You are no longer the majority shareholder (captain of the ship).

Stockholders (shareholders): owners of stock.

Reasons to own stock:

Dividends: share of corporate profits paid to stockholders

Speculation: buy in hope that price of stock will increase.

Advantages of a corporation

- Ease of raising financial capital (main advantage)
- Ability to hire good management
- Limited liability: In a sole proprietorship or partnership a creditor can seize all of your personal assets as a claim against company debt. They can take your house, car, boat, and savings account, etc. If a corporation goes under all you lose is your investment in the corporation. Your personal property cannot be touched.
- Unlimited life: A corporation never dies. Unlike sole proprietorships a corporation can continue to do business for hundreds of years. It does not have to pay estate taxes or lose contracts due to the death of an owner (Ford is still open even though Henry Ford died years ago).
- Ease of transferring ownership. Buying and selling stock is easy and is done millions of times a day

Disadvantages of a corporation

- Start-up expenses are high. Must pay for a charter, have an attorney file it.
- Stockholders (owners) have a limited voice in running the company because they do it through an elected board of directors
- Profits are taxed twice. The corporations are treated as an individual and taxed before dividends are given out. When that money is distributed to stockholders (in the form of dividends) the stockholders are taxed on that money again.
- Corporations are subject to more government regulations than sole proprietors or partners

(The preceding information will not be lectured over in class. You need to read it and ask any questions. It will be on the test.)

The Government (G) Government's job is to spur the market. Government purchases include all governmental spending, Federal, state, and local, on finished products of businesses and all direct purchases of resources. It excludes transfer payments.

The Foreign Sector (Xn) Net Exports the amount by which foreign spending on American goods and services exceeds American spending on foreign goods and services.

$$\text{Exports} - \text{Imports} = \text{Net Exports}$$

List something on (or with you) that is made outside of the U.S?

What does that mean (in terms of our economy)?

A trade deficit is a calculation of the difference between the goods and services Americans sell to foreigners and the goods and services that Americans purchase from foreigners.

A trade deficit with one country or in one year is not necessarily worrisome, and according to standard economic theory, will correct itself over time. But this theory has been proven wrong over the last 30 years as the United States has run consistent and increasing trade deficits.

The enormous size of the trade deficits over the last several years raises the possibility of a severe international economic crisis should foreigners begin to dump the dollars they hold in world currency markets. The trade deficit is calculated on an annual basis.

How do we pay for a trade deficit?

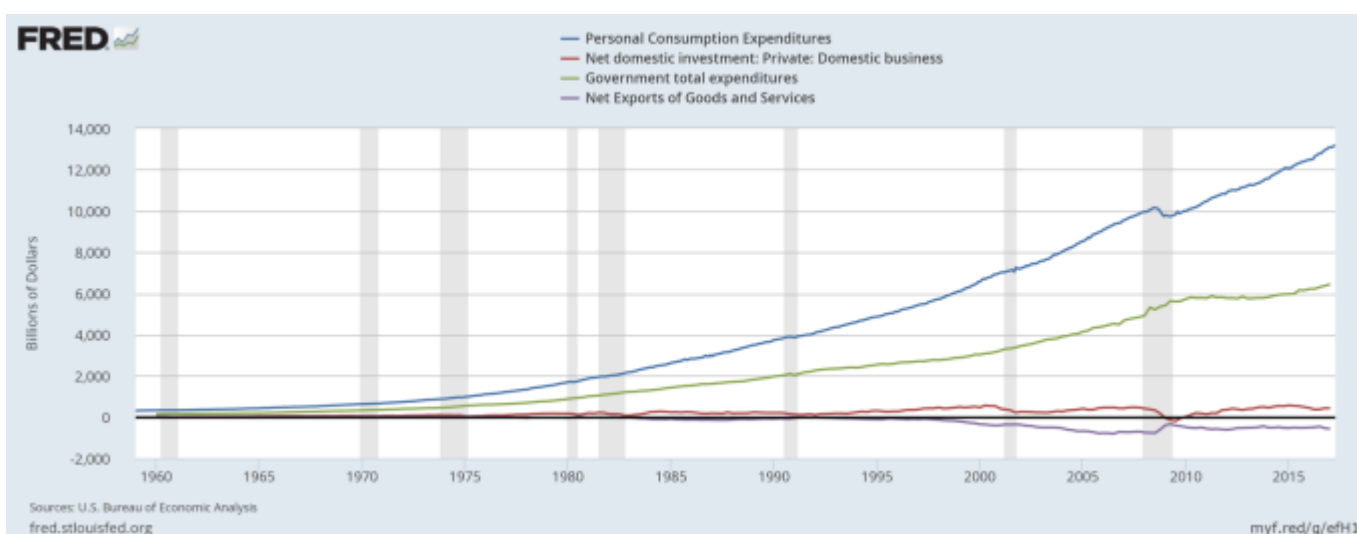
1. Borrow (sell government securities or business securities)
2. Give up real assets

The United States is the largest debtor nation in the world.

Ways that we calculate GDP

I. **EXPENDITURES APPROACH**: adding up all that is spent within this year's total output.

This takes into account $C + I + G + X_n = GDP$



II. **INCOME APPROACH**: summing up all the incomes derived from the production of this year's output.

Income Approach:

- Wages (compensation to employees)
- Interest
- Rent
- Profits (proprietors income)
- Consumption of fixed capital (Depreciation)
- Indirect Business Taxes
- Dividend

+Undistributed Corporate Profits

Gross National Product (sometimes referred to as GDI, Gross Domestic Income)

- Net American Income Earned Abroad

Gross Domestic Product

Wages: wages and salaries paid by business and government to suppliers of labor

Interest: price of borrowing money. This comes from the business.

Rent: income payments received by households which supply property resources. Our payments on houses are included as rent.

Profits: can be to the sole proprietor, the partnership or the corporation.

For corporation profits:

1. part of it goes to pay income taxes (corporate income taxes)
2. part goes to the stockholders in the form of dividends
3. part stays with the corporation for future use. This is called undistributed corporate profits. This increases the future assets of the business.

Consumption of Fixed Capital: (Depreciation) businesses estimate the useful life of their capital goods and allocate the total cost of such goods more or less evenly over the life of the machine. This is called *depreciation of fixed capital*. We basically consume the fixed capital as we use it.

We pay wages, rent, interest... and we must also pay for our machines. This paper payment is depreciation.

Once again this is the difference between I_g and I .

Notice: this is money that must be reinvested just to maintain the existing stock of capital.

If corporations do not replace the capital what is happening in the economy?

Indirect Business Taxes: taxes charged to the business are passed along to the buyer. This means that it is included in GDP as profit. These taxes must be backed out.

Now that we have all of this we must **subtract** Net Income Earned Abroad to get GDP.

Net Income Earned Abroad: (net output produced by Americans out of the U.S.) It is found by subtracting the **total income payments to the rest of the world** from **total income receipts from the rest of the world**.

In simple terms:

We (Americans) are paying other Americans to work for our companies but the Americans who are being paid live overseas. They turn around and spend that income overseas. This is **Total Income Payments to the Rest of the World**.

Foreign companies are paying foreign workers to work for foreign companies but the foreign workers live within the United States. The foreign workers turn around and spend their income in the United States. This is **Total Income Receipts from the Rest of the World**.

Total Income Receipts from the Rest of the World - **Total Income Payments to the Rest of the World**

This is Net Income Earned Abroad

(NOTICE: this number can be negative if American-supplied resources produced and earned less abroad than foreign-owned resources produced and earned in the United States.)

Unit Two, Day Three/Four (pages 585-608)

Nominal GDP: the total dollar value of all goods and services produced in a given year.

Product	<u>Year 1 Q</u>	<u>Year 1 P</u>	<u>Year 2 Q</u>	<u>Year 2 P</u>
Apples	10	\$1	12	\$1.50
Bananas	6	\$.50	10	\$1

In year 1 the nominal GDP is

$$(10 \times \$1) + (6 \times .50)$$

$$= \$10 + \$3$$

$$= \$13$$

What is the nominal GDP for Year 2?

$$(12 \times \$1.50) + (10 \times \$1)$$

Real GDP: the total value of all final goods and services produced in a given year, calculated using the prices of a selected base year.

Another way of looking at real GDP is to calculate today's output at base year prices.

For example:

Product	<u>Year 1 Q</u>	<u>Year 1 P</u>	<u>Year 2 Q</u>	<u>Year 2 P</u>
Apples	10	\$1	12	\$1.50
Bananas	6	\$.50	10	\$1

What is the real GDP for year 2 if year 1 is the base year?

$$(12 \times \$1) + (10 \times .50)$$

When you compare that to the nominal GDP from year one you can see that real only increased by \$2.

Product	<u>Year 1 Q</u>	<u>Year 1 P</u>	<u>Year 2 Q</u>	<u>Year 2 P</u>
Apples	10	\$1	12	\$1.50
Bananas	6	\$.50	10	\$1

It looked like we produce a lot more but in fact we did not. The nominal GDP increased to \$28 but real GDP did not increase by as much.

Prices are important because that is how we measure GDP.

	Widgets		Gizmos		Thingamajigs	
Year	Price	Quantity	Price	Quantity	Price	Quantity
2006	\$100	1	\$10	8	\$5	4
2007	\$110	1	\$12	10	\$4	5

Calculate the following –

Nominal GDP 2006

Nominal GDP 2007

Real GDP 2007

Rate of Growth in Nominal GDP from 2006 – 2007

Rate of Growth in Real GDP from 2006 - 2007

Price Index: measures the combined price of a particular collection of goods and services, called a market basket, in a given period relative to the combined price of an identical or similar group of goods and services in a reference period (base year).

$$PI = \frac{\text{price of market basket in a given year}}{\text{price of same basket in the base year}} \times 100$$

* Notice that in the base year the index will always be 100

Consumer Price Index (CPI): Best known indicator. It measures the prices of a fixed market basket of around 300 Goods and services. Measures the prices of goods and services purchased by wage earners.

Producer Price Index: measures the price level of goods and services that firms purchase from other firms.

GDP Deflator: reflects the price of goods and services but not the quantities. In other words, it will show how much prices have changed without worrying about changes in quantity.

It is the current level of prices relative to the level of prices in the base year.

GDP deflator = Nominal GDP/Real GDP x 100

Example: if Nominal GDP is \$600 and Real GDP is \$350 you get
 $600/350 \times 100 = 171$ That means prices have increased 71%.

When you look at GDP it is important to realize that inflation may have occurred.

Does the increase in GDP arise because of an increase in Q or an increase in prices?

To find out you want to adjust it for inflation.

<u>Year</u>	<u>Nominal Price of Gas</u>	<u>CPI</u>	<u>Real Price of Gas</u>
1973	\$0.39	44.4	
1980	\$1.25	82.4	
1990	\$1.16	130.7	
2000	\$1.51	172.2	
2005	\$2.34	197.6	
Nov 2008	\$4.12	212.4	
January 2009	\$2.60	212.4	
2010	\$2.67	216.7	
January 2016	\$1.69	236.5	
Now			

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

The GDP can be adjusted for inflation or recession. In so doing we find the real GDP (adjusted) as opposed to the nominal GDP (unadjusted).

$$\frac{\text{Nominal GDP}}{\text{price index}} = \text{real GDP}$$

This gives us the value of total output in various years as if the prices of the products had been constant from the reference or base year throughout all the years being considered.

How do you calculate if someone was better off (salary wise) in the past?

$$\text{Amount in today's dollars} = \text{Salary in old year} \times (\text{price level today}/\text{price level in old year})$$

Example:

Babe Ruth got paid \$80,000 in 1931. How does he compare to today's baseball players?

CPI in 1931 was 15.2 CPI today (November 2009) is 216.3

$$\$80,000 \times (216.3/15.2) = \$1,138,421$$

That number is well below the amount of money that the current above average baseball player is currently making. He is considered by many to be one of the best baseball players that ever played the game.

Unit Two, Day Five (pages 590, 648-673)

Inflation: a rising general level of prices. (The opposite would be deflation.)

Inflation makes the money in your pocket worth less (not worthless). If you are on a fixed salary it also makes your salary worth less because you can buy less and less with each pay check.

Purchasing power: The amount of real goods and services that a dollar can buy. Purchasing power does not vary/change directly with inflation.

Nominal value of dollar is the actual value. The real value is what it can buy. If I give you a dollar today and you save it until next year its real value will be less than its nominal value.

Anticipated Inflation: inflation rate that we believe will occur

Unanticipated Inflation: inflation rate that comes at a surprise.

Unanticipated Inflation hurts those that lend money (fixed rate loan is getting paid back with inflated money that buys less).

Lenders lend money to make money. They must take inflation into account. If unanticipated inflation occurs, they are hurt because the interest rate they charged was not large enough.

Nominal rate of interest: rate expressed in today's dollars. For example, 5%.

Real rate of interest: nominal rate of interest minus the anticipated rate of inflation.

If anticipated inflation is 3% then Real rate of interest would be 3% - 5%.
Therefore, Real rate of interest is -2%. Good for the lender or borrower?

Inflation causes interest rates to rise.

COLA - Cost of living adjustment: an automatic increase in income when inflation rate increases.

Stock dividends generally rise with inflation.

Inflation is measured through the price indexes. Ex. CPI, PPI

Rate of inflation is determined by subtracting last year's price index (2008) from this year's price index (2009) and dividing that by last year's index (2008). This must all then be multiplied by 100.

$$\frac{\text{Price index (2009)} - \text{Price index (2008)}}{\text{Price index (2008)}} \times 100 = \text{Rate of Inflation}$$

Rule of 70: a method for determining how long it will take the price level to double, given the current price level. To calculate this, you divide the % annual rate of increase into 70.

Two types of Inflation

Demand Pull Inflation: "too much money chasing too few goods" The economy demands more than it can produce (production possibilities curve) and this drives the prices up.

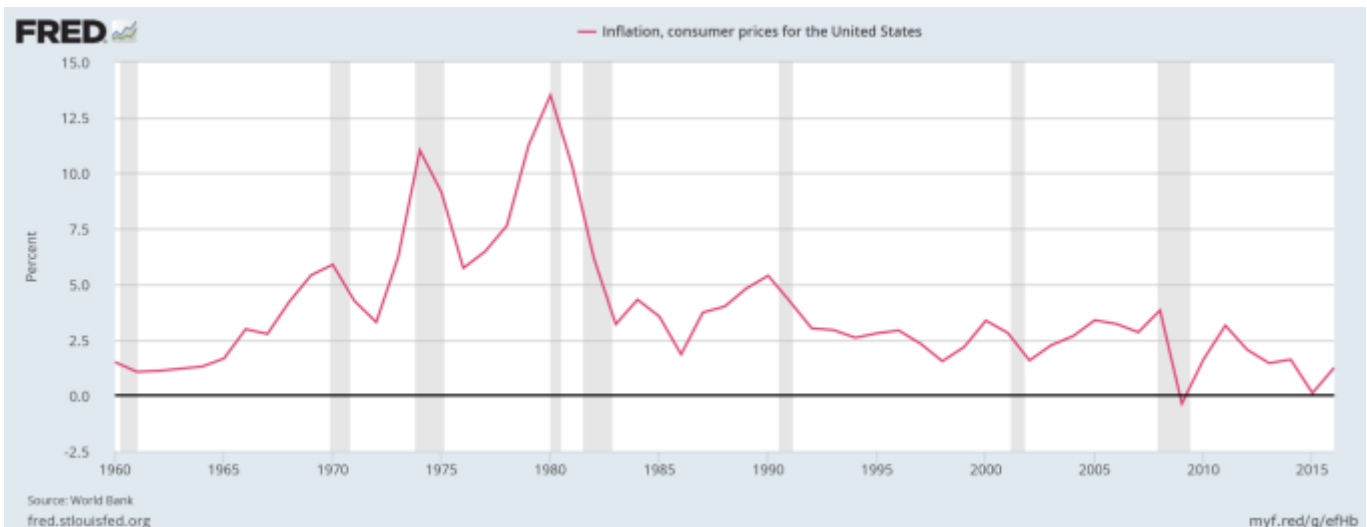
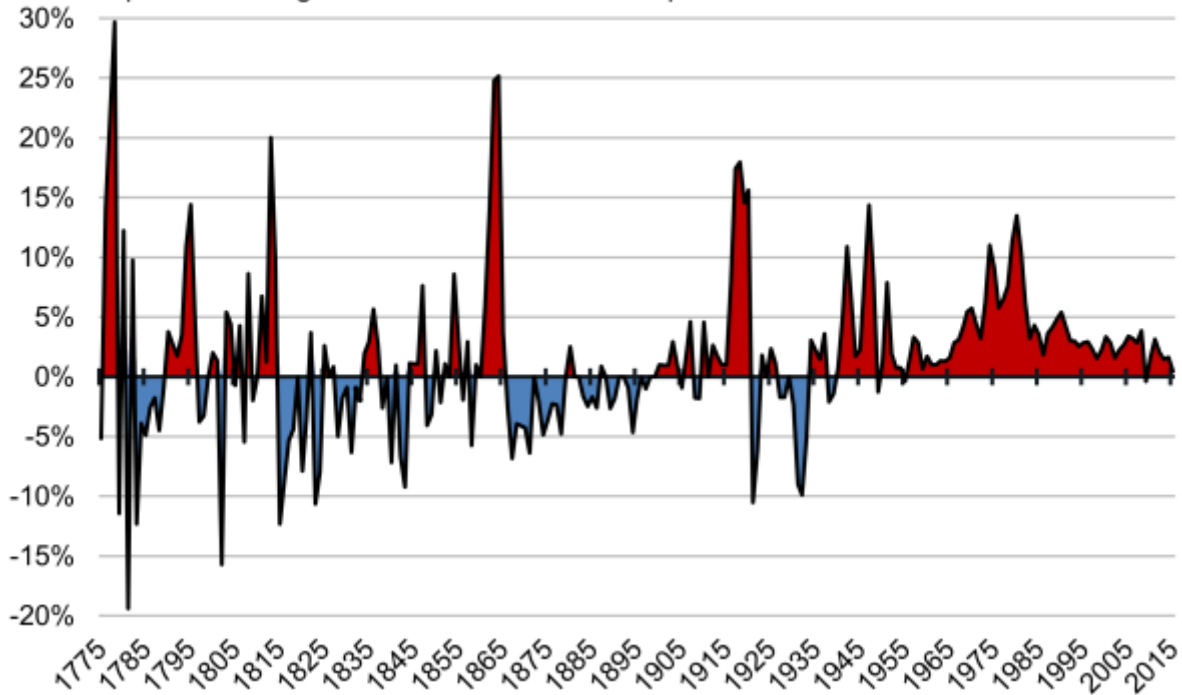
Graph this

Cost-Push or Supply-Side Inflation: If the per unit cost of production increases then producers will be willing to supply less goods and services at various prices. This will drive the price up. This could result from rising wages or rising costs of materials (ex. rising oil prices).

Graph this

U.S. Inflation from 1775 to Present

Annual percent change in overall U.S. consumer-price index



Business Cycle

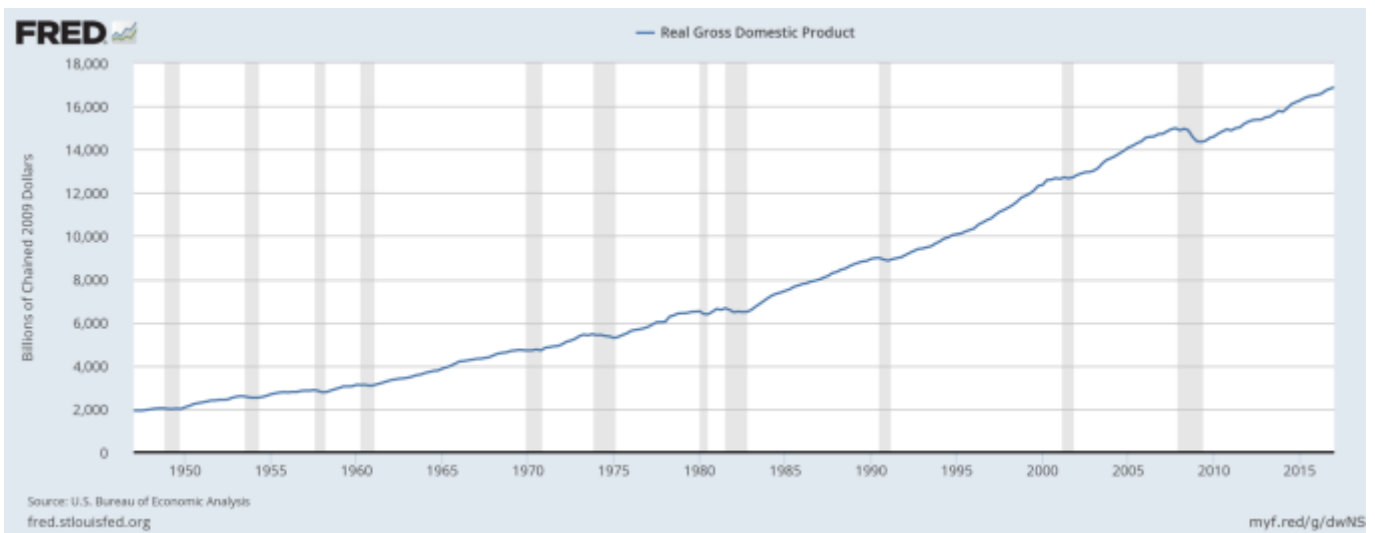
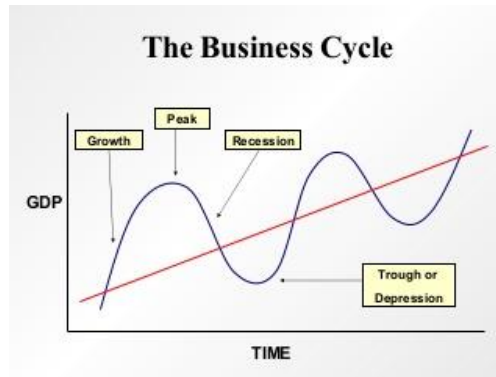
Business cycle has five stages – Peak, Contraction, Trough and Expansion. Then the cycle starts over again.

Peak: business activity has reached a temporary maximum.

Contraction: period of decline in total output, income, employment, and trade. Recession after six months.

Trough: severe and prolonged recession.

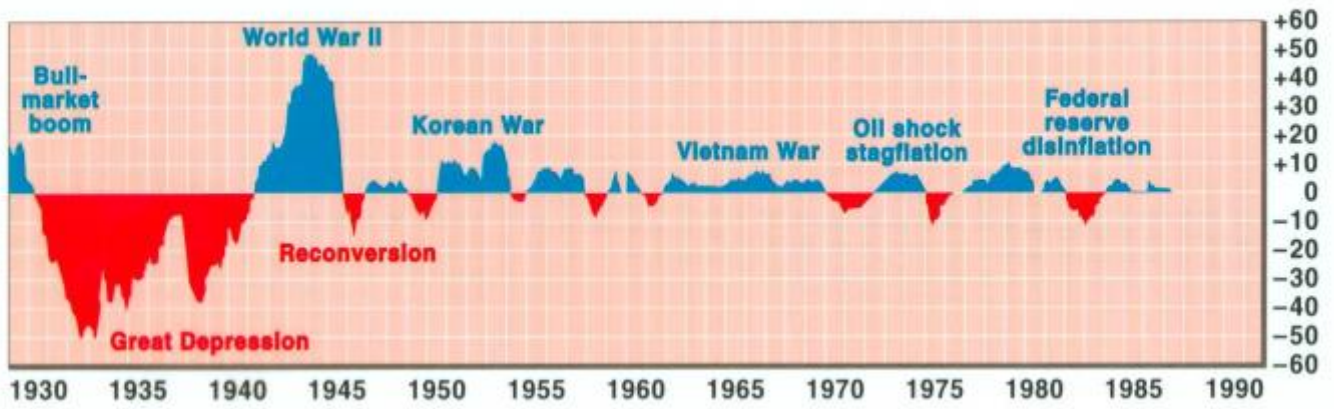
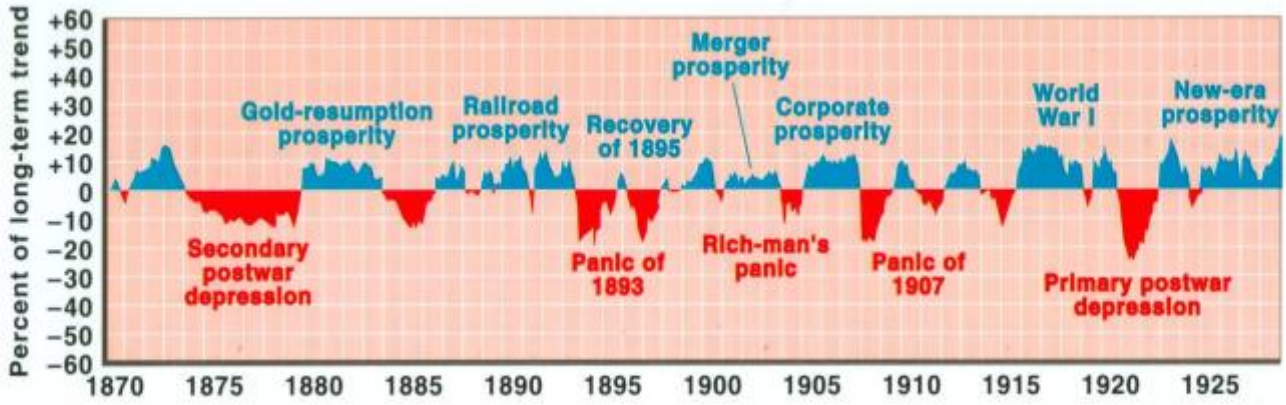
Expansion: output and employment expand toward full employment



macro
part 2

Business Cycle

Copyright © 1993 by McGraw-Hill, Inc. All rights reserved.



Unit Two, Day Six (616-642)

Unemployment – Four Types (Frictional, Structural, Cyclical and Natural)

Frictional Unemployment: This takes into account those workers that are between jobs. They are either searching for jobs or waiting to take jobs in the future.

Structural Unemployment: change in the demand for labor over time leads some people to become unemployed because their job is no longer needed. (ex: computers are taking the jobs of some people.) This also includes shifts in geography. (ex: companies move their headquarters).

Cyclical Unemployment: unemployment caused by the recession phase of the business cycle.

Natural Rate of Unemployment: frictional and structural unemployment. Frictional + Structural.

Full employment is achieved when the number of workers seeking jobs is satisfied by the number of jobs available. (Someone may be unemployed because the jobs that are open are not to their liking.)

FULL EMPLOYMENT IS NOT 0. THERE ARE ALWAYS PEOPLE LOOKING FOR JOBS.

To find the unemployment rate you must not even consider those people under 16, those people institutionalized and those people not in the labor force (work in the home, in school, retired, have no desire to work, etc.)

Unemployment as of August 2016 – 4.9%. Average for 2015 was 5.3%.

What part of the business cycle does this correlate to?

To calculate unemployment rate, divide the number of unemployed persons by the total labor force.

$$\text{Unemployment Rate} = \frac{\text{Unemployed persons}}{\text{Total Labor Force}}$$

This is different than the Labor Force Participation Rate. To calculate Labor Force Participation Rate divide labor force by entire adult population.

$$\text{Labor Force Participation Rate} = \frac{\text{Total Labor Force}}{\text{Adult Pop.}}$$

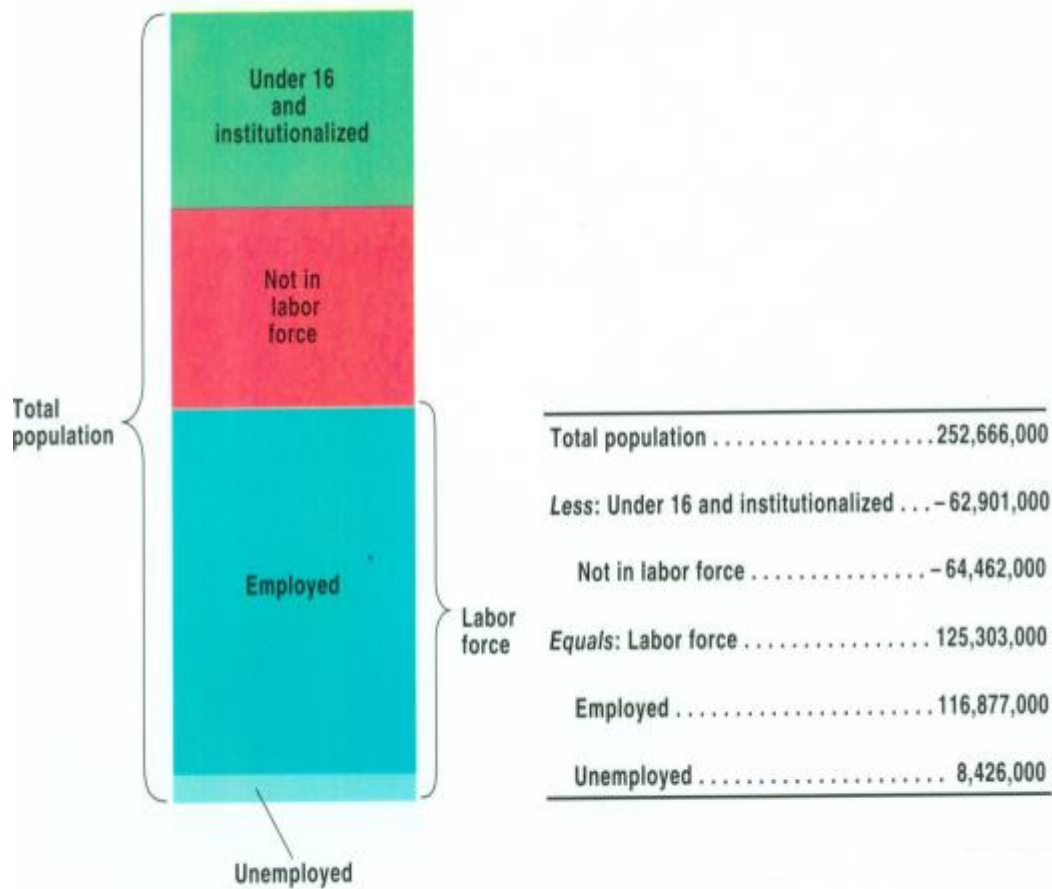


Figure 8-4

Problems with unemployment rate:

- 1) Part time workers are considered employed. (even if they are looking for a full time job.)
- 2) Discouraged workers (those not actively seeking employment because they have given up) are not counted because they are not actively seeking employment.
- 3) Workers employed in cash jobs will report themselves as unemployed. They may however just be employed in the underground economy.

GDP Gap: amount by which actual GDP falls short of potential GDP because of unemployment.

