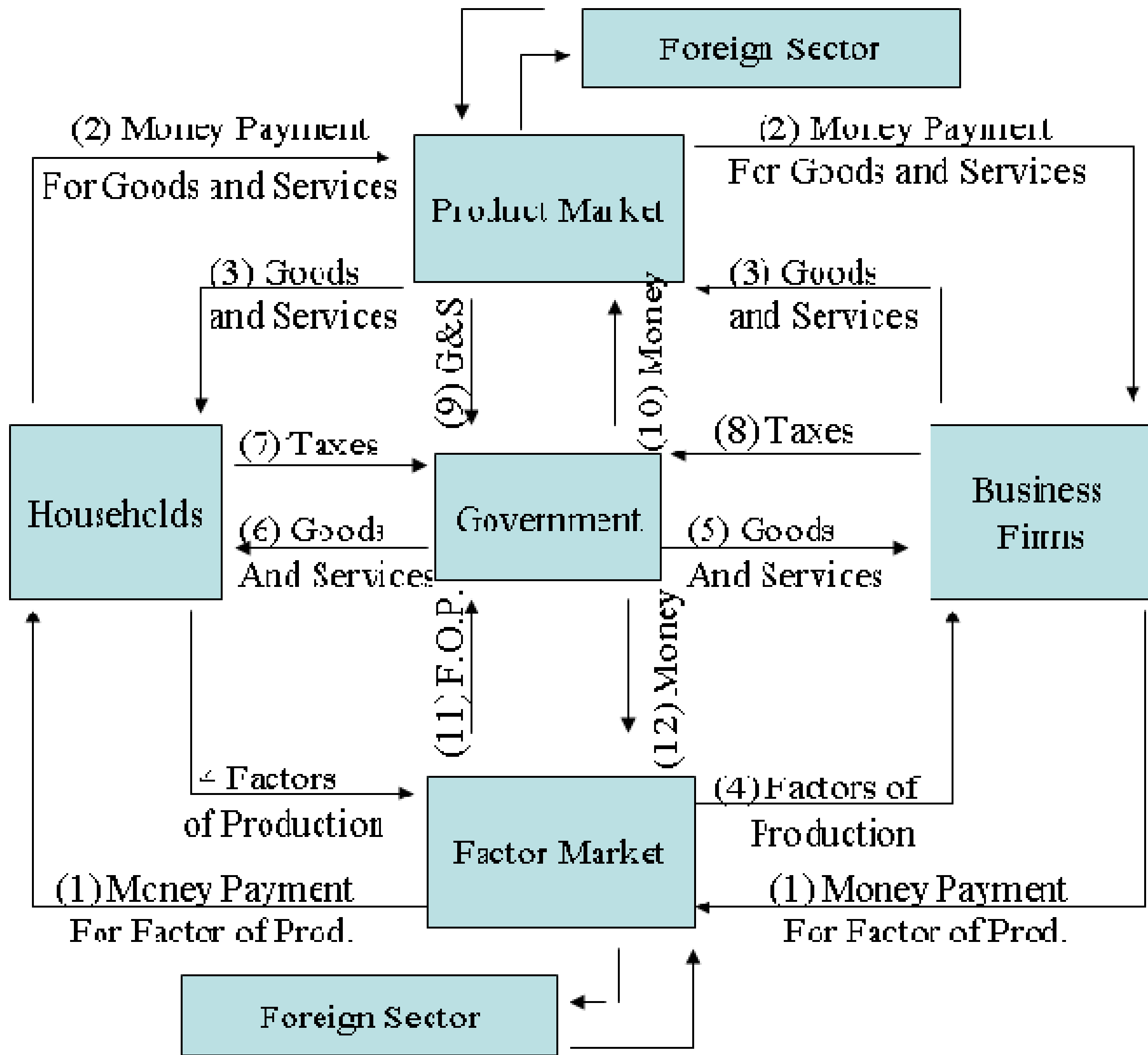
Macro Unit 2 Lesson 1:

What is the difference between macro and micro?



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?

Individuals are concerned with income distribution. (wages)

Households C as spenders must consider the following:

1. Personal taxes: Government in the middle
2. Savings: (bank accounts, savings, insurance...) Reasons: security or speculation
   Saving is correlated to income.
3. Consumption:
   - Durables: live expected over year (cars, appliances...)
   - Non-durables: live expected less than a year (food, clothing)
   - Service: (over ½ of our income goes to services)

If times are hard where does our money go?

Dissave: spend savings or borrow

Businesses (I)

Plant: performs specific functions in the fabrication and distribution of goods and services.

Firm: runs and operates the plants.
Vertical Combination: owns various stages of production (rubber manufacturing, tire production...)
Horizontal Combination: owns similar businesses at similar stages of production (several different fast food companies)
Conglomerates: own/operate across different markets and industries.

Industry: group of firms producing at same or similar products.

Legal forms of business enterprises: **(You must read this (through disadvantages of corp.) on own**.)

Sole Proprietorship: A business owned by one person
72% of all businesses in America are sole proprietorships
account for only 6% of total sales
account for 23% of profits

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

Economic 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, operator, accountant, salesman…

- Difficulty in attracting qualified employees: Larger firms have and advantage because they can afford better benefits.
- Fringe Benefits: paid vacation, sick leave, retirement, health insurance…
- 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

9% of all businesses in America
4% of sales
3% of total profits

Two major types of partnerships:

General Partnership: (most common type) all partners are responsible for management and the financial responsibilities of the partnership.

Limited Partnership: at least one partner is not active in the day to day running of the business. They have limited liability.

Articles of Partnership: contract between partners spelling out the rules of partnership.

Dividing profit
Dividing responsibility
Admitting new partners
Buying out partners

Advantages of Partnerships:

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

Disadvantages of Partnerships

- Unlimited liability: (even responsible for your partners mess ups!)
- Limited partner is only responsible for his initial investment. He has limited liability.
- 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. It is an artificial person having the right to do business.

19% of all businesses in America
90% of sales
74% of total profits

Forming a Corporation is very formal and a very legal arrangement. It is much more difficult than forming a sole proprietorship or partnership.

Incorporate: to form a corporation.

Charter: a document granted by the state giving a corporation the right to do business

Stock: shares of ownership in the corporation

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.

Corporate Structure: Ownership:

Common Stock is a basic share of ownership in a corporation

- Have voting rights in the management of the company

One vote per share to elect board of directors

In reality they turn over voting rights to someone else with a proxy: giving someone else the right to vote your share of stock.

Receive dividends when dividends are given by board of directors

- Preferred Stock:

Non voting shares of ownership

Guaranteed dividend

Liquidation benefit: If corporation goes out of business they are ahead of common stockholders in getting back money.

- Board of Directors: duty to direct the corporations business by setting board policies and goals

Elected by common stockholders

Hires a professional management team to run day to day activities. (CEO, CFO….)

Advantages of a corporation:

- Ease of raising financial capital (main advantage)

Selling stock to investors

Selling bonds: a written promise to repay a loan on a specific date

Principal: the amount borrowed

Interest: the price paid for the use of another's money

Borrowing money from banks.

- Ability to hire good management

Usually organized in an organization chart

- 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… If a corporation goes under all you lose is your investment in the corporation. Your personal property can not 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 (Wendy's is still open)

- 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 Foreign Sector (Xn)

For up to date trade deficit information go to :
http://www.americaneconomicalert.org/ticker_home.asp

What does that mean? 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 the theory has been proved 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 assets or wealth

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

The Government (G)

Macro Unit 2, Lesson 2

GROSS DOMESTIC PRODUCT AND GROSS NATIONAL PRODUCT

Gross National Product: total output **produced** by land, labor, capital and entrepreneurial talent supplied by Americans, whether these resources are located in the United States or aboard.
We stopped using this method in 1992. We now use GDP

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 paper back books this year and then next year produce 1000 paper back 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 over exaggerating the GDP.

3) GDP excludes non-production transactions such as

a) Financial Transactions:

ex: Public transfer payments: social security, welfare...

ex: private transfer payments: gifts of money from relatives...

ex: security transactions: buying and selling of stocks and bonds (this is just an exchange of paper assets)

b) secondhand sales: there is no current production. These goods have already been counted in a previous GDP.

Problems with GDP:

Does not measure underground economy.
Does not measure goods bartered
Does not measure goods produced and sold at home unless this is reported.
Fails to take externalities into consideration.

Cool GDP Websites

http://research.stlouisfed.org/fred2/series/BOPGSTB?cid=125

Map of world based on estimated wealth in 2015:
http://www.worldmapper.org/display.php?selected=164

Other maps:
http://www.worldmapper.org/textindex/text_wealth.html

Unit 2 (Lesson 3 second day)
Approaches to calculating GDP

Expenditures Approach:

GDP= C+I+G+Xn

Income Approach:

Wages (compensation to employees)
Rent
Interest
Profits (proprietors income)

Consumption of fixed capital (Depreciation)
Indirect Business Taxes
Dividend
+Undistributed Corporate Profits
Gross National Product
- Net American Income Earned Abroad
Gross Domestic Product

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

This takes into account C + I + G + Xn = GDP

(C): Personal Consumption Expenditures: This includes all purchases by households on durables, non-durables and services.
Consumption is the largest component of GDP.

(I): Gross Private Domestic Investment: All spending by American firms.
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 but not the subtractions (that inventory was counted last year).

Gross private domestic investment: production of all investment goods - those which replace machinery, equipment, and buildings used up in the current years production plus any net additions to the economy's stock of capital. (replaced and added) NOTICE: this is I.

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

: Growing economy: If Gross private domestic investment exceeds depreciation.
: Static economy: If Gross private domestic investment is equal to depreciation
: Declining economy: if Gross private domestic investment is less than depreciation.

(G): Government Purchases: all governmental spending, Federal, state, and local, on finished products of businesses and all direct purchases of resources. It excludes transfer payments.

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

Current GDP Figures: Click tables only and use table one

http://www.bea.gov/newsreleases/national/gdp/gdpnewsrelease.htm

II. INCOME APPROACH: summing up all the incomes derived from the production of this years output.

GNP = wages + interest + profits + rents + indirect business taxes + depreciation.

Sometimes referred to as GDI (Gross Domestic Income)

Wages: wages and salaries paid by business and government to suppliers of labor
This includes taxes withheld and social security withheld.

interest: money paid to suppliers of money capital. This comes from the business.

rent: income payments received by households which supply property resources. (If depreciation exceeds rental income it can be negative (a declining economy).
Our payments on houses are include because it is believed that we are renting from ourselves.

profits: can be to the sole proprietor, the partnership or the corporation.
For corporation profits it is important to understand what happens to this money.
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. To accurately estimate profit this depreciation must be deducted. This is called depreciation of fixed capital. We basically consume the fixed capital as we use it. (Will also see this written as Capital Consumption Allowance)
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 Ig and In.
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? (declining).

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. (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.

Nominal GDP

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

Product	**Year 1 Q**	**Year 1 P**	**Year 2 Q**	**Year 2 P**
Apples	10	$1	12	$1.50
Bananas	6	$.50	10	$1

In year 1 the nominal GDP is
(10 x $1) + (6 x .50)
= $10 + $3
= $13

What is the nominal GDP for Year 2?

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	**Year 1 Q**	**Year 1 P**	**Year 2 Q**	**Year 2 P**
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 x $1) + (10 x .50)
$12 + $5
$17

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

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

Macro Unit 2 Lesson 4

Prices are important because that is how we measure GDP.

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: Best known indicator. It measures the prizes of a fixed market basket of around 300 Goods and services. Measures the prices of goods and services purchased by wage earners.

Current CPI Numbers: http://www.bls.gov/cpi/tables.htm

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 Nomial GDP is $600 and Real GDP is $350 you get
600/350 x 100 = 171 That means prices have increased 71 percent.

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.

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.

Year	Nominal Price of Gas	CPI (1982-1984)=100	Real Price of Gas
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	
Now			

Inflation:

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

Inflation makes the money in your pocket worth less. 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.

The amount of real goods and services that a dollar can buy is called purchasing power. Purchasing power does not vary 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 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.
Real rate of interest: nominal rate of interest minus the anticipated rate of inflation.

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 years price index (2007) from this years price index (2008) and dividing that by last years index (2007). This must all then be multiplied by 100.

$$\frac{\text{Price index (2010) - Price index (2009)}}{\text{Price index (2009)}} \times 100 = \text{Rate of Inflation}$$

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.

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.

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).

Unit 2 Lesson 5

Business Cycle:

Peak: business activity has reached a temporary maximum.

recession: period of decline in total output, income, employment, and trade, lasting six months or longer.

depression: severe and prolonged recession

trough: recession or depression is at its lowest level

recovery: output and employment expand toward full employment

Unemployment:

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.

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...)

For current unemployment figures: look to right for latest numbers
http://www.bls.gov/CPS/

Problems with unemployment rate:

1) Part time workers are considered employed. (even if they are looking for a full time job.)

2) Discourage 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.