Goals for this session

- Circular flow

    – Draw and explain circular flow. See book/Eudey's slides for picture of circular flow.

- National accounting:Y=C+I+G+NX

    – What do these letters all stand for Y-GDP C-Consumption I-Investment G-Government NX- Net exports (exports - imports)

    – What is the relationship between them See (3) below

- Vocabulary

    – Factor, and Factor Market For now think of these two factors: (K)Captial and Labor. As an example for a 'labor' factor, think about who is going to be a 'factor' on the football field this weekend for the Packers. The players contribute to the product being produced, i.e. good gameplay for us to watch. Their labor is a factor of production.

    – Capital (K) Capital $\neq$ Money. You may have heard 'capital' used in the context of a business who needs money (capital) to operate. In economics when we say (K)capital, we mean things like machines which businesses use to produce goods.

    – Investment (hint: not talking about stock market) You may have heard of 'investment' used before to describe maybe a retirement portfolio, or simply putting money in the bank. In economics investment means purchasing things like (K)Capital goods. For example a toy manufacturer invests money into new machines (i.e. (K)Capital goods) so they can produce more toys and make more money. Other investments include inventories or structures.

    – Equilibrium Think back to 101. Equilibrium is when everything is in agreement. In 101 we talk about equilibrium as the point where demand equals supply. Like Gwen says, it is when people have no regrets, and everyone is in agreement.

Problems

1. There are three ways to measure GDP: The expenditure approach, income approach, and value-added approach. Use the circular flow model to show how they are all equivalent.[1] Look at your circular flow diagram. Expenditure approach is when you're looking at the top, i.e. purchases. Income approach is looking at the bottom, i.e. how much businesses pay workers and how much the business owners themselves also make. Finally the value added approach is a looks at each firm in the economy and calculates how much 'value' it adds to a product, i.e. selling price - raw input costs. Think about the example of a car. First you look at all of the parts manufacturers (engine, wheels, steering wheel, etc..) and

measure their value. Then the car manufacturer puts it all together and we measure how much value was added during the step of putting it together (i.e. total cost of the car - cost of all of the components we already measured)

2. In 1980 GDP was \$6.5 trillion. In 2010 it was \$14.8 trillion. List 3 reasons why GDP rose so much during that 30 year time span.[1]
   (1) Population growth (2)Accumulation of (k)capital (3)Advancement in Technology (A) Note that inflation is not a factor in this case because all dollar amounts are measured in 2010 dollars. Don't worry about inflation for now.

3. For the following, which components of the national accounting equation (Y,C,I,G,NX) go up, and which go down?

   (a) Consumers buy more goods from abroad. (i.e. increase in imports).[1]
       C up. NX down (since imports go up). Y no change.

   (b) Businesses buy more machines, however only from foreign companies
       I up. NX down. Y no change.

   (c) Government buys more computers for its offices from domestic companies
       G goes up. Y goes up

   (d) Foreigners hear about how good wisconsin cheese is, and decide to buy some.
       NX up. Y up

4. What is the relationship between trade and GDP? (Hint: it is complicated)[1]
   If we solve the GDP accounting equation for NX and then add and subtract T we get

   $$\text{NX} = Y - C - T + T - G - I$$

   $Y - C - T$ is personal saving. You get your income Y, then spend money on consumption goods and taxes, and then what's left over is considered saving. $T - G$ is government's version of the savings equation. Their income is taxes and expenditures are G. Note if people are spending more than they earn, this 'savings' can be negative, which we call dissaving.
   So, in the case where NX decreases, otherwise described as *expanding* the trade deficit. Either personal saving needs to fall, government saving needs to fall, or investment needs to rise.

5. If NX < 0 (trade deficit), what does that tell us about financial flows of money?[1]
   Consider $\text{NX} = Y - C - G - I$. If NX < 0 then that necessitates $Y < C + G + I$. If you think about Y as income and C,G,I as expenditures, then we need to be getting money from abroad to fill the gap. The opposite is true for a trade surplus, we earn more than we spend so the extra money is flowing abroad.

6. Why is GDP considered a good measure of the 'health' of the economy?[1]
   Consider the recessinon in 2008. You may have known people who lost their jobs or generally had a hard time in the 2008-2009 period. This is also when GDP fell. GDP is an indicator for generally how well and economy is doing. Also consider the case of US GDP vs a developing economy's GDP. US GDP is much higher and people are generally healthier, and more comfortable.

7. What happens to the circular flow and Y=C+I+G+NX when markets are not using all of their resources and savings are not being allocated to borrowers? (i.e. disequilibrium)[1]

References

[1] Eudey's 'application' questions from her slides.