EC 202: Principles of Macroeconomics
Week 4: International Trade & Capital Flows

I. GDP Revisited
II. The Trade Balance
III. The Current Account
IV. The Capital (Financial) Account
V. The Balance of Payments

GDP Revisited

- How is GDP Measured? *(Hint: See Homework #1)*
- GDP is measured by spending:
  - Household or "Consumer Spending"
  - Business Spending or "Investment Spending"
  - Government Spending (Federal, State & Local)
- GDP = C + I + G
  - But this includes ALL spending – spending on goods and services produced in the US + spending on goods and services that are produced in other countries. i.e. Not all of this spending is spent on US GDP.
  - So we have to adjust this equation to subtract spending by households, businesses and governments on goods and services produced outside the US
  - And, since not all of the goods and services produced in the US are sold in the US, i.e. they are purchased by consumers, businesses and governments in other countries, we have to add this spending to GDP.

GDP Revisited

- In order to use spending on goods and services to measure the GDP of the US, we must adjust the equation to add purchases of US goods and services by other countries and subtract US spending on other countries' goods and services.
- So the equation GDP = C + I + G must be adjusted to
- GDP = C + I + G + X – M
  - X = Exports (purchases of US goods and services by residents of other countries).
  - M = Imports (purchases of other countries' goods and services by US residents).

The Trade Balance

X – M = the Trade Balance.

- Includes trade in goods *and* trade in services.
- Trade in goods only is called "the merchandise trade balance."
- The "merchandise trade balance" is much larger than the trade in services. However trade in services is increasing.

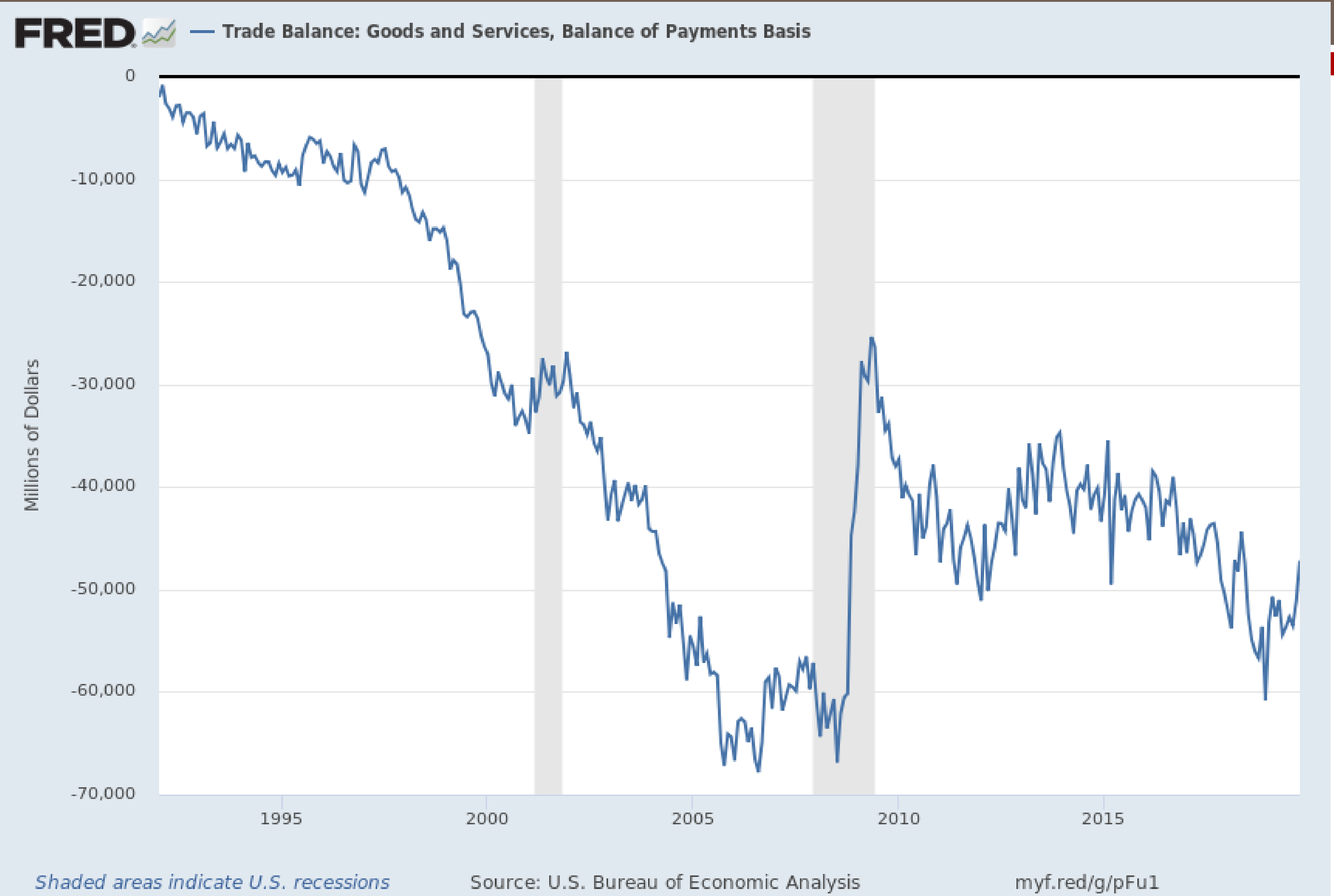
Examples:

- A US resident purchases an automobile made in Japan. (Import of a good)
- A US resident hires an advertising firm based in Canada. (Import of a service)

The Trade Balance

- If X > M, then the US is exporting (selling) more goods and services than it is importing (buying). This is called a Trade Surplus
- If X < M, then the US is importing more than it is exporting. This is called a Trade Deficit.
- If X = M, then there is "balanced" trade (not very common).
- Wealthier countries (such as the US) tend to have trade deficits. i.e. consumers, businesses and governments have more buying power in wealthy countries.

The US Trade Balance (1992-2019)



The Trade Balance

- The "trade balance" vs a "bilateral trade balance."
- The trade balance refers to the total of trade in goods in services with all trading partners.
- Frequently, in the media you may read about the "trade balance with China" or the "trade balance with Canada." This is a "bilateral trade balance."
  - The top 3 trading partners of the US are: Mexico, Canada, and China
- What is important in ***macroeconomics*** is the overall trade balance

The Current Account

- The "Current Account" includes the Trade Balance plus 2 other types of international transactions:
  1. Income receipts and payments
  2. Unilateral Transfers
- 1. Income Receipts and Payments

  This category includes "current" income on assets owned in other countries.
  - Example: An individual in the US owns stock in a foreign corporation. As a stockholder, he/she may receive periodic dividends (income) from this investment. This results in money flowing into the US.
  - Example: An individual in Canada owns stock in a US corporation. As a stockholder, he/she may receive periodic dividends. This results in money flowing out of the US.
  - Example: And individual in the US has a bank account in Switzerland. The individual may receive periodic interest payments on this account.

The Current Account

- The "Current Account" includes the Trade Balance plus 2 other types of international transactions:
  1. Income receipts and payments
  2. Unilateral Transfers
- 2. Unilateral Transfers

  This category includes "transfers" of income for which nothing was received in return. i.e. the term "unilateral" indicates that this is a 1 way flow.

  - Example: An individual living in the US sends money home to relatives in another country. This type of transaction is referred to as a "remittance."
  - Example: A US based charitable organization may send money to help with an emergency or crisis in another country.
  - Example: The US Government may send financial aid to individuals or organizations in another country.

Current Account

- Summary:
- There are 4 parts to the current account:

1. Merchandise Trade
2. Trade in Services
3. Income Receipts and Payments
4. Unilateral Transfers.
   - The first 3 categories represent a 2-way flow.
   - The 4^{th} category represents a 1-way flow.

Capital Account

- The Capital Account measures the international flow of assets. (Note: In some countries, this is called the “financial” account).
- Types of Assets:
  - Financial assets. Government bonds, Corporate stocks and bonds, other financial assets such as “derivatives.”
    - Example: An individual in the US purchases stock in a Canadian corporation. An individual in China purchases a US Government bond.
  - Foreign direct investment: Occurs when the purchase of an asset represents at least 10% control.
    - Example: An individual in the US purchases enough stock in a Canadian corporation to exert control.

Capital Account

- Flows of financial capital are very substantial and can move very rapidly, since they are essential the movement of "paper" or electronic notations.
- In some cases, the movement of financial capital can be destabilizing.
- For example:
- Assume investors believe that there are excellent business opportunities in a particular country due to press reports in the financial press. We'll call this country "Alpha." As a result, lots of international money flows into "Alpha" purchasing existing companies and establishing new ones. Everything is looking rosy in Alpha. Then, investors begin to get nervous, or they hear that the opportunities are better in "Beta." So money flows quickly out of Alpha and into Beta. Things now don't look so rosy for Alpha as existing companies find themselves without access to financial resources.

Balance of Payments (Current & Capital Accounts)

- One way to understand the importance of the Balance of Payments is to look at it as a measure of flows of money.
- Current Account Deficit:
  - A current account deficit means that the country is importing more than it is exporting. An import reflects an "inflow" of a good or service, but an "outflow" of money to pay for this good or service.
  - A current account deficit that goes on for a long period of years (as in the US) means that the US is buying more goods and services than it is selling. Where does the money come from to pay for all these imported goods and services?
- Capital Account Surplus:
  - The purchase of a US financial asset represents an inflow of money in payment for this asset. A capital account surplus means that the country is selling more assets than it is buying.

Current & Capital Accounts

- **Example: China and the US**
- The US has a very large current account deficit and a capital account surplus. This means the US is importing more goods and services than it is exporting. And, it is paying for all these goods by selling assets.
  - The US is generally regarded as a good place to invest. For example, Toyota can set up a factory in the US and feel confident that it can find workers and it will be able to sell car to US consumers.
  - US government bonds are generally regarded as completely safe, i.e. the US government will never “default” on a US bond. So investors who want a very secure investment will be glad to buy these bonds – essentially “loaning” money to the US government.

Current & Capital Accounts

- **Example: China and the US**
- China has a very large current account surplus and a capital account deficit. This means that China is exporting more goods and services than it is importing. And, it is using this inflow of money to purchase assets
- Both countries "Balance of Payments" are balanced – just in opposite ways.

  - Note: China also has considerable foreign direct investment on the capital account. i.e. many things are made in China now. At one time, China maintained a current account surplus and a capital account deficit. How is this possible? Basically, China did this by using the surplus to purchase foreign currencies. But, that's way too complicated for now. Understanding the Balance of Payments is hard enough with bringing foreign currency transactions into it. ☺

Savings & Investment

- International trade and capital flows have a significant impact on the overall economy.
- The impact occurs most directly in 2 sectors: Investment and government.
  - Investment (in GDP) includes:
    - 1) spending on new plant and equipment;
    - 2) spending on new housing; and
    - 3) changes in inventories.
  - The most important of these 3 for economic growth is #1) spending on new plant and equipment.
  - Where do businesses get the funds to finance spending on new plant and equipment? They typically raise funds by borrowing which means 1) selling corporate bonds; 2) borrowing directly from banks and other financial institutions; or 3) using retained earnings (profits).
  - Where do these funds ultimately come from? Private individuals who buy the corporate bonds, deposit their savings into banks and other financial institutions, or forego receiving dividends (from retained earnings).

Savings & Investment

- Investment:
  - Basically Investment is financed from Savings.
  - If the economy did not trade internationally, ALL investment would have to come from domestic savings.
    - S = I where S = Private savings and I = Investment
  - If the economy <u>does</u> trade internationally, then investment will be financed by private savings PLUS the inflow of capital due to a surplus on the capital account. A surplus on the capital account occurs when there is a deficit in the current account (trade deficit)
    - S + (M – X) = I where S = Private savings and (M-X) = trade deficit.
  - So Investment is financed by savings plus capital inflows due to a trade deficit.

Savings & Investment

- Government spending
  - Another demand on household income comes from taxes.
    - Household income = Consumer spending + Savings + Taxes
  - Taxes are used to finance Government spending on various things like public education, highways, military expenditures, national parks and forests, sewer systems, the environment and so on.
  - If Taxes are not enough to cover government spending, then the government must borrow. The government borrows by selling government bonds. This means that some of the private savings plus capital inflows will be used to finance private investment and some will be used to finance government spending.

  $S + (M – X) = I + (G – T)$ where G = government spending and T = taxes.

  Note that G = ALL government spending (federal, state & local)