Intro to Macroeconomics

French Stuff

- Gross National Product <—> Produit Intérieur Brut
- GDP <—> PIB
- Market <—> Marché
- Unemployment rate <—> Taux de Chômage
- Trade balance <—> Balance Commerciale

CHAPTER 5 - GDP

Expenditure and Income

- What we look at to calculate GDP
- For the economy as a whole....
    - Income ***MUST*** equal Expenditure
        - Therefore we can either add up all Income or all Expenditure to calculate GDP since they will yield the same answer

GDP *(market value of all final goods and services produced within a country in a period of time)*

- *Consumption + Investment + Government Spending + Net Exports (Exports - Imports)*
- GDP can underestimate the true amount of productive activity taking place in the economy because it does not account for stuff like the value of chores, home gardens, etc…
- We only count things produced and sold for that year (reselling previously owned things doesn't count as nothing new has been produced)
- Only things that were physically made inside the geographical confines count. If someone not from Canada makes something in Canada, it counts. As well as if someone from Canada makes something not in Canada, it doesn't count.
- Two methods to calculate:
    - ***Expenditure*** (*the one we use*)
        - Calculate total amount of spending in a country within a given period of time
    - ***Income***
        - Calculate total amount of income in a country within a given period of time

Intermediate VS Final Goods

- Here's an example
  Dude makes and sells pasta...
    - The ingredients he uses to make the pasta are an **intermediate good**
    - The pasta made from those ingredients is a **final good**
      - This includes the value of the intermediate goods used to make the final good
- GDP ***only*** accounts for **final goods**, with the ***only exception*** being if the **intermediate goods** are not immediately used, and are simply stored, as they will instead be counted as final goods
  When the intermediate goods are finally used or sold, it takes out of the inventory investment of the firm

C I G N

- ***Consumption***
  Buying shit like legos, buying services like haircuts, and buying education
- ***Investmumps***
  Buying shit like housing, factory equipment, factories, and it also includes inventories (sandwiches you made this year but are saving to sell until next year)
- ***Government Spending***
  Stuff that the government pays for like parks, paying mr policemans salary, and other public works
    - DOESN'T COUNT PENSION PLANS FOR SOME FUCKING REASON
      - I think it's because they are just giving back money people had given to them to hold on to
        - This is called ***TRANSFER PAYMENT***
- ***Net Exports***
  Take all your exports, and subtract your imports
    - If you buy a car from germany
      - +30 000 from consumption - 30 000 from importing it = 0
        - Does Not affect GDP

Real VS Nominal GDP

- Basically, ***Real*** accounts for inflation while ***Nominal*** does not

- To Calculate...

  Nominal
    - (Price of item * Number of items sold) = NGDP

  Real
    - (Price of item in base year * Number of items sold) = RGDP

  GDP Deflator
    - (NGDP of that year /RGDP of that year) * 100 = GDP Deflator

- Real GDP is the better one, because Nominal sucks ass. Real paints a much better picture. Honestly, fuck nominal gdp, im tired of his shit. Jesus christ.
- GDP Deflator tells us about prices, not about production levels
  We use this to calculate ***inflation***
    - [(Deflator in year 2 - Deflator in year 1)/(Deflator in year 1)]*100 = Inflation rate in year 2

Final ting to note about GDP

- Some dudes like to say it does not determine a bunch of shit like how healthy we are, but we can afford better healthcare if we have more money
- It does not tell us about the distribution of that money though
- It doesn't count the value of the spaghetti your mom makes at home, or the value of volunteer work.
- GDP could be through the roof, but only because people are running their factories so hard they're pumping out deadly gasses into the air, and this does not do a great job of telling us how the quality of life is for them.
- GDP still dece though, hey

CHAPTER 6 - Inflation

CPI (Consumer Price Index)

- It's an index!
    - They don't measure the price of everything, just a sample, which mimics the overall rate of inflation
        - There are a couple:
            - The general one
            - One for each province, territory, and 19 cities

        - The "core" inflation
            - Which excludes the most volatile components of inflation: food and energy
            - The underlying trend of inflation
- The measure of the general cost of goods in the "basket" of the average person for a year
    - Prices can go up due to market fluctuations, but CPI accounts for a general level of price increase across the board because of inflation
- To calculate…
    - (Price in current year/Price in base year)*100 = CPI
- The main goal is to measure the changes in cost of living

Inflation

- Its when things cost more, not because they're worth more but because money has lost value in general
- To calculate
    - [(CPI in year 2 - CPI in year 1)/CPI in year 1]*100 = Inflation in year 2

Problems with the CPI

- **Commodity Substitution Bias**
    - The CPI ignores the potential for a commodity in the Basket to be passed off in favour of a substitution if the price rises too high
        - Ex. Apples are a commodity, now apples are 100$ a piece, so people just start buying pears, but the CPI still puts apples in the Basket making the cost of living go up by 100$ per apple even though people have found a substitution and aren't even buying them
- **Introduction of new goods**
    - New shit gets invented and people want to buy that shit, but they are not included in the Basket, as it is fixed, though it will get added later on
        - Ex. iPod gets invented, music is a whole new thing, people want that shit and are buying the fuck out of it as it increases their standard of living, this means cost of standard of living has gone up, but since the iPod is not in the Basket it isn't properly reflected
- **Unmeasured Quality Change**
    - If something goes up in quality, it is worth more and people will spend more on it, and vice versa, but the CPI doesnt take this into account
        - Ex. Toyota prius is cool and all, 2017 model comes out and it uses 0 energy whatsoever, everyone is buying one now, they are dope, but this is

not reflected in the CPI because it assumes people are spending the same amount.

GDP Deflator VS CPI

- GDP Deflator tells the story about prices of things produced ***domestically*** (german made cars go up in price, people pay more for their cars, this doesn't count in GDP because it is not domestic, but this does count in basket because people are buying them)
- CPI tells the story about prices of things produced ***anywhere***, but bought by the typical consumer here (jet planes are not in the basket of goods for example, while it is inlcuded in the GDP)
- The GDP Deflator tells us the change in price for ***all good produced this year***
- The CPI tells us the change in price for ***a fixed Basket of goods for the past 2 years***
    - The GDP deflator takes more into account for the errors of the CPI (Quality change, intro to new goods, substitution bias… basically it takes into account the fluctuating weight all these goods hold)

Comparing the power of the dollar

- To calculate…
    - (Amount in year x dollars)(CPI today/CPI in year x) = Amount in today's dollars

Indexation

- When something's price has had inflation taken into account, it is considered to be ***Indexed***
- We see this in long term wage agreements between firms and unions, and many laws like Pension Plans, Tax Brackets, but not everything related to taxes
    - Wage agreements use ***cost-of-living allowance***, or ***COLA*** to automatically update wages when inflation goes up.

Real and Nominal Interest Rates

- ***Real*** accounts for inflation
- ***Nominal*** does not
- The big thing here is
    - You lend 100 dollars, that money can buy 100 burgers, five years later dude pays you back 100 dollars, but because of inflation now you can only buy 90 burgers with that same 100 dollars

        - See the problem?
- So we have interest to fix this (as well as just being an incentive to loan money in the first place)
- To calculate…
    - Nominal interest rate - Inflation = Real interest rate
        - 10% interest rate sounds dope… unless inflation is 10% because then you aren't making any money back

CHAPTER 7 - Production and Growth

Real GDP in terms of production and growth

- Looking at ***growth*** gauges progress (How fast)
- Looking at ***level*** gauges prosperity (How much)

This chapter spouting some shit I think I could put together myself

- Higher GDP = better quality of living for the most part
- The poor countries are pretty fucking poor
- The rich ones are pretty fucking rich
- The growth rate is important
    - Canada only has a 2% growth rate on average per year
        - But that means in 35 years you double your salary
    - Meanwhile Zimbabwe's fucked over because their growth is -38%
- But poor countries won't necessarily stay poor and rich countries won't necessarily stay rich
    - Ex. UK used to be #1 by a lot, but now they blow

Productivity

- Means…
    - The quantity of goods and services that a worker can produce for each hour of work
- Basically, countries are richer because they are more productive than others
    - Your living standards will grow rapidly if your productivity grows rapidly, and they will grow slow or not at all if your productivity does the same.

How to improve productivity

- ***Physical Capital*** (or just, ***Capital***)
    - Whether or not you guys have the right tools, enough of them, and if they are good quality
        - Capital feeds into itself
            - Company makes a lot of good saws, so another company can make a lot of good hammers so the sawmakers can make even more better saws etc...
            - AKA Capital is a factor of production for more capital
- ***Human Capital***
    - Whether or not if your workers are smart
        - This is gained through education, training and experience
        - Being smart is good
- ***Natural Resources***
    - Basically whether or not your country is lucky enough to have been blessed with a ton of free shit
    - There are renewable and nonrenewable resources if you didn't already know (Ex. Oil is nonrenewable and trees are renewable)
        - Ex. Catan the board game
    - Natural resources are dope but not necessary
        - Ex. Canada is great because we have so much, but Japan has none and they are doing perf, because they have international trade
- ***Technological knowledge***
    - Knowing how to do shit, in a really smart and efficient way
    - Can be common knowledge (like how assembly lines are better than one guy doing everything)
    - Can be proprietary (Like how only coca-cola knows how to make coca-cola, and how only aspirin knew how to make aspirin*)
        - * Aspirin eventually became public knowledge but patents are temporary forms of proprietary knowledge

Technological Knowledge is the quality of societies textbooks, while Human Capital is how much time we spend reading them

The production function

- Output = Available production technology and How inputs are combined (Labour, Capital, Human Capital, Tech Knowledge)

Do natural resources put a limit on growth?

- ***No***
    - Just by looking at how things have been going, natural resource prices have been dropping
        - As well as, if things start running out, we just develop or find better ways to do that thing

How do we improve growth

- By encouraging investing and saving baby
    - As well as maintaining a healthy financial market
        - Ex. Avoid shit like the Big Short (2007-2009)
- By making a ton of capital goods right now, you improve the amount of productivity you can achieve in the future

Diminishing Returns

- Saving and investing is super dope to build capital in order to have a higher standard of living in the long run
    - But unfortunately it's only really good when you suck
        - Shit starts to become much more marginal the more capital you have
        - Ex. You make chairs with nothing but your hands = shitty chairs that take forever to make, so u buy a hammer and all of a sudden less shitty chairs, then you buy a saw etc etc… but eventually you have all the tools you really need, so buying that gold plated saw only increases productivity marginally compared to how much it increased at first.
- Because of this stuff, saving money only leads to higher growth rate for a little while
    - While in the long run it does yield a higher income and stuff for everyone, shit takes time, like several decades

Catch Up Effect

- Poor countries benefit from this increase in saving much more than rich countries, as diminishing returns are a thing
    - "It's a lot easier to go from a 50 to a 75 than it is to go from a 99 to a 100)

Investment from abroad

- Just get the other countries to help you out as well
- There are a couple of types
- ***Foreign Direct Investment***
    - When another country builds a factory in your territory
- ***Foreign Portfolio Investment***
    - When you buy stocks in another country's firm
- World Bank is the global bank for all countries, helping them to build capital

because...

One lesson from the war was that economic distress often leads to political turmoil, international tensions, and military conflict.

Education

- Is how you get human capital
    - human capital conveys positive externalities
        - If a smart dude comes up with a smart idea then the entirety of society gains from that one person's education
- ***Brain Drain***
    - Is when the smartest people from poor countries leave to go to the rich countries
        - They don't benefit the country which needs them most with their externalities just mentioned
        - Canada has this problem too, but with the smart people going to the states because they pay more.

Nutrition

- Healthy people are more productive
- As nations develop economically people get taller
    - Because they are eating better
        - Taller people may be more productive as they earn more than short people
- If you are poor, you can't afford good healthcare or nutrition, and if you are unhealthy then you are less productive
    - Vicious cycle

Property Rights and Politics

- People won't make shit if they expect it to be stolen
- As well as political turmoil will create untrust in all elements of a country's economy
    - No one will save their money or invest it, people are afraid of shit getting stolen, patents not being defended, other countries won't want to invest either etc…
        - A country with an efficient court system, honest government officials, and a stable constitution will enjoy a higher economic standard of living

Free Trade

- Makes everyone involved better off
- Countries close to the 7 seas are better off because it is easier for them to trade

R&D

- Technology helps us live better lives, and helps us economically
- People work on technology not only for the money but for the public good it brings
- Governments fund research in order to encourage all of this
    - They also offer tax breaks to those who do R&D
- Patents are a form of encouragement for this too

Population Growth

- More people = bigger output
- More people also = bigger consumption
    - Therefore = bigger total output, but not necessarily greater standard of living
- Having too many people also makes it so that capital is spread more thinly
    - Too many kids in schools to give them all great educations
        - Must spread out physical capital more thinly as well
            - This all means less productivity
- Women who don’t have to raise and be pregnant are more productive

Promoting Technological Progress

- If 1% of the population is super smart
    - Room with 100 people = 1 super smart person
    - Room with 200 people = 2 super smart people (room two is better, get it?)
    - having more people induces more technological progress

CHAPTER 8 - Saving, Investmumpts and the Financial System

Financial Markets

- ***Bonds (Debt Finance)***
    - Are basically IOUs
        - Credit Risk and Time to payout come into consideration when determining risk
        - Higher risk = higher interest rate
    - Firms sell bonds to obtain capital to grow
        - If the firm goes bankrupt, then the bond can be defaulted and you are out of money
    - Governments are safer because they have the most likelihood to pay you back
        - Then provincial, then firms
    - ***Mature***
        - When a bond has reached its date to be payed back
    - ***Default***
        - When a seller of a bond cannot pay it back
    - Bondholders get paid back first, before stockholders
        - Lower risk, with a lower reward
- ***Stocks (Equity Finance)***
    - Are part ownership of a company
        - You get a claim on future profits of the company
    - Stocks offer a higher reward as they are riskier, as if a company goes bankrupt and must liquidize, all of the money goes to pay off bondholders first
    - Price reflects public opinion of company
        - If everyone thinks the company is gunna suck then the stocks will be cheap as fuck, but if people think it will be good then they'll be pricey as fuck
    - ***Dividend***
        - The money firm's pay out to stockholders from their profits

Financial Intermediaries

- ***Banks***
    - They give interest to people who save money and take even more interest from people
    - They act as a way to pay for things (with cheques)

- ***Mutual Funds***
    - You pool your money with a bunch of strangers and give it to mr wolf on wallstreet to go and buy a bunch of stocks
    - Diversify
        - Kinda cool but not as good as…
- ***Index Funds***
    - You pool your money with people and buy shares in EVERY firm
        - On average the most profitable (also don't have to pay a wolf dude to gamble for you)

Saving

- ***Private*** (Y – T – C)
    - What Households have left over after consumption and taxes
- ***Public*** (T – G)
    - What the government has left over after government spending
        - If T > G then we have a surplus!
        - If T < G then we have a deficit :(
            - War and providing public goods adds to this
- ***National*** (Y – G – C)
    - Sum of public and private savings
- Saving must equal Investment

Market for loanable funds

- Where people save money and people borrow money
- Used to model interest rate changes
    - The fewer savers (Suppliers), the higher the interest rates (Price) for borrowers (Demanders), and vice versa
- Bonds and deposits in bank count as saving and adding to the market
- Investment is the source of the demand for loanable funds, while saving is the source of supply
- Interest rate is almost always the Real interest rate

Incentives

- ***Either to Savers***
    - Governments incentivise saving by having consumption tax (GST)
        - By not taxing savings as much (TFSA and RRSP)
        - RRSP just reduces the amount of income they tax
        - the result is **lower interest rates and greater investment**
- ***Or to Investors***
    - Governments also give out investment tax credit
        - They give an advantage to a firm investing in new equipment
        - the result is **higher interest rates and greater saving.**

Crowding Out

- When governments spend more than they have, they go to financial markets and borrow money
    - They get first pick (lowest default risk)
        - They have this because all they need to do is increase taxes to turn a profit
- Private borrowers have less money to borrow when the Government runs at a deficit and in turn needs to borrow money
    - This creates higher interest rates for them ;(
- When the government reduces national saving by running a budget deficit, the **interest rate rises, and investment falls**
- BUT WHEN THE GOVERNMENT RUNS AT A SURPLUS
    - budget surplus **increases the supply of loanable funds, reduces the interest rate, and stimulates investment**

CHAPTER 9 - Unemployment :(

What is it?

- It's when you don't have a job

Key Concepts

- labour force
    - The people who are either employed or looking for a job actively
- unemployment rate
    - The rate of which people are unemployed

- labour-force participation rate
    - How much of the adult population are in the labour force (15+)
- discouraged searchers
    - People who want to work but gave up do to being discouraged
- natural rate of unemployment
    - The natural rate in the economy people are unemployed
- cyclical unemployment
    - Deviation from the regular unemployment rate
- frictional unemployment
    - Takes a long time to find a job that matches skills and needs
- structural unemployment
    - Not enough jobs for everyone
- job search
    - Tools for people to find jobs
- Employment Insurance (EI)
    - Protect people financially in case they lose their job
    - Increases frictional unemployment
- Union
    - Collective of people who work for a firm (power in numbers)
        - Usually are a trade (ie. plumbers)
        - Create a surplus of labour aka more unemployment
            - They are creating a price floor on wages
- collective bargaining
    - The tactic unions use to bargain benefits and wages with firms
- Strike
    - A tactic where a union protests to work in order to get something
- efficiency wages
    - The idea that paying someone more will make them want to keep the job and therefore work more productively

*A LOT OF UNEMPLOYMENT JUST COMES FROM PEOPLE GETTING PAID TOO MUCH
(MIN WAGE, UNION BARGAINING, EI, EFFICIENCY WAGES)*

CHAPTER 10 - The Monetary System ($$$)

What is money?

- That green
- "Money is acceptable"
    - Money has no value unless everyone accepts it as a true value
- "Money includes only those few types of wealth that are regularly accepted by sellers in exchange for goods and services.

Functions of Money

- There's 3...
    - 1. Medium of Exchange
        - Allows people to buy stuff, *exchange* it for goods and services
    - 2. Store of Value
        - The ability to be able to retain purchasing power from the past into the future
    - 3. Unit of Account
        - Allows people to be able to easily and accurately compare the cost of things (goods, services, debts)
- *Liquidity*
    - "The ease with which an asset can be converted into the economy's medium of exchange."
        - Money is the most liquid asset, since it is already the economy's medium of exchange, no converting needed
        - Stocks and bonds and stuff are liquid as fuck too though, shit slippy
        - Your pokemon cards are not so liquid, cause no one wants that shit, nerd

Kinds of Money

- There's 2 kinds...
    - 1. Commodity Money
        - Money with an actual intrinsic value
            - Ie. Gold, Muffins, Pussy, etc...
    - 2. Fiat Money (what we use now)
        - Money that only has value because the government said so

Money in the Canadian Economy

- *Money stock*
    - The quantity of money circulating in the economy
        - Shit is powerful
            - We count currency in the calculation, as well as should count deposits (money in banks n stuff)
                - We never count credit cards because they are really just a method of deferring payment

Bank of Canada Act (established - 1935, nationalized - 1938)

- We used to use the "gold standard" (ensured that bank notes could normally be exchanged for a fixed quantity of gold)
    - Then the great depression hit, and the "gold standard" collapsed
        - So…
            - In 1934 Parliament enacted the Bank of Canada Act, basically forming this institution to come up with a new way of doing currency (using fiat money)
- Bank of canada is controlled by the federal government
    - But they operate like it is separate most of the time
- Their primary responsibility is to act in the national interest, not make profits

Bank of Canada

- The *Central Bank* of Canada
    - *Central Banks* are institutions created for controlling the stock of money in an economy
- Federal Reserve = US equivalent
    - Then there is the Bank of England, the Bank of Japan, the European Central Bank, etc…
- The Bank of Canada has 4 jobs...
    - 1. Issue Currency
    - 2. Act as a banker to commercial banks (the ones we use)
    - 3. Act as a banker to the government
    - 4. Control the quantity of money available in the economy (*money supply*) using *monetary policy**
        - Most important job

Reserve banking

- Types…
    - 1. 100% reserve banking
        - Keep all the money deposited, does not make loans
            - Basically just a really big piggy bank
    - 2. Fractional-reserve banking.
        - Take a fraction of the money deposited, and use it to loan out to other people while charging interest
            - Makes some profit baby
                - Gotta be careful not to loan out too much so that if depositors wanna take their money back out they can
            - The ratio of money they keep and money they loan is called the *reserve ratio*
        - *Assets* = Reserves, loans, securities
        - *Liabilities* = Deposits, debt, capital
- The resources that a bank obtains from issuing equity to its owners are called *bank capital*
- *Leverage ratio* is the ratio of assets to capital, that a bank holds
- When banks hold only a fraction of deposits in reserve, banks create money*
    - This is because 100$ in the bank is 100$ no different in the economy, but if they decide to loan out 90$ of that 100$, now there is 90$ in the economy at people's disposal that wasn't there before
        - Doesn't make wealth though, makes economy liquid
            - People borrow the 90$ sure, but now they also have a debt of that 90$ plus interest
- The amount of money the banking system generates with each dollar of reserves is called the *money multiplier*
    - 1/R, where R = Reserve Ratio
        - Reciprocal of this (aka R/1) will get you the *money multiplier*

Monetary Policy

- Using these policies have a long run impact on inflation and short run impact on employment and production
- 3 of them…
    - 1. ***Changing the Overnight Rate*** (what is currently being used)/Bank Rate
        - *The Bank Rate* is the interest rate given out to commercial banks on loans by the central bank

        - *The Overnight Rate* is the interest rate given out to commercial banks on **short-term** loans by the central bank (tied to the bank rate)
        - High rate = discouraged borrowing = lower economic activity = reduced money supply
        - Low rate = encouraged borrowing = increased economic activity = increased money supply
    - 2. ***Open Market Operations***
        - Selling or buying bonds to put or take money away from the economy
            - Selling bonds = reduced money supply
            - Buying back bonds = increased money supply
        - Buying foreign currencies
            - Buying foreign currency = increased money supply
            - Selling foreign currency = decreased money supply
                - *Sterilization* is when the government counteracts the reduced money supply when selling foreign currency buy buying back bonds
    - 3. ***Changing Reserve Requirements (rarely used)***
        - Higher reserve requirements = decreased money supply
        - Lower reserve requirements = increased money supply

Problems with the banking system

- If people lose faith in banks and take all their money out, the money supply drops drastically because of the once had money supply that was a result from the fractional banking system now vanishing
- The central bank can only put minimum reserves not maximum, so banks could just be holding excess reserves when the central banks uses monetary policy to increase the money supply

CHAPTER 11 - Money Growth & Inflation

Inflation Fallacy

- Inflation make me poorer :(
    - Nope
        - Cause prices go up yes
            - But so does your income
                - Sorry buddy

Costs of inflation

- ***Shoeleather Costs***
    - The resources wasted when inflation encourages people reduce their money holdings
        - You want to keep money in the interest gaining bank account
        - So instead of going to the bank once a month and taking out a whole bunch of money and losing out on that lost potential for interest gain you take out money a few times a month in smaller quantities
        - This increases the amount of interest gained, which eases the pain of inflation
        - But it costs gas money to go to the bank, eats up time, is inconvenient, and wears out the leather on your shoes ;)
- ***Menu costs***
    - The cost of changing menus and signs to post updated prices which account for inflation
- ***Relative price variability***
    - Comes with menu costs kinda
        - If a place only changes the menu every year
            - Prices might seem fine and normal, but then when inflation goes up, they seem cheaper when compared to companies who are more quickly updating menus
            - Or, people might not allocate the right amount of resources as they can't easily judge

Problems with taxing and interest rates

- ***It can fuck with taxes***
    - Dude buys a 10$ stock
        - Shits made him 100$
            - That's 100$ income that needs to be taxed
        - Let's say now there's inflation
            - That 100$ only really worth 50$, but the income tax still hits him as if it is worth 100$
- ***It can fuck with interest rates***
    - Dude's interest rate does not predict the inflation rate properly, and it's higher than predicted
        - If he is borrowing, he gets the better end of the stick
        - If he is lending he is losing money

Other problems

- ***Confusion and inconvenience***
    - Be honest, inflation just makes shit more complicated
    - It makes it hard to see if what you're getting paid is fair compared to the cost of living and if interest rates are fair and if prices of things are actually better than a few years ago
- ***Arbitrary Redistributions of Wealth***
    - The interest thing where if someone lends money at a fixed interest rate and inflation turns out to be less than predicted, he makes more money
    - Or if he borrows and inflation is higher than predicted, then he makes money as well

Deflation sucks way more than inflation though

- Usually happens because there's a lot of loss of demand (which leads to unemployment, lower wages, everything bad)
- Menu costs again
- Redistribution of wealth toward creditors and away from debtors
    - Debtors are often poorer
        - These redistributions in wealth are sucky

CHAPTER 12 - Open Economy Macroeconomics (HARD)

Exchange rates and shit

- ***Price parity***
    - (Price of thing in country in questions currency) x (Actual exchange rate)/1 = Price of same good in country in question in other currency

CHAPTER 14 - Aggregate Supply and Demand

Classical economic theory

- Nominal variables like price level and money supply do not affect unemployment and output levels
    - This is true only in the long run

How to change Demand

- Raise consumption, investment, government purchases, or net exports at a given price level = increased aggregate demand
- Reduce consumption, investment, government purchases, or net exports at a given price level = decreased aggregate demand

How to change Supply

- Changes in labour, capital, natural resources, or technology, shift the short-run aggregate-supply curve (and may shift the long-run aggregate-supply curve as well)
    - The position of the short-run aggregate-supply curve depends on the expected price level.

Stagflation

- When aggregate supply shifts to the left
    - You get less output and higher prices
        - But this corrects itself over time because wages, prices, and perceptions adjust
            - Output gets fixed

CHAPTER 15 - Policies and Aggregate Demand

Theory of liquidity preference

- Keynes Theory that interest rates adjust to balance the supply and demand for money
    - If interest rate are high, people want to put their money in banks and make that interest
        - Vice versa

Velocity of Money

- (P*Y)/M
    - P = Price Level
    - Y = GDP
    - M = Money Supply