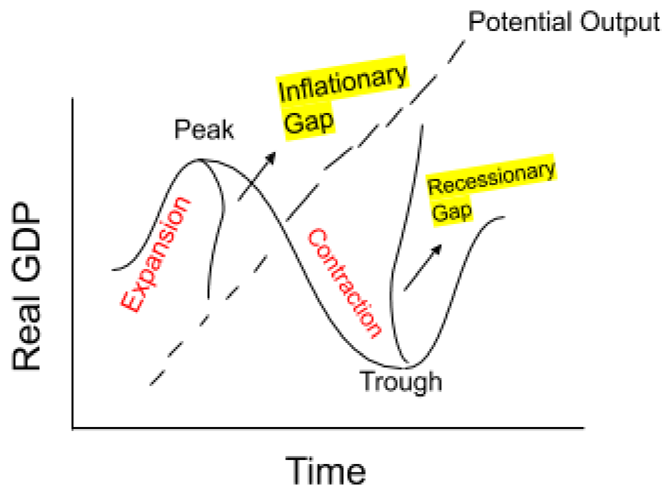
EQUILIBRIUM VS POTENTIAL OUTPUT:

- Recessionary Gap → REAL OUTPUT ＜Potential output
- Inflationary Gap → real output ＞POTENTIAL OUTPUT

BUSINESS CYCLES:

1. **EXPANSION =** a number of increasing in real output
2. **CONTRACTION =** a period of falling real output



CAUSES OF CONTRACTION:

- Boom causes an INCREASE in demand and ∴ INCREASE in prices, then costs INCREASES and return on investment DECREASES, ∴ demand shifts LEFT.

EFFECTS OF A CONTRACTION:

- Unemployment GOES UP above natural employment and becomes a recessionary gap.
- Price level DECREASES, causing deflation
- Recession → 6+ months of decilinding output
- Depression → really long recession…

★ DURABLE GOODS industry is most affected (can postpone these purchases)

EXPANSION:

- After recession (highest unemployment, recessionary gap highest)

CAUSES OF EXPANSION:

- Because demand is so LOW prices DECREASES production DECREASES ∴ investment (real rate of return) on what IS produced HIGHER ∴ return on investment HIGHER.

EFFECTS OF EXPANSION:

- Aggregate demand shifts RIGHT, recessionary gap turns to inflationary gap

FISCAL POLICY: **(**TAXES, GOVERNMENT SPENDING**)**

- How governments attempt to achieve economic stability.

STABILIZATION POLICY:

- Keep economy as close to potential output as possible.

EXPANSIONARY FISCAL POLICY:

- When output < potential, government ties to eliminate the recessionary gap (DECREASE in unemployment, INCREASE in output)
- Using fiscal policy for stimulating the economy INCREASE government purchases, DECREASE in taxes, or both.

CONTRACTIONARY FISCAL POLICY:

- When output >potential, government tries to cut inflationary gap and stabilize prices, government would DECREASE government spending, INCREASE taxes, or both.

DISCRETIONARY POLICY:

- Government intervenes in the economy AT CERTAIN TIMES.

AUTOMATIC STABILIZERS:

- Taxes, EI, etc.
- As people make more, pay more taxes, ∴ upswing is lessened
- As people make less, pay less taxes, get EI if lost job ∴ downswing is lessened

TO CALCULATE GDP:

C + I + G + (X-M)

- **C** = personal consumption by household
    - ★ Education falls under personal consumption OR government purchases, NOT gross investment because can't measure the revenue!
- **I** = gross investment (purchase of assets intended to produce revenue)
    - Equipment and machines

    - Increase in inventory
    - Construction of buildings
    - Personal savings
    - (subtract depreciation from capital assets)
- **G** = government spending
    - Not included: transfer payments to household, subsides to business, expenditures for government owned agencies for INCOME PRODUCING ASSETS
- **(X-M)** = net exports
    - X= exports
    - M= imports

$\boxed{C + I + G + (X\text{-}M)}$ ← Expenditure approach to calculating GDP

EXAMPLE: In a situation of declining GDP, rising unemployment, and a budget that already has a small deficit, explain the effect that each of the following government actions would have on the economy, the current year's budget, and the national debt:

a) A reduction in personal income taxes
    - Increase in aggregate demand, unemployment decreases, budget deficit because decrease in taxes, and government debt increases.

b) A reduction in social welfare payments
    - Decrease in aggregate demand, unemployment increases, budget rises because increase in taxes, and government debt decreases.

c) An increase in public works projects
    - Increase in aggregate demand, unemployment decreases, budget deficit because decrease in taxes, and government debt increases.

d) An increase in corporate taxes
    - Decrease in aggregate demand, unemployment increases, budget rises because increase in taxes, and government debt decreases.

EXAMPLE: Suppose an economy is operating at full employment equilibrium. What will happen to output and price levels in the face of each of the following events?

a) A cut in income taxes

b) A decrease in business investment

c) Introduction of new technology that improves productivity
d) A decrease in the value of the Canadian dollar that increases exports
e) An increase in Canada's level of saving

THE MULTIPLIER EFFECT:

- I make $1000, spend $200 on groceries. Grocery owner spends $100 on Google Home Best Buy salesperson spends $40 on dinner, etc…
  Initial effect, secondary effect…

MARGINAL PROPENSITY TO CONSUME (MPC):

- If income increases by X, how much of X will be spent on DOMESTIC GOODS and SERVICES?

TO CALCULATE MPC:

$$MPC = \frac{\triangle \text{CONSUMPTION OF DOMESTIC ITEMS}}{\triangle \text{IN INCOME}}$$

TO CALCULATE MARGINAL PROPENSITY TO WITHDRAW (MPW)

$$MPW = \frac{\triangle \text{TOTAL WITHDRAWS (SAVINGS + IMPORTS + TAXES)}}{\triangle \text{IN INCOME}}$$

★ SUM of MPC + MPW = 1★

THE SPENDING MULTIPLIER:

- The value by which an initial spending change is multiplied to give the total change in output.
  (The shift in the Aggregate Demand Curve)

TO CALCULATE THE SPENDING MULTIPLIER:

- Total change in output = initial spending X spending multiplier (shift in AD curve)

$$\text{Spending Multiplier} = \frac{\triangle \text{ output}}{\text{Initial } \triangle \text{ spending}}$$

- Spending Multiplier is the reciprocal of the MPW, because of price changes, the multiplier is not an exact calculation, but it is a useful indicator of the maximum change in equilibrium that is possible by following a certain fiscal policy.

$$\text{Spending Multiplier} = \frac{1}{MPW}$$

<u>FISCAL POLICY:</u>

ADVANTAGES	DISADVANTAGES
• Regional focus (discretionary policy) • Impact on spending (ex: government cuts, rest of country follows)	• Delays - Recognition Lag (time to determine problem) - Decision Lag (time to conclude) - Impact Lag (time to affect people) • Political Visibility (people do NOT like contractionary policies!) • Public debt (↑ spending = ↑ debt = ↑ total owned)

<u>IMPACT OF FISCAL POLICY:</u>

- Balanced budget R = E
- Budget surplus R $>$E (in a boom, increase tax revenues, decrease transfer payments)
- Budget deficit R $<$ E (in a recession, lose jobs, decreases tax revenues, increase transfer payments)
    - Deficit is added to the debt

<u>MONEY + MONETARY POLICY:</u>

Functions of Money:

➔ Means of Exchange (without $, barter) ($ allows me to buy a product from someone even if they don't want my product)

➔ Store of Purchasing Power (most liquid asset, keep in cash, give up interest on bond)

➔ Measure of Value (chocolate bar = 2 stamps)

Deposit-Takers = banks (make $ by charging, increasing interest on loans than they are giving on deposits)

- Chartered Banks
  - Federal Government Sanctioned (top ones we know, ie. RBC, CIBC, TD...)
- Near Banks
  - Trust CO. Mortgage brokers, Credit Unions

★Banks have been allowed to offer investment services, insurance, etc. over last 30 years★

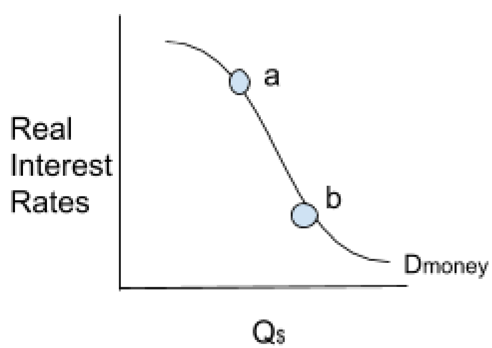
DEMAND FOR MONEY:

Transactions:

➔ $ wanted to buy something (exchange)

Asset Demand:

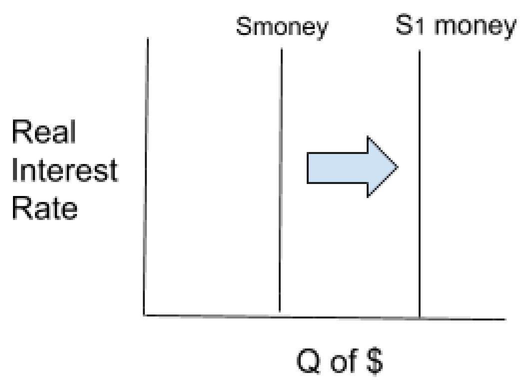
➔ Demand for $ because of its use as a store of purchasing power



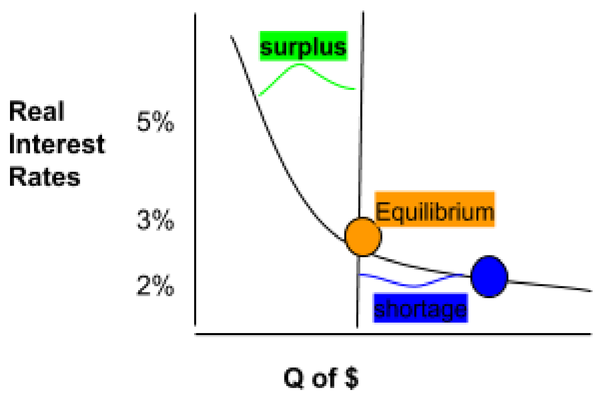
- Decrease in interest rate, increase quantity demanded of money (increase in output would shift R → change in transactions)

SUPPLY FOR MONEY:

Completely Controlled by Government



EQUILIBRIUM in the MONEY MARKET:



THE ROLE OF BANKS IN CANADA:

- Managing money supply (minimize inflation, trying to decide value of canadian dollar, trying to keep the real output is as closest to the potential output)
- They are the Bankers bank (they keep all the money, bank rate)
- Acting as the federal government's fiscal agent (bank of Canada, welfare checks, issue bonds to finance the government's debt, government needs money)
- Ensuring the stability of financial markets (making sure the charter marks are doing their jobs properly, and following the rules)

EXPANSIONARY MONETARY POLICY:

- Increase money supply, decrease interest rates but price levels also changes

CONTRACTIONARY MONETARY POLICY:

- Decrease the money supply, increase interest rates (decrease in demand & decrease in price level)

M1: all the money you have
M2: all the money you have, including deposits, less liquid
M3: banks + investments in banks
M2 plus: + near banks
P252: components of $ supply
P252-253: definition of money

Money Creation:
Desired Reserves: banks hold just enough $ to satisfy anticipated withdrawal demands.
Reserve Ratio:

$$= \frac{\text{desired reserves}}{\text{deposits}}$$

Excess Reserves: more $ than desired in reserves (BAD! Because we are not making money off of extra money.
MONEY MULTIPLIER:

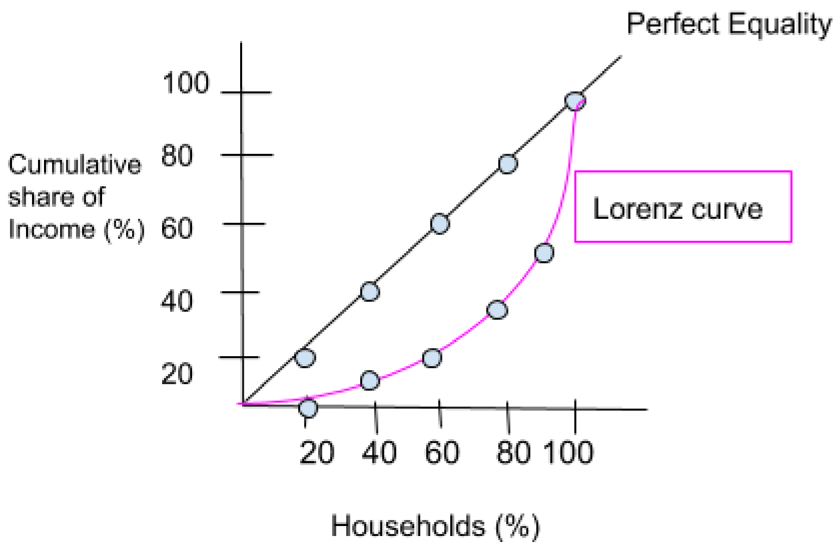
Δ money supply = Δ excess reserves X Δmoney multiplier

$$\text{Money Multiplier} = \frac{1}{\text{reserve ratio}}$$

★does not include publicly held currency (in your wallet) ∴ multiplier is actually less★
★not all money is M1, ∴ multiplier is less★

DISTRIBUTION OF INCOME:
- We separate Canadian households into FIFTHS

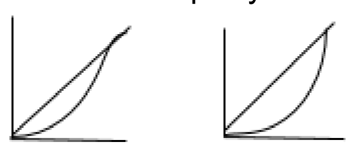
LORENZ CURVE:



INTERPRETING THE LORENZ CURVE:

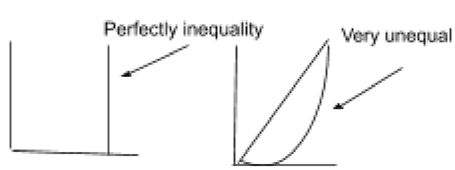
Perfect Equality:

➔ 20% of households earn 20% of total income
  - The closer the LC is to the perfect equality curve, the more income is distributed equally.



Perfect Inequality:

➔ One household receiving all the income all other households get nothing.



GOVERNMENTS AND INCOME DISTRIBUTION:

One economic goal is INCOME EQUITY → fair distribution of outputs to citizens

- The government does this 2 ways:
  1. TRANSFER PAYMENTS → ex… OAS (old age security), CCB (child bonus),
     EI (employment insurance)

∴ households with less incomes share will increase and higher incomes (⅖ top) share decrease

2. EFFECT OF TAXES

   ➝ personal income taxes, sales & excise taxes, corporate taxes

   ➝ same effect, but inequality doesn't decrease as much for the top ⅖ and still increases for bottom ⅗.

REASONS FOR INCOME INEQUALITY:

- Factors determine wages play a role also…

Risk Taking: entrepreneurs
Ability: if talent is in short supply, increase in income…
Wealth: financial assets, real estate (inheriting money, save)
Poverty: a person's income cannot provide the necessities of life
Poverty Line: 34.7% of pre-tax income on food, clothing, shelter. POOR= 54.7% on these items.

CAUSES OF POVERTY:

→ regional disparities (layoffs)
→ low value of skills
→ job segregation may play a role "have", "have nots"

Bureaucracy: a system of government in which most of the important decisions are made by state officials rather than by elected representatives.

TAXES:

Benefits Received:	**Ability to Pay:**
- Pay more if you use more (ex: gas taxes used for road construction and maintenance)	

Progressive: as income increases, tax % increases
Regressive: as income increases, tax % decreases
Proportional: higher salary = higher $ amount even if % is the same as everyone else
Personal Income Taxes: pay taxes on income AND transfer payments received.
Capital Gains: buy stock, and sell at a higher price
Marginal Tax Rate: pay more with every extra dollar of taxable income

How to LEGALLY reduce the taxes we pay:

1. RSP (retirement savings program)
2. Tax Credits! (rent, property taxes, donations, medical expenses)

Sales Tax: most goods…

Excise Tax: "sin" tax! (tax on alcohol, marijuana)

Tariffs: a tax on imports or exports implemented by the government.

Property Taxes: a combination tax on the land and the property

Corporate Income Taxes: is a direct tax imposed by a jurisdiction on the income or capital of corporations or analogous legal entities.