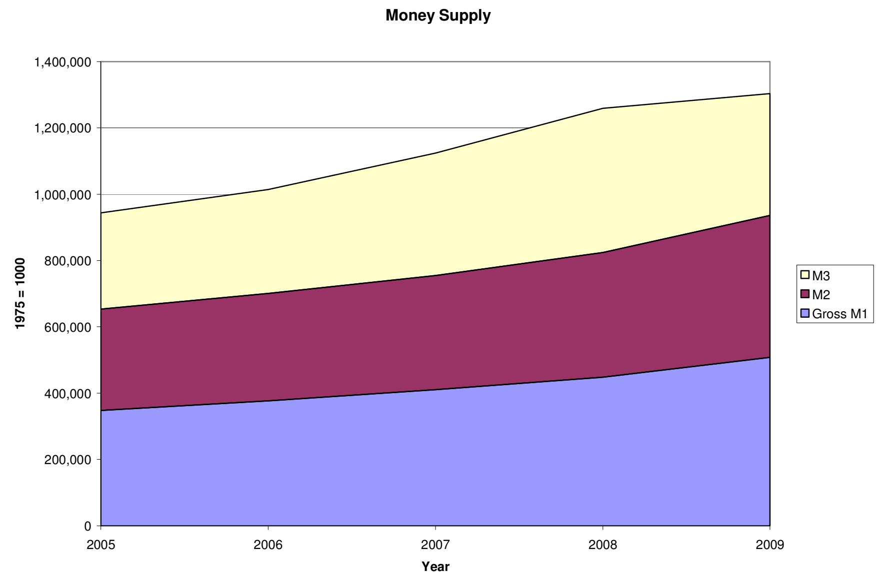
Money

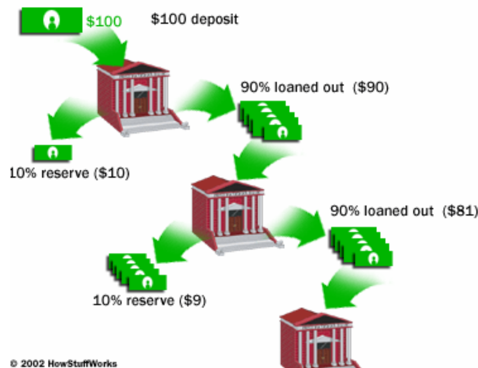
- Money: anything that is generally acceptable in purchasing goods or settling debts
- Money is:
  - A **medium of exchange** is an asset that individuals acquire for the purpose of trading rather than for their own consumption.
  - A **store of value** is a means of holding purchasing power over time.
  - A **unit of account** is a measure used to set prices and make economic calculations.

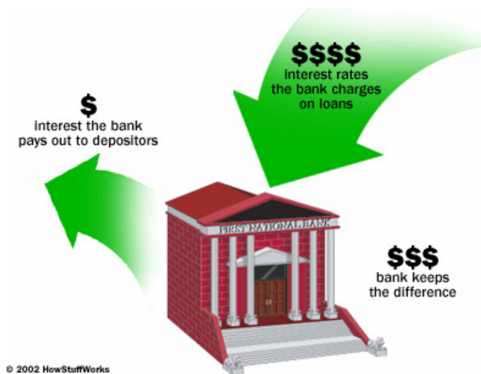
Money Supply

- The total amount of cash in circulation outside the banks plus bank deposits
- M1 ⟶ The currency (bank notes and coins) in circulation plus personal chequing accounts and current accounts at banks
- M2 ⟶ M1 plus personal savings accounts and other chequing accounts, term deposits, and non-personal deposits requiring notice before withdrawal.
- M2+ ⟶ M2 plus all deposits at non-bank deposit-taking institutions, money-market mutual funds, and individual annuities at life insurance companies.
- M2++ ⟶ M2+ plus all types of mutual funds and Canada Savings Bonds.



How Banks Make and Create Money





The Problem of Bank Runs

- A **bank run** is a phenomenon in which many of a bank's depositors try to withdraw their funds due to fears of a bank failure.
- Historically, they have often proved contagious, with a run on one bank leading to a loss of faith in other banks, causing additional bank runs.

Deposit Insurance

- Canadian bank deposits are insured by the Canadian Deposit Insurance Corporation
- Up to $100,000 held in eligible accounts is protected if the bank or financial institution fails.

The Bank of Canada

- Founded in 1934 to stabilize the Canadian economy and provide security for the banking system.
- Operates at arms length from the government

Functions of the Bank of Canada
- Director of monetary policy
- Regulates credit, currency and interest rates
- Banker to the chartered banks
- Banker to the federal government
- Buys and sells government bonds
- Handles foreign currency reserves
- Issuer of currency

Monetary Policy
- The process by which the government affects the economy by influencing the expansion of money and credit
- Carried out in Canada by the Bank of Canada

Easy and Tight Money
- Easy money: characterized by low interest rates, availability of credit and growth of money supply
    - Used to curb a recession
- Tight money: characterized by high interest rates, more difficult availability of credit and a decrease of the money supply
    - Used to restrain an economy in times of inflation

The Role of Interest Rates
- Interest rates affect consumer decisions about saving and borrowing money
    - Higher the interest rate → less likely to borrow
- Affect business decisions on capital investments
- Affect the value of the Canadian dollar
    - Higher interest rate attracts more foreign investors → greater demand for Canadian dollar
- Affect government budgets
    - Higher interest rate → more money spent on servicing debt

Types of Interest Rates
- Most interest rates tend to rise and fall together over time
- Prime Rate: lowest rate of interest a financial institution offers to its best customers
- Bank rate: rate charged by the Bank of Canada for loans made to financial institutions
    - Set at 0.25% above the overnight target rate

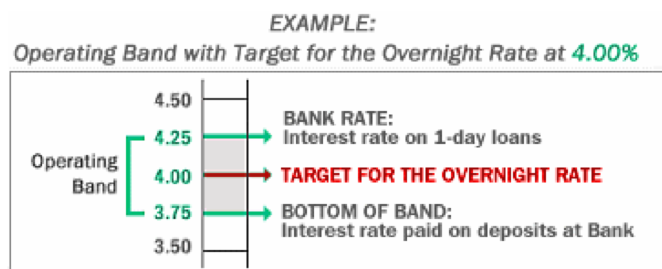
Inflation Premium
- Built into interest rate charged
- Nominal rate: includes inflation premium and allowance for risk and creditworthiness
- Real rate of interest = nominal rate of interest – expected rate of inflation

Canada's Monetary Policy

- Two key points:
    - Flexible exchange rate: allows an independent monetary policy suited to the needs of our own economy and acts as a "shock absorber."
    - Inflation-control target: provides a precise goal against which to measure the conduct of monetary policy, increasing the Bank's public accountability.
        - Target between 1% to 3%

Tools of Monetary Policy

- The Overnight Target Rate
    - Main tool of monetary policy
    - The rate at which banks lend money to one another
        - Midpoint of the operating band (interest rates within a 0.5% range)
        - low end of the bank is the rate the Bank of Canada pays on deposits
        - High end is the rate the Bank of Canada charges on loans to banks
    - If the rate increases, banks are encouraged to raise their interest rates, tightening the money supply
    - Opposite is true for lowering the rate



- The Bank's Balance Sheet
    - Assets: Government of Canada bonds, foreign exchange, advances to chartered banks
    - Liabilities: currency outstanding, deposits of chartered banks, deposit of federal government
    - By shifting deposits (increasing or decreasing charter banks reserves) or selling bonds the Bank can also affect interest rates

- Quantitative Easing
    - Think of this as easing the markets through the quantity of money
    - If you can't lower the interest rate (the price of money) any further, the Bank can try to increase the supply.
    - The central bank buys financial assets (bonds (government or private), other securities) from financial institutions.
    - By purchasing these instruments (increasing demand), this increases the price and lowers the yield (the percentage return the investor receives) on the security
    - Bond yields are used to set long-term rates for mortgages and business lending. As yields decrease so to should interest rates on these instruments.
    - If the banks want to make money, they need to search out other investments
    - The hope is that the banks will then start lending more money to businesses and individuals to get a higher yield
    - The increase in the quantity of money will also tend to lower the value (exchange rate) of the currency
    - Used during the financial crisis because of the failure of conventional monetary policy

Liquidity Trap

- Occurs when interest rates can't be dropped any lower (they reach the zero bound) but the economy requires further stimulation through expansion of the money supply (resulting in an increase in AD)
- People with money are unwilling to invest it

How Monetary Policy Works

Easy Money Policies

- Decrease in the overnight rate
    - Interest rates decrease
    - Value of dollar decreases (less demand)
    - Increased borrowing/less saving leads to increased demand
    - Prices increase
    - Inflation increases

- Stage 1: Bank shifts deposits to chartered banks, increasing reserves
    - More money available for lending, decrease in interest rates
- Stage 2: Lower interest rates encourage business and consumer spending
- Stage 3: More borrowing increases the money supply
- Stage 4: Shift of AD to the right

Tight Money Policies

- Increase in the overnight rate
    - Interest rates increase
    - Value of dollar increases (more demand)
    - Decreased borrowing/more saving leads to decreased demand
    - Prices fall
    - Inflation falls

- Stage 1: Bank shifts deposits from chartered banks back to the Bank
    - Less money available for borrowing, increase in the interest rate
- Stage 2: Higher interest rates discourage consumer/business spending
- Stage 3: Less borrowing decreases the money supply
- Stage 4: Shift of AD to the left

Limitations and Drawbacks of Monetary Policy

Tight money policies tend to work better than easy money policies
- Consumers and businesses may be unwilling to borrow even when interest rates are low
- High interest rates discourage borrowing – mortgages become more expensive, businesses reconsider their investments

Monetary policies affect the Canadian dollar
- When interest rates are higher, Canadian investments are more attractive to foreign borrowers which results in a greater demand for Canadian dollars
- When rates are lower, the reverse is true

Monetary policies have uneven results nationwide
- There is one interest rate for Canada, some areas may require an easy money policy, others a tight money policy

Monetary policies affect government debt
- If the interest rate increases then interest costs on government debt increases