EQ: What is the Keynesian Monetary Transmission Mechanism?

- The **Keynesian Monetary Transmission Mechanism** is a theory about what happens in the economy when the money supply is increased or decreased.
- It is a theory of monetary policy based on Keynesian Economic Theory.

EQ: What is the Keynesian Monetary Transmission Mechanism?

- Increase in the money supply leads to:
  - Decrease in interest rates.
  - Increase in Consumption/Investment
  - Increase in TE and AD
  - Increase in Real GDP
  - Increase in Price Level
  - Decrease in Unemployment

EQ: What is the Keynesian Monetary Transmission Mechanism?

- Decrease in the money supply leads to:
  - Increase in interest rates.
  - Decrease in Consumption/Investment
  - Decrease in TE and AD
  - Decrease in Real GDP
  - Decrease in Price Level
  - Increase in Unemployment

EQ: What is the Keynesian Monetary Transmission Mechanism?

- Problems with the Keynesian Monetary Transmission Mechanism:
  - Consumption & Investment may not always respond positively to lower interest rates.
    - Pessimism about employment & profitability may make people & businesses leery about borrowing.
  - The Liquidity Trap
    - Interest rates fall so low that additional increases in the money supply have no effect on interest rates.
    - Failure of interest rates to fall will stop the transmission mechanism and Real GDP will stall.
**EQ: What is the Velocity of Money?**

- Classical theories are based on the velocity of money.
- The **velocity of money** ($V$) is the average number of times in a year that a dollar is spent in the economy.
- Velocity means speed (like miles per hour)
  - Distance traveled per unit of time
- Basically, it is how many times, on average, that a dollar is spent within a year.

**EQ: What is the Equation of Exchange?**

- The **equation of exchange** is an equation that represents the mathematical relationship between the supply of money in the economy and how much nominal money is spent in the economy based on the velocity of money.
- Consider that $V = \text{Nominal GDP} \div M$
  - Nominal GDP is equal to the quantity of goods and services sold times the prices of those goods and services (i.e., $\text{Price} \times \text{Quantity}$)
  - Therefore: $V = (P \times Q) \div M$

**EQ: What is the Velocity of Money?**

- Conceptually:
  - In a year, a $1 bill is spent:
    - On January 7th to buy a soda.
    - On March 23rd to buy a candy bar.
    - On June 4th to buy groceries at the store.
    - On September 12th to buy gas.
    - On December 19th to buy Christmas presents.
  - In one year, this $1 bill was used 5 times.
  - Let’s say that there are another 300 Billion dollars in the economy and each one was used anywhere between 3 and 19 times each during the year.
  - Suppose when we take the average of how many times each one was used, that average is 9.
    - The velocity of money is 9 ($V = 9$).
We can multiply both sides of the equation by $M$ and we get:

$$M \times [V] = \frac{(P \times Q)}{M} \times M$$

So, the equation of exchange is:

$$M \times V = P \times Q$$

Money Supply $\times$ Velocity = Price Level $\times$ Real GDP

EQ: What is the Equation of Exchange?

Based on this equation:

- Increasing the money supply or velocity will:
  - Increase the price level
  - Increase Real GDP (close a recessionary gap)
  - Increase both the price level & Real GDP

- Decreasing the money supply or velocity will:
  - Decrease the price level
  - Decrease Real GDP (close an inflationary gap)
  - Decrease both the price level & Real GDP