

# The Money Market

- The market where the Fed and the users of money interact thus determining the nominal interest rate ( $i\%$ ).
- Money Demand (MD) comes from households, firms, government and the foreign sector.
- The Money Supply (MS) is determined only by the Federal Reserve.

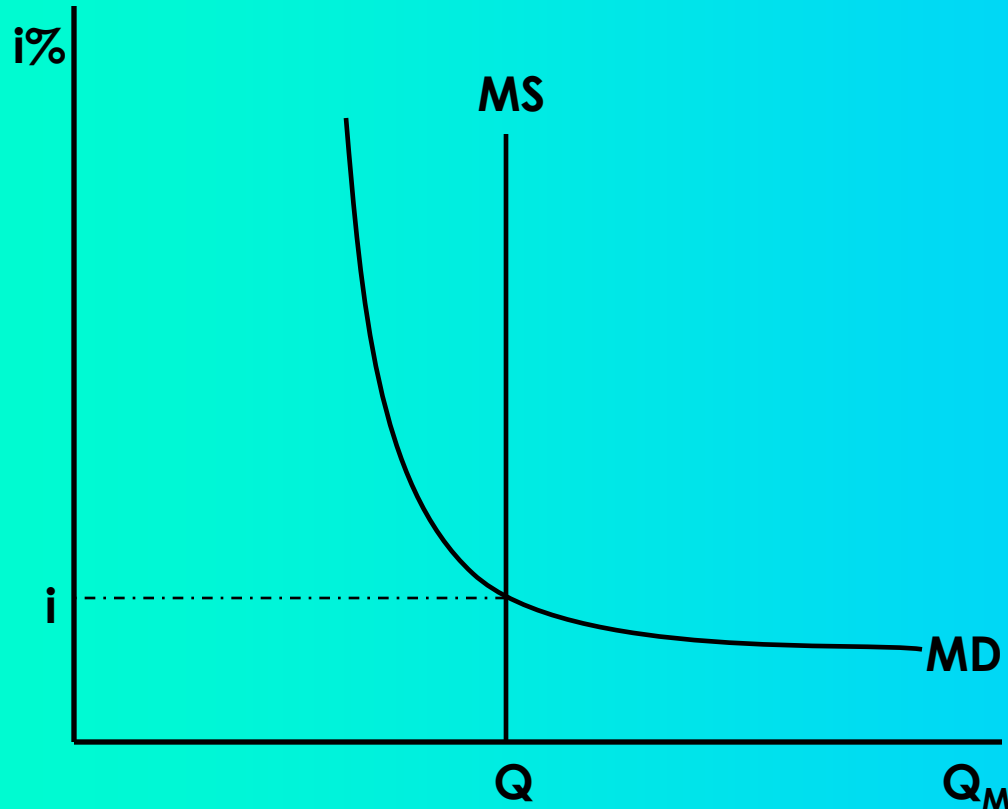
# Money Demand

- Transaction Demand – D for \$ as a medium of exchange
- Asset Demand – D for \$ as a store of value (dependent on the interest rate).
- Total Money Demand – (MD) is downward sloping because at high  $i\%$  people are less inclined to hold \$ and more inclined to hold stocks & bonds. At lower  $i\%$  people sacrifice less when they hold \$.

# Money Supply

- The MS is determined by the Fed b/c the Fed has a monopoly over the supply of money.
- The Fed's monopoly is the reason for the vertical MS curve

# The Money Market

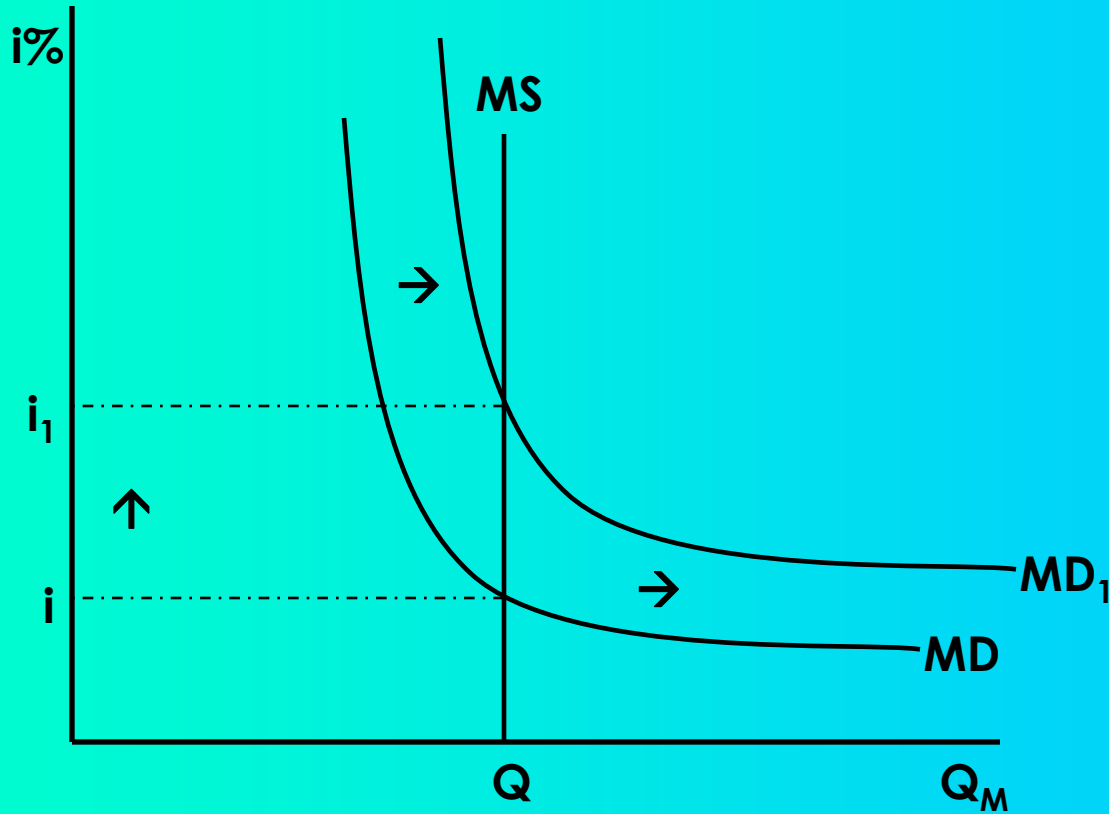


The equilibrium of  $MS$  &  $MD$  determines the nominal interest rate ( $i\%$ ).  $MD$  is downward sloping because the nominal interest rate is the opportunity cost of holding money.  $MS$  is vertical because it is independent of the interest rate.

# Changes in Money Demand

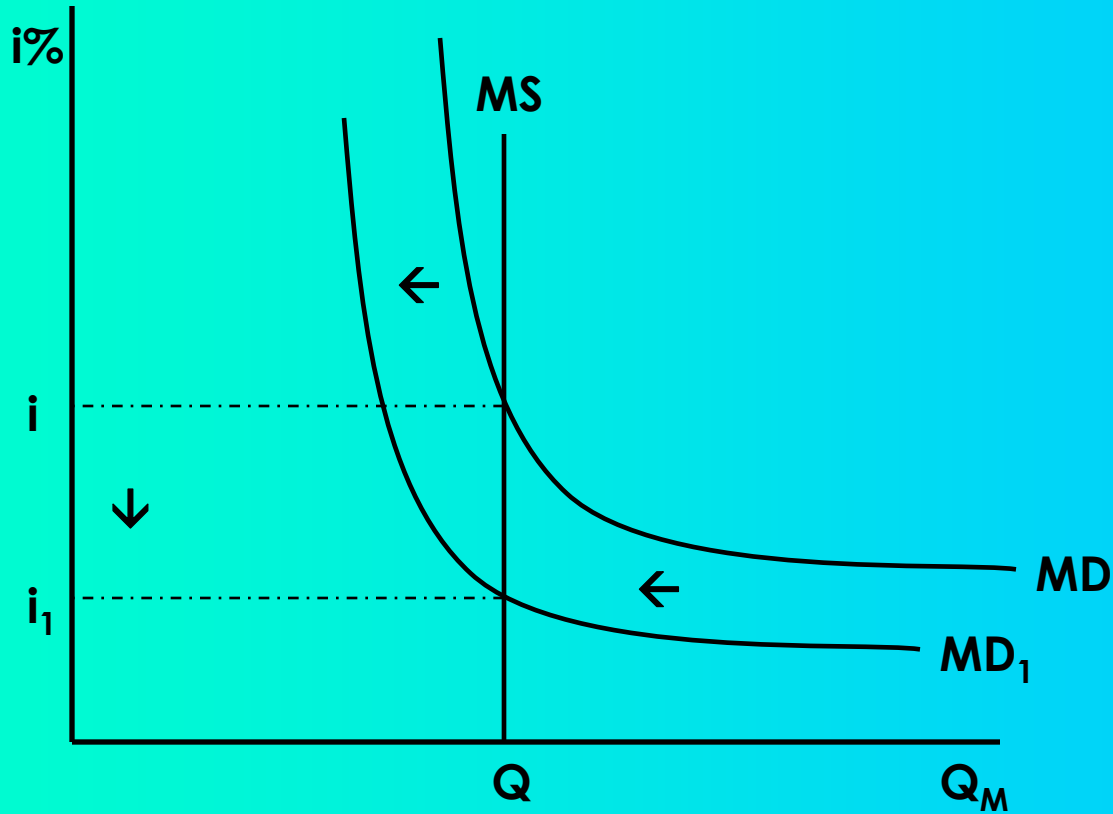
- **Money Demand is dependent on both the Price Level and Real GDP which together comprise the Nominal GDP**
  - **Nominal GDP  $\uparrow$   $\therefore$  MD  $\rightarrow$   $\therefore$   $i\%$   $\uparrow$**
  - **Nominal GDP  $\downarrow$   $\therefore$  MD  $\leftarrow$   $\therefore$   $i\%$   $\downarrow$**
- **Increases in income = MD increase**
  - **People will demand money for transactions**

# Increase in Money Demand



$MD \rightarrow \therefore i\% \uparrow$

# Decrease in Money Demand



$MD \leftarrow \therefore i\% \downarrow$

# Changes in the Money Supply

Only the Fed determines the money supply

- Contractionary Monetary Policy  $MS \leftarrow \therefore i\% \uparrow$

Res. Ratio  $\uparrow$

Disc. Rate  $\uparrow$

Sell Bonds = small bucks =  $MS \downarrow$

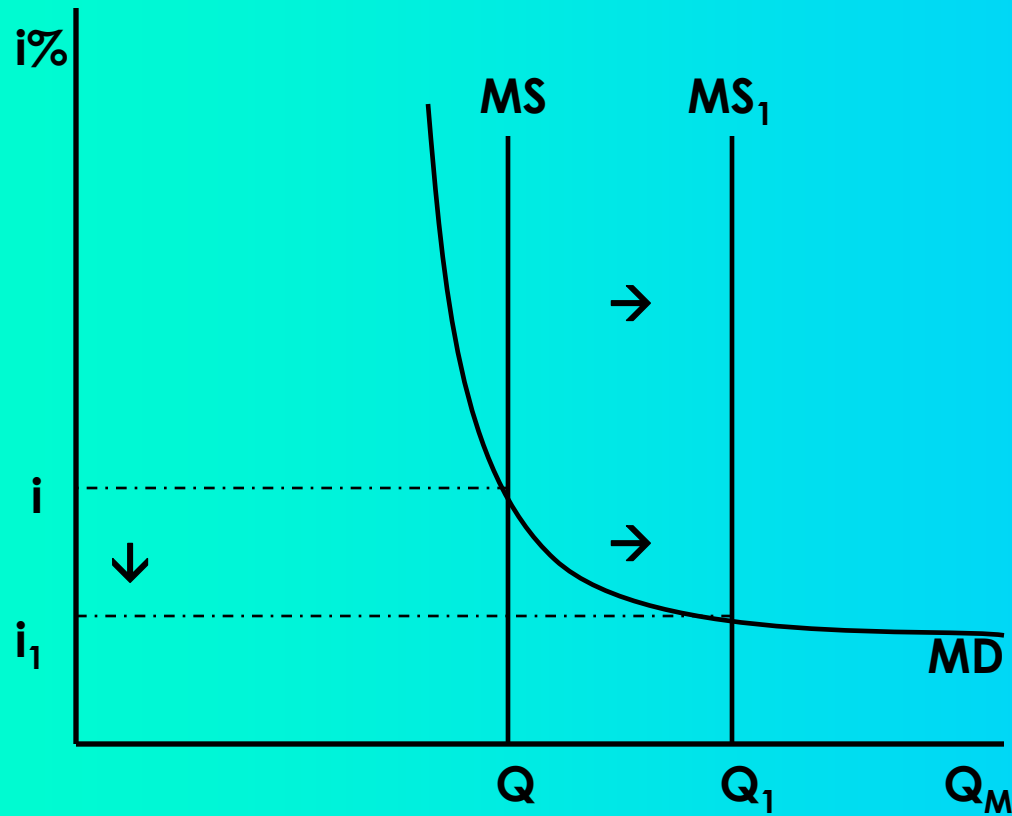


# Expansionary Monetary Policy

$MS \rightarrow \therefore i\% \downarrow$

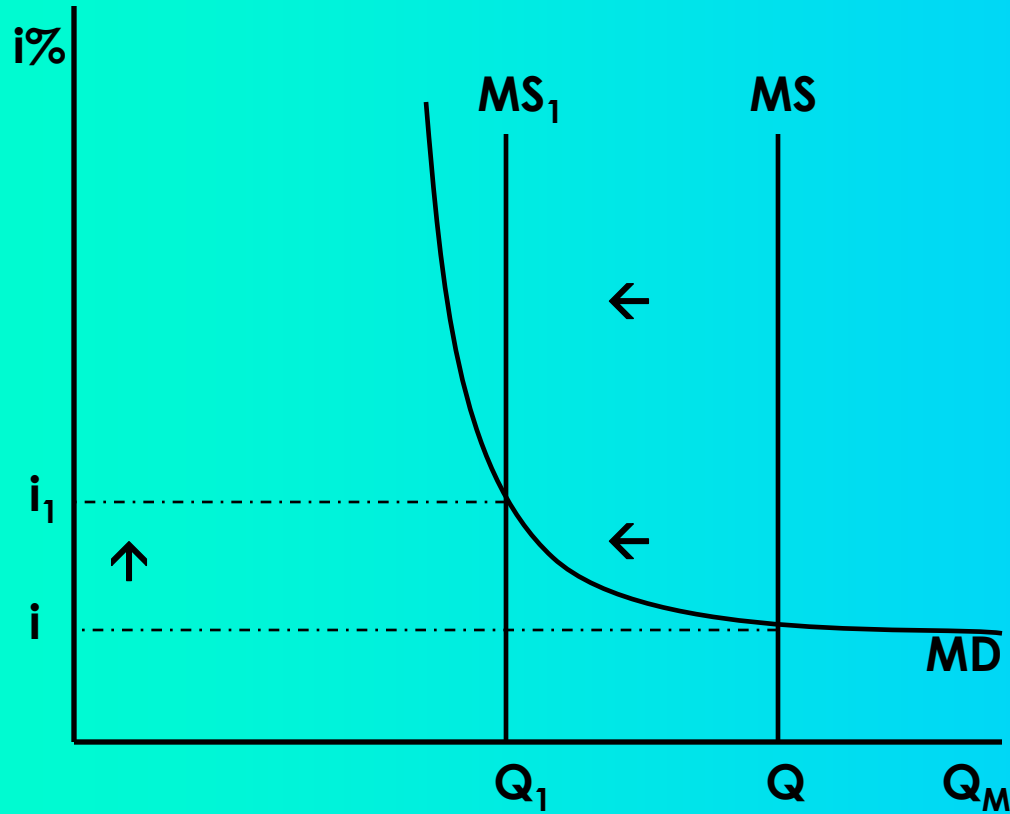
- Res. Ratio  $\downarrow$
- Disc. Rate  $\downarrow$
- Buy Bonds = Big bucks =  $MS \uparrow$

# Increase in Money Supply



$MS \rightarrow \therefore i\% \downarrow$

# Decrease in Money Supply



$MS \leftarrow \therefore i\% \uparrow$

# Money Market Practice

1. Show how an increase in bond purchases by the Fed would affect  $i\%$  and  $Q_m$
2. How would an increase in national income affect  $i\%$  and  $Q_M$ ?
3. What the impact of a decision by the private, public and foreign sector to spend less

# Money Market Practice cont..

4. Show how an increase in the  $r_r$  would affect the  $i\%$  and  $Q_M$
5. Using a correctly labeled Money market graph linked to an ID curve graph, show the impact of  $G$  borrowing on the  $i\%$ ,  $Q_m$ , and the level of  $I_g$  in the economy.

# Money Market practice

6. Using a correctly labeled Money market graph linked to an ID curve graph, show the impact of an OMO sale of bonds on the  $i\%$ ,  $Q_m$ , and the level of  $I_g$  in the economy.