Developments in Money and Banking

Topic Two: Money Supply and Money Demand

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1. Money Supply

- **Definition**: Money supply refers to the total amount of monetary assets available in an economy at a specific time.
- **Importance**:
  - Indicator of economic health.
  - Influences inflation, interest rates, and economic growth.
  - Plays a critical role in monetary policy and central banking.

2. Types of Money Supply

- **Monetary Aggregates**: These are categories used to measure the money supply.
  - **M0 (Monetary Base or Narrow Money)**:
    - Physical currency (coins and notes) in circulation and bank reserves.
    - The most liquid form of money.
  - **M1**:
    - M0 + demand deposits and other liquid assets.
    - Includes currency, traveler's checks, demand deposits, and other checkable deposits.
  - **M2**:
    - M1 + near-money (savings deposits, time deposits under $100,000, money market mutual funds).
    - Represents money that is not as liquid but can be quickly converted into cash.
  - **M3**:
    - M2 + large time deposits, institutional money market funds, short-term repurchase agreements.
    - Includes less liquid forms of money.
  - **M4**:
    - M3 + other forms of liquidity like deposits with building societies.
    - Widest measure, includes the most broad-based liquidity.

3. Determinants of Money Supply in an Economy

- **Central Bank Policies**:
  - **Open Market Operations (OMO)**: Buying and selling government securities to influence money supply.
  - **Reserve Requirements**: The fraction of deposits banks must hold as reserves.
  - **Discount Rate**: The interest rate charged by central banks to commercial banks for short-term loans.
  - **Interest on Reserves**: Interest paid on excess reserves held at the central bank.
- **Banking Sector Behaviour**:
  - **Credit Creation**: Banks' ability to create money through the lending process.
  - **Reserve Ratio**: The ratio of reserves to deposits, determining how much money banks can create.
- **Public Behavior**:
  - **Currency Holding**: The preference of holding cash versus deposits.
  - **Deposit Behavior**: The tendency to deposit money in banks versus holding it in cash.
- **Foreign Exchange Reserves**:
  - **Impact of Foreign Exchange Inflows/Outflows**: Changes in foreign reserves affect the domestic money supply.

4. Monetary Measures to Increase & Reduce Money Supply

- **To Increase Money Supply**:
  - **Lowering Reserve Requirements**: Banks can lend more, increasing money creation.
  - **Lowering the Discount Rate**: Cheaper loans for banks, encouraging more lending.
  - **Open Market Purchases**: Central bank buys government securities, injecting money into the economy.
  - **Quantitative Easing**: Central bank buys financial assets to increase the money supply and lower interest rates.
- **To Reduce Money Supply**:
  - **Increasing Reserve Requirements**: Banks lend less, reducing money creation.
  - **Raising the Discount Rate**: More expensive loans for banks, discouraging lending.
  - **Open Market Sales**: Central bank sells government securities, withdrawing money from the economy.
  - **Sterilization**: Using various tools to neutralize the effects of foreign exchange operations on money supply.

Money Demand

Money demand refers to the desire to hold cash or liquid assets instead of investing them in other assets.

1. **Key Theories**:
   - **Classical Theory**: Money demand is primarily a function of the price level (transactions motive).
   - **Keynesian Theory**:
     - Money demand is divided into three motives: transactions, precautionary, and speculative.
     - Money demand is influenced by income and interest rates.
   - **Friedman's Modern Quantity Theory**:
     - Emphasizes the demand for real balances as a function of permanent income, interest rates, and wealth.
2. **Determinants of Demand for Money**

- **Income Levels**: Higher income typically increases the demand for money for transactions.
- **Interest Rates**:
  - Inverse relationship; higher interest rates reduce money demand as individuals prefer interest-bearing assets.
- **Price Level**:
  - Higher prices increase the need for money to facilitate transactions.
- **Expectations of Future Interest Rates**: Expectations of rising rates can reduce current money demand.
- **Economic Uncertainty**: Increases in uncertainty may raise the precautionary demand for money.

3. **Liquidity Preference**

- **Definition**: A theory proposed by John Maynard Keynes, suggesting that people prefer to hold their wealth in liquid form due to uncertainty about the future.
- **Motives for Holding Money**:
  - **Transactions Motive**: The need to hold money for day-to-day transactions.
  - **Precautionary Motive**: The desire to hold money for unexpected needs or emergencies.
  - **Speculative Motive**: Holding money to take advantage of future investment opportunities.

- **Implications**:
  - **Interest Rate Determination**: Interest rates are determined by the equilibrium between money supply and money demand (liquidity preference).
  - **Impact on Monetary Policy**: Central banks use the concept of liquidity preference to influence interest rates and control money supply.