Monetary Policy - Money Creation and FED Tools

Economics Chapter 10 section 4 and 5, chapter 13 section 2

Review US Banking System

- **What is the central bank of the United States?**
  - Federal Reserve System (FED)
- **What is the primary goal of the FED?**
  - Regulate the U.S. Economy – money supply
- **What are the functions of the FED?**
  - Control the money supply
  - Supply the economy with paper money
  - Hold bank reserves

Money Creation Process

- What is the first thing you think of when you hear the phrase “creating money”?
  - How do we increase or decrease the money supply in the US?
  - Does it fall from trees? Do we just print more of it?
  - Do we hide it under our mattresses?
- Our nations banking system plays an important role in this process.
  - Banks cannot print money
  - Remember money is more than currency
  - Banks create money thru the types of bank reserves they have.

Money Creation

- **Different Types of Reserves**
  - Banks have **three types of reserves:**
    - **total, required, and excess.**
  - A bank's **total reserves are the sum of the bank's deposits in its reserve account at the Fed plus its vault cash**.
    - For example, if a bank has $10 million in its reserve account and $5 million cash in its vault, its total reserves are $15 million.
  - Total reserves can be divided into two types:
    - required and excess.

Money Creation

- **Required reserves**
  - **are the minimum amount of reserves a bank must hold against its deposits as mandated by the Fed.**
  - A **reserve requirement** is a Fed regulation, requiring a bank to keep a certain percentage of its deposits in its reserve account with the Fed or in its vault as vault cash.
    - For example, if the Fed requires a bank to hold 20 percent of its deposits in reserve, and the bank has $50 million in deposits, the required reserves are $10 million.

Money Creation

- **Excess reserves**
  - **are any reserves held beyond the required amount.**
    - For example, if a bank has $15 million in total reserves and the Fed requires that it keep $10 million in required reserves, the bank has $5 million in excess reserves.
  - Why do you think it is important for banks to know the amount of excess reserves they have available?
    - Help conduct daily business

Types of Bank Reserves

- Total reserves = Deposits at the Fed + Vault cash
  Example: Deposits in reserve account + $10 million
  Vault cash = $5 million
  Total reserves = $15 million
- Required reserves = Reserve requirement x Checking account deposits
  Example: Reserve requirement = 20%
  Checking account deposits = $50 million
  Required reserves = $10 million
- Excess reserves = Total reserves – Required reserves
  Example: Total reserves = $15 million
  Required reserves = $10 million
  Excess reserves = $5 million

FED Tools

- The Fed has **three tools** that it can use to ***raise*** OR ***lower*** the ***money supply***.
  - the reserve requirement
  - open market operations
  - the discount rate

FED Tools

Monetary tool	Effect on money supply
Reserve requirement	
Raise the reserve requirement	↓
Lower the reserve requirement	↑
Open market operations	
Buy government securities	↑
Sell government securities	↓
Discount rate	
Raise the discount rate	↓
Lower the discount rate	↑

FED Tools

- **Changing the Reserve Requirement**
  – The Fed can increase or decrease the money supply by changing the reserve requirement.
    - **Lower** reserve requirement = **Increase** in money supply.
    - **Higher** reserve requirement = **Decrease** in money supply.

FED Tools

- **Conducting Open Market Operations**
  - The Federal Open Market Committee (FOMC) conducts **open market operations by buying and selling government securities.** When the FOMC makes
    - an open market **purchase**, it **increases the money supply.**
    - When an open market **sale** is made, the **money supply falls.**

FED Tools

- **Changing the Discount Rate**
  - The **federal funds** rate is the interest rate ***one bank charges another*** for a loan.
  - The **discount rate** is the **interest rate the Fed charges a bank for a loan**.
    - When the discount rate is **decreased**, the **money supply rises.**
    - When the discount rate is **increased**, the **money supply falls.**

FED Tools

Monetary tool	Effect on money supply
Reserve requirement	
Raise the reserve requirement	↓
Lower the reserve requirement	↑
Open market operations	
Buy government securities	↑
Sell government securities	↓
Discount rate	
Raise the discount rate	↓
Lower the discount rate	↑

The FED and Monetary Policy

- **Monetary policy is defined as changes the Fed makes in the money supply.**

Monetary Policy

- **Two Types of Monetary Policy**
  - An **expansionary monetary policy** is an ***increase*** in the ***money supply***.
  - A **contractionary monetary policy** is a ***decrease*** in the ***money supply***.

Expansionary Monetary Policy

- **Expansionary monetary policy objectives**
  - Increase spending
    - Increased spending results in increased sales and increased hiring.
  - lower the unemployment rate
    - This in turn leads to increased spending.
- **How would the FED use their tools to expand the money supply?**
  - Reserve requirement
  - Open market
  - Discount rate

Contractionary Monetary Policy

- **Contractionary monetary policy objectives**
  - Reduce inflation
    - A smaller money supply results in lower total spending.
    - Firms' inventories increase because they sell fewer products.
    - Firms reduce prices to lower their inventories..
- **How would the FED use their tools to contract the money supply?**
  - Reserve requirement
  - Open market
  - Discount rate