33

Interest Rates and Monetary Policy

McGraw-Hill/Irwin

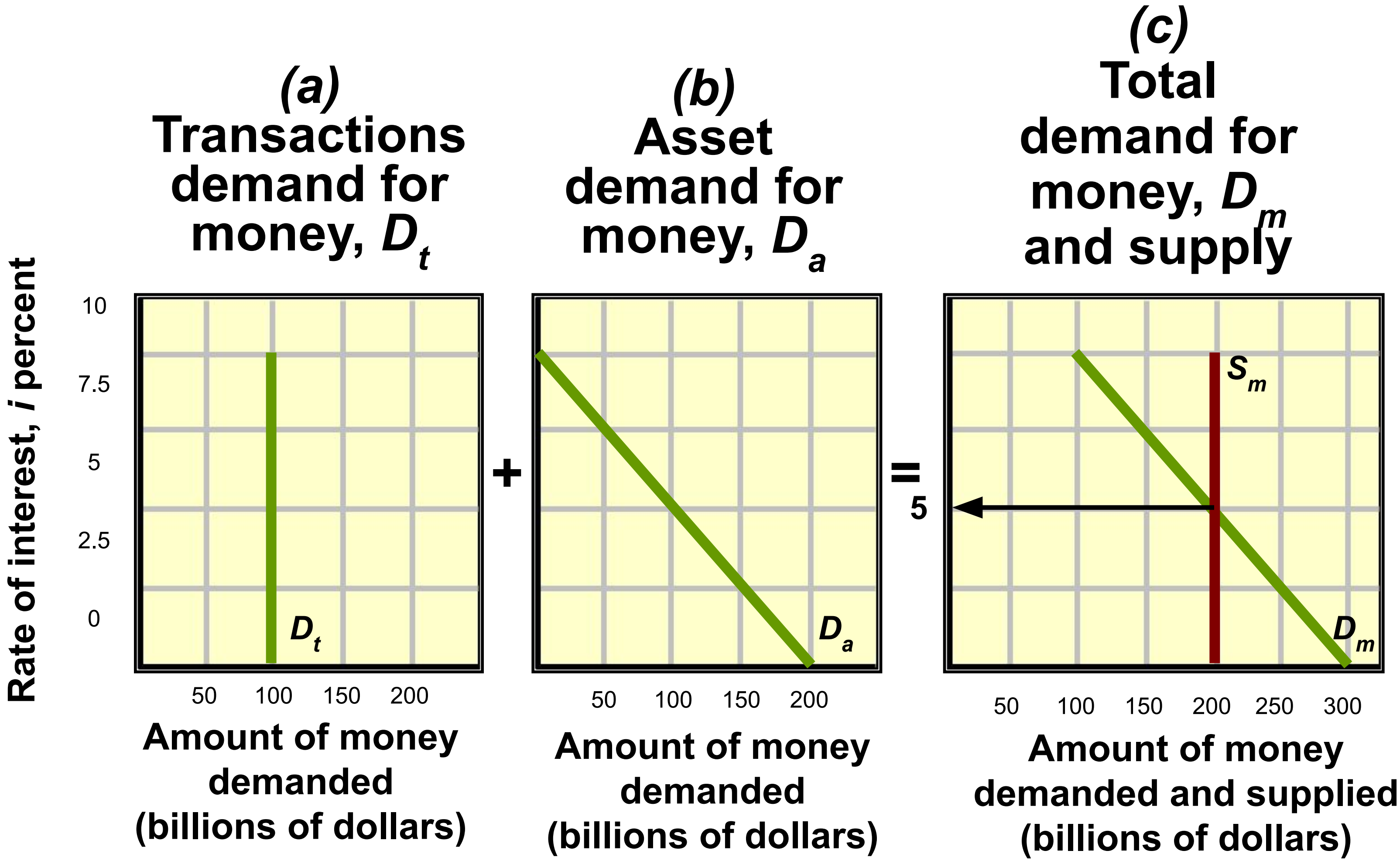
Interest Rates

- The price paid for the use of money
- Many different interest rates
- Speak as if only one interest rate
- Determined by the money supply and money demand

Demand for Money

- Why hold money?
- Transactions demand, D_t
  - Determined by nominal GDP
  - Independent of the interest rate
- Asset demand, D_a
  - Money as a store of value
  - Varies inversely with the interest rate
- Total money demand, D

Demand for Money



Federal Reserve Balance Sheet

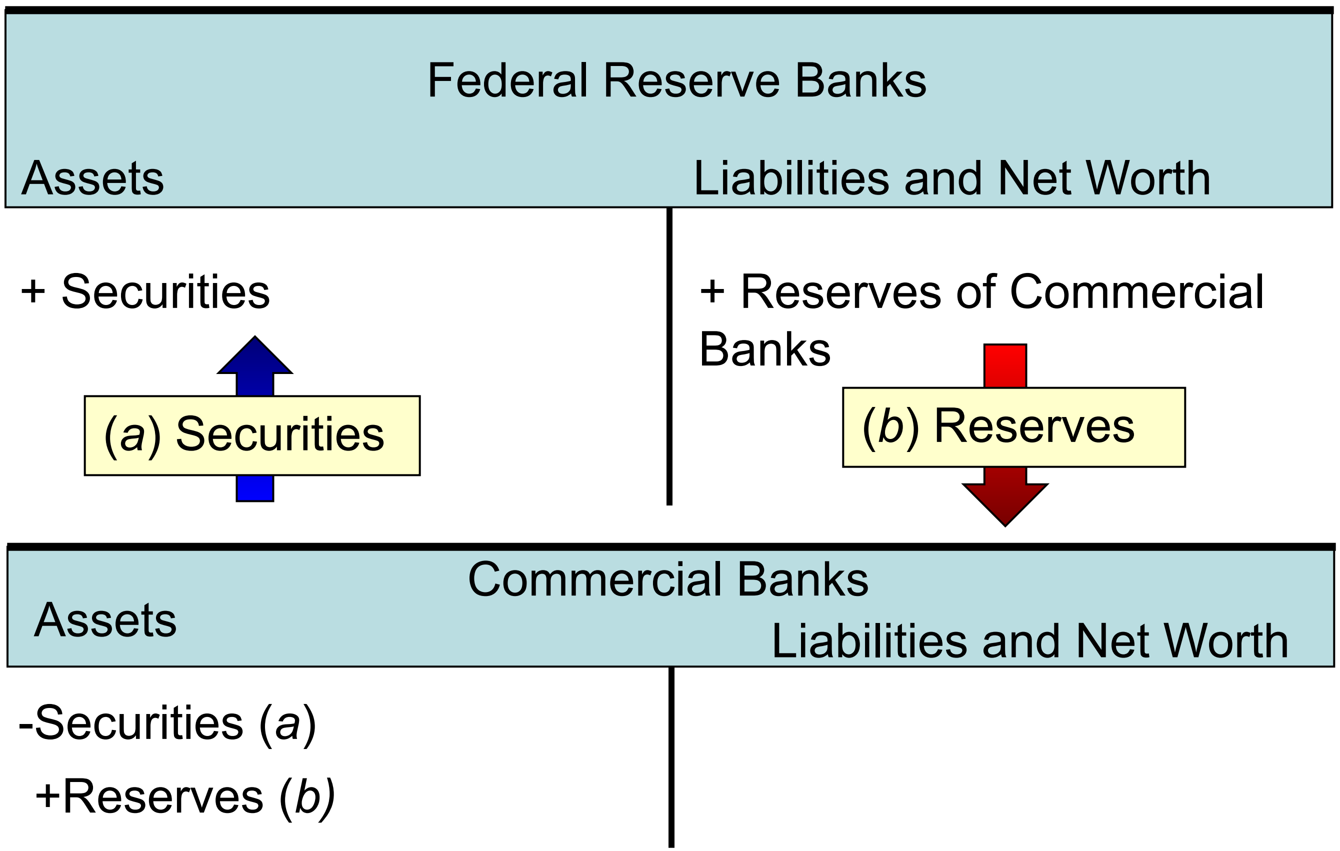
- Assets
  - Securities
  - Loans to commercial banks
- Liabilities
  - Reserves of commercial banks
  - Treasury deposits
  - Federal Reserve Notes outstanding

Tools of Monetary Policy

- Open market operations
  - Buying and selling of government securities (or bonds)
  - Commercial banks and the general public
  - Used to influence the money supply
- When the Fed sells securities, commercial bank reserves are reduced

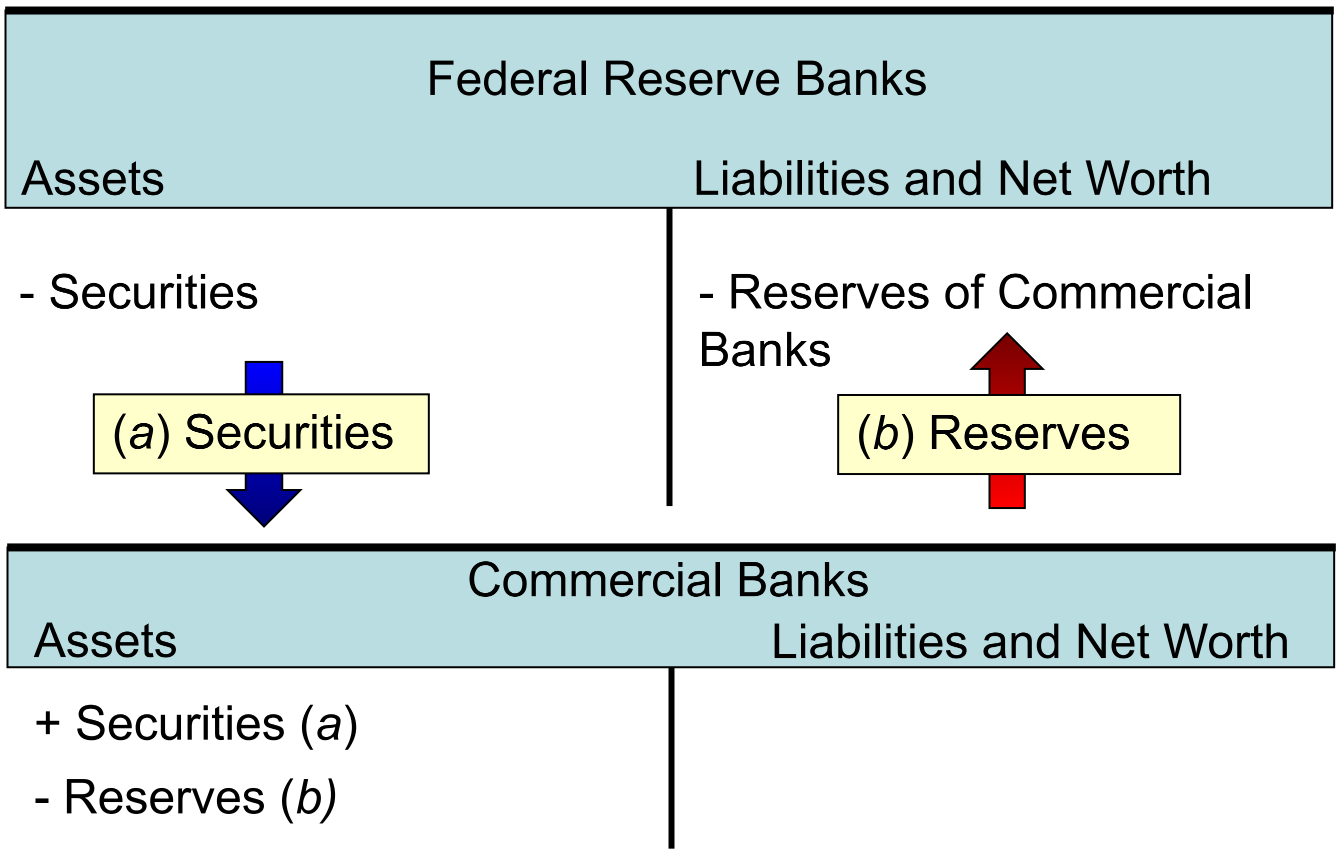
Tools of Monetary Policy

- Fed buys bonds from commercial banks



Tools of Monetary Policy

- Fed sells bonds to commercial banks



Tools of Monetary Policy

- The reserve ratio
  - Changes the money multiplier
- The discount rate
  - The Fed as lender of last resort
  - Short term loans
- Term auction facility
  - Introduced December 2007
  - Banks bid for the right to borrow

Tools of Monetary Policy

- Open market operations are the most important
- Reserve ratio last changed in 1992
- Discount rate was a passive tool
- Term auction facility is new
  - Guaranteed amount lent by the Fed
  - Anonymous

The Federal Funds Rate

- Rate charged by banks on overnight loans
- Targeted by the Federal Reserve
- FOMC conducts open market operations to achieve the target
- Demand curve for Federal funds
- Supply curve for Federal funds

Monetary Policy

- Expansionary monetary policy
  - Economy faces a recession
  - Lower target for Federal funds rate
  - Fed buys securities
  - Expanded money supply
  - Downward pressure on other interest rates

Monetary Policy

- Restrictive monetary policy
  - Periods of rising inflation
  - Increases Federal funds rate
  - Increases money supply
  - Increases other interest rates

Taylor Rule

- Rule of thumb for tracking actual monetary policy
- Fed has 2% target inflation rate
- If real GDP = potential GDP and inflation is 2%, then targeted Federal funds rate is 4%
- Target varies as inflation and real GDP vary

Expansionary Monetary Policy

CAUSE-EFFECT CHAIN

Problem: Unemployment and Recession

↓

Fed buys bonds, lowers reserve ratio, lowers the discount rate, or increases reserve auctions

↓

Excess reserves increase

↓

Federal funds rate falls

↓

Money supply rises

↓

Interest rate falls

↓

Investment spending increases

↓

Aggregate demand increases

↓

Real GDP rises

Restrictive Monetary Policy

CAUSE-EFFECT CHAIN

Problem: Inflation

↓

Fed sells bonds, increases reserve ratio, increases the discount rate, or decreases reserve auctions

↓

Excess reserves decrease

↓

Federal funds rate rises

↓

Money supply falls

↓

Interest rate rises

↓

Investment spending decreases

↓

Aggregate demand decreases

↓

Inflation declines

Evaluation and Issues

- Advantages over fiscal policy
  - Speed and flexibility
  - Isolation from political pressure
  - Monetary policy is more subtle than fiscal policy

Problems and Complications

- Lags
  - Recognition and operational
  - Cyclical asymmetry
  - Liquidity trap