Capital Markets and Financial Institutions

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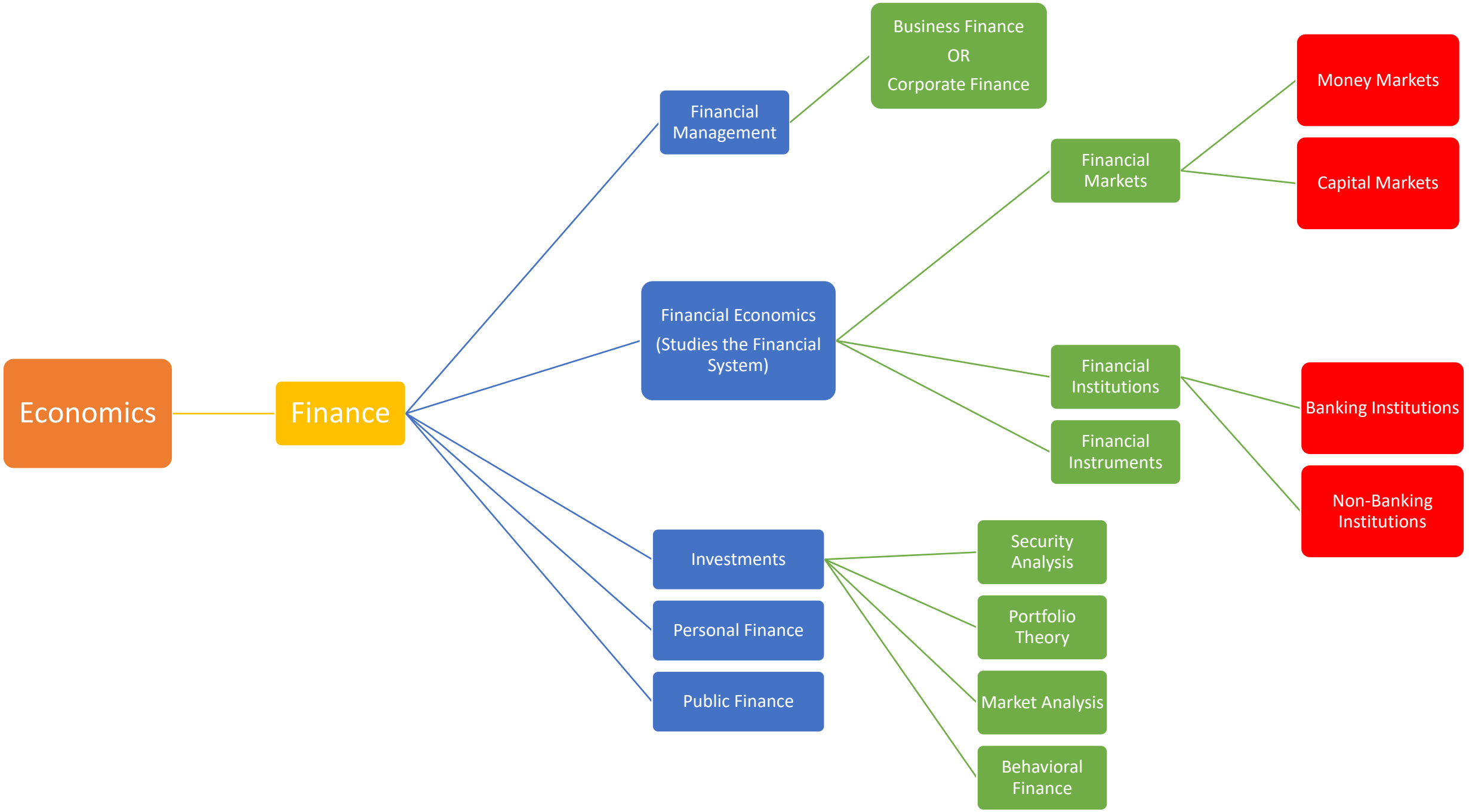
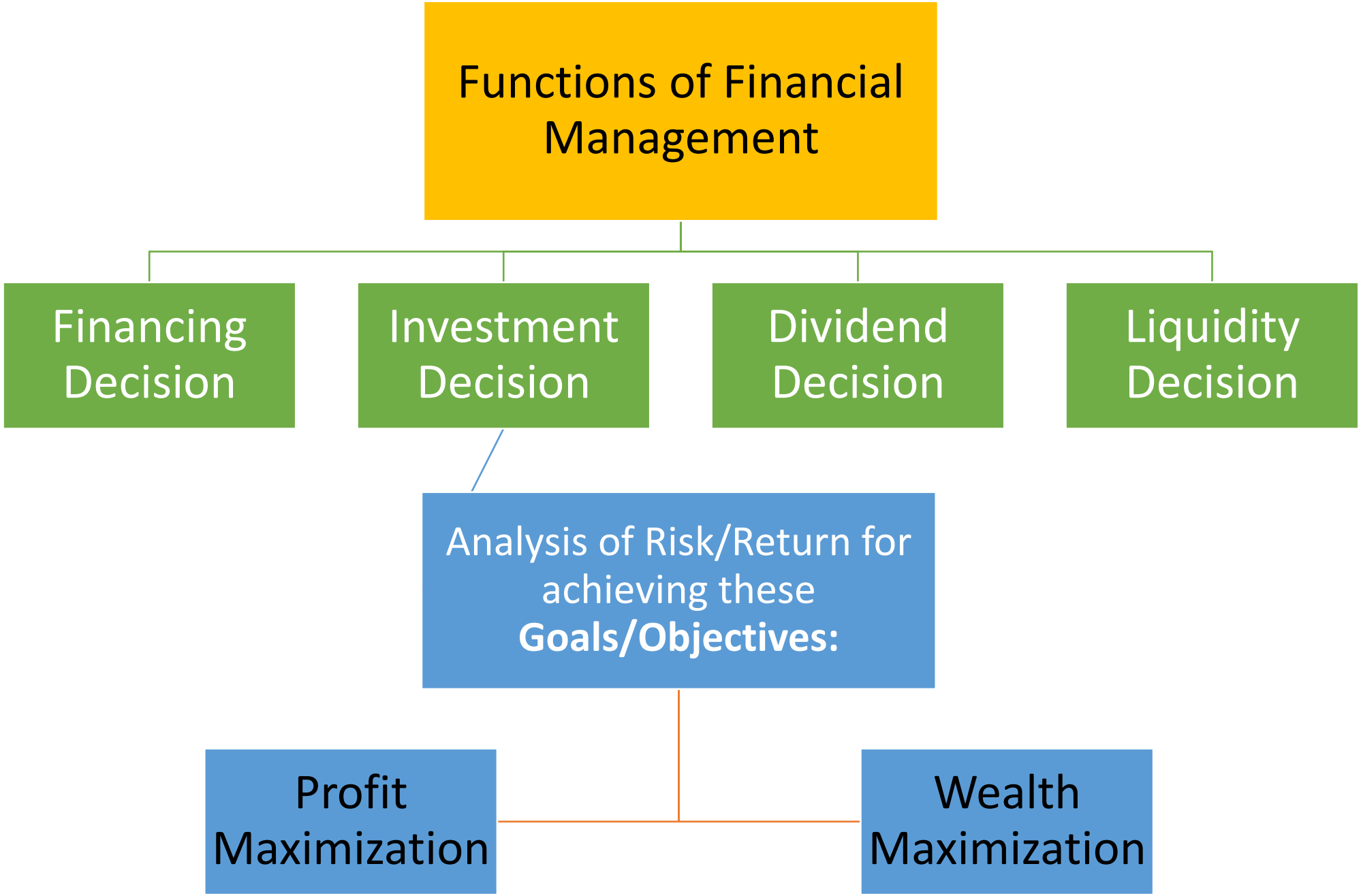
Introduction

- Financing means the provision of money at the time when it is required
- **Financial management is:**
  - Concerned with the planning & controlling of firm's financial resources and to find various sources for raising further funds for the firm
  - The application of the general management principles in the area of financial decision-making
  - The art of planning; organizing, directing and controlling of the funds and safe disposal of profits
  - The art and science of managing money


Economics
Finance
Financial Management
Business Finance
OR
Corporate Finance
Financial Economics
(Studies the Financial System)
Financial Markets
Money Markets
Capital Markets
Financial Institutions
Banking Institutions
Non-Banking Institutions
Financial Instruments
Investments
Security Analysis
Portfolio Theory
Market Analysis
Behavioral Finance
Personal Finance
Public Finance

Functions of Financial Management

- Estimating Financial Requirements
- Deciding Capital Structure
- Selecting a Source of Finance
- Selecting a Pattern of Investment
- Proper Cash Management
- Implementing Financial Controls
  - Return on Investment, Ratio analysis, Break Even Analysis, Cost Control, Audit
- Proper use of Surpluses

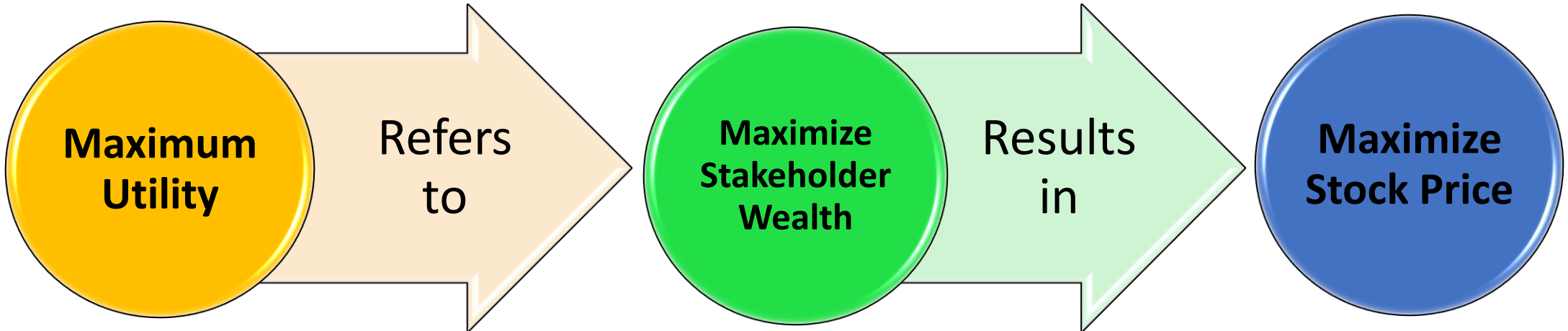

Functions of Financial Management
Financing Decision
Investment Decision
Dividend Decision
Liquidity Decision
Analysis of Risk/Return for achieving these **Goals/Objectives:**
Profit Maximization
Wealth Maximization

Goals/Objectives of Financial Management

- The main objective of a business is to maximize the owner's economic welfare
- Financial management of a firm helps maximize economic welfare of is shareholders by providing a framework for selecting a commercial strategy
- There are two versions of the main goal of financial management:
  - Profit maximization
  - Wealth maximization
- The functions of FM are directed toward achieving the above goals

Wealth Maximization

- Financial theory asserts that the wealth maximization is the single MAIN substitute for stakeholders' utility
- When the firm maximizes the shareholders' wealth, the individual stakeholders can use this wealth to maximize his individual utility
- Stockholder's current wealth in the firm
  - Number of shares owned × Current stock price per share



Economic Environment

Economic activity,
Tax rates

Competition,
Business conditions

Financial Markets
Interest rates,
Inflation

Management Decisions

Products & Services, Technology

Capital structure, Dividend Policy

Amount, Timing, Risk of expected Cash Flow

Shareholder's Wealth

Market Price of the Stock

Chief Financial Officer

- CFOs play an important role in ensuring proper reporting based on substance to the stakeholders of the company. CFO reports to BODs.
- Under CFO, normally two senior officers normally operate:

Treasurer

- Obtaining required finance
- Liaison with term lending and other financial institutions
- Managing working capital
- Managing investment in real assets

Controller/Comptroller

- Accounting and Auditing
- Management control systems
- Taxation and insurance
- Budgeting and performance evaluation
- Maintaining assets intact to ensure higher productivity

Finance and Other Business Functions

- Finance And Accounting
  - The purpose of accounting is to report the financial performance of the business for the period under consideration. Financial analysis is carried out on basis of accounting
  - Accounting is historical in nature, while FM uses this to make future oriented decisions

- Finance And Marketing
  - Channels of distribution, advertisement policy, remunerating the salesmen etc. have financial implications
  - Marketing cost analysis is a function of finance managers
  - Credit management and credit terms for increasing sales

Finance and Other Business Functions

- Finance And Productions (Operations)
  - Decisions on plant layout, technology selection, productions / operations, process plant size etc.
  - Capital Budgeting is closely related to productions
  - Inventory management involves many financial variables

- Finance And HR
  - Attracting and retaining the best man power in the industry cannot be done unless they are paid salary at competitive rates
  - The better the quality of manpower, the higher the value of the human capital and consequently the higher the productivity of the organization

Financial Markets

- A security (also called a financial instrument) is a claim on the issuer's future income or assets (Asset vs Liability-difference of perspectives)
- A bond is a debt security that promises to make payments periodically for a specified period.
- Debt or bond markets enable corporations and governments to borrow in order to finance their activities
- The bond market is also where interest rates are determined.
- An interest rate is the cost of borrowing or the price paid for the rental of funds
- There are many interest rates in the economy—mortgage interest rates, car loan rates, and interest rates on many different types of bonds

Interest rates

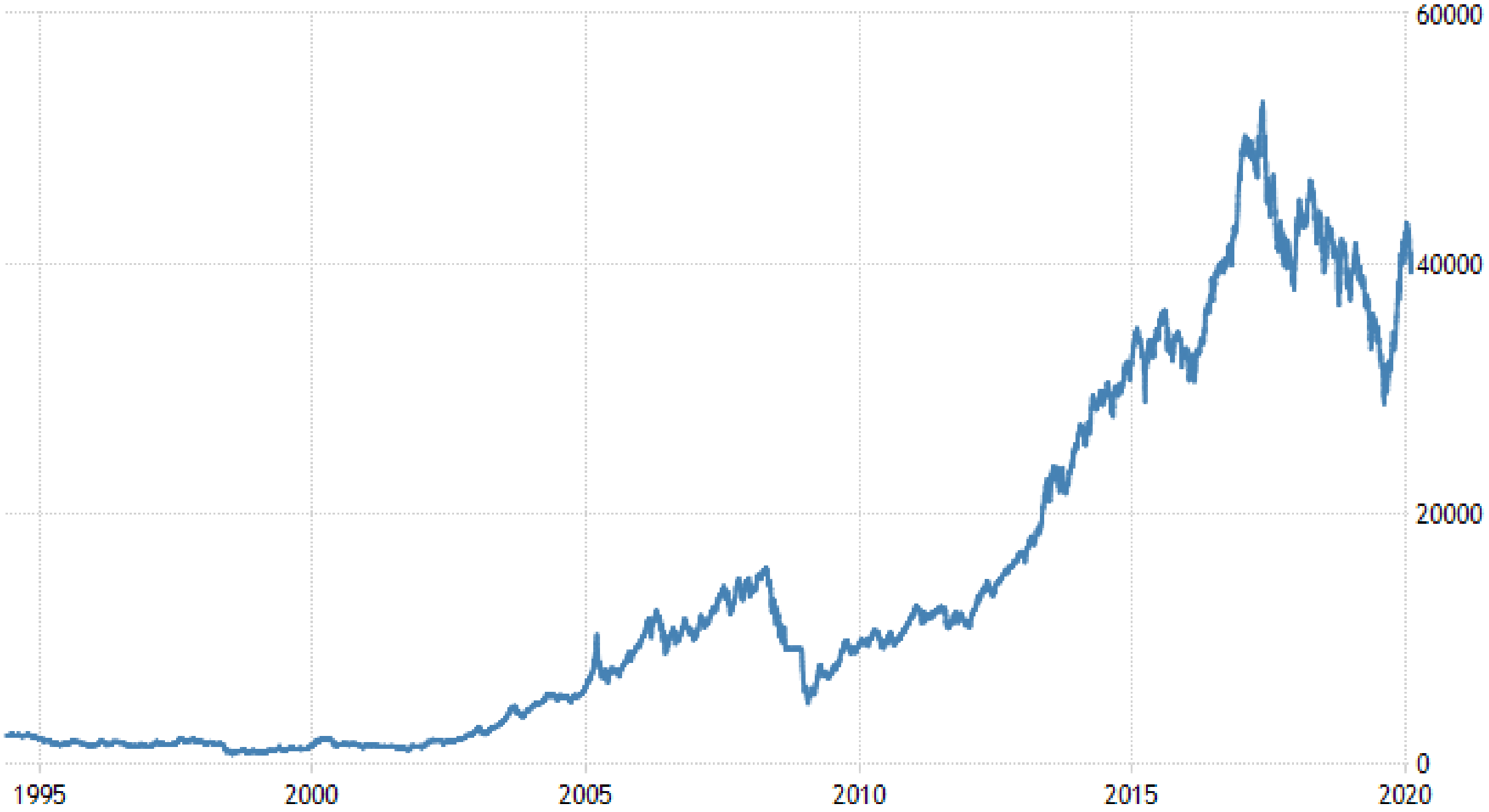
- High interest rates could deter you from buying a house or a car because the cost of financing it would be high.
- Conversely, high interest rates could encourage you to save because you can earn more interest income by saving.
- High interest rates, might cause a corporation to postpone building a new plant that would provide more jobs.
- It is important to explain fluctuations in interest rates that have been substantial over the past years

The Stock Market

- A share of ownership in a corporation that is a claim on the earnings and assets of the corporation
- Issuing stock and selling it to the public is a way for corporations to raise funds to finance their activities
- The stock market, is the most widely followed financial market in almost every country
- A big swing in the prices of shares in the stock market is always a major story on the evening news
- People often speculate on where the market is heading
- It is a place where people can get rich—or poor—quickly

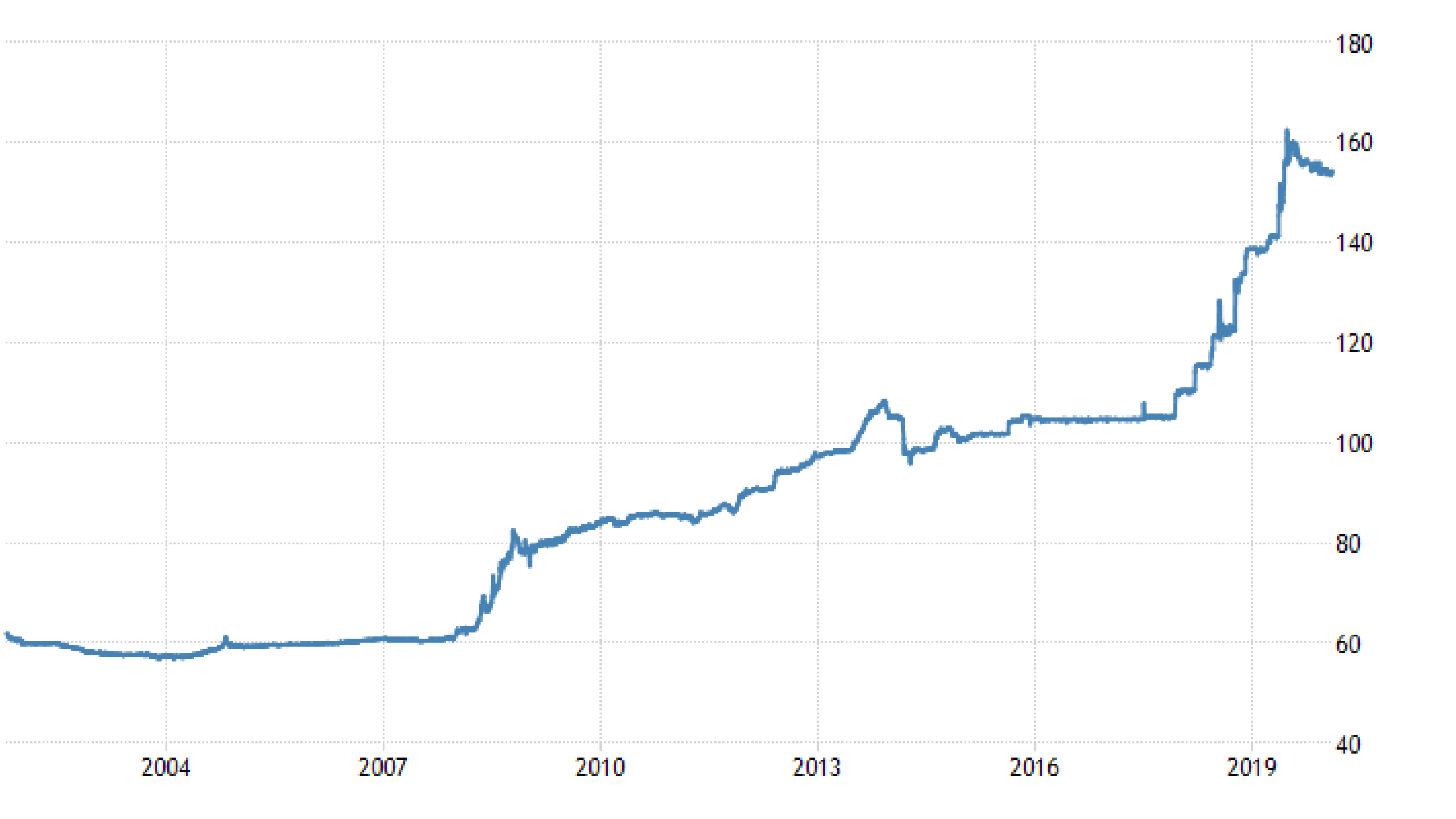
The Stock Market

- These considerable fluctuations in stock prices affect the size of people's wealth and as a result may affect their willingness to spend
- The stock market is an important factor in business investment decisions
- It affects the amount of funds that can be raised by selling newly issued stock to finance investment spending.
- A higher price means raising a larger amount of funds
- Stock prices are extremely volatile as evident from these figures


60000
40000
20000
0
1995
2000
2005
2010
2015
2020

Foreign Exchange Market

- For funds to be transferred from one country to another, they have to be converted.
- The foreign exchange market is where this conversion takes place, so it is instrumental in moving funds between countries.
- It is also important because it is where the foreign exchange rate, the price of one country's currency in terms of another's, is determined.


180
160
140
120
100
80
60
40
2004
2007
2010
2013
2016
2019

Foreign Exchange Market

- A change in the exchange rate has a direct effect on consumers because it affects the cost of imports.
- In 2001, when the euro was worth around 85 cents, 100 euros of European goods cost $85.
- When the dollar subsequently weakened, raising the cost of a euro to $1.50, the same 100 euros of goods now cost $150.
- A weaker dollar leads to more expensive foreign goods
- When the value of the dollar drops, consumers decrease their purchases of foreign goods and increase their consumption of domestic goods

Foreign Exchange Market

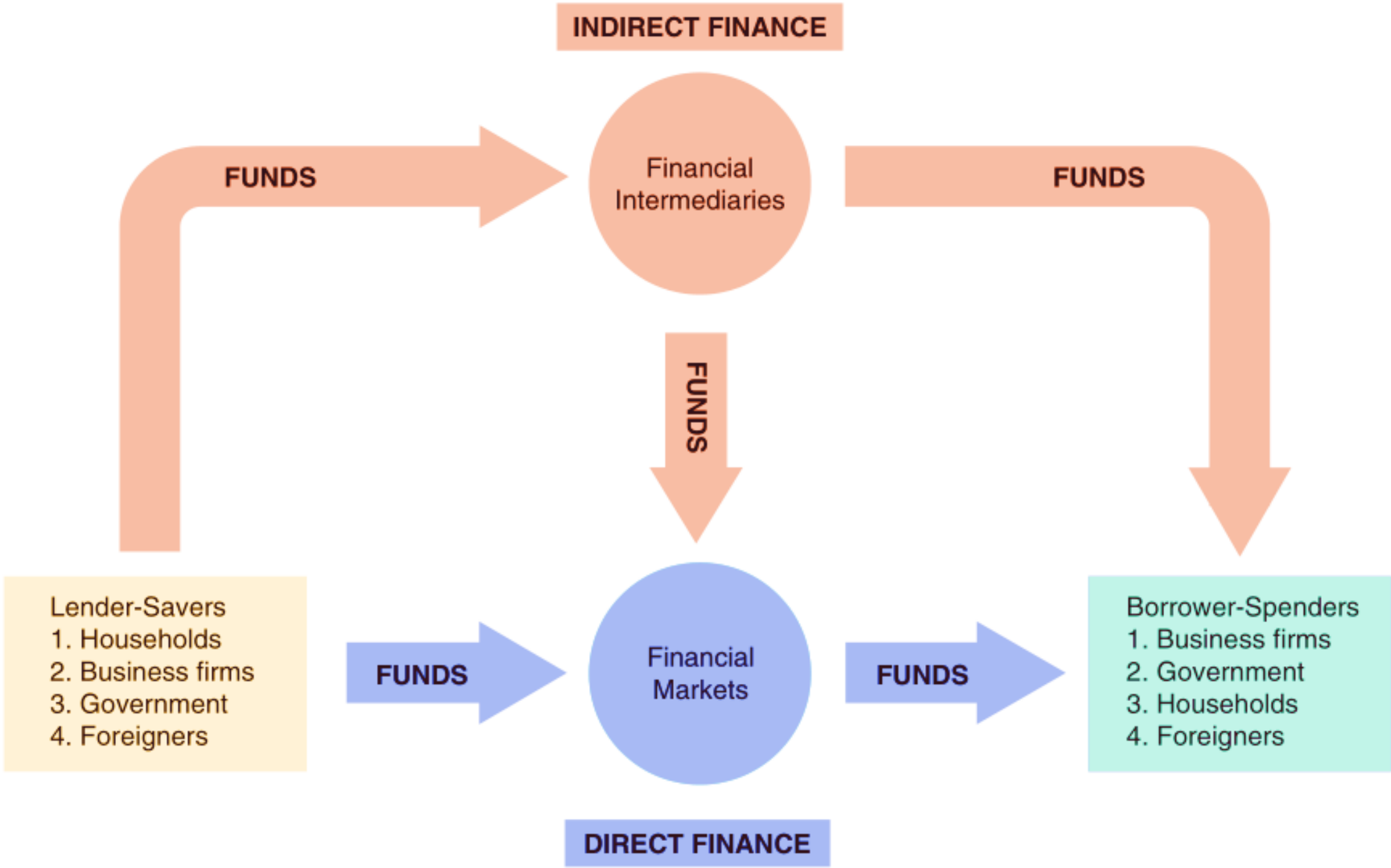
- Conversely, a strong dollar means that U.S. goods exported abroad will cost more in foreign countries, and hence foreigners will buy fewer of them.
- Exports of steel, for example, declined sharply when the dollar strengthened in the 1980–1985 and 1995–2001 periods.
- A strong dollar benefited American consumers by making foreign goods cheaper but hurt American businesses and eliminated some jobs by cutting both domestic and foreign sales of their products.
- The decline in the value of the dollar from 1985 to 1995 and 2001 to 2007 had the opposite effect: It made foreign goods more expensive, but made American businesses more competitive.
- Fluctuations in the foreign exchange markets thus have major consequences for the economy.

Financial Institutions

- Financial institutions are what make financial markets work.
- Without them, financial markets would not be able to move funds from people who save to people who have productive investment opportunities
- The financial system is complex, comprising many different types of private-sector financial institutions
- Banks, insurance companies, mutual funds, finance companies, and investment banks
- Consumers lend to businesses indirectly through **financial intermediaries**

Financial Intermediaries

- Commercial banks,
- Savings and loan associations,
- Mutual savings banks,
- Credit unions,
- Insurance companies,
- Mutual funds,
- Pension funds, and
- Finance companies
- Borrow funds from people who have saved and in turn make loans to others


INDIRECT FINANCE
FUNDS
Financial Intermediaries
FUNDS
FUNDS
Lender-Savers
1. Households
2. Business firms
3. Government
4. Foreigners
FUNDS
Financial Markets
FUNDS
Borrower-Spenders
1. Business firms
2. Government
3. Households
4. Foreigners
DIRECT FINANCE

Structure of Financial Markets

- Debt Markets
- A debt instrument, such as a bond or a mortgage
- The maturity of a debt instrument is the number of years (term) until that instrument’s expiration date.
- A debt instrument is short-term if its maturity is less than a year
- Long term if its maturity is 10 years or longer.
- A maturity between one and 10 years is said to be intermediate-term.

Structure of Financial Markets

- Equity Market
- Common Stock which are claims to share in the net income
- If you own one share of common stock in a company that has issued one million shares, you are entitled to 1 one-millionth of the firm's net income and 1 one-millionth of the firm's assets.
- Equities often make periodic payments (dividends) to their holders and are considered long-term securities because they have no maturity date.
- In addition, owning stock means that you own a portion of the firm and thus have the right to vote on issues important to the firm and to elect its directors.

Primary Markets

- A primary market is a financial market in which new issues of a security, such as a bond or a stock, are sold to initial buyers by the corporation or government agency borrowing the funds.
- An important financial institution in the primary market is the investment bank.
- It underwrites/ guarantees a price for a corporation’s securities and then sells them to the public

Secondary Markets

- A secondary market is a financial market in which securities that have been previously issued can be resold
- The New York Stock Exchange and NASDAQ are examples of secondary markets
- The bond markets, in which previously issued bonds are bought and sold, actually have a larger trading volume.
- Other examples of secondary markets are foreign exchange markets, futures markets, and options markets.
- **Brokers** are agents of their clients/investors who trade on their behalf
- **Dealer** is a person who trades business on their own behalf

Exchanges

- Secondary markets can be organized in two ways.
- One method is to organize exchanges, where buyers and sellers of securities (or their agents or brokers) meet in one central location to conduct trades.
- The New York and American Stock Exchanges for stocks and the Chicago Board of Trade for commodities (wheat, corn, silver, and other raw materials) are examples of organized exchanges.

Over-the-Counter Markets

- The other method of organizing a secondary market is to have an over-the-counter (OTC) market
- Dealers at different locations who have an inventory of securities stand ready to buy and sell securities “over the counter”
- Anyone who comes to them and is willing to accept their prices can buy
- OTC dealers are in computer contact and know the prices set by one another

Kerb markets / Curb markets

- The trading of shares outside the system of official stock markets or at hours when those stock markets are closed
- An unofficial after-hours market in shares, bonds or commodities
- Curb trading occurs outside of general market operations, commonly through computers or telephones after the official exchanges have closed

Money Market

- The money market is a financial market in which only short-term debt instruments (generally those with original maturity of less than one year) are traded
- Money market securities are usually more widely traded than longer-term securities and so tend to be more liquid
- Short-term securities have smaller fluctuations in prices than long-term securities, making them safer investments
- Corporations and banks actively use the money market to earn interest on surplus funds that they expect to have only temporarily

Capital Markets

- Capital market is the market in which longer-term debt (generally with original maturity of one year or greater) and equity instruments are traded
- Capital market securities, such as stocks and long-term bonds, are often held by financial intermediaries such as insurance companies and pension funds,
- Since they are certain of this amount of funds that will be available in the future

Foreign bonds

- Sold in a foreign country and are denominated in that country’s currency.
- A *bond* issued in a domestic market by a *foreign* entity in the domestic market's currency as a means of raising capital
- For example, if the German automaker Porsche sells a bond in the United States denominated in U.S. dollars, it is classified as a foreign bond

Eurobonds

- An international bond issued in Europe or elsewhere outside the country in whose currency its value is stated (usually the US or Japan).
- For example, a bond denominated in U.S. dollars sold in London
- Currently, over 80% of the new issues in the international bond market are Eurobonds

Eurocurrencies

- Foreign currencies deposited in banks outside the home country.
- The most important of the Eurocurrencies are Eurodollars, which are U.S. dollars deposited in foreign banks outside the United States or in foreign branches of U.S. banks
- Because these short-term deposits earn interest, they are similar to short-term Eurobonds

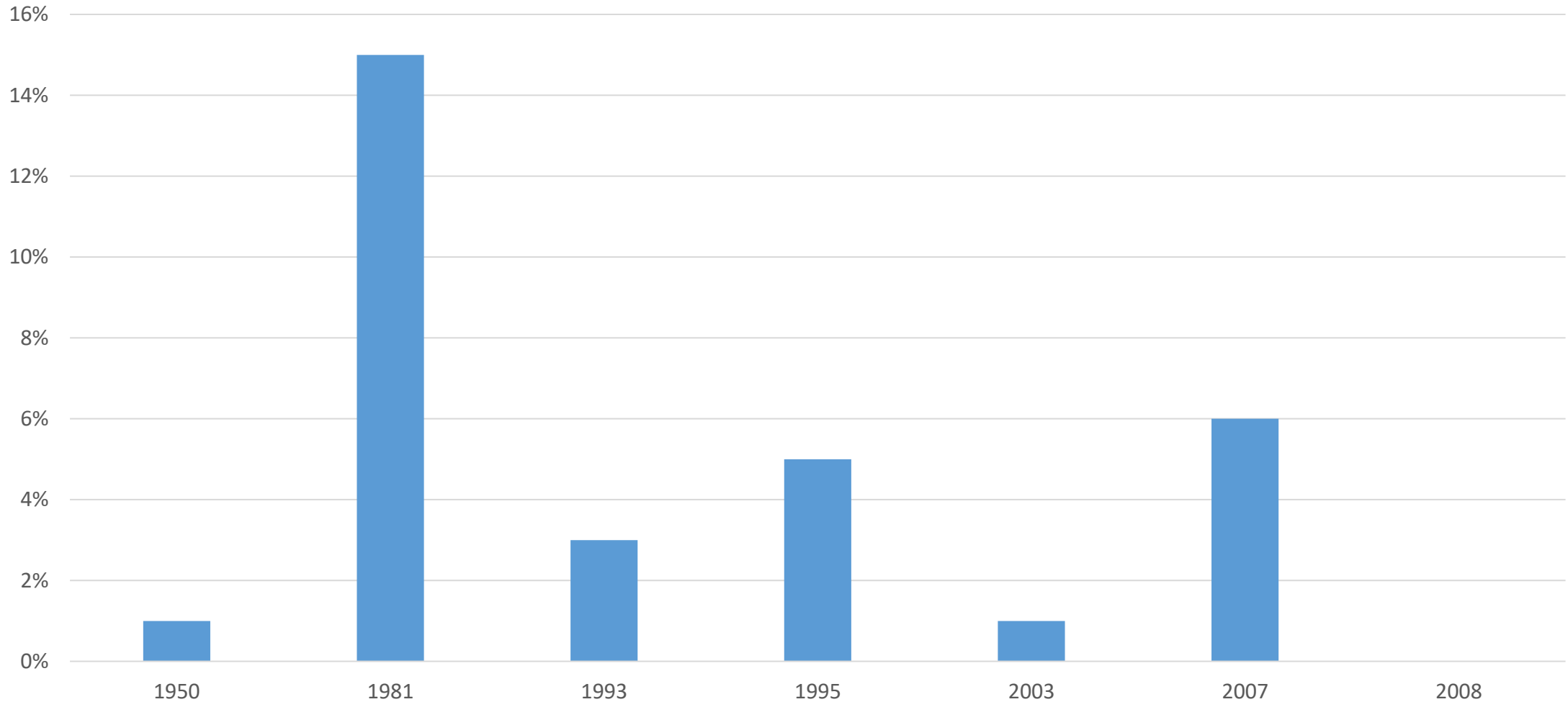
The Confusion

- A bond denominated in euros is called a Eurobond only if it is sold outside the countries that have adopted the euro.
- In fact, most Eurobonds are not denominated in euros but are instead denominated in U.S. dollars.
- Similarly, Eurodollars have nothing to do with euros, but are instead U.S. dollars deposited in banks outside the United States

Types of Financial Intermediaries

Type of Intermediary	Primary Liabilities (Sources of Funds)	Primary Assets (Uses of Funds)
Depository institutions (banks)		
Commercial banks	Deposits	Business and consumer loans, mortgages, U.S. government securities, and municipal bonds
Savings and loan associations	Deposits	Mortgages
Mutual savings banks	Deposits	Mortgages
Credit unions	Deposits	Consumer loans
Contractual savings institutions		
Life insurance companies	Premiums from policies	Corporate bonds and mortgages
Fire and casualty insurance companies	Premiums from policies	Municipal bonds, corporate bonds and stock, U.S. government securities
Pension funds, government retirement funds	Employer and employee contributions	Corporate bonds and stock
Investment intermediaries		
Finance companies	Commercial paper, stocks, bonds	Consumer and business loans
Mutual funds	Shares	Stocks, bonds
Money market mutual funds	Shares	Money market instruments

Change in Interest Rates



Determinants of Asset Demand

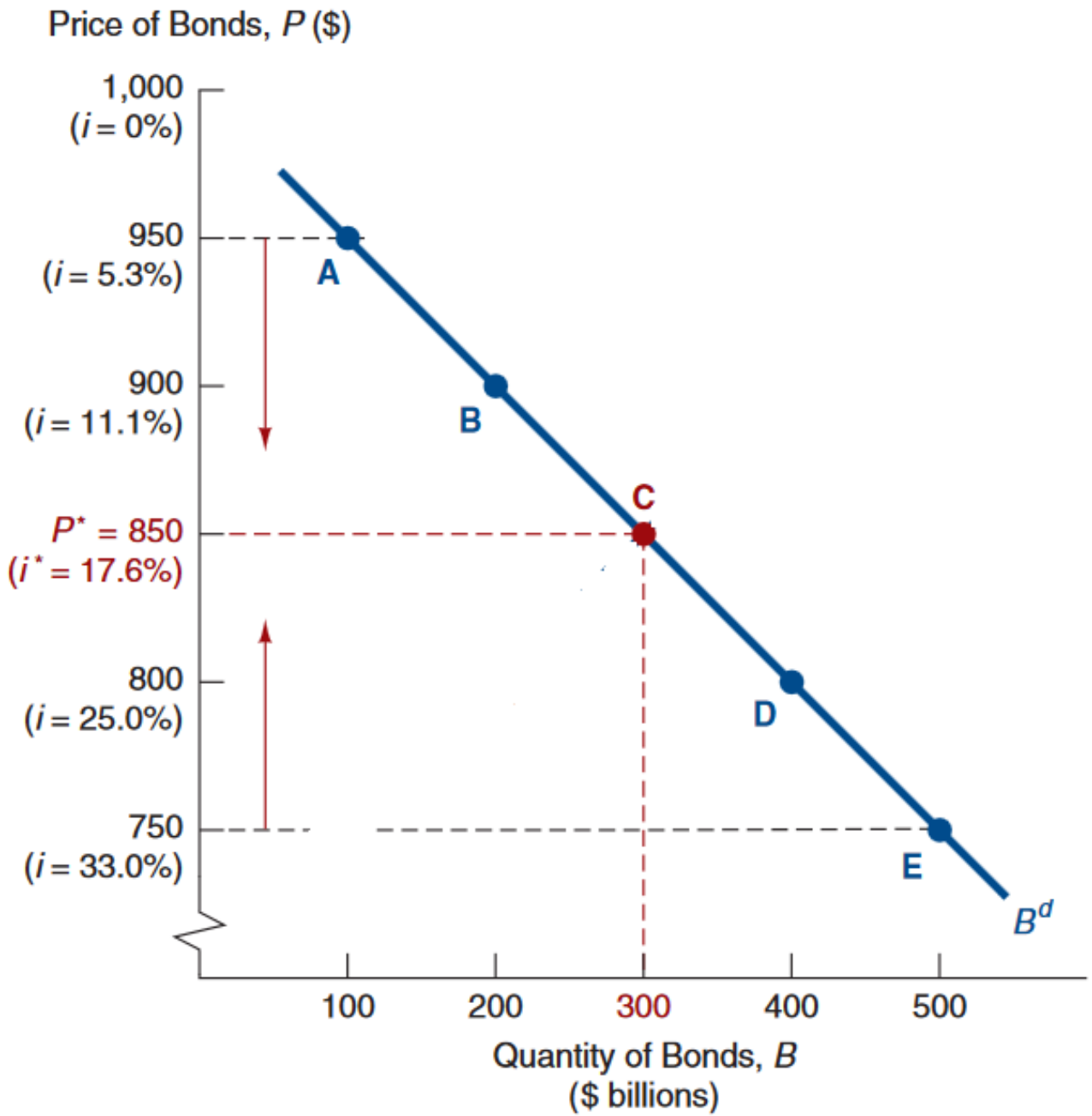
- Interest rates are negatively related to the price of bonds
- Explaining why bond prices change can help explain why interest rates fluctuate
- Decision to buy and hold an asset depends upon:
  1. Wealth (the total resources owned by the individual)
  2. Relative Expected return over the next period
  3. Relative Risk (the degree of uncertainty associated with the return)
  4. Relative Liquidity

Determinants of Asset Demand

- Holding all the other factors constant:
  1. The quantity demanded of an asset is usually positively related to wealth
  2. The quantity demanded of an asset is positively related to its expected return relative to alternative assets.
  3. The quantity demanded of an asset is negatively related to the risk of its returns relative to alternative assets.
  4. The quantity demanded of an asset is positively related to its liquidity relative to alternative assets.

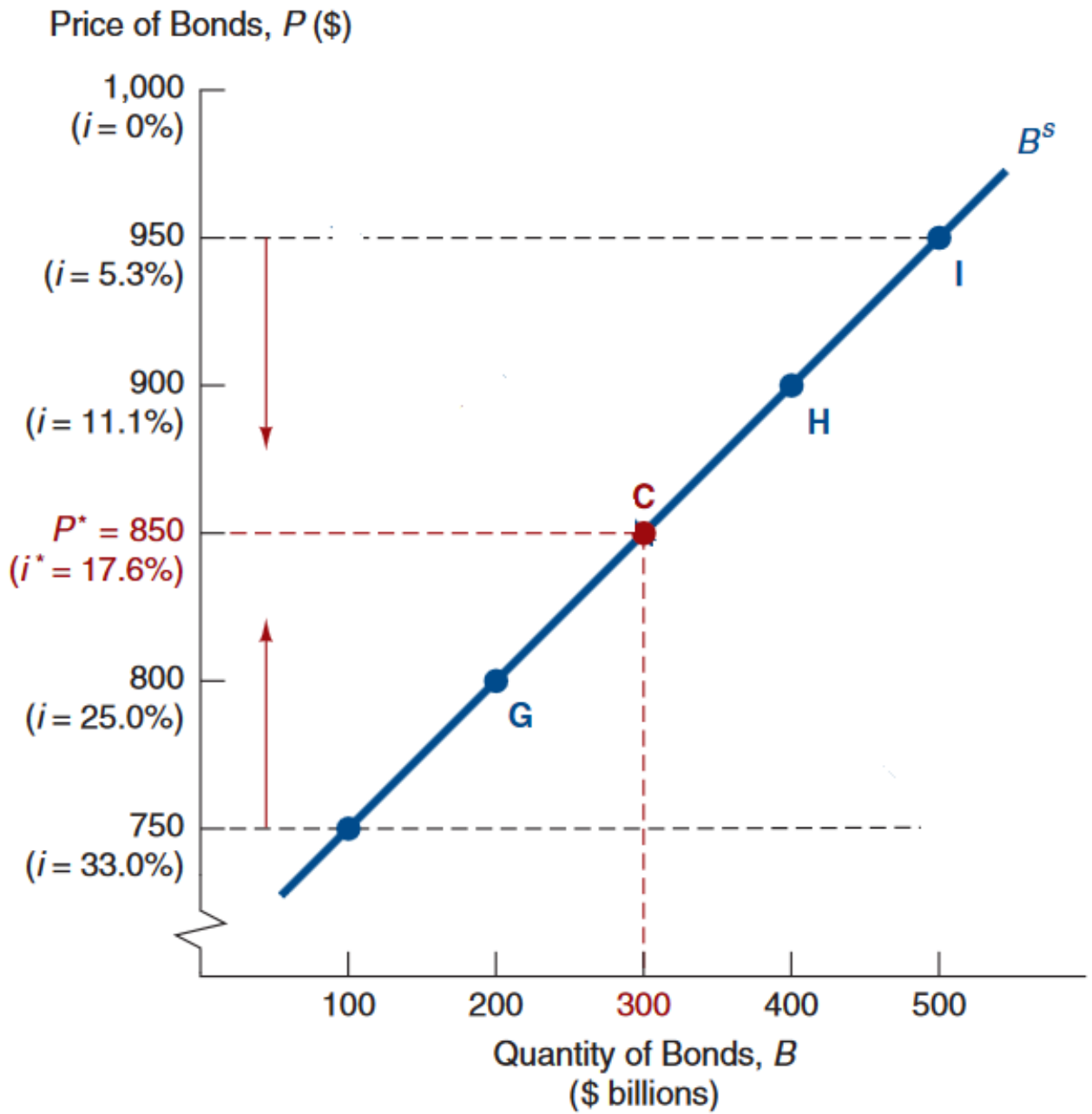
Supply and Demand in the Bond Market

- The first step is to use the analysis of the determinants of asset demand to obtain a **demand curve**
- The relationship between the quantity demanded and the price when all other economic variables are held constant
- Consider the demand for one-year discount bonds, which make no coupon payments but pay the owner the $1,000 face value in a year
- Expected return on this bond is equal to the interest rate '*i*' and is calculated like:
- $i = R^e = \frac{F-P}{P}$
- Demand curve has downward slope meaning that at lower prices of the bond (everything else being equal), the quantity demanded is higher.


Price of Bonds, P ($)
1,000
(i = 0%)
950
(i = 5.3%)
900
(i = 11.1%)
P* = 850
(i* = 17.6%)
800
(i = 25.0%)
750
(i = 33.0%)
A
B
C
D
E
Bd
100
200
300
400
500
Quantity of Bonds, B
($ billions)

Supply Curve

- It shows the relationship between the quantity supplied and the price when all other economic variables are held constant
- Lower interest rates mean less cost of borrowing, firms will be willing to borrow more through bond issues, and the quantity of bonds supplied moves up
- The upward slope, indicates that as the price increases (everything else being equal), the quantity supplied increases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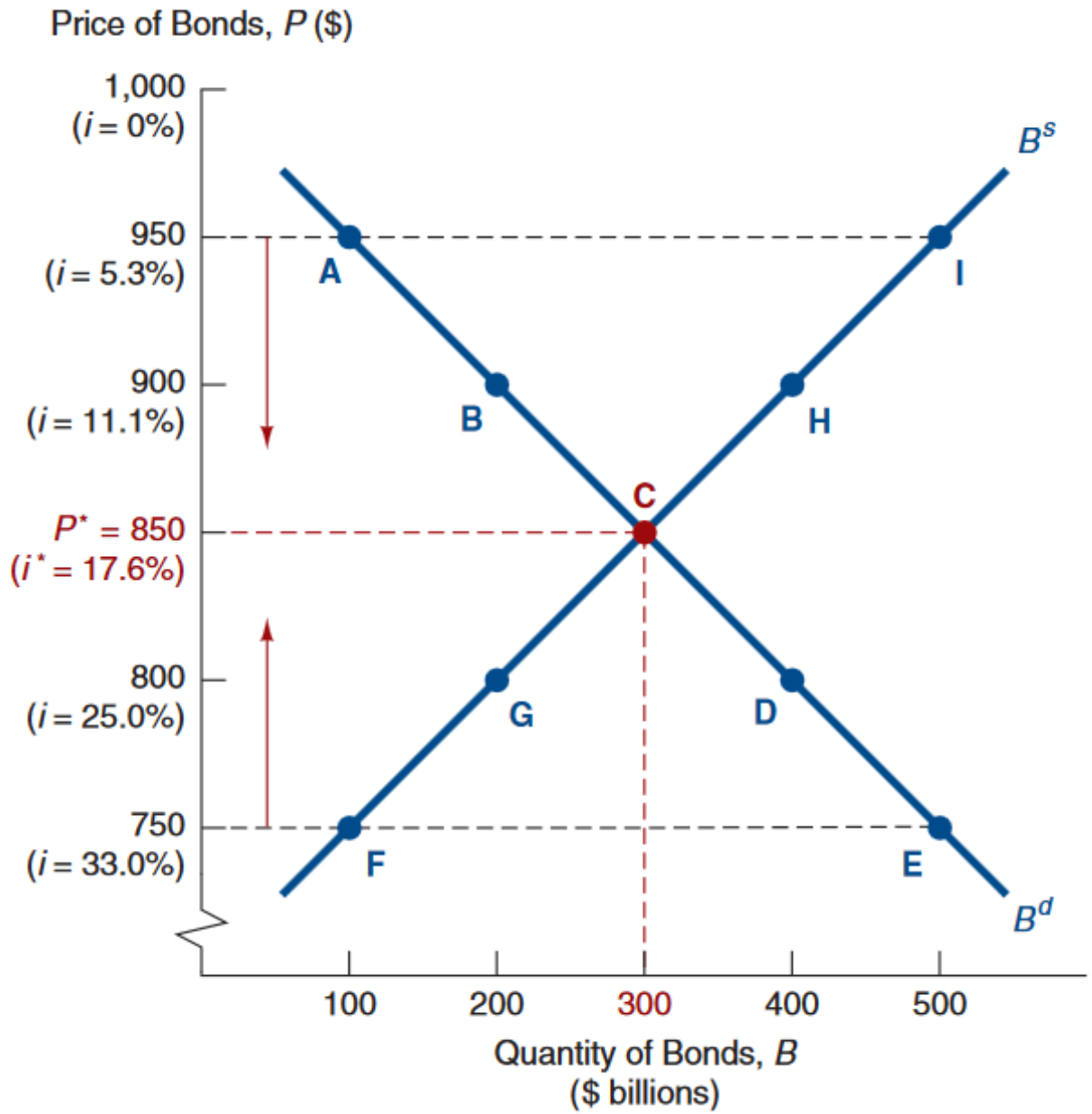
(i = 33.0%)
Bs
I
H
C
G
100
200
300
400
500
Quantity of Bonds, B
($ billions)

Market Equilibrium

- Market equilibrium occurs when the amount that people are willing to buy (demand) equals the amount that people are willing to sell (supply) at a given price
- In the bond market, this is achieved when the quantity of bonds demanded equals the quantity of bonds supplied:

$$B^d = B^s$$

- Demand and supply curves intersect at ‘C’ where bond price of $850 (interest rate of 17.6%) and a quantity of bonds of $300 billion
- The price of P* = $850, where demand = supply is called the equilibrium or market-clearing price
- Similarly, the interest rate of i* = 17.6% that corresponds to this price is called the equilibrium or market-clearing interest rate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A
B
C
D
E
F
G
H
I
Bs
Bd
100
200
300
400
500
Quantity of Bonds, B
($ billions)

Market Equilibrium

- A situation in which the supply exceeds demand, is called a condition of **excess supply**
- People want to sell more bonds than others want to buy, thus price of the bonds will fall
- This is why the downward arrow is drawn in the figure at the bond price of $950
- If bond price is at, say, $750, the demand at point E is greater than the supply at point F
- This is called a condition of **excess demand**
- It means demand > supply, so the price of bonds will be driven up shown by upward arrow drawn at the bond price of $750

The Efficient Market Hypothesis

- Expectations of returns, risk, and liquidity are central elements in the demand for assets;
- Expectations of inflation have a major impact on bond prices and interest rates;
- Expectations about the likelihood of default are the most important factor that determines the risk structure of interest rates; and
- Expectations of future short-term interest rates play a central role in determining the term structure of interest rates
- To understand how expectations are formed we look at the efficient market hypothesis

The Efficient Market Hypothesis

- To understand how expectations affect securities prices, we need to look at how information in the market affects these prices.
- To do this we examine the EMH (AKA theory of efficient capital markets), which states that prices of securities in financial markets fully reflect all available information.
- A security's price fully reflects all available information in an efficient market.

$$R = \frac{P_{t+1} - P_1 + C}{P_t}$$

Example

- Suppose that a share of Microsoft had a closing price yesterday of $90. New information was announced after the market closed that caused a revision in the forecast of the price for next year to go to $120.
- If the annual equilibrium return on Microsoft is 15%, what does the efficient market hypothesis indicate the price will go to today when the market opens?
- (Assume that Microsoft pays no dividends)

Rationale Behind the Hypothesis

- We use the concept of arbitrage
- Market participants (arbitrageurs) eliminate unexploited profit opportunities, i.e. those returns on a security that are larger than what is justified by the characteristics of that security
- There are two types of arbitrage:
- **Pure arbitrage**, in which the elimination of unexploited profit opportunities involves **no risk**
- **Risk arbitrage** in which the arbitrageur takes on **some risk** when eliminating the unexploited profit opportunities

How arbitrage leads to EMH

- Suppose that, the normal return on Exxon-Mobil common stock, is 10% at an annual rate, and its current price P_t is lower than the optimal forecast of tomorrow's price P^e_{t+1}
- Thus, optimal forecast of the return ($P^e_{t+1} - P_t$) at an annual rate is 50%, which is greater than the equilibrium return of 10%
- Knowing that, on average, you can earn such an abnormally high rate of return on Exxon-Mobil because $R^{of} > R^*$, you would buy more, which would in turn drive up its current price relative to the expected future price P^e_{t+1} thereby lowering R^{of}

How arbitrage leads to EMH

- When current price rises sufficiently so that R^{of} equals R* the buying of Exxon-Mobil will stop, and the unexploited profit opportunity will disappear.
- Similarly, a security for which the optimal forecast of the return is –5% while the equilibrium return is 10% ($R^{of} < R^*$) would be a poor investment
- On average, it earns less than the equilibrium return.
- In such a case, you would sell the security and drive down its current price relative to the expected future price until R^{of} rose to the level of R* and the efficient market condition is again satisfied

How arbitrage leads to EMH

- Another way to state the efficient market condition is this:
  - In an efficient market, all unexploited profit opportunities will be eliminated.
- An important note:
  - Not everyone in a financial market must be well informed about a security for its price to be driven to the point at which the efficient market condition holds
- As long as a few “smart money investors” keep their eyes open for unexploited profit opportunities, they will eliminate them as they appear

Stronger Version of the EMH

- Efficient market is one in which expectations are optimal forecasts using all available information,
- Another condition is added that an efficient market is one in which prices reflect the true fundamental (intrinsic) value of the securities.
- Thus, in an efficient market, all prices are always correct
- These prices reflect market fundamentals (items that have a direct impact on future income streams of the securities)

Stronger Version of the EMH

- It implies that:
- In an efficient capital market, one investment is as good as any other because the securities' prices are correct.
- Second, it implies that a security's price reflects all available information about the intrinsic value of the security.
- Third, it implies that security prices can be used by managers to assess their cost of capital accurately
  - Hence security prices can be used to help them make the correct decisions about whether a specific investment is worth making or not

The Money Markets

- Money market securities are short-term, low-risk, and very liquid.
- Because of the high degree of safety and liquidity these securities exhibit, they are close to being money, hence their name.
- The money markets have been active since the early 1800s but have become much more important since 1970, when interest rates rose above historic levels.
- Rise in short-term rates, coupled with a regulated ceiling on the bank rates resulted in a rapid outflow of funds from financial institutions in the late 1970s and early 1980s.
- This outflow caused many banks.
- The industry regained its health only after massive changes were made to bank regulations with regard to money market interest rates

The Money Markets

- Money—currency—is not traded in the money markets
- Money market securities have three basic characteristics in common:
  - They are usually sold in large denominations.
  - They have low default risk.
  - They mature in one year or less from their original issue date. Mostly less than 120 days
- Money market securities usually have an active secondary market
- Microsoft's annual report states, "We consider all highly liquid interest-earning investments with a maturity of 3 months or less at date of purchase to be cash equivalents."

The Money Markets

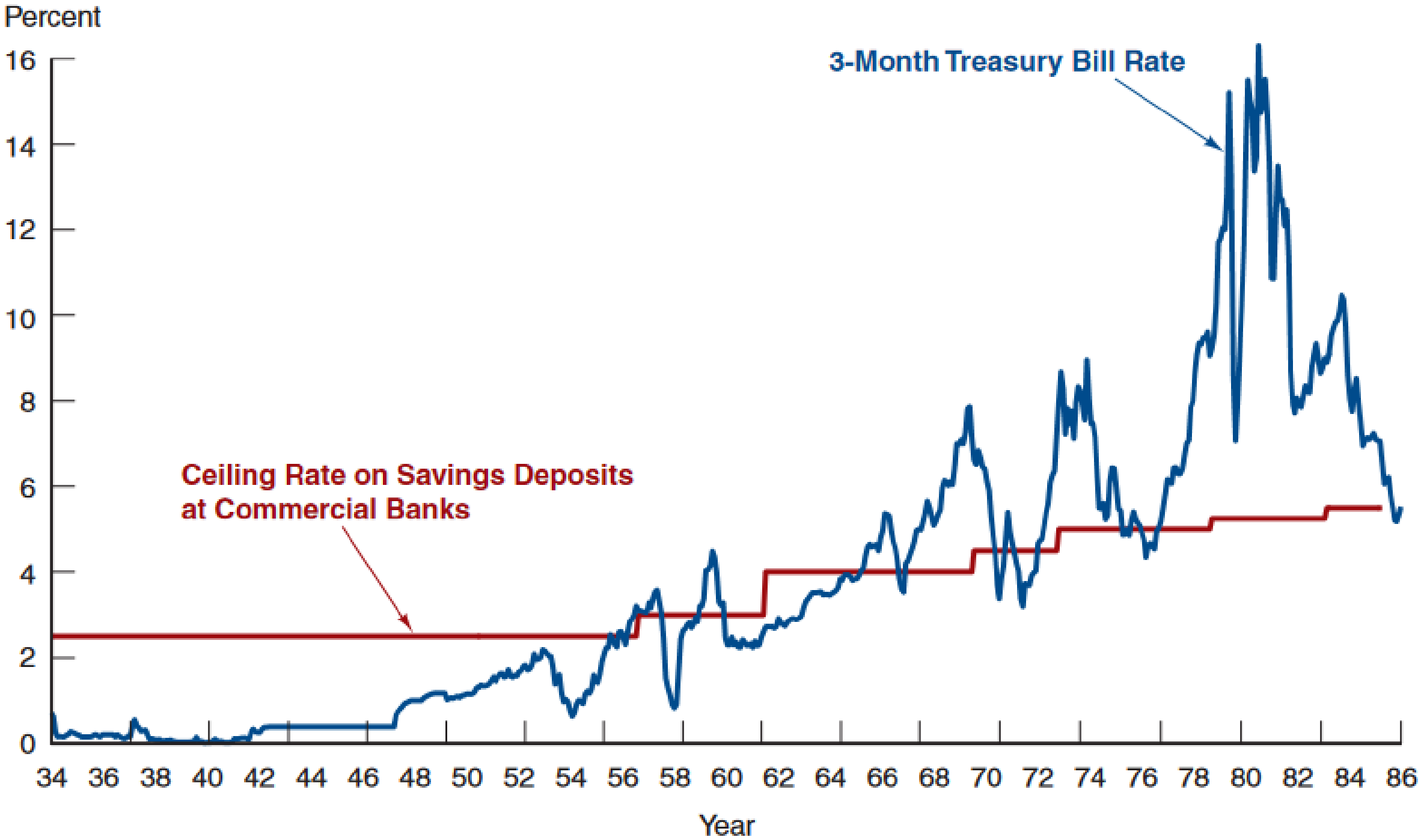
- Money markets are wholesale markets
- Transactions are very large, usually in excess of $1 million.
- Instead of individual investors, dealers and brokers bring customers together
- These traders will buy or sell $50 or $100 million in mere seconds—certainly not a job for the faint of heart!

The Need of Money Markets

- The banking industry exists primarily to provide short-term loans and to accept short-term deposits
- Banks mediate the asymmetric information problem between saver-lenders and borrower-spenders and earn profits meanwhile
- However, the banking industry is subject to more regulations and governmental costs than are the money markets
- The money markets have a distinct cost advantage over banks in providing short-term funds

The Need of Money Markets

- The limits on interest rates were not particularly relevant until the late 1950s.
- These limits became especially troublesome to banks in the late 1970s and early 1980s when inflation pushed short-term interest rates above the level that banks could legally pay.
- Investors pulled their money out of banks and put it into money market security accounts
- Commercial bank interest rate ceilings were removed in March of 1986, but by then the retail money markets were well established


Percent
16
14
12
10
8
6
4
2
0
3-Month Treasury Bill Rate
Ceiling Rate on Savings Deposits
at Commercial Banks
34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86
Year

Purpose of the Money Markets

- Money market is an ideal place for a firm or financial institution to “warehouse” surplus funds until they are needed.
- It also provides a low-cost source of funds to firms, the government, and intermediaries that need a short-term infusion of funds.
- Most investors use the money market as an interim investment that provides a higher return than holding cash or money in banks
- Idle cash represents an opportunity cost in terms of lost interest income. The money markets provide a means to invest idle funds and to reduce this opportunity cost.

Purpose of the Money Markets

- Investment advisers often hold some funds in the money market so that they will be able to act quickly to take advantage of investment opportunities they identify.
- Most investment funds and financial intermediaries also hold money market securities to meet investment or deposit outflows.
- The sellers of money market securities find that the money market provides a low cost source of temporary funds

Participants of the Money Markets

Participant	Role
U.S. Treasury Department	Sells U.S. Treasury securities to fund the national debt
Federal Reserve System	Buys and sells U.S. Treasury securities as its primary method of controlling the money supply
Commercial banks	Buy U.S. Treasury securities; sell certificates of deposit and make short-term loans; offer individual investors accounts that invest in money market securities
Businesses	Buy and sell various short-term securities as a regular part of their cash management

Participants of the Money Markets

Investment companies (brokerage firms)	Trade on behalf of commercial accounts
Finance companies (commercial leasing companies)	Lend funds to individuals
Insurance companies (property and casualty insurance companies)	Maintain liquidity needed to meet unexpected demands
Pension funds	Maintain funds in money market instruments in readiness for investment in stocks and bonds
Individuals	Buy money market mutual funds
Money market mutual funds	Allow small investors to participate in the money market by aggregating their funds to invest in large-denomination money market securities

Money Market Instruments

- Treasury Bills
- Federal Funds
- Repurchase Agreements
- Negotiable Certificates of Deposit
- Commercial Paper
- Banker’s Acceptances
- Eurodollars

Treasury Bills

- Used to finance the national debt
- Sold with 28, 91, and 182-day maturities
- Treasury bills can be purchased over the Internet (after Sep 1998)
- Issued at a discount from par
- $i_{discount} = \frac{F-P}{F} \times \frac{360}{n}$ (where n=no of days till maturity)
- $i_{investment} = \frac{F-P}{P} \times \frac{365}{n}$
- Investment rate % is a more accurate representation of investor earning

Federal Funds

- Short-term funds transferred between financial institutions, usually for a period of one day
- Fed funds really have nothing to do with the Federal Govt.
- These funds are held at the Federal Reserve bank
- Began in the 1920s
- Banks must keep a certain % of their deposits with Fed Reserve
- They analyze their reserve position on a daily basis and either borrow or invest in fed funds

Repurchase Agreements (repos)

- Same as fed funds except that nonbanks can participate
- A firm can sell Treasury securities to buy them back at a specified future date
- Maturity is commonly from 3 to 14 days
- Govt. security dealers may sell securities to a bank with the promise to buy the securities back the next day to manage their liquidity and take advantage of anticipated changes in interest rates

Negotiable Certificates of Deposit

- A bank-issued security that states a deposit and specifies the interest rate and the maturity date
- CD is a **term security** as opposed to a **demand deposit**
- Negotiable CD is also called a bearer instrument and can be bought and sold until maturity
- NCD denominations range from $100,000 to $10 million and a maturity of one to four months
- Citibank issued the first large certificates of deposit in 1961

Commercial Paper

- Unsecured promissory notes, issued by corporations, that mature in no more than 270 days (to avoid the need to register issue with SEC)
- Only the largest and **most creditworthy** corporations issue them
- The interest rate the corporation is charged reflects firm's level of risk
- Most commercial paper actually matures in 20 to 45 days
- Like T-bills, most commercial paper is issued on a discounted basis
- Nonbank corporations use commercial paper extensively to finance the loans that they extend to their customers

Banker’s Acceptances

- An order to pay a specified amount of money to the bearer on a given date and have been in use since the 12th century
- Used to finance goods that have not yet been transferred from the seller to the buyer
- A bank issues a banker’s acceptance to substitute its creditworthiness for that of the purchaser
- They can be bought and sold until they mature (they are bearer)

Eurodollars

- Many contracts around the world call for payment in U.S. dollars due to the dollar's stability, thus many companies and governments choose to hold dollars
- Eurodollar deposits are time deposits
- Historically, Large London banks offered to hold dollar-denominated deposits in British banks. These deposits were dubbed Eurodollars
- The market grew rapidly because depositors receive a higher rate of return on a dollar deposit in the Eurodollar market than in the domestic market

TABLE 11.4 Money Market Securities and Their Markets

Money Market Security	Issuer	Buyer	Usual Maturity	Secondary Market
Treasury bills	U.S. government	Consumers and companies	4, 13, and 26 weeks	Excellent
Federal funds	Banks	Banks	1 to 7 days	None
Repurchase agreements	Businesses and banks	Businesses and banks	1 to 15 days	Good
Negotiable certificates of deposit	Large money center banks	Businesses	14 to 120 days	Good
Commercial paper	Finance companies and businesses	Businesses	1 to 270 days	Poor
Banker's acceptance	Banks	Businesses	30 to 180 days	Good
Eurodollar deposits	Non-U.S. banks	Businesses, governments, and banks	1 day to 1 year	Poor

Comparing Money Market Securities

- Interest rates of all of the money market instruments appear to move very closely together over time
- Reason: ***all have very low risk and a short term***
- They all have deep markets and so are priced competitively
- Due to same risk and term characteristics, they are close substitutes
- If one interest rate should temporarily depart from the others, market supply-and-demand forces would soon cause a correction

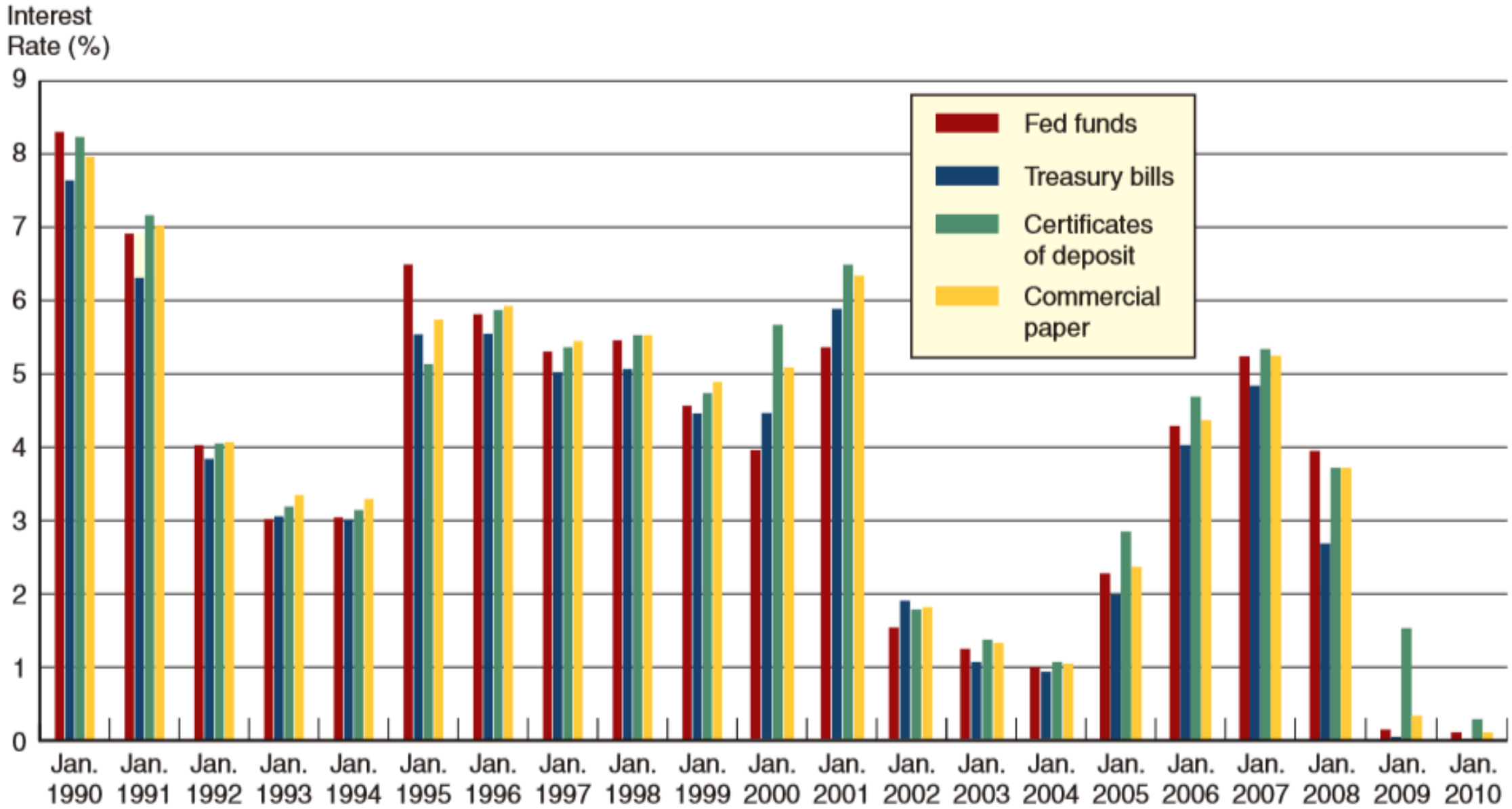


FIGURE 11.7 Interest Rates on Money Market Securities, 1990–2010

Source: http://www.federalreserve.gov/releases.

How Money Market Securities Are Valued

- The process of computing a present value:
- $PV = \frac{FV}{(1+i)^n}$
- Suppose:
  - You have to submit the bid for Treasury bills this week
  - You decide you need a 2% return
  - Securities have a one-year maturity
  - Treasury bill will pay $1,000 when it matures
- To compute how much we will pay today we find the present value of $1,000

The Bond Market

- Investors use the money markets primarily to warehouse funds for short periods of time
- On the other side, capital markets are used for long-term investments
- The primary reason that individuals and firms choose to borrow long-term is to reduce the risk that interest rates will rise before they pay off their debt
- Most long-term interest rates are higher than short-term rates due to risk premiums

Capital Market Participants

- The federal government issues long-term notes and bonds to fund the national debt
- State and municipal governments also issue long-term notes and bonds to finance capital projects, such as school and prison construction
- Governments never issue stock because they cannot sell ownership claim
- Corporations issue both bonds and stock
- The distribution of a firm’s capital between debt and equity is its capital structure

Capital Market Trading

- Capital market trading occurs in either the primary market or the secondary market
- The capital markets have well-developed secondary markets
- Unlike most money market transactions, capital market transactions, measured by volume, occur in organized exchanges
- Exchange rules govern trading to ensure the efficient and legal operation of the exchange

Types of Bonds

- Long-term government notes and bonds
  - Treasury Notes and Bonds
    - Agency Bonds
- Municipal bonds
  - General obligation bonds
  - Revenue bonds
- Corporate bonds
  - Bearer bonds
  - Registered bonds
  - Secured Bonds
  - Unsecured Bonds
  - Junk Bonds

Treasury Notes and Bonds

- Treasury notes have an original maturity of 1 to 10 years
- Treasury bonds have an original maturity of 10 to 30 years
- *Whereas Treasury bills mature in less than one year*
- Federal government notes and bonds are free of default risk because the government can always print money to pay off the debt if necessary
- Treasury bonds have **very low interest rates** because they have no default risk. Investors in Treasury bonds have found themselves earning less.

Treasury Notes and Bonds

- **Treasury Inflation-Protected Securities (TIPS)**
- The inflation-indexed bonds have fixed interest rate
- However, the principal amount used to compute the interest payment changes based on the consumer price index.
- At maturity, the securities are redeemed at the greater of their inflation-adjusted principal or par amount at original issue.
- Also referred to as inflation-protected securities

Treasury Notes and Bonds

- **Treasury STRIPS**
  - ***Separate Trading of Registered Interest and Principal Securities***
- The periodic interest payments are separated from the final principal repayment
- Each interest payment and the principal payment *becomes a separate zero-coupon* security and can be held or traded separately
- E.g Treasury note with 5 years remaining to maturity & 10 interest payments (semi-annual)
- When this note is ***stripped***, single Treasury note becomes 11 separate securities that can be traded individually

Treasury Notes and Bonds

- Agency Bonds
- Agencies are government-sponsored enterprises (GSEs).
- Issuers of agency bonds include:
  - Student Loan Marketing Association (Sallie Mae)
  - Federal National Mortgage Association (Fannie Mae)
  - Federal Home Loan Mortgage Corporation (Freddie Mac)
  - Farmers Home Administration
  - Federal Housing Administration
  - Veterans Administrations
  - Federal Land Banks
- These agencies issue bonds to raise funds that are used for purposes that Congress has deemed to be in the national interest

Municipal Bonds

- Securities issued by local, county, and state governments
- Municipal bonds that are issued to pay for essential public projects are exempt from federal taxation
- General obligation bonds
  - Backed by the “full faith and credit” of the issuer.
  - Issuer promises to use every resource available to repay the bond as promised
- Revenue bonds
  - Backed by the cash flow of a particular revenue-generating project.
  - For example, revenue bonds may be issued to build a toll bridge, with the tolls being pledged as repayment

Municipal Bonds

- Municipal bonds are not default-free
- Default rates are higher during periods when the economy is weak
- Unlike the federal government, local governments cannot print money
- There are real limits on how high they can raise taxes without driving the population away

Corporate Bonds

- Most corporate bonds have a face value of $1,000 and pay interest semiannually (twice per year).
- Most are also callable, meaning that the issuer may redeem the bonds after a specified date
- The **bond indenture** is a contract that states the lender's rights and privileges and the borrower's obligations
- The degree of risk varies widely among different bond issues because of the financial health of the issuer
- The interest rate on corporate bonds varies with the level of risk

Corporate Bonds

- **Secured bonds** are ones with collateral attached. Mortgage bonds are used to finance a specific project. For example, a building may be the collateral for bonds issued for its construction
- As a result, they will have a lower interest rate
- *Equipment trust certificates* are bonds secured by tangible non-real-estate property, such as heavy equipment or airplanes.
- Presence of collateral reduces the risk of the bonds and so lowers their interest rates.

Corporate Bonds

- **Unsecured Bonds**
- Debentures are long-term unsecured bonds that are backed only by the general creditworthiness of the issuer.
- No specific collateral is pledged to repay the debt. In the event of default, the bondholders must go to court to seize assets
- Debentures have lower priority than secured bonds if the firm defaults.
- As a result, they will have a higher interest rate than secured bonds

Corporate Bonds

- **Subordinated debentures**
- Similar to debentures except that they have a lower priority claim
- If default occurs, subordinated debenture holders are paid only after non subordinated bondholders have been paid in full
- **Variable-rate bonds**
- The interest rate on these securities is tied to another market interest rate, such as the rate on Treasury bonds, and is adjusted periodically

Corporate Bonds

- **Junk Bonds**
- All bonds are rated by various companies according to their default risk
- A bond with a rating of **AAA** has the highest grade possible
- Bonds at or above Moody's **Baa** or Standard and Poor's **BBB** rating are considered to be of investment grade.
- Those rated below this level are usually considered speculative
- Speculative-grade bonds are often called junk bonds
- ***Study case of Michael Milken***

TABLE 12.2 Debt Ratings

Standard and Poor's	Moody's	Average Default Rate (%)*	Definition
AAA	Aaa	0.00	Best quality and highest rating. Capacity to pay interest and repay principal is extremely strong. Smallest degree of investment risk.
AA	Aa	0.02	High quality. Very strong capacity to pay interest and repay principal and differs from AAA/Aaa in a small degree.
A	A	0.10	Strong capacity to pay interest and repay principal. Possess many favorable investment attributes and are considered upper-medium-grade obligations. Somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions.
BBB	Baa	0.15	Medium-grade obligations. Neither highly protected nor poorly secured. Adequate capacity to pay interest and repay principal. May lack long-term reliability and protective elements to secure interest and principal payments.

BB	Ba	1.21	Moderate ability to pay interest and repay principal. Have speculative elements and future cannot be considered well assured. Adverse business, economic, and financial conditions could lead to inability to meet financial obligations.
B	B	6.53	Lack characteristics of desirable investment. Assurance of interest and principal payments over long period of time may be small. Adverse conditions likely to impair ability to meet financial obligations.
CCC	Caa	24.73	Poor standing. Identifiable vulnerability to default and dependent on favorable business, economic, and financial conditions to meet timely payment of interest and repayment of principal.
CC	Ca	24.73	Represent obligations that are speculative to a high degree. Issues often default and have other marked shortcomings.
C	C	24.73	Lowest-rated class of bonds. Have extremely poor prospects of attaining any real investment standard. May be used to cover a situation where bankruptcy petition has been filed, but debt service payments are continued.

Current Yield Calculation

- The yearly coupon payment divided by the price of the security
- $i_c = \frac{C}{P}$ (Formula for calculating PV of perpetuity)
- Where: i_c = current yield

  P= price of the coupon bond

  C= yearly coupon payment
- When a coupon bond has a long term to maturity (say, 20 years or more), it is very much like a perpetuity, which pays coupon payments forever

TABLE 12.3 Bond Terminology

Coupon interest rate	The stated annual interest rate on the bond. It is usually fixed for the life of the bond.
Current yield	The coupon interest payment divided by the current market price of the bond.
Face amount	The maturity value of the bond. The holder of the bond will receive the face amount from the issuer when the bond matures. *Face amount* is synonymous with *par value*.
Indenture	The contract that accompanies a bond and specifies the terms of the loan agreement. It includes management restrictions, called covenants.
Market rate	The interest rate currently in effect in the market for securities of like risk and maturity. The market rate is used to value bonds.
Maturity	The number of years or periods until the bond matures and the holder is paid the face amount.
Par value	The same as *face amount*.
Yield to maturity	The yield an investor will earn if the bond is purchased at the current market price and held until maturity.

The Foreign Exchange Market

- Transactions conducted in the **forex** market determine the rates at which currencies are exchanged, which in turn determine the cost of purchasing foreign goods and financial assets

What Are Foreign Exchange Rates?

- **Spot transactions** involve the immediate (two-day) exchange of bank deposits.
- **Forward transactions** involve the exchange of bank deposits at some specified future date.
- **Spot exchange rate** is the exchange rate for the spot transaction
- **Forward exchange rate** is the exchange rate for the forward transaction
- Exchange rates are important because they affect the relative price of domestic and foreign goods

Importance of Exchange Rates

- When a country's currency appreciates (rises in value relative to other currencies):
  - The country's goods abroad become more expensive, and
  - Foreign goods in that country become cheaper
- When a country's currency depreciates:
  - Its goods abroad become cheaper, and
  - Foreign goods in that country become more expensive
- Depreciation of a currency makes it easier for domestic manufacturers to sell their goods abroad and makes foreign goods less competitive in domestic markets

Trading of Foreign Exchange

- Currencies are not traded on exchanges
- Forex market is organized as an OTC market in which several hundred dealers (mostly banks) buy and sell deposits denominated in foreign currencies
- Trades in the foreign exchange market consist of transactions in excess of $1 million
- Retail prices are higher than wholesale prices

Exchange Rates in the Long Run

- Exchange rates are determined by the interaction of supply and demand
- **Law of One Price**
  - If two countries produce same good, and transportation costs and trade barriers are very low, the price of the good should be the same throughout the world
- Suppose American steel costs $100 and identical Japanese steel costs 10,000 yen per ton.
- The exchange rate between the yen and the dollar **must be 100 yen per dollar** ($0.01 per yen) so that one ton of American steel sells for 10,000 yen in Japan and one ton of Japanese steel sells for $100 in the United States

Law of One Price

- If the exchange rate were 200 yen to the dollar, Japanese steel would sell for $50 per ton in the United States and American steel would sell for 20,000 yen per ton in Japan
- The demand for American steel would go to zero
- Resulting excess supply of American steel will be eliminated only if the exchange rate falls to 100 yen per dollar, making the price of American steel and Japanese steel the same in both countries.

Theory of Purchasing Power Parity - PPP

- Exchange rates between any two currencies will adjust to reflect changes in the price levels of the two countries
- Theory of PPP suggests that if one country's price level rises relative to another's, its currency should depreciate
- **Real Exchange Rate** is the rate at which domestic goods can be exchanged for foreign goods
  - E.g. a PC Table in New York costs $50, while in Tokyo it costs $75 (as it costs 7,500 yen and exchange rate is at 100 yen/dollar)
- The **real exchange rate here is 0.66** ($50/$75) which is below 1.0, indicating that it is cheaper to buy the PC Table in the United States than in Japan

Theory of Purchasing Power Parity - PPP

- Theory of PPP predicts that the purchasing power of the dollar is the same as the purchasing power of other currencies such as the yen or the euro *(real exchange rate is always equal to 1.0)*
- The theory of PPP is applicable and proven in the long run
- However it is not perfect and in the short run is a particularly poor predictor, because of the assumption:
  - All goods are identical in both countries and that transportation costs and trade barriers are very low
- The law of one price states that the ***relative prices*** of all these goods will determine the exchange rate
- The law of one price does not hold for all goods (Toyota vs Chevrolet)

Factors Affecting Exchange Rates in **Long Run**

- Four major factors affect the exchange rate:
  1. Relative price levels
  2. Tariffs and quotas
  3. Preferences for domestic versus foreign goods, and
  4. Productivity
- If a factor increases the demand for domestic goods relative to foreign goods, the domestic currency will appreciate
- If a factor decreases the relative demand for domestic goods, the domestic currency will depreciate

Relative Price Levels

- In line with PPP theory, when prices of American goods rise (holding prices of foreign goods constant), the demand for American goods falls and the dollar tends to depreciate so that American goods can **still** sell well.
- By contrast, if prices of Japanese goods rise so that the relative prices of American goods fall, the demand for American goods increases, and the dollar tends to appreciate because American goods will continue to sell well even with a higher value of the domestic currency.
- In the long run, a rise in a country's price level (relative to the foreign price level) causes its currency to depreciate, and a fall in the country's relative price level causes its currency to appreciate.

Trade Barriers

- Barriers to free trade such as tariffs and quotas can affect the exchange rate.
- Suppose that the United States increases its tariff or puts a lower quota on Japanese steel.
- These increases in trade barriers increase the demand for American steel, and the dollar tends to appreciate because American steel will still sell well even with a higher value of the dollar.
- Increasing trade barriers causes a country’s currency to appreciate in the long run.

Preferences for Domestic Versus Foreign Goods

- If the Japanese develop an appetite for American goods, the increased demand tends to appreciate the dollar, because the American goods will continue to sell well even at a higher value for the dollar.
- Likewise, if Americans decide that they prefer Japanese cars to American cars, the increased demand for Japanese goods tends to depreciate the dollar.
- Increased demand for a country's exports causes its currency to appreciate in the long run; conversely, increased demand for imports causes the domestic currency to depreciate.

Productivity

- Higher productivity in domestic sectors that produce *traded goods* rather than *nontraded goods* results in a decline in the price of domestically produced traded goods relative to foreign traded goods
- As a result, the demand for traded domestic goods rises, and the domestic currency tends to appreciate.
- When productivity decreases, the traded goods become relatively more expensive, and the currency tends to depreciate.
- In the long run, as a country becomes more productive relative to other countries, its currency appreciates

TABLE 15.1 SUMMARY Summary Factors That Affect Exchange Rates in the Long Run

Factor	Change in Factor	Response of the Exchange Rate, *E*
Domestic price level†	↑	↓
Trade barriers†	↑	↑
Import demand	↑	↓
Export demand	↑	↑
Productivity†	↑	↑

†Relative to other countries.
*Units of foreign currency per dollar: ↑ indicates domestic currency appreciation; ↓, depreciation.

Note: Only increases (↑) in the factors are shown; the effects of decreases in the variables on the exchange rate are the opposite of those indicated in the "Response" column.

Exchange Rates in the Short Run

- An exchange rate is the price of domestic assets (bank deposits, bonds, equities, etc., denominated in the domestic currency) in terms of same foreign assets
- Exchange rate is the price of one asset in terms of another, therefore the short-run determination of exchange rates is done by :

  Asset Market Approach

- Which relies heavily on our analysis of the determinants of asset demand

Exchange Rates in the Short Run

- Asset market approach emphasizes **stocks of assets** rather than the flows of exports and imports
- As forex transactions in the United States each year are well over 25 times greater than U.S. exports and imports.
- Thus, over short periods, **decisions to hold** domestic or foreign assets play a much greater role in exchange rate determination than the demand for exports and imports

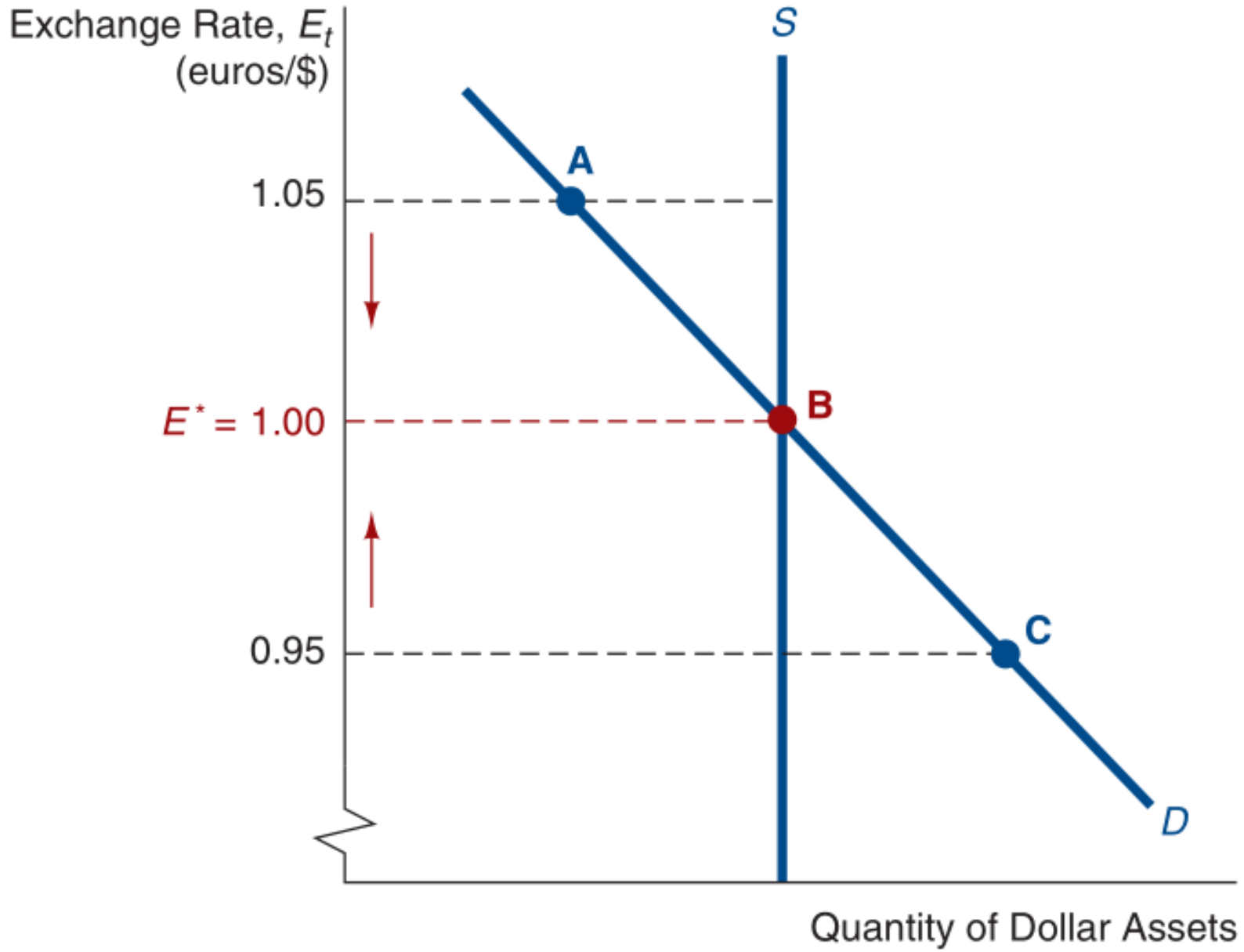


FIGURE 15.3 Equilibrium in the Foreign Exchange Market

Supply Curve for Domestic Assets

- For simplicity, we use euros to stand for any foreign country's currency, so foreign assets are denominated in euros.
- The quantity of dollar assets supplied is primarily the quantity of bank deposits, bonds, and equities in the United States, and for all practical purposes we can take this amount as fixed with respect to the exchange rate.
- The quantity supplied at any exchange rate does not change, so the supply curve, S, is vertical, as shown

Demand Curve for Domestic Assets

- The most important determinant of the quantity of domestic (dollar) assets demanded is the relative expected return of domestic assets
- Point A at E2 has a higher exchange rate (more dollars for less euros)
- Point B has a lower value of the exchange rate, say at E*, implies that the dollar is more likely to appreciate.
- The expected appreciation of dollar means higher relative expected return on dollar (domestic) assets.
- As dollar assets are now more desirable to hold, the quantity of dollar assets demanded will rise, as is shown by point B

Demand Curve for Domestic Assets

- If the current exchange rate is even lower at E 1 , there is an even higher expected appreciation of the dollar, a higher expected return, and therefore an even greater quantity of dollar assets demanded
- Thus at lower current values of the dollar (everything else equal), the quantity demanded of dollar assets is higher.

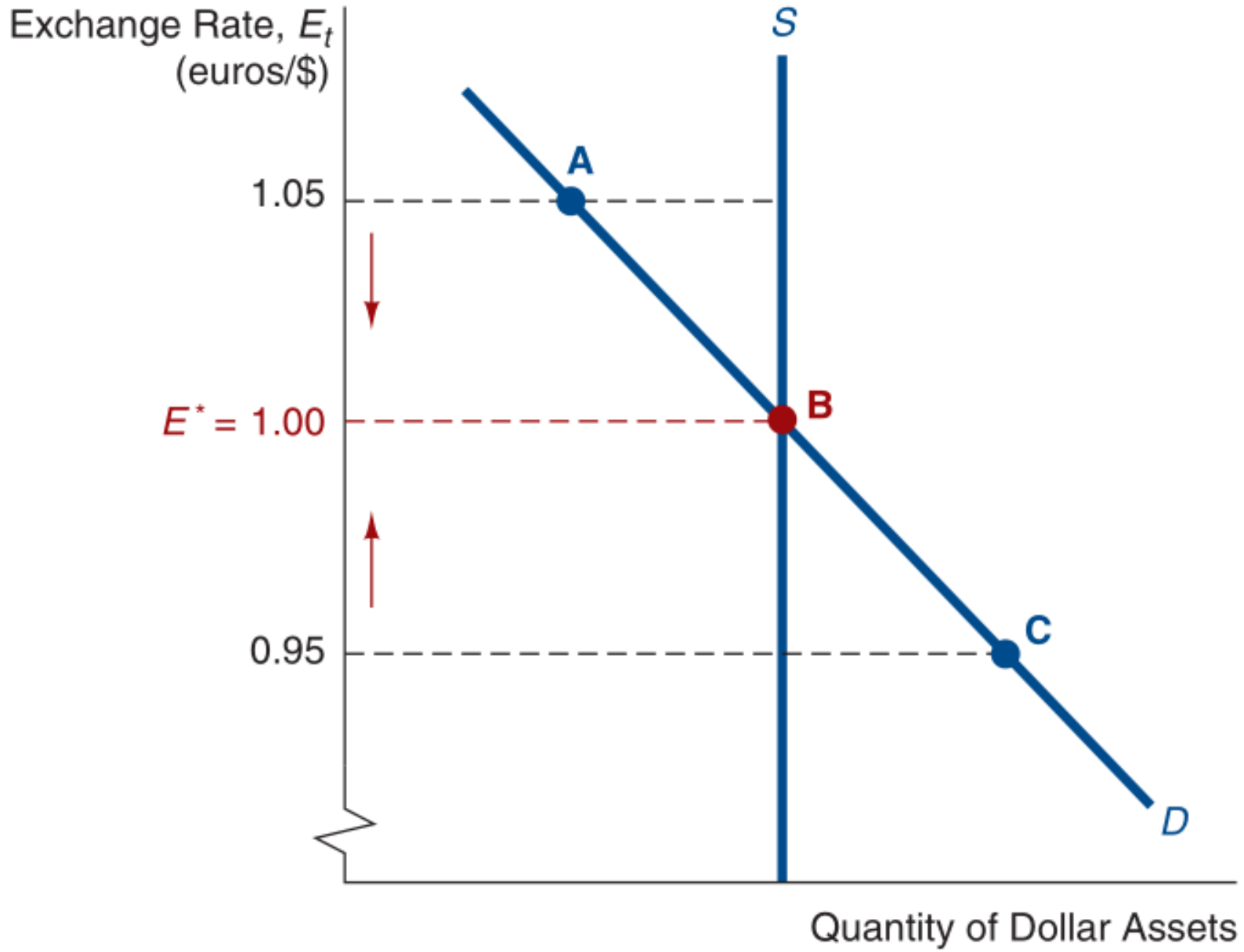


FIGURE 15.3 Equilibrium in the Foreign Exchange Market

Equilibrium in the Foreign Exchange Market

- The market is in equilibrium when the quantity of dollar assets demanded equals the quantity supplied
- At point A the quantity of dollar assets supplied is greater than the quantity demanded, showing **excess supply** and the value of the dollar will fall until it reaches the equilibrium exchange rate of E*
- Similarly at Point C the quantity of dollar assets demanded will exceed the quantity supplied, a condition of **excess demand**
- Dollar will appreciate until the excess demand disappears and the value of the dollar is again at the equilibrium exchange rate of E*

The Mutual Fund Industry

- Mutual funds pool the resources of many small investors
- Mutual funds sell shares of the pooled fund and buy securities
- The asset are transformed by issuing shares in small denominations and buying large blocks of securities
- Mutual funds can take advantage of volume discounts on brokerage commissions and can purchase diversified portfolios of securities
- This allows small investors to get benefits of lower transaction costs and take advantage of a reduction in risk by diversifying their portfolios

The First Mutual Funds

- Mutual funds originated in mid to late 1800s in England and Scotland
- Investment companies pooled the funds of investors with modest resources and used the money to invest in a number of different securities.
- Later these companies began investing in the economic growth of the United States, mostly by purchasing American railroad bonds
- The first fund in which new shares were issued was introduced in Boston in 1824.

Benefits of Mutual Funds

- Liquidity intermediation
- Denomination intermediation
- Diversification
- Cost advantages
- Managerial expertise

Liquidity intermediation

- Investors can convert their investments into cash quickly and at a low cost
- Mutual funds allow investors to buy and redeem at any time and in any amount.
- Some funds are designed to meet short-term transaction requirements and have no fees associated with redemption
- Others are designed for longer-term investment and may have redemption fees if they are held only a short time

Denomination intermediation

- Allows small investors access to securities they would be unable to purchase without the mutual fund.
- As most money market securities are only available in large denominations, often in excess of $100,000.
- By pooling money, the mutual fund can purchase these securities on behalf of investors.

Diversification

- Risk can be lowered by holding a portfolio of diversified securities rather than a limited number.
- Small investors buying stocks individually find it difficult to diversify risk
- Mutual funds provide a low-cost way to diversify into foreign stocks.
- Significant **cost advantages** may accrue to mutual fund investors since Institutional investors negotiate much lower transaction fees
- Another benefit of mutual fund is access to **managerial expertise**

Mutual Fund Structure

- Complexes are defined as a group of funds under substantially common management, composed of one or more families of funds
- Investments can usually be transferred among different funds within a family
- In a **closed-end fund**, a fixed number of nonredeemable shares are sold at an initial offering and are then traded in the over-the-counter market like common stock
- once shares have been sold, the fund cannot take in any more investment dollars
- The advantage of closed-end funds to managers is that investors cannot make withdrawals

Mutual Fund Structure

- The **open-end fund** continually increases the number of shares outstanding.
- The fund also agrees to buy back shares from investors at any time.
- Each day the fund's **net asset value** is computed based on the number of shares outstanding and the net assets of the fund
- As the fund agrees to redeem shares at any time, the investment is very liquid
- Also the open-end structure allows mutual funds to grow

Investment Objective Classes

- (1) Stock funds (also called equity funds)
- (2) Bond funds
- (3) Hybrid funds, and
- (4) Money market funds

Equity Funds

- Equity funds share a common theme in that they all invest in stock
- Three classes of Equity Funds are:
  - Capital appreciation funds
  - World funds, and
  - Total return funds

Bond Funds

- Strategic income bonds are the most popular and invest in a combination of U.S. corporate bonds to provide a high level of current income
- Investors are trading safety for greater returns
- Corporate bond funds invest primarily in high-grade corporate bonds
- Government bonds are essentially default risk-free, but have relatively low returns
- The state and national municipal (muni) bonds are tax-free
- Bonds are not as risky as stocks

Hybrid Funds

- Hybrid funds combine stocks and bonds into one fund
- It diversifies across different types of securities as well as across different issuers of a particular type of security
- Despite this apparent convenience, most investors still prefer to choose separate funds

Money Market Funds (MMMFs)

- All MMMFs are open-end investment funds that invest only in money market securities
- The funds usually have a minimum initial investment of $500 to $2,000.
- The funds' yields depend entirely on the performance of the securities purchased
- MMMFs have check-writing privileges
- Thus they are very popular with small investors

Index Funds

- Traditional funds employ investment managers who select stocks and bonds for the fund's portfolio
- An index fund contains the stocks in an index.
- For example, Vanguard S&P 500 index fund contains the 500 stocks in that index.
- The stocks are held in a proportion such that changes to the fund value closely match changes to the index level
- Index funds do not require managers to choose securities. As a result, these funds tend to have far lower fees than other actively managed funds

Risk Management in Financial Institutions

- Banks, insurance companies, pension funds, and finance companies must make successful loans that are paid back in full
- Financial institution managers must overcome the following problems to minimize credit risk and make successful loans
- Adverse selection
  - Borrowers which are most likely to default on their loans are most likely to be selected. Borrowers with very risky investment projects have much to gain, however, they are the least desirable borrowers
- Moral Hazard
  - Borrowers may have incentives to engage in activities that are undesirable from the lender's point of view, thereby subjecting them to hazard of default

Managing Credit Risk

- The following principles for managing credit risk are followed:
  - Screening and monitoring,
    - Screening
    - Specialization in Lending
    - Monitoring and Enforcement of Restrictive Covenants
  - Establishment of long-term customer relationships,
  - Loan commitments,
  - Collateral,
  - Compensating balance requirements, and
  - Credit rationing

Commercial Banks

- Profit-based financial institution that:
  - Grants loans,
  - Accepts deposits, and
  - Offers other financial services, such as overdraft facilities and electronic transfer of funds
- The funds of commercial banks belong to the general public and are withdrawn at a short notice; therefore, commercial banks prefer to provide credit for a short period of time backed by tangible and easily marketable securities

Types of Commercial Banks

- Public Sector
  - Banks that are nationalized by the government of a country. In public sector banks, the major stake is held by the government
- Private Sector
  - Banks in which major part of share capital is held by private businesses and individuals. These banks are registered as companies with limited liability
- Foreign Banks
  - Banks that are headquartered in a foreign country, but operate branches in different countries

Functions of Commercial Banks

- Accepting deposits
  - The deposits may be of three types: Saving deposits, Current deposits and fixed deposits. In case of current account, people can withdraw deposits in part or in full at any time
- Providing loans
  - Loans can be granted in the form of cash credit, demand loans, short- term loan, overdraft, discounting of bills etc. Under cash credit system, borrower is sanctioned a credit limit up to which he can borrow from the bank
- Credit Creation
  - In the process of acceptance of deposits and granting of loans, commercial banks are able to create credit
- Transfer of funds
  - Transfer funds of a customer to other customer’s account through the cheques, draft, mail transfers, telegraphic transfers etc.

Functions of Commercial Banks

- Agency functions
  - Collection of cheques, bills and drafts,
  - Collection of interest, dividend etc.
  - Payment of interest, installments of loans, insurance premium etc.
  - Purchase and sale of securities
- Other functions:
  - Payment of credit letters and travellers cheques, gift cheques, bank draft etc.
  - Dealing in foreign exchange.
  - Locker services.
  - Provision of tax assistance and investment advice etc.

State Bank of Pakistan

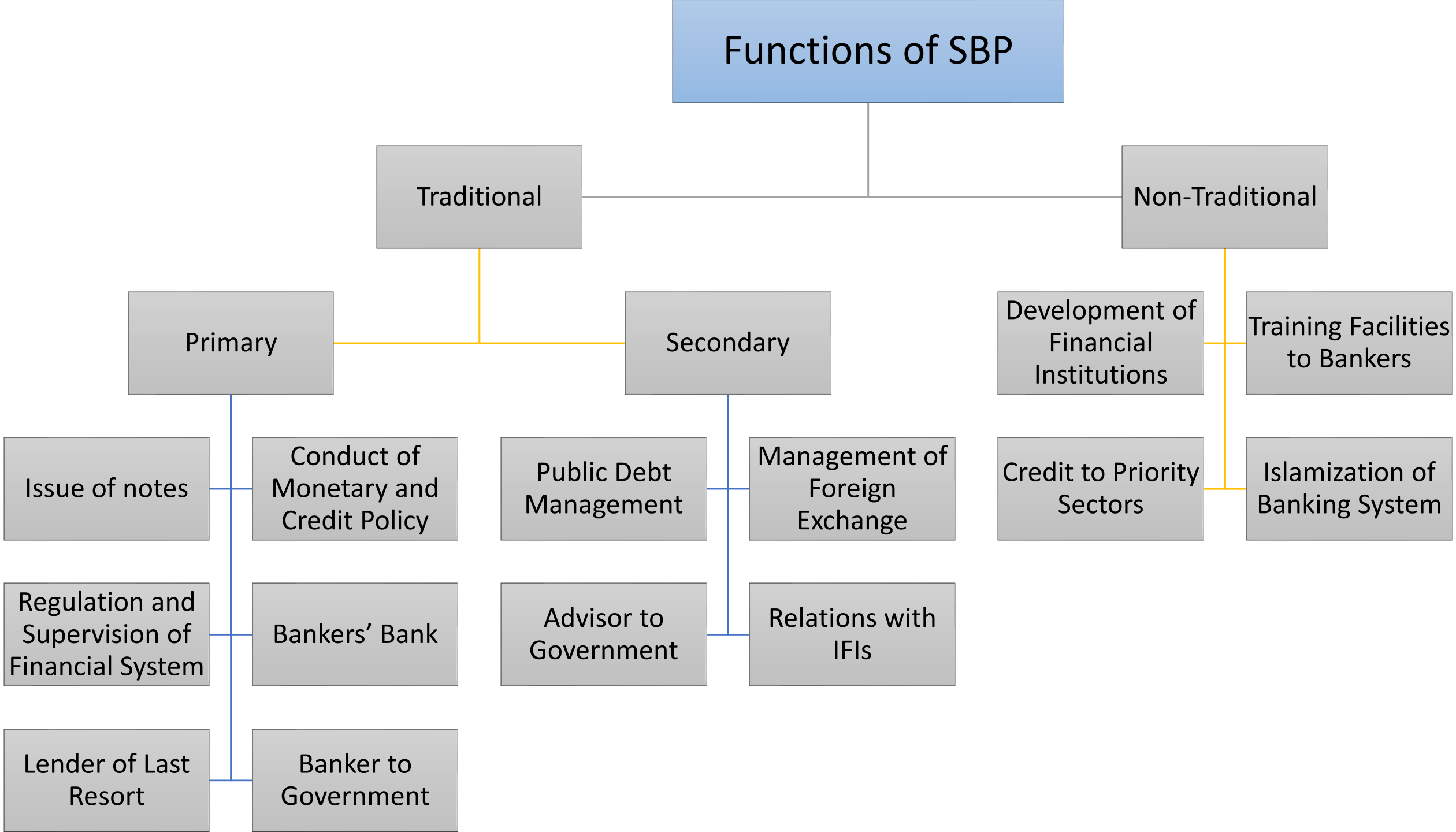
- The State Bank of Pakistan is the central bank of the country
- The banking system necessitates the presence of a central bank in the country. But SBP is unique in the sense that it started its function in a newly born country, where it also had to shoulder responsibilities of developing a banking system and the whole economy
- The founders of the Bank set a multi-dimensional target that included not only regulation of the monetary and credit system but also the growth of this system
- The vision of its founders was a stable monetary system in Pakistan with fuller utilization of the country's productive resources (SBP Act, 1956)

Functions of SBP

- In order to achieve the goals set before it, the State Bank of Pakistan performed all the traditional and non-traditional functions.
- The traditional functions, which are generally performed by central banks all over the world, are classified into two groups;
  - Primary functions
    - including issue of notes, regulation of the financial system, lender of the last resort, and conduct of monetary policy,
  - Secondary functions
    - management of public debt, management of foreign exchange, advising the Government on policy matters, anchoring payments system, and maintaining close relationships with international financial institutions

Functions of SBP

- Central bank operations can also be categorized into macroeconomic function and microeconomic function.
  - The macroeconomic function is to preserve the value of the currency, that is, maintain price stability and
  - The microeconomic function is to maintain stability in the banking system
- The non-traditional or promotional functions performed by the State Bank include:
  - Development of financial framework, provision of training facilities to bankers, and provision of credit to priority sectors.
- The State Bank has also been playing an active part in the process of Islamization of the banking system


Functions of SBP
Traditional
Non-Traditional
Primary
Secondary
Development of Financial Institutions
Training Facilities to Bankers
Issue of notes
Conduct of Monetary and Credit Policy
Public Debt Management
Management of Foreign Exchange
Credit to Priority Sectors
Islamization of Banking System
Regulation and Supervision of Financial System
Bankers' Bank
Advisor to Government
Relations with IFIs
Lender of Last Resort
Banker to Government

Specialized Financial Institution in Pakistan

- Pakistan Industrial Credit and Investment Corporation:
  - *Schon Bank > Gulf Commercial Bank > PICIC Commercial Bank > NIB Bank > MCB Bank*
- Small business Finance Corporation:
  - *As part of financial sector restructuring program of Government of Pakistan, Regional Development Finance Corporation (RDFC) and small Business Finance Corporation (SBFC) were amalgamated into SME Bank Ltd effective January 1, 2002*
- Industrial development Bank of Pakistan
  - http://www.idbl.com.pk/
- Investment Corporation of Pakistan
  - Repealed by Investment Corporation of Pakistan (Repeal) Act, 2018
- National investment trust:
  - https://nit.com.pk/

International Financial Institutions

- A financial institution that has been established (or chartered) by more than one country, and hence are subjects of international law
- Its owners or shareholders are generally national governments or other international institutions and other
- The most prominent IFIs are creations of multiple nations, although some bilateral financial institutions also exist
- The best known IFIs were established after World War II to assist in the reconstruction of Europe and provide mechanisms for international cooperation in managing the global financial system.

European Investment Bank

- Today, the world's largest IFI is the European Investment Bank.
- The European Investment Bank is the lending arm of the European Union. And is the biggest multilateral financial institution in the world and one of the largest providers of climate finance.
- EIB helps the economy, creates jobs, promotes equality and improve lives for EU citizens and for people in developing countries.
- The EIB Group has two parts:
  - The European Investment Bank and
  - The European Investment Fund (for financing small businesses)

Bretton Woods Institutions

- Bretton Woods agreement took place in a 1944 conference of all the World War II Allied nations. Under the agreement, countries promised that their central banks would maintain fixed exchange rates between their currencies and the dollar.
- The Bretton Woods Institutions are
  - The World Bank and
  - The International Monetary Fund (IMF)
- They were set up at a meeting of 43 countries in Bretton Woods, New Hampshire, USA in July 1944.
- Their aims were to help rebuild the shattered postwar economy and to promote international economic cooperation.

The World Bank

- The World Bank
- Founded in 1944, the International Bank for Reconstruction and Development—soon called the World Bank—has expanded to a group of five development institutions. Originally, its loans helped rebuild countries devastated by World War II. In time, the focus shifted from reconstruction to development
- The World Bank Group consists of five member institutions:
  - International Bank for Reconstruction and Development (IBRD)
  - International Development Association IDA)
  - International Finance Corporation (IFC)
  - Multilateral Investment Guarantee Agency (MIGA), and
  - International Centre for Settlement of Investment Disputes (ICSID)

International Monetary fund

- The IMF was conceived in July 1944 at the United Nations Bretton Woods Conference in New Hampshire, United States.
- The 44 countries in attendance sought to build a framework for international economic cooperation and avoid repeating the competitive currency devaluations that contributed to the Great Depression of the 1930s.
- The IMF's primary mission is to ensure the stability of the international monetary system—the system of exchange rates and international payments that enables countries and their citizens to transact with each other.