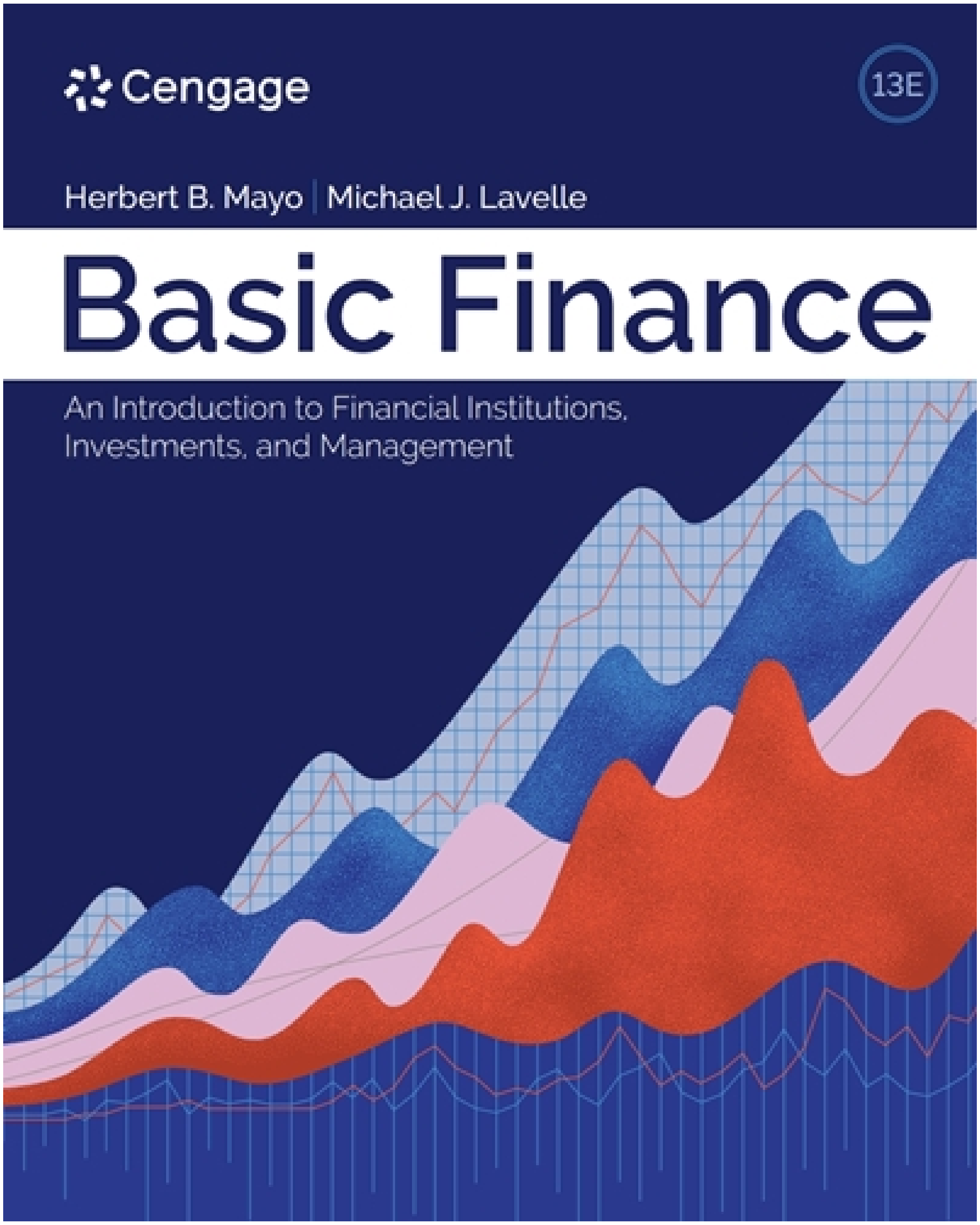
Solutions for Basic Finance 13th Edition by Mayo



Solutions

Instructor Manual

Mayo/Lavelle, Basic Finance: An Introduction to Financial Institutions, Investments, and Management, 13e © 2023, 9780357714744; Chapter 2: The Role of Financial Markets and Financial Intermediaries

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Purpose and Perspective of the Chapter

The purpose of this chapter is to set the framework for the remaining chapters in this text. It begins with the roles of money and interest rates. This is followed by transfer of savings to investments and the purpose of financial intermediaries through which these savings are channeled to the ultimate users of the funds. The bulk of this chapter provides a basic introduction to financial intermediaries. Emphasis is placed on commercial banks, their sources of funds, the types of loans they make, and regulation of the banking system. The subsequent sections consider life insurance companies and pension plans. The chapter ends with money market mutual funds and money market instruments.

Chapter Objectives

The following objectives are addressed in this chapter:

2.1 Define money and determine how the money supply is measured.

2.2 Develop a yield curve and contrast positive and negative yield curves.

2.3 Differentiate the direct and indirect transfer of savings to users of funds.

2.4 Enumerate the primary assets and liabilities of a commercial bank.

2.5 Describe several regulations that apply to the banking system.

2.6 Differentiate required and excess bank reserves.

2.7 Explain the role of FDIC.

2.8 Compare the assets of life insurance companies and commercial banks.

2.9 Contrast the various money market instruments.

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Key Terms

Banker's acceptances: Short-term promissory notes guaranteed by a bank.

Certificate of deposit (CD): Time deposit issued by a bank with a specified interest rate and maturity.

Commercial paper: Unsecured short-term promissory notes issued by the most creditworthy corporations.

Correspondent bank: Major bank with which a smaller bank has a relationship to facilitate check clearing and to serve as a depository for reserves.

Excess reserves: Reserves held by a bank in excess of those it must hold to meet its reserve requirement.

Liquidity: Ease of converting an asset into cash without loss; the depth of a financial market.

M1: Sum of coins, currency, and demand deposits.

M2: Sum of coins, currency, demand deposits, savings accounts, and small certificates of deposit.

Money: Anything that is generally accepted as a means of payment.

Money market mutual fund: Investment company that invests solely in short-term money market instruments.

Money supply: Total amount of money in circulation.

Negotiable CD: Certificate of deposit issued in amounts of $100,000 or more whose terms are individually negotiated between the bank and the saver and for which there exists a secondary market.

Repurchase agreement (repo): Sale of a short-term security in which the seller agrees to buy back the security at a specified price.

Required reserves: Funds that banks must hold against deposit liabilities.

Secondary reserves: Short-term securities, especially Treasury bills, held by banks to increase their liquidity.

Tax anticipation note: Short-term government security secured by expected tax revenues.

Term structure of interest rates: Relationship between yields and the time to maturity for debt with a given level of risk.

U.S. Treasury bill (T-bill): Short-term debt instrument issued by the federal government.

Yield curve: Graph relating interest rates and the term to maturity.

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WHAT'S NEW IN THIS CHAPTER

The following elements are improvements in this chapter from the previous edition:

- 2.1 Cryptocurrencies, Bitcoin, central bank digital currency (CBDC), digital dollar
- 2.1a Updated "money supply" figure; savings accounts moved from M2 to M1
- Figures 2.1 and 2.2 and referencing text updated to make more current and better show cases of extremely positive/negative/flat yield curves

- 2.2 Negative interest rates
- Exhibit 2.1, Assets and Liabilities of Commercial Banks, all data updated from 2017 to 2022
- Figure 2.7B, graph showing bank failures by year
- Mapped learning objectives to end-of-chapter questions

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Chapter Outline

The following outline organizes activities (including any existing discussion questions in PowerPoints or other supplements) and assessments by chapter (and therefore by topic), so that you can see how all the content relates to the topics covered in the text.

I. The Role of Money (LO 2.1; PPT Unit 2.1)

a. **Money** is anything that is generally accepted as payment for goods and services or for the retirement of debt.
   i. The ease with which an asset may be converted into money is its **liquidity**.
b. The Federal Reserve System controls the supply of money and oversees the commercial banking system.
c. There are several measures of **money supply**.
   i. **M1** is the sum of: (i) coins and currency in circulation outside of banks; (ii) demand deposits; and savings accounts and other checkable deposits.
   ii. **M2** includes **M1** plus retail money market funds and small certificates of deposit.

II. The Role of Interest Rates (LO 2.2; PPT Unit 2.2)

a. Debt maturity is classified as:
   i. Short-term < 1 year.
   ii. Long-term > 1 year.
b. The relationship between interest rates and the length of time to maturity for debt in each risk class is referred to as the **term structure of interest rates**.
c. This structure is illustrated by a **yield curve** (Figure 2.1, Figure 2.2).

III. Financial Markets and the Transfer of Savings (LO 2.3; PPT Unit 2.3)

a. Financial markets transfer savings to productive uses.
b. Two basic methods exist for transferring funds from savers to users:
   i. Direct investment. A direct transfer occurs when securities are initially sold to investors in the "primary" market. Once the securities are created, they may be subsequently bought and sold on the "secondary" markets.

ii. The "indirect" method through a financial intermediary.

IV. The Indirect Transfer Through Financial Intermediaries (LO 2.3; PPT Unit 2.4)

a. The funds are initially lent to the intermediary, and the intermediary subsequently lends the funds to the ultimate users.
b. A variety of intermediaries has evolved: commercial banks, thrift institutions [savings and loan associations (S&Ls), mutual savings banks, and credit unions], and life insurance companies.
c. Under the Depository Institutions Deregulation and Monetary Control Act of 1980 (Monetary Control Act of 1980), all depository institutions became subject to the regulation of the Federal Reserve.
d. The Monetary Control Act of 1980 gave the managements of various financial institutions more flexibility to diversify their loan portfolios. In addition, each depository institution was granted the right to borrow funds from the Federal Reserve.

V. Commercial Banks (LO 2.4; PPT Unit 2.5)

a. Commercial banks are a source of funds to business and consumers (Exhibit 2.1).
b. The primary liabilities of commercial banks are their deposits (Exhibit 2.1).
    i. Demand deposits are payable on demand.
    ii. Savings accounts, money market accounts, and certificates of deposit are interest bearing accounts.
    iii. Time deposits, which are referred to as **certificate of deposits (CDs)**, are issued for a fixed term.
    iv. Large-denomination CDs ($100,000 or larger) may be bought and sold, and are referred to as **negotiable CDs**.

VI. Thrift Institutions (LO 2.6; PPT Unit 2.6)

a. There are two types of thrifts: mutual savings banks and S&Ls.
    i. Mutual savings banks are owned by its depositors rather than shareholders, but the banks are managed by a board of trustees.
    ii. S&Ls developed as a source of mortgage loans and have evolved into a thrift institution that accepts deposits from anyone and makes a variety of loans.
    iii. S&Ls place more emphasis on mortgage loans than commercial banks.

VII. Regulation of Commercial Banks and Thrift Institutions (LO 2.5, LO 2.6, LO 2.7; PPT Unit 2.7)

a. The regulation of banks comes from both state and federal banking authorities and the Federal Deposit Insurance Corporation (FDIC).
b. Commercial banks and all other depository institutions must keep funds in reserve against their deposit liabilities (required reserves).

c. The minimum amount that all banks must maintain as a reserve is determined by the Federal Reserve.
d. The reserve requirement is one of the tools of monetary control.
e. Commercial banks may hold their reserves in two forms: (1) cash in the vault or (2) deposits with another bank, especially the Federal Reserve.
f. Excess reserves are the difference between the bank's total reserves and its required reserves.
g. Excess reserves may be loaned to borrowers or used for some other purpose, such as purchasing government securities.
h. Commercial banks (and other depository institutions) may deposit their reserves in a Federal Reserve bank, or they may deposit their reserves in other banks called correspondent banks.
i. Commercial banks also hold secondary reserves, high-quality, short-term marketable securities such as U.S. government securities (Treasury bills).
j. All commercial banks that are members of the Federal Reserve System must purchase insurance from FDIC, and many state banking authorities also require that FDIC insurance be carried by their state nonmember banks.
k. The FDIC insures deposits to $250,000.
l. By exercising this power to examine banks, the FDIC, along with other regulatory agencies, has improved bank practices and the quality of banking.
m. The establishment of the FDIC and other regulatory agencies has not eliminated bank failures (Figure 2.3).

VIII. Life Insurance Companies (LO 2.8, PPT Unit 2.8)

a. Life insurance companies also perform the role of a financial intermediary because they receive the funds of savers, create a claim on themselves, and lend the funds to borrowers.
b. Ordinary and universal life insurance policies and endowments contain two elements: the insurance and a savings plan.
c. The policy's premiums cover both the cost of the insurance and the savings program.
d. Life insurance companies use the proceeds from the policies to acquire income-earning assets.

IX. Pension Plans (LO 2.8, PPT Unit 2.9)

a. The role of a pension plan is to accumulate assets for workers so that they will have funds for retirement.
b. The money deposited with the fund then is used to purchase income-earning assets.
c. For a pension plan to serve as a financial intermediary, it must pass the funds directly to a borrower or invest them directly in a firm.

X. Money Market Mutual Funds and Money Market Instruments (LO 2.9, PPT Unit 2.10)

a. Most mutual funds do not serve as financial intermediaries, as they primarily buy and sell existing securities.
b. Money market mutual funds tend to acquire newly issued short-term debt instruments.
c. Their growth may be explained by three factors: safety of principal, liquidity, and interest rates that exceed the rates paid by banks.
d. The money market mutual funds invest in a variety of short-term securities:
    i. Negotiable CDs.
    ii. Short-term debt of the federal government (Treasury bills).
    iii. Commercial paper issued by corporations.
    iv. Repurchase agreements (repos).
    v. Banker's acceptances.
    vi. Tax anticipation notes.
    vii. Eurodollar certificates of deposit (Eurodollar CDs).

XI. Competition for Funds (LO 2.9, PPT Unit 2.11)

a. Financial intermediaries compete with each other for funds.
    i. Competition occurs through yields and services offered.
    ii. Differentiation among the intermediaries on the basis of yields tends to be small.
b. Product competition:
    i. Insurance agents, stockbrokers, and bankers offer a wide spectrum of services and financial products.
    ii. Many commercial banks offer savers traditional services of savings and checking accounts and other products, such as brokerage services (to compete with stockbrokers), money market accounts (to compete with money market mutual funds), and pension plans (to compete with insurance companies and mutual funds).
    iii. S&Ls offer a variety of savings accounts as well as checking accounts, life insurance, and brokerage services.

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Additional Discussion Questions

The following are discussion questions that do not appear in the text, PPTs, or courseware (if courseware exists) – they are for you to use as you wish. You can assign these questions several ways: in a discussion forum in your LMS; as whole-class discussions in person; or as a partner or group activity in class.

1. Discussion: Monetary Control Act of 1980 (LO 2.5, PPT Slide 15) Duration 30 minutes.

a. In class discussion: The text discusses the regulation of depositary institutions. Title 1 of the act was the Monetary Control Act. Title 2 of the act was the Depository Institutions Deregulation Act of 1980. Students can read the initial document at the Federal Reserve, or research a summary of the provisions.
b. What are the key takeaways and implications for depositary institutions?
   i. Answer: Reporting requirements, required reserve minimums, deregulation of interest rates, FDIC, deposit requirements, etc. can be discussed.

2. Bank Failures and the FDIC (LO 2.7, Figure 2.3, PPT Slide 26 and 27) Duration 30 minutes.
   a. In class discussion: The text discusses the FDIC and bank failures. Students can access the FDIC website to gather information on which deposits are insured.
      i. Answer: The BankFind tool can help students find out if their banking institution is insured. Not all accounts, products, and investments are covered by FDIC insurance. Deposit products which are insured by the FDIC include: Checking accounts, Savings accounts, Money market deposit accounts, Certificates of deposit (CD), and Prepaid cards (assuming certain FDIC requirements are met). The EDIE tool lets consumers know, on a per-bank basis, how the insurance rules and limits apply to a depositor's specific group of deposit accounts—what's insured and what portion (if any) exceeds coverage limits at that bank.

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Additional Activities and Assignments

The following are activities and assignments developed by Cengage but not included in the text, PPTs, or courseware (if courseware exists) – they are for you to use if you wish.

1. **Money Supply:** Data Analysis (LO 2.1, PPT Slide 6)
   a. Have students access M1 and M2 in the St. Louis Federal Reserve FRED database and calculate annual growth rates for the past 10 years.
   b. What is included in M1 after May 2020?
   c. Which years have the highest growth rates in M1, M2?
   d. What are the implications of high-growth rates for policy makers?

2. **Interest Rates:** Data Analysis (LO 2.2, PPT Slide 10)
   a. Have students access bond yields for different maturities from the Federal Reserve.
   b. Have students find internet articles that describe theories about the form of a yield curve.

c. Plot the current yield curve and interpret its shape by using one of the theories.
d. Use the yield curve to forecast interest rates for long-term bonds.

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