

Solutions to Chapter 2

Financial Markets and Institutions

1. The story of Apple Computer provides three examples of financing sources: equity investments by the founders of the company, trade credit from suppliers, and investments by venture capitalists. Other sources include reinvested earnings of the company and loans from banks and other financial institutions.

Est time: 01–05

2. Yes. When the corporation retains cash and reinvests in the firm's operations, that cash is saved and invested on behalf of the firm's shareholders. The reinvested cash could have been paid out to the shareholders. By not taking the cash, these investors have reinvested their savings in the corporation. Individuals can also save and invest in a corporation by lending to, or buying shares in, a financial intermediary such as a bank or mutual fund that subsequently invests in the corporation.

Est time: 01–05

3. Separation of ownership and control for public corporations means that the ultimate owners of the corporation are not its managers. These same managers will consider their own interest as well as shareholders when making decisions. This creates agency problems.

Est time: 01–05

4. *Money markets*, where short-term debt instruments are bought and sold.
Foreign-exchange markets: Most trading takes place in over-the-counter transactions between the major international banks.
Commodities markets for agricultural commodities, fuels (including crude oil and natural gas), and metals (such as gold, silver, and platinum).
Derivatives markets, where options and other derivative instruments are traded.

Est time: 01–05

5. Buy shares in a mutual fund. Mutual funds pool savings from many individual investors and then invest in a diversified portfolio of securities. Each individual investor then owns a proportionate share of the mutual fund's portfolio.

Est time: 01–05

6. Defined-contribution pension plans provide three key advantages as vehicles for retirement savings:
- Professional management.
 - Diversification at low cost.
 - Pension plan contributions are tax-deductible, and taxes on the earnings in the fund are deferred until the fund's assets are distributed to retired employees.

Est time: 01–05

7. Yes, an insurance company is a financial intermediary. Insurance companies sell policies and then invest part of the proceeds in corporate bonds and stocks and in direct loans to corporations. The returns from these investments help pay for losses incurred by policyholders.

Est time: 01–05

8. The largest institutional investors in bonds are insurance companies. Other major institutional investors in bonds are pension funds, mutual funds, and banks and other savings institutions. The largest institutional investors in shares are pension funds, mutual funds, and insurance companies.

Est time: 01–05

9. The major functions of financial markets and institutions in a modern financial system are:
- *Channeling savings to real investment:* The savings of individual investors are made available for real investments by corporations and other business entities by way of financial markets and institutions.
 - *Transporting cash across time:* Savers can save money now to be withdrawn and spent at a later time, while borrowers can borrow cash today, in effect spending today income to be earned in the future.
 - *Risk transfer and diversification:* Insurance companies allow individuals and business firms to transfer risk to the insurance company, for a price. Financial institutions such as mutual funds allow an investor to reduce risk by diversification of the investor's holdings.
 - *Liquidity:* Financial markets and institutions provide investors with the ability to exchange an asset for cash on short notice, with minimal loss of value. A deposit in a bank savings account earns interest but can be withdrawn at almost any time. A share of stock in a publicly traded corporation can be sold at virtually any time.

- *Payment mechanism:* Financial institutions provide alternatives to cash payments, such as checks and credit cards.
- *Information provided by financial markets:* Financial markets reveal information about important economic and financial variables such as commodity prices, interest rates and company values (i.e., stock prices).

Est time: 01–05

10. The market price of gold can be observed from transactions in commodity markets. For example, gold is traded on the Comex division of the New York Mercantile Exchange. Look up the price of gold and compare it to $\$2,500/6 = \416.67 per ounce.

Est time: 01–05

11. Financial markets provide extensive data that can be useful to financial managers. Examples include:
- Prices for agricultural commodities, metals, and fuels.
 - Interest rates for a wide array of loans and securities, including money market instruments, corporate and U.S. government bonds, and interest rates for loans and investments in foreign countries.
 - Foreign exchange rates.
 - Stock prices and overall market values for publicly listed corporations, as determined by trading on the New York Stock Exchange, NASDAQ, or stock markets in London, Frankfurt, Tokyo, and so on.

Est time: 01–05

12. a. False. The financial crisis had its roots in an easy monetary policy that provided funds for banks to expand the supply of subprime mortgages to low-income borrowers
- b. False. Subprime mortgages are for residential properties.
- c. False. While subprime mortgages were packaged into mortgage-backed securities that could be resold, most were held by banks on their own books or sold to other banks.
- d. False. The government arranged for Bank of America to take over Merrill but did nothing to rescue Lehman Brothers, which filed for bankruptcy protection.

Est time: 01–05

13. a. False. Financing could flow through an intermediary, for example.
- b. False. Investors can buy shares in a private corporation, for example.
- c. True. The largest source of financing for insurance companies is the sale of insurance policies. Insurance companies then invest a significant portion of the proceeds in corporate debt and equities.
- d. False. There is no centralized FOREX exchange. Foreign exchange trading takes place in the over-the-counter market.
- e. False. The opportunity cost of capital is the expected rate of return that shareholders can earn in the financial markets on investments with the same risk as the firm's capital investments.
- f. False. The cost of capital is an *opportunity* cost determined by expected rates of return in the financial markets. The opportunity cost of capital for risky investments is normally higher than the firm's borrowing rate.

Est time: 06–10

14. Liquidity is important because investors want to be able to convert their investments into cash quickly and easily when it becomes necessary or desirable to do so. Should personal circumstances or investment considerations lead an investor to conclude that it is desirable to sell a particular investment, the investor prefers to be able to sell the investment quickly and at a price that does not require a significant discount from market value.

Liquidity is also important to mutual funds. When the mutual fund's shareholders want to redeem their shares, the mutual fund is often forced to sell its securities. In order to maintain liquidity for its shareholders, the mutual fund requires liquid securities.

Est time: 01–05

15. The key to the bank's ability to provide liquidity to depositors is the bank's ability to pool relatively small deposits from many investors into large, illiquid loans to corporate borrowers. A withdrawal by any one depositor can be satisfied from any of a number of sources, including new deposits, repayments of other loans made by the bank, bank reserves, and the bank's debt and equity financing.

Est time: 01–05

16. a. Investor A buys shares in a mutual fund, which buys part of a new stock issue by a rapidly growing software company.
- b. Investor B buys shares issued by the Bank of New York, which lends money to a regional department store chain.
- c. Investor C buys part of a new stock issue by the Regional Life Insurance Company, which invests in corporate bonds issued by Neighborhood Refineries, Inc.

Est time: 01–05

17. Commercial banks accept deposits and provide financing primarily for businesses. Investment banks do not accept deposits and do not loan money to businesses and individuals. Investment banks may make bridge loans as temporary financing for a takeover or acquisition. In addition, investment banks trade many different financial contracts, such as bonds and options, while providing investment advice and portfolio management for institutional and individual investors.

Est time: 01–05

18. Mutual funds collect money from small investors and invest the money in corporate stocks or bonds, thus channeling savings from investors to corporations. For individuals, the advantages of mutual funds are diversification, professional investment management, and record keeping.

Est time: 01–05

19. Answers will vary. Causes of financial crisis included in the text are the easy monetary policy of the Federal Reserve, incorrect credit ratings of mortgage bonds, and agency problems with bank managers.

Est time: 06–10