ing the value of the security. Passive investment strategies may make sense in nearly efficient markets.

4. Financial intermediaries pool investor funds and invest them. Their services are in demand because small investors cannot efficiently gather information, diversify, and monitor portfolios. The financial intermediary sells its own securities to the small investors. The intermediary invests the funds thus raised, uses the proceeds to pay back the small investors, and profits from the difference (the spread).
5. Investment banking brings efficiency to corporate fund-raising. Investment bankers develop expertise in pricing new issues and in marketing them to investors. By the end of 2008, all the major stand-alone U.S. investment banks had been absorbed into commercial banks or had reorganized themselves into bank holding companies. In Europe, where universal banking had never been prohibited, large banks had long maintained both commercial and investment banking divisions.
6. The financial crisis of 2008 showed the importance of systemic risk. Policies that limit this risk include transparency to allow traders and investors to assess the risk of their counterparties, capital adequacy to prevent trading participants from being brought down by potential losses, frequent settlement of gains or losses to prevent losses from accumulating beyond an institution's ability to bear them, incentives to discourage excessive risk taking, and accurate and unbiased risk assessment by those charged with evaluating security risk.

Related Web sites for this chapter are available at **www.mheducation.asia/olc/bodie**

Key Terms

investment
real assets
financial assets
fixed-income (debt) securities
equity
derivative securities
agency problem
asset allocation
security selection
security analysis
risk–return trade-off
passive management
active management
financial intermediaries
investment companies
investment bankers
primary market
secondary market
securitization
systemic risk

Problem Sets

Basic

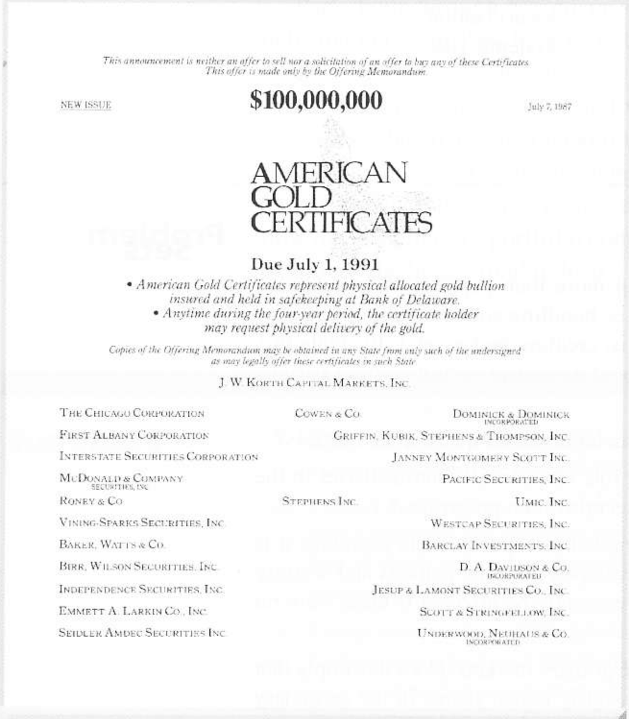
1. Financial engineering has been disparaged as nothing more than paper shuffling. Critics argue that resources used for *rearranging* wealth (that is, bundling and unbundling financial assets) might be better spent on *creating* wealth (that is, creating real assets). Evaluate this criticism. Are any benefits realized by creating an array of derivative securities from various primary securities?
2. Why would you expect securitization to take place only in highly developed capital markets?
3. What is the relationship between securitization and the role of financial intermediaries in the economy? What happens to financial intermediaries as securitization progresses?
4. Although we stated that real assets comprise the true productive capacity of an economy, it is hard to conceive of a modern economy without well-developed financial markets and security types. How would the productive capacity of the U.S. economy be affected if there were no markets in which one could trade financial assets?
5. Firms raise capital from investors by issuing shares in the primary markets. Does this imply that corporate financial managers can ignore trading of previously issued shares in the secondary market?

Visit us at www.mheducation.asia/olc/bodie

Visit us at www.mheducation.asia/olc/bodie

Intermediate

6. Suppose housing prices across the world double.
   a. Is society any richer for the change?
   b. Are homeowners wealthier?
   c. Can you reconcile your answers to *(a)* and *(b)*? Is anyone worse off as a result of the change?
7. Lanni Products is a start-up computer software development firm. It currently owns computer equipment worth $30,000 and has cash on hand of $20,000 contributed by Lanni's owners. For each of the following transactions, identify the real and/or financial assets that trade hands. Are any financial assets created or destroyed in the transaction?
   a. Lanni takes out a bank loan. It receives $50,000 in cash and signs a note promising to pay back the loan over 3 years.
   b. Lanni uses the cash from the bank plus $20,000 of its own funds to finance the development of new financial planning software.
   c. Lanni sells the software product to Microsoft, which will market it to the public under the Microsoft name. Lanni accepts payment in the form of 1,500 shares of Microsoft stock.
   d. Lanni sells the shares of stock for $80 per share and uses part of the proceeds to pay off the bank loan.
8. Reconsider Lanni Products from the previous problem.
   a. Prepare its balance sheet just after it gets the bank loan. What is the ratio of real assets to total assets?
   b. Prepare the balance sheet after Lanni spends the $70,000 to develop its software product. What is the ratio of real assets to total assets?
   c. Prepare the balance sheet after Lanni accepts the payment of shares from Microsoft. What is the ratio of real assets to total assets?
9. Examine the balance sheet of commercial banks in Table 1.3. What is the ratio of real assets to total assets? What is that ratio for nonfinancial firms (Table 1.4)? Why should this difference be expected?
10. Consider Figure 1.5, which describes an issue of American gold certificates.
    a. Is this issue a primary or secondary market transaction?
    b. Are the certificates primitive or derivative assets?
    c. What market niche is filled by this offering?
11. Discuss the advantages and disadvantages of the following forms of managerial compensation in terms of mitigating agency problems, that is, potential conflicts of interest between managers and shareholders.
    a. A fixed salary.
    b. Stock in the firm that must be held for five years.
    c. A salary linked to the firm's profits.
12. We noted that oversight by large institutional investors or creditors is one mechanism to reduce agency problems. Why don't individual investors in the firm have the same incentive to keep an eye on management?
13. Give an example of three financial intermediaries and explain how they act as a bridge between small investors and large capital markets or corporations.



This announcement is neither an offer to sell nor a solicitation of an offer to buy any of these Certificates.
This offer is made only by the Offering Memorandum.

NEW ISSUE **$100,000,000** July 7, 1987

AMERICAN
GOLD
CERTIFICATES

Due July 1, 1991

- *American Gold Certificates represent physical allocated gold bullion insured and held in safekeeping at Bank of Delaware.*
- *Anytime during the four-year period, the certificate holder may request physical delivery of the gold.*

Copies of the Offering Memorandum may be obtained in any State from only such of the undersigned as may legally offer these certificates in such State.

J. W. KORTH CAPITAL MARKETS, INC.

THE CHICAGO CORPORATION COWEN & CO. DOMINICK & DOMINICK INCORPORATED
FIRST ALBANY CORPORATION GRIFFIN, KUBIK, STEPHENS & THOMPSON, INC.
INTERSTATE SECURITIES CORPORATION JANNEY MONTGOMERY SCOTT INC.
McDONALD & COMPANY SECURITIES, INC. PACIFIC SECURITIES, INC.
RONEY & CO. STEPHENS INC. UMIC, INC.
VINING-SPARKS SECURITIES, INC. WESTCAP SECURITIES, INC.
BAKER, WATTS & CO. BARCLAY INVESTMENTS, INC.
BIRR, WILSON SECURITIES, INC. D. A. DAVIDSON & CO. INCORPORATED
INDEPENDENCE SECURITIES, INC. JESUP & LAMONT SECURITIES CO., INC.
EMMETT A. LARKIN CO., INC. SCOTT & STRINGFELLOW, INC.
SEIDLER AMDEC SECURITIES INC. UNDERWOOD, NEUHAUS & CO. INCORPORATED

Figure 1.5 A gold-backed security

14. The average rate of return on investments in large stocks has outpaced that on investments in Treasury bills by about 7% since 1926. Why, then, does anyone invest in Treasury bills?
15. What are some advantages and disadvantages of top-down versus bottom-up investing styles?
16. You see an advertisement for a book that claims to show how you can make $1 million with no risk and with no money down. Will you buy the book?
17. Why do financial assets show up as a component of household wealth, but not of national wealth? Why do financial assets still matter for the material well-being of an economy?
18. Wall Street firms have traditionally compensated their traders with a share of the trading profits that they generated. How might this practice have affected traders' willingness to assume risk? What is the agency problem this practice engendered?
19. What reforms to the financial system might reduce its exposure to systemic risk?

E-Investments Exercises

Market Regulators

1. Go to the Securities and Exchange Commission Web site, **www.sec.gov**. What is the mission of the SEC? What information and advice does the SEC offer to beginning investors?
2. Go to the FINRA Web site, **www.finra.org** What is its mission? What information and advice does it offer to beginners?
3. Go to the IOSCO Web site, **www.iosco.org**. What is its mission? What information and advice does it offer to beginners?

Visit us at www.mheducation.asia/olc/bodie

Solutions to CONCEPT *Check* ✓

1. *a.* Real
   b. Financial
   c. Real
   d. Real
   e. Financial
2. The central issue is the incentive to monitor the quality of loans when originated as well as over time. Freddie and Fannie clearly had incentive to monitor the quality of conforming loans that they had guaranteed, and their ongoing relationships with mortgage originators gave them opportunities to evaluate track records over extended periods of time. In the subprime mortgage market, the ultimate investors in the securities (or the CDOs backed by those securities), who were bearing the credit risk, should not have been willing to invest in loans with a disproportionate likelihood of default. If they properly understood their exposure to default risk, then the (correspondingly low) prices they would have been willing to pay for these securities would have imposed discipline on the mortgage originators and servicers. The fact that they were willing to hold such large positions in these risky securities suggests that they did not appreciate the extent of their exposure. Maybe they were led astray by overly optimistic projections for housing prices or by biased assessments from the credit reporting agencies. In principle, either arrangement for default risk could have provided the appropriate discipline on the mortgage originators; in practice, however, the informational advantages of Freddie and Fannie probably made them the better "recipients" of default risk. The lesson is that information and transparency are some of the preconditions for well-functioning markets.