APPENDIX A

Comprehensive Project

One of the best ways to gain a clear understanding of the key concepts explained in this text is to apply them directly to actual situations. This comprehensive project enables you to apply numerous concepts regarding financial markets and institutions discussed throughout the text to actual situations. The tasks in this project can be categorized as follows:

Part I. Applying Financial Markets Concepts
Part II. Applying Financial Institutions Concepts
Part III. Measuring Stock Performance

At the beginning of the school term, you should complete two tasks. First, compile the information on financial markets needed to fill in the blank spaces in steps (a) through (j) in Part I. This information will be needed when applying financial markets concepts in the questions that follow (Part I of the project). Second, obtain the information on financial institutions identified at the beginning of Part II. This information will be needed when applying financial institutions concepts in the questions that follow (Part II of the project).

Part I. Applying Financial Markets Concepts

The exercises on financial markets concepts require you to measure the change in the yields and values of securities over the school term and explain why the values changed. In doing so, you will apply the concepts in the chapters on financial markets to actual situations.

At the beginning of the school term and near the end of the term, use an issue of *The Wall Street Journal* or various financial websites to obtain the information requested here. Your professor will identify the dates to use as the beginning and end of the term. The dates will allow you sufficient time to assess the changes in the yields and values of securities so that you can answer the questions. Your professor will explain the specific format of the assignment, such as whether any parts are excluded or whether students should work in teams. Your professor will also indicate whether the answers will be handed in, presented to the class, or both. A commonly used format is to divide the project into parts and assign a team of students to present their answers to one specific part. Each student will be a member of one of the teams. All students may still be required to hand in answers to all parts of the project, even though their team's presentation focuses on only one part.

	BEGINNING OF TERM	END OF TERM
a. Stock market index information:		
S&P 500 (stock) index level:	_____	_____
Nasdaq Composite (stock) index level:	_____	_____
b. Interest rate information:		
Prime rate:	_____	_____
Federal funds rate:	_____	_____
Commercial paper rate (90 days):	_____	_____
Certificate of deposit rate (3-month):	_____	_____
Treasury bill rate (13 weeks):	_____	_____
Treasury bill rate (26 weeks):	_____	_____
c. Bond yield information:		
Treasury long-term bond yield:	_____	_____
DJ Corporate bond yield:	_____	_____
Corporate (Master) bond yield:	_____	_____
High-yield corporate bond yield:	_____	_____
Tax-exempt (7–12-year) bond yield:	_____	_____
d. Use stock exchange quotations to record the stock price and dividend of one stock from each stock exchange in which you would like to invest.		
New York Stock Exchange: Stock price:	_____	_____
Name of firm _____ Dividend:	_____	_____
Nasdaq Market: Stock price:	_____	_____
Name of firm _____ Dividend:	_____	_____
e. Use futures prices quotations to record the recent ("settle") price of the following futures (select futures with first settlement date beyond the end of the school term):		
Treasury bond futures:	_____	_____
S&P 500 index futures:	_____	_____
British pound futures:	_____	_____
f. Use an options quotations table to select a call option on a firm whose stock price you expect to increase (select the option with the first expiration month beyond the end of the school term):		
Name of firm: _____		
Expiration month: _____		
Strike price: _____		
Stock price:	_____	_____
Option premium:	_____	_____
g. Use an options quotations table to select a put option on a firm where you expect the stock price to decrease (select the option with the first expiration month beyond the end of the school term):		
Name of firm: _____		
Expiration month: _____		
Strike price: _____		
Stock price:	_____	_____
Option premium:	_____	_____
h. Use a currency exchange rate table in *The Wall Street Journal* to record exchange rates:		
Exchange rate of the British pound (in $):	_____	_____
Exchange rate of the Japanese yen (in $):	_____	_____
Exchange rate of the Mexican peso (in $):	_____	_____

B.F.M.I-11th - 47 B

i. Use currency options data (if available) to select a call option on a foreign currency that you expect will strengthen against the dollar (select the option with the first expiration month beyond the end of the school term):

Currency: _____

Expiration month: _____

Strike price: _____

Currency's existing value: _____ _____

Option premium: _____ _____

j. Use currency options data (if available) to select a put option on a foreign currency that you expect will weaken against the dollar (select the option with the first expiration month beyond the end of the school term):

Currency: _____

Expiration month: _____

Strike price: _____

Currency's existing value: _____ _____

Option premium: _____ _____

1. Explaining changes in interest rates (from Chapter 2)

a. Compare the 13-week Treasury bill rate (which is a proxy for short-term interest rates) at the end of the school term to the rate that existed at the beginning of the school term.

b. Recall that Chapter 2 offered reasons why interest rates change over time. Apply the concepts in that chapter to explain why you think interest rates have changed over the school term.

2. Comparing yields among securities (from Chapter 3)

a. What is the difference between the yield on corporate high-quality bonds and the yield on Treasury bonds at the end of the school term?

b. Apply the concepts discussed in Chapter 3 to explain why this premium exists.

c. What is the difference between the yield on long-term Treasury bonds and the yield on long-term municipal bonds at the end of the school term?

d. Apply the concepts discussed in Chapter 3 to explain why this difference exists.

3. Assessing the forecasting ability of the yield curve (from Chapter 3)

a. What was the difference between the 26-week T-bill yield and the 13-week T-bill yield at the beginning of the school term?

b. Does this imply that the yield curve had an upward or downward slope at that time?

c. Assuming that this slope can be primarily attributed to expectations theory, did the direction of the slope indicate that the market expected higher or lower interest rates in the future?

d. Did interest rates move in that direction over the school term?

4. Explaining shifts in the yield curve over time (from Chapter 3)

a. What was the difference between the long-term Treasury bond yield and the 13-week T-bill yield at the beginning of the school term?

b. What is the difference between the long-term Treasury bond yield and the 13-week T-bill yield at the end of the school term?

c. Given your answers to the two previous questions, describe how the yield curve changed over the school term. Explain the changes in expectations about future interest rates that are implied by the shift in the yield curve over the school term.

5. The Fed's influence on interest rates (from Chapter 5)

a. Did the Fed change the federal funds rate over the school term?

b. Do you think the movements in interest rates over the school term were caused by the Fed's monetary policy? Explain.

6. Measuring and explaining premiums on money market securities (from Chapter 6)

a. What is the difference between the yield on 90-day commercial paper and the yield on 13-week T-bills at the end of the school term? Apply the concepts discussed in Chapter 6 to explain why this premium exists.

b. Compare the premium on the 90-day commercial paper yield (relative to the 13-week T-bill yield) that exists at the end of the school term to the premium that existed at the beginning of the term. Apply the concepts discussed in Chapter 6 to explain why the premium may have changed over the school term.

7. Explaining bond premiums and price movements (from Chapter 8)

a. What is the difference between the yield on high-yield corporate bonds at the end of the school term versus the yield on high-quality corporate bonds at the beginning of the school term? Apply the concepts discussed in Chapter 8 to explain why this premium exists.

b. Compare the long-term Treasury bond yield at the end of the school term to the long-term Treasury bond yield that existed at the beginning of the school term. Given the direction of this change, did prices of long-term bonds rise or fall over the school term?

c. Compare the change in the yields of Treasury, municipal, and corporate bonds over the school term. Did the yields of all three types of securities move in the same direction and by about the same degree? Apply the concepts discussed in Chapter 8 to explain why yields of different types of bonds move together.

d. Compare the premium on high-yield corporate bonds (relative to Treasury bonds) at the beginning of the school term to the premium that existed at the end of the school term. Did the premium increase or decrease? Apply the concepts discussed in Chapter 8 to explain why this premium changed over the school term.

8. Explaining mortgage rates (from Chapter 9)

a. Compare the rate paid by a homeowner on a 30-year mortgage to the rate (yield) paid by the Treasury on long-term Treasury bonds at the end of the school term. Explain the difference.

b. Compare the 30-year mortgage rate at the end of the school term to the 30-year mortgage rate that existed at the beginning of the school term. What do you think is the primary reason for the change in 30-year mortgage rates over the school term?

9. Explaining stock price movements (from Chapter 11)

a. Determine the return on the stock market over your school term based on the percentage change in the S&P 500 index level over the term. Annualize this return by

multiplying the return by $12/m$, where m is the number of months in your school term. Apply the concepts discussed in Chapter 11 to explain why the market return was high or low over your school term.

b. Repeat the previous question for smaller stocks by using the Nasdaq Composite instead of the S&P 500 index. What was the annualized return on the Nasdaq Composite over your school term?

c. Explain why the return on the Nasdaq Composite was high or low over your school term.

d. Determine the return over the school term on the stock in which you chose to invest. The return is $(P_t - P_{t-1} + D)/P_{t-1}$, where P_t is the stock price as of the end of the school term, P_{t-1} is the stock price at the beginning of the school term, and D is the dividend paid over the school term. In most cases, one quarterly dividend is paid over a school term, which is one-fourth of the annual dividend amount per share shown in stock quotation tables.

e. What was your return over the school term on the stock you selected from the New York Stock Exchange? What was your return over the school term on the stock you selected from the Nasdaq market? Apply the concepts discussed in Chapter 11 to explain why you think these two stocks experienced different returns over the school term.

10. Measuring and explaining futures price movements (from Chapter 13)

a. Assume that you purchased an S&P 500 futures contract at the beginning of the school term, with the first settlement date beyond the end of the school term. Also assume that you sold an S&P 500 futures contract with this same settlement date at the end of the school term. Given that this contract has a value of the futures price times $250, determine the difference between the dollar value of the contract you sold and the dollar amount of the contract that you purchased.

b. Assume that you invested an initial margin of 20 percent of the amount that you would owe to purchase the S&P 500 index at the settlement date. Measure your return from taking a position in the S&P 500 index futures as follows. Take the difference determined in the previous question (which represents the dollar amount of the gain on the futures position) and divide it by the amount you originally invested (the amount you originally invested is 20 percent of the dollar value of the futures contract that you purchased).

c. The return that you just derived in the previous question is not annualized. To annualize your return, multiply it by $12/m$, where m is the number of months in your school term.

d. Apply the concepts discussed in Chapter 13 to explain why your return on your S&P 500 index futures position was low or high over the school term.

e. Assume that you purchased a Treasury bond futures contract at the beginning of the school term with the first settlement date beyond the end of the school term. Also assume that you sold this same type of futures contract at the end of the school term. Recall that Treasury bond futures contracts are priced relative to a $100,000 face value and the fractions are in thirty-seconds. What was the dollar value of the futures contract at the beginning of the school term when you purchased it?

f. What was the dollar value of the Treasury bond futures contract at the end of the school term when you sold it?

g. What was the difference between the dollar value of the Treasury bond futures contract when you sold it and the value when you purchased it?

h. Assume that you invested an initial margin of 20 percent of the amount that you would owe to purchase the Treasury bonds at the settlement date. Your investment is equal to 20 percent of the dollar value of the Treasury bond futures contract as of the time you purchased the futures. Determine the return on your futures position, which is the difference you derived in the previous question as a percentage of your investment.

i. The return that you just derived in the previous question is not annualized. To annualize your return, multiply your return by $12/m$, where m is the number of months in your school term.

j. Apply the concepts discussed in Chapter 13 to explain why the return on your Treasury bond futures position was low or high.

11. Measuring and explaining option price movements (from Chapter 14)

a. Assume that you purchased a call option (representing 100 shares) on the specific stock that you identified in Part I(f) of this project. What was your return from purchasing this option? [Your return can be measured as $(Prem_t - Prem_{t-1})/Prem_{t-1}$, where $Prem_{t-1}$ represents the premium paid at the beginning of the school term and $Prem_t$ represents the premium at which the same option can be sold at the end of the school term.] If the premium for this option is not quoted at the end of the school term, measure the return as if you had exercised the call option at the end of the school term (assuming that it is feasible to exercise the option at that time). That is, the return is based on purchasing the stock at the option's strike price and then selling the stock at its market price at the end of the school term.

b. Annualize the return on your option by multiplying the return you derived in the previous question by $12/m$, where m represents the number of months in your school term.

c. Compare the return on your call option to the return that you would have earned if you had simply invested in the stock itself. Notice how the magnitude of the return on the call option is much larger than the magnitude of the return on the stock itself. That is, the gains are larger and the losses are larger when investing in call options on a stock instead of the stock itself.

d. Assume that you purchased a put option (representing 100 shares) on the specific stock that you identified in Part I(g) of this project. What was your return from purchasing this option? [Your return can be measured as $(Prem_t - Prem_{t-1})/Prem_{t-1}$, where $Prem_{t-1}$ represents the premium paid at the beginning of the school term and $Prem_t$ represents the premium at which the same option can be sold at the end of the school term.] If the premium for this option is not quoted at the end of the school term, measure the return as if you had exercised the put option at the end of the school term (assuming that it is feasible to exercise the option at that time). That is, the return is based on purchasing the stock at its market price and then selling the stock at the option's strike price at the end of the school term.

12. Determining swap payments (from Chapter 15)

Assume that, at the beginning of the school term, you engaged in a fixed-for-floating rate swap in which you agreed to pay 6 percent in exchange for the prevailing 26-week T-bill rate that exists at the end of the school term. Assume that your swap agreement specifies the end of the school term as the only time at which a swap will occur and that

the notional amount is $10 million. Determine the amount that you owe on the swap, the amount you are owed on the swap, and the difference. Did you gain or lose as a result of the swap?

13. Measuring and explaining exchange rate movements (from Chapter 16)

a. Determine the percentage change in the value of the British pound over the school term. Did the pound appreciate or depreciate against the dollar?

b. Determine the percentage change in the value of the Japanese yen over the school term. Did the yen appreciate or depreciate against the dollar?

c. Determine the percentage change in the value of the Mexican peso over the school term. Did the peso appreciate or depreciate against the dollar?

d. Determine the per unit gain or loss if you had purchased British pound futures at the beginning of the term and sold British pound futures at the end of the term.

e. Given that a single futures contract on British pounds represents 62,500 pounds, determine the dollar amount of your gain or loss.

Part II. Applying Financial Institutions Concepts

Obtain an annual report of (1) a commercial bank, (2) a savings institution, (3) a securities firm, and (4) an insurance company. The annual reports will allow you to relate the theory in specific related chapters to the particular financial institution of concern. The exercises in Part II of this comprehensive project require the use of these annual reports. The annual reports can be obtained by calling the shareholder services department for each financial institution, or they may be available online. Also, order a prospectus of a specific mutual fund in which you are interested. The prospectus can be obtained from the specific investment company that sponsors the mutual fund, or it may be available online.

1. Commercial bank operations (from Chapter 17)

For the commercial bank that you selected at the beginning of the term, use its annual report or any other related information to answer the following questions:

a. Identify the types of deposits that the commercial bank uses to obtain most of its funds.

b. Identify the main uses of funds by the bank.

c. Summarize any statements made by the commercial bank in its annual report about how recent or potential regulations will affect its performance.

d. Does it appear that the bank is attempting to enter the securities industry by offering securities services? If so, explain how.

e. Does it appear that the bank is attempting to enter the insurance industry by offering insurance services? If so, explain how.

2. Commercial bank management (from Chapter 19)

For the commercial bank that you selected at the beginning of the term, use its annual report or any other related information to answer the following questions.

a. Assess the bank's balance sheet as well as any comments in its annual report about the gap between its rate-sensitive assets and its rate-sensitive liabilities. Does it appear that the bank has a positive gap or a negative gap?

b. Does the bank use any methods to reduce its gap and therefore reduce its exposure to interest rate risk?

c. Summarize any statements made by the bank in its annual report about how it attempts to limit its exposure to credit risk on the loans it provides.

3. Commercial bank performance (from Chapter 20)

For the commercial bank that you selected at the beginning of the term, use its annual report or any other related information to answer the following questions.

a. Determine the bank's interest income as a percentage of its total assets.

b. Determine the bank's interest expenses as a percentage of its total assets.

c. Determine the bank's net interest margin.

d. Determine the bank's noninterest income as a percentage of its total assets.

e. Determine the bank's noninterest expenses (do not include the addition to loan loss reserves here) as a percentage of its total assets.

f. Determine the bank's addition to loan loss reserves as a percentage of its total assets.

g. Determine the bank's return on assets.

h. Determine the bank's return on equity.

i. Identify the bank's income statement items described previously that would be affected if interest rates rise in the next year, and explain how they would be affected.

j. Identify the bank's income statement items described previously that would be affected if U.S. economic conditions deteriorate, and explain how they would be affected.

4. Savings institutions (from Chapter 21)

For the savings institution (SI) that you selected at the beginning of the term, use its annual report or any other related information to answer the following questions.

a. Identify the types of deposits that the SI uses to obtain most of its funds.

b. Identify the main uses of funds by the SI.

c. Summarize any statements made by the SI in its annual report about how recent or potential regulations will affect its performance.

d. Assess the SI's balance sheet as well as any comments in its annual report about the gap between its rate-sensitive assets and its rate-sensitive liabilities. Does it appear that the SI has a positive gap or a negative gap?

e. Does the SI use any methods to reduce its gap and therefore reduce its exposure to interest rate risk?

f. Summarize any statements made by the SI in its annual report about how it attempts to limit its exposure to credit risk on the loans it provides.

g. Determine the SI's interest income as a percentage of its total assets.

h. Determine the SI's interest expenses as a percentage of its total assets.

i. Determine the SI's noninterest income as a percentage of its total assets.

j. Determine the SI's noninterest expenses (do not include the addition to loan loss reserves here) as a percentage of its total assets.

k. Determine the SI's addition to loan loss reserves as a percentage of its total assets.

l. Determine the SI's return on assets.

m. Determine the SI's return on equity.

n. Identify the SI's income statement items described previously that would be affected if interest rates rise in the next year, and explain how they would be affected.

o. Identify the SI's income statement items described previously that would be affected if U.S. economic conditions deteriorate, and explain how they would be affected.

5. Mutual funds (from Chapter 23)

For the mutual fund that you selected at the beginning of the term, use its prospectus or any other related information to answer the following questions.

a. What is the investment objective of this mutual fund? Do you consider this mutual fund to have low risk, moderate risk, or high risk?

b. What was the return on the mutual fund last year? What was the average annual return over the last three years?

c. What is a key economic factor that influences the return on this mutual fund? (That is, are the fund's returns highly influenced by U.S. stock market conditions? By U.S. interest rates? By foreign stock market conditions? By foreign interest rates?)

d. Must any fees be paid when buying or selling this mutual fund?

e. What was the expense ratio for this mutual fund over the last year? Does this ratio seem high to you?

6. Securities firms (from Chapter 24)

For the securities firm that you selected at the beginning of the term, use its annual report or any other related information to answer the following questions.

a. What are the main types of business conducted by the securities firm?

b. Summarize any statements made by the securities firm in its annual report about how it may be affected by existing or potential regulations.

c. Describe the recent performance of the securities firm, and explain why the performance has been favorable or unfavorable.

7. Insurance companies (from Chapter 25)

For the insurance company that you selected at the beginning of the term, use its annual report or any other related information to answer the following questions.

a. How does the insurance company allocate its funds? (That is, what is its asset composition?)

b. Is the insurance company exposed to interest rate risk? Explain.

c. Does the insurance company use any techniques to hedge its exposure to interest rate risk?

d. Summarize any statements made by the insurance company in its annual report about how it may be affected by existing or potential regulations.

e. Describe the recent performance of the insurance company (using any key financial ratios that measure its income). Explain why its recent performance was strong or weak.

PART III. MEASURING STOCK PERFORMANCE

This part of the project enables you to analyze the risk and return characteristics of one particular stock that you own or would like to purchase. You should input your data on Excel or an alternative electronic spreadsheet. Perform the following tasks.

a. Obtain stock price data at the end of each of the last 16 quarters, and fill in that information in Column A of your electronic spreadsheet. Historical stock price data are available on the Yahoo! finance website and on other websites. Your professor may offer some suggestions on where to obtain this information.

b. Obtain the data on dividend per share for this firm for each of the last 16 quarters, and input that information in Column B of your electronic spreadsheet. When you obtain dividend data, recognize that the dividend is often listed on an annual basis. In this case, divide the annual dividend by 4 to obtain the quarterly dividend.

c. Use "compute" statements to derive the quarterly return on your stock in Column C of your electronic spreadsheet. The return on the stock during any quarter is computed as follows. First, compute the stock price at the end of that quarter minus the stock price at the end of the previous quarter, then add the quarterly dividend, and then divide by the stock price at the end of the previous quarter.

d. Input the S&P 500 stock index level as of the end of each of the 16 quarters in Column D of your electronic spreadsheet.

e. Use "compute" statements to derive the quarterly stock market return in Column E, which is equal to the percentage change in the S&P 500 index level from the previous quarter.

f. Using the tools in an electronic package, run a regression analysis in which your quarterly stock return (Column C) represents the dependent variable and the stock market return (Column E) represents the independent variable. This analysis can be easily run by Excel.

g. Based on your regression results, what is the relationship between the market return and your stock's return? (The slope coefficient represents the estimate of your firm's beta, which is a measure of its systematic risk.)

h. Based on your regression results, does it appear that there is a significant relationship between the market return and your stock's return? (The t-statistic for the slope coefficient can be assessed to determine whether there is a significant relationship.)

i. Based on your regression results, what proportion of the variation in the stock's returns can be explained by movements (returns) in the stock market overall? (The R-SQUARED statistic measures the proportion of variation in the dependent variable that is explained by the independent variable in a regression model like the one described previously.) Does it appear that the stock's return is driven mainly by stock market movements or by other factors that are not captured in the regression model?

j. What is the standard deviation of your stock's quarterly returns over the 16-quarter period? (You can easily compute the standard deviation of your column of stock return data by using a "compute" statement.) What is the standard deviation of the quarterly stock market returns (as measured by quarterly returns on the S&P 500 index) over the 16-quarter period? Is your stock more volatile than the stock market in general? If so, why do you think it is more volatile than the market?

k. Assume that the average risk-free rate per quarter over the 16-quarter period is 1.5 percent. Determine the Sharpe index for your stock. (The Sharpe index is equal to your stock's average quarterly return, minus the average risk-free rate, divided by the standard deviation of your stock's returns.) Determine the Treynor index for your stock. (The Treynor index is equal to your stock's average quarterly return, minus the average risk-free rate, divided by the estimated beta of your stock.)

APPENDIX **B**

Using Excel to Conduct Analyses

Excel spreadsheets are useful for organizing numerical data. In addition, they can execute computations for you. Excel not only allows you to compute general statistics such as average and standard deviations of cells but also can be used to conduct regression analysis. This appendix begins by describing the use of Excel to compute general statistics. Then, a background of regression analysis is provided followed by a discussion of how Excel can be used to run regression analysis.

General Statistics

Some of the more popular computations are discussed here.

Creating a Compute Statement

If you want to determine the percentage change in a value from one period to the next, type the compute statement in a cell where you want to see the result. For example, assume that you identify the month and year in Column A and record the stock price of Dell, Inc., at the beginning of that month in Column B. To assess the performance or risk characteristics of stocks, you should first convert the stock price data into "returns." This allows you to compare performance and risk among different stocks. Since Dell does not pay a dividend, the return from investing in Dell stock over a period is simply the percentage change in the price. Assume you want to compute the monthly percentage change in the stock price. In cell C2, you can create a compute statement to derive the percentage change in price from the beginning of the first month until the beginning of the second month. A compute statement begins with an = sign. The proper compute statement to compute a percentage change for cell B2 is = (B2−B1)/B1. Assume that in cell C3 you want to derive the percentage change in Dell's stock price as of the month in cell B3 from the previous month B2. Type the compute statement = (B3−B2)/B2 in cell C3.

Using the COPY Command

If you need to repeat a particular compute statement for several different cells, you can use the COPY command as follows:

1. Place the cursor in the cell with the compute statement that you want to copy to other cells.

2. Click "Edit" and then click "Copy" on your menu bar.
3. Highlight the cells where you want that compute statement copied.
4. Press the Enter key.

For example, assume that you have 30 monthly prices of Dell stock in Column B and have already calculated the percentage change in the stock price in cell C2 as explained previously. (You did not have a percentage change in cell C1 because you needed two dates [cells B1 and B2] to derive your first percentage change.) You can place the cursor on cell C2, click "Edit" and then click "Copy" on your menu bar, highlight cells C3 to C30, and then press the Enter key.

Computing an Average

You can compute the average of a set of cells as follows. Assume that you want to determine the mean monthly return on Dell stock shown in cells C2 to C30. Go to any blank cell (such as cell C31) and type the compute statement = AVERAGE(C2:C30).

Computing a Standard Deviation

You can compute the standard deviation of a set of cells as follows. Assume that you want to determine the standard deviation of the returns on Dell stock. In cell C32 (or in any blank cell where you want to see the result), type the compute statement = STDEV(C2:C30).

Regression Analysis

Various software packages are available to run regression analysis. The Excel package is recommended because of its simplicity. The following example illustrates the ease with which regression analysis can be run.

Assume that a financial institution wishes to measure the relationship between the change in the interest rate in a given period (Δi_t) and the change in the inflation rate in the previous period (ΔINF_{t-1}); that is, the financial institution wishes to assess the lagged impact of inflation on interest rates. Assume that the data over the last 20 periods are as follows:

COLUMN A PERIOD	COLUMN B Δi_t	COLUMN C ΔINF_{t-1}
1	.50%	.90%
2	.65	.75
3	−.70	−1.20
4	.50	.30
5	.40	.60
6	−.30	−.20
7	.60	.85
8	.75	.45
9	.10	−.05
10	1.10	1.35

COLUMN A PERIOD	COLUMN B Δi_t	COLUMN C ΔINF_{t-1}
11	.90	1.10
12	−.65	−.80
13	−.20	−.35
14	.40	.55
15	.30	.40
16	.60	.75
17	−.05	−.10
18	1.30	1.50
19	−.55	−.70
20	.15	.25

Assume the firm applies the following regression model to the data:

$$\Delta i_t = b_0 + b_1(\Delta \text{INF}_{t-1}) + \mu$$

where

Δi_t = change in the interest rate in period t
ΔINF_{t-1} = change in the inflation rate in period $t - 1$ (the previous period)
b_0, b_1 = regression coefficients to be estimated by regression analysis
μ = error term

Regression Analysis Using Excel

In our example, Δi_t is the dependent variable and ΔINF_{t-1} is the independent variable. The first step is to input the two columns of data that were provided earlier (Columns B and C) into a file using Excel. First, click the Data Tab and see if you have the Data Analysis option. If not, you must install the free Analysis ToolPak add-in within Excel. Next, click "Data Analysis," which leads to a new menu in which you should click "Regression." For "Input Y Range," identify the range of the dependent variable ($B$1:$B$20 in our example). Then, for "Input X Range," identify the range of the independent variable ($C$1:CC20 in our example). Click "OK" and, within a few seconds, the regression analysis will be complete. For our example, the output is as follows:

SUMMARY OUTPUT	
Multiple R	0.96884081
R-SQUARE	0.93865251
Adjusted R-SQUARE	0.93524431
Standard Error	0.1432744
Observations	20

ANOVA					
	df	SS	MS	F	SIGNIFICANCE F
Regression	1	5.653504056	5.653504	275.4105	2.34847E-12
Residual	18	0.369495944	0.020528		
Total	19	6.023			

	COEFFICIENTS	STANDARD ERROR	t-STAT	p-VALUE	LOWER 95%	UPPER 95%
Intercept	0.0494173	0.035164424	1.405321	0.176951	−0.024460473	0.123295
X Variable 1	0.75774079	0.045659421	16.5955	2.35E-12	0.661813835	0.853668

The estimate of the so-called slope coefficient is about 0.76, which suggests that every 1 percent change in the inflation rate is associated with a 0.76 percent change (in the same direction) in the interest rate. The *t*-statistic is 16.6, which suggests that there is a significant relationship between Δi_t and ΔINF_{t-1}. The R-SQUARED statistic suggests that about 94 percent of the variation in Δi_t is explained by ΔINF_{t-1}. The correlation between Δi_t and ΔINF_{t-1} can also be measured by the correlation coefficient, which is the square root of the R-SQUARED statistic.

If you have more than one independent variable (multiple regression), you should place the independent variables next to each other in the file. Then, for the "X Range," identify this block of data. The output for the regression model will display the coefficient and standard error for each of the independent variables. The *t*-statistic can be estimated for each independent variable to test for significance. For multiple regression, the R-SQUARED statistic represents the percentage of variation in the dependent variable that is explained by the model as a whole.

Using Regression Analysis to Forecast

The regression results can be used to forecast future values of the dependent variable. In our example, the historical relationship between Δi_t and ΔINF_{t-1} can be expressed as

$$\Delta i_t = b_0 + b_1(\Delta \text{INF}_{t-1})$$

Assume that last period's change in inflation (ΔINF_{t-1}) was 1 percent. Given the estimated coefficients derived from regression analysis, the forecast for this period's Δi_t is

$$\begin{aligned}\Delta i_t &= 0.0494\% + 0.7577(1\%) \\ &= 0.8071\%\end{aligned}$$

There are some obvious limitations that should be recognized when using regression analysis to forecast. First, if other variables that influence the dependent variable are not included in the model, the coefficients derived from the model may be improperly estimated. This can cause inaccurate forecasts. Second, some relationships are contemporaneous rather than lagged, which means that last period's value for ΔINF could not be used. Instead, a forecast would have to be derived for ΔINF to use as input for forecasting Δi_t. If the forecast for ΔINF is poor, the forecast for Δi_t will likely be poor even if the regression model is properly specified.

Glossary

A

adjustable-rate mortgage (ARM) Mortgage that requires payments that adjust periodically according to market interest rates.

adverse selection problem In an insurance context, the problem for the insurance industry stemming from the fact that those who are most likely to purchase insurance are also those who are most likely to need it.

amortization schedule Schedule developed from the maturity and interest rate on a mortgage to determine monthly payments broken down into principal and interest.

annuity plans Plans provided by insurance companies that offer a predetermined amount of retirement income to individuals.

arbitrageurs Firms or individuals that capitalize on discrepancies between prices of securities.

ask quote (ask price) Price at which a seller is willing to sell.

asset stripping A strategy of acquiring a firm, breaking it into divisions, segmenting the divisions, and then selling them separately.

at the money Refers to an option in which the prevailing price of the underlying security is equal to the exercise price.

B

back-end load A withdrawal fee charged when money is withdrawn from a mutual fund.

balloon payment A required lump-sum payment of the principal of a loan.

balloon-payment mortgage Mortgage that requires payments for a three- to five-year period; at the end of the period, full payment of the principal is required.

banker's acceptance Agreement in which a commercial bank accepts responsibility for a future payment; it is commonly used for international trade transactions.

bank holding company (BHC) Company that owns a commercial bank.

basis risk As applied to interest rate swaps, risk that the index used for an interest rate swap does not move perfectly in tandem with the floating-rate instrument specified in a swap arrangement. As applied to financial futures, risk that the futures prices do not move perfectly in tandem with the assets that are hedged.

bearer bonds Bonds that require the owner to clip coupons attached to the bonds and send them to the issuer to receive coupon payments.

behavioral finance The application of psychology to make financial decisions.

Beige Book A consolidated report of economic conditions in each of the Federal Reserve districts; used by the Federal Open Market Committee in formulating monetary policy.

best-efforts agreement Arrangement in which the securities firm does not guarantee a price on securities to be issued by a corporation but states only that it will give its best effort to sell the securities at a reasonable price.

bid quote (bid price) Price a purchaser is willing to pay for a specific security.

Board of Governors Composed of seven individual members appointed by the President of the United States; also called the Federal Reserve Board. The board helps regulate commercial banks and control monetary policy.

Bond Buyer Index Index based on 40 actively traded general obligation and revenue bonds.

bond price elasticity Sensitivity of bond prices to changes in the required rate of return.

Bretton Woods era Period from 1944 to 1971, when exchange rates were fixed (maintained within 1 percent of a specified rate).

bridge loans Funds provided as temporary financing until other sources of long-term funds can be obtained; commonly provided by securities firms to firms experiencing leveraged buyouts.

broker One who executes securities transactions between two parties.

bullet loan Loan structured so that interest payments and the loan principal are to be paid off in one lump sum at a specified future date.

C

call option Contract that grants the owner the right to purchase a specified financial instrument for a specified price within a specified period of time.

call premium Difference between a bond's call price and its par value.

call provision (call feature) Provision that allows the initial issuer of bonds to buy back the bonds at a specified price.

callable swap (swaption) Swap of fixed-rate payments for floating-rate payments whereby the party making the fixed payments has the right to terminate the swap prior to maturity.

CAMELS ratings Characteristics used to rate bank risk: capital adequacy, asset quality, management, earnings, liquidity, and sensitivity.

capital As related to banks, capital is mainly composed of retained earnings and proceeds received from issuing stock.

capital appreciation funds Mutual funds composed of stocks of firms that have potential for very high growth but may be unproven.

Capital gain The difference between the prices at which a stock is sold versus the price at which it was purchased.

capital market securities Long-term securities, such as bonds, whose maturities are more than one year.

capital ratio Ratio of capital to assets.

carve-out Arrangement in which a corporation sells one of its units to new shareholders through an initial public offering.

cash flow underwriting Method by which insurance companies adapt insurance premiums to interest rates.

chattel mortgage bond Bond that is secured by personal property.

closed-end funds Mutual funds that do not repurchase the shares they sell.

coincident economic indicators Economic indicators that tend to reach their peaks and troughs at the same time as business cycles.

collateralized debt obligation (CDOs) Represent securities that are backed by collateral and are sold to investors.

collateralized mortgage obligations (CMOs) Represent securities that are backed by mortgages; segmented into classes (or tranches) that dictate the timing of the payments.

commission brokers (floor brokers) Brokers who execute orders for their customers.

common stock Securities representing partial ownership of a corporation.

convertible bonds Bonds that can be converted into a specified number of shares of the firm's common stock.

covered interest arbitrage Act of capitalizing on higher foreign interest rates while covering the position with a simultaneous forward sale.

credit default swap A privately negotiated contract that protects investors against the risk of default on particular debt securities.

credit risk The risk of loss that will occur when a counterparty defaults on a contract.

crowding-out effect Phenomenon that occurs when insufficient loanable funds are available for potential borrowers, such as corporations and individuals, as a result of excessive borrowing by the Treasury. Because limited loanable funds are available to satisfy all borrowers, interest rates rise in response to the increased demand for funds, thereby crowding some potential borrowers out of the market.

currency call option Contract that grants the owner the right to purchase a specified currency for a specified price within a specified period of time.

currency futures contract Standardized contract that specifies an amount of a particular currency to be exchanged on a specified date and at a specified exchange rate.

currency put option Contract that grants the owner the right to sell a specified currency for a specified price within a specified period of time.

currency swap An agreement that allows the periodic swap of one currency for another at specified exchange rates; it essentially represents a series of forward contracts.

D

day traders Traders of financial futures contracts who close out their contracts on the same day that they initiate them.

dealers Securities firms that make a market in specific securities by adjusting their inventories.

debentures Bonds that are backed only by the general credit of the issuing firm.

debt-for-equity swap An exchange of debt for an equity interest in the debtor's assets.

debt securities Securities that represent credit provided to the initial issuer by the purchaser.

defensive operations The open market operations implemented to offset the impact of other conditions that affect the level of funds.

deficit units Individual, corporate, or government units that need to borrow funds.

defined-benefit plan Pension plan in which contributions are dictated by the benefits that will eventually be provided.

defined-contribution plan Pension plan in which benefits are determined by the accumulated contributions and on the fund's investment performance.

demand deposit account Deposit account that offers checking services.

demand-pull inflation Inflation caused by excess demand for goods.

Deposit Insurance Fund Reserve fund used by the FDIC to close failing banks. The fund is supported by deposit insurance premiums paid by commercial banks.

Depository Institutions Deregulation and Monetary Control Act (DIDMCA) Act that deregulated some aspects of the depository institutions industry, such as removing the ceiling interest rates on deposits and allowing NOW accounts nationwide.

derivative securities Financial contracts whose values are derived from the values of underlying assets.

direct exchange rate The value of a currency in U.S. dollars.

direct lease loan Occurs when a bank purchases assets and then leases the assets to a firm.

dirty float System whereby exchange rates are market determined without boundaries but are subject to government intervention.

discount brokerage firms Brokerage firms that focus on executing transactions.

duration gap Difference between the average duration of a bank's assets versus its liabilities.

dynamic open market operations Implemented by the Federal Reserve to increase or decrease the level of funds.

dynamic operations Monetary policy implemented by the Federal Reserve to increase or decrease the level of funds.

E

economies of scale Reduction in average cost per unit as the level of output increases.

effective yield As related to international money markets, represents the yield on foreign money market securities adjusted for the exchange rate.

efficient market Market in which securities are rationally priced.

Employee Retirement Income Security Act (ERISA) Act that provided three vesting schedule options from which a pension fund could choose. It also stipulated that pension contributions be invested in a prudent manner and that employees can transfer any vested pension amounts to new employers as they switch employers.

equity securities Securities such as common stock and preferred stock that represent ownership in a business.

equity swap Swap arrangement involving the exchange of interest payments for payments linked to the degree of change in a stock index.

Euro-commercial paper (Euro-CP) Securities issued in Europe without the backing of a bank syndicate.

Eurodollar certificate of deposit Large U.S. dollar–denominated deposits in non-U.S. banks.

Eurodollar floating-rate CDs (FRCDs) Eurodollar CDs with floating interest rates that adjust periodically to the LIBOR.

Eurodollar market Market in Europe in which dollars are deposited and loaned for short time periods.

Eurodollars Large dollar-denominated deposits accepted by banks outside the United States.

Euronotes Notes issued in European markets in bearer form, with short-term maturities.

exercise price (strike price) Price at which the instrument underlying an option contract can be purchased (in the case of a call option) or sold (in the case of a put option).

extendable swap Swap of fixed payments for floating payments that contains an extendable feature allowing the party making fixed payments to extend the swap period if desired.

F

Federal Deposit Insurance Corporation (FDIC) Federal agency that insures the deposits of commercial banks.

federal funds market Market that facilitates the flow of funds from banks that have excess funds to banks that are in need of funds.

federal funds rate Interest rate charged on loans between depository institutions.

Federal Home Loan Mortgage Association (Freddie Mac) Issues mortgage-backed securities and uses the proceeds to purchase mortgages.

Federal National Mortgage Association (Fannie Mae) Issues mortgage-backed securities and uses the funds to purchase mortgages.

Federal Open Market Committee (FOMC) Composed of the seven members of the Board of Governors plus the presidents of five Federal Reserve district banks. The main role of the FOMC is to control monetary policy.

Federal Reserve district bank A regional government bank that facilitates operations within the banking system by clearing checks, replacing old currency, providing loans to banks, and conducting research; there are 12 Federal Reserve district banks.

Federal Reserve System A system which is involved (along with other agencies) in regulating commercial banks and responsible for conducting periodic evaluations of state-chartered banks and savings institutions with more than $50 billion in assets.

financial futures contract Standardized agreement to deliver or receive a specified amount of a specified financial instrument at a specified price and date.

financial market Market in which financial assets (or securities) such as stocks and bonds are traded.

Financial Services Modernization Act (Gramm-Leach-Bliley Act) Legislation enacted in 1999 that allows affiliations between banks, securities firms, and insurance companies; repealed the Glass-Steagall Act.

firm commitment The underwriter guarantees the issuer that all bonds will be sold at a specified price.

first mortgage bond Bond that has first claim on specified assets as collateral.

floor brokers Individuals who facilitate the trading of stocks on the New York Stock Exchange by executing transactions for their clients.

floor traders (locals) Members of a futures exchange who trade futures contracts for their own account.

flotation costs Costs of placing securities.

foreign exchange derivatives Instruments created to lock in a foreign exchange transaction, such as forward contracts, futures contracts, currency swaps, and currency options contracts.

foreign exchange market The financial market that facilitates the exchange of currencies.

forward contract Contract typically negotiated with a commercial bank that allows a customer to purchase or sell a specified amount of a particular foreign currency at a specified exchange rate on a specified future date.

forward market Market that facilitates the trading of forward contracts; commercial banks serve as intermediaries in the market by matching up participants who wish to buy a currency forward with other participants who wish to sell the currency forward.

forward rate In the context of the term structure of interest rates, the market's forecast of the future interest rate. In the context of foreign exchange, the exchange rate at which a specified currency can be purchased or sold at a specified future point in time.

forward swap Involves an exchange of interest payments that does not begin until a specified future point in time.

freely floating system System in which exchange rates are market determined without any government intervention.

full-service brokerage firms Brokerage firms that provide complete information and advice about securities in addition to executing transactions.

fundamental analysis Method of valuing stocks that relies on fundamental financial characteristics (such as earnings) about the firm and its corresponding industry.

fundamental forecasting Is based on fundamental relationships between economic variables and exchange rates.

G

Garn-St. Germain Act Act passed in 1982 that allowed for the creation of money market deposit accounts (MMDAs), loosened lending guidelines for federally chartered savings institutions, and allowed failing depository institutions to be acquired by other depository institutions outside the state.

general obligation bonds Bonds that provide payments that are supported by the municipal government's ability to tax.

Glass-Steagall Act Act in 1933 that separated commercial banking and investment banking activities; largely repealed in 1999.

graduated-payment mortgage (GPM) Mortgage that allows borrowers to initially make small payments on the mortgage; the payments are increased on a graduated basis.

gross interest expense Interest paid on deposits and on other borrowed funds.

gross interest income Interest income generated from all assets.

group life policy Policy provided to a group of policyholders with some common bond.

growing-equity mortgage Mortgage where the initial monthly payments are low and increase over time.

growth and income funds Mutual funds that contain a combination of growth stocks, high-dividend stocks, and fixed-income bonds.

growth funds Mutual funds containing stocks of firms that are expected to grow at a higher than average rate; for investors who are willing to accept a moderate degree of risk.

H

health maintenance organizations (HMOs) Intermediaries between purchasers and providers of health care.

hedge funds Mutual funds that sell shares to wealthy individuals and financial institutions and use the proceeds to invest in securities; require a larger investment than open-end mutual funds, are subject to less regulation, and tend to be more risky.

hedgers Participants in financial futures markets who take positions in contracts to reduce their exposure to risk.

high-yield funds Mutual funds composed of bonds that offer high yields (junk bonds) and have a relatively high degree of credit risk.

highly leveraged transactions (HLTs) Credit provided that results in a debt-to-asset ratio of at least 75 percent.

I

immunize The act of insulating a security portfolio from interest rate movements.

impact lag Lag time between when a policy is implemented by the government and the time when the policy has an effect on the economy.

implementation lag Lag time between when the government recognizes a problem and the time when it implements a policy to resolve the problem.

income before tax As related to banks, is derived by summing net interest income, noninterest income, and securities gains and then subtracting from this sum the provision for loan losses and noninterest expenses.

income funds Mutual funds composed of bonds that offer periodic coupon payments.

indenture Legal document specifying the rights and obligations of both the issuing firm and the bondholders.

independent brokers Agents who trade for their own account and are not employed by any particular brokerage firm.

index arbitrage Act of capitalizing on discrepancies between prices of index futures and stocks.

index funds Mutual funds that are designed to match the performance of an existing stock index.

indirect exchange rate The value of a currency specified as the number of units of that currency equal to a U.S. dollar.

initial margin A margin deposit established by a customer with a brokerage firm before a margin transaction can be executed.

installment loans Loans to individuals to finance purchases of cars and household products.

interest-inelastic Insensitive to interest rates.

interest rate cap Arrangement that offers a party interest payments in periods when the interest rate on a specific money market instrument exceeds a specified ceiling rate; the payments are based on the amount by which the interest rate exceeds the ceiling as applied to the notional principal specified in the agreement.

interest rate collar The purchase of an interest rate cap and the simultaneous sale of an interest rate floor.

interest rate floor Agreement in which one party offers an interest rate payment in periods when the interest rate on a specified money market instrument is below a specified floor rate.

interest rate futures Financial futures contracts on debt securities such as Treasury bills, notes, or bonds.

interest rate parity Theory that suggests the forward discount (or premium) is dependent on the interest rate differential between the two countries of concern.

interest rate risk Risk that an asset will decline in value in response to interest rate movements.

interest rate swap Arrangement whereby one party exchanges one set of interest payments for another.

in the money Describes a call option whose premium is above the exercise price or a put option whose premium is below the exercise price.

investment-grade bonds Bonds that are rated Baa or better by Moody's and BBB or better by Standard & Poor's.

investment-grade securities Securities that are rated as "medium" quality or higher by rating agencies.

issue costs Cost of issuing stock, including printing, legal registration, and accounting expenses.

J

junk bonds Corporate bonds that are perceived to have a high degree of risk.

junk commercial paper Low-rated commercial paper.

L

lagging economic indicators Economic indicators that tend to rise or fall a few months after business-cycle expansions and contractions.

leading economic indicators Economic indicators that tend to rise or fall a few months before business-cycle expansions and contractions.

letter of credit (L/C) Guarantee by a bank on the financial obligations of a firm that owes payment (usually an importer).

limit orders Requests by customers to purchase or sell securities at a specified price or better.

liquidity Ability to sell assets easily without loss of value.

load funds Mutual funds that have a sales charge imposed by brokerage firms that sell the funds.

loan loss provision A reserve account established by a bank in anticipation of loan losses in the future.

loan participation Arrangement in which several banks pool funds to provide a loan to a corporation.

loanable funds theory Theory that suggests the market interest rate is determined by the factors controlling the supply and demand for loanable funds.

locational arbitrage Arbitrage intended to capitalize on a price (such as a foreign exchange rate quote) discrepancy between two locations.

long hedge The purchase of financial futures contracts to hedge against a possible decrease in interest rates.

long-term capital gain The gain on a stock position held for one year or longer.

long-term equity anticipations (LEAPs) Stock options with relatively long-term expiration dates.

low-coupon bonds Bonds that pay low coupon payments; most of the expected return to investors is attributed to the large discount in the bond's price.

M

M1 Definition of the money supply; composed of currency held by the public plus checking accounts.

M2 Definition of the money supply; composed of M1 plus savings accounts, small time deposits, MMDAs, and some other items.

M3 Definition of the money supply; composed of M2 plus large time deposits and other items.

maintenance margin A margin requirement that reduces the risk that participants will later default on their obligations.

margin account An account established with a broker that allows the investor to purchase stock on margin by putting up cash for part of the cost and borrowing the remainder from the broker.

margin call Call from a broker to participants in futures contracts (or other investments) informing them that they must increase their equity.

margin requirements The proportion of invested funds that must be paid in cash versus borrowed; set by the Federal Reserve.

market-based forecasting Process of developing forecasts from market indicators.

market-makers Individuals who facilitate the trading of stocks on the New York Stock Exchange and Nasdaq by standing ready to buy or sell specific stocks in response to customer orders.

market microstructure Process by which securities are traded.

market orders Requests by customers to purchase or sell securities at the market price.

matched funding Strategy in which investment decisions are made with the objective of matching planned outflow payments.

merger-conversion Procedure used in acquisitions whereby a mutual S&L converts to a stock-owned S&L before either acquiring or being acquired by another firm.

mixed forecasting The use of a combination of forecasting techniques, resulting in a weighted average of the various forecasts developed.

money market deposit account (MMDA) Deposit account that pays interest and allows limited checking and does not specify a maturity.

money market mutual funds Mutual funds that concentrate their investment in money market securities.

money markets Financial markets that facilitate the flow of short-term funds.

money market securities Short-term securities, such as Treasury bills or certificates of deposit, whose maturities are one year or less.

moral hazard problem In a banking context, refers to the deposit insurance pricing system that existed until the early 1990s; insurance premiums per $100 of deposits were similar across all commercial banks. This system caused an indirect subsidy from safer banks to risky banks and encouraged banks to take excessive risk. In an insurance context, the problem for the insurance industry stemming from the fact that those who have insurance may take more risks because they are protected against losses.

mortgage-backed securities (MBS) Securities issued by a financial institution that are backed by a pool of mortgages; also called pass-through securities.

multifund mutual fund A mutual fund composed of different mutual funds.

Municipal Bond Index (MBI) futures Futures contract allowing for the future purchase or sale of municipal bonds at a specified price.

municipal bonds Debt securities issued by state and local governments; they can usually be classified as either general obligation bonds or revenue bonds.

mutual fund An investment company that sells shares representing an interest in a portfolio of securities.

N

National Association of Insurance Commissioners (NAIC) Agency that facilitates cooperation among the various state agencies when an insurance issue is a concern.

National Association of Securities Dealers Automatic Quotations (Nasdaq) A service for the over-the-counter market that reports immediate price quotations for many of the stocks.

negotiable certificate of deposit (NCD) Deposit account with a minimum deposit of $100,000 that requires a specified maturity; there is a secondary market for these deposits.

net asset value (NAV) Financial characteristic used to describe a mutual fund's value per share; estimated as the market value of the securities comprising the mutual fund, plus any accrued interest or dividends, minus any expenses. This value is divided by the number of shares outstanding.

net exposure In the context of futures markets, the difference between asset and liability positions.

noise traders Uninformed investors whose buy and sell positions push the stock price away from its fundamental value.

no-load funds Mutual funds that do not have a sales charge, meaning that they are not promoted by brokerage firms.

noninterest expenses Expenses, such as salaries and office equipment, that are unrelated to interest payments on deposits or borrowed funds.

note issuance facility (NIF) Commitment in which a bank agrees to purchase the commercial paper of a firm if the firm cannot place its paper in the market at an acceptable interest rate.

notional principal Value to which interest rates from interest rate swaps are applied to determine the interest payments involved.

NOW (negotiable order of withdrawal) accounts Deposit accounts that allow unlimited checking and pay interest.

O

open-end funds Mutual funds that are willing to repurchase the shares they sell from investors at any time.

Open Market Desk Division of the New York Federal Reserve district bank that is responsible for conducting open market operations.

organized exchange Visible marketplace for secondary market transactions.

origination Decisions by a firm (with the help of a securities firm) on how much stock or bonds to issue, the type of stock (or bonds) to be issued, and the price at which the stock (or bonds) should be sold.

out of the money Describes a call option whose premium is below the exercise price or a put option whose premium is above the exercise price.

P

participation certificates (PCs) Certificates sold by the Federal Home Loan Mortgage Association; the proceeds are used to purchase conventional mortgages from financial institutions.

pass-through securities Securities issued by a financial institution and backed by a group of mortgages. The mortgage interest and principal are sent to the financial institution, which then transfers the payments to the owners of the pass-through securities after deducting a service fee. Also called mortgage-backed securities.

Pension Benefit Guaranty Corporation (PBGC) Established as a result of ERISA to provide insurance on pension plans.

plain vanilla swap Involves the periodic exchange of fixed-rate payments for floating-rate payments.

policy directive Statement provided by the FOMC to the Trading Desk regarding the target money supply range.

position traders Traders of financial futures contracts who maintain their futures positions for relatively long periods (such as weeks or months) before closing them out.

prepayment risk The possibility that the assets to be hedged may be prepaid earlier than their designated maturity; also applies to mortgages.

primary credit lending rate The interest rate charged by the Federal Reserve System on short-term loans extended to banks.

primary market Market where securities are initially issued.

prime rate Interest rate charged on loans by banks to their most creditworthy customers.

private placement Process in which a corporation sells new securities directly without using underwriting services.

projective funding Strategy that offers pension fund managers some flexibility in constructing a pension portfolio that can benefit from expected market and interest rate movements.

prospectus A pamphlet that discloses relevant financial data on the firm and provisions applicable to the security.

purchasing power parity (PPP) Theory that suggests exchange rates adjust, on average, by a percentage that reflects the inflation differential between the two countries of concern.

put option Contract that grants the owner the right to sell a specified financial instrument for a specified price within a specified period of time.

putable swap Swap of fixed-rate payments for floating-rate payments whereby the party making floating-rate payments has the right to terminate the swap.

R

rate-capped swap Swap arrangement, involving fixed-rate payments for floating-rate payments, in which the floating payments are capped.

real interest rate Nominal interest rate adjusted for inflation.

registered bonds Require the issuer to maintain records of who owns the bonds and automatically send coupon payments to the owners.

registration statement Statement of relevant financial information disclosed by a corporation issuing securities; it is intended to ensure that accurate information is disclosed by the issuing corporation.

repurchase agreement (repo) Agreement in which a bank (or some other firm) sells some of its government security holdings with a commitment to purchase those securities back at a later date. This agreement essentially reflects a loan from the time the firm sold the securities until the securities are repurchased.

return on assets (ROA) Defined as after-tax earnings divided by assets.

revenue bonds Bonds that provide payments that are supported by the revenue generated by the project.

reverse repo The purchase of securities by one party from another with an agreement to sell them in the future.

revolving credit loan Financing arrangement that obligates the bank to loan some specified maximum amount of funds over a specified period of time.

S

Savings Association Insurance Fund (SAIF) Insuring agency for S&Ls from 1989 until 2006.

second mortgage Mortgage used in conjunction with the primary or first mortgage.

secondary market Market where securities are resold.

secondary stock offering A new stock offering by a firm that already has stock outstanding.

securities Certificates that represent a claim on the issuer.

Securities Act of 1933 Intended to ensure complete disclosure of relevant information on publicly offered securities and to prevent fraudulent practices in selling these securities.

Securities Exchange Act of 1934 Intended to ensure complete disclosure of relevant information on securities traded in secondary markets

securities gains and losses Bank accounting term that reflects the gains or losses generated from the sale of securities.

Securities Investor Protection Corporation (SIPC) Offers insurance on cash and securities deposited at brokerage firms.

securitization Pooling and repackaging of loans into securities, which are sold to investors.

semistrong-form efficiency Security prices reflect all public information, including announcements by firms, economic news or events, and political news or events.

shared-appreciation mortgage Mortgage that allows a home purchaser to pay a below-market interest rate; in return, the lender shares in the appreciation of the home's value.

Sharpe index Measure of risk-adjusted return; defined as the asset's excess mean return beyond the mean risk-free rate, divided by the standard deviation of returns of the asset of concern.

shelf registration Registration with the SEC in advance of public placement of securities.

short selling The sale of securities that are borrowed with the intention of buying those securities to repay what was borrowed.

short-term capital gain The gain on a stock position less than one year.

sinking-fund provision Requirement that the firm retire a specific amount of the bond issue each year.

Smithsonian Agreement Agreement among major countries to devalue the dollar against some currencies and widen the boundaries around each exchange rate from 1 percent to 2.25 percent.

sovereign risk As applied to swaps, risk that a country's political conditions could prevent one party in the swap from receiving payments due.

specialists Individuals who facilitate the trading of stocks on the New York Stock Exchange by taking positions in specific stocks; they stand ready to buy or sell these stocks.

specialty funds Mutual funds that focus on a group of companies sharing a particular characteristic.

speculators Those who take positions to benefit from future price movements.

spread Used to represent the difference between bid and ask quotes. This term is also sometimes used to reflect the difference between the average interest rate earned on assets and the average interest rate paid on liabilities.

standby letter of credit Agreement that backs a customer's financial obligation.

stock index futures Financial futures contracts on stock indexes.

stock index option Provides the right to trade a specified stock index at a specified price by a specified expiration date.

stop-buy order Order to purchase a particular security when the price reaches a specified level above the current market price; often used in short sales.

strong-form efficiency Security prices fully reflect all information, including private (insider) information.

subordinated debentures Debentures that have claims against the firm's assets that are junior to the claims of both mortgage bonds and regular debentures.

surplus units Individual, business, or government units that have excess funds that can be invested.

swap options (swaptions) Options on interest rate swaps.

systematic risk Risk that is attributable to market movements and cannot be diversified away.

systemic risk The spread of financial problems, among financial institutions and across financial markets, that could cause a collapse in the financial system.

T

technical analysis Method of forecasting future stock prices with the use of historical stock price patterns.

technical forecasting Involves the use of historical exchange rate data to predict future values.

term insurance Temporary insurance over a specified term; the policy does not build a cash value.

term loan Business loan used to finance the purchase of fixed assets.

term structure of interest rates Relationship between the term remaining until maturity and the annualized yield of debt securities.

time-series model Examines moving averages and allows forecasters to develop rules.

Trading Desk Located at the New York Federal Reserve district bank, it is used to carry out orders from the FOMC about open market operations.

triangular arbitrage Buying or selling a currency that is subject to a mispriced cross exchange rate.

U

underwrite Act of guaranteeing a specific price to the initial issuer of securities.

underwriting syndicate Group of securities firms that are required to underwrite a portion of a corporation's newly issued securities.

universal life insurance Combines the features of term and whole life insurance. It specifies a period of time over which the policy will exist but also builds a cash value for policyholders over time.

usury laws Laws that enforce a maximum interest rate that can be imposed on loans to households.

V

variable life insurance Insurance in which benefits awarded by the life insurance company to a beneficiary vary with the assets backing the policy.

variable-rate bonds Bonds whose coupon rates adjust to market interest rates over time.

W

weak-form efficiency Theory that suggests that security prices reflect all market-related data, such as historical security price movements and volume of securities traded.

whole life insurance Insurance that protects the insured policyholder until death or as long as premiums are promptly paid; the policy builds a cash value to which the policyholder is entitled even if the policy is canceled.

working capital loan Business loan designed to support ongoing operations, typically for a short-term period.

writer The seller of an option contract.

Y

yield to maturity Discount rate at which the present value of future payments would equal the security's current price.

Z

zero-coupon bonds Bonds that have no coupon payments.

zero-coupon-for-floating swap Swap arrangement calling for one party to swap a lump-sum payment at maturity in exchange for periodic floating-rate payments.

Index

A

AAA-rated notes, 525
Accounting,
  fraud prevention, 317–318
  governance of. See Governance of accounting irregularities, 269
  at Lehman Brothers, 318
  regulation of, 503–504
Adjustable-rate mortgages (ARM), 228
  at savings institutions, 584
Adjusted dividend discount model, 283–284
  limitations, 284
Adverse selection problem, 667
Affordable Care Act of 2010 (ACA), 680
AIG, government rescue of, 683
Allstate Insurance, 14, 677
Amazon.com, 258
America Online, 258
American call options, 407
American depository receipts (ADRs), 275
American International Group (AIG), 429, 683
American put options, 407
American Stock Exchange, 370
American-style stock options, 369
Amortization schedule, 226
Amortizing fixed-rate mortgages, 226–227
Analysts, role of, 269
Analysts, stock exchange rules, 269
Annuity plans, 672
Antitakeover amendments, 273
Apple, 249
Appropriate yield, estimating, 55–56
Arbitrage with stock index futures, 358
Arbitrageurs, 358
Arthur Andersen's audit, 316
Ask quote, 14, 319
Asset allocation funds, 620
Asset management of life insurance companies, 675–676
Asset stripping, 646
Asymmetric information, 10, 262
At the money, 369
Auction-rate securities, 183
Auditing, 311–312

B

Back-end load, 616
Bailout Act, 20, 151
Bailout of financial institutions, 239
Balance sheet of savings institutions, 576
Balloon payment, 482
Balloon payment mortgages, 229
Bank capital, 480
Bank goals, strategy, and governance, 521–523
  aligning managerial compensation with bank goals, 521–522
  bank strategy, 522
  governance by the board of directors, 522–523
  other forms of governance, 523
Bank governance by board of directors, 522
  inside vs. outside directors, 523
Bank holding companies (BHCs), 498, 661
Bank Insurance Fund (BIF), 499, 574
Bank investment in securities, regulation of, 501
Bank loans, 482–486
  business loans, 482–483
  community, 501
  consumer loans, 485
  foreign loans, 501
  highly leveraged transactions, 484
  loan participations, 484
  loans supporting leveraged buyouts, 484
  real estate loans, 485–486

regulation of, 500–501
single borrower, 501
Bank management, 521–544
Bank market structure, 475–476
Bank of America, 13, 317, 661
Bank performance, 551–552
Bank proprietary trading, limits on, 515
Bank regulation, 497–516
regulatory structure, 497–498
Bank sources of funds, 476–481
bank capital, 480–481
bonds issued by bank, 480
borrowing from federal reserve banks, 479
distribution of, 481–482
Eurodollar borrowings, 480
federal funds purchased, 478–479
money market deposit accounts, 478
repurchase agreements, 479–480
savings deposits, 477
time deposits, 478
transaction deposits, 477
Bank strategy, 522
Bank's performance,
assessing, 554–558
return on assets, 557–558
Banker's acceptances, 146–147
steps, 146
Banking Act of 1933, 501
Banks in aggregate, 557
interest income and expenses, 555–557
net income, 557
noninterest income and expenses, 556
Barbell strategy, 205
Baring PLC, 381
Barings Bank, 648
Basel Committee on Banking Supervision, 505, 506
Basel I Accord (1988), 505
Basel II framework, 505
accounting for operational risk, 506
revising measurement of credit risk, 505
Basel III framework, 506
BBB-rated notes, 501
Bear-Stearns, 20, 94, 512, 648, 658, 659, 660, 661
government assistance, 658
Bearer bonds, 163
Behavioral finance, 9
Beige Book, 85
Bernard Madoff, 635
Best-efforts agreement, 174, 642
Beta of a stock, 295
beta of a stock portfolio, 295
Bid quote, 14, 319
Binomial pricing model, 400–403
put-call parity, 403
to price call options, 400–402
to price put options, 402
Black-Scholes option-pricing model, 403–405
deriving implied volatility, 405
European call options, 407
put-call parity, 405
to price a European call option, 404–405
Black-Scholes partial differential equation, 404
BNP Paribus, 317
Board of directors compensation, 312
independent audit committee, 312
Board of Governors of Federal
Reserve, 82–83
Bond(s), 5, 163–183
bearer, 163
corporate, 172–180
federal agency, 168
inflation indexed, 168
institutional participation in bond markets,
163–164
international, 206–209
issued by bank, 480
junk, 175
municipal, 169–172
registered, 163
savings, 168
stripped treasury, 167
treasure and federal agency, 165–167
yields, 165
Bond Buyer Index, 347
Bond convexity, 204
Bond insurance, 680
Bond interest rate strategy, 205
Bond investment strategies, 205
barbell strategy, 205
interest rate strategy, 205
Bond laddered strategy, 205
Bond markets, globalization of, 180–182
Eurobond market, 181
government debt markets, 180–181
Bond matching strategy, 205
Bond mutual fund categories, 617
high-yield (junk) bond funds, 619–620
income funds, 619
international and global bond funds, 620
maturity classifications, 620
tax-free funds, 619
Bond mutual funds, valuation of, 623
Bond offerings, facilitating, 643
advising, 644
distribution of, 644
origination, 643
private placements, 644
underwriting bonds, 644

Bond portfolio performance of pension funds, 693
change in risk-free rate, 694
change in risk premium, 694
change in management abilities, 694
Bond portfolio returns, forecasting, 221–222
Bond portfolio values, forecasting, 220–221
Bond price, and interest rate movements, 199–205
bond price elasticity, 199–200
duration, 201–202
coupon rate, and required return, 200–201
duration. See Duration of a bond forecasting, 217–218
Bond price elasticity, 200
and coupon rate, 201
influence of maturity, 201
Bond price movements, affecting bond prices, 197
and financial institutions, 198
explaining, 193–205
risk-free rate, 194
Bond valuation process, 189–192
coupon rate, required return, and bond price, 192–193
credit (default) risk premium, 197
discount rate, 190–191
timing of payments, 191
with semiannual payments, 191–192
Bond yields, 165
forecasting, 218–220
investor's perspective, 165
issuer's perspective, 165
Bookbuilding, 255
Borrowed funds, 3
Borrower's credit history, 225
Borrower's equity invested, 225
Borrower's income level, 225
Bretton Woods era, 441
Bridge loan, 646
Broker, 14
Brokerage services by securities firms, 646
management of customer accounts, 647
online orders, 646
Bullet loan, 482
Business demand for loanable funds, 30–31
Business finance companies, 597
Business insurance, 680

C

California Public Employees' Retirement System (CALPERS), 270, 693
Callable swap, 415
Call option, 369
speculating with, 377–380
Call option premiums,
call option's time to maturity, 374
determinants of, 373–374
influence of market price, 373
stock's volatility, 373
Call premium, 178
Call provision, 178
Callable CDs, 478
Callable swap, 415
CAMELS rating system, 508–511, 574
asset quality, 509
capital adequacy, 508–509
earnings, 510
limitations, 510–511
liquidity, 510
management, 510
sensitivity, 510
Capital appreciation funds, 618
Capital asset pricing model (CAPM), 285
application, 286
estimating firm's beta, 285–286
estimating market risk premium, 285
Capital (equity) maintained by banks, 504
Capital market securities, 5–6
Capital of a savings institution, 575
Capital ratio, 508
Captive finance subsidiaries (CFS), 598
Carve out, 645
Cash flow,
at savings institutions, 580
factors that affect, 551–553
factors that affect insurance companies, 683–684
securities firm, 655
Cash flow underwriting, 678
Cash management bills, 136
Central bank intervention in exchange rates, 445–446
direct intervention, 445
during peso crisis, 445
during Asian crisis, 446
during Russian crisis, 446
during Greek crisis, 446
indirect intervention, 445
Certificate of deposit, 478
Charles Schwab, 320, 329
Chattel mortgage bond, 178
Chicago Board of Trade (CBOT), 344, 370
Chicago Board Options Exchange (CBOE), 344, 346, 370
Chicago Mercantile Exchange (CME), 344, 345
Circuit breakers on stock or stock indexes, 331, 359
Citicorp, 503, 508
Citigroup, 13
Closed-end funds, 628
CME Group, 344
CNA Insurance, 14
Coca-Cola Company, 176
Coincident economic indicators, 104
Collateral on CDS contracts, 427
Collateralized debt obligation (CDO), 233

Collateralized loan obligations (CLOs), 524–525
Collateralized mortgages obligations (CMOs), 232–233
Commercial bank(s), 12
  background, 475–476
  balance sheet, 488
  bank market structure, 475–476
  factors that affect cash flow, 551–552
  impact of credit crisis, 554
  required rate of return, 553–554
  valuation of, 551–554
Commercial paper, 139–142
  backing commercial paper, 140–141
  credit risk during credit crisis, 139
  denomination, 139
  estimating yield, 141
  placement, 140
  rate over time, 141–142
  ratings, 140
  yield curve, 141
Commission brokers, 263, 345
Commission on Public Trust and Private Enterprise, 312
Commodity Futures Trading Commission (CFTC), 344, 362
Common stock, 251
Competition, impact of consolidation on, 18
Comptroller of the Currency, 498, 508, 514
Consumer Advisory Council, 84
Consumer Financial Protection Bureau, 21, 84, 515, 588
Consumer Protection Act, 20
Consumer Price Index, 105
Conventional mortgages, 225–226
Convertible bond, 179
Corporate bond(s), 172–180
  bond collateral, 178
  bond ratings, 174–175
  call provisions, 178
  characteristics, 177
  convertibility, 179
  credit risk, 174
  default rate, 174
  finance restructuring, 179–180
  low- and zero-coupon bonds, 179
  protective covenants, 178
  secondary market for, 176
  sinking-fund provision, 177
  variable-rate bonds, 179
Corporate bond offerings, 172
  private placement, 174
  public offering, 172
Corporate bonds finance restructuring,
  finance a leveraged buyout, 179
  revise capital structure, 180
Corporate control,
  barriers to the market, 273
  golden parachutes, 273
  LBOs to achieve, 272
  market for, 272–273
  pension funds, 693
  poison pills, 273
  role of the market, 313
Corporate finance, 4
Corporate finance needs, accommodating, 4
Cost of carry, 355
Counterparties, availability for pricing interest rate swaps, 421
Coupon rate, required return, and bond price, 192
Covered call, 383
Covered call options, hedging with, 383
Covered interest arbitrage, 454–455
Creative accounting, problems with, 311
Credit, 3
Credit crisis,
  and Lehman Brothers, 660–661
  and regulatory reform, 661–662
  Fannie Mae and Freddie Mac, 235–236
  government assistance to Bear Stearns, 658–660
  government response, 20–21
  impact on securities firms, 658–662
  insurance companies during, 682
  international systemic risk, 237
  systematic risk during, 19, 236
Credit crisis for financial institutions, 19–20
Credit crisis impact on CDS market, 428
  AIG's financial problems, 429–430
  insufficient margins, 429
  Lehman Brothers' failure, 429
  mortgage defaults, 428–429
Credit crisis of 2008–2009, 586
Credit crunch, 109
Credit (default) risk, 49–50, 230
  accuracy of credit ratings, 51
  credit rating agencies, 50–51
  rating agencies, 50
Credit (default) risk premium,
  changes over time, 196
  factors that affect, 196–197
  impact of debt maturity, 196
  issuer-specific characteristics on credit risk, 197
Credit default swap contracts, 491–492
Credit default swaps (CDS), 426–430
  as form of mortgage insurance, 681
  collateral on contracts, 427
  contracts affect debtor-creditor negotiations, 428
  development of CDS market, 428
  impact of credit crisis, 428
  payments on, 427
  reform of CDS contracts, 430
  regulation of, 503
  secondary market for contracts, 427

Credit Ratings, Office of, 51
Credit rating agencies, role of, 313
Credit risk, 196
  determining collateral, 535
  determining loan rate, 536
  following Lehman Brothers' default, 151
  for finance companies, 605
  for insurance companies, 682
  for savings institutions, 581–582
  for securities firms, 657
  impact of change, 150
  insurance against, 170
  international integration, 209
  managing, 535–536
  measuring, 535–536
  of interest rate swaps, 420
  of municipal bonds, 169–170
  of trading futures contracts, 360
  ratings of municipal bonds, 170
  reducing, 537–538
  risk premiums among money market securities, 152
  swap credit crisis, 420
  trade-off between risk and return, 536
Credit unions, 13, 588–591
  advantages and disadvantages, 588–589
  deposit insurance for, 589
  exposure to risk, 590–591
  ownership of, 588
  regulatory assessment of, 589
  sources of funds, 590
  uses of funds, 590
Creditworthiness, measuring, 225
Cross-exchange rates, 440
Crowding-out effect, 40
Currency call option, 393
Currency futures contracts, 363, 449–450
Currency options,
  boundaries, 460
  contracts, 393, 450
  lower bounds, 460
  pricing models, 461–463
  pricing, 460–463
  upper bounds, 461
Currency put option, 394
  pricing according to put–call parity, 462
Currency swaps, 431–433, 450
  risk of currency swaps, 433
  to hedge bond payments, 432

D

Dark pools, 329
Day traders, 344
Dealers, 14
Debentures, 179
Debt-for-equity swap, 180
Debt securities, 3
  long-term. See Long-term debt securities
Debt security yields,
  credit (default) risk, 49–50
  liquidity, 52
  tax status, 52–53
  why they vary, 49–53
Debtor-creditor negotiations, CDS contracts affect, 428
Defensive market operations, 90
Deficit units, 3
Defined-benefit pension plans, 686–687
Defined-contribution pension plans, 687–688
Demand curve, 30
Demand deposit account, 477
Demand for loanable funds, 30–31
Demand-pull inflation, 105
Deposit insurance, 498
  credit unions, 589
  insurance limits, 499
  risk-based deposit premiums, 499
Deposit Insurance Fund, 499
Depository institutions, role of, 12
Depository Institutions Deregulation and Monetary Control Act (DIDMCA) of 1980, 91, 500
Derivative securities, 7
  trading of under Financial Reform Act of 2010, 516
Derivatives, 344
Development of the CDS market, 428
Differential inflation rates, 444
Differential interest rates, 444
Direct access broker, 329
Direct exchange rate, 440
Direct purchases, 275
Direct lease loan, 483
Direct placement of stock, 643
Dirty float, 441
Discount bonds, 192
Discount brokerage firms, 646
Discount rate, 92
Discount rate on bond valuation, 200
Distorted financial statements, 260
Distribution of bank sources of funds, 481
Distributions to mutual fund shareholders, 611
Dividend discount model, 282–283
  adjusted dividend discount model, 283–284
  free cash flow model, 284
  limitations, 284
  with PE ratio for valuing firms, 283
Dividend yield (Yld), 265
Dollar, impact of, 123
Dow Jones Industrial Average (DJIA), 267
Dual banking system, 497

Duration, asset's, 527
Duration gap, 528
Duration of a bond on present value basis, 201
  bond convexity, 204–205
  duration of a portfolio, 202
  estimation errors using modified duration, 203
  modified duration (DUR*), 202–203
Dynamic asset allocation with stock index futures, 358
Dynamic asset allocation with stock index options, 387
Dynamic market operations, 90
Dynegy, 317

E

E*Trade, 320, 371
Economic growth, monitoring indicators, 103–104
  index of economic indicators, 104
Economies of scale, 492
Effective yield 157
Efficient market, 9
Efficient market hypothesis,
  test of semistrong-form, 301
  tests of strong-form, 301
  tests of weak-form, 301–302
  tests of, 301–302
Electronic bond networks, 176
Electronic communication networks (ECNs), 328–329
Electronic transactions, 477
Emergency Economic Stabilization Act of 2008, 20, 151, 239, 499
Emerging stock markets, 274
Employee Retirement Income Security Act (ERISA), 689–690
Enron Corporation, 10, 269, 393, 635
Enron Online, 313
Enron scandal, 313–317
  Arthur Andersen's audit, 316
  financial statement manipulation, 315–316
  letter to its shareholders, 313–314
  management motives, 315
  market for corporate control, 317
  monitoring by creditors, 317
  oversight by investment analysts, 316–317
  stock valuation, 314
Equilibrium interest rate, 35–36
  algebraic presentation, 35–36
  graphic presentation, 36
Equity REITs, 636
Equity securities, 4, 6
Equity swaps, 418
Estimating the forward premium, 449
ETFs and stock indexes,
  asset allocation with stock index options, 387
  hedging with, 385–387
  measure market's risk with index options, 274, 387–388
Eurobond market, 181
Euro-commercial paper, 156
Eurodollar(s), 155, 480
Eurodollar certificates of deposit, 155
Eurodollar floating rate CDs (FRCDs), 156
Eurodollar loans, 487
Eurodollar securities, 155
Euronotes, 156
European Central Bank (ECB), 96, 443
European Debt Crisis, 209
European-style stock options, 369
Eurozone, 442
Eurozone crisis, 443
Eurozone monetary policy 92, 96–97, 442
Excessive commission, 260
Exchange rate(s),
  central bank intervention, 445–446
  differential inflation rates, 444
  differential interest rates, 444
  factors affecting, 443–446
  forecasting, 446
  rate fluctuations, 207
  technical forecasting, 447
Exchange rate quotations, 440
  cross-exchange rates, 440
  forward rate, 440
Exchange rate risk,
  international operations, 543
  securities firms, 657
Exchange rate systems, 441–442
Exchange traded funds (ETFs), 385, 629
  popular ETFs, 630
  short sales of, 630
Exchange-traded notes, 183
Executive compensation, 392
Exercise price, 369, 450
Expenses incurred by mutual fund shareholders, 12b-1 fees, 614
Exposure of futures market to systemic risk, 361–362
Extendable swap, 416–417
Extended trading sessions, 264
  Facilities created by Fed, 94
  Term Asset-Backed Security Loan Facility (TALF), 94

F

Factors, finance companies acting as for accounts receivable, 600
Failing banks, funding closure of, 511
Fair value accounting, 509
Fed, controls money supply, 81–93
Fed's lending during credit crisis, 94–96
  facilities created by Fed, 94
Fed's loan rate, adjusting, 92–93
Fed's response to oil shocks, 122

Fed's Trading Desk, 88–90
control of M1 vs. M2, 89
dynamic vs. defensive market operations, 90
Fed purchase of securities, 88
Fed sale of securities, 88–89
Fed trading of repurchase agreements, 89
technical factors, 89–90
Federal Advisory Council, 84
Federal agency bonds, 168
Federal Deposit Insurance Corporation (FDIC), 498
Federal Deposit Insurance Corporation Improvement Act (FDICIA) of 1991, 499
Federal funds, 145
Federal funds market, 12
Federal funds rate, 145, 479
Federal funds sold, 487
Federal Home Loan Mortgage Association (FHLMA or Freddie Mac), 168, 232, 233, 235, 236
Federal Housing Administration (FHA), 225
Federal Housing Finance Agency, 514
Federal National Mortgage Association (FNMA or Fannie Mae), 168, 235–236, 486
Federal Open Market Committee (FOMC), 84, 85, 86, 87, 88, 120
Federal Reserve, 508
actions, 20
borrowing from banks, 479
Board of Governors, 82–83
components, integration of, 84
member banks, 82
Vice Chairman for Supervision, 83
Federal Reserve Act, 81
Federal Reserve District Banks, 82
Federal Reserve System (Fed), 81, 498
advisory committees, 84
consumer financial protection bureau, 84
Federal Open Market Committee (FOMC), 84
integration of Federal Reserve components, 84
organizational structure of, 81–83
overview, 81
Fidelity, 177
Finance company, 13
business finance companies, 597
captive finance subsidiaries, 598
consumer finance companies, 597
credit risk, 605
exposure to risk, 604
factors that affect cash flow, 602–603
interaction with other financial institutions, 601–602
interest rate risk, 605
liquidity risk, 604–605
required rate of return, 603
types of, 597–598
valuation, 602–603
Finance company cash flows, 602–603
change in industry conditions, 603
change in management abilities, 603
change in risk-free interest rates, 603
economic growth, 603
Finance company funds, 598
business loans and leasing, 600
consumer loans, 599–600
interaction with other financial institutions, 601–602
real estate loans, 600–601
uses of funds, 601
Finance company operations, 597–605
Financial Accounting Standards Board (FASB), 311
Financial conglomerate, structure of, 17
Financial corporations' funds, 598–601
bonds, 599
capital, 599
commercial paper, 599
deposits, 599
loans from banks, 599
uses of funds, 599–601
Financial futures, 343–346
contract, 343
institutional trading, 345
markets, 343–344
purpose of trading, 344–345
trading process, 345
trading requirements, 346
Financial institutions, 12–19, 411–412
consolidation of, 16–17
credit crisis, 19–20
global consolidation, 18
importance of, 16
Internet facilitates, 16
participation in swap markets, 411–412
Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA), 585
Financial leverage on securities firms' exposure to risk, 657–658
Financial management, 4
Financial market, 3–5
facilitate bank's strategy, 522
participation of securities firms, 650
securities traded in, 5–10
Financial Reform Act of 2010, 20, 51, 83, 84, 174, 199, 240, 362, 430, 499, 514, 588, 662
Consumer Financial Protection Bureau, 515
financial stability oversight council, 514
limits on bank proprietary trading, 515–516
mortgage origination, 514
orderly liquidation, 515
sales of mortgage-backed securities, 514
trading of derivative securities, 516

Financial Services Modernization Act of 1999, 502, 503, 653
Financial Stability Oversight Council, 20, 199, 240, 362, 514, 588, 662
Financing for corporations, 646
Firm commitment, 172
First mortgage bond, 178
Fiscal policy, response to monetary policy, 117–118
Fisher effect, 39
Fitch Investors Service, 170, 234
5 Cs to assess quality of loans, 509
Fixed assets, 487
Fixed rate mortgages, 226
Flash crash, 330
Flipping, 258
Floor brokers, 263, 326
Floor traders, 345
Flotation costs of stock, 643
FOMC Statement, 120
Forecasting bond portfolio returns, 221–222
Forecasting bond portfolio values, 220–221
Forecasting bond prices, 217–218
Forecasting bond yields, 218–220
Forecasting exchange rates,
  fundamental forecasting, 447
  market-based forecasting, 447–448
  mixed forecasting, 448
  technical forecasting, 447
Forecasting interest rates, 43–44
Foreign exchange derivatives, 439, 448–452
  currency futures contracts, 449–450
  currency options contracts, 450
  currency swaps, 450
  for hedging, 450
  for speculating, 451–452
  forward contracts, 448–449
Foreign exchange market, 11, 439–440
  exchange rate systems, 441–442
  foreign exchange quotations, 440
  institutional use, 439
Foreign interest rate movements, influence of, 207
Foreign stock index futures, 362–363
Foreign stocks, valuation and performance, 301–303
  diversification among emerging stock markets, 303
  dividend discount model, 302
  global diversification, 303
  international market efficiency, 302
  investing in foreign stocks, 302
  price-earnings method, 302
Foreign stocks investment,
  American depository receipts, 275
  direct purchases, 275
  international exchange-traded funds, 275
  international mutual funds, 275
  methods, 275
Forex derivatives, 439
Forward contracts, 448–449
  on currencies, 491
Forward market, 448
Forward rate, 59, 440
Forward swap, 414–415
Free cash flow model, 284
  limitations, 284
Freely floating system, 441
Front-end load, 616
Full-service brokerage firms, 646
Fundamental analysis, 281
Fundamental forecasting of exchange rates, 447
Funds, 481–487
  bank loans, 482–486
  cash, 482
  diversifying among, 624
  Eurodollar loans, 487
  federal funds sold, 487
  fixed assets, 487
  investment in securities, 487–488
  life insurance operations, 672
  proprietary trading, 487–488
  repurchase agreements, 487
  sources of for banks, 476–477
  summary, 488
  uses of by banks, 481–488
Futures contracts, non-U.S. participation in, 362
Futures exchanges, 343
Futures market,
  electronic trading, 345
  over-the-counter trading, 344

G

Gap analysis, 526
Gap ratio, 526
Garn-St. Germain Act, 500
General Electric, 180
General Electric Capital Corporation (GECC), 598
General obligation bonds, 169
Generally accepted accounting principles (GAAP), 311
Gibson Greetings, Inc., 411
Global Bank Regulations, 516
Global central bank coordination, 97
  global monetary policy during credit crisis, 97–98
Global Crossing, 393
Global crowding out, 124
Global diversification, performance from, 303
Global economic conditions, impact of, 123
Global monetary policy, 96–98, 123–125
  crisis in Greece, 124–125
  Eurozone monetary policy, 96
  global central bank coordination, 97
  impact of global economic conditions, 123

Global monetary policy (*continued*)
impact of the Euro, 96–97
impact of the dollar, 123
transmission of interest rates, 123–124
Globalization of bond markets, 180
Globalization of futures markets, 362–363
currency futures contracts, 363
foreign stock index futures, 362–363
non-U.S. participation in U.S. futures contracts, 362
Globalization of money markets, 154–156
Eurodollar securities, 155
Globalization of options markets, 393
currency options contracts, 393–394
Globalization of stock markets, 273–276
characteristics across stock markets, 274–275
emerging stock markets, 274
methods to invest in foreign stocks, 275–276
privatization, 273
Globalization of swap markets, 430–433
currency swaps, 431–433
Globex, 345
Going public, 255–257
allocation of IPO shares, 256
developing a prospectus, 255
pricing, 255–256
transaction costs, 257
Golden parachute, 273
Goldman Sachs, 20, 515, 661
Google, 258–259
Google's IPO, 258–259
auction process, 258–259
estimating stock's value, 258
results of Google's Dutch auction, 259
Governance of accounting, 311–313
auditing, 311
board of directors, 312
credit rating agencies, 313
market for corporate control, 272
Governance of mutual funds, 616–617
Government assistance to Bear Stearns, 658
Government debt markets, Greek debt crisis, 180–181
Government National Mortgage Association (GNMA or Ginnie Mae), 232
Government rescue of failing banks, 511–513
argument against, 512
argument for, 512
failure of Lehman, 513
rescue of Bear Stearns, 512–513
Graduated-payment mortgage (GPM), 229
Gramm-Leach Bliley Act, 502
Greece, on European Monetary Policy, 124–125
Gross domestic product (GDP), 103
Gross interest expenses, 556
Gross interest income, 555
Group life policy, 671
Growing equity mortgage, 229
Growth and income funds, 618
Growth funds, 618

H

Health care insurance, 679
Health maintenance organizations (HMOs), 679
Hedge funds, 633–636
fees, 634
financial problems experienced by LTCM, 634–635
hedge funds of funds, 635–636
Madoff fund scandal, 635
performance during the credit crisis, 635
regulatory reform of, 636
short selling by, 635
use of financial leverage, 633–634
Hedgers, 344
Hedging,
interest rate risk, 530–531
swaps, 410–411
Hedging with foreign exchange derivatives, 450
Hedging with interest rate futures, 351–354
cross-hedging, 352
hedging net exposures, 353–354
short hedge, 351–352
trade-off from using a short hedge, 352–353
using to create a long hedge, 353
Hedging with options on interest rate futures, 390–391
Hedging with options on stock index futures, 391
determining degree of the hedge, 391–392
selling call options to cover cost of put options, 392
Hedging with stock index futures, 356–359
proportion of portfolio to hedge, 358–359
test of suitability, 357
Hedging with stock index options, 385–387
hedging with long-term options, 386–387
Highly leveraged transactions (HLTs), 484
High-yield mutual funds, 175
High-yield (or junk bond) funds, 619
Holding period return, 165
Holiday effect, 301
Hurdle rate, 31

I

IBM, 180
Immunize a portfolio, 202
Impact lag of monetary policy, 114
Impact of inflation on interest rates, Fisher effect, 39
Impact on financial markets, 119–120
Fed's communication to financial markets, 120–121
Implementation lag of monetary policy, 114
In the money, 369

Income before taxes of banks, 557
Income funds, 619
Indenture, 177
Independent brokers, 263
Index arbitrage, 358
Index funds, 619
Index options to measure market's risk, using, 387
Indirect exchange rate, 440
Inflation,
  inflation indicators, 105
  monitoring, 105
  producer and consumer price indexes, 105
Inflation-indexed Treasury bonds, 167–168
Informal line of credit, 483
Information costs, reduction in, 335
Initial margin, 321
Initial public offering (IPO), 254, 632
  abuses in the IPO market, 260
  Facebook IPO, 259–260
  flipping shares, 258
  going public, 255–257
Google's IPO, 258–259
  initial returns on, 258–259
  long-term performance, 261
  Sarbanes-Oxley Act, 269
  timing, 257
  underwriter efforts to ensure price stability, 257
Installment loans, 485
Institutional investors, 15
Institutional Shareholder Services (ISS), 271
Institutional trading of futures contracts, 345
Insurance and pension fund operations, 667–695
  determinants of insurance premiums, 667–669
  investments by insurance companies, 669
Insurance companies, 14
  assessment system, 669–670
  capital, 670
  cash flow factors that affect, 683
  change in economic conditions, 684
  change in industry conditions, 684
  change in management abilities, 684
  change in payouts, 683
  change in risk-free interest rate, 684
  credit risk, 682
  exposure during credit crisis, 682
  exposure to risk, 681
  factors that affect cash flows, 683
  factors that affect required rate of return by investors, 684
  failed insurance companies, 676
  federal insurance office, 670
  financial services offered, 670
  indicators of liquidity, 685
  indicators of profitability, 685–686
  indicators of value and performance, 684–685
  interest rate risk, 682
  international insurance regulations, 670
  investments by, 669
  liquidity risk, 682
  market risk, 682
  regulation of, 669
  valuation and performance of, 683–685
Insurance premiums, determinants of, 667–669
Insurance Regulatory Information System (IRIS), 669
Insurance services, regulation of, 502
Insured mortgage, 225–226
Insured pension plans, 668
Integrated bank management, 539–543
  application, 539–543
Integration, 303
Interactive Brokers, 329
Interest rate(s),
  factors that affect, 37, 41–42
  Fed operations affect, 90
  forecasting, 44
  impact of budget deficit on, 40
  impact of economic growth on, 37
  impact of foreign funds on, 40–41
  impact of inflation on, 38
  impact of monetary policy on, 39
  international structure, 69–70
  open market operations in response to economy, 91
Interest rate caps, 423–424, 534
Interest rate collars, 425–426
Interest rate floors, 424–425
Interest rate futures, 343
Interest rate futures contracts, 347–351
  closing out futures position, 350–351
  hedging with, 351–352
  impact of leverage, 350
  savings institutions, 585
  speculating in, 349–350
  valuing, 348–349
Interest rate parity, 454
Interest rate risk, 153–154, 194
  duration measurement, 527–528
  finance companies, 605
  insurance companies, 682
  international, 535
  managing, 525–531
  measuring, 153
  methods to assess, 525–530
  methods to reduce, 532
  regression analysis, 529–530
  savings institutions, 582
  securities firms, 657
  whether to hedge, 530–531
Interest rate strategy, 205

Interest rate swap, 409
availability of counterparties, 421
basis risk, 420
callable swaps, 415
contracts, 491
credit and sovereign risk, 422
credit risk, 420
equity swaps, 418
extendable swap, 416–417
forward swaps, 414–415
performance of, 422
plain vanilla swaps, 412–414
prevailing market interest rates, 421
pricing, 421
putable swap, 415–416
rate-capped swaps, 417–418
risks of, 420–421
savings institutions, 584
sovereign risk, 421
tax advantage swaps, 420
to accommodate financing preferences, 48
types, 412–420
zero-coupon-for-floating swaps, 417
Interest-inelastic, 32
Interest-only (IO) tranche, 233
Internal ratings-based (IRB) approach, 505
International and global bond funds, 618
International arbitrage, 453–455
covered interest arbitrage, 454–455
locational arbitrage, 453
triangular arbitrage, 453–454
International banking, 492–493
credit risk, 208
exchange rate risk, 207
global competition in foreign countries, 492
competition, 492
International bond diversification, 208
International expansion, 492
International exposure, 493
International bonds, valuation and risk, 206–208
and credit risk, 207
and foreign interest rate movements, 207
diversification, 208
exchange rate fluctuations, 207
International exchange-traded funds (ETFs), 275–276
International interbank market, 156–157
International interest rate risk, 535
International market efficiency, 302
International mutual funds (IMFs), 275
International operations, managing risk of, 543–544
exchange rate risk, 543
settlement risk, 544
International Securities Exchange, 370
International securities transactions, 11
International stocks, trading, 334–335
reduction in exchange rate risk, 335
reduction in information costs, 335
reduction in transaction costs, 334–335
Investing in foreign stocks, measuring performance, 298
Investment analysts, oversight in Enron scandal, 316
Investment banks, 14
Investment-grade bonds, 50
Investment-grade securities, 486
Investment needs, accommodating, 4
Investors, 3
IPO market,
abuses in, 260
distorted financial statements, 260
excessive commissions, 260
laddering, 260
spinning, 260
Issue costs of stock, 643

J

JPMorgan Chase, 13, 20, 317, 513, 659
January effect, 288–289
Junk bonds, 175
risk premium, 175

K

Key interest rates, 144
Krispy Kreme, 635
KSR call options, 373, 374

L

Laddered strategy, 205
Laddering, 260
Lagging economic indicators, 104
Leading economic indicators, 104
Lehman Brothers, 19, 151, 152, 270, 429, 628, 648, 655
accounting fraud, 318
Letter of credit (L/C), 146
Leveraged buyout (LBO), 179
to achieve corporate control, 272
Liberty Mutual, 14
LIBOR. See London Interbank Offer Rate
Life insurance, 671
term insurance, 671
types of, 6711
universal life insurance, 672
variable life insurance, 672
whole life insurance, 671
Life insurance operations, 671–676
asset management, 675–676
interaction with other financial institutions, 676–677
ownership, 671
sources of funds, 672

uses of funds, 673–675
corporate securities, 674
government securities, 674
mortgages, 674
policy loans, 675
real estate, 674
Limit order, 177, 319
Limitations of option compensation, 392
Liquidity, 5
debt security yields, 52
problems, 523
securitization to boost, 524
Liquidity preference theory, 62
Liquidity premium theory, 62–63
forward rate of liquidity premium, 63
Liquidity risk for finance companies, 604–605
Liquidity risk for insurance companies, 682
Liquidity risk for savings institutions, 581
Liquidity risk of trading futures contracts, 360
Load fund, 615
Loan commitment, 490
Loan loss provision of banks, 557
Loan participation, 484
Loanable funds,
aggregate demand for, 33
business demand for, 30–31
demand for, 30–31
equilibrium interest rate, 35
foreign demand for, 32–33
government demand for, 32
household demand for, 30
supply of, 30–35
Loanable funds theory, 29–30
Locals, 345
Locational arbitrage, 453
London Interbank Offer Rate (LIBOR), 156, 179, 413, 525
LIBOR Scandal, 157
London International Financial Futures Exchange (LIFFE), 362
Long hedge, 353
Long-Term Capital Management (LTCM), 634
Long-term debt securities,
auction-rate securities, 183
exchange-traded notes, 183
other types, 182–183
structured notes, 182
Long-term equity anticipations (LEAPs), 385
Long-term performance following IPOs, 261
Low-coupon bonds, 179

M

M1, 89
M2, 89
Maintenance margin, 321
Managed health care plans, 679
Management of Bank Capital, 542
Management of loans, 524
Management of money market funds, 627–628
Management of money market securities, 524
Management of mutual funds, 613–614
interaction with other financial institutions, 613
use of financial markets, 614
Management of pension fund portfolio risk, 692
Managing liquidity, 523–525
securitization to boost liquidity, 524
Managing market risk, 538
Margin account, 321
Margin call, 321
Margin requirements, 320
Margin trading, 320–322
impact on returns, 321–322
margin calls, 321
Market-based forecasting of exchange rates, 447
use of forward rate, 448
use of spot rate, 447–448
Market corrections, 301
Market makers, 326–327
Market microstructure, 319–336
Market order, 177, 319
Market related factors affect stock prices, 288–289
investor sentiment, 288
January effect, 288–289
Market risk,
for insurance companies, 682
for securities firms, 656
managing, 538–539
measuring, 538–539
of trading futures contracts, 360
to reduce, 539
Matched funding of pension plans, 691
Matching strategy, 205
Maturity matching, 532
Maturity classifications of bond mutual funds, 620
MBIA, 170
MCI, 311
Measuring market risk, 538
bank revisions of, 539
bank's market risk and interest rate risk, 539
Member banks, 32
Merger-conversion, 574
Merrill Lynch, 20, 502, 642, 661
Microsoft, 249, 258
Mixed forecasting of exchange rates, 448
Modified duration, 202–203
Monetary policy, 103
correcting a weak economy, 116–117
correcting high inflation, 117
impact of credit crunch, 109

Monetary policy (*continued*)
impact on interest rates, 106
implementing monetary policy, 105–108
lagged effects of, 114
limitations, 109–112
mechanics of, 103–104
monetary policy effects, 105–108
monitoring indicators of economic growth, 103–104
monitoring indicators of inflation, 105
response to fiscal policy, 117
restrictive policy effects, 112–113
stimulative policy effects, 105–108
target for federal funds rate, 107
trade-off in, 114–115
Monetary policy shifts over time, 116–117
improving weak economy in 2001–2003, 116–117
improving weak economy in 2008–2011, 117
reducing inflation in 2004–2007, 117
Money market(s),
foreign money market securities, 157–158
institutional use of, 147–149
international interbank market, 156–157
Money market deposit account (MMDA), 89, 478, 500
Money market funds, 625–636
asset composition of, 627
closed-end funds, 628
exchange-traded funds, 629
hedge funds, 633
management of, 627–628
other types, 628–636
private equity funds, 632
real estate investment trusts, 636
risk of, 627
venture capital funds, 630
Money market mutual funds, 14, 500
Money market securities, 5, 135–147
banker's acceptances, 146–147
commercial paper, 139
Federal funds, 145
interest rate risk, 153
negotiable certificates of deposit, 142
performance of, 157–158
repurchase agreements, 143
treasury bills, 136–139
valuation of, 149–150
Money policy, loose, 115
Money supply growth,
adjusting Fed's loan rate, 92–93
Fed controls, 84–93
Fed operations affect interest rates, 90
growth, tightening, 89
loosening of, 88
open market operations, 85
role of the Fed's Trading Desk, 88–90
Moody's Investors Service, 50, 170, 234, 313
Moral hazard problem, 499, 667
Morgan Stanley, 20, 325, 502, 661
Mortgage(s), 5, 223–231
adjustable-rate (ARM), 228
amortizing fixed-rate, 226–227
balloon-payment, 229
classifications, 225–226
credit risk, 230
facilitate flow of funds, 223
fixed rate, 226
graduated-payment (GPM), 229
growing equity, 229
insured vs. conventional, 225–226
interest rate risk, 230–231
prepayment risk, 231
prime vs. subprime, 225
residential, 226–229
risk, 229
risk from investing, 230
second, 229
shared-appreciation, 229
valuation and risk of, 229–231. See also Residential mortgages
Mortgage-backed securities (MBS), 6, 231, 427
collateralized mortgage obligations, 232–233
fair value, 234
FHLMA participation certificates, 232
FNMA, 232
GNMA, 232
private label pass-through securities, 232
ratings to assess value, 234
securitization process, 231
types, 231–232
valuation, 234
Mortgage credit crisis, 234–240
conclusion about blame, 239
credit rating agencies, 237–238
Fannie Mae and Freddie Mac, 235–236
financial institutions that insured MBS, 238
financial institutions that packaged the MBS, 238
Financial Reform Act, 240
government bailout of financial institutions, 239–240
government programs, 239
institutional investors that purchased MBS, 238
mortgage originators, 237
speculators of credit default swaps, 238
systemic risk, 236–237
Mortgage insurance, 681
Mortgage markets, 223–240
facilitate flow of funds, 223–224
institutional use, 223–224
Mortgage pipeline, 231

Mortgage REITS, 636
Multifund funds, 619
Multinational finance companies, 605
Municipal Bond Index (MBI) futures, 347
Municipal bonds, 169–170
  credit risk of, 169–170
  junk bonds, 175
  ratings, 170
  tax advantages, 170
  trading and quotations of, 170–171
  variable-rate municipal bonds, 170
  yields offered, 171–172
Mutual fund(s), 13, 609–610
  distributions to shareholders, 611
  expenses incurred by shareholders, 614–615
  governance of, 616–617
  growth and size of, 620–621
  management of, 613
  operated by securities firms, 647
  performance from diversifying among funds, 624
  performance, 621
  pricing shares of, 610–611
  ratings, 624
  research on, 625
  valuation of bond mutual funds, 623
  valuation of stock mutual funds, 621–623
  regulation of, 611
Mutual fund categories, 617–620
  asset allocation funds, 620
  bond mutual fund categories, 619
  stock mutual fund categories, 618–619
Mutual fund operations, 609–634
Mutual fund prospectus, information contained in, 613
Mutual fund shareholders, expenses, 614–616
  sales charge, 615
Mutual savings institutions, 573
Mutual-to-stock conversions, 573

N

Naked shorting, 325
Nasdaq, 312, 321, 370
National Association of Insurance Commissioners (NAIC), 669
National Association of Securities Dealer's Trade Reporting and Compliance Engine (TRACE), 176
National Association of Securities Dealers (NASD), 267, 652
National Association of Securities Dealers Automatic Quotations (Nasdaq), 263
National Credit Union Administration (NCUA), 589
National Credit Union Association, 514
National Credit Union Share Insurance Fund (NCUSIF), 589
National income, 103
Nationwide Insurance Enterprise, 678
Negotiable certificates of deposit (NCDs), 142, 478
  placement, 142
  premium, 143
  yield, 142–143
Negotiable order of withdrawal (NOW) account, 477
Net asset value (NAV), 628
Net financing cost, 355
Net income of banks, 557
  impact of credit crisis, 554
  return on assets, 557
  return on equity, 559
Net interest income, 557
Netscape, 258
New York State Government Retirement Fund, 693
New York Stock Exchange (NYSE), 267, 312, 326
  Euronext, 263
New York Stock Exchange Indexes, 267
Nikkei (Japanese) stock index, 36
No-load fund, 615
Noise traders, 326
Nondepository financial institutions, role of, 13
Noninterest income and expenses of banks, 556
Note issuance facility (NIF), 490
Notional principal value, 409

O

Off-balance sheet activities, 490–492
  credit default swap contracts, 491–492
  forward contracts on currencies, 491
  interest rate swap contracts, 491
  loan commitments, 490–491
  standby letters of credit, 491
Off-balance sheet transactions, regulation of, 503
Office of Credit Ratings, 51
One-Chicago, 359
Online order for stocks, 320
Open Market Desk, 88
Open market operations, 85, 88
  economic presentations, 85–86
  FOMC decisions, 86–87
  FOMC statement, 87
  minutes of FOMC meeting, 87
  pre-meeting economic reports, 85
Operational risk of trading futures contracts, 361
Option(s), 369–372
  comparison of options and futures, 370
  how executed, 371
  institutional use of, 372
  listing requirements, 370
  markets used to trade, 370
  options clearing corporation, 371
  regulation of options trading, 371
  stock option quotations, 371–372
  trading markets, 370
  types of orders, 371

Option compensation, limitations, backdating options, 392–393
Option pricing, to derive stock's volatility, 375
Option valuation, 400–408
Options Clearing Corporation (OCC), 371
Options market, 369–392
  globalization. See Globalization of options markets
Options on futures contracts, 388–391
  hedging with options on interest rate futures, 390
  hedging with options on stock index futures, 391
  speculating with, 388–390
Oracle Corporation, 249
Orange County, California, 411
Order, stop-loss and stop-buy, 320
Organized exchanges, 262–263
  listing requirements, 263
Origination stage of stock offering, 641, 643
Out of the money, 369
Over-the-counter market (OTC), 263
  Nasdaq, 263
OTC Bulletin Board, 264
  Pink Sheets, 264
Ownership and voting rights, 252

P

Participation certificates (PCs), 232
Pass-through securities, 231
Payments on a credit default swap, 427
Pegged exchange rate system, 441
Penny stocks, 264
Pension Benefit Guaranty Corporation (PBGC), 690
Pension fund(s), 14, 686–695
  bond portfolio performance, 693
  defined-benefit vs. defined–contribution plans, 686–688
  participation in financial markets, 688
  performance evaluation, 694–695
  performance of pension portfolio managers, 695
  performance of, 693–695
  public vs. private, 686
  regulations, 689–690
  stock portfolio performance, 693
Pension fund management, 691–693
  corporate control by pension funds, 693
  management of insured vs. trust portfolios, 691–692
  management of portfolio risk, 692
Pension Protection Act of 2006, 690
Philadelphia Stock Exchange, 370
Plain vanilla swaps, 421
Poison pills, 273
Policy directive, 88
Portfolio insurance, 330
Portland Pension Fund, 383
Position traders, 344
Power of governance, limited, 271
PowerShares QQQ (Cube), 630
Preemptive rights (first priority), 262
Preferred habitat theory, 65
Preferred provider organizations (PPOs), 679
Preferred stock, 252–253
Pre-market session, 264
Prepayment risk, mortgages, 231
Prepayment risk of trading futures contracts, 361
Prevailing market interest rates, 421
Price-earnings (PE) method, 281–282
  different valuations, 281–282
  limitations, 282
Priceline.com, 258
Pricing models of currency options, application of, 461–463
Pricing shares of the mutual fund, 610
Primary credit, 93
Primary credit lending rate, 93, 479
Primary market, 4, 251
Primary vs. secondary markets, 4–5
Prime mortgages, 225
Prime rate, 483
Principal-only tranche, 233
Private equity, 250–251
  financing by venture capital funds, 250–251
Private equity funds, 632–633
  financing by, 249
  performance of, 251
Private pension plans, 686
Private placement of stock, 643
Privatization of stock markets, 273
Procter & Gamble, 411
Producer Price Index, 105
Program trading, 330–331
  impact on stock volatility, 330–331
Projective funding of pension plans, 691
Property and casualty insurance, 677–679
  cash flow underwriting, 678
  property and casualty reinsurance, 678
  use of funds, 678
Proposals to focus on inflation, 118–119
Proprietary trading, 487
Proprietary trading by securities firms, 648
  Barings Bank, 648
  Bear Stearns, 648
  Lehman Brothers, 648
  Société Général, 648
  underlying cause of investment problems, 648
Prospectus, 172, 255, 642
Protective covenants, 178, 482
Public equity, 251–253
  ownership and voting rights, 252
  participation in stock markets, 253
  preferred stock, 252–253
Public pension funds, 686

Publicly traded companies,
accounting irregularities, 269
limited power of governance, 271–272
monitoring, 268–269
role as a monitor, 16
role of analysts, 269
Sarbanes-Oxley Act, 269–270
shareholder activism, 270
Purchasing power parity (PPP), 444
Pure expectations theory, 57–62
algebraic presentation, 59
impact of decline in interest rates, 57–58
impact of increase in interest rates. 57
Put option, 369
hedging with, 383–385
hedging with LEAPs, 385
speculating with, 380–381
Put option premiums,
determinants of, 374–375
influence of market price, 374
influence of put option's time to maturity, 375
influence of stock's volatility, 375
Putable swap, 415

Q

Quote, bid and ask, 319

R

Rate-capped swaps, 417–418
Real estate investment trust (REIT), 636
Real interest rate, 39
Recognition lag of monetary policy, 114
Reduce interest rate risk,
maturity matching, 532
methods, 532
using floating-rate loans, 532
using interest rate caps, 534–535
using interest rate futures contracts, 532
using interest rate swaps, 532–534
Reducing credit risk, 537–538
industry diversification of loans, 537
international diversification of loans, 537
revising loan portfolio in response to economic conditions, 538
selling loans, 537–538
Reform of CDS contracts, 430
Registered bonds, 163
Registration statement, 642
Regulation Fair Disclosure (FD), 333, 653
Regulation of bank operations, 498–501
regulation of bank loans, 500–501
regulation of deposit insurance, 498–500
regulation of deposits, 500
regulation of investments in securities, 501
Regulation of capital, 504–507
Basel I Accord, 505
Basel II framework, 505
Basel III framework, 506
VaR to determine capital requirements, 506–507
Regulation of credit default swaps, 503
Regulation of deposits, 500–503
Depository Institutions Deregulation and Monetary Control Act (DIDMCA), 500
Garn-St. Germain Act, 500
Interstate Banking Act, 500
regulation of accounting process, 503
regulation of bank investment in securities, 501
regulation of bank loans, 500
regulation of foreign loans, 501
regulation of highly leveraged transactions, 501
regulation of insurance services, 502–503
regulation of loans to a single borrower, 501
regulation of loans to community, 501
regulation of off-balance sheet transactions, 503
regulation of securities services, 501–502
Regulation of mutual funds, 611
Regulation of savings institutions, 574
deposit insurance, 574
deregulation of services, 574–575
regulatory assessment of, 574
Regulation SHO, 325
Regulators monitor banks,
CAMELS ratings, 508–511
corrective action by regulators, 511
funding the closure of failing banks, 511
how, 508–511
Regulatory reform, conversion of securities firms to BHCs, 661–662
Financial Reform Act of 2010, 662
impact of credit crisis, 661
Regulatory response to financial reporting scandals, 10
Regulatory structure of banks, 497–498
regulation of ownership, 498
regulators, 498
Reigle-Neal Interstate Banking and Branching Efficiency Act, 500
Repurchase agreements, 89, 143–145, 479–480, 487
estimating yield, 145
impact of credit crisis, 143–145
placement, 143
Required disclosure, 10
Required rate of return,
insurance companies, 684
savings institutions, 580
securities firms, 655–656
Required rate of return by investors, 553
change in risk premium, 553
change in risk-free rate, 553

Required rate of return on stocks, 285–286
Required return, coupon rate, and bond price, 192
Reserve requirement ratio,
  adjusting, 91
  impact on money growth, 91–92
Reset rate, 183
Residential mortgages,
  adjustable-rate mortgages, 228
  amortizing fixed-rate mortgages, 226–227
  balloon-payment mortgages, 229
  fixed-rate mortgages, 226
  graduated-payment mortgages, 229
  growing-equity mortgages, 229
  second mortgages, 229
  shared appreciation mortgages, 229
  types of, 226–229. See also Mortgages
Resolution Trust Corporation (RTC), 586
Return on assets (ROA), 557–559
  Evaluation of, 529
Return on equity (ROE), 543
Return on stocks,
  required rate, 285–286
  capital asset pricing model (CAPM), 286
Revenue bonds, 169
Reverse leveraged buyout (reverse LBO), 273
Reverse repo, 143
Revolving credit loan, 483
Risk-adjusted stock performance, 298–300
  Sharpe index, 298–299
  Treynor index, 299–300
Risk-free rate, 194
  budget deficit, 195–196
  economic growth, 195
  inflationary expectations, 194–195
  money supply growth, 195
Risk management, 7
Riskless hedge, 403

S

S&P 100, 386
S&P 500 index, 354, 355, 356, 357
Sarbanes-Oxley (SOX) Act of 2002, 10, 269, 270–271, 318, 503, 523
  cost of being public, 270
Savings Association Insurance Fund (SAIF), 499, 574
Savings bonds, 168
Savings deposits, 477
Savings institution(s), 12, 573
  adjustable-rate mortgages, 584
  borrowed funds, 575
  capital, 575
  Consumer Financial Protection Bureau, 588
  credit crisis of 2008–2009, 586
  credit risk, 581–582
  crisis in late 1980s, 585
  deposits, 576
  exposure to crises, 585–586
  exposure to risk, 580–581
  factors that affect cash flow, 579–580
  factors that affect required rate of return, 580
  Financial Stability Oversight Council, 587
  interest rate futures contracts, 584
  interest rate risk, 582–583
  interest rate swaps, 584
  liquidity risk, 581
  mortgage origination, 587
  ownership of, 573–574
  participation in financial markets, 579
  provisions of FIRREA, 585–586
  reform in response to the credit crisis, 587
  regulation of, 574
  sales of mortgage-backed securities, 587
  sources of funds, 575
  trading of derivative securities, 588
  valuation of, 578–580
  with other financial institutions, 578
Savings institution funds, 576
  balance sheet, 576–577
  cash, 575
  consumer and commercial loans, 576
  mortgage-backed securities, 576
  mortgages, 575–576
  other securities, 576
  other uses, 576
  participation in financial markets, 578
  with other financial institutions, 577–578
Second mortgages, 229
Secondary credit, 93
Secondary market, 4, 249
  CDS contracts, 427
  corporate bonds, 176
  trading online, 177
  types of orders, 177
Secondary stock offerings, 261–262
  capital market, 5
  corporate and municipal bonds, 486
  derivative, 7
  money market, 5
  mortgage-backed securities, 486–487
  mortgage-backed, 6
  Securities, 4
  shelf registration, 262
  treasury and agency securities, 486
  uncertainty surrounding, 9
  valuation of, 8–9
Securities Act of 1933, 331
Securities and Exchange Commission (SEC), 10, 51, 255, 325, 332, 359, 371, 502, 514

key divisions, 332
oversight of corporate disclosure, 333
oversight of insider trading, 333–334
structure, 332
Securities Exchange Act of 1934, 10, 331
Securities firm(s), 14
advising corporations, 645
credit risk, 657
exchange rate risk, 657
expanding functions internationally, 651–652
exposure to risk, 656–658
facilitating bond offerings, 643
facilitating stock offerings, 641
factors that affect cash flow, 655
factors that affect the required rate of return, 655–656
financial leverage on exposure to risk, 657–658
Financial Services Modernization Act, 653
financing for corporations, 646
functions of, 641–652
growth of international joint ventures, 652
growth of international securities transactions, 652
impact of credit crisis, 658–661
interaction with other financial institutions, 649–650
interest rate risk, 657
international functions, 651
market risk, 656
operating mutual funds, 647
participation in financial markets, 650
proprietary trading, 648
providing brokerage services, 646
Regulation FD, 653
regulation of analyst ratings, 654
regulation of IPO market, 654
regulation of, 652–654
regulatory events, 653
regulatory events, 653
securitizing mortgages, 645
stock exchange regulations, 652
valuation of, 654–655
Securities Investor Protection Corporation (SIPC), 652
Securities operations, 641–663
Securities regulations, 10
Securities services,
Financial Services Modernization Act, 502
regulation of, 501–502
Securitization, 231, 524
Securitizing mortgages, 645
Segmented markets, limitation of theory, 64–65
implications, 65
Semistrong-form efficiency, of stock market, 300
Settlement risk in international operations, 544
Shared appreciation mortgage, 229
Shareholder activism, 270–271
communication with the firm, 270
proxy contest, 271
shareholder lawsuits, 271
Sharpe index, 298–299
Shelf registration, 262
Short hedge, 352
Short interest ratio, 323
Short selling, 322–325
concerns about, 325
measuring the short position, 323
restrictions on, 325
stop-buy order to offset, 323
Singapore International Monetary Exchange (SIMEX), 362, 382
Single stock futures, 359–360
Sinking-fund provision, 177
Smithsonian Agreement, 441
Société Général, 648
Sovereign risk, 421
Special-purpose entities (SPEs), 315
Specialists, 263
Specialty funds, 618
Speculating, use of swaps, 411
Speculating in interest rate futures, 349–351
closing out the futures position, 350–351
impact of leverage, 350
payoffs from, 349–350
Speculating in stock index futures, 355
Speculating with foreign exchange derivatives, 451–452
with currency futures, 451–452
with currency options, 452
Speculating with options on futures, 388–390
decline in interest rates, 388
increase in interest rates, 389–390
Speculation, 7
from excessive risk, 381–382
Speculators, 344
Spinning, 260, 654
Spread, 14
Spread on stock transactions, 327
competition, 327
inventory costs, 327
order costs, 327
risk, 328
volume, 327
Standard & Poor's (S&P) 500 index, 267, 356, 357
Standard & Poor's Corporation, 50
Standard & Poor's Depository Receipt (SPDR or Spider), 630
Standard & Poor's Investors Service, 170
Standby letter of credit (SLC), 491
State Farm Group, 14, 677

Steelco, 377–378, 384
Stock(s), 6
  stop-buy order, 320
  stop-loss order, 320
Stock exchanges, 262–265
  extended trading sessions, 264
  organized exchanges, 262–263
  over-the-counter market, 263
  stock index quotations, 265
  stock quotations provided by Exchanges, 264
Stock exchange regulations, 652
  insurance on cash and securities, 652–653
Stock index futures, 343, 354–359
  arbitrage, 358
  circuit breakers on, 359
  dynamic asset allocation with, 358
  hedging with, 356–357
  speculating in, 355
  valuing, 354–355
Stock index option, 385
Stock index quotations, 267
  Dow Jones Industrial Average, 267
  Nasdaq Stock Indexes, 267
  New York Stock Exchange Indexes, 267
Standard & Poor's 500, 267
  Wilshire 5000 Total Market Index, 267
Stock market(s),
  emerging, diversification among, 303
  globalization, 273
  globalization. See Globalization of stock markets investor decisions affect stock prices, 254
  investor reliance on information, 254
Stock market efficiency, 300–301
  semistrong-form, 300
  strong-form, 300
  tests of efficient market hypothesis, 300–301
  weak-form, 300
Stock market transactions, 319–322
  margin trading, 320
  placing an order, 319–320
  short selling, 322
Stock mutual fund categories, 618–619
  capital appreciation funds, 618
  growth and income funds, 618
  growth funds, 618
  index funds, 619
  international and global funds, 618
  multifund funds, 619
  specialty funds, 618
Stock mutual funds, valuation of, 621–623
  change in management abilities, 623
  change in market conditions, 621
  change in sector conditions, 623
Stock offerings, 249–276
  advising, 643
  and repurchases, 261
  distribution of stock, 642–643
  facilitating, 641
  origination, 641–642
  private placements, 643
  secondary stock offerings, 261–262
  shelf registration, 262
  stock repurchases, 262
  underwriting, 642
Stock option(s),
  hedging with, 383–385
  hedging with covered call options, 383
  hedging with put options, 383–385
  speculating with, 376–382
  speculating with call options, 377–380
  speculating with put options, 380–381
  excessive risk from speculation, 381–382
Stock option premiums,
  changes in, 376
  indicators monitored by participants, 376
  determinants, 372–375
  determinants of call option premiums, 373–374
  option pricing to derive stock's volatility, 375
  put option premiums, 374–375
Stock option quotations, 371
Stock portfolio performance of pension funds, 693
  change in management abilities, 693
  change in market conditions, 693
Stock prices,
  acquisitions and divestitures, 289
  changes in dividend policy, 289
  earnings surprises, 289
  economic factors, 286–288
  expectations, 289
  factors that affect, 286–291
  firm-specific factors, 289
  impact of economic growth, 286–287
  impact of interest rates, 287–288
  impact of the dollar's exchange rate value, 288
  integration of factors that affect, 290–291
  market related factors, 288–289
Stock quotations provided by Exchanges, 52-week price range, 264
  closing price quotations, 266–267
  dividend, 265
  dividend yield, 265
  price-earnings ratio, 265
  symbol, 265
  volume, 266
Stock repurchases, 262
Stock risk, 292–298
  beta of a stock, 295

forecasting price volatility, 293
value at risk, 295
volatility of portfolio, 293–295
volatility of stock, 292–293
Stock trading, regulation of, 331
circuit breakers, 331
SEC, 331
trading halts, 331
Stock transactions, how executed, 326–330
electronic communication networks (ECNs), 328
floor brokers, 326
interaction between direct access brokers and ECNs, 329
market-makers, 326–327
program trading, 330
spread on, 327
Stock valuation methods, 281–283
dividend discount model, 282–283
price-earnings method, 281–282
Stop-buy order, 320
Stop-loss order, 320
Strike price, 369
Stripped securities, 167
Stripped Treasury bonds, 167
STRIPS (Separate Trading of Registered Interest and Principal of Securities), 167
Strong-form efficiency, of stock market, 300
Structure of the futures market, 343–344
Structured notes, risk of, 182
Subordinated debentures, 179
Subprime mortgages, 225
SunTrust Banks, 13
Supply curve, 33
Supply of funds, increase and decrease, 106
Supply of loanable funds,
aggregate supply of funds, 35
effects of the Fed, 33–34
Surplus units, 3
Swap markets, 409–412
participation by financial institutions, 411–412
use of swaps for hedging, 410–411
use of swaps for speculating, 411
Swap options (swapoptions), 415
Sydney Futures Exchange (SFE), 362
Syndicate, 256
Systematic risk, 285
of bond price movements, 199

T

Tax advantages of municipal bonds, 170
Tax-free funds, 619
Tax status, computing equivalent before-tax yield, 53
of debt security yields, 52–54
term to maturity, 53–54
TD Ameritrade, 320
Technical analysis, 281
Technical forecasting of exchange rates, 447
Term insurance, 671
Term loan, 482
Term structure, 53–68
forecasting interest rates, 66–67
forecasting recessions, 67
integrating theories, 65–66
interest rates, 53
international structure of interest rates, 69
liquidity premium theory, 62, 65
making financing decisions, 68
making investment decisions, 67
pure expectations theory, 57–62
segmented markets theory, 64–65
theories, 65
Theory of rational expectations, 110
Thrift institutions, 12
Thrift Institutions Advisory Council, 84
Thrift operations, 573–591
Time deposits, 478
certificates of deposit, 478
negotiable certificates of deposit, 478
Time-series models of forecasting exchange rates, 447
Timing of IPOs, 257
Timing of payments on bond valuation, 191
Trade-off between credit risk and return, 536
expected return and risk of subprime mortgage loans, 536–537
Trade-off in monetary policy, 114–119
forces on the trade-off, 115–116
shifts in monetary policy, 116
Trading and quotations of municipal bonds, 170
Trading Desk, 88
Trading futures, 345–347
how orders are executed, 346–347
type of orders, 346
Trading futures contracts risk, 360–362
basic risk, 360
credit risk, 360
exposure to systemic risk, 361–362
liquidity risks, 360
market risk, 360
operational risk, 361
prepayment risk, 361
Trading halts, 331
Trading Treasury bonds, online, 167
Transaction deposits, 477
Transmission of interest rates, 123–124
Traveler's Insurance Group, 14, 503
Treasury and federal agency bonds, 165–168
federal agency bonds, 165
inflation-indexed Treasury bonds, 167