efforts raise troubling questions affecting individual rights.

3. Give some examples of how technology is creating employer/employee rights and policy issues. Then suggest some possible actions that may be needed.
4. Assume that as the HR manager, you have decided to prepare some guidelines for supervisors to use when they have to discipline employees. Gather the information needed, using Internet resources such as www.blr.com and www.workforce.com for sample policies and other details. Then prepare a guide for supervisors on implementing both positive and progressive discipline.
5. In developing a company workplace violence prevention program, management has become aware of concerns regarding a drug-free workplace. Several employees have recently come to HR requesting a leave of absence to enter a drug rehabilitation program. The managers were not aware of the substance abuse issues relating to these employees. Consequently, management recognizes that a drug-free workplace program will help improve workplace safety and health. These programs also play an important role in fostering safer and drug-free families and communities. To assist HR in developing a drug-free workplace program, visit this website at www.dol.gov/workingpartners.

   A. What are the key components that should be included in your company's drug-free workplace program to best meet the needs of both employees and the company?

   B. Identify the steps a manager should take if an employee's actions create a suspicion that the employee has reported to work under the influence of substances.

CASE

"Evaluate" before "Terminate"

The move to terminate potentially violent or dangerous employees can be a difficult one. If the decision is made haphazardly or hastily, firing problem employees can open up an organization to claims of wrongful termination or even illegal discrimination. If individuals are retained, a company can be found negligent, ultimately being held responsible for any wrongdoing and harm that occurs as a result of keeping them around. Consequently, companies must try to strike a reasonable balance between being too proactive, and not being judicious enough.

Such decision-making difficulties and dilemmas are illustrated in the recent court case *Mary Wolski v. City of Erie*. The City of Erie had fired Ms. Wolski, a fire truck driver who had been employed in the fire fighting group for many years, because the organization believed that she was a safety problem in the workplace. Years previously, her mother had passed away, causing Ms. Wolski to become very depressed. As a result, she took extensive leave from work to seek treatment and recover from her psychological troubles. While on leave, she attempted to poison herself with carbon monoxide by starting a fire at her father's house and consuming an overdose of medication.

Such conduct was considered highly dangerous by her employer, and an investigation was initiated by the City of Erie. The findings of the inquiry resulted in her termination, so Ms. Wolski subsequently filed a lawsuit claiming that the organization's decision to terminate her violated requirements of the ADA. The court ruled in her favor because the organization did not conduct an "individualized assessment" of Ms. Wolski before the termination decision. The move to fire her appeared to be based largely on an evaluation of her conduct, which was likely caused by her documented depression.

This case presents many important implications for HR professionals. For instance, employers should get the proper input from medical professionals who understand the mental and physical challenges that impair employees' ability to perform

Case "Evaluate" before "Terminate"

their work. HR also needs to talk with employees to determine whether individual impairments negatively impact their performance of essential job activities. In addition, reasonable accommodations should be identified, and employee requests for assistance should be secured in writing. Finally, retention and termination decisions should be business-related and objective in nature.[64]

QUESTIONS

1. Based on your work experiences, identify examples of behaviors that might be considered dangerous by managers, supervisors, and/or coworkers. How did your employers respond, and was anyone terminated?
2. If you were an HR professional, how would you handle the termination of a potentially dangerous employee? What policies might you create to make your organization less susceptible to wrongful termination or discrimination lawsuits?

SUPPLEMENTAL CASES

Dealing with Workplace Bullying

This case explores the problems that occur when "bullying" bosses or employees are present in the workplace. (For the case, go to www.cengage.com/management/mathis.)

George Faces Challenges

This case describes the problem facing a new department supervisor when HR policies and discipline have been handled poorly in the past. (For the case, go to www.cengage.com/management/mathis.)

Employer Liable for "Appearance Actions"

This case discusses a California court ruling on terminating a female for her personal appearance. (For the case, go to www.cengage.com/management/mathis.)

NOTES

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2. Stuart L. Gillan, Jay C. Hartzell, and Robert Parrino, "Explicit versus Implicit Contracts: Evidence from CEO Employment Agreements," *The Journal of Finance*, 64 (2009), Issue 4, 1629–1655.
3. Mark J. Garmaise, "Ties that Truly Bind: Noncompetition Agreements, Executive Compensation, and Firm Investment," *Journal of Law, Economics, and Organization*, 27 (2011), Issue 2, 376–425.
4. Matthias Krakel and Dirk Sliwka, "Should You Allow Your Employee to Become Your Competitor? On Noncompete Agreements in Employment Contracts," *International Economic Review*, 50 (2009), 117–141.
5. Chris Arbery, "Noncompete Valid if Reasonable and Balanced," *HR Magazine*, August 2010, 81.
6. Robert J. Orelup and Christopher S. Drewry, "Judicial Review and Reformation of Noncompete Agreements," *The Construction Lawyer*, Summer 2009, 29–32, 44, 52–55.
7. Emily B. York, "Does a Noncompete Agreement Really Offer Any Protection?" *Workforce Management*, October 13, 2009, www.workforce.com.
8. Roger M. Milgram and Eric E. Benson, "Use of Agreements to

(6-2) The probability distribution of a less risky return is more peaked than that of a riskier return. What shape would the probability distribution have for (a) completely certain returns and (b) completely uncertain returns?

(6-3) Security A has an expected return of 7%, a standard deviation of returns of 35%, a correlation coefficient with the market of −0.3, and a beta coefficient of −1.5. Security B has an expected return of 12%, a standard deviation of returns of 10%, a correlation with the market of 0.7, and a beta coefficient of 1.0. Which security is riskier? Why?

(6-4) If investors' aversion to risk *increased*, would the risk premium on a high-beta stock increase by more or less than that on a low-beta stock? Explain.

(6-5) If a company's beta were to double, would its expected return double?

SELF-TEST PROBLEMS Solutions Appear in Appendix A

(ST-1) Realized Rates of Return

Stocks A and B have the following historical returns:

Year	$\bar{r}_A$	$\bar{r}_B$
2009	−18%	−24%
2010	44	24
2011	−22	−4
2012	22	8
2013	34	56

a. Calculate the average rate of return for each stock during the 5-year period. Assume that someone held a portfolio consisting of 50% of Stock A and 50% of Stock B. What would have been the realized rate of return on the portfolio in each year? What would have been the average return on the portfolio for the 5-year period?
b. Now calculate the standard deviation of returns for each stock and for the portfolio. Use Equation 6-5.
c. Looking at the annual returns data on the two stocks, would you guess that the correlation coefficient between returns on the two stocks is closer to 0.8 or to −0.8?
d. If you added more stocks at random to the portfolio, which of the following is the most accurate statement of what would happen to σ_p?

(1) σ_p would remain constant.
(2) σ_p would decline to somewhere in the vicinity of 20%.
(3) σ_p would decline to zero if enough stocks were included.

(ST-2) Beta and Required Rate of Return

ECRI Corporation is a holding company with four main subsidiaries. The percentage of its business coming from each of the subsidiaries, and their respective betas, are as follows:

Subsidiary	Percentage of Business	Beta
Electric utility	60%	0.70
Cable company	25	0.90
Real estate	10	1.30
International/special projects	5	1.50

c. Required rate of return, r_s; expected rate of return, $\hat{r}_s$; actual, or realized, rate of return, $\bar{r}_s$
d. Capital gains yield; dividend yield; expected total return
e. Constant growth; nonconstant growth; zero growth stock
f. Preferred stock
g. Nonoperating assets
h. Value of operations; horizon value; free cash flow valuation model

(7-2) Two investors are evaluating General Electric's stock for possible purchase. They agree on the expected value of D_1 and also on the expected future dividend growth rate. Further, they agree on the risk of the stock. However, one investor normally holds stocks for 2 years and the other normally holds stocks for 10 years. On the basis of the type of analysis done in this chapter, they should both be willing to pay the same price for General Electric's stock. True or false? Explain.

(7-3) A bond that pays interest forever and has no maturity date is a perpetual bond, also called a perpetuity or a consol. In what respect is a perpetual bond similar to (1) a no-growth common stock and (2) a share of preferred stock?

(7-4) Explain how to use the corporate valuation model to find the price per share of common equity.

SELF-TEST PROBLEMS Solutions Appear in Appendix A

(ST-1) Constant Growth Stock Valuation

Ewald Company's current stock price is $36, and its last dividend was $2.40. In view of Ewald's strong financial position and its consequent low risk, its required rate of return is only 12%. If dividends are expected to grow at a constant rate g in the future, and if r_s is expected to remain at 12%, then what is Ewald's expected stock price 5 years from now?

(ST-2) Nonconstant Growth Stock Valuation

Snyder Computer Chips Inc. is experiencing a period of rapid growth. Earnings and dividends are expected to grow at a rate of 15% during the next 2 years, at 13% in the third year, and at a constant rate of 6% thereafter. Snyder's last dividend was $1.15, and the required rate of return on the stock is 12%.

a. Calculate the value of the stock today.
b. Calculate $\hat{P}_1$ and $\hat{P}_2$.
c. Calculate the dividend yield and capital gains yield for Years 1, 2, and 3.

(ST-3) Free Cash Flow Valuation Model

Watkins Inc. has never paid a dividend, and when the firm might begin paying dividends is not known. Its current free cash flow is $100,000, and this FCF is expected to grow at a constant 7% rate. The weighted average cost of capital is WACC = 11%. Watkins currently holds $325,000 of nonoperating marketable securities. Its long-term debt is $1,000,000, but it has never issued preferred stock. Watkins has 50,000 shares of stock outstanding.

a. Calculate Watkins's value of operations.
b. Calculate the company's total value.
c. Calculate the estimated value of common equity.
d. Calculate the estimated per share stock price.

a. What is the holding company's beta?
b. Assume that the risk-free rate is 6% and that the market risk premium is 5%. What is the holding company's required rate of return?
c. ECRI is considering a change in its strategic focus: It will reduce its reliance on the electric utility subsidiary so that the percentage of its business from this subsidiary will be 50%. At the same time, ECRI will increase its reliance on the international/special projects division, and the percentage of its business from that subsidiary will rise to 15%. What will be the shareholders' required rate of return if management adopts these changes?

PROBLEMS Answers Appear in Appendix B

Easy Problems 1–4

(6-1) Portfolio Beta

Your investment club has only two stocks in its portfolio. $20,000 is invested in a stock with a beta of 0.7, and $35,000 is invested in a stock with a beta of 1.3. What is the portfolio's beta?

(6-2) Required Rate of Return

AA Industries's stock has a beta of 0.8. The risk-free rate is 4% and the expected return on the market is 12%. What is the required rate of return on AA's stock?

(6-3) Required Rates of Return

Suppose that the risk-free rate is 5% and that the market risk premium is 7%. What is the required return on (1) the market, (2) a stock with a beta of 1.0, and (3) a stock with a beta of 1.7? Assume that the risk-free rate is 5% and that the market risk premium is 7%.

(6-4) Fama-French Three-Factor Model

An analyst has modeled the stock of a company using the Fama-French three-factor model. The risk-free rate is 5%, the market return is 10%, the return on the SMB portfolio (r_{SMB}) is 3.2%, and the return on the HML portfolio (r_{HML}) is 4.8%. If $a_i = 0$, $b_i = 1.2$, $c_i = -0.4$, and $d_i = 1.3$, what is the stock's predicted return?

Intermediate Problems 5–10

(6-5) Expected Return: Discrete Distribution

A stock's return has the following distribution:

Demand for the Company's Products	Probability of This Demand Occurring	Rate of Return If This Demand Occurs (%)
Weak	0.1	–50%
Below average	0.2	–5
Average	0.4	16
Above average	0.2	25
Strong	0.1	60
	1.0	

Calculate the stock's expected return and standard deviation.

(6-6) Expected Returns: Discrete Distribution

The market and Stock J have the following probability distributions:

Probability	r_M	r_J
0.3	15%	20%
0.4	9	5
0.3	18	12

a. Calculate the expected rates of return for the market and Stock J.
b. Calculate the standard deviations for the market and Stock J.

PROBLEMS Answers Appear in Appendix B

Easy Problems 1–7

(7-1) DPS Calculation

Thress Industries just paid a dividend of $1.50 a share (i.e., $D_0 = \$1.50$). The dividend is expected to grow 5% a year for the next 3 years and then 10% a year thereafter. What is the expected dividend per share for each of the next 5 years?

(7-2) Constant Growth Valuation

Boehm Incorporated is expected to pay a $1.50 per share dividend at the end of this year (i.e., $D_1 = \$1.50$). The dividend is expected to grow at a constant rate of 6% a year. The required rate of return on the stock, r_s, is 13%. What is the estimated value per share of Boehm's stock?

(7-3) Constant Growth Valuation

Woidtke Manufacturing's stock currently sells for $22 a share. The stock just paid a dividend of $1.20 a share (i.e., $D_0 = \$1.20$), and the dividend is expected to grow forever at a constant rate of 10% a year. What stock price is expected 1 year from now? What is the estimated required rate of return on Woidtke's stock (assume the market is in equilibrium with the required return equal to the expected return)?

Problems 4-7

(7-4) Preferred Stock Valuation

Nick's Enchiladas Incorporated has preferred stock outstanding that pays a dividend of $5 at the end of each year. The preferred sells for $50 a share. What is the stock's required rate of return (assume the market is in equilibrium with the required return equal to the expected return)?

(7-5) Nonconstant Growth Valuation

A company currently pays a dividend of $2 per share ($D_0 = \$2$). It is estimated that the company's dividend will grow at a rate of 20% per year for the next 2 years, and then at a constant rate of 7% thereafter. The company's stock has a beta of 1.2, the risk-free rate is 7.5%, and the market risk premium is 4%. What is your estimate of the stock's current price?

(7-6) Value of Operations of Constant Growth Firm

EMC Corporation has never paid a dividend. Its current free cash flow of $400,000 is expected to grow at a constant rate of 5%. The weighted average cost of capital is WACC = 12%. Calculate EMC's estimated value of operations.

(7-7) Horizon Value

Current and projected free cash flows for Radell Global Operations are shown below. Growth is expected to be constant after 2015, and the weighted average cost of capital is 11%. What is the horizon (continuing) value at 2016 if growth from 2015 remains constant?

	Actual	Projected		
	2013	2014	2015	2016
Free cash flow (millions of dollars)	$606.82	$667.50	$707.55	$750.00

Intermediate Problems 8–17

Problem 7-9

(7-8) Constant Growth Rate, g

A stock is trading at $80 per share. The stock is expected to have a year-end dividend of $4 per share ($D_1 = \$4$), and it is expected to grow at some constant rate g throughout time. The stock's required rate of return is 14% (assume the market is in equilibrium with the required return equal to the expected return). What is your forecast of g?

(7-9) Constant Growth Valuation

Crisp Cookware's common stock is expected to pay a dividend of $3 a share at the end of this year ($D_1 = \$3.00$); its beta is 0.8; the risk-free rate is 5.2%; and the market risk premium is 6%. The dividend is expected to grow at some constant rate g, and the stock currently sells for $40 a share. Assuming the market is in equilibrium, what does the market believe will be the stock's price at the end of 3 years (i.e., what is $\hat{P}_3$)?