

3. What is diversification? Does a stockholder get more diversification going from 1 to 10 stocks or going from 100 to 120 stocks?
4. Comparing stocks and government bonds, which has more risk? Which pays a higher average return?
5. What factors should a stock analyst think about in determining the value of a share of stock?
6. Describe the efficient markets hypothesis and give a piece of evidence consistent with this hypothesis.
7. Explain the view of those economists who are skeptical of the efficient markets hypothesis.

PROBLEMS AND APPLICATIONS

1. According to an old myth, Native Americans sold the island of Manhattan about 400 years ago for \$24. If they had invested this amount at an interest rate of 7 percent per year, how much would they have today?
2. A company has an investment project that would cost \$15 million today and yield a payoff of \$20 million in five years.
 - a. Should the firm undertake the project if the interest rate is 8 percent? 7 percent? 6 percent? 5 percent?
 - b. Can you figure out the exact cutoff for the interest rate between profitability and non-profitability?
3. For each of the following kinds of insurance, give an example of behavior that can be called *moral hazard* and another example of behavior that can be called *adverse selection*.
 - a. health insurance
 - b. car insurance
4. Imagine that the U.S. Congress, recognizing the importance of being well dressed, started giving preferential tax treatment to "clothing insurance." Under this new type of insurance, you would pay the insurance company an annual premium, the insurance company would then pay for 80 percent of your clothing expenses (you pay the remaining 20 percent), and the tax laws would partly subsidize your insurance premiums.
 - a. How would the existence of such insurance affect the amount of clothing that people buy? How would you evaluate this change in behavior from the standpoint of economic efficiency?
 - b. Who would choose to buy clothing insurance?
 - c. Suppose that the average person now spends \$2,000 a year on clothes. Would clothing insurance cost more or less than \$2,000? Explain.
 - d. In your view, is this congressional action a good idea? How would you compare this idea with the current tax treatment of health insurance?
5. Imagine that you intend to buy a portfolio of ten stocks with some of your savings. Should the stocks be of companies in the same industry? Should the stocks be of companies located in the same country? Explain.
6. Which kind of stock would you expect to pay the higher average return: stock in an industry that is very sensitive to economic conditions (such as an automaker) or stock in an industry that is relatively insensitive to economic conditions (such as a water company)? Why?
7. A company faces two kinds of risk. A firm-specific risk is that a competitor might enter its market and take some of its customers. A market risk is that the economy might enter a recession, reducing sales. Which of these two risks would more likely cause the company's shareholders to demand a higher return? Why?
8. You have two roommates who invest in the stock market.
 - a. One roommate says that he buys stock only in companies that everyone believes will experience big increases in profits in the future. How do you suppose the price-earnings ratio of these companies compares to the price-earnings ratio of other companies? What might be the disadvantage of buying stock in these companies?

- b. Another roommate says he only buys stock in companies that are cheap, which he measures by a low price-earnings ratio. How do you suppose the earnings prospects of these companies compare to those of other companies? What might be the disadvantage of buying stock in these companies?
- 9. When company executives buy and sell stock based on private information they obtain as part of their jobs, they are engaged in *insider trading*.
 - a. Give an example of inside information that might be useful for buying or selling stock.
 - b. Those who trade stocks based on inside information usually earn very high rates of

- return. Does this fact violate the efficient markets hypothesis?
- c. Insider trading is illegal. Why do you suppose that is?
- 10. Find some information on an index fund (such as the Vanguard 500 Index, ticker symbol VFINX). How has this fund performed compared with other stock mutual funds over the past 5 or 10 years? (Hint: One place to look for data on mutual funds is <http://www.morningstar.com>.) What do you learn from this comparison?

ing on health programs as a form of consumption or investment? Would you distinguish between health programs for the young and health programs for the elderly?

4. What is the opportunity cost of investing in capital? Do you think a country can "overinvest" in capital? What is the opportunity cost of investing in human capital? Do you think a country can "overinvest" in human capital? Explain.
5. Suppose that a U.S. firm builds a factory in Malaysia.
 - a. What sort of foreign investment would this represent?
 - b. What would be the effect of this investment on GDP in Malaysia? Would the effect on Malaysian GNP be larger or smaller?
6. In the 1980s, Japanese investors made significant direct and portfolio investments in the United States. At the time, many Americans were unhappy that this investment was occurring.
 - a. In what way was it better for the United States to receive this Japanese investment than not to receive it?
 - b. In what way would it have been better still for Americans to have made this investment?
7. In the countries of South Asia in 1992, only 56 young women were enrolled in secondary school for every 100 young men. Describe several ways in which greater educational opportunities for young women could lead to faster economic growth in these countries.
8. International data show a positive correlation between income per person and the health of the population.
 - a. Explain how higher income might cause better health outcomes.
 - b. Explain how better health outcomes might cause higher income.
 - c. How might the relative importance of your two hypotheses be relevant for public policy?
9. International data show a positive correlation between political stability and economic growth.
 - a. Through what mechanism could political stability lead to strong economic growth?
 - b. Through what mechanism could strong economic growth lead to political stability?
10. From 1950 to 2000, manufacturing employment as a percentage of total employment in the U.S. economy fell from 28 percent to 13 percent. At the same time, manufacturing output experienced slightly more rapid growth than the overall economy.
 - a. What do these facts say about growth in labor productivity (defined as output per worker) in manufacturing?
 - b. In your opinion, should policymakers be concerned about the decline in the share of manufacturing employment? Explain.

QUESTIONS FOR REVIEW

1. What are the three categories into which the Bureau of Labor Statistics divides everyone? How does the BLS compute the labor force, the unemployment rate, and the labor-force participation rate?
2. Is unemployment typically short-term or long-term? Explain.
3. Why is frictional unemployment inevitable? How might the government reduce the amount of frictional unemployment?
4. Are minimum-wage laws a better explanation for structural unemployment among teenagers or among college graduates? Why?
5. How do unions affect the natural rate of unemployment?
6. What claims do advocates of unions make to argue that unions are good for the economy?
7. Explain four ways in which a firm might increase its profits by raising the wages it pays.

PROBLEMS AND APPLICATIONS

1. The Bureau of Labor Statistics announced that in January 2006, of all adult Americans, 141,481,000 were employed, 4,209,000 were unemployed, and 78,463,000 were not in the labor force. Use this information to calculate:
 - a. the adult population
 - b. the labor force
 - c. the labor-force participation rate
 - d. the unemployment rate
2. Go to the website of the Bureau of Labor Statistics (<http://www.bls.gov>). What is the national unemployment rate right now? Find the unemployment rate for the demographic group that best fits a description of you (for example, based on age, sex, and race). Is it higher or lower than the national average? Why do you think this is so?
3. As shown in Figure 3, the overall labor-force participation rate of men declined between 1970 and 1990. This overall decline reflects different patterns for different age groups, however, as shown in the following table.
4. The labor-force participation rate of women increased sharply between 1970 and 1990, as shown in Figure 3. As with men, however, there were different patterns for different age groups, as shown in this table.

	All Men	Men 16-24	Men 25-54	Men 55 and older
1970	80%	69%	96%	56%
1990	76	72	93	40

Which group experienced the largest decline? Given this information, what factor may have played an important role in the decline in overall male labor-force participation over this period?

	All Women	Women 25-54	Women 25-34	Women 35-44	Women 45-54
1970	43%	50%	45%	51%	54%
1990	58	74	74	77	71

Why do you think younger women experienced a bigger increase in labor-force participation than older women?

- a. A construction worker laid off because of bad weather
- b. A manufacturing worker who loses her job at a plant in an isolated area
- c. A stagecoach-industry worker laid off because of competition from railroads

- d. A short-order cook who loses his job when a new restaurant opens across the street
- e. An expert welder with little formal education who loses her job when the company installs automatic welding machinery
- 7) Using a diagram of the labor market, show the effect of an increase in the minimum wage on the wage paid to workers, the number of workers supplied, the number of workers demanded, and the amount of unemployment.
8. Consider an economy with two labor markets—one for manufacturing workers and one for service workers. Suppose initially that neither is unionized.
- If manufacturing workers formed a union, what impact on the wages and employment in manufacturing would you predict?
 - How would these changes in the manufacturing labor market affect the supply of labor in the market for service workers? What would happen to the equilibrium wage and employment in this labor market?
- 9) It can be shown that an industry's demand for labor will become more elastic when the demand for the industry's product becomes more elastic. Let's consider the implications of this fact for the U.S. automobile industry and the United Autoworkers Union (UAW).
- What happened to the elasticity of demand for American cars when the Japanese developed a strong auto industry? What happened to the elasticity of demand for American auto workers? Explain.
 - As the chapter explains, a union generally faces a trade-off in deciding how much to raise wages because a bigger increase is better for workers who remain employed but also results in a greater reduction in employment. How did the rise in auto imports from Japan affect the wage-employment trade-off faced by the UAW?
- c. Do you think the growth of the Japanese auto industry increased or decreased the gap between the competitive wage and the wage chosen by the UAW? Explain.
10. Suppose that Congress passes a law requiring employers to provide employees some benefit (such as healthcare) that raises the cost of an employee by \$4 per hour.
- What effect does this employer mandate have on the demand for labor? (In answering this and the following questions, be quantitative when you can.)
 - If employees place a value on this benefit exactly equal to its cost, what effect does this employer mandate have on the supply of labor?
 - If the wage is free to balance supply and demand, how does this law affect the wage and the level of employment? Are employers better or worse off? Are employees better or worse off?
 - Suppose that, before the mandate, the wage in this market was \$3 above the minimum wage. In this case, how does the employer mandate affect the wage, the level of employment, and the level of unemployment?
 - Now suppose that workers do not value the mandated benefit at all. How does this alternative assumption change your answers to parts (b) and (c)?