

5. In the *Red Oaks* television show, one character gives a hot tip based on insider information to an employee who wants to make enough money in the stock market to buy a boat: “Rumor has it Galexa’s stock is going to split by the end of the year, so you can get yourself a whole fleet of boats.” Why are you skeptical?

6. A lawsuit alleged that there had been fraud and misrepresentation in a land sale. The defendant had allegedly misrepresented part of the land as suitable for the development of condominiums that would generate an estimated cash flow of \$120,000 a month. This land turned out to be unbuildable. One side of the lawsuit argued that the present value of this promised \$120,000 monthly cash flow should be calculated using the Treasury bond rate; the other side argued that the corporate Baa bond rate is more appropriate.
 - a. Which of these interest-rate arguments do you suppose was made by the defendant and which was made by the plaintiff (the person suing for damages)?

 - b. If you were the judge, what interest rate would you use to calculate the present value?

7. Is an upward sloping term structure more consistent with a financial market consensus that interest rates will rise or fall in the future? If you disagree with this consensus and believe that interest rates will not change much, should you buy bonds with long maturities, long durations, or high coupons? Explain your reasoning.

8. Answer this question: “Isn’t it inconsistent to measure risk by the standard deviation in mean-variance analysis and by the beta coefficient in the Capital Asset Pricing Model?”

9. Which would you expect to be higher, the price of gold or the price of six-month gold futures? Explain your reasoning.
10. Suppose that you start work at age 21 and save \$10,000 at the end of the first year and 5% more every year thereafter (e. g., \$10,500 at the end of the second year) and that you earn a 10% annual after-tax return. How much will you have accumulated after 20 years?
11. On September 4, 2019, Apple filed a prospectus for the issuance of an unspecified amount of debt, with maturities ranging from 3 to 30 years, with the proceeds to be used for stock repurchases, dividends, and other purposes. Apple's stock jumped 1.3% on the news. Why do you suppose investors thought more debt was a good idea, when Apple already had lots of cash that could be used for stock repurchases, dividends, and other purposes?
12. Prudential-Bache's Director of Economics & Fixed Income Research once proposed that the Fed target a flat term structure: if the interest rates on long-term bonds are 5%, the Fed should use monetary policy to set short-term interest rates at 5% too. If the liquidity preference hypothesis is correct, what interest rate expectations are consistent with a flat term structure?

13. Explain why you either agree or disagree with the argument that if investors can beat the market only through luck, then market prices are equal to intrinsic values:

In an efficient market, all prices are “fair” —meaning that they equate to their intrinsic values (which are usually not directly observable) and investors can “beat the market” only through luck or random variation around market benchmarks. (Ibbotson, Roger, et al. 2018)

14. A and B are two companies, identical in all respects, except that A has no debt and B is 50 percent debt-financed. For each of the following financial statistics, indicate whether you expect the value of the statistic to be higher for company A or B. Briefly explain your reasoning.

- a. expected return on assets
- b. standard deviation of return on stock
- c. beta coefficient of stock
- d. shareholder’s required return on stock

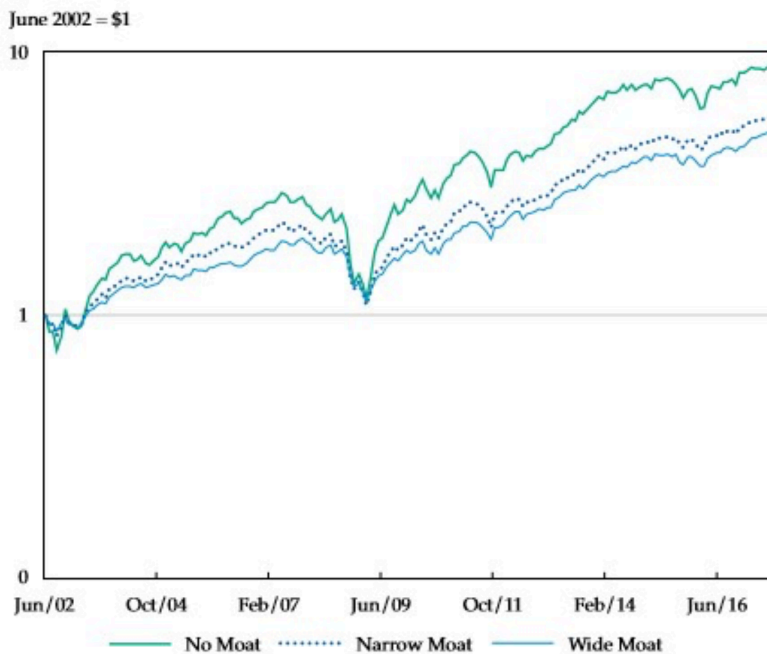
15. Explain the logic behind Louis Rukeyser’s observation that, “Almost invariably, the higher the yield [the ratio of a stock’s dividend to its price] the lower the growth.

16. Explain why the following conclusion is or is not logically correct:

If the Modigliani-Miller theorem is true, then monetary policy cannot influence the investment activity of modern American corporations, since the investment decision is independent of the method and hence the cost of financing.

17. Many argue that company performance is enhanced by having a “moat” that protects it from competition. In 2002, Morningstar assigned moat ratings to thousands of companies: wide moat, narrow moat, no moat. The figure tracks the performance of portfolios composed of these three categories. How would you explain the underperformance of the wide-moat companies even if it is true that companies with wide moats make large stable profits, and Morningstar classified the companies correctly.

Figure 6.3. Growth of \$1 for the Three Equally Weighted Portfolios Based on Morningstar Economic Moat Ratings, July 2002–August 2017 (log scale)



18. Answer the questions following this quotation:

With most economists now expecting interest rates to rise later this year, buying any kind of long-term bond carries a growing risk of principal loss for those who can't hold the issue until maturity. Zeros are especially risky because they react more extremely than conventional bonds to changes in interest rates.

- a. Do zero-coupon bonds have to sell at a discount?
- b. How can there be a principal loss if the bond issuer doesn't default?
- c. Why are zeros especially risky?
- d. Is there no risk for those who hold until maturity?
- e. Why would anyone buy a long-term zero if it is clear that interest rates will rise? Give an example.

19. Horizons ETFs Management Canada Inc. is recalibrating its artificial intelligence (AI) exchange-traded fund (ETF) after a year of underperformance that was a "complete disappointment," according to the provider's chief executive officer.

The Horizons Active A.I. Global Equity ETF (MIND), which uses a proprietary AI-directed selection process to invest in major global equity indexes through a basket of ETFs, has trailed the market over the past year, down 1.04 per cent on a return basis, versus a positive total return, in Canadian dollar terms, of 5.76 per cent for the MSCI World Index....

"To the extent that they may have underperformed today, there is a strong possibility that they can outperform in the future," Mr. Hawkins [Horizons CEO] said.

Explain Hawkins' reasoning and why you either agree or disagree with it.

20. Explain why you would or would not expect stock prices to exhibit a

- a. long-run trend
- b. seasonal pattern