Chapter 7

1. Fama and French claim that after controlling for firm size and the ratio of firm’s book value to market value, beta is \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

I. highly significant in predicting future stock returns

II. relatively useless in predicting future stock returns

III. a good predictor of firm’s specific risk

A. I only

B. II only

C. I and III only

D. I, II and III

1. When all investors analyze securities in the same way and share the same economic view of the world, we say they have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. heterogeneous expectations
3. equal risk aversion
4. asymmetric information
5. homogeneous expectations
6. If enough investors decide to purchase stocks, they are likely to drive up stock prices, thereby causing \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_.
7. expected returns to fall; risk premiums to fall
8. expected returns to rise; risk premiums to fall
9. expected returns to rise; risk premiums to rise
10. expected returns to fall; risk premiums to rise
11. Consider the CAPM. The risk-free rate is 6%, and the expected return on the market is 18%. What is the expected return on a stock with a beta of 1.3?
12. 6%
13. 15.6%
14. 18%
15. 21.6%
16. If all investors become more risk averse, the SML will \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and stock prices will \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
17. shift upward; rise
18. shift downward; fall
19. have the same intercept with a steeper slope; fall
20. have the same intercept with a flatter slope; rise
21. Arbitrage is based on the idea that \_\_\_\_\_\_\_\_\_.
22. assets with identical risks must have the same expected rate of return
23. securities with similar risk should sell at different prices
24. the expected returns from equally risky assets are different
25. markets are perfectly efficient
26. Investors require a risk premium as compensation for bearing \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
27. unsystematic risk
28. alpha risk
29. residual risk
30. systematic risk
31. According to the capital asset pricing model, fairly priced securities have \_\_\_\_\_\_\_\_\_.
32. negative betas
33. positive alphas
34. positive betas
35. zero alphas
36. According to the capital asset pricing model, in equilibrium \_\_\_\_\_\_\_\_\_.
37. all securities’ returns must lie below the capital market line
38. all securities’ returns must lie on the security market line
39. the slope of the security market line must be less than the market risk premium
40. any security with a beta of 1 must have an excess return of zero
41. Security X has an expected rate of return of 13% and a beta of 1.15. The risk-free rate is 5%, and the market expected rate of return is 15%. According to the capital asset pricing model, security X is \_\_\_\_\_\_\_\_\_.
42. fairly priced
43. overpriced
44. underpriced
45. none of these answers
46. Consider the multifactor APT with two factors. Portfolio A has a beta of .5 on factor 1 and a beta of 1.25 on factor 2. The risk premiums on the factor 1 and 2 portfolios are 1% and 7%, respectively. The risk-free rate of return is 7%. The expected return on portfolio A is \_\_\_\_\_\_\_\_\_\_ if no arbitrage opportunities exist.
47. 13.5%
48. 15%
49. 16.25%
50. 23%
51. The possibility of arbitrage arises when \_\_\_\_\_\_\_\_\_\_\_\_.
52. there is no consensus among investors regarding the future direction of the market, and thus trades are made arbitrarily
53. mispricing among securities creates opportunities for riskless profits
54. two identically risky securities carry the same expected returns
55. investors do not diversify
56. In a single-factor market model the beta of a stock \_\_\_\_\_\_\_\_.
57. measures the stock’s contribution to the standard deviation of the market portfolio
58. measures the stock’s unsystematic risk
59. changes with the variance of the residuals
60. measures the stock’s contribution to the standard deviation of the stock
61. According to the CAPM, the risk premium an investor expects to receive on any stock or portfolio is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
62. directly related to the risk aversion of the particular investor
63. inversely related to the risk aversion of the particular investor
64. directly related to the beta of the stock
65. inversely related to the alpha of the stock
66. The SML is valid for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and the CML is valid for \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
67. only individual assets; well-diversified portfolios only
68. only well-diversified portfolios; only individual assets
69. both well-diversified portfolios and individual assets; both well-diversified portfolios and individual assets
70. both well-diversified portfolios and individual assets; well-diversified portfolios only
71. Arbitrage is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
72. an example of the law of one price
73. the creation of riskless profits made possible by relative mispricing among securities
74. a common opportunity in modern markets
75. an example of a risky trading strategy based on market forecasting
76. According to the CAPM, what is the market risk premium given an expected return on a security of 13.6%, a stock beta of 1.2, and a risk-free interest rate of 4%?
77. 4%
78. 4.8%
79. 6.6%
80. 8%
81. According to the CAPM, what is the expected market return given an expected return on a security of 15.8%, a stock beta of 1.2, and a risk-free interest rate of 5%?
82. 5%
83. 9%
84. 13%
85. 14%
86. Using the index model, the alpha of a stock is 3%, the beta is 1.1, and the market return is 10%. What is the residual given an actual return of 15%?
87. 0%
88. 1%
89. 2%
90. 3%
91. The risk premium for exposure to exchange rates is 5%, and the firm has a beta relative to exchange rates of .4. The risk premium for exposure to the consumer price index is -6%, and the firm has a beta relative to the CPI of .8. If the risk-free rate is 3%, what is the expected return on this stock?
92. .2%
93. 1.5%
94. 3.6%
95. 4%
96. One can profit from an arbitrage opportunity by

A. taking a long position in the cheaper market and a short position in the expensive market.

B. taking a short position in the cheaper market and a long position in the expensive market.

C. taking a long position in both markets.

D. taking a short position in both markets.

1. The market portfolio has a beta of \_\_\_\_\_\_\_\_\_.

A. -1.0

B. 0

C. 0.5

D. 1.0

1. Consider the CAPM. The expected return on the market is 18%. The expected return on a stock with a beta of 1.2 is 20%. What is the risk-free rate?

A. 2%

B. 6%

C. 8%

D. 12%

1. You have a $50,000 portfolio consisting of Intel, GE and Con Edison. You put $20,000 in Intel, $12,000 in GE and the rest in Con Edison. Intel, GE and Con Edison have betas of 1.3, 1.0 and 0.8 respectively. What is your portfolio beta?

A. 1.048

B. 1.033

C. 1.000

D. 1.037

1. Assume that both X and Y are well-diversified portfolios and the risk-free rate is 8%. Portfolio X has an expected return of 14% and a beta of 1.00. Portfolio Y has an expected return of 9.5% and a beta of 0.25. In this situation, you would conclude that portfolios X and Y \_\_\_\_\_\_\_\_\_.

A. are in equilibrium

B. offer an arbitrage opportunity

C. are both underpriced

D. are both fairly priced

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 |
| B | D | A | D | C |
| 6 | 7 | 8 | 9 | 10 |
| A | D | D | B | B |
| 11 | 12 | 13 | 14 | 15 |
| C | B | A | C | D |
| 16 | 17 | 18 | 19 | 20 |
| B | D | D | B | A |
| 21 | 22 | 23 | 24 | 25 |
| A | D | C | A | A |

4.

*E*[*rs*] = 6% + [18% – 6%](1.3) = 21.6%

10.

In equilibrium, *E*[*rX*] = 5% + 1.15(15% – 5%) = 16.5%.

11.

*E*[*rA*]= 7% + 0.5(1%) + 1.25(7%) = 16.25%

17.

13.6% = 4% + 1.2 × (MRP); MRP = 8%

18.

15.8% = 5% + 1.2 × (MRP); MRP = 9%; Expected market return = 5% + 9% = 14%

19.

Residual = 15% – (3% + 1.1 × 10%) = 1%

20.

Return = .03 + .4(.05) + .8(-.06) = .002

23.

20% = *rf* + (18% – *rf*)(1.2); *rf* = 8%

24.



25.



Thus, there are no arbitrage opportunities, and X and Y are in equilibrium.