BUS422 INTERNATIONAL FINANCE II
Chapter 12:International Portfolio Theory and Diversification

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

1) Beta may be defined as: 1) _____
A) a risk measure of a portfolio.
B) the measure of systematic risk.
C) the ratio of the variance of the portfolio to the variance of the market.
D) all of the above

2) _____ risk is measured with beta. 2) _____
A) Unsystematic B) International C) Systematic D) Domestic

3) A fully diversified domestic portfolio has a beta of: 3) _____
A) -1.0
B) 0.0
C) 1.0
D) There is not enough information to answer this question.

4) Unsystematic risk: 4) _____
A) can be diversified away.
B) is measured with beta.
C) is the remaining risk in a well-diversified portfolio.
D) all of the above

5) A well-diversified portfolio has about _____ of the risk of the typical individual stock. 5) _____
A) 27% B) 8% C) 19% D) 52%

6) An internationally diversified portfolio: 6) _____
A) is only about 12% as risky as the typical individual stock.
B) has the same overall risk shape as a purely domestic portfolio.
C) should result in a portfolio with a lower beta than a purely domestic portfolio.
D) all of the above

7) In some respects, internationally diversified portfolios are the same in principle as a domestic portfolio because: 7) _____
A) investors are trying to reduce the total risk of the portfolio.
B) investors are trying to reduce systematic risk.
C) the investor is attempting to combine assets that are perfectly correlated.
D) all of the above

8) In some respects, internationally diversified portfolios are different from a domestic portfolio because: 8) _____

A) investors must leave the country to acquire foreign securities.
B) investors may also acquire foreign exchange risk.
C) international portfolio diversification increases expected return but does not decrease risk.
D) all of the above

Instruction 16.1:
Use the information to answer the following question(s).

In September 2009 a U.S. investor chooses to invest $500,000 in German equity securities at a then current spot rate of $1.30/eu the end of one year the spot rate is $1.35/euro.

9) Refer to Instruction 16.1. How many euros will the U.S. investor acquire with his initial $500,000 investment? 9) _____

A) €500,000 B) €384,615 C) €370,370 D) €650,000

10) Refer to Instruction 16.1. At an average price of €60/share, how many shares of stock will the investor be able to purchase? 10) _____

A) 6173 shares B) 6410 shares C) 10,833 shares D) 8333 shares

11) Refer to Instruction 16.1. At the end of the year the investor sells his stock that now has an average price per share of €57. What is the investor's average rate of return before converting the stock back into dollars? 11) _____

A) 3.0% B) 5.0% C) -3.0% D) -5.0%

12) Refer to Instruction 16.1. At the end of the year the investor sells his stock that now has an average price per share of €57. What is the investor's average rate of return after converting the stock back into dollars? 12) _____

A) -5.0% B) -1.35% C) 5.0% D) -7.24%

13) A U.S. investor makes an investment in Britain and earns 14% on the investment while the British pound appreciates against the U.S. dollar by 8%. What is the investor's total return? 13) _____

A) 23.12% B) 6.00% C) 4.88% D) 22.00%

14) Which of the following statements is NOT true? 14) _____

A) An international security adds value to a portfolio if it reduces risk without reducing return.
B) Investors will demand a security that adds value.
C) International diversification benefits induce investors to demand foreign securities.
D) All of the above are true.

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

15) Portfolio diversification can eliminate 100% of risk. 15) _____

16) Increasing the number of securities in a portfolio reduces the unsystematic risk but not the systematic risk. 16) _____

17) International diversification benefits may induce investors to demand foreign securities. 17) _____

18) If the addition of a foreign security to the portfolio of the investor aids in the reduction of risk for a given level of return, then the security adds value to the portfolio. 18) _____

19) If the addition of a foreign security to the portfolio of the investor decreases the expected return for a given level of risk, then the security adds value to the portfolio. 19) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

20) Portfolio theory assumes that investors are risk-averse. This means that investors: 20) _____
A) prefer more risk to less for a given return.
B) cannot be induced to make risky investments.
C) will accept some risk, but not unnecessary risk.
D) All of the above are true.

21) The efficient frontier of the domestic portfolio opportunity set: 21) _____
A) represents optimal portfolios of securities that represent minimum risk for a given level of expected portfolio return.
B) contains the portfolio of risky securities that the logical investor would choose to hold.
C) runs along the extreme left edge of the opportunity set.
D) all of the above

22) The addition of foreign securities to the domestic portfolio opportunity set shifts the efficient frontier: 22) _____
A) up and to the left.
B) up and to the right.
C) down and to the left.
D) down and to the right.

23) Relative to the efficient frontier of risky portfolios, it is impossible to hold a portfolio that is located _____ the efficient frontier. 23) _____
A) on
B) to the left of
C) to the right or left of
D) to the right of

24) The _____ connects the risk-free security with the optimal domestic portfolio. 24) _____
A) capital market line
B) security market line
C) capital asset pricing model
D) none of the above

Instruction 16.2:
Use the information to answer the following question(s).

A U.S. investor is considering a portfolio consisting of 60% invested in the U.S. equity index fund and 40% invested in the Brit index fund. The expected returns for the funds are 10% for the U.S. and 8% for the British, standard deviations of 20% for the U 18% for the British, and a correlation coefficient of 0.15 between the U.S. and British equity funds.

25) Refer to Instruction 16.2. What is the expected return of the proposed portfolio? 25) _____
A) 9.0% B) 9.2% C) 19.2% D) 19%

26) Refer to Instruction 16.2. What is the standard deviation of the proposed portfolio? 26) _____
A) 19.00 B) 14.45 C) 38.00 D) 19.20

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

27) The graph for the efficient frontier has beta on the vertical axis and standard deviation of the horizontal axis. 27) _____

28) The portfolio with the least risk among all those possible in the domestic portfolio opportunity set is called the minimum risk domestic portfolio. 28) _____

29) The optimal domestic portfolio of risky securities is always the portfolio of minimum risk. 29) _____

30) The standard deviation of a portfolio is the sum of the weighted average standard deviations of the individual assets. 30) _____

31) The optimal domestic portfolio combines the risk-free asset and a portfolio of domestic securities found on the efficient frontier. 31) _____

32) The *internationally diversified portfolio opportunity set* shifts TO THE RIGHT of the purely domestic opportunity set. 32) _____

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

33) Draw the curve representing the Optimal Domestic Efficient Frontier. Be sure to draw and label the following: The vertical axis and the horizontal axis, the risk-free security, the minimum risk portfolio, the domestic portfolio opportunity set, the optimal domestic portfolio, and the capital market line. Choose a point along the domestic portfolio opportunity set between the optimal domestic portfolio and the minimum risk domestic portfolio and explain why that point is not the optimal risky domestic portfolio for investors to hold.

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

34) The authors present a comparison of correlation coefficients between major global equity markets over a variety of different periods. The comparison yields a number of conclusions listed here EXCEPT: 34) _____

A) that same century of data, however, yields a high correlation between the U.S. and Canada (0.80).
B) the correlation between equity markets for the full twentieth century shows quite low levels of correlation between some of the largest markets (close to 0.50 in some cases).
C) the correlation coefficients between those same equity markets for selected sub periods over the last quarter of the twentieth century, however, show significantly different correlation coefficients.
D) None of the answers listed are inaccurate conclusions.

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

35) Capital markets around the world are on average less integrated today than they were 20 years ago. 35) _____

36) In an empirical study on national market returns in the 20th century, Dimson, Marsh, and Staunton (2002) determined that the equity returns in the United States out-performed the other 15 countries in the study. 36) _____

37) In an empirical study on national market returns in the 20th century, Dimson, Marsh, and Staunton (2002) found that just under one-half of the 16 countries in the study had negative average returns in their equity markets. 37) _____

38) In an empirical study on national market returns in the 20th century, Dimson, Marsh, and Staunton (2002) determined that due to high levels of correlation or returns between countries, there is almost NO BENEFIT to international portfolio diversification. 38) _____

39) Of the major trading partners with the United States, Canada has among the LOWEST correlation of returns with the U.S. 39) _____

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

40) If an investor is able to determine a global beta for his portfolio and holds a portfolio that is well-diversified with international investments, which performance measure is more appropriate, the Sharpe Measure or the Treynor Measure? Why? Explain each performance measure.

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

41) The Sharpe measure uses _____ as the measure of risk and the Treynor measure uses _____ as the measure of risk. 41) _____

A) standard deviation; beta
B) beta; standard deviation
C) standard deviation; variance
D) beta; variance

TABLE 16.1
Use the information to answer following question(s).

Country	Risk-free Mean Return (Monthly %)	Mean Return (Monthly %)	Standard Deviation	Beta
Austria	0.42	0.77	6.52	1.02
France	0.42	1.18	6.76	1.08
Japan	0.42	1.08	6.66	1.21
Netherlands	0.42	1.39	4.93	0.89
United States	0.42	1.01	4.16	0.82

42) Refer to Table 16.1. What is the value of the Sharpe Measure for France? 42) _____
A) 0.0071 B) 0.113
C) either A or B D) neither A nor B

43) Refer to Table 16.1. What is the value of the Treynor Measure for the Netherlands? 43) _____
A) 0.0109 B) 0.197
C) either A or B D) neither A nor B

44) Refer to Table 16.1. _____ appears to have the greatest amount of risk as measured by monthly standard deviation, but _____ has the best return per unit of risk according to the Sharpe Measure. 44) _____
A) France; Netherlands B) France; Austria
C) United States; Netherlands D) United States; Austria

45) The Sharpe and Treynor Measures tend to be consistent in their ranking of portfolios when the portfolios: 45) _____
A) are properly diversified. B) contain only U.S. equity investments.
C) are poorly diversified. D) none of the above

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

46) The Sharpe and Treynor measures are each measures of return per unit of risk. 46) _____

47) Good financial advice would suggest that investors should examine returns by the amount of return per unit of risk accepted, rather than in isolation. 47) _____

48) The denominator of the Treynor measure is portfolio risk as measured by the standard deviation of the portfolio. 48) _____

49) The denominator of the Sharpe measure is portfolio risk as measured by the standard deviation of the portfolio. 49) _____

50) The denominator of the Sharpe measure is the portfolio's beta, the systematic risk of the portfolio, as measured against the world market portfolio. 50) _____

51) The denominator of the Treynor measure is the portfolio's beta, the systematic risk of the portfolio, as measured against the world market portfolio. 51) _____

1) D
2) C
3) C
4) A
5) A
6) D
7) A
8) B
9) B
10) B
11) D
12) B
13) A
14) D
15) FALSE
16) TRUE
17) TRUE
18) TRUE
19) FALSE
20) C
21) D
22) A
23) B
24) A
25) B
26) B
27) FALSE
28) TRUE
29) FALSE
30) FALSE
31) TRUE
32) FALSE
33) The graph should look like that found in Exhibit 16.3. To answer the second part of the question, the student should draw a straight-line beginning at the point of the risk-free rate of return on the vertical axis and running through the point he/she just put on the opportunity set between the minimum risk portfolio and the optimal domestic portfolio. This graphical representation clearly shows that at any point other than holding 100% in the risk-free security, the expected risk and risk characteristics of the capital market line clearly dominate the new line just drawn.
34) D
35) FALSE
36) FALSE
37) FALSE
38) FALSE
39) FALSE

40) The Sharpe Measure is the ratio of excess returns above the risk-free rate of return to the standard deviation of the portfolio. The Treynor Measure substitutes the beta of the portfolio for the denominator. Thus Sharpe measures reward per unit of portfolio risk while Treynor measures reward per unit of systematic risk. In this example, the portfolio risk and systematic risk are equivalent so either measure is appropriate.
41) A
42) B
43) A
44) A
45) A
46) TRUE
47) TRUE
48) FALSE
49) TRUE
50) FALSE
51) TRUE