Franklin Niendorf is an analyst for Beck Wealth Partners (BWP), a U.S. firm. BWP invests funds for individual and institutional clients. Being cognizant of home country bias, BWP evaluates both domestic and foreign markets to increase portfolio diversification and returns.

Niendorf is investigating the emerging market of Bellania that is transitioning to a developed market. Its per capita income is increasing, and its stock market and economy are rapidly developing. To spur economic growth, the Bellanian coalition government limits competition in its most promising industries. As a percentage of GDP, Bellania's foreign debt levels are 41%, and it has foreign exchange reserves equal to 81% of short-term debt.

Niendorf calculates the equity risk premium for the Bellanian equity market using the Singer-Terhaar model. The inputs are as follows.

	Bellania
Volatility	25.0%
Correlation with global market	0.50
Degree of integration	0.60
Sharpe ratio for global and segmented markets	0.20

Niendorf is also examining the country of Harsha, an Asian emerging market, to determine whether one of BWP's largest clients should increase their asset allocation to Harsha. The client has expressed a desire for higher returns and diversification using a Harshan portfolio of stocks and bonds. Niendorf believes that the Harshan economy will expand rapidly over the next year. Niendorf makes the following statements in his conversation with the client:

Statement 1:	Historically, Harsha has had a current account surplus, exporting more than it imports. In the coming year, I forecast that, due to the economic expansion, consumer confidence will increase and Harsha will experience a large trade deficit as its citizens increase their demand for imported goods. In my analysis of foreign markets in general, cyclical trade deficits outweigh a country's historical record of surpluses and are negative for the market.
Statement 2:	In light of my forecast for the economy next year, I believe that the conditions for debt issues are very favorable. As a result, you should

increase your allocation to Harshan bonds and target a long duration in your bond portfolio.

Statement 3: Over the next few years, Harsha will become less segmented and more integrated with global markets. The required equity return for Harsha will decrease, and this development is positive for Harshan equity.

Niendorf usually uses sample data to determine the risk and covariance of assets in a client's portfolio. Most recently, a client had a portfolio of 31 assets. Niendorf calculated the sample variance-covariance matrix using 10 years of monthly data. He has also calculated the variance-covariance matrix using a second method. In this method, he uses a five-factor model, with the covariances and correlations estimated from a few common factors.

Question #1 - 4 of 16

Question ID: 1562898

Which of the following factors is *least likely* to suggest that Bellania is susceptible to risk?

A) Its government.

B) Its foreign debt levels.

C) Its foreign exchange reserves.

Explanation

Foreign debt levels greater than 50% of GDP indicate that the country may be overleveraged. At 41%, Bellania does not appear to be overleveraged.

There are better prospects for growth when a government is committed to competition. Furthermore, coalition governments are seen as riskier because of the inherent political, and therefore policy, instability. The Bellanian coalition government is restricting competition in its most promising industries, indicating a susceptibility to risk.

Foreign exchange reserves relative to short-term debt are important because many emerging country loans must be paid back in a foreign currency. Foreign exchange reserves less than 100% of short-term debt are a sign of trouble. At 81%, Bellania may be susceptible to risk.

(Module 2.2, LOS 2.b)

Question #2 - 4 of 16

Question ID: 1562899

Which of the following is *closest* to the risk premium for the Bellanian equity market using the Singer-Terhaar model?

A) 2.50%.

B) 3.50%.

C) 5.00%.

Explanation

In the Singer-Terhaar model, the risk premium is the product of the correlation with the global market portfolio, the standard deviation of the market, and the Sharpe ratio for the global portfolio. It is calculated under both fully integrated and fully segmented assumptions.

Assuming fully integrated markets, the risk premium is 0.50 × 25% × 0.20 = 2.5%.

Assuming fully segmented markets, the relevant global portfolio is its own market portfolio such that the correlation is equal to one: 1.00 × 25% × 0.20 = 5.0%.

The risk premium overall in the Singer-Terhaar model is a weighted average of a fully integrated market risk premium (0.60 weight) and a fully segmented market risk premium (0.40 weight): 0.60 × 2.5% + (1 –0.60) × 5.0% = 3.5%.

(Module 2.4, LOS 2.c)

Question #3 - 4 of 16

Question ID: 1562900

Which of the following statements by Niendorf is *most accurate*?

A) Statement 1.

B) Statement 2.

C) Statement 3.

Explanation

Statement 3 is accurate. As a market becomes more integrated globally, required returns will fall (as shown in the Singer-Terhaar model) and asset prices will increase. The client should increase allocations toward emerging markets that are expected to see increased integration.

Statement 1 is inaccurate. Historically, Harsha has had a trade surplus. The forecasted Harshan trade deficit is a function of the business cycle. Although increasing trade deficits tend to be associated with falling asset prices, the long-term trend in current account balances is more important for asset prices than current account balances that fluctuate with the business cycle. Furthermore, current account balances will have the largest influence on exchange rates (and, hence, equity returns in the investor's domestic currency) when they are persistent and sustained. The trade deficit in the Harshan case appears to be temporary.

Statement 2 is inaccurate. The Harshan economy is expected to expand rapidly over the next year. Given the prospects for economic growth, the allocation to bonds should be reduced to increase the allocation to equities. Economic growth is unfavorable to bonds because it typically results in higher interest rates. As such, the client should reduce the bond allocation and the overall bond duration.

(Module 2.8, LOS 2.h)

Question #4 - 4 of 16

Question ID: 1562901

Regarding Niendorf's methods of calculating the variance-covariance matrix, which of the following is the *most likely* outcome?

A) The results from the first method will be reliable. ✗

B) The results from the second method will be biased. ✓

C) The results from the second method will be consistent. ✗

Explanation

In the first method, Niendorf calculates the sample variance-covariance matrix for a portfolio of 31 assets using 10 years of monthly data, which is 120 observations. It is recommended that the number of observations should be at least 10 times larger than the number of portfolio assets to be reliable. In this case, there are 120 observations, which is less than 310 (31 × 10).

In the second method, Niendorf calculates the variance-covariance matrix using a factor model. Although the main advantage of using multifactor models for calculating variance-covariance matrices is that it significantly reduces the number of required observations, the factor-based variance-covariance matrix is biased and inconsistent. Thus, the most likely outcome is that the results from the second method will be biased.

(Module 2.7, LOS 2.g)

Question #5 of 16

Question ID: 1551583

An analyst believes that the corporate profit-to-GDP ratio and business confidence provide important information about the term premium. These indicators are *best* categorized as:

A) supply indicators. ✗

B) Kim and Wright premiums. ✗

C) cyclical proxies. ✓

Explanation

Cyclical proxies are indicators that influence the term premium and include the corporate profit-to-GDP ratio, business confidence, and the unemployment rate.

The Kim and Wright premium refers to a three-factor model of the term structure. The proportion of debt with a maturity greater than 10 years is a supply indicator.

(Module 2.1, LOS 2.a)

Question #6 of 16

Question ID: 1580630

ABC is a bond fund engaging in active management. ABC has expertise in identifying improving credit conditions and, therefore, is willing to accept significant credit risk. If ABC seeks to increase the premiums earned by accepting credit risk, which of the following strategies will *most likely* be pursued by ABC?

A) Shifting from AA to AAA bonds.

B) Increasing the maturities of credit-risky bonds.

C) Decreasing the maturities of credit-risky bonds.

Explanation

Shortening maturity is the correct strategy because credit premiums have been shown to be especially generous at the short end of the curve. Increasing the maturities of credit-risky bonds would go against the empirical evidence about term and credit premiums. Moving from AA to AAA bonds would not be an effective way to take on increasing credit risk because that would be a move toward safer investments and away from the expertise of the fund.

(Module 2.1, LOS 2.a)

Question #7 of 16

Question ID: 1580629

An investor purchases a coupon-paying bond where the term of the bond is equal to his investment horizon. If interest rates rise over that period, it is *most likely* that the realized return will be:

A) greater than expected return.

B) less than expected return.

C) equal to expected return.

Explanation

A coupon-paying bond will have a Macaulay duration less than the term. Therefore, the duration, in this case, is less than the investment horizon. When duration is less than investment horizon, an increase in interest rates will benefit the portfolio due to reinvestment at the higher rate, resulting in a realized return that is greater than initially expected.

(Module 2.1, LOS 2.a)

Question #8 of 16

Question ID: 1580647

An analyst at an investment firm uses a sample variance-covariance (VCV) matrix in the firm's asset allocation process. The analyst determines that the matrix will need 12 asset classes and has obtained weekly sample return data over the last three years. Which of the following statements about the analyst's approach is *most accurate*?

A) The analyst can use the sample VCV matrix, and it will not be subject to large sample errors.

B) **The analyst can use the sample VCV matrix, but it will be subject to large sample errors.**

C) The analyst cannot use the sample VCV matrix.

Explanation

The analyst can use the sample VCV matrix because the sample size of 52 × 3 = 156 sufficiently exceeds the number of asset classes of 12. Based on the 10-to-1 rule of thumb, the analyst needs more than 12 × 10 = 120 observations for the sample VCV matrix to be reliable and not subject to large sample errors. Both of these conditions are satisfied.

(Module 2.7, LOS 2.g)

Question #9 of 16

Question ID: 1580631

Landestan is an emerging market economy with a debt-to-GDP ratio of 85% and a foreign exchange reserves-to-short-term-debt ratio of 95%. A bond investor looking to invest in Landestandi bonds would *most likely* conclude that these ratios:

A) **indicate high credit risk.**

B) are contradictory indicators of credit risk.

C) indicate low credit risk.

Explanation

These ratios both suggest high credit risk. A debt-to-GDP ratio higher than 70% is troublesome for emerging countries because higher debt increases the likelihood that the country will not be able to make its contractual debt payments. Because many emerging country loans must be paid back in a foreign currency, foreign exchange reserves that are less than 100% of short-term debt indicates high credit risk.

(Module 2.2, LOS 2.b)

Question #10 of 16

Question ID: 1551615

Which of the following *best* describes an advantage of using factor-based variance/covariance matrices versus sample variance/covariance matrices in estimating volatility? A factor-based variance/covariance matrix:

A) is unbiased. ✗

B) requires fewer observations. ✓

C) is consistent. ✗

Explanation

The use of a few common factors greatly reduces the number of observations needed to produce a variance-covariance matrix and is a strength of the factor-based approach. Disadvantages of the factor-based approach are that the matrix is not unbiased and is not consistent.

(Module 2.7, LOS 2.g)

Question #11 of 16

Question ID: 1580650

Christopher Lawe is an analyst examining data for a country he believes is experiencing significant economic changes over both the short term and long term. In the short term, the economy is at the trough of a cycle—and in the long term, he believes the country will experience increased integration with the world market. Based on Lawe's analysis, the country's equity market is *most likely* to experience:

A) higher-than-average returns in the short term and long term. ✓

B) lower-than-average returns in the short term and long term. ✗

C) higher-than-average returns in the short term and lower-than-average returns in the long term. ✗

Explanation

Equities tend to do well from a point when the economy is at a trough because future economic expansion positively impacts returns. An increase in integration will reduce the risk of the equity market, thus reducing required returns. The reduction in required returns will increase equity prices and result in higher returns over the period of increased integration.

(Module 2.8, LOS 2.h)

Question #12 of 16

Question ID: 1580633

Which of the following statements regarding risk in emerging market economies is *least accurate*?

A) There are inadequate fiscal and monetary policies. ✗

B) Their undiversified nature makes them susceptible to volatile capital flows and economic crises. ✗

C) The economies are often heavily dependent on consumer durables. ✓

Explanation

Small economies are often heavily dependent on the sale of *commodities*, and their undiversified nature makes them susceptible to volatile capital flows and economic crises.

(Module 2.2, LOS 2.b)

Question #13 of 16

Question ID: 1580644

An institutional investor forecasts that Portuguese inflation will be a cumulative 9.7% over the next four years, while Canadian inflation will total 6.8% over the same period. Global bond yields have begun to fall and will continue to do so for some time, while stock prices are expected to be flat. Which country and asset class should the investor favor?

A) Canadian bonds. ✓

B) Portuguese stocks. ✗

C) Canadian stocks. ✗

Explanation

According to the purchasing power parity (PPP) relationship, countries with higher inflation will see their currency depreciate. Because the investor expects Canadian inflation to be below Portuguese inflation, he should invest in Canada, which should see its currency appreciate. Within Canada, the investor should favor bonds because bond yields are falling and bond prices are expected to rise.

(Module 2.6, LOS 2.f)

Question #14 of 16

Question ID: 1580645

While making use of the capital mobility approach to exchange rate forecasting, an analyst finds that there are no premiums for term, credit, equity, or liquidity, but she still finds the formula useful. The analyst is essentially using which of the following concepts if she uses the formula?

A) Purchasing power parity.

B) Portfolio balance and composition.

C) Uncovered interest rate parity.

Explanation

The capital mobility approach expands on uncovered interest rate parity by adding terms related to risk premiums for term, credit, equity, and liquidity. Without those premiums, the capital mobility approach reduces to uncovered interest rate parity.

(Module 2.6, LOS 2.f)

Question #15 of 16

Question ID: 1580648

At the trough of the business cycle, analysts should recommend that portfolio managers:

A) reduce bond durations.

B) increase medium-term bond exposure.

C) reduce equity exposure.

Explanation

At the trough of the business cycle, analysts should recommend an increase to equity exposure because equities tend to perform well as business conditions improve. With interest rates expected to rise, an analyst should recommend reducing portfolios' bond exposures and durations because bonds tend to underperform when interest rates rise. Analysts may recommend a barbell strategy (increase short-term and long-term bond exposure and reduce intermediate maturities).

(Module 2.8, LOS 2.h)

Question #16 of 16

Question ID: 1580637

Suppose that an equity market has a dividend yield of 3%, real earnings growth of 2%, inflation of 1%, and is experiencing a reduction in shares outstanding of 0.5%. The P/E ratio is expected to rise from 16 to 16.32. The repricing return is expected to be *closest* to:

A) 2%.

B) 4%.

C) 3%.

Explanation

The repricing component is the percentage change in the P/E ratio.

(16.32 / 16) − 1 = 2%.

(Module 2.3, LOS 2.c)