## Question #1 of 20

Question ID: 1580640

Suppose that an equity market has a degree of segmentation of zero, a standard deviation of 15%, and a 0.85 correlation with the global market. If the equity market has a risk premium of 6%, the Sharpe ratio of the global market is *closest* to:

**A)** 0.102.

 $\times$ 

**B)** 0.212.

X

C) 0.471.

## **Explanation**

A degree of segmentation of zero indicates complete integration. In that case, the Singer-Terhaar approach would yield a risk premium equal to  $\rho(i,M)\sigma(i)$ \*SR:

$$RP = \rho(i,M) \times \sigma(i) \times SR$$

$$6\% = 0.85 \times 15\% \times SR$$

Solving for the Sharpe ratio results in a 0.471 Sharpe ratio.

(Module 2.4, LOS 2.d)

Question #2 of 20

Question ID: 1577670

Which investment or investment combination would *most likely* perform the worst during deflationary periods?

A) Real estate financed with debt.

**B)** Corporate bonds.

X

**C)** Real estate wholly owned.

X

Deflation reduces the value of investments financed with debt. In the case of real estate, if the property is levered with debt, losses in its value lead to steeper declines in the investor's equity position. As a result, investors flee in an attempt to preserve their equity, and prices fall further. Bond prices will rise during deflationary periods when inflation and interest rates are declining.

Another way to think of it is that the value of debt (as an asset) rises during deflation due to fixed receipts during lower prices, leading to greater purchasing power. However, this scenario has debt as a liability (fixed payments during lower prices). Therefore, an increase in the value of a liability would be a loss to the investment, leading to a worsening of performance.

(Module 1.3, LOS 1.g)

## Question #3 of 20

Which of the following statements *least likely* represents a scenario from an exogenous shock?

OPEC not being able to agree on production levels, leading to increased A) uncertainty in global markets and increased oil prices.



Question ID: 1577665

Political unrest in the Middle East, leading to an unexpected decrease in oil

**B)** production, increased oil prices, decreased consumer spending, increased unemployment, and a slowed economy.



A country defaults on its debt payments, thereby causing the country's currency to

**C)** lose value and forcing the central bank to take measures to stabilize the banking system and the economy.



#### **Explanation**

The OPEC meeting and probable outcomes could be anticipated and already factored into current oil prices, leading to the least severe outcome of the answer choices. Exogenous shocks usually lead to economic slowdowns, as in the case of an oil shock leading to higher prices, inflation, reduced consumer spending, increased unemployment, and a slowing economy. A reduction in oil prices could be caused by a weak global economy with weak demand for oil, or an oversupply of oil in the global market. This would reduce the price of oil and boost the economy, potentially overheating it—which causes high inflation and increased interest rates that ultimately slow the economy. In a financial crisis, the result is usually characterized by banks becoming vulnerable and requiring action by the central bank to stabilize the banking system and economy by increasing liquidity and lowering interest rates.

(Module 1.2, LOS 1.c)

Question ID: 1580628

Question ID: 1551608

## Question #4 of 20

A portfolio manager manages a \$500 million bond portfolio. The portfolio has modified duration of 7.5 and a yield to maturity (YTM) of 6.2%. The manager's investment horizon is 7.5 years, and she expects bond yields to rise by an average 15 bps annually over the investment horizon. Relative to the initial YTM, the manager is *most likely* to realize:

A) lower YTM.	
B) higher YTM.	
C) the same YTM.	

#### **Explanation**

The portfolio's Macaulay duration is 7.97 (=  $7.5 \times 1.062$ ). The Macaulay duration represents the investment horizon at which the manager would be fully immunized against interest rate risk. Given that the manager's investment horizon of 7.5 years is shorter than the Macaulay duration of 7.97, an increase in bond yields will result in a return that is *lower* than the YTM because the loss on the bond price will outweigh the increase in reinvestment yield.

(Module 2.1, LOS 2.a)

## Question #5 of 20

Johnny Adams is a British currency trader who does not believe uncovered interest rate parity (UIP) holds in the markets, but believes that carry trades could lead to successful trade strategies. Which of the following strategies should Adams follow?

Borrow in the high interest rate currency, and lend in the low interest rate currency.

B) Lend in the high inflation currency, and borrow in the low inflation currency.

Lend in the high interest rate currency, and borrow in the low interest rate currency.

currency.

#### **Explanation**

UIP states that exchange rate changes between countries should equal the differences in their nominal interest rates. Successful carry trades are violations of UIP. A carry trade involves borrowing in a low interest rate currency and lending in a high interest rate currency.

(Module 2.6, LOS 2.f)

## Question #6 of 20

Josh Rykers is an analyst who uses the Grinold-Kroner model to forecast stock market returns. He estimates a 3.5% dividend yield, real earnings growth of 2.1%, long-term inflation of 1.9%, a 1.0% decrease in shares outstanding, and an expansion of the P/E multiple of 0.5%. Which of the following statements is *most accurate*?

A) The expected repricing return is 0.5%.

Question ID: 1551593

**B)** The expected nominal earnings growth is 0.2%.

X

**C)** The expected income return is 2.5%.

# X

### **Explanation**

Expected repricing return = change in P/E ratio = 0.5%

Expected income return = dividend yield – increase in shares outstanding = 3.5% – (-1.0%) = 4.5%

Expected nominal earnings growth = real earnings growth + inflation = 2.1% + 1.9% = 4.0%

(Module 2.3, LOS 2.c)

# Question #7 of 20

Question ID: 1580639

Which of the following statements about investing in emerging market securities is *least accurate*?

When calculating the risk premium under full segmentation, the Singer-

A) Terhaar model uses the local market as the reference instead of the global market.



In segmented markets, two assets with the same risk can have different expected **B)** returns.

×

Although the Singer-Terhaar model does not adjust the CAPM for emerging market

**C)** segmentation, it is a useful model because it adjusts for other market imperfections.



The Singer-Terhaar model adjusts the CAPM for market imperfections, specifically segmentation. When markets are segmented, capital does not flow freely across borders.

If markets are segmented, two assets with the same risk can have different expected returns because capital cannot flow to the higher return asset. When calculating the risk premium under full segmentation, the Singer-Terhaar uses the local market as the reference market instead of the global market, where the correlation between the local market and itself is 1.0.

(Module 2.3, LOS 2.d)

## Question #8 of 20

Abaslovia, a developing country, has pegged its exchange rate to the currency of a developed country. Which of the following is *most likely* concerning the relationship between the two countries? Abaslovia will have an interest rate:

**A)** greater than that of the developed country.

Question ID: 1580627

**B)** less than that of the developed country.

X

C) equal to that of the developed country.

# X

#### **Explanation**

Though the currency has been pegged, the developing country still has the risk of the peg failing. The interest rate should reflect that risk; thus, Abaslovia's interest rate should be higher than that of the developed country.

(Module 1.4, LOS 1.j)

## Question #9 of 20

Question ID: 1577673

**Calculate** the short-term interest rate target given the following information.

Neutral rate	4.%
Inflation target	2%
Expected inflation	5%
GDP long-term trend	3%
Expected GDP	1%

### **Explanation**

$$\begin{split} n_{target} &~= 4.0\% + 5.0\% + [0.5 \times (1\% - 3\%) + 0.5 \times (5\% - 2\%)] \\ &~= 9.0\% + [-1.0\% + 1.5\%] = 9.5\% \end{split}$$

The weak projected economic growth calls for cutting interest rates. If inflation were not a consideration, the target interest rate would be 1% lower than the neutral rate. However, the higher projected inflation overrides the growth concern, and the nominal target rate is higher than the nominal neutral rate of 4% + 5% = 9%.

(Module 1.4, LOS 1.h)

Question #10 of 20

Question ID: 1551571

Which of the following is not an input to the Taylor rule?

**A)** The neutral rate.



**B)** The expected GDP.



C) The discount rate.



## **Explanation**

The Taylor rule determines the target interest rate using the neutral rate, expected GDP relative to its long-term trend, and expected inflation relative to its targeted amount.

(Module 1.4, LOS 1.h)

Mimi Vasquez is the chief economist for FGN Consulting. She is responsible for determining capital market expectations for developed and emerging markets where FGN provides investment advice.

To determine capital market expectations for next year, Vasquez examines government policy in four markets: Arbutia, Catonia, Lansdonia, and Tagonia. Her initial analysis for each market is as follows:

- 1. Arbutia: Although the government has retained its AAA bond rating, the economy in Arbutia is in a recession. Further, due to a decline in the money supply and, in general, overly restrictive monetary and fiscal policies, the Arbutian economy is experiencing deflation. The current economic environment is expected to continue for the foreseeable future because the Arbutian government rejects traditional policy prescriptions.
- 2. Catonia: The central bank in Catonia follows the Taylor rule for setting monetary policy. Vasquez notices that their target nominal interest rate is higher than the neutral real interest rate plus expected inflation. Meanwhile, the government's fiscal policy in Catonia reflects a budget deficit, and the deficit has been increasing over time.
- 3. Lansdonia: The central bank in Lansdonia has been raising interest rates and is pursuing a restrictive monetary policy. The inflation rate last year was 5%. In the most recent two quarters, it was 4.6% and 4.4%, respectively. The economy appears to be entering a recession.
- 4. Tagonia: The economy in Tagonia has been very healthy. As a result, the P/E ratio for the market has increased and there has been a record number of shares issued. Due to the favorable prospects for growth, firms are reinvesting most of their cash flow so that stock repurchases and the dividend yield in Tagonia are minimal. Vasquez uses this information and the Grinold-Kroner model to determine the expected equity market return in Tagonia.

## Question #11 - 14 of 20

Based only on economic conditions in Arbutia, which of these Arbutian investments is *most likely* to perform the best?

A) Stocks.

X

Question ID: 1562888

**B)** Real estate.

 $\otimes$ 

**C)** Government bonds.

lacksquare

The Arbutian economy is experiencing deflation. As long as bonds do not default, deflation is positive for bonds because their fixed future cash flows have greater purchasing power. Arbutian government bonds are AAA rated; thus, they have low default risk.

Deflation is negative for stocks because economic activity and business declines in deflationary environments. Deflation is negative for real estate because property values generally decline in deflationary periods.

(Module 1.3, LOS 1.g)

## Question #12 - 14 of 20

The yield curve in Catonia is most likely:

A) flat.

Question ID: 1562889

B) steep.

X

**C)** inverted.

X

#### **Explanation**

The central bank in Catonia follows the Taylor rule for setting monetary policy, and their target nominal interest rate is higher than the neutral real interest rate plus expected inflation. This is indicative of a restrictive monetary policy. Regarding the fiscal policy in Catonia, there is a budget deficit, and the deficit has been increasing over time. This is indicative of an expansive fiscal policy. If monetary policy is restrictive and fiscal policy is stimulative, the yield curve is most likely flat.

(Module 1.4, LOS 1.h)

(Module 1.4, LOS 1.i)

## **Question #13 - 14 of 20**

The Lansdonian economy is *most likely* experiencing:

**A)** deflation.

X

Question ID: 1562890

B) disinflation.

**C)** negative inflation.

# X

#### **Explanation**

Disinflation describes an inflation rate, that while positive, is declining. The chronological trend in the Lansdonian inflation rate is 5%, 4.6%, and 4.4%, respectively. Deflation refers to falling prices and is a negative rate of inflation (e.g., -0.5%).

(Module 1.3, LOS 1.g)

## Question #14 - 14 of 20

Which of the following would reduce the expected equity market return when applying the Grinold-Kroner model to the Tagonian market?

**A)** Share issuance in Tagonia.



Question ID: 1562891

B) The repricing return in Tagonia.



**C)** Stock repurchases and the dividend yield in Tagonia.



#### **Explanation**

In the Grinold-Kroner model, the expected equity market return is calculated as follows:

$$E(R_P) \approx (D/P - \%\Delta S) + \%\Delta E + \%\Delta P/E$$

There has been a record increase in the number of shares issued ( $\%\Delta S$ ), and this positive value is subtracted from the first term on the right-hand side, thus reducing the expected equity market return, E(Re), in Tagonia.

The repricing return refers to the change in the P/E ratio ( $\%\Delta P/E$ ), and this has increased in Tagonia. Thus, it would increase the expected equity market return. The same is true of stock repurchases and the dividend yield. Although stock repurchases and the dividend yield (D/P) are minimal, they are positive and would increase the expected equity market return. Note that stock repurchases would figure into  $\%\Delta S$ . This negative change in the shares issued would be subtracted—resulting in a positive contribution to the  $\%\Delta S$  term—and increase the expected equity market return.

(Module 2.3, LOS 2.c)

Daniel Gallagher is the chief economist for Gallagher Consultants. He is responsible for determining capital market expectations and recommending asset allocations for the firm's

clients.

In his macroeconomic analysis of the U.S. economy, Gallagher concludes that the U.S. Federal Reserve will be increasing interest rates at an accelerating rate over the next year. As a result, many of Gallagher's clients are concerned about the near-term impact on their portfolio. One of the firm's clients, the Beck Hill Investment Firm, asks for assistance in determining the appropriate tactical changes to its U.S. value portfolio. Gallagher provides this by using data for high-dividend yield U.S. stocks. He applies the Gordon (constant) growth dividend discount model to back out the expected return for the U.S. value portfolio over the next year.

In addition to the United States, Gallagher specializes in macroeconomic forecasts for emerging markets, traditionally focusing on countries in the eastern hemisphere. However, his clients frequently ask for forecasts for developed markets, due to their stable growth rates and attractive valuations. In these cases, Gallagher refers his clients to the forecasts from Danielle Brassington, an experienced developed market specialist who uses data and information from established financial providers and databases. Gallagher recommends Brassington's forecasts because, although she is usually overoptimistic, the error from what is subsequently realized is quite small in most cases.

Gallagher uses a portfolio approach and intensive research to recommend asset allocations. He is currently examining the returns and risk for the emerging market of Buranda, located in the western hemisphere. Buranda recently privatized public industries and has had a stock market for only a few years. As a result, many of the stocks in Buranda trade infrequently. However, Gallagher is encouraged by the very favorable returns, risk, and correlations with other emerging stocks in his model portfolios. To have enough data to calculate these statistics with statistical confidence, Gallagher uses daily returns.

One of the most promising emerging markets Gallagher follows is Nolandia. Nolandia's advantages include

- an educated and skilled work force, and
- a diversified economy.

#### Risks include

- an older population,
- a high reliance on foreign borrowing,
- a newly elected government that proposes to undo recent economic reforms.

In his determination of the expected return for high-dividend yield U.S. stocks, Gallagher's analysis *most likely* suffers from:

A) intertemporal inconsistency only.

B) cross-sectional inconsistency only.

X

**C)** both intertemporal inconsistency and cross-sectional inconsistency.

X

## **Explanation**

Gallagher uses the Gordon (constant) growth dividend discount model to back out the expected return for high-dividend yield U.S. stocks over the next year. However, the Gordon (constant) growth dividend discount model assumes an infinite time horizon, which results in intertemporal inconsistency between the estimate for the expected return over the next year and the model used to estimate it.

Gallagher's analysis does not appear to suffer from cross-sectional inconsistency. He uses data for high-dividend yield U.S. stocks, which will be value-oriented stocks, to estimate the expected return for a portfolio of value stocks.

(Module 1.1, LOS 1.a)

## Question #16 - 18 of 20

Question ID: 1562879

Using Gallagher's characterization of Brassington's analysis, Brassington's forecasts are *best* described as:

**A)** efficient.

B) unbiased.

 $\mathbf{x}$ 

C) unfounded.

 $\times$ 

## **Explanation**

Gallagher states that Brassington's forecast error is usually quite small. This describes efficient forecasts.

Because Brassington's forecasts are usually overoptimistic, they are not best described as unbiased. Also, she is an experienced specialist who uses data and information from established financial providers and databases. Thus, her forecasts are not best described as unfounded.

(Module 1.1, LOS 1.a)

## Question #17 - 18 of 20

Gallagher's analysis of stocks returns from Buranda *most likely* suffers from:

**A)** risk that is biased upward.

×

Question ID: 1588834

**B)** the use of asynchronous data.

C) correlations that are biased upward.

X

#### **Explanation**

Many of the stocks in Buranda trade infrequently. This illiquidity results in risk and correlation estimates that are likely biased downward. Frequent data points such as the daily returns Gallagher uses are more likely to have missing or outdated values, referred to as asynchronous data.

Additionally, Gallagher specializes in macroeconomic forecasts for emerging markets in the eastern hemisphere. Buranda is located in the western hemisphere and likely has very different trading hours than stocks in emerging markets in the eastern hemisphere—which, again, results in correlation estimates that are likely biased downward from the use of asynchronous data.

(Module 1.1, LOS 1.b)

## Question #18 - 18 of 20

Which of the following risks was most likely an exogenous shock in Nolandia?

**A)** Risk 1.

X

Question ID: 1562881

**B)** Risk 2.

C) Risk 3.

 $\langle \checkmark \rangle$ 

Exogenous shocks are unanticipated events that occur outside the normal course of an economy. Because the events are unanticipated, they are not built into market prices. The election of the new government that proposes to undo recent economic reforms (Risk 3) was likely unanticipated to some extent and is, therefore, likely considered exogenous.

In contrast, endogenous factors are likely anticipated and already built into market prices. An older population (Risk 1) and a high reliance on foreign borrowing (Risk 2) were likely anticipated and, therefore, were likely endogenous.

(Module 1.2, LOS 1.c)

# Question #19 of 20

Which of the following is consistent with a steeply upwardly sloping yield curve?

A) Monetary policy is expansive, and fiscal policy is expansive.

Question ID: 1577678

**B)** Monetary policy is restrictive, and fiscal policy is restrictive.

×

**C)** Monetary policy is expansive, while fiscal policy is restrictive.

# X

#### **Explanation**

When both fiscal and monetary policies are expansive, the yield curve is sharply, upwardly sloping (i.e., short-term rates are lower than long-term rates), and the economy is likely to expand in the future.

(Module 1.4, LOS 1.i)

# Question #20 of 20

Question ID: 1580641

John Dodson manages a portfolio of real estate assets. He notes that capitalization (cap) rates are positively related to both vacancy rates and the availability of debt financing. Dodson's statements are *most likely* to be accurate with respect to:

**A)** both vacancy rates and the availability of debt financing.



B) vacancy rates only.



**C)** the availability of debt financing only.

X

Cap rates are positively related to vacancy rates because higher vacancy rates indicate higher risk and require higher expected returns. Cap rates are *inversely* related to the availability of debt financing because the higher availability of debt financing reduces risk.

(Module 2.5, LOS 2.e)