Test ID: 32038053

Question #1 of 60

Question ID: 627519

Use the following information to answer Questions 61 through 66.

Pat Wilson, CFA, is the chief compliance officer for Excess Investments, a global asset management and investment banking services company. Wilson is reviewing two investment reports written by Peter Holly, CFA, an analyst and portfolio manager who has worked for Excess for four years. Holly's first report under compliance review is a strong buy recommendation for BlueNote Inc., a musical instrument manufacturer. The report states that the buy recommendation is applicable for the next 6 to 12 months with an average level of risk and a sustainable price target of $24 for the entire time period. At the bottom of the report, an e-mail address is given for investors who wish to obtain a complete description of the firm's rating system. Among other reasons supporting the recommendation, Holly's report states that expected increases in profitability, as well as increased supply chain efficiency, provide compelling support for purchasing BlueNote.

Holly informs Wilson that he determined his conclusions primarily from an intensive review of BlueNote's filings with the SEC but also from a call to one of BlueNote's suppliers who informed Holly that their new inventory processing system would allow for more efficiency in supplying BlueNote with raw materials. Holly explains to Wilson that he is the only analyst covering BlueNote who is aware of this information and that he believes the new inventory processing system will allow BlueNote to reduce costs and increase overall profitability for several years to come.

Wilson must also review Holly's report on BigTime Inc., a musical promotion and distribution company. In the report, Holly provides a very optimistic analysis of BigTime's fundamentals. The analysis supports a buy recommendation for the company. Wilson finds one problem with Holly's report on BigTime related to Holly's former business relationship with BigTime Inc. Two years before joining Excess, Holly worked as an investment banker and received 1,000 restricted shares of BigTime as a result of his participation in taking the company public. These facts are not disclosed in the report but are disclosed on Excess Investment's Web site.

Just before the report is issued, Holly mentions to Wilson that BigTime unknowingly disclosed to him and a few other analysts who were waiting for a conference call to begin that the company is planning to restructure both its sales staff and sales strategy and may sell one of its poorly performing business units next year.

Three days after issuing his report on BigTime, which caused a substantial rise in the price of BigTime shares, Holly sells all of the BigTime shares out of both his performance fee-based accounts and flat-fee accounts and then proceeds to sell all of the BigTime shares out of his own account on the following day. Holly obtained approval from Wilson before making the trades.

Just after selling his shares in BigTime, Holly receives a call from the CEO of BlueNote who wants to see if Holly received the desk pen engraved with the BlueNote company logo that he sent last week and also to offer two front row tickets plus limousine service to a sold-out concert for a popular band that uses BlueNote's instruments. Holly confirms that the desk pen arrived and thanks the CEO for the gift and tells him that before he accepts the concert tickets, he will have to check his calendar to see if he will be able to attend. Holly declines the use of the limousine service should he decide to attend the concert.

After speaking with the CEO of BlueNote, Holly constructs a letter that he plans to send by e-mail to all of his clients and prospects with e-mail addresses and by regular mail to all of his clients and prospects without e-mail addresses. The letter

details changes to an equity valuation model that Holly and several other analysts at Excess use to analyze potential investment recommendations. Holly's letter explains that the new model, which will be put into use next month, will utilize Monte Carlo simulations to create a distribution of stock values, a sharp contrast to the existing model which uses static valuations combined with sensitivity analysis. Relevant details of the new model are included in the letter, but similar details about the existing model are not included. The letter also explains that management at Excess has decided to exclude alcohol and tobacco company securities from the research coverage universe. Holly's letter concludes by stating that no other significant changes that would affect the investment recommendation process have occurred or are expected to occur in the near future.

....

According to CFA Institute Research Objectivity Standards (ROS), which of the following statements is *most* accurate with regard to the rating system used by Holly in his investment report on BlueNote Inc.? The rating system:

A) has appropriately incorporated the three recommended rating system elements from the ROS.

B) should not have included a price target as it makes an implicit guarantee of investment performance.

C) should not have included a time frame, as it misrepresents the level of certainty of the recommendation.

Question #2 of 60

Question ID: 627515

Pat Wilson, CFA, is the chief compliance officer for Excess Investments, a global asset management and investment banking services company. Wilson is reviewing two investment reports written by Peter Holly, CFA, an analyst and portfolio manager who has worked for Excess for four years. Holly's first report under compliance review is a strong buy recommendation for BlueNote Inc., a musical instrument manufacturer. The report states that the buy recommendation is applicable for the next 6 to 12 months with an average level of risk and a sustainable price target of $24 for the entire time period. At the bottom of the report, an e-mail address is given for investors who wish to obtain a complete description of the firm's rating system. Among other reasons supporting the recommendation, Holly's report states that expected increases in profitability, as well as increased supply chain efficiency, provide compelling support for purchasing BlueNote.

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Investment's Web site.

Just before the report is issued, Holly mentions to Wilson that BigTime unknowingly disclosed to him and a few other analysts who were waiting for a conference call to begin that the company is planning to restructure both its sales staff and sales strategy and may sell one of its poorly performing business units next year.

Three days after issuing his report on BigTime, which caused a substantial rise in the price of BigTime shares, Holly sells all of the BigTime shares out of both his performance fee-based accounts and flat-fee accounts and then proceeds to sell all of the BigTime shares out of his own account on the following day. Holly obtained approval from Wilson before making the trades.

Just after selling his shares in BigTime, Holly receives a call from the CEO of BlueNote who wants to see if Holly received the desk pen engraved with the BlueNote company logo that he sent last week and also to offer two front row tickets plus limousine service to a sold-out concert for a popular band that uses BlueNote's instruments. Holly confirms that the desk pen arrived and thanks the CEO for the gift and tells him that before he accepts the concert tickets, he will have to check his calendar to see if he will be able to attend. Holly declines the use of the limousine service should he decide to attend the concert.

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....

Did Holly violate any CFA Institute Standards of Professional Conduct with respect to his report on BlueNote or BigTime, as it relates to potential use of material nonpublic information?

A) Holly has violated Standard on material nonpublic information in the case of both reports.

B) There is a violation regarding the BlueNote report, but no violation with the BigTime report.

C) There is a violation regarding the BigTime report, but no violation with the BlueNote report.

Question #3 of 60

Question ID: 627520

Pat Wilson, CFA, is the chief compliance officer for Excess Investments, a global asset management and investment banking services company. Wilson is reviewing two investment reports written by Peter Holly, CFA, an analyst and portfolio manager who has worked for Excess for four years. Holly's first report under compliance review is a strong buy recommendation for

BlueNote Inc., a musical instrument manufacturer. The report states that the buy recommendation is applicable for the next 6 to 12 months with an average level of risk and a sustainable price target of $24 for the entire time period. At the bottom of the report, an e-mail address is given for investors who wish to obtain a complete description of the firm's rating system. Among other reasons supporting the recommendation, Holly's report states that expected increases in profitability, as well as increased supply chain efficiency, provide compelling support for purchasing BlueNote.

Holly informs Wilson that he determined his conclusions primarily from an intensive review of BlueNote's filings with the SEC but also from a call to one of BlueNote's suppliers who informed Holly that their new inventory processing system would allow for more efficiency in supplying BlueNote with raw materials. Holly explains to Wilson that he is the only analyst covering BlueNote who is aware of this information and that he believes the new inventory processing system will allow BlueNote to reduce costs and increase overall profitability for several years to come.

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Just before the report is issued, Holly mentions to Wilson that BigTime unknowingly disclosed to him and a few other analysts who were waiting for a conference call to begin that the company is planning to restructure both its sales staff and sales strategy and may sell one of its poorly performing business units next year.

Three days after issuing his report on BigTime, which caused a substantial rise in the price of BigTime shares, Holly sells all of the BigTime shares out of both his performance fee-based accounts and flat-fee accounts and then proceeds to sell all of the BigTime shares out of his own account on the following day. Holly obtained approval from Wilson before making the trades.

Just after selling his shares in BigTime, Holly receives a call from the CEO of BlueNote who wants to see if Holly received the desk pen engraved with the BlueNote company logo that he sent last week and also to offer two front row tickets plus limousine service to a sold-out concert for a popular band that uses BlueNote's instruments. Holly confirms that the desk pen arrived and thanks the CEO for the gift and tells him that before he accepts the concert tickets, he will have to check his calendar to see if he will be able to attend. Holly declines the use of the limousine service should he decide to attend the concert.

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....

According to CFA Institute Research Objectivity Standards (ROS), which of the following statements is *most* accurate with

regard to Holly's disclosure of his ownership of BigTime restricted shares and past investment banking relationship with BigTime? The disclosure:

A) is neither required nor recommended by the ROS since the shares are restricted.

B) complies with the ROS recommended procedures for disclosing conflicts of interest.

C) does not comply with the ROS recommended procedures because neither the disclosure nor a page reference to the disclosure appears on the front of the research report.

Question #4 of 60

Question ID: 627516

Pat Wilson, CFA, is the chief compliance officer for Excess Investments, a global asset management and investment banking services company. Wilson is reviewing two investment reports written by Peter Holly, CFA, an analyst and portfolio manager who has worked for Excess for four years. Holly's first report under compliance review is a strong buy recommendation for BlueNote Inc., a musical instrument manufacturer. The report states that the buy recommendation is applicable for the next 6 to 12 months with an average level of risk and a sustainable price target of $24 for the entire time period. At the bottom of the report, an e-mail address is given for investors who wish to obtain a complete description of the firm's rating system. Among other reasons supporting the recommendation, Holly's report states that expected increases in profitability, as well as increased supply chain efficiency, provide compelling support for purchasing BlueNote.

Holly informs Wilson that he determined his conclusions primarily from an intensive review of BlueNote's filings with the SEC but also from a call to one of BlueNote's suppliers who informed Holly that their new inventory processing system would allow for more efficiency in supplying BlueNote with raw materials. Holly explains to Wilson that he is the only analyst covering BlueNote who is aware of this information and that he believes the new inventory processing system will allow BlueNote to reduce costs and increase overall profitability for several years to come.

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Just after selling his shares in BigTime, Holly receives a call from the CEO of BlueNote who wants to see if Holly received the desk pen engraved with the BlueNote company logo that he sent last week and also to offer two front row tickets plus limousine service to a sold-out concert for a popular band that uses BlueNote's instruments. Holly confirms that the desk pen

arrived and thanks the CEO for the gift and tells him that before he accepts the concert tickets, he will have to check his calendar to see if he will be able to attend. Holly declines the use of the limousine service should he decide to attend the concert.

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....

According to CFA Institute Standards of Professional Conduct, which of the following statements is *most likely* correct with regard to Holly's report and subsequent sale of his and his clients' shares of BigTime common stock? Holly has:

A) violated the Standard by attempting to manipulate the market price of BigTime stock.
B) not violated the Standard since he first obtained approval to make the trades from his compliance officer.
C) not violated the Standard since he acted in the best interest of his clients by realizing gains on BigTime stock.

Question #5 of 60

Question ID: 627517

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Holly informs Wilson that he determined his conclusions primarily from an intensive review of BlueNote's filings with the SEC but also from a call to one of BlueNote's suppliers who informed Holly that their new inventory processing system would allow for more efficiency in supplying BlueNote with raw materials. Holly explains to Wilson that he is the only analyst covering BlueNote who is aware of this information and that he believes the new inventory processing system will allow BlueNote to reduce costs and increase overall profitability for several years to come.

Wilson must also review Holly's report on BigTime Inc., a musical promotion and distribution company. In the report, Holly

provides a very optimistic analysis of BigTime's fundamentals. The analysis supports a buy recommendation for the company. Wilson finds one problem with Holly's report on BigTime related to Holly's former business relationship with BigTime Inc. Two years before joining Excess, Holly worked as an investment banker and received 1,000 restricted shares of BigTime as a result of his participation in taking the company public. These facts are not disclosed in the report but are disclosed on Excess Investment's Web site.

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....

According to CFA Institute Standards of Professional Conduct, which of the following *best* describes the actions Holly should take with regard to the desk pen and the concert tickets offered to him by the CEO of BlueNote? Holly:

A) must not accept the desk pen or the concert tickets.

B) may accept both the desk pen and the concert tickets.

C) may accept the desk pen but should not accept the concert tickets.

Question #6 of 60

Question ID: 627518

Pat Wilson, CFA, is the chief compliance officer for Excess Investments, a global asset management and investment banking services company. Wilson is reviewing two investment reports written by Peter Holly, CFA, an analyst and portfolio manager

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In his letter to clients explaining the change in the valuation model, did Holly violate any CFA Institute Standards of Professional Conduct?

A) No.
B) Yes, because he did not treat all clients fairly in his dissemination of the letter.
C) Yes, because he failed to include details of the current valuation model to contrast with the new model.

Question #7 of 60

Question ID: 693644

Use the following information to answer Questions 67 through 72.

Lena Pilchard, research associate for Eiffel Investments, is attempting to measure the value added to the Eiffel Investments portfolio from the use of 1-year earnings growth forecasts developed by professional analysts.

Pilchard's supervisor, Edna Wilrus, recommends a portfolio allocation strategy that overweights neglected firms. Wilrus cites studies of the "neglected firm effect," in which companies followed by a small number of professional analysts are associated with higher returns than firms followed by a larger number of analysts. Wilrus considers a company covered by three or fewer analysts to be "neglected."

Pilchard also is aware of research indicating that, on average, stock returns for small firms have been higher than those earned by large firms. Pilchard develops a model to predict stock returns based on analyst coverage, firm size, and analyst growth forecasts. She runs the following cross-sectional regression using data for the 30 stocks included in the Eiffel Investments portfolio:

> $R_i = b_0 + b_1COVERAGE_i + b_2LN(SIZE_i) + b_3(FORECAST_i) + e_i$

> where:
> R_i =the rate of return on stock i
> $COVERAGE_i$ =one if there are three or fewer analysts covering stock i, and equals zero otherwise
> $LN(SIZE_i)$ =the natural logarithm of the market capitalization (stock price times shares outstanding) for stock i, units in millions
> $FORECAST_i$ =the 1-year consensus earnings growth rate forecast for stock i

Pilchard derives the following results from her cross-sectional regression:

Exhibit 1: Results of Pilchard's Cross-Sectional Regression

Variable	*Coefficient*	*T-statistic*
Constant	0.060	1.56
COVERAGE	0.050	3.20

LN(SIZE)	−0.003	−2.50
FORECAST	0.200	2.85

The standard error of estimate in Pilchard's regression equals 1.96 and the regression sum of squares equals 400.

Wilrus provides Pilchard with the following values for analyst coverage, firm size, and earnings growth forecast for Eggmann Enterprises, a company that Eiffel Investments is evaluating.

Exhibit 2: Coverage, Firm Size, and Earnings Growth Forecast for Eggmann Enterprises

Number of analysts	5
Firm size	$500 million
Earnings growth forecast	50%

Pilchard uses the following table to conduct some of her hypothesis tests.

Exhibit 3: Critical Values for Student *t*-Distribution

Degrees of	*Area in Upper Tail*				
Freedom	*0.10*	*0.05*	*0.025*	*0.01*	*0.005*
26	1.315	1.706	2.056	2.479	2.779
27	1.314	1.703	2.052	2.473	2.771
28	1.313	1.701	2.048	2.467	2.763
29	1.311	1.699	2.045	2.462	2.756
30	1.310	1.697	2.042	2.457	2.750

Wilrus asks Pilchard to derive the lowest possible value for the coefficient on the FORECAST variable using a 99% confidence interval. The appropriate lower bound for the FORECAST coefficient is *closest* to:

A) 0.0055.

B) 0.0628.

C) 0.1300.

Question #8 of 60

Question ID: 693648

Lena Pilchard, research associate for Eiffel Investments, is attempting to measure the value added to the Eiffel Investments portfolio from the use of 1-year earnings growth forecasts developed by professional analysts.

Pilchard's supervisor, Edna Wilrus, recommends a portfolio allocation strategy that overweights neglected firms. Wilrus cites studies of the "neglected firm effect," in which companies followed by a small number of professional analysts are associated with higher returns than firms followed by a larger number of analysts. Wilrus considers a company covered by three or fewer analysts to be "neglected."

Pilchard also is aware of research indicating that, on average, stock returns for small firms have been higher than those earned by large firms. Pilchard develops a model to predict stock returns based on analyst coverage, firm size, and analyst

earned by large firms. Pilchard develops a model to predict stock returns based on analyst coverage, firm size, and analyst growth forecasts. She runs the following cross-sectional regression using data for the 30 stocks included in the Eiffel Investments portfolio:

> $R_i = b_0 + b_1 COVERAGE_i + b_2 LN(SIZE_i) + b_3(FORECAST_i) + e_i$

> where:
>
> | | |
> |---|---|
> | R_i | =the rate of return on stock i |
> | $COVERAGE_i$ | =one if there are three or fewer analysts covering stock i, and equals zero otherwise |
> | $LN(SIZE_i)$ | =the natural logarithm of the market capitalization (stock price times shares outstanding) for stock i, units in millions |
> | $FORECAST_i$ | =the 1-year consensus earnings growth rate forecast for stock i |

Pilchard derives the following results from her cross-sectional regression:

Exhibit 1: Results of Pilchard's Cross-Sectional Regression

Variable	*Coefficient*	*T-statistic*
Constant	0.060	1.56
COVERAGE	0.050	3.20
LN(SIZE)	−0.003	−2.50
FORECAST	0.200	2.85

The standard error of estimate in Pilchard's regression equals 1.96 and the regression sum of squares equals 400.

Wilrus provides Pilchard with the following values for analyst coverage, firm size, and earnings growth forecast for Eggmann Enterprises, a company that Eiffel Investments is evaluating.

Exhibit 2: Coverage, Firm Size, and Earnings Growth Forecast for Eggmann Enterprises

Number of analysts	5
Firm size	$500 million
Earnings growth forecast	50%

Pilchard uses the following table to conduct some of her hypothesis tests.

Exhibit 3: Critical Values for Student *t*-Distribution

Degrees of	*Area in Upper Tail*				
Freedom	*0.10*	*0.05*	*0.025*	*0.01*	*0.005*
26	1.315	1.706	2.056	2.479	2.779
27	1.314	1.703	2.052	2.473	2.771
28	1.313	1.701	2.048	2.467	2.763
29	1.311	1.699	2.045	2.462	2.756
30	1.310	1.697	2.042	2.457	2.750

Wilrus asks Pilchard to assess the overall significance of her regression. To address the question, Pilchard calculates the *R*-square. She also decides to run a test of the significance of the regression as a whole. Determine the appropriate test statistic she should use to test the overall significance of the regression.

A) *F*-statistic.

B) *t*-statistic.

C) Chi-square statistic.

Question #9 of 60

Question ID: 693645

Lena Pilchard, research associate for Eiffel Investments, is attempting to measure the value added to the Eiffel Investments portfolio from the use of 1-year earnings growth forecasts developed by professional analysts.

Pilchard's supervisor, Edna Wilrus, recommends a portfolio allocation strategy that overweights neglected firms. Wilrus cites studies of the "neglected firm effect," in which companies followed by a small number of professional analysts are associated with higher returns than firms followed by a larger number of analysts. Wilrus considers a company covered by three or fewer analysts to be "neglected."

Pilchard also is aware of research indicating that, on average, stock returns for small firms have been higher than those earned by large firms. Pilchard develops a model to predict stock returns based on analyst coverage, firm size, and analyst growth forecasts. She runs the following cross-sectional regression using data for the 30 stocks included in the Eiffel Investments portfolio:

> $R_i = b_0 + b_1 COVERAGE_i + b_2 LN(SIZE_i) + b_3(FORECAST_i) + e_i$

> where:
> R_i =the rate of return on stock i
> $COVERAGE_i$ =one if there are three or fewer analysts covering stock i, and equals zero otherwise
> $LN(SIZE_i)$ =the natural logarithm of the market capitalization (stock price times shares outstanding) for stock i, units in millions
> $FORECAST_i$ =the 1-year consensus earnings growth rate forecast for stock i

Pilchard derives the following results from her cross-sectional regression:

Exhibit 1: Results of Pilchard's Cross-Sectional Regression

Variable	*Coefficient*	*T-statistic*
Constant	0.060	1.56
COVERAGE	0.050	3.20
LN(SIZE)	−0.003	−2.50

FORECAST	0.200	2.85

The standard error of estimate in Pilchard's regression equals 1.96 and the regression sum of squares equals 400.

Wilrus provides Pilchard with the following values for analyst coverage, firm size, and earnings growth forecast for Eggmann Enterprises, a company that Eiffel Investments is evaluating.

Exhibit 2: Coverage, Firm Size, and Earnings Growth Forecast for Eggmann Enterprises

Number of analysts	5
Firm size	\$500 million
Earnings growth forecast	50%

Pilchard uses the following table to conduct some of her hypothesis tests.

Exhibit 3: Critical Values for Student *t*-Distribution

Degrees of	*Area in Upper Tail*				
Freedom	*0.10*	*0.05*	*0.025*	*0.01*	*0.005*
26	1.315	1.706	2.056	2.479	2.779
27	1.314	1.703	2.052	2.473	2.771
28	1.313	1.701	2.048	2.467	2.763
29	1.311	1.699	2.045	2.462	2.756
30	1.310	1.697	2.042	2.457	2.750

Pilchard is asked whether her regression indicates that small firms outperform large firms, after controlling for analyst coverage and consensus earnings growth forecasts. Pilchard determines the appropriate hypothesis test to answer the question. Eiffel Investments uses a 0.01 level of significance for all hypothesis tests. Given the results of her regression, Pilchard should make which of the following decisions after controlling for analyst coverage and consensus earnings forecasts?

A) Not reject the hypothesis that $b_2 \geq 0$, and conclude that large firms significantly outperformed small firms.

B) Reject the hypothesis that $b_2 \geq 0$, and conclude that large firms significantly outperformed small firms.

C) Reject the hypothesis that $b_2 \geq 0$, and conclude that small firms significantly outperformed large firms.

Question #10 of 60

Question ID: 693649

Lena Pilchard, research associate for Eiffel Investments, is attempting to measure the value added to the Eiffel Investments portfolio from the use of 1-year earnings growth forecasts developed by professional analysts.

Pilchard's supervisor, Edna Wilrus, recommends a portfolio allocation strategy that overweights neglected firms. Wilrus cites

studies of the "neglected firm effect," in which companies followed by a small number of professional analysts are associated with higher returns than firms followed by a larger number of analysts. Wilrus considers a company covered by three or fewer analysts to be "neglected."

Pilchard also is aware of research indicating that, on average, stock returns for small firms have been higher than those earned by large firms. Pilchard develops a model to predict stock returns based on analyst coverage, firm size, and analyst growth forecasts. She runs the following cross-sectional regression using data for the 30 stocks included in the Eiffel Investments portfolio:

> $R_i = b_0 + b_1 COVERAGE_i + b_2 LN(SIZE_i) + b_3(FORECAST_i) + e_i$

> where:
> R_i = the rate of return on stock i
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30	1.310	1.697	2.042	2.457	2.750

Holding firm size and consensus earnings growth forecasts constant, the estimated average difference in stock returns between neglected and non-neglected firms equals:

A) 1%.

B) 3%.

C) 5%.

Question #11 of 60

Question ID: 693647

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Pilchard derives the ANOVA table for her regression. In her ANOVA table, the degrees of freedom for the regression sum of squares and total sum of squares should equal:

A) 3 and 30, respectively.

B) 4 and 29, respectively.

C) 3 and 29, respectively.

Question #12 of 60

Question ID: 693646

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analysts to be "neglected."

Pilchard also is aware of research indicating that, on average, stock returns for small firms have been higher than those earned by large firms. Pilchard develops a model to predict stock returns based on analyst coverage, firm size, and analyst growth forecasts. She runs the following cross-sectional regression using data for the 30 stocks included in the Eiffel Investments portfolio:

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> where:
> R_i =the rate of return on stock i
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The standard error of estimate in Pilchard's regression equals 1.96 and the regression sum of squares equals 400.

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Firm size	$500 million
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29	1.311	1.699	2.045	2.462	2.756

30	1.310	1.697	2.042	2.457	2.750

Using the inputs for Eggmann Enterprises provided in Exhibit 2, the predicted stock return for Eggmann Enterprises is *closest* to:

A) 4%.

B) 9%.

C) 14%.

Question #13 of 60

Question ID: 693650

Use the following information to answer Questions 73 through 78.

Debbie Angle and Craig Hohlman are analysts for a large commercial bank, Arbutus National Bank. Arbutus has extensive dealings in both the spot and forward foreign exchange markets. Angle and Hohlman are providing a refresher course on foreign exchange relationships for its traders.

Angle uses a three country example from North America to illustrate foreign exchange parity relations. In it, the Canadian dollar is expected to depreciate relative to the U.S. dollar and the Mexican peso. Nominal, 1-year interest rates are 7% in the United States and 13% in Mexico. From this data and using the uncovered interest rate parity relationship, Angle forecasts future spot rates.

During their presentation, Hohlman discusses the effect of monetary and fiscal policies on exchange rates. He cites a historical example from the United States, where the Federal Reserve shifted to an expansionary monetary policy to stimulate economic growth. This shift was largely unanticipated by the financial markets because the markets thought the Federal Reserve was more concerned with inflationary pressures. Hohlman states that the effect of this policy was an increase in economic growth and an increase in inflation. The cumulative effect on the dollar was unchanged, however, because, according to the Mundell-Fleming model, an expansionary monetary policy would strengthen the dollar whereas under relative purchasing power parity, an increase in inflation would weaken the dollar.

Regarding U.S. fiscal policies, Hohlman states that if these were unexpectedly expansionary, real interest rates would increase, which would produce an appreciation of the dollar. Hohlman adds that a sustained increase in the federal budget would attract foreign capital such that the long-run effect would be an increase in the value of the dollar.

Hohlman makes the following statements about parity conditions:

Statement 1:	If relative purchasing power parity holds, we can say that uncovered interest rate parity also holds under certain conditions.
Statement 2:	For uncovered interest rate parity to hold, the forward rate must be an unbiased predictor of the future spot rate.

Angle next discusses the foreign exchange expectations. While examining Great Britain and Japan, she states that it appears

the 1-year forward rate, which is currently ¥200/£, is an accurate predictor of the expected future spot rate. Furthermore, she states that uncovered interest rate parity and relative purchasing power parity hold. In the example for her presentation, she uses the following figures for the two countries.

	Great Britain	*Japan*
Expected GDP growth	2.50%	1.80%
Nominal 1-year interest rates	9.70%	6.40%
Growth in exports	3.90%	5.70%

As a follow-up to Angle's example, Hohlman discusses the use and evidence for purchasing power parity. He makes the following statements.

Statement 3: Absolute purchasing power parity is based on the law of one price, which states that a good should have the same price throughout the world. Absolute purchasing power parity is not widely used in practice to forecast exchange rates.

Statement 4: Although relative purchasing power parity is useful as an input for long-run exchange rate forecasts, it is not useful for predicting short-run currency values.

Using Angle's analysis, what is the nominal 1-year interest rate in Canada?

A) Less than 7%.

B) Between 7% and 13%.

C) Greater than 13%.

Question #14 of 60

Question ID: 693655

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Fleming model, an expansionary monetary policy would strengthen the dollar whereas under relative purchasing power parity, an increase in inflation would weaken the dollar.

Regarding U.S. fiscal policies, Hohlman states that if these were unexpectedly expansionary, real interest rates would increase, which would produce an appreciation of the dollar. Hohlman adds that a sustained increase in the federal budget would attract foreign capital such that the long-run effect would be an increase in the value of the dollar.

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Angle next discusses the foreign exchange expectations. While examining Great Britain and Japan, she states that it appears the 1-year forward rate, which is currently ¥200/£, is an accurate predictor of the expected future spot rate. Furthermore, she states that uncovered interest rate parity and relative purchasing power parity hold. In the example for her presentation, she uses the following figures for the two countries.

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Statement 4:	Although relative purchasing power parity is useful as an input for long-run exchange rate forecasts, it is not useful for predicting short-run currency values.

Are Hohlman's statements regarding the effect of monetary policies on the dollar correct?

A) Yes, they are correct.

B) No, under the Mundell-Fleming model, expansionary monetary policy in the U.S. would weaken the dollar.

C) No, the dollar value would be unchanged, but under the asset market model and not the Mundell-Fleming model.

Question #15 of 60

Question ID: 693653

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Angle uses a three country example from North America to illustrate foreign exchange parity relations. In it, the Canadian dollar is expected to depreciate relative to the U.S. dollar and the Mexican peso. Nominal, 1-year interest rates are 7% in the United States and 13% in Mexico. From this data and using the uncovered interest rate parity relationship, Angle forecasts future spot rates.

During their presentation, Hohlman discusses the effect of monetary and fiscal policies on exchange rates. He cites a historical example from the United States, where the Federal Reserve shifted to an expansionary monetary policy to stimulate economic growth. This shift was largely unanticipated by the financial markets because the markets thought the Federal Reserve was more concerned with inflationary pressures. Hohlman states that the effect of this policy was an increase in economic growth and an increase in inflation. The cumulative effect on the dollar was unchanged, however, because, according to the Mundell-Fleming model, an expansionary monetary policy would strengthen the dollar whereas under relative purchasing power parity, an increase in inflation would weaken the dollar.

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As a follow-up to Angle's example, Hohlman discusses the use and evidence for purchasing power parity. He makes the following statements.

Statement 3:	Absolute purchasing power parity is based on the law of one price, which states that a good should have the same price throughout the world. Absolute purchasing power parity is not

	widely used in practice to forecast exchange rates.
Statement 4:	Although relative purchasing power parity is useful as an input for long-run exchange rate forecasts, it is not useful for predicting short-run currency values.

What additional condition must be satisfied for Hohlman's Statement 1 to be valid?

A) Covered interest parity must hold.

B) Fisher effect must hold.

C) The international Fisher relation must hold.

Question #16 of 60

Question ID: 693654

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Hohlman's Statement 2 is:

A) correct.
B) incorrect as uncovered interest rate parity holds only if real interest rate parity holds.
C) incorrect as uncovered interest rate parity holds only if covered interest rate parity holds.

Question #17 of 60

Question ID: 693651

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Which of the following is *closest* to the current ¥/£ spot rate?

A) ¥194/£.

B) ¥200/£.

C) ¥206/£.

Question #18 of 60

Question ID: 693652

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Statement 4:	Although relative purchasing power parity is useful as an input for long-run exchange rate forecasts, it is not useful for predicting short-run currency values.

Regarding the statements made by Hohlman on purchasing power parity, are both statements correct?

A) Yes.

B) No, only Statement 4 is correct.

C) No, both statements are incorrect.

Question #19 of 60

Question ID: 693656

Use the following information to answer Questions 79 through 84.

Engineered Packaging Inc. (EPI) is a manufacturer of industrial and consumer packaging products. The company's products include composite and plastic rigid packaging, flexible packaging, as well as metal and plastic ends and closures. In January 2008, EPI entered into a joint venture with BMI Enterprises. EPI contributed ownership of five plants, while BMI contributed a new manufacturing technology. The joint venture is known as EP/BM LLC. EPI owns 50% of EP/BM LLC and uses the equity method to account for its investment. The following information for 2008 is provided:

In Millions, Year-End 2008	*EPI*	*EP/BM LLC*
Revenue	$3,115	$421
Cost of goods sold	$2,580	$295
SG&A	$316	$50
Interest expense	$47	$8
Equity in earnings of EP/BM	$22	
Pretax income	$194	$68
Income tax	$60	$24
Net income	$134	$44

In Millions, December 31, 2008	*EPI*	*EP/BM LLC*
Assets		
Cash	$118	$13
Accounts receivable	$390	$50
Inventory	$314	$41
Property	$1,007	$131
Investment	$38	
Total	$1,867	$235

Liabilities and Equity	*EPI*	*EP/BM LLC*
Accounts payable	$274	$35
Long-term debt	$719	$125

Long-term debt	$719	$125
Equity	$874	$75
Total	$1,867	$235

Had EPI used the proportionate consolidation method instead of the equity method to account for its investment, which of the following statements is the *most* accurate?

A) Net profit margin would be the same.

B) Return on assets would be the same.

C) Return on equity would be the same.

Question #20 of 60

Question ID: 691839

Engineered Packaging Inc. (EPI) is a manufacturer of industrial and consumer packaging products. The company's products include composite and plastic rigid packaging, flexible packaging, as well as metal and plastic ends and closures. In January 2008, EPI entered into a joint venture with BMI Enterprises. EPI contributed ownership of five plants, while BMI contributed a new manufacturing technology. The joint venture is known as EP/BM LLC. EPI owns 50% of EP/BM LLC and uses the equity method to account for its investment. The following information for 2008 is provided:

In Millions, Year-End 2008	*EPI*	*EP/BM LLC*
Revenue	$3,115	$421
Cost of goods sold	$2,580	$295
SG&A	$316	$50
Interest expense	$47	$8
Equity in earnings of EP/BM	$22	
Pretax income	$194	$68
Income tax	$60	$24
Net income	$134	$44

In Millions, December 31, 2008	*EPI*	*EP/BM LLC*
Assets		
Cash	$118	$13
Accounts receivable	$390	$50
Inventory	$314	$41
Property	$1,007	$131
Investment	$38	
Total	$1,867	$235

Liabilities and Equity	*EPI*	*EP/BM LLC*
Accounts payable	$274	$35
Long-term debt	$719	$125
Equity	$874	$75

Total	$1,867	$235

Based on the acquisition method, EPI's current ratio at the end of 2008 (using the financial information provided) is *closest* to:

A) 1.8.

B) 2.6.

C) 3.0.

Question #21 of 60

Question ID: 691840

Engineered Packaging Inc. (EPI) is a manufacturer of industrial and consumer packaging products. The company's products include composite and plastic rigid packaging, flexible packaging, as well as metal and plastic ends and closures. In January 2008, EPI entered into a joint venture with BMI Enterprises. EPI contributed ownership of five plants, while BMI contributed a new manufacturing technology. The joint venture is known as EP/BM LLC. EPI owns 50% of EP/BM LLC and uses the equity method to account for its investment. The following information for 2008 is provided:

In Millions, Year-End 2008	*EPI*	*EP/BM LLC*
Revenue	$3,115	$421
Cost of goods sold	$2,580	$295
SG&A	$316	$50
Interest expense	$47	$8
Equity in earnings of EP/BM	$22	
Pretax income	$194	$68
Income tax	$60	$24
Net income	$134	$44

In Millions, December 31, 2008	*EPI*	*EP/BM LLC*
Assets		
Cash	$118	$13
Accounts receivable	$390	$50
Inventory	$314	$41
Property	$1,007	$131
Investment	$38	
Total	$1,867	$235

Liabilities and Equity	*EPI*	*EP/BM LLC*
Accounts payable	$274	$35
Long-term debt	$719	$125
Equity	$874	$75
Total	$1,867	$235

Based on the acquisition method, EPI's interest coverage ratio for 2008 (using the financial information provided) is *closest* to:

A) 3.6.

B) 4.0.

C) 5.4.

Question #22 of 60

Question ID: 691836

Engineered Packaging Inc. (EPI) is a manufacturer of industrial and consumer packaging products. The company's products include composite and plastic rigid packaging, flexible packaging, as well as metal and plastic ends and closures. In January 2008, EPI entered into a joint venture with BMI Enterprises. EPI contributed ownership of five plants, while BMI contributed a new manufacturing technology. The joint venture is known as EP/BM LLC. EPI owns 50% of EP/BM LLC and uses the equity method to account for its investment. The following information for 2008 is provided:

In Millions, Year-End 2008	*EPI*	*EP/BM LLC*
Revenue	$3,115	$421
Cost of goods sold	$2,580	$295
SG&A	$316	$50
Interest expense	$47	$8
Equity in earnings of EP/BM	$22	
Pretax income	$194	$68
Income tax	$60	$24
Net income	$134	$44

In Millions, December 31, 2008	*EPI*	*EP/BM LLC*
Assets		
Cash	$118	$13
Accounts receivable	$390	$50
Inventory	$314	$41
Property	$1,007	$131
Investment	$38	
Total	$1,867	$235

Liabilities and Equity	*EPI*	*EP/BM LLC*
Accounts payable	$274	$35
Long-term debt	$719	$125
Equity	$874	$75
Total	$1,867	$235

Had EPI used the acquisition method instead of the equity method to account for its investment, EPI's long-term debt-to-equity ratio would have been:

A) higher.

B) lower.

C) the same.

Question #23 of 60

Question ID: 691837

Engineered Packaging Inc. (EPI) is a manufacturer of industrial and consumer packaging products. The company's products include composite and plastic rigid packaging, flexible packaging, as well as metal and plastic ends and closures. In January 2008, EPI entered into a joint venture with BMI Enterprises. EPI contributed ownership of five plants, while BMI contributed a new manufacturing technology. The joint venture is known as EP/BM LLC. EPI owns 50% of EP/BM LLC and uses the equity method to account for its investment. The following information for 2008 is provided:

In Millions, Year-End 2008	*EPI*	*EP/BM LLC*
Revenue	$3,115	$421
Cost of goods sold	$2,580	$295
SG&A	$316	$50
Interest expense	$47	$8
Equity in earnings of EP/BM	$22	
Pretax income	$194	$68
Income tax	$60	$24
Net income	$134	$44

In Millions, December 31, 2008	*EPI*	*EP/BM LLC*
Assets		
Cash	$118	$13
Accounts receivable	$390	$50
Inventory	$314	$41
Property	$1,007	$131
Investment	$38	
Total	$1,867	$235

Liabilities and Equity	*EPI*	*EP/BM LLC*
Accounts payable	$274	$35
Long-term debt	$719	$125
Equity	$874	$75
Total	$1,867	$235

For this question only, assume that EP/BM LLC sold inventory to EPI for $50 million during 2008. Of that inventory, $20 million was unsold at the end of the year. Compared to the equity method, the acquisition method would result in:

A) higher net income

A) higher net income.

B) higher ending inventory.

C) lower net income.

Question #24 of 60

Question ID: 691838

Engineered Packaging Inc. (EPI) is a manufacturer of industrial and consumer packaging products. The company's products include composite and plastic rigid packaging, flexible packaging, as well as metal and plastic ends and closures. In January 2008, EPI entered into a joint venture with BMI Enterprises. EPI contributed ownership of five plants, while BMI contributed a new manufacturing technology. The joint venture is known as EP/BM LLC. EPI owns 50% of EP/BM LLC and uses the equity method to account for its investment. The following information for 2008 is provided:

In Millions, Year-End 2008	*EPI*	*EP/BM LLC*
Revenue	$3,115	$421
Cost of goods sold	$2,580	$295
SG&A	$316	$50
Interest expense	$47	$8
Equity in earnings of EP/BM	$22	
Pretax income	$194	$68
Income tax	$60	$24
Net income	$134	$44

In Millions, December 31, 2008	*EPI*	*EP/BM LLC*
Assets		
Cash	$118	$13
Accounts receivable	$390	$50
Inventory	$314	$41
Property	$1,007	$131
Investment	$38	
Total	$1,867	$235

Liabilities and Equity	*EPI*	*EP/BM LLC*
Accounts payable	$274	$35
Long-term debt	$719	$125
Equity	$874	$75
Total	$1,867	$235

For this question only, assume that EPI accounts for its investment in EP/BM LLC using the acquisition method with partial goodwill. As compared to the acquisition method, the return on ending equity under proportionate consolidation will *most likely* be:

A) lower.

B) the same.

C) higher.

Question #25 of 60

Question ID: 691841

Use the following information to answer Questions 85 through 90.

GigaTech, Inc., is a large U.S.-based technology conglomerate. The firm has business units in three primary categories: (1) hardware manufacturing, (2) software development, and (3) consulting services. Because of the rapid pace of technological innovation, GigaTech must make capital investments every two to four years. The company has identified several potential investment opportunities for its hardware manufacturing division. The first of these opportunities, Tera Project, would replace a portion of GigaTech's microprocessor assembly equipment with new machinery expected to last three years. The current machinery has a book value of $120,000 and a market value of $195,000. The Tera Project would require purchasing machinery for $332,000, increasing current assets by $190,000, and increasing current liabilities by $80,000. GigaTech has a tax rate of 40%. Additional pro forma information related to the Tera Project is provided in the following table:

	Existing Equipment	*Tera Project*
Annual sales	$523,000	$708,000
Cash operating expenses	$352,000	$440,000
Annual depreciation	$40,000	$110,667
Accounting salvage value	$0	$0
Expected salvage value (after three years)	$90,000	$113,000

Analysts at GigaTech have noted that investment in the Tera Project can be delayed for up to nine months if managers at the company decide this is necessary. However, once the capital investment is made, the project will be necessary to maintain continuing operations. Tera Project can be scaled up with more equipment requiring less capital than the original investment if results are meeting expectations. In addition, the equipment used in Tera Project can be used in shift work if brief excess demand is expected.

GigaTech is also considering expanding its software development operations in India. Software development equipment must be continually replaced to maintain efficiency as newer and faster technology is developed. The company has identified two mutually exclusive potential expansion projects, Zeta and Sigma. Zeta requires investing in equipment with a 3-year life, while Sigma requires investing in equipment with a 2-year life. GigaTech has estimated real capital costs for the two projects at 10.58%. GigaTech expects inflation to be approximately 4.0% for the foreseeable future. Nominal cash flows and net present values for the Zeta and Sigma projects are provided in the following table:

	Annual Cash Flows				
Project	*0*	*1*	*2*	*3*	*NPV*
Zeta	-$360,000	$250,000	$220,000	$190,000	$148,671
Sigma	-$470,000	$330,000	$390,000	$0	$111,853

Recently, GigaTech's board of directors has become concerned with the firm's capital budgeting decisions and has asked management to provide a detailed explanation of the capital budgeting process. After reviewing the report from management,

the board makes the following comments in a memo:

- The capital rationing system being utilized is fundamentally flawed since, in some instances, projects that do not increase earnings per share are selected over projects that do increase earnings per share.
- The cash flow projections are flawed since they fail to include costs incurred in the search for projects or the economic consequences of increased competition resulting from highly profitable projects.
- We are making inappropriate investment decisions since the discount rate used to evaluate all potential projects is the firm's weighted average cost of capital.

Assuming that working capital will be recaptured at the end of the project, which of the following is *closest* to the final period after-tax cash flow for the Tera Project?

A) $196,467.

B) $210,267.

C) $219,467.

Question #26 of 60

Question ID: 691844

GigaTech, Inc., is a large U.S.-based technology conglomerate. The firm has business units in three primary categories: (1) hardware manufacturing, (2) software development, and (3) consulting services. Because of the rapid pace of technological innovation, GigaTech must make capital investments every two to four years. The company has identified several potential investment opportunities for its hardware manufacturing division. The first of these opportunities, Tera Project, would replace a portion of GigaTech's microprocessor assembly equipment with new machinery expected to last three years. The current machinery has a book value of $120,000 and a market value of $195,000. The Tera Project would require purchasing machinery for $332,000, increasing current assets by $190,000, and increasing current liabilities by $80,000. GigaTech has a tax rate of 40%. Additional pro forma information related to the Tera Project is provided in the following table:

	Existing Equipment	*Tera Project*
Annual sales	$523,000	$708,000
Cash operating expenses	$352,000	$440,000
Annual depreciation	$40,000	$110,667
Accounting salvage value	$0	$0
Expected salvage value (after three years)	$90,000	$113,000

Analysts at GigaTech have noted that investment in the Tera Project can be delayed for up to nine months if managers at the company decide this is necessary. However, once the capital investment is made, the project will be necessary to maintain continuing operations. Tera Project can be scaled up with more equipment requiring less capital than the original investment if results are meeting expectations. In addition, the equipment used in Tera Project can be used in shift work if brief excess demand is expected.

GigaTech is also considering expanding its software development operations in India. Software development equipment must be continually replaced to maintain efficiency as newer and faster technology is developed. The company has identified two

be continually replaced to maintain efficiency as newer and faster technology is developed. The company has identified two mutually exclusive potential expansion projects, Zeta and Sigma. Zeta requires investing in equipment with a 3-year life, while Sigma requires investing in equipment with a 2-year life. GigaTech has estimated real capital costs for the two projects at 10.58%. GigaTech expects inflation to be approximately 4.0% for the foreseeable future. Nominal cash flows and net present values for the Zeta and Sigma projects are provided in the following table:

	Annual Cash Flows				
Project	*0*	*1*	*2*	*3*	*NPV*
Zeta	-$360,000	$250,000	$220,000	$190,000	$148,671
Sigma	-$470,000	$330,000	$390,000	$0	$111,853

Recently, GigaTech's board of directors has become concerned with the firm's capital budgeting decisions and has asked management to provide a detailed explanation of the capital budgeting process. After reviewing the report from management, the board makes the following comments in a memo:

- The capital rationing system being utilized is fundamentally flawed since, in some instances, projects that do not increase earnings per share are selected over projects that do increase earnings per share.
- The cash flow projections are flawed since they fail to include costs incurred in the search for projects or the economic consequences of increased competition resulting from highly profitable projects.
- We are making inappropriate investment decisions since the discount rate used to evaluate all potential projects is the firm's weighted average cost of capital.

....

Which of the following *best* describes how GigaTech should implement scenario analysis to analyze the Tera Project?

A) Generate a base case, high, and low estimate of NPV by changing only the most sensitive cash flow variable.

B) Generate a base case, high, and low estimate of NPV by changing only the discount rate applicable to the project.

C) Generate a base case, high, and low estimate of NPV by simultaneously changing sales, expense, and discount rate assumptions for each case.

Question #27 of 60

Question ID: 691846

GigaTech, Inc., is a large U.S.-based technology conglomerate. The firm has business units in three primary categories: (1) hardware manufacturing, (2) software development, and (3) consulting services. Because of the rapid pace of technological innovation, GigaTech must make capital investments every two to four years. The company has identified several potential investment opportunities for its hardware manufacturing division. The first of these opportunities, Tera Project, would replace a portion of GigaTech's microprocessor assembly equipment with new machinery expected to last three years. The current machinery has a book value of $120,000 and a market value of $195,000. The Tera Project would require purchasing machinery for $332,000, increasing current assets by $190,000, and increasing current liabilities by $80,000. GigaTech has a tax rate of 40%. Additional pro forma information related to the Tera Project is provided in the following table:

	Existing Equipment	*Tera Project*

Annual sales	$523,000	$708,000
Cash operating expenses	$352,000	$440,000
Annual depreciation	$40,000	$110,667
Accounting salvage value	$0	$0
Expected salvage value (after three years)	$90,000	$113,000

Analysts at GigaTech have noted that investment in the Tera Project can be delayed for up to nine months if managers at the company decide this is necessary. However, once the capital investment is made, the project will be necessary to maintain continuing operations. Tera Project can be scaled up with more equipment requiring less capital than the original investment if results are meeting expectations. In addition, the equipment used in Tera Project can be used in shift work if brief excess demand is expected.

GigaTech is also considering expanding its software development operations in India. Software development equipment must be continually replaced to maintain efficiency as newer and faster technology is developed. The company has identified two mutually exclusive potential expansion projects, Zeta and Sigma. Zeta requires investing in equipment with a 3-year life, while Sigma requires investing in equipment with a 2-year life. GigaTech has estimated real capital costs for the two projects at 10.58%. GigaTech expects inflation to be approximately 4.0% for the foreseeable future. Nominal cash flows and net present values for the Zeta and Sigma projects are provided in the following table:

	Annual Cash Flows				
Project	*0*	*1*	*2*	*3*	*NPV*
Zeta	-$360,000	$250,000	$220,000	$190,000	$148,671
Sigma	-$470,000	$330,000	$390,000	$0	$111,853

Recently, GigaTech's board of directors has become concerned with the firm's capital budgeting decisions and has asked management to provide a detailed explanation of the capital budgeting process. After reviewing the report from management, the board makes the following comments in a memo:

- The capital rationing system being utilized is fundamentally flawed since, in some instances, projects that do not increase earnings per share are selected over projects that do increase earnings per share.
- The cash flow projections are flawed since they fail to include costs incurred in the search for projects or the economic consequences of increased competition resulting from highly profitable projects.
- We are making inappropriate investment decisions since the discount rate used to evaluate all potential projects is the firm's weighted average cost of capital.

Which of the following is *least likely* to be a real option available to GigaTech with regard to the Tera Project?

A) Abandonment option.

B) Expansion option.

C) Flexibility option.

Question #28 of 60

Question ID: 691842

GigaTech, Inc., is a large U.S.-based technology conglomerate. The firm has business units in three primary categories: (1) hardware manufacturing, (2) software development, and (3) consulting services. Because of the rapid pace of technological innovation, GigaTech must make capital investments every two to four years. The company has identified several potential investment opportunities for its hardware manufacturing division. The first of these opportunities, Tera Project, would replace a portion of GigaTech's microprocessor assembly equipment with new machinery expected to last three years. The current machinery has a book value of $120,000 and a market value of $195,000. The Tera Project would require purchasing machinery for $332,000, increasing current assets by $190,000, and increasing current liabilities by $80,000. GigaTech has a tax rate of 40%. Additional pro forma information related to the Tera Project is provided in the following table:

	Existing Equipment	*Tera Project*
Annual sales	$523,000	$708,000
Cash operating expenses	$352,000	$440,000
Annual depreciation	$40,000	$110,667
Accounting salvage value	$0	$0
Expected salvage value (after three years)	$90,000	$113,000

Analysts at GigaTech have noted that investment in the Tera Project can be delayed for up to nine months if managers at the company decide this is necessary. However, once the capital investment is made, the project will be necessary to maintain continuing operations. Tera Project can be scaled up with more equipment requiring less capital than the original investment if results are meeting expectations. In addition, the equipment used in Tera Project can be used in shift work if brief excess demand is expected.

GigaTech is also considering expanding its software development operations in India. Software development equipment must be continually replaced to maintain efficiency as newer and faster technology is developed. The company has identified two mutually exclusive potential expansion projects, Zeta and Sigma. Zeta requires investing in equipment with a 3-year life, while Sigma requires investing in equipment with a 2-year life. GigaTech has estimated real capital costs for the two projects at 10.58%. GigaTech expects inflation to be approximately 4.0% for the foreseeable future. Nominal cash flows and net present values for the Zeta and Sigma projects are provided in the following table:

	Annual Cash Flows				
Project	*0*	*1*	*2*	*3*	*NPV*
Zeta	-$360,000	$250,000	$220,000	$190,000	$148,671
Sigma	-$470,000	$330,000	$390,000	$0	$111,853

Recently, GigaTech's board of directors has become concerned with the firm's capital budgeting decisions and has asked management to provide a detailed explanation of the capital budgeting process. After reviewing the report from management, the board makes the following comments in a memo:

- The capital rationing system being utilized is fundamentally flawed since, in some instances, projects that do not increase earnings per share are selected over projects that do increase earnings per share.
- The cash flow projections are flawed since they fail to include costs incurred in the search for projects or the economic consequences of increased competition resulting from highly profitable projects.
- We are making inappropriate investment decisions since the discount rate used to evaluate all potential projects is the firm's weighted average cost of capital.

Using the least common multiple of lives approach, determine whether the Zeta Project or the Sigma Project will increase the value of GigaTech by a greater amount.

A) Zeta Project.

B) Sigma Project.

C) Both projects increase GigaTech's value by the same amount.

Question #29 of 60

Question ID: 691843

GigaTech, Inc., is a large U.S.-based technology conglomerate. The firm has business units in three primary categories: (1) hardware manufacturing, (2) software development, and (3) consulting services. Because of the rapid pace of technological innovation, GigaTech must make capital investments every two to four years. The company has identified several potential investment opportunities for its hardware manufacturing division. The first of these opportunities, Tera Project, would replace a portion of GigaTech's microprocessor assembly equipment with new machinery expected to last three years. The current machinery has a book value of $120,000 and a market value of $195,000. The Tera Project would require purchasing machinery for $332,000, increasing current assets by $190,000, and increasing current liabilities by $80,000. GigaTech has a tax rate of 40%. Additional pro forma information related to the Tera Project is provided in the following table:

	Existing Equipment	*Tera Project*
Annual sales	$523,000	$708,000
Cash operating expenses	$352,000	$440,000
Annual depreciation	$40,000	$110,667
Accounting salvage value	$0	$0
Expected salvage value (after three years)	$90,000	$113,000

Analysts at GigaTech have noted that investment in the Tera Project can be delayed for up to nine months if managers at the company decide this is necessary. However, once the capital investment is made, the project will be necessary to maintain continuing operations. Tera Project can be scaled up with more equipment requiring less capital than the original investment if results are meeting expectations. In addition, the equipment used in Tera Project can be used in shift work if brief excess demand is expected.

GigaTech is also considering expanding its software development operations in India. Software development equipment must be continually replaced to maintain efficiency as newer and faster technology is developed. The company has identified two mutually exclusive potential expansion projects, Zeta and Sigma. Zeta requires investing in equipment with a 3-year life, while Sigma requires investing in equipment with a 2-year life. GigaTech has estimated real capital costs for the two projects at 10.58%. GigaTech expects inflation to be approximately 4.0% for the foreseeable future. Nominal cash flows and net present values for the Zeta and Sigma projects are provided in the following table:

	Annual Cash Flows				
Project	*0*	*1*	*2*	*3*	*NPV*
Zeta	$360,000	$250,000	$220,000	$190,000	$148,671

Zeta	-$360,000	$250,000	$220,000	$190,000	$148,671
Sigma	-$470,000	$330,000	$390,000	$0	$111,853

Recently, GigaTech's board of directors has become concerned with the firm's capital budgeting decisions and has asked management to provide a detailed explanation of the capital budgeting process. After reviewing the report from management, the board makes the following comments in a memo:

- The capital rationing system being utilized is fundamentally flawed since, in some instances, projects that do not increase earnings per share are selected over projects that do increase earnings per share.
- The cash flow projections are flawed since they fail to include costs incurred in the search for projects or the economic consequences of increased competition resulting from highly profitable projects.
- We are making inappropriate investment decisions since the discount rate used to evaluate all potential projects is the firm's weighted average cost of capital.

....

Determine whether the board of director's memo is correct with regard to its statements about GigaTech's capital rationing system and its method of projecting project cash flows.

A) Only the statement regarding capital rationing is correct.

B) Only the statement regarding cash flow projections is correct.

C) Neither the statement regarding capital rationing nor the statement regarding cash flow projections is correct.

Question #30 of 60

Question ID: 691845

GigaTech, Inc., is a large U.S.-based technology conglomerate. The firm has business units in three primary categories: (1) hardware manufacturing, (2) software development, and (3) consulting services. Because of the rapid pace of technological innovation, GigaTech must make capital investments every two to four years. The company has identified several potential investment opportunities for its hardware manufacturing division. The first of these opportunities, Tera Project, would replace a portion of GigaTech's microprocessor assembly equipment with new machinery expected to last three years. The current machinery has a book value of $120,000 and a market value of $195,000. The Tera Project would require purchasing machinery for $332,000, increasing current assets by $190,000, and increasing current liabilities by $80,000. GigaTech has a tax rate of 40%. Additional pro forma information related to the Tera Project is provided in the following table:

	Existing Equipment	*Tera Project*
Annual sales	$523,000	$708,000
Cash operating expenses	$352,000	$440,000
Annual depreciation	$40,000	$110,667
Accounting salvage value	$0	$0
Expected salvage value (after three years)	$90,000	$113,000

Analysts at GigaTech have noted that investment in the Tera Project can be delayed for up to nine months if managers at the company decide this is necessary. However, once the capital investment is made, the project will be necessary to maintain

continuing operations. Tera Project can be scaled up with more equipment requiring less capital than the original investment if results are meeting expectations. In addition, the equipment used in Tera Project can be used in shift work if brief excess demand is expected.

GigaTech is also considering expanding its software development operations in India. Software development equipment must be continually replaced to maintain efficiency as newer and faster technology is developed. The company has identified two mutually exclusive potential expansion projects, Zeta and Sigma. Zeta requires investing in equipment with a 3-year life, while Sigma requires investing in equipment with a 2-year life. GigaTech has estimated real capital costs for the two projects at 10.58%. GigaTech expects inflation to be approximately 4.0% for the foreseeable future. Nominal cash flows and net present values for the Zeta and Sigma projects are provided in the following table:

	Annual Cash Flows				
Project	*0*	*1*	*2*	*3*	*NPV*
Zeta	-$360,000	$250,000	$220,000	$190,000	$148,671
Sigma	-$470,000	$330,000	$390,000	$0	$111,853

Recently, GigaTech's board of directors has become concerned with the firm's capital budgeting decisions and has asked management to provide a detailed explanation of the capital budgeting process. After reviewing the report from management, the board makes the following comments in a memo:

- The capital rationing system being utilized is fundamentally flawed since, in some instances, projects that do not increase earnings per share are selected over projects that do increase earnings per share.
- The cash flow projections are flawed since they fail to include costs incurred in the search for projects or the economic consequences of increased competition resulting from highly profitable projects.
- We are making inappropriate investment decisions since the discount rate used to evaluate all potential projects is the firm's weighted average cost of capital.

Which of the following would *best* correct GigaTech's discount rate problem described in the board of director's memo?

A) Use the firm's marginal cost of capital to evaluate all potential projects.

B) Use a beta specific to each potential project to determine the appropriate discount rate.

C) Use the cost of the firm's equity capital to discount the cash flows of all potential projects.

Question #31 of 60

Question ID: 691849

Use the following information to answer Questions 91 through 96.

Broadstore Inc. is a retailer operating in urban areas in the eastern and mid-western United States. Currently, Broadstore operates 120 retail outlets, but its executives seek to expand significantly. In order to achieve the rapid expansion, the board has identified two acquisition targets they believe could add value for Broadstore's shareholders.

The first target is retailer Sagan Termett Inc., (Sagan). Sagan's store locations are geographically distributed in a way that would complement Broadstore without too much overlap; Sagan's stores are primarily on the west coast. Broadstore's board believes the company may be receptive to a bid at the right price.

Jackson Torrelle, CFA, works for Broadstore and has been asked to look at the details of a possible share-for-share exchange. The board believes that synergies of $2.3 million per year in perpetuity would be realized if the companies merged.

Broadstore currently has 20 million shares outstanding with a market price of $19.20 per share. Sagan Termett has 15.75 million shares outstanding with a market price of $16.20 per share. Torrelle has been asked to consider the following three scenarios for a possible merger:

Scenario 1:	Broadstore offers to purchase 100% of Sagan Termett's shares in exchange for 13 million newly issued shares in the merged entity.
Scenario 2:	Broadstore offers to purchase 100% of Sagan Termett's shares for $270 million.
Scenario 3:	Broadstore offers to purchase approximately 30% of Sagan Termett's stores for cash.

Torrelle intends to calculate the present value of any synergies using a discount rate of 8%. However, he has concerns as to whether any synergies will be realized and has sent an email to the CFO outlining the consequences if they are not. An extract from the email is shown in Exhibit 1.

Exhibit 1: Torrelle Email (Extract)

> *"...the assumed synergies arise primarily from the synchronization of accounting systems. I believe the estimate of the annual savings excludes significant one-off costs of training and parallel running of the systems. I estimate that these costs would reduce the present value of synergies by $8 million."*

The second target is Exellara Inc., a company that offers logistical solutions to retailers, and currently works with Broadstore, providing most of its distribution network.

Broadstore has only recently identified Exellara as a target and has yet to calculate a value for the company. As part of a preliminary review, the board has obtained a recently published research report that contains a comparable company analysis for Exellara. An extract from the report is shown in Exhibit 2.

Exhibit 2: Exellara Research Report (Extract)

Relative Valuation	*Company I*	*Company II*	*Company III*
Ratio			
P/E	12.3	15.8	9.9
P/S	1.2	1.9	1.3
P/BV	2.5	2.2	3.0
Exellara Metrics			
Earnings per share	$2.73		
Sales per share	$21.21		
Book value per share	$13.92		

The research report concluded that the likely price a potential acquirer would have to pay for Exellara would be $45.70. Torrelle is unsure how this conclusion was arrived at, as he does not have all the appendices to the report outlining its assumptions and calculation methods. He is particularly concerned that the price seems too high, as Broadstore has been criticized in the past for several acquisitions that shareholders did not feel were in their best long-term interests.

Specifically, eight years ago, a small online retailer, with no history of profits, was purchased by the company in an attempt to quickly gain an online presence. Several key staff members left the target company shortly after the acquisition, leaving the operations of the company in turmoil. In the aftermath of this episode, an outside consultant was called in to review what went wrong, and an extract of the report is shown in Exhibit 3.

Exhibit 3: Consultant Report (Extract)

> *"...it is our conclusion that a failure in corporate governance at the board level led to a hastily constructed bid and, ultimately, a loss of value to shareholders. It appears that upper level management believed a fast entry into the growing online market would lead to large performance bonuses and, hence, a deal was pushed through before any acceptable level of due diligence was performed."*

Torrelle is also concerned with the acquisition from an ethical standpoint. Exellara has long been a target of environmental protestors, as it consistently opposes fuel emissions legislation and continues to use some of the most fuel inefficient vehicles on the road today. It has also been in the news for picking and choosing where its distribution centers are located, based purely on local minimum wage legislation.

Torrelle believes that when considering options for its distribution network, Broadstore should carefully weigh the social benefits and costs involved. He believes the company should pursue the development of an electric fleet of vehicles, although the cost may be higher. It is clearly a policy that, in the long term, would produce the greatest good for the greatest number of people.

....

If Broadstore proceeded with Scenario 3, with regards to Sagan Termett, it is *most likely* that:

A) Sagan Termett's shareholders would not have to pay tax on any capital gains on the transaction.

B) the transaction may be subject to approval by Sagan Termett's shareholders.

C) Broadstore would be required to assume the liabilities of Sagan Termett.

Question #32 of 60

Question ID: 691851

Broadstore Inc. is a retailer operating in urban areas in the eastern and mid-western United States. Currently, Broadstore operates 120 retail outlets, but its executives seek to expand significantly. In order to achieve the rapid expansion, the board has identified two acquisition targets they believe could add value for Broadstore's shareholders.

The first target is retailer Sagan Termett Inc., (Sagan). Sagan's store locations are geographically distributed in a way that would complement Broadstore without too much overlap; Sagan's stores are primarily on the west coast. Broadstore's board

believes the company may be receptive to a bid at the right price.

Jackson Torrelle, CFA, works for Broadstore and has been asked to look at the details of a possible share-for-share exchange. The board believes that synergies of $2.3 million per year in perpetuity would be realized if the companies merged.

Broadstore currently has 20 million shares outstanding with a market price of $19.20 per share. Sagan Termett has 15.75 million shares outstanding with a market price of $16.20 per share. Torrelle has been asked to consider the following three scenarios for a possible merger:

Scenario 1:	Broadstore offers to purchase 100% of Sagan Termett's shares in exchange for 13 million newly issued shares in the merged entity.
Scenario 2:	Broadstore offers to purchase 100% of Sagan Termett's shares for $270 million.
Scenario 3:	Broadstore offers to purchase approximately 30% of Sagan Termett's stores for cash.

Torrelle intends to calculate the present value of any synergies using a discount rate of 8%. However, he has concerns as to whether any synergies will be realized and has sent an email to the CFO outlining the consequences if they are not. An extract from the email is shown in Exhibit 1.

Exhibit 1: Torrelle Email (Extract)

> *"...the assumed synergies arise primarily from the synchronization of accounting systems. I believe the estimate of the annual savings excludes significant one-off costs of training and parallel running of the systems. I estimate that these costs would reduce the present value of synergies by $8 million."*

The second target is Exellara Inc., a company that offers logistical solutions to retailers, and currently works with Broadstore, providing most of its distribution network.

Broadstore has only recently identified Exellara as a target and has yet to calculate a value for the company. As part of a preliminary review, the board has obtained a recently published research report that contains a comparable company analysis for Exellara. An extract from the report is shown in Exhibit 2.

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Relative Valuation	*Company I*	*Company II*	*Company III*
Ratio			
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P/BV	2.5	2.2	3.0
Exellara Metrics			
Earnings per share	$2.73		
Sales per share	$21.21		
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Specifically, eight years ago, a small online retailer, with no history of profits, was purchased by the company in an attempt to quickly gain an online presence. Several key staff members left the target company shortly after the acquisition, leaving the operations of the company in turmoil. In the aftermath of this episode, an outside consultant was called in to review what went wrong, and an extract of the report is shown in Exhibit 3.

Exhibit 3: Consultant Report (Extract)

> *"...it is our conclusion that a failure in corporate governance at the board level led to a hastily constructed bid and, ultimately, a loss of value to shareholders. It appears that upper level management believed a fast entry into the growing online market would lead to large performance bonuses and, hence, a deal was pushed through before any acceptable level of due diligence was performed."*

Torrelle is also concerned with the acquisition from an ethical standpoint. Exellara has long been a target of environmental protestors, as it consistently opposes fuel emissions legislation and continues to use some of the most fuel inefficient vehicles on the road today. It has also been in the news for picking and choosing where its distribution centers are located, based purely on local minimum wage legislation.

Torrelle believes that when considering options for its distribution network, Broadstore should carefully weigh the social benefits and costs involved. He believes the company should pursue the development of an electric fleet of vehicles, although the cost may be higher. It is clearly a policy that, in the long term, would produce the greatest good for the greatest number of people.

....

If Broadstore proceeded with Scenario 1, with regards to Sagan Termett, and the original estimate of synergies is realized, the gain to Broadstore's shareholders would be *closest* to:

A) $5,000,000.

B) $13,000,000.

C) $21,000,000.

Question #33 of 60

Question ID: 691852

Broadstore Inc. is a retailer operating in urban areas in the eastern and mid-western United States. Currently, Broadstore operates 120 retail outlets, but its executives seek to expand significantly. In order to achieve the rapid expansion, the board has identified two acquisition targets they believe could add value for Broadstore's shareholders.

The first target is retailer Sagan Termett Inc., (Sagan). Sagan's store locations are geographically distributed in a way that would complement Broadstore without too much overlap; Sagan's stores are primarily on the west coast. Broadstore's board believes the company may be receptive to a bid at the right price.

Jackson Torrelle, CFA, works for Broadstore and has been asked to look at the details of a possible share-for-share exchange.

The board believes that synergies of $2.3 million per year in perpetuity would be realized if the companies merged.

Broadstore currently has 20 million shares outstanding with a market price of $19.20 per share. Sagan Termett has 15.75 million shares outstanding with a market price of $16.20 per share. Torrelle has been asked to consider the following three scenarios for a possible merger:

Scenario 1:	Broadstore offers to purchase 100% of Sagan Termett's shares in exchange for 13 million newly issued shares in the merged entity.
Scenario 2:	Broadstore offers to purchase 100% of Sagan Termett's shares for $270 million.
Scenario 3:	Broadstore offers to purchase approximately 30% of Sagan Termett's stores for cash.

Torrelle intends to calculate the present value of any synergies using a discount rate of 8%. However, he has concerns as to whether any synergies will be realized and has sent an email to the CFO outlining the consequences if they are not. An extract from the email is shown in Exhibit 1.

Exhibit 1: Torrelle Email (Extract)

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Exellara Metrics			
Earnings per share	$2.73		
Sales per share	$21.21		
Book value per share	$13.92		

The research report concluded that the likely price a potential acquirer would have to pay for Exellara would be $45.70. Torrelle is unsure how this conclusion was arrived at, as he does not have all the appendices to the report outlining its assumptions and calculation methods. He is particularly concerned that the price seems too high, as Broadstore has been criticized in the past for several acquisitions that shareholders did not feel were in their best long-term interests.

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Torrelle believes that when considering options for its distribution network, Broadstore should carefully weigh the social benefits and costs involved. He believes the company should pursue the development of an electric fleet of vehicles, although the cost may be higher. It is clearly a policy that, in the long term, would produce the greatest good for the greatest number of people.

....

If Torrelle's concerns outlined in Exhibit 1 were correct, the *most likely* result is that the gain to:

A) Broadstore would be reduced under Scenario 1 but not under Scenario 2.

B) both Broadstore and Sagan Termett shareholders would be reduced under Scenario 1.

C) both Broadstore and Sagan Termett shareholders would be reduced under Scenario 2.

Question #34 of 60

Question ID: 691850

Broadstore Inc. is a retailer operating in urban areas in the eastern and mid-western United States. Currently, Broadstore operates 120 retail outlets, but its executives seek to expand significantly. In order to achieve the rapid expansion, the board has identified two acquisition targets they believe could add value for Broadstore's shareholders.

The first target is retailer Sagan Termett Inc., (Sagan). Sagan's store locations are geographically distributed in a way that would complement Broadstore without too much overlap; Sagan's stores are primarily on the west coast. Broadstore's board believes the company may be receptive to a bid at the right price.

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Scenario 2:	Broadstore offers to purchase 100% of Sagan Termett's shares for $270 million.
Scenario 3:	Broadstore offers to purchase approximately 30% of Sagan Termett's stores for cash.

Torrelle intends to calculate the present value of any synergies using a discount rate of 8%. However, he has concerns as to whether any synergies will be realized and has sent an email to the CFO outlining the consequences if they are not. An extract from the email is shown in Exhibit 1.

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Exhibit 2: Exellara Research Report (Extract)

Relative Valuation	*Company I*	*Company II*	*Company III*
Ratio			
P/E	12.3	15.8	9.9
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P/BV	2.5	2.2	3.0
Exellara Metrics			
Earnings per share	$2.73		
Sales per share	$21.21		
Book value per share	$13.92		

The research report concluded that the likely price a potential acquirer would have to pay for Exellara would be $45.70. Torrelle is unsure how this conclusion was arrived at, as he does not have all the appendices to the report outlining its assumptions and calculation methods. He is particularly concerned that the price seems too high, as Broadstore has been criticized in the past for several acquisitions that shareholders did not feel were in their best long-term interests.

Specifically, eight years ago, a small online retailer, with no history of profits, was purchased by the company in an attempt to

quickly gain an online presence. Several key staff members left the target company shortly after the acquisition, leaving the operations of the company in turmoil. In the aftermath of this episode, an outside consultant was called in to review what went wrong, and an extract of the report is shown in Exhibit 3.

Exhibit 3: Consultant Report (Extract)

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Torrelle believes that when considering options for its distribution network, Broadstore should carefully weigh the social benefits and costs involved. He believes the company should pursue the development of an electric fleet of vehicles, although the cost may be higher. It is clearly a policy that, in the long term, would produce the greatest good for the greatest number of people.

....

The acquisition price for Exellara in the research report has *most likely* been calculated using:

A) only the P/E metric and a takeover premium of 20%.

B) an average of the three metrics and a takeover premium of 20%.

C) an average of the three metrics and a takeover premium of 35%.

Question #35 of 60

Question ID: 691848

Broadstore Inc. is a retailer operating in urban areas in the eastern and mid-western United States. Currently, Broadstore operates 120 retail outlets, but its executives seek to expand significantly. In order to achieve the rapid expansion, the board has identified two acquisition targets they believe could add value for Broadstore's shareholders.

The first target is retailer Sagan Termett Inc., (Sagan). Sagan's store locations are geographically distributed in a way that would complement Broadstore without too much overlap; Sagan's stores are primarily on the west coast. Broadstore's board believes the company may be receptive to a bid at the right price.

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Scenario 1: Broadstore offers to purchase 100% of Sagan Termett's shares in exchange for 13 million newly issued shares in the merged entity.

Scenario 2: Broadstore offers to purchase 100% of Sagan Termett's shares for $270 million.

Scenario 3: Broadstore offers to purchase approximately 30% of Sagan Termett's stores for cash.

Torrelle intends to calculate the present value of any synergies using a discount rate of 8%. However, he has concerns as to whether any synergies will be realized and has sent an email to the CFO outlining the consequences if they are not. An extract from the email is shown in Exhibit 1.

Exhibit 1: Torrelle Email (Extract)

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Broadstore has only recently identified Exellara as a target and has yet to calculate a value for the company. As part of a preliminary review, the board has obtained a recently published research report that contains a comparable company analysis for Exellara. An extract from the report is shown in Exhibit 2.

Exhibit 2: Exellara Research Report (Extract)

Relative Valuation	*Company I*	*Company II*	*Company III*
Ratio			
P/E	12.3	15.8	9.9
P/S	1.2	1.9	1.3
P/BV	2.5	2.2	3.0
Exellara Metrics			
Earnings per share	$2.73		
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Book value per share	$13.92		

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Exhibit 3: Consultant Report (Extract)

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....

The risk posed to shareholder value outlined in Exhibit 3 is *most accurately* described as:

A) accounting risk.

B) strategic policy risk.

C) asset risk.

Question #36 of 60

Question ID: 691847

Broadstore Inc. is a retailer operating in urban areas in the eastern and mid-western United States. Currently, Broadstore operates 120 retail outlets, but its executives seek to expand significantly. In order to achieve the rapid expansion, the board has identified two acquisition targets they believe could add value for Broadstore's shareholders.

The first target is retailer Sagan Termett Inc., (Sagan). Sagan's store locations are geographically distributed in a way that would complement Broadstore without too much overlap; Sagan's stores are primarily on the west coast. Broadstore's board believes the company may be receptive to a bid at the right price.

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Scenario 3: Broadstore offers to purchase approximately 30% of Sagan Termett's stores for cash.

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Exhibit 1: Torrelle Email (Extract)

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Exhibit 3: Consultant Report (Extract)

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> *online market would lead to large performance bonuses and, hence, a deal was pushed through before any acceptable level of due diligence was performed."*

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....

Torrelle's suggested alternative for the establishment of a new distribution network *most closely* fits with:

A) a Kantian approach to business ethics.
B) a utilitarian approach to business ethics.
C) the Friedman doctrine.

Question #37 of 60

Question ID: 691857

Use the following information to answer Questions 97 through 102.

Sentinel News is a publisher of more than 100 newspapers around the country, with the exception of the Midwestern states. The company's CFO, Harry Miller, has been reviewing a number of potential candidates (both public and private companies) that would provide Sentinel News entrance into the Midwestern market. Recently, the founder of Midwest News, a private newspaper company, passed away. The founder's family members are inclined to sell their 80% controlling interest. The family members are concerned that Midwest News's declining newspaper circulation is not cyclical, but rather permanent. The family members would reinvest the cash proceeds from the sale of Midwest News into a diversified portfolio of stocks and bonds. Miller's staff collects the financial information shown in Exhibit 1.

Exhibit 1: Midwest News's Financial Information

Total assets	$92.5 million
Total debt	$0
Total equity	$79.5 million
Shares outstanding	1.5 million
Revenues	$251.5 million
Net income (next year's forecast)	$19.5 million

Miller noted that Midwest News does not pay a dividend, nor does the company have any debt. The most comparable publicly traded stock is Freedom Corporation. Freedom, however, has significant radio and television operations. Freedom's estimated beta is 0.90, and 40% of the company's capital structure is debt. Freedom is expected to maintain a payout ratio of 40%.

Analysts are forecasting the company will earn $3.00 per share next year and grow their earnings by 6% per year. Freedom has a current market capitalization of $15 billion and 375 million shares outstanding. Freedom's current market value equals its intrinsic value.

Miller's staff uses current expectations to develop the appropriate equity risk premium for Midwest News. The staff uses the Gordon growth model (GGM) to estimate Midwest's equity risk premium. The equity risk premium calculated by the staff is provided in Exhibit 2.

Miller believes the best method to estimate the required return on equity of Midwest News is the build-up method. All relevant information to determine Midwest News's required return on equity is presented in Exhibit 2.

Exhibit 2: Required Return Estimate Factors

Risk-free rate	3.5%
Equity risk premium	4.0%
Small size premium	3.5%
Specific-company premium	2.0%
Beta	1.2
Growth rate	3.0%

The specific-company premium reflects concerns about future industry performance and business risk in Midwest News. Miller makes two statements concerning the valuation methodology used to value Midwest News's equity.

Statement 1: The required return estimate that is calculated from Exhibit 2 reflects all adjustments needed to make an accurate valuation of Midwest News.

Statement 2: It is better to use the free cash flow model to value Midwest News than a dividend discount model.

Miller considered two different valuation models to determine the price of Midwest News's equity: a single-stage free cash flow model and a single-stage residual income model.

Using Freedom Corporation as a comparable, the estimated beta for Midwest News is *most likely*:

A) greater than 0.90.

B) less than 0.90.

C) equal to 0.90.

Question #38 of 60

Question ID: 691853

Sentinel News is a publisher of more than 100 newspapers around the country, with the exception of the Midwestern states. The company's CFO, Harry Miller, has been reviewing a number of potential candidates (both public and private companies) that would provide Sentinel News entrance into the Midwestern market. Recently, the founder of Midwest News, a private newspaper company, passed away. The founder's family members are inclined to sell their 80% controlling interest. The family

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Equity risk premium	4.0%
Small size premium	3.5%
Specific-company premium	2.0%
Beta	1.2
Growth rate	3.0%

The specific-company premium reflects concerns about future industry performance and business risk in Midwest News. Miller makes two statements concerning the valuation methodology used to value Midwest News's equity.

Statement 1: The required return estimate that is calculated from Exhibit 2 reflects all adjustments needed to make an accurate valuation of Midwest News.

Statement 2: It is better to use the free cash flow model to value Midwest News than a dividend discount model.

Miller considered two different valuation models to determine the price of Midwest News's equity: a single-stage free cash flow model and a single-stage residual income model.

....

The required return estimate of Freedom Corporation is *closest* to:

A) 3%.

B) 6%.

C) 9%.

Question #39 of 60

Question ID: 691854

Sentinel News is a publisher of more than 100 newspapers around the country, with the exception of the Midwestern states. The company's CFO, Harry Miller, has been reviewing a number of potential candidates (both public and private companies) that would provide Sentinel News entrance into the Midwestern market. Recently, the founder of Midwest News, a private newspaper company, passed away. The founder's family members are inclined to sell their 80% controlling interest. The family members are concerned that Midwest News's declining newspaper circulation is not cyclical, but rather permanent. The family members would reinvest the cash proceeds from the sale of Midwest News into a diversified portfolio of stocks and bonds. Miller's staff collects the financial information shown in Exhibit 1.

Exhibit 1: Midwest News's Financial Information

Total assets	$92.5 million
Total debt	$0
Total equity	$79.5 million
Shares outstanding	1.5 million
Revenues	$251.5 million
Net income (next year's forecast)	$19.5 million

Miller noted that Midwest News does not pay a dividend, nor does the company have any debt. The most comparable publicly traded stock is Freedom Corporation. Freedom, however, has significant radio and television operations. Freedom's estimated beta is 0.90, and 40% of the company's capital structure is debt. Freedom is expected to maintain a payout ratio of 40%. Analysts are forecasting the company will earn $3.00 per share next year and grow their earnings by 6% per year. Freedom has a current market capitalization of $15 billion and 375 million shares outstanding. Freedom's current market value equals its intrinsic value.

Miller's staff uses current expectations to develop the appropriate equity risk premium for Midwest News. The staff uses the Gordon growth model (GGM) to estimate Midwest's equity risk premium. The equity risk premium calculated by the staff is provided in Exhibit 2.

Miller believes the best method to estimate the required return on equity of Midwest News is the build-up method. All relevant information to determine Midwest News's required return on equity is presented in Exhibit 2.

Exhibit 2: Required Return Estimate Factors

Risk-free rate	3.5%
Equity risk premium	4.0%
Small size premium	3.5%
Specific-company premium	2.0%

Specific-company premium	2.0%
Beta	1.2
Growth rate	3.0%

The specific-company premium reflects concerns about future industry performance and business risk in Midwest News. Miller makes two statements concerning the valuation methodology used to value Midwest News's equity.

Statement 1: The required return estimate that is calculated from Exhibit 2 reflects all adjustments needed to make an accurate valuation of Midwest News.

Statement 2: It is better to use the free cash flow model to value Midwest News than a dividend discount model.

Miller considered two different valuation models to determine the price of Midwest News's equity: a single-stage free cash flow model and a single-stage residual income model.

....

Which of the following is NOT an input used to estimate Midwest News's equity risk premium based on the Gordon growth model (GGM)?

A) Dividend yield on the market index.

B) Current long-term government bond yield.

C) Expected growth in the market index's P/E ratio.

Question #40 of 60

Question ID: 691855

Sentinel News is a publisher of more than 100 newspapers around the country, with the exception of the Midwestern states. The company's CFO, Harry Miller, has been reviewing a number of potential candidates (both public and private companies) that would provide Sentinel News entrance into the Midwestern market. Recently, the founder of Midwest News, a private newspaper company, passed away. The founder's family members are inclined to sell their 80% controlling interest. The family members are concerned that Midwest News's declining newspaper circulation is not cyclical, but rather permanent. The family members would reinvest the cash proceeds from the sale of Midwest News into a diversified portfolio of stocks and bonds. Miller's staff collects the financial information shown in Exhibit 1.

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Total debt	$0
Total equity	$79.5 million
Shares outstanding	1.5 million
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Net income (next year's forecast)	$19.5 million

Miller noted that Midwest News does not pay a dividend, nor does the company have any debt. The most comparable publicly traded stock is Freedom Corporation. Freedom, however, has significant radio and television operations. Freedom's estimated

beta is 0.90, and 40% of the company's capital structure is debt. Freedom is expected to maintain a payout ratio of 40%. Analysts are forecasting the company will earn $3.00 per share next year and grow their earnings by 6% per year. Freedom has a current market capitalization of $15 billion and 375 million shares outstanding. Freedom's current market value equals its intrinsic value.

Miller's staff uses current expectations to develop the appropriate equity risk premium for Midwest News. The staff uses the Gordon growth model (GGM) to estimate Midwest's equity risk premium. The equity risk premium calculated by the staff is provided in Exhibit 2.

Miller believes the best method to estimate the required return on equity of Midwest News is the build-up method. All relevant information to determine Midwest News's required return on equity is presented in Exhibit 2.

Exhibit 2: Required Return Estimate Factors

Risk-free rate	3.5%
Equity risk premium	4.0%
Small size premium	3.5%
Specific-company premium	2.0%
Beta	1.2
Growth rate	3.0%

The specific-company premium reflects concerns about future industry performance and business risk in Midwest News. Miller makes two statements concerning the valuation methodology used to value Midwest News's equity.

Statement 1: The required return estimate that is calculated from Exhibit 2 reflects all adjustments needed to make an accurate valuation of Midwest News.

Statement 2: It is better to use the free cash flow model to value Midwest News than a dividend discount model.

Miller considered two different valuation models to determine the price of Midwest News's equity: a single-stage free cash flow model and a single-stage residual income model.

....

Based on Exhibit 2 and using the build-up method, Midwest News's required return on equity is *closest* to:

A) 13.0%.

B) 13.8%.

C) 15.8%.

Question #41 of 60

Question ID: 691858

Sentinel News is a publisher of more than 100 newspapers around the country, with the exception of the Midwestern states. The company's CFO, Harry Miller, has been reviewing a number of potential candidates (both public and private companies) that would provide Sentinel News entrance into the Midwestern market. Recently, the founder of Midwest News, a private

that would provide Sentinel News entrance into the Midwestern market. Recently, the founder of Midwest News, a private newspaper company, passed away. The founder's family members are inclined to sell their 80% controlling interest. The family members are concerned that Midwest News's declining newspaper circulation is not cyclical, but rather permanent. The family members would reinvest the cash proceeds from the sale of Midwest News into a diversified portfolio of stocks and bonds. Miller's staff collects the financial information shown in Exhibit 1.

Exhibit 1: Midwest News's Financial Information

Total assets	$92.5 million
Total debt	$0
Total equity	$79.5 million
Shares outstanding	1.5 million
Revenues	$251.5 million
Net income (next year's forecast)	$19.5 million

Miller noted that Midwest News does not pay a dividend, nor does the company have any debt. The most comparable publicly traded stock is Freedom Corporation. Freedom, however, has significant radio and television operations. Freedom's estimated beta is 0.90, and 40% of the company's capital structure is debt. Freedom is expected to maintain a payout ratio of 40%. Analysts are forecasting the company will earn $3.00 per share next year and grow their earnings by 6% per year. Freedom has a current market capitalization of $15 billion and 375 million shares outstanding. Freedom's current market value equals its intrinsic value.

Miller's staff uses current expectations to develop the appropriate equity risk premium for Midwest News. The staff uses the Gordon growth model (GGM) to estimate Midwest's equity risk premium. The equity risk premium calculated by the staff is provided in Exhibit 2.

Miller believes the best method to estimate the required return on equity of Midwest News is the build-up method. All relevant information to determine Midwest News's required return on equity is presented in Exhibit 2.

Exhibit 2: Required Return Estimate Factors

Risk-free rate	3.5%
Equity risk premium	4.0%
Small size premium	3.5%
Specific-company premium	2.0%
Beta	1.2
Growth rate	3.0%

The specific-company premium reflects concerns about future industry performance and business risk in Midwest News. Miller makes two statements concerning the valuation methodology used to value Midwest News's equity.

Statement 1: The required return estimate that is calculated from Exhibit 2 reflects all adjustments needed to make an accurate valuation of Midwest News.

Statement 2: It is better to use the free cash flow model to value Midwest News than a dividend discount model.

Miller considered two different valuation models to determine the price of Midwest News's equity: a single-stage free cash flow model and a single-stage residual income model.

Using the single-stage residual income model and assuming the required return on equity is 15%, the value of Midwest News is *closest* to: (use information in Exhibits 1 and 2)

A) $75 per share.

B) $95 per share.

C) $115 per share.

Question #42 of 60

Question ID: 691856

Sentinel News is a publisher of more than 100 newspapers around the country, with the exception of the Midwestern states. The company's CFO, Harry Miller, has been reviewing a number of potential candidates (both public and private companies) that would provide Sentinel News entrance into the Midwestern market. Recently, the founder of Midwest News, a private newspaper company, passed away. The founder's family members are inclined to sell their 80% controlling interest. The family members are concerned that Midwest News's declining newspaper circulation is not cyclical, but rather permanent. The family members would reinvest the cash proceeds from the sale of Midwest News into a diversified portfolio of stocks and bonds. Miller's staff collects the financial information shown in Exhibit 1.

Exhibit 1: Midwest News's Financial Information

Total assets	$92.5 million
Total debt	$0
Total equity	$79.5 million
Shares outstanding	1.5 million
Revenues	$251.5 million
Net income (next year's forecast)	$19.5 million

Miller noted that Midwest News does not pay a dividend, nor does the company have any debt. The most comparable publicly traded stock is Freedom Corporation. Freedom, however, has significant radio and television operations. Freedom's estimated beta is 0.90, and 40% of the company's capital structure is debt. Freedom is expected to maintain a payout ratio of 40%. Analysts are forecasting the company will earn $3.00 per share next year and grow their earnings by 6% per year. Freedom has a current market capitalization of $15 billion and 375 million shares outstanding. Freedom's current market value equals its intrinsic value.

Miller's staff uses current expectations to develop the appropriate equity risk premium for Midwest News. The staff uses the Gordon growth model (GGM) to estimate Midwest's equity risk premium. The equity risk premium calculated by the staff is provided in Exhibit 2.

Miller believes the best method to estimate the required return on equity of Midwest News is the build-up method. All relevant information to determine Midwest News's required return on equity is presented in Exhibit 2.

Exhibit 2: Required Return Estimate Factors

Risk-free rate	3.5%

Equity risk premium	4.0%
Small size premium	3.5%
Specific-company premium	2.0%
Beta	1.2
Growth rate	3.0%

The specific-company premium reflects concerns about future industry performance and business risk in Midwest News. Miller makes two statements concerning the valuation methodology used to value Midwest News's equity.

Statement 1: The required return estimate that is calculated from Exhibit 2 reflects all adjustments needed to make an accurate valuation of Midwest News.

Statement 2: It is better to use the free cash flow model to value Midwest News than a dividend discount model.

Miller considered two different valuation models to determine the price of Midwest News's equity: a single-stage free cash flow model and a single-stage residual income model.

....

Miller has made two statements, one concerning the required return estimate and the other concerning the relative merits of the free cash flow model versus the dividend discount model. Are Miller's statements correct?

A) Only Statement 1 is correct.

B) Only Statement 2 is correct.

C) Both Statements 1 and 2 are correct.

Question #43 of 60

Question ID: 691859

Use the following information to answer Questions 103 through 108.

CTT Credit Analysis provides fixed-income credit analysis to fund managers and high net worth individuals. Tam Lowenstadt, CFA, joined the firm recently; one of his first tasks is to provide a new client with an overview of the credit analysis models the firm uses. He begins by outlining some key underlying principles, as shown in Exhibit 1.

Exhibit 1: Key Underlying Principles

1. The probability of default multiplied by the recovery rate given default is equal to the expected loss.
2. To allow for differing states of the economy, both the probability of default and loss given default may be taken as weighted averages using the probabilities of each state of the economy.
3. The expected loss will be lower than the present value of expected loss as it is modified to take the time value of money and the risk premium into account.

Lowenstadt also provides an overview of the structural model approach to credit analysis. He starts off by explaining the basic

approach of valuing the credit risk by using an option analogy. He makes two key statements regarding this analogy and how it can be used to value equity and debt:

Statement 1: Owning the company's debt with a face value of K and a maturity of T is economically equivalent to owning a riskless bond with face value of K and maturity of T and simultaneously purchasing a European put option on the assets of the company with a strike price equal to K and maturing at time T.

Statement 2: Holding the company's equity is economically equivalent to owning a European call option on the company's assets.

CTT Credit Analysis always includes an illustration of the term structure of yield spreads in any analysis it provides to clients. Lowenstadt demonstrates this calculation in his overview. He provided annualized yields for a zero-coupon, risk-free bond and a zero-coupon, corporate bond based on daily closing market prices over the last week as shown in Exhibit 2.

Exhibit 2: One Year Yields

Date	Risk-Free Bonds	Corporate Bond XVT
June 1	0.0124	0.0298
June 2	0.0124	0.0297
June 3	0.0125	0.0298
June 4	0.0126	0.0299
June 5	0.0126	0.0300
June 6	0.0127	0.0301
June 7	0.0128	0.0301

Lowenstadt demonstrates how the firm calculates the approximate expected loss per year using the given yields and assuming frictionless markets.

CCT does not recommend the use of reduced form models of credit analysis to its clients. Lowenstadt defended this decision based on the firm's standard response as shown in Exhibit 3.

Exhibit 3: CCT Firm View on Reduced Form Models

> **Point 1**

> Although the reduced form models used allow for the probability of default to vary with the state of the economy, they do not allow for systematic default across companies.

> **Point 2**

> Reduced form models can only be used under the assumption that the company has a zero-coupon bond that is actively traded.

Finally, Lowenstadt also discussed CCT's application of credit analysis to asset-backed securities. Lowenstadt is aware that

the client has some collateralized debt obligations in her portfolio. His overview is shown in Exhibit 4.

Exhibit 4: ABS Overview

Section 1 - Key Calculations

- Probability of default.
- Probability of loss.
- Present value of expected loss.

Section 2 - Applicable Models

- Structural models.
- Reduced form models.

Section 3 - Valuing ABS Tranches

- Composition of collateral pool.
- Use of Monte Carlo models to analyze cash flow waterfall patterns.

In Exhibit 1, which of the underlying principles outlined by Lowenstadt is *most accurate*?

A) Principle 1.

B) Principle 2.

C) Principle 3.

Question #44 of 60

Question ID: 691860

CTT Credit Analysis provides fixed-income credit analysis to fund managers and high net worth individuals. Tam Lowenstadt, CFA, joined the firm recently; one of his first tasks is to provide a new client with an overview of the credit analysis models the firm uses. He begins by outlining some key underlying principles, as shown in Exhibit 1.

Exhibit 1: Key Underlying Principles

1. The probability of default multiplied by the recovery rate given default is equal to the expected loss.

2. To allow for differing states of the economy, both the probability of default and loss given default may be taken as weighted averages using the probabilities of each state of the economy.

3. The expected loss will be lower than the present value of expected loss as it is modified to take the time value of money and the risk premium into account.

Lowenstadt also provides an overview of the structural model approach to credit analysis. He starts off by explaining the basic approach of valuing the credit risk by using an option analogy. He makes two key statements regarding this analogy and how it

can be used to value equity and debt:

Statement 1: Owning the company's debt with a face value of K and a maturity of T is economically equivalent to owning a riskless bond with face value of K and maturity of T and simultaneously purchasing a European put option on the assets of the company with a strike price equal to K and maturing at time T.

Statement 2: Holding the company's equity is economically equivalent to owning a European call option on the company's assets.

CTT Credit Analysis always includes an illustration of the term structure of yield spreads in any analysis it provides to clients. Lowenstadt demonstrates this calculation in his overview. He provided annualized yields for a zero-coupon, risk-free bond and a zero-coupon, corporate bond based on daily closing market prices over the last week as shown in Exhibit 2.

Exhibit 2: One Year Yields

Date	Risk-Free Bonds	Corporate Bond XVT
June 1	0.0124	0.0298
June 2	0.0124	0.0297
June 3	0.0125	0.0298
June 4	0.0126	0.0299
June 5	0.0126	0.0300
June 6	0.0127	0.0301
June 7	0.0128	0.0301

Lowenstadt demonstrates how the firm calculates the approximate expected loss per year using the given yields and assuming frictionless markets.

CCT does not recommend the use of reduced form models of credit analysis to its clients. Lowenstadt defended this decision based on the firm's standard response as shown in Exhibit 3.

Exhibit 3: CCT Firm View on Reduced Form Models

> **Point 1**

> Although the reduced form models used allow for the probability of default to vary with the state of the economy, they do not allow for systematic default across companies.

> **Point 2**

> Reduced form models can only be used under the assumption that the company has a zero-coupon bond that is actively traded.

Finally, Lowenstadt also discussed CCT's application of credit analysis to asset-backed securities. Lowenstadt is aware that

the client has some collateralized debt obligations in her portfolio. His overview is shown in Exhibit 4.

Exhibit 4: ABS Overview

> **Section 1 - Key Calculations**

- Probability of default.
- Probability of loss.
- Present value of expected loss.

> **Section 2 - Applicable Models**

- Structural models.
- Reduced form models.

> **Section 3 - Valuing ABS Tranches**

- Composition of collateral pool.
- Use of Monte Carlo models to analyze cash flow waterfall patterns.

....

Lowenstadt's statement 1 is *most likely*:

A) incorrect, as he should have instead stated *purchasing* a European call option.

B) incorrect, as he should have instead stated selling a European *put* option.

C) correct.

Question #45 of 60

Question ID: 691861

CTT Credit Analysis provides fixed-income credit analysis to fund managers and high net worth individuals. Tam Lowenstadt, CFA, joined the firm recently; one of his first tasks is to provide a new client with an overview of the credit analysis models the firm uses. He begins by outlining some key underlying principles, as shown in Exhibit 1.

Exhibit 1: Key Underlying Principles

1. The probability of default multiplied by the recovery rate given default is equal to the expected loss.

2. To allow for differing states of the economy, both the probability of default and loss given default may be taken as weighted averages using the probabilities of each state of the economy.

3. The expected loss will be lower than the present value of expected loss as it is modified to take the time value of money and the risk premium into account.

Lowenstadt also provides an overview of the structural model approach to credit analysis. He starts off by explaining the basic approach of valuing the credit risk by using an option analogy. He makes two key statements regarding this analogy and how it

can be used to value equity and debt:

Statement 1: Owning the company's debt with a face value of K and a maturity of T is economically equivalent to owning a riskless bond with face value of K and maturity of T and simultaneously purchasing a European put option on the assets of the company with a strike price equal to K and maturing at time T.

Statement 2: Holding the company's equity is economically equivalent to owning a European call option on the company's assets.

CTT Credit Analysis always includes an illustration of the term structure of yield spreads in any analysis it provides to clients. Lowenstadt demonstrates this calculation in his overview. He provided annualized yields for a zero-coupon, risk-free bond and a zero-coupon, corporate bond based on daily closing market prices over the last week as shown in Exhibit 2.

Exhibit 2: One Year Yields

Date	Risk-Free Bonds	Corporate Bond XVT
June 1	0.0124	0.0298
June 2	0.0124	0.0297
June 3	0.0125	0.0298
June 4	0.0126	0.0299
June 5	0.0126	0.0300
June 6	0.0127	0.0301
June 7	0.0128	0.0301

Lowenstadt demonstrates how the firm calculates the approximate expected loss per year using the given yields and assuming frictionless markets.

CCT does not recommend the use of reduced form models of credit analysis to its clients. Lowenstadt defended this decision based on the firm's standard response as shown in Exhibit 3.

Exhibit 3: CCT Firm View on Reduced Form Models

> **Point 1**

> Although the reduced form models used allow for the probability of default to vary with the state of the economy, they do not allow for systematic default across companies.

> **Point 2**

> Reduced form models can only be used under the assumption that the company has a zero-coupon bond that is actively traded.

Finally, Lowenstadt also discussed CCT's application of credit analysis to asset-backed securities. Lowenstadt is aware that the client has some collateralized debt obligations in her portfolio. His overview is shown in Exhibit 4.

Exhibit 4: ABS Overview

> **Section 1 - Key Calculations**

- Probability of default.
- Probability of loss.
- Present value of expected loss.

> **Section 2 - Applicable Models**

- Structural models.
- Reduced form models.

> **Section 3 - Valuing ABS Tranches**

- Composition of collateral pool.
- Use of Monte Carlo models to analyze cash flow waterfall patterns.

....

Lowenstadt's statement 2 is *best* described as:

A) incorrect, as he should have instead stated *American* call option.

B) incorrect, as he should have instead stated European *put* option.

C) correct.

Question #46 of 60

Question ID: 691863

CTT Credit Analysis provides fixed-income credit analysis to fund managers and high net worth individuals. Tam Lowenstadt, CFA, joined the firm recently; one of his first tasks is to provide a new client with an overview of the credit analysis models the firm uses. He begins by outlining some key underlying principles, as shown in Exhibit 1.

Exhibit 1: Key Underlying Principles

1. The probability of default multiplied by the recovery rate given default is equal to the expected loss.

2. To allow for differing states of the economy, both the probability of default and loss given default may be taken as weighted averages using the probabilities of each state of the economy.

3. The expected loss will be lower than the present value of expected loss as it is modified to take the time value of money and the risk premium into account.

Lowenstadt also provides an overview of the structural model approach to credit analysis. He starts off by explaining the basic approach of valuing the credit risk by using an option analogy. He makes two key statements regarding this analogy and how it can be used to value equity and debt:

Statement 1: Owning the company's debt with a face value of K and a maturity of T is economically equivalent to owning a riskless bond with face value of K and maturity of T and simultaneously purchasing a European put option on the assets of the company with a strike price equal to K and maturing at time T.

Statement 2: Holding the company's equity is economically equivalent to owning a European call option on the company's assets.

CTT Credit Analysis always includes an illustration of the term structure of yield spreads in any analysis it provides to clients. Lowenstadt demonstrates this calculation in his overview. He provided annualized yields for a zero-coupon, risk-free bond and a zero-coupon, corporate bond based on daily closing market prices over the last week as shown in Exhibit 2.

Exhibit 2: One Year Yields

Date	Risk-Free Bonds	Corporate Bond XVT
June 1	0.0124	0.0298
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June 4	0.0126	0.0299
June 5	0.0126	0.0300
June 6	0.0127	0.0301
June 7	0.0128	0.0301

Lowenstadt demonstrates how the firm calculates the approximate expected loss per year using the given yields and assuming frictionless markets.

CCT does not recommend the use of reduced form models of credit analysis to its clients. Lowenstadt defended this decision based on the firm's standard response as shown in Exhibit 3.

Exhibit 3: CCT Firm View on Reduced Form Models

> **Point 1**

> Although the reduced form models used allow for the probability of default to vary with the state of the economy, they do not allow for systematic default across companies.

> **Point 2**

> Reduced form models can only be used under the assumption that the company has a zero-coupon bond that is actively traded.

Finally, Lowenstadt also discussed CCT's application of credit analysis to asset-backed securities. Lowenstadt is aware that the client has some collateralized debt obligations in her portfolio. His overview is shown in Exhibit 4.

Exhibit 4: ABS Overview

> **Section 1 - Key Calculations**

- Probability of default.
- Probability of loss.
- Present value of expected loss.

> **Section 2 - Applicable Models**

- Structural models.
- Reduced form models.

> **Section 3 - Valuing ABS Tranches**

- Composition of collateral pool.
- Use of Monte Carlo models to analyze cash flow waterfall patterns.

....

Based on the yields given in Exhibit 2, the expected loss per year is *closest* to:

A) 1.25%.

B) 1.32%.

C) 1.73%.

Question #47 of 60

Question ID: 691862

CTT Credit Analysis provides fixed-income credit analysis to fund managers and high net worth individuals. Tam Lowenstadt, CFA, joined the firm recently; one of his first tasks is to provide a new client with an overview of the credit analysis models the firm uses. He begins by outlining some key underlying principles, as shown in Exhibit 1.

Exhibit 1: Key Underlying Principles

1. The probability of default multiplied by the recovery rate given default is equal to the expected loss.

2. To allow for differing states of the economy, both the probability of default and loss given default may be taken as weighted averages using the probabilities of each state of the economy.

3. The expected loss will be lower than the present value of expected loss as it is modified to take the time value of money and the risk premium into account.

Lowenstadt also provides an overview of the structural model approach to credit analysis. He starts off by explaining the basic approach of valuing the credit risk by using an option analogy. He makes two key statements regarding this analogy and how it can be used to value equity and debt:

Statement 1: Owning the company's debt with a face value of K and a maturity of T is economically equivalent to owning a riskless bond with face value of K and maturity of T and simultaneously purchasing a European put option on the assets of the company with a strike price equal to K and maturing at time T.

Statement 2: Holding the company's equity is economically equivalent to owning a European call option on the company's assets.

CTT Credit Analysis always includes an illustration of the term structure of yield spreads in any analysis it provides to clients. Lowenstadt demonstrates this calculation in his overview. He provided annualized yields for a zero-coupon, risk-free bond and a zero-coupon, corporate bond based on daily closing market prices over the last week as shown in Exhibit 2.

Exhibit 2: One Year Yields

Date	Risk-Free Bonds	Corporate Bond XVT
June 1	0.0124	0.0298
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Lowenstadt demonstrates how the firm calculates the approximate expected loss per year using the given yields and assuming frictionless markets.

CCT does not recommend the use of reduced form models of credit analysis to its clients. Lowenstadt defended this decision based on the firm's standard response as shown in Exhibit 3.

Exhibit 3: CCT Firm View on Reduced Form Models

> **Point 1**

> Although the reduced form models used allow for the probability of default to vary with the state of the economy, they do not allow for systematic default across companies.

> **Point 2**

> Reduced form models can only be used under the assumption that the company has a zero-coupon bond that is actively traded.

Finally, Lowenstadt also discussed CCT's application of credit analysis to asset-backed securities. Lowenstadt is aware that the client has some collateralized debt obligations in her portfolio. His overview is shown in Exhibit 4.

Exhibit 4: ABS Overview

Section 1 - Key Calculations

- Probability of default.
- Probability of loss.
- Present value of expected loss.

Section 2 - Applicable Models

- Structural models.
- Reduced form models.

Section 3 - Valuing ABS Tranches

- Composition of collateral pool.
- Use of Monte Carlo models to analyze cash flow waterfall patterns.

Which of Lowenstadt's points in Exhibit 3 is *correct*?

A) Only point 1 only is accurate.

B) Only point 2 only is accurate.

C) Neither point is accurate.

Question #48 of 60

Question ID: 691864

CTT Credit Analysis provides fixed-income credit analysis to fund managers and high net worth individuals. Tam Lowenstadt, CFA, joined the firm recently; one of his first tasks is to provide a new client with an overview of the credit analysis models the firm uses. He begins by outlining some key underlying principles, as shown in Exhibit 1.

Exhibit 1: Key Underlying Principles

1. The probability of default multiplied by the recovery rate given default is equal to the expected loss.
2. To allow for differing states of the economy, both the probability of default and loss given default may be taken as weighted averages using the probabilities of each state of the economy.
3. The expected loss will be lower than the present value of expected loss as it is modified to take the time value of money and the risk premium into account.

Lowenstadt also provides an overview of the structural model approach to credit analysis. He starts off by explaining the basic approach of valuing the credit risk by using an option analogy. He makes two key statements regarding this analogy and how it can be used to value equity and debt:

Statement 1: Owning the company's debt with a face value of K and a maturity

Statement 1: Owning the company's debt with a face value of K and a maturity of T is economically equivalent to owning a riskless bond with face value of K and maturity of T and simultaneously purchasing a European put option on the assets of the company with a strike price equal to K and maturing at time T.

Statement 2: Holding the company's equity is economically equivalent to owning a European call option on the company's assets.

CTT Credit Analysis always includes an illustration of the term structure of yield spreads in any analysis it provides to clients. Lowenstadt demonstrates this calculation in his overview. He provided annualized yields for a zero-coupon, risk-free bond and a zero-coupon, corporate bond based on daily closing market prices over the last week as shown in Exhibit 2.

Exhibit 2: One Year Yields

Date	Risk-Free Bonds	Corporate Bond XVT
June 1	0.0124	0.0298
June 2	0.0124	0.0297
June 3	0.0125	0.0298
June 4	0.0126	0.0299
June 5	0.0126	0.0300
June 6	0.0127	0.0301
June 7	0.0128	0.0301

Lowenstadt demonstrates how the firm calculates the approximate expected loss per year using the given yields and assuming frictionless markets.

CCT does not recommend the use of reduced form models of credit analysis to its clients. Lowenstadt defended this decision based on the firm's standard response as shown in Exhibit 3.

Exhibit 3: CCT Firm View on Reduced Form Models

> **Point 1**

> Although the reduced form models used allow for the probability of default to vary with the state of the economy, they do not allow for systematic default across companies.

> **Point 2**

> Reduced form models can only be used under the assumption that the company has a zero-coupon bond that is actively traded.

Finally, Lowenstadt also discussed CCT's application of credit analysis to asset-backed securities. Lowenstadt is aware that the client has some collateralized debt obligations in her portfolio. His overview is shown in Exhibit 4.

Exhibit 4: ABS Overview

Section 1 - Key Calculations

- Probability of default.
- Probability of loss.
- Present value of expected loss.

Section 2 - Applicable Models

- Structural models.
- Reduced form models.

Section 3 - Valuing ABS Tranches

- Composition of collateral pool.
- Use of Monte Carlo models to analyze cash flow waterfall patterns.

....

Lowenstadt's overview of asset-backed securities in Exhibit 4 *most likely* contains an error in:

A) section A, because the probability of default is not relevant for asset-backed securities.

B) section B, because structural models cannot be used for asset-backed securities.

C) section C, because Monte Carlo simulations cannot be applied to asset-backed securities.

Question #49 of 60

Question ID: 691865

Use the following information to answer Questions 109 through 114.

Rock Torrey, an analyst for International Retailers Incorporated (IRI), has been asked to evaluate the firm's swap transactions in general, as well as a 2-year fixed for fixed currency swap involving the U.S. dollar and the Mexican peso in particular. The dollar is Torrey's domestic currency, and the exchange rate as of June 1, 2009, was $0.0893 per peso. The swap calls for annual payments and exchange of notional principal at the beginning and end of the swap term and has a notional principal of $100 million. The counterparty to the swap is GHS Bank, a large full-service bank in Mexico.

The current term structure of interest rates for both countries is given in the following table:

Time Period	*U.S. Interest Rates*	*Mexican Interest Rates*
360 days	4.0%	5.0%
720 days	4.5%	5.2%

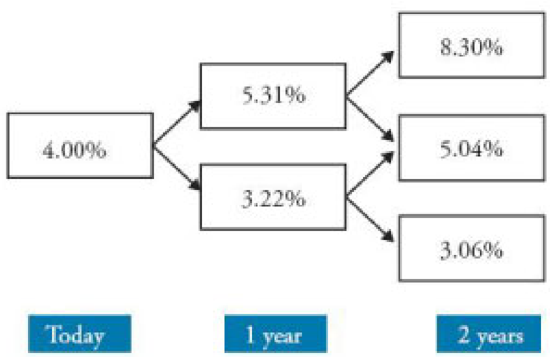
Torrey believes the swap will help his firm effectively mitigate its foreign currency exposure in Mexico, which stems mainly from shopping centers in high-end resorts located along the eastern coastline. Having made this conclusion, Torrey begins writing his report for the management of IRI. In the report, Torrey makes the following statements about interest rate derivative

instruments:

Statement 1:	A payer swap can be replicated using a long receiver swaption and a short payer swaption with the same exercise rates. If the exercise rate is set such that the premiums of the payer and receiver swaptions are equal, then the exercise rate must be equal to the market swap fixed rate.
Statement 2:	A long callable bond can be replicated using a long option-free bond plus a short receiver swaption.

Torrey is also evaluating a two-year European interest rate call option with a strike rate of 5% and a notional principal of $2 million. Torrey wants to use a binomial tree as shown in Exhibit 1 to value the option.

Exhibit 1: Two-Period Interest Rate Tree



Six months (180 days) have passed since Torrey issued his report to IRI"s management team, and the current exchange rate is now $0.085 per peso. The new term structure of interest rates is as follows:

Time Period	*U.S. Interest Rates*	*Mexican Interest Rates*
180 days	4.2%	5.0%
540 days	4.8%	5.2%

....

For the currency swap that Torrey is evaluating, calculate the annual payments that will be required of International Retailers Incorporated.

A) 29.1 million pesos.

B) 40.7 million pesos.

C) 56.8 million pesos.

Question #50 of 60

Question ID: 691869

Rock Torrey, an analyst for International Retailers Incorporated (IRI), has been asked to evaluate the firm's swap transactions in general, as well as a 2-year fixed for fixed currency swap involving the U.S. dollar and the Mexican peso in particular. The dollar is Torrey's domestic currency, and the exchange rate as of June 1, 2009, was $0.0893 per peso. The swap calls for annual payments and exchange of notional principal at the beginning and end of the swap term and has a notional principal of

$100 million. The counterparty to the swap is GHS Bank, a large full-service bank in Mexico.

The current term structure of interest rates for both countries is given in the following table:

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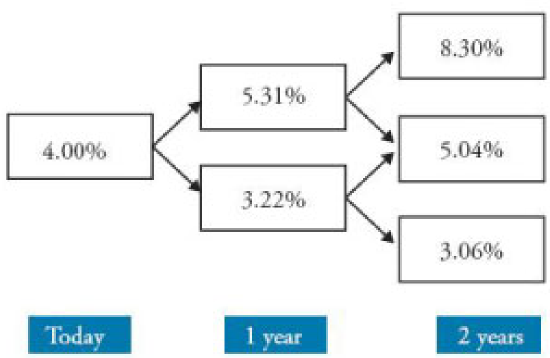
Statement 2: A long callable bond can be replicated using a long option-free bond plus a short receiver swaption.

Torrey is also evaluating a two-year European interest rate call option with a strike rate of 5% and a notional principal of $2 million. Torrey wants to use a binomial tree as shown in Exhibit 1 to value the option.

Exhibit 1: Two-Period Interest Rate Tree



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Time Period	*U.S. Interest Rates*	*Mexican Interest Rates*
180 days	4.2%	5.0%
540 days	4.8%	5.2%

....

Torrey's statement 1 is *most likely*:

A) correct.

B) incorrect about long receiver swaption and short payer swaption.

C) incorrect about the exercise rate being equal to the market swap fixed rate if the premiums of the two swaptions are equal.

Question #51 of 60

Question ID: 691870

Rock Torrey, an analyst for International Retailers Incorporated (IRI), has been asked to evaluate the firm's swap transactions in general, as well as a 2-year fixed for fixed currency swap involving the U.S. dollar and the Mexican peso in particular. The dollar is Torrey's domestic currency, and the exchange rate as of June 1, 2009, was $0.0893 per peso. The swap calls for annual payments and exchange of notional principal at the beginning and end of the swap term and has a notional principal of $100 million. The counterparty to the swap is GHS Bank, a large full-service bank in Mexico.

The current term structure of interest rates for both countries is given in the following table:

Time Period	*U.S. Interest Rates*	*Mexican Interest Rates*
360 days	4.0%	5.0%
720 days	4.5%	5.2%

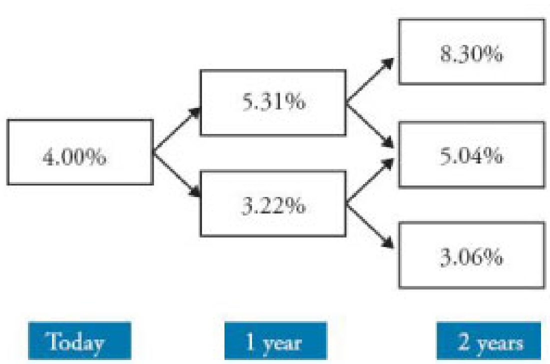
Torrey believes the swap will help his firm effectively mitigate its foreign currency exposure in Mexico, which stems mainly from shopping centers in high-end resorts located along the eastern coastline. Having made this conclusion, Torrey begins writing his report for the management of IRI. In the report, Torrey makes the following statements about interest rate derivative instruments:

Statement 1: A payer swap can be replicated using a long receiver swaption and a short payer swaption with the same exercise rates. If the exercise rate is set such that the premiums of the payer and receiver swaptions are equal, then the exercise rate must be equal to the market swap fixed rate.

Statement 2: A long callable bond can be replicated using a long option-free bond plus a short receiver swaption.

Torrey is also evaluating a two-year European interest rate call option with a strike rate of 5% and a notional principal of $2 million. Torrey wants to use a binomial tree as shown in Exhibit 1 to value the option.

Exhibit 1: Two-Period Interest Rate Tree



Six months (180 days) have passed since Torrey issued his report to IRI"s management team, and the current exchange rate is now $0.085 per peso. The new term structure of interest rates is as follows:

Time Period	*U.S. Interest Rates*	*Mexican Interest Rates*
180 days	4.2%	5.0%

540 days	4.8%	5.2%

Torrey's statement 2 is *most likely*:

A) correct.

B) incorrect about the long option free bond.

C) incorrect about the short receiver swaption.

Question #52 of 60

Question ID: 691868

Rock Torrey, an analyst for International Retailers Incorporated (IRI), has been asked to evaluate the firm's swap transactions in general, as well as a 2-year fixed for fixed currency swap involving the U.S. dollar and the Mexican peso in particular. The dollar is Torrey's domestic currency, and the exchange rate as of June 1, 2009, was $0.0893 per peso. The swap calls for annual payments and exchange of notional principal at the beginning and end of the swap term and has a notional principal of $100 million. The counterparty to the swap is GHS Bank, a large full-service bank in Mexico.

The current term structure of interest rates for both countries is given in the following table:

Time Period	*U.S. Interest Rates*	*Mexican Interest Rates*
360 days	4.0%	5.0%
720 days	4.5%	5.2%

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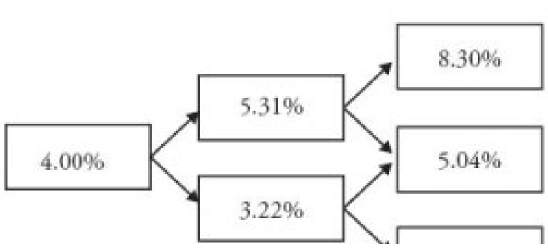
Torrey is also evaluating a two-year European interest rate call option with a strike rate of 5% and a notional principal of $2 million. Torrey wants to use a binomial tree as shown in Exhibit 1 to value the option.

Exhibit 1: Two-Period Interest Rate Tree



Six months (180 days) have passed since Torrey issued his report to IRI"s management team, and the current exchange rate is now $0.085 per peso. The new term structure of interest rates is as follows:

Time Period	*U.S. Interest Rates*	*Mexican Interest Rates*
180 days	4.2%	5.0%
540 days	4.8%	5.2%

....

The value of the two-year interest rate call option is *closest* to:

A) $7,717.

B) $15,434.

C) $18,415.

Question #53 of 60

Question ID: 691866

Rock Torrey, an analyst for International Retailers Incorporated (IRI), has been asked to evaluate the firm's swap transactions in general, as well as a 2-year fixed for fixed currency swap involving the U.S. dollar and the Mexican peso in particular. The dollar is Torrey's domestic currency, and the exchange rate as of June 1, 2009, was $0.0893 per peso. The swap calls for annual payments and exchange of notional principal at the beginning and end of the swap term and has a notional principal of $100 million. The counterparty to the swap is GHS Bank, a large full-service bank in Mexico.

The current term structure of interest rates for both countries is given in the following table:

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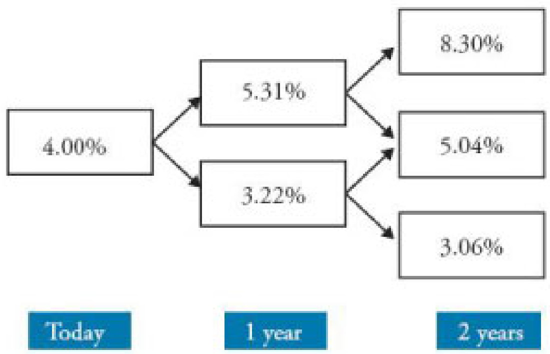
Statement 2: A long callable bond can be replicated using a long option-free bond plus a short receiver swaption.

Torrey is also evaluating a two-year European interest rate call option with a strike rate of 5% and a notional principal of $2

million. Torrey wants to use a binomial tree as shown in Exhibit 1 to value the option.

Exhibit 1: Two-Period Interest Rate Tree



Six months (180 days) have passed since Torrey issued his report to IRI"s management team, and the current exchange rate is now $0.085 per peso. The new term structure of interest rates is as follows:

Time Period	*U.S. Interest Rates*	*Mexican Interest Rates*
180 days	4.2%	5.0%
540 days	4.8%	5.2%

....

Calculate the present value of the dollar fixed payments for the 2-year currency swap six months after Torrey's initial analysis.

A) $93.28 million.

B) $101.69 million.

C) $108.80 million.

Question #54 of 60

Question ID: 691867

Rock Torrey, an analyst for International Retailers Incorporated (IRI), has been asked to evaluate the firm's swap transactions in general, as well as a 2-year fixed for fixed currency swap involving the U.S. dollar and the Mexican peso in particular. The dollar is Torrey's domestic currency, and the exchange rate as of June 1, 2009, was $0.0893 per peso. The swap calls for annual payments and exchange of notional principal at the beginning and end of the swap term and has a notional principal of $100 million. The counterparty to the swap is GHS Bank, a large full-service bank in Mexico.

The current term structure of interest rates for both countries is given in the following table:

Time Period	*U.S. Interest Rates*	*Mexican Interest Rates*
360 days	4.0%	5.0%
720 days	4.5%	5.2%

Torrey believes the swap will help his firm effectively mitigate its foreign currency exposure in Mexico, which stems mainly from shopping centers in high-end resorts located along the eastern coastline. Having made this conclusion, Torrey begins writing his report for the management of IRI. In the report, Torrey makes the following statements about interest rate derivative

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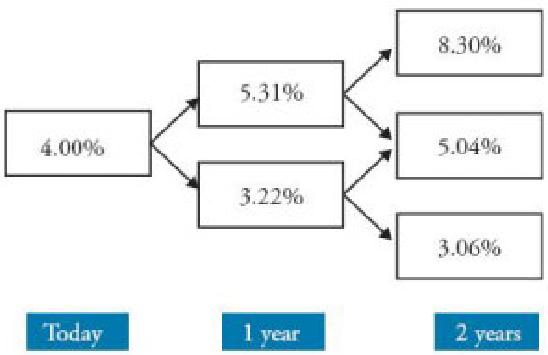
Torrey is also evaluating a two-year European interest rate call option with a strike rate of 5% and a notional principal of $2 million. Torrey wants to use a binomial tree as shown in Exhibit 1 to value the option.

Exhibit 1: Two-Period Interest Rate Tree



Six months (180 days) have passed since Torrey issued his report to IRI"s management team, and the current exchange rate is now $0.085 per peso. The new term structure of interest rates is as follows:

Time Period	*U.S. Interest Rates*	*Mexican Interest Rates*
180 days	4.2%	5.0%
540 days	4.8%	5.2%

Calculate the value of the 2-year currency swap from the perspective of the counterparty paying dollars six months after Torrey's initial analysis.

A) −$0.72 million.
B) −$3.21 million.
C) −$4.21 million.

Question #55 of 60

Question ID: 691873

Use the following information to answer Questions 115 through 120.

Bill Henry, CFA, is the CIO of IS University Endowment Fund located in the United States. The Fund's total assets are valued at $3.5 billion. The investment policy uses a total return approach to meet the return objective that includes a spending rate of 5%. In addition, the policy constraints established make tax-exempt instruments an inappropriate investment vehicle. The

Fund's current asset mix includes an 18% allocation to private equity. The private equity allocation is shown in Exhibit 1.

Exhibit 1: IS University Endowment Fund's Private Equity Investments

Private Equity	*Percentage Allocation*
Venture capital	12%
Buyouts	56%
Special situations	32%

The private equity allocation is a mixture of funds with different vintages. For example, within the venture capital category, investments have been made in five different funds. Exhibit 2 provides details about the Alpha Fund with a vintage year of 2014 and committed capital of $195 million. The distribution waterfall calls for 20% carried interest when NAV before distributions exceeds committed capital.

Exhibit 2: $195 million Venture Capital Alpha Fund *($Millions)*

Year	*Called-Down*	*Management Fees*	*Operating Results*
2014	$30	$0.45	−$10
2015	$25	$0.83	$55
2016	$75	$1.95	$75

The Alpha Fund is considering a new investment in Targus Company. Targus is a start-up biotech company seeking $9 million of venture capital financing. Targus's founders believe that, based on the company's new drug pipeline, a company value of $300 million is reasonable in five years. Management at Alpha Fund views Targus Company as a risky investment (15% risk of failure) and is using a discount rate of 40%.

Which of the following risk factors will *most likely* impact the private equity portion of the IS University Endowment?

A) Lack of diversification.

B) Illiquid investments.

C) Taxation risk.

Question #56 of 60

Question ID: 691871

Bill Henry, CFA, is the CIO of IS University Endowment Fund located in the United States. The Fund's total assets are valued at $3.5 billion. The investment policy uses a total return approach to meet the return objective that includes a spending rate of 5%. In addition, the policy constraints established make tax-exempt instruments an inappropriate investment vehicle. The Fund's current asset mix includes an 18% allocation to private equity. The private equity allocation is shown in Exhibit 1.

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....

Using Exhibit 2, calculate the 2016 percentage management fee of the Alpha Fund.

A) 1.5%.
B) 2.0%.
C) 2.5%.

Question #57 of 60

Question ID: 691874

Bill Henry, CFA, is the CIO of IS University Endowment Fund located in the United States. The Fund's total assets are valued at $3.5 billion. The investment policy uses a total return approach to meet the return objective that includes a spending rate of 5%. In addition, the policy constraints established make tax-exempt instruments an inappropriate investment vehicle. The Fund's current asset mix includes an 18% allocation to private equity. The private equity allocation is shown in Exhibit 1.

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Alpha Fund's 2016 dollar amount of carried interest is *closest* to:

A) $0 million.
B) $10 million.
C) $20 million.

Question #58 of 60

Question ID: 691872

Bill Henry, CFA, is the CIO of IS University Endowment Fund located in the United States. The Fund's total assets are valued at $3.5 billion. The investment policy uses a total return approach to meet the return objective that includes a spending rate of 5%. In addition, the policy constraints established make tax-exempt instruments an inappropriate investment vehicle. The Fund's current asset mix includes an 18% allocation to private equity. The private equity allocation is shown in Exhibit 1.

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Exhibit 2: $195 million Venture Capital Alpha Fund *($Millions)*

Year	*Called-Down*	*Management Fees*	*Operating Results*

2014	$30	$0.45	−$10
2015	$25	$0.83	$55
2016	$75	$1.95	$75

The Alpha Fund is considering a new investment in Targus Company. Targus is a start-up biotech company seeking $9 million of venture capital financing. Targus's founders believe that, based on the company's new drug pipeline, a company value of $300 million is reasonable in five years. Management at Alpha Fund views Targus Company as a risky investment (15% risk of failure) and is using a discount rate of 40%.

....

Which of the following is *most likely* a characteristic of a venture capital investment?

A) The typical investment uses leverage.

B) Measurable risk.

C) Increasing capital requirements.

Question #59 of 60

Question ID: 691875

Bill Henry, CFA, is the CIO of IS University Endowment Fund located in the United States. The Fund's total assets are valued at $3.5 billion. The investment policy uses a total return approach to meet the return objective that includes a spending rate of 5%. In addition, the policy constraints established make tax-exempt instruments an inappropriate investment vehicle. The Fund's current asset mix includes an 18% allocation to private equity. The private equity allocation is shown in Exhibit 1.

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Exhibit 2: $195 million Venture Capital Alpha Fund *($Millions)*

Year	*Called-Down*	*Management Fees*	*Operating Results*
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of venture capital financing. Targus's founders believe that, based on the company's new drug pipeline, a company value of $300 million is reasonable in five years. Management at Alpha Fund views Targus Company as a risky investment (15% risk of failure) and is using a discount rate of 40%.

....

Using the single period NPV method (venture capital method), the post-money valuation of Targus Company is *closest* to:

A) $48 million.

B) $50 million.

C) $55 million.

Question #60 of 60

Question ID: 693657

Bill Henry, CFA, is the CIO of IS University Endowment Fund located in the United States. The Fund's total assets are valued at $3.5 billion. The investment policy uses a total return approach to meet the return objective that includes a spending rate of 5%. In addition, the policy constraints established make tax-exempt instruments an inappropriate investment vehicle. The Fund's current asset mix includes an 18% allocation to private equity. The private equity allocation is shown in Exhibit 1.

Exhibit 1: IS University Endowment Fund's Private Equity Investments

Private Equity	*Percentage Allocation*
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Exhibit 2: $195 million Venture Capital Alpha Fund *($Millions)*

Year	*Called-Down*	*Management Fees*	*Operating Results*
2014	$30	$0.45	−$10
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....

For this question only, assuming that the founders will hold 2.5 million shares, and the post-money valuation is $90 million, the

For this question only, assuming that the founders will hold 2.5 million shares, and the post money valuation is $90 million, the price per share for the venture capital investor is *closest* to:

A) $32.40.

B) $34.12.

C) $36.00.