

Questions 1-6 relate to Ethical and Professional Standards.

Rowan Brothers is a full-service investment firm offering portfolio management and investment banking services. For the last 10 years, Aaron King, CFA, has managed individual client portfolios for Rowan Brothers, most of which are trust accounts over which King has full discretion. One of King's clients for whom he has full discretion is Shelby Pavlica, a widow in her late 60s whose husband died and left assets of over \$7 million in a trust. The assets are to be used solely for her benefit.

Pavlica's three children are appalled at their mother's spending habits and have called a meeting with King to discuss their concerns. They inform King that their mother is living too lavishly to leave much for them or Pavlica's grandchildren upon her death. King acknowledges their concerns and informs them that, on top of her ever-increasing spending, Pavlica has recently been diagnosed with a chronic illness, a fact previously not known by her children.

Since the diagnosis could indicate a considerable increase in medical spending, he will need to increase the risk of the portfolio to generate sufficient return to cover the medical bills and spending and still maintain the principal. King restructures the portfolio accordingly and then meets with Pavlica a week later to discuss how he has altered the investment strategy, which was previously revised only three months earlier in their annual meeting.

During the meeting with Pavlica, King explains his reasoning for altering the portfolio allocation but does not mention the meeting with Pavlica's children. Pavlica agrees that it is probably the wisest decision and accepts the new portfolio allocation adding that she will need to tell her children about her illness so they will understand why her medical spending requirements will increase in the near future. She admits to King that her children have been concerned about her spending. King assures her that the new investments will definitely allow her to maintain her lifestyle and meet her higher medical spending needs.

One of the investments selected by King for Pavlica's portfolio is a private placement offered to him by a brokerage firm that often makes trades for King's portfolios. The private placement is an equity investment in ShaleCo, a small oil exploration company. In order to make the investment, King sold shares of a publicly traded biotech firm, VNC Technologies. King also held shares of VNC, a fact that he has always disclosed to clients before purchasing VNC for their accounts. An hour before submitting the sell order for the VNC shares in Pavlica's trust account, King placed an order to sell a portion of his position in VNC stock.

By the time Pavlica's order was sent to the trading floor, the price of VNC had risen, allowing Pavlica to sell her shares at a better price than received by King.

Although King elected not to take any shares in the private placement, he purchased positions for several of his clients, for whom the investment was deemed appropriate in terms of the

clients' objectives and constraints as well as the existing composition of the portfolios. In response to the investment support, ShaleCo appointed King to their board of directors. Seeing an opportunity to advance his career while also protecting the value of his clients' investments in the company, King gladly accepted the offer. King decided that since serving on the board of ShaleCo is in his clients' best interest, it is not necessary to disclose the directorship to his clients or his employer.

For his portfolio management services, King charges a fixed-percentage fee based on the value of assets under management. All fees charged and other terms of service are disclosed to clients as well as prospects. In the past month, however, Rowan Brothers has instituted an incentive program for its portfolio managers. Under the program, the firm will award an all-expense-paid vacation to the Cayman Islands for any portfolio manager who generates two consecutive quarterly returns for his clients in excess of 10%. King updates his marketing literature to ensure that his prospective clients are fully aware of his compensation arrangements.

Question #1 of 60

In discussing Pavlica's spending and medical condition with Pavlica's children, did King violate any CFA Institute Standards of Professional Conduct?

- A) No. Because the children are the remaindermen, King is obligated to manage the trust in the best interest of both Pavlica and the children.
- B) Yes, because he violated his client's confidentiality.
- C) Yes, because he created a conflict of interest between himself and his employer.

Question #2 of 60

In reallocating the portfolio after the meeting with Pavlica's children, did King violate any CFA Institute Standards of Professional Conduct?

- A) No, because King has discretion over the portfolio.
- B) Yes, he violated Standard III(A) Loyalty, Prudence, and Care.
- C) No, because he had a reasonable basis for making adjustments to the portfolio.

Question #3 of 60

In his statements to Pavlica after the reallocation, did King violate any CFA Institute Standards of Professional Conduct?

- A) No.
- B) Yes, because he misrepresented the expected performance of the strategy.
- C) Yes, because he met with her before their annual meeting, which is unfair to clients who only meet with King annually.

Question #4 of 60

Did King's actions with regard to allocating the private placement and the sale of VNC stock violate any CFA Institute Standards of Professional Conduct?

	<u>Private placement</u>	<u>VNC sale</u>
A)	Yes	Yes
B)	No	No
C)	No	Yes

Question #5 of 60

According to the CFA Institute Standards of Professional Conduct, which of the following statements is *most correct* concerning King's directorship with ShaleCo?

- A) King may not accept the directorship because it creates a conflict of interest.
- B) King may accept the directorship as long as it is disclosed to clients and prospects.
- C) King may accept the directorship as long as it is disclosed to his employer, clients, and prospects.

Question #6 of 60

Does the fee structure at Rowan Brothers and King's disclosure of the compensation structure violate any CFA Institute Standards of Professional Conduct?

	<u>Fee structure</u>	<u>Disclosure</u>
A)	No	Yes
B)	Yes	No
C)	No	No

Questions 7-12 relate to Ethical and Professional Standards.

Garrett Keenan, CFA, is employed by Gold Standard Bank (GSB), in the Capital Markets Division. The GSB Board of Directors has recently made two decisions: a leveraged co-invest fund is to be created for the benefit of senior-level employees of GSB, and a hedge fund is to be constructed which will be marketed to high net worth Trust Department clients and prospects. Both of the new entities will be fund-of-funds (FOF) managed on behalf of GSB by "third party" managers that Keenan will select.

Keenan first researched the available pool of hedge fund managers, and compiled a report on a subset that was based primarily on historical performance record. The 60 managers selected for further review were tiered into three groups according to their three-year track record. Of the 20 managers in the highest performing tier, Keenan selected 15 managers for the employee leveraged co-invest FOF. The other five managers in the top tier were selected along with the 20 hedge fund managers in the second tier for the FOF to be marketed to high net worth trust clients.

While screening hedge fund managers, Keenan came across his college friend, John Carmichael, one of the principals at the hedge fund management firm Bryson Carmichael (BC). Because BC's track record met Keenan's criteria for inclusion in one of the FOFs, BC was selected. Upon being informed of this development, Carmichael called Keenan to express his appreciation, and during that conversation, offered Keenan the use of Carmichael's mountain house resort. Over the next year, Keenan and his family spent two long weekends at Carmichael's mountain house. In appreciation for his stay, Keenan promised to take Carmichael's two children to Walt Disney World (free of charge) during their planned upcoming summer vacation (assuming Keenan's wife can take time off from her independent medical practice). Carmichael accepted this invitation, but was told by Keenan to keep the invitation confidential.

Another hedge fund manager being considered for inclusion was Barry Grant. Grant had been actively soliciting investors for his hedge fund and offered to pay Keenan a personal fee of \$200 if Keenan accepted Grant's fund into one of GSB's FOFs. Because Grant's fund performance was within Keenan's acceptable guidelines, Keenan refused to accept the fee. However, Keenan told Grant that if his fund were able to beat the benchmark return by at least 1% during the first annual measurement period, he would be happy to accept his one-time fee. Keenan later mentioned this arrangement to his direct supervisor during their weekly meeting.

Once Keenan had finished the manager selection process, he was asked to offer a training seminar to the Trust Department's sales force. In that training, Keenan reviewed the agreed upon forms of compensation that the hedge funds would receive: a) a 2% fee on assets under management, and b) 20% of the returns over a high water mark. While the sales force was

instructed to inform prospective FOF clients that "past performance is no guarantee of future results," Keenan recommended that the sales force emphasize positive rather than negative aspects of the fee earned on returns over the high water mark. Keenan said, "Your clients should not worry about the managers failing to outperform each year, because the profits on returns over the high water mark are how they make their real money." Keenan also instructed the sales force to emphasize the combined number of CFA charterholders on the management teams of the hedge funds in the FOF and provide a factual description of the requirements to become CFA charterholders.

As a matter of good business, GSB's compliance procedures require a quarterly review of all managers for performance assessment, style drift, and strategy changes. One year after the funds' formation, such a review showed that Carmichael's fund had by far the worst one-year return. After the review, Keenan removed the second worst performing hedge fund from the employees' leveraged co-invest FOF, but decided to give Carmichael's firm one more quarter to improve performance. As a replacement for the fund Keenan removed from its FOF, he selected a new hedge fund which invested in companies that fund managers believed were likely takeover candidates.

Question #7 of 60

During his initial selection of the managers for the two FOFs, which of the following Standards did Keenan *least likely* violate?

- A) Independence and Objectivity.
- B) Performance Presentation.
- C) Fair Dealing.

Question #8 of 60

By accepting the use of John Carmichael's mountain house, Keenan:

- A) violated the Diligence and Reasonable Basis Standard.
- B) violated the Independence and Objectivity Standard.
- C) did not violate a Standard.

Question #9 of 60

Assuming that Grant's fund beats the benchmark return by 1.5% the first year and Keenan receives the \$200 fee, the *Additional Compensation Arrangement* Standard was:

- A) not violated because the amount of the one-time fee was not material.
- B) not violated because Keenan disclosed the fee arrangement to his supervisor.
- C) violated as Keenan failed to get the written consent from Grant and his supervisor.

Question #10 of 60

In his presentation to the bank Trust Department sales force, Keenan:

- A) violated the Misrepresentation Standard by describing the hedge funds' fee structure as a mechanism for delivering better returns.
- B) violated the Misrepresentation Standard by mentioning the number of CFA charterholders on the FOF management teams.
- C) was in compliance with the Standards.

Question #11 of 60

As a result of the first year review and resulting change in fund managers, did Keenan violate the following Standard(s)?

	<u>Misconduct</u>	<u>Loyalty to Employer</u>
A)	Yes	Yes
B)	Yes	No
C)	No	Yes

Question #12 of 60

By including the new fund with the takeover strategy in the FOF, Keenan:

- A) violated the Market Manipulation Standard.
- B) violated the Suitability Standard.
- C) did not violate any Standards.

Questions 13-18 relate to Portfolio Management for Institutional Investors and GIPS.

Jack Rose and Ryan Boatman are analysts with Quincy Consultants. Quincy provides advice on risk management and performance presentation to pension plans, insurance firms, and other institutional portfolio managers throughout the United States and Canada.

Rose and Boatman recently attended a meeting with one of their larger pension plan clients. In the meeting, the client asked them to review several proposals that might change the risk to the client of offering retirement plans. In reviewing the client's proposals, Rose and Boatman make the following statements.

- Rose: Both defined benefit and defined contribution plans carry similar risk to the sponsoring company and obligate the company to make contributions to benefit the participating employees of the company.
- Boatman: Cash balance and ESOP plans are also similar in that they are an exception to the general aversion to investing plan assets in the stock of the sponsor.

At the same meeting, Boatman discusses the client's traditional asset only approach to the pension plan and recommends the client adopt an asset/liability management (ALM) approach to the plan. Boatman explains the following.

1. While the plan may have maximized the portfolio's Sharpe ratio, this can still leave the surplus excessively vulnerable to a change in interest rates.
2. ALM is superior because it allows Monte Carlo simulation (MCS) to analyze how the portfolio will perform over various time periods while asset only management cannot use MCS.
3. An asset only approach often overinvests in equities while ALM frequently underinvests in real rate bonds.

Rose also has two insurance company clients. One company offers life insurance and the other offers property and casualty insurance. Rose instructs his new assistant to research some of the differences between these two types of insurance companies. The assistant begins by reviewing some terminology he has not worked with before.

- The crediting rate (the actuarially assumed rate of return necessary to meet policyholder obligations) portion of portfolio return is generally not taxed for either life or property and casualty companies.
- The underwriting cycle for property and casualty companies refers to the swing in profitability as interest rates fluctuate, coupled with a mismatch in asset and liability durations.

- Compared to property and casualty companies, life insurance companies have greater exposure to inflation risk and the policy payouts they will make in a given year are more predictable.

Quincy Consultants has been retained by Monroe Portfolio Managers for advice regarding performance presentation and GIPS compliance. Monroe is a large firm offering a variety of investment styles with a complex organizational structure. To meet legal requirements of some key clients, each of the four primary investment teams at Monroe is a legal entity. The teams are:

- **Equity:** The unit has its own investment staff and is responsible for all equity portfolios and composites. Many accounts are balanced and portfolio management decisions are made jointly by a fixed income and equity team manager. For client presentations, either manager may be designated as the client portfolio manager, but actual decisions are made jointly.
- **Fixed Income:** The unit has its own investment staff and is responsible for all fixed income portfolios and composites. All equity and fixed income investment decisions are the responsibility of Monroe's investment policy committee (IPC). The IPC is made up of members from both teams.
- **Real Estate and Private Equity** each have their own investment staff but report to a single chief investment officer (CIO), who is responsible for the investment decisions. Their CIO is completely independent of the IPC.

All four units share the same non-investment support staff and back office.

Rose and Boatman next discuss the performance presentation standards for real estate and private equity portfolios. Discussing the differences between the general provisions of the GIPS standards and those for real estate and private equity portfolios, Rose states the following:

- Statement 1: The GIPS general provisions require valuation in accordance with the definition of fair value and the GIPS valuation principles. Real estate portfolios can be valued quarterly, but all real estate investments must be valued at least annually by an independent third party qualified to perform such valuations.
- Statement 2: In addition to a minimum of annual valuations, private equity provisions require the annualized since-inception internal rate of return (SI-IRR) using daily cash flows. Stock distributions must be considered cash flows.
- Statement 3: In presentations for real estate composites, firms are required to disclose their definition of discretion as well as their internal valuation methodologies for the most recent period presented. In addition, for real estate closed-end composites, firms must present the since-inception paid-in capital and since-inception distributions for each year.

Statement 4: The GIPS real estate requirements state that the income return and capital return must be calculated separately.

Question #13 of 60

Which of the two statements by Rose and Boatman are *correct*?

- A) Only Rose's statement.
- B) Only Boatman's statement.
- C) Neither statement is correct.

Question #14 of 60

Which of Boatman's comments comparing asset only with ALM is *most likely* correct?

- A) Statement 1.
- B) Statement 2.
- C) Statement 3.

Question #15 of 60

Which of the assistant's three comments regarding terminology is *most correct*? The comment regarding:

- A) crediting rate.
- B) underwriting cycle.
- C) inflation risk and policy payouts.

Question #16 of 60

Which of the following combinations of Monroe's teams would be *most appropriate* as a firm for GIPS reporting?

- A) Equity as a separate firm.
- B) Equity and Fixed Income combined as one firm.
- C) Equity, Fixed Income, Real Estate, and Private Equity combined as one firm.

Question #17 of 60

Determine whether Rose's statements 1 and 2 on the GIPS standards are correct or incorrect.

- A) Only statement 1 is correct.
- B) Only statement 2 is correct.
- C) Both statements are correct.

Question #18 of 60

Determine whether Rose's statements 3 and 4 on the GIPS standards are correct or incorrect.

- A) Only statement 3 is correct.
- B) Only statement 4 is correct.
- C) Both statements are correct.

Questions 19-24 relate to Management of Active and Passive Fixed Income Portfolios, Portfolio Management of Global Bonds and Fixed Income Derivatives, and Risk Management Applications of Derivatives.

Daniel Castillo and Ramon Diaz are chief investment officers at Advanced Advisors (AA), a boutique fixed-income firm based in the United States. AA employs numerous quantitative models to invest in both domestic and international securities.

During the week, Castillo and Diaz consult with one of their investors, Sally Michaels. Michaels currently holds a \$10,000,000 fixed-income position that is selling at par. The maturity is 20 years, and the coupon rate of 7% is paid semiannually. Her coupons can be reinvested at 8%. Castillo is looking at various interest rate change scenarios, and one such scenario is where the interest rate on the bonds immediately changes to 8%.

Diaz is considering using a repurchase agreement to leverage Michaels's portfolio. Michaels is concerned, however, with not understanding the factors that impact the interest rate, or repo rate, used in her strategy. In response, Castillo explains the factors that affect the repo rate and makes the following statements:

1. "The repo rate is directly related to the maturity of the repo, inversely related to the quality of the collateral, and directly related to the maturity of the collateral. U.S. Treasury bills are often purchased by Treasury dealers using repo transactions, and since they have high liquidity, short maturities, and no default risk, the repo rate is usually quite low."

2. "The greater control the lender has over the collateral, the lower the repo rate. If the availability of the collateral is limited, the repo rate will be higher."

Castillo consults with an institutional investor, the Washington Investment Fund, on the effect of leverage on bond portfolio returns as well as their bond portfolio's sensitivity to changes in interest rates. The portfolio under discussion is well-diversified, with small positions in a large number of bonds with an average duration of 7.2. Of the \$200 million value of the portfolio, \$60 million was borrowed. The duration of borrowed funds is 0.8. The expected return on the portfolio is 8% and the cost of borrowed funds is 3%.

The next day, the chief investment officer for the Washington Investment Fund expresses her concern about the risk of their portfolio, given its leverage. She inquires about the various risk measures for bond portfolios. In response, Diaz distinguishes between the standard deviation and downside risk measures, making the following statements:

1. "Portfolio managers complain that using variance to calculate Sharpe ratios is inappropriate. Since it considers all returns over the entire distribution, variance and the resulting standard deviation are artificially inflated, so the resulting Sharpe ratio is artificially deflated. Since it is easily calculated for bond portfolios, managers feel a more realistic measure of risk is the semi-variance, which measures the distribution of returns below a given return, such as the mean or a hurdle rate."
2. "A shortcoming of VAR is its inability to predict the size of potential losses in the lower tail of the expected return distribution. Although it can assign a probability to some maximum loss, it does not predict the actual loss if the maximum loss is exceeded. If Washington Investment Fund is worried about catastrophic loss, shortfall risk is a more appropriate measure, because it provides the probability of not meeting a target return."

AA has a corporate client, Shaifer Materials with a €20,000,000 bond outstanding that pays an annual fixed coupon rate of 9.5% with a 5-year maturity. Castillo believes that euro interest rates may decrease further within the next year below the coupon rate on the fixed rate bond. Castillo would like Shaifer to issue new debt at a lower euro interest rate in the future. Castillo has, however, looked into the costs of calling the bonds and has found that the call premium is quite high and that the investment banking costs of issuing new floating rate debt would be quite steep. As such, he is considering using a swaption to create a synthetic refinancing of the bond at a lower cost than an actual refinancing of the bond. He states that in order to do so, Shaifer should buy a payer swaption, which would give Shaifer the option to pay a lower floating interest rate if rates drop.

Diaz retrieves current market data for payer and receiver swaptions with a maturity of one year. The terms of each instrument are provided below:

Payer swaption fixed rate	7.90%
Receiver swaption fixed rate	7.60%
Current Euribor	7.20%
Projected Euribor in one year	5.90%

Diaz states that, assuming Castillo is correct about falling interest rates, Shaifer can exercise a swaption in one year to effectively call in their old fixed rate euro debt paying 9.5% and refinance at a floating rate, which would be 7.5% in one year.

Question #19 of 60

Calculated in bond equivalent yield terms, Michaels's return over the next year, if interest rates change as expected, is *closest* to:

- A) 2.56%.
- B) -2.56%.
- C) 3.50%.

Question #20 of 60

Determine whether each of Castillo's statements about repos is correct or incorrect.

- A) Statement 1 is correct.
- B) Statement 2 is correct.
- C) Neither statement is correct.

Question #21 of 60

If the Washington Investment Fund portfolio earns the expected 8% over the next year, its net return will be *closest* to:

- A) 7.14%.
- B) 10.14%.
- C) 11.00%.

Question #22 of 60

The leveraged duration on the Washington Investment Fund portfolio is *closest* to:

- A) 6.4.
- B) 8.0.
- C) 9.9.

Question #23 of 60

Regarding the statements made by Diaz about downside risk measures, are the statements correct?

- A) Only statement 1 is correct.
- B) Only statement 2 is correct.
- C) Neither statement is correct.

Question #24 of 60

Regarding their statements concerning the synthetic refinancing of the Shaifer Materials fixed rate euro debt, are the statements correct?

- A) Only Castillo is correct.
- B) Only Diaz is correct.
- C) Both Castillo and Diaz are incorrect.

Questions 25-30 relate to Management of Active and Passive Fixed Income Portfolios and Portfolio Management of Global Bonds and Fixed Income Derivatives.

Ellen Truxel is a principal at Truxel Investment Management. Her firm uses bonds for income enhancement as well as capital gains. She occasionally uses sector-quality bets and yield curve positioning to exploit her beliefs on the relative changes in sector credit quality and the direction of interest rates. She has recently hired John Timberlake to assist her in preparing data for the analysis of bond portfolios. Timberlake is a recent graduate of an outstanding undergraduate program in finance.

Truxel is considering investing in international bonds, as this is an arena she has previously ignored. During conversations:

- Truxel says it is her understanding that changes in international bond markets have made it easier to manage the duration of an international bond portfolio.

- Timberlake notes that the European Monetary Union has increased the availability of corporate bonds, making it easier to rotate across sectors.

In the domestic arena, Truxel is considering constructing a portfolio that matches the index on quality, call, sector, and cash flow dimensions and tilts the portfolio duration by moderate amounts to take advantage of predictions of yield curve shifts.

- Truxel states that this would be referred to as enhanced indexing with minor mismatches.
- Timberlake states that her relative performance may also depend on her ability to perform credit analysis.

Truxel then tells Timberlake that before they venture into new areas, she wants him to prepare an analysis of their current positions. Timberlake obliges and presents the following data on Truxel's current portfolio.

<i>Bond Rating</i>	<i>Percent Weight in Truxel Portfolio</i>	<i>Sector Effective Duration</i>	<i>Percent Weight in Index Portfolio</i>
AAA	12%	5.3	35%
AA	30%	5.4	30%
A	30%	5.5	25%
BBB	28%	5.0	10%

Question #25 of 60

Regarding the conversation on the attributes of international bond investing, are Truxel and Timberlake correct or incorrect?

- A) Both are correct.
- B) Neither is correct.
- C) Only Timberlake is correct.

Question #26 of 60

Regarding the conversation on domestic bond portfolio management, are Truxel and Timberlake correct or incorrect?

- A) Both are correct.
- B) Neither is correct.

C) Only Timberlake is correct.

Question #27 of 60

Given a parallel shift in the yield curve of 60 basis points for Treasury yields, the percentage change in the value of the Truxel portfolio is *closest* to:

- A) 3.2.
- B) 3.4.
- C) 5.3.

Question #28 of 60

If the OAS for all bond sectors changes by 60 basis points while Treasury yields remain unchanged, the approximate percent change in the Truxel portfolio is *closest* to:

- A) 3.2.
- B) 3.4.
- C) 5.3.

Question #29 of 60

If the OAS for all bond sectors changes by 100 basis points while Treasury yields remain unchanged, which sector or sectors would contribute the most to tracking error for Truxel's portfolio?

- A) BBB.
- B) AAA.
- C) AA and A, which contribute about the same.

Question #30 of 60

In evaluating relative valuation methodologies, which of the following rationales for trading in the secondary bond market is *least* appropriate?

- A) Cash flow reinvestment.
- B) New issue swaps.

C) Seasonality.

Questions 31-36 relate to Portfolio Management of Global Bonds and Fixed Income Derivatives.

Mark Rolle, CFA, is the manager of the international bond fund for the Ryder Investment Advisory. He is responsible for bond selection as well as currency hedging decisions. His assistant is Joanne Chen, a candidate for the Level I CFA Exam.

Rolle is interested in the relationship between interest rates and exchange rates for Canada and Great Britain. He observes that the spot exchange rate between the Canadian dollar (C\$) and the British pound is C\$1.75/£. Also, the 1-year interest rate in Canada is 4.0% and the 1-year interest rate in Great Britain is 11.0%. The current 1-year forward rate is C\$1.60/£.

Rolle is evaluating the bonds from the Knauff company and the Tatehiki company, for which information is provided in the table below. The Knauff company bond is denominated in euros and the Tatehiki company bond is denominated in yen. The bonds have similar risk and maturities, and Ryder's investors reside in the United States.

Return on Knauff bond in euros	8.00%
Risk-free rate in the European Union	5.00%
Expected change in the euro relative to the U.S. dollar	-1.20%
Return on Tatehiki bond in yen	6.00%
Risk-free rate in Japan	2.00%
Expected change in the yen relative to the U.S. dollar	2.00%
Risk-free rate in United States	4.80%

Provided this information, Rolle must decide which country's bonds are most attractive if a forward hedge of currency exposure is used. Furthermore, assuming that both countries' bonds are bought, Rolle must also decide whether or not to hedge the currency exposure.

Rolle also has a position in a bond issued in Korea and denominated in Korean won. Unfortunately, he is having difficulty obtaining a forward contract for the won on favorable terms. As an alternative hedge, he has entered a forward contract that commits him to sell yen in one year, when he anticipates liquidating his Korean bond. His reason for choosing the yen is that it is positively correlated with the won.

One of Ryder's services is to provide consulting advice to firms that are interested in interest rate hedging strategies. One such firm is Crawfordville Bank. One of the certificates of deposit (CDs) Crawfordville has outstanding is a jumbo CD requiring the payment of LIBOR plus 150 basis points. The chief financial officer at Crawfordville is worried that interest rates may increase and

would like to hedge this exposure. Rolle is contemplating either an interest rate cap or an interest rate floor as a hedge.

Additionally, Rolle is analyzing the best hedge for Ryder's portfolio of fixed-rate coupon bonds. Rolle is contemplating using either a call or a put on T-bond futures.

Question #31 of 60

Given the current forward rate of C\$1.60/£, the exact forward premium or discount for the £ against the C\$ is *closest* to:

- A) -9.37%.
- B) -8.57%.
- C) 8.57%.

Question #32 of 60

Assume that Rolle is managing a U.S. based portfolio and that Rolle predicts the CAD and GBP will appreciate 2% and depreciate 2%, respectively, versus the USD. In order to maximize return, Rolle would *most likely* recommend hedging the currency exposure on:

- A) CAD bond investments.
- B) GBP equity investments.
- C) Neither currency.

Question #33 of 60

Assuming Rolle uses forward contracts to effectively hedge the currency risk of either bond investment, determine which bond is the better investment.

- A) The Knauff bond because its return is 8.0%.
- B) The Tatehiki bond because its excess return is 4.0%.
- C) The Knauff bond because its excess currency return is 3.2%.

Question #34 of 60

Calculate the expected return for both bonds if Rolle uses forward contracts to hedge the currency risk of the Knauff company bond and leaves the Tatehiki company bond unhedged.

	<u>Knauff bond</u>	<u>Tatehiki bond</u>
A)	6.8%	8.1%
B)	6.8%	8.8%
C)	7.8%	8.1%

Question #35 of 60

The hedge that Rolle uses to hedge the currency exposure of the Korean bond is *best* referred to as a:

- A) proxy hedge.
- B) forward hedge.
- C) minimum variance hedge ratio.

Question #36 of 60

The *best* hedges of the Crawfordville position and the Ryder portfolio are:

	<u>Crawfordville</u>	<u>Ryder</u>
A)	Cap	Call
B)	Cap	Put
C)	Floor	Call

Questions 37-42 relate to Alternative Investments for Portfolio Management.

Cynthia Farmington, CFA, manages the Lewis family's \$600 million securities portfolio. Farmington and the Lewis family have agreed that they should hire a manager of alternative investments to manage a portion of the portfolio containing those assets. As part of the hiring process, they attempted to perform the necessary due diligence. They assessed each manager's organization, the relative efficiency of the markets each manager has invested in, the character of each manager, and the service providers, such as lawyers, that each manager has used. In

particular, they hoped to find a manager who has run an operation with low employee turnover, has invested in efficient and transparent markets, has sound character, and has utilized reputable providers of external services.

Eventually, Farmington hires the firm owned and managed by Bruce Carnegie, CFA, to diversify the Lewis portfolio into alternative investments. Carnegie will manage the portion of the portfolio containing these assets, and Farmington will continue to manage the remainder of the portfolio in a mix of approximately 50/50 high-grade stocks and bonds. Over the past ten years, the stock portion of the portfolio has closely tracked the S&P 500 and the bond portfolio has closely tracked a broad bond index.

Carnegie and Farmington meet to discuss how Carnegie should proceed. Farmington mentions that she and the Lewis family have agreed that the main goal of alternative investments that Carnegie will manage in the \$600 million securities portfolio should be to enhance the return of the overall portfolio. Diversification is only a secondary goal. In particular, Farmington says the Lewis family has expressed an interest in having the portfolio take positions in private equity. Farmington says that she envisions that Carnegie should take five positions of about \$5 million each in distinct private equity investments, and each position should have a short time horizon of about two years.

Farmington states that she has grown very dependent on benchmarks for her investing activities, and she has concerns with respect to how she and Carnegie will monitor the success of the portfolio allocation in private equity. She has read that there can be a problem with the valuation of private equity indices in that they depend on price-revealing events like IPOs, mergers, and new financing. Thus, the repricing of the index occurs infrequently. Carnegie concludes that the solution is to follow the commonly accepted practice of creating their own private equity benchmark.

Farmington asks Carnegie to explain the choices that exist in the private equity market. Carnegie explains that there are two basic categories: venture capital funds and buyout funds. Farmington asks that Carnegie explain the pros and cons of one over the other. Carnegie states that although buyout funds would probably have lower return potential, they tend to have fewer losses, earlier cash flows, and less error in the measurement of the returns.

Carnegie comments that before he proceeds he will need to communicate with the clients. Farmington says this communication is not necessary because the Lewis family has largely followed her advice with very few questions. Even when the market has fallen and the portfolio has not done well, the Lewis family has not asked for any changes.

With respect to the criteria that Farmington used to choose a manager of alternative assets, which of the following is not a due diligence checkpoint? Finding a manager who:

- A) has low staff turnover.
- B) invests only in efficient and transparent markets.
- C) has stable providers of external services.

Question #38 of 60

Given that Farmington states that increased return is more important than diversification, the choice to focus on private equity is:

- A) not appropriate because private equity offers good diversification, but the returns are comparatively low.
- B) appropriate because private equity offers a high return but relatively low diversification.
- C) appropriate because private equity offers both a high return and good diversification.

Question #39 of 60

Regarding Farmington's recommended private equity allocations and time horizon, which of her guidelines is *least* appropriate?

- A) The horizon is too short.
- B) Too few positions for proper diversification.
- C) Too much invested given the size of the overall portfolio.

Question #40 of 60

With respect to the issue of benchmarks, Farmington made an observation concerning the potential problem with benchmarks, and Carnegie offered a solution. With respect to their discussion, are Farmington and Carnegie correct or incorrect?

- A) Only Farmington is correct.
- B) Only Carnegie is correct.
- C) Both are correct.

Question #41 of 60

Regarding Carnegie's statement comparing buyout funds to venture capital funds, the statement is true:

- A) even though venture capital funds tend to have lower average returns than buyout funds.
- B) with regard to mega-cap buyout funds only, because middle-market buyout funds' returns tend to be delayed.
- C) with regard to middle-market buyout funds only, because mega-cap buyout funds' returns tend to be more uncertain.

Question #42 of 60

With respect to the special issues that an alternative investment manager should address with a private wealth client, from the conversation between Farmington and Carnegie, Carnegie will need to discuss all of the following with the possible exception of:

- A) tax issues.
- B) other closely held investments.
- C) decision risk.

Questions 43-48 relate to Private Wealth Management.

Bill Ogilvey, CFA, manages money for clients residing in various countries. Some of them reside in countries that do not currently have tax-advantaged accounts. Ogilvey keeps current on the tax laws to be able to quickly advise his clients if and when new tax-advantaged accounts become available.

Ogilvey often counsels his clients with regard to how they should manage their investment accounts for tax purposes. One of his newest clients, Tilly Beamer, lives in a country with a tax regime that has a flat rate for ordinary income, dividends, and capital gains, but provides favorable treatment for interest income. Her portfolio is in a taxable account and is equally allocated among interest-paying assets, dividend-paying assets, and non-dividend-paying growth stocks.

Beamer is interested in Ogilvey's advice about her retirement planning and which tax-advantaged account(s) would be most beneficial to her. Beamer is young and her income is modest, but she has a high degree of job security and expects her income to increase dramatically over the upcoming ten years. Her objective is to fund a retirement income

approximately equal to her wage income at retirement. She is specifically concerned with managing her risk exposure and wonders how a planned reduction in her portfolio risk will affect her expected returns, investment time horizon, and tax drag.

Ogilvey has another client, Steven Vance, who lives in a country with a heavy capital gains tax regime. The current tax law in Vance's country does not provide for tax-advantaged accounts, but that is expected to change, as tax-exempt accounts may soon become available.

To fund a new tax-exempt account, Vance will need to sell some stock, and he is concerned with the ramifications of reorganizing gains. In specific, Vance has a position in TTT stock, which he accumulated over several years at successively higher prices. If this position is liquidated, taxes will be payable on his investment gains. He asks Ogilvey his advice concerning the best way to handle the sale of the shares and how to measure the tax consequences of realizing the gains.

Question #43 of 60

The tax regime in Beamer's country can be *best* classified as:

- A) Flat and Heavy.
- B) Flat and Light.
- C) Heavy Capital Gain Tax.

Question #44 of 60

Assume that Beamer's interest paying assets are held in a taxable account. The account is currently worth €1,000,000, the pretax interest income is 7%, and the tax rate, assessed annually, is 25%. If there are no deposits or withdrawals from this account and compounding is annual, in 15 years the value of the account will be approximately:

- A) €2,069,274.
- B) €2,154,426.
- C) €2,759,032.

Question #45 of 60

Beamer's plan to reduce her investment risk will *most likely*:

- A) decrease her investment horizon because the resulting tax drag will be less than the applicable tax rate.

- B) increase her investment horizon but result in tax drag that is less than the applicable tax rate.
- C) increase both her investment horizon and result in tax drag that exceeds the applicable tax rate.

Question #46 of 60

Assume that Vance sells some of his TTT stock. The pretax return on the TTT stock averaged 12% per year over 10 years, the capital gains tax rate is 35%, and the cost basis is \$250,000. What is the after-tax gain on the investment?

- A) \$254,700.
- B) \$342,200.
- C) \$592,200.

Question #47 of 60

Which of the following is *closest* to the percentage tax drag Vance will experience with sale of the TTT stock?

- A) 25%.
- B) 35%.
- C) 40%.

Question #48 of 60

Suppose that Vance's after-tax proceeds on his TTT stock sale were \$150,000, his cost basis was \$60,000, the pre-tax return was 13%, and the holding period was 9 years. The accrual equivalent after-tax return is *closest* to:

- A) 10.7%.
- B) 17.7%.
- C) 27.8%.

Questions 49-54 relate to Risk Management Applications of Derivatives.

Elkridge Inc., based in St. Paul, Minnesota, is one of the largest manufacturers and distributors of baby care products in the U.S. The company recently filled two new senior level investment

strategist positions by hiring Andrea Willow and Craig Townsend directly out of graduate school. While both Willow and Townsend have similar strengths, they have very different outlooks on the markets, including the short-term outlook. Willow firmly believes that the stock market is poised to increase, but is pessimistic about the bond market. In contrast, Townsend is optimistic about the bond market, but feels that stocks are overbought and about to correct.

As part of their first major assignment, Willow and Townsend have been asked to analyze and evaluate two of Elkridge's major investment portfolios. Exhibit 1 provides statistics on Portfolio 1, an actively managed portfolio, along with data on six-month S&P futures and bond futures contracts which the company is considering as a means to manage portfolio risk.

Exhibit 1. Portfolio 1 and Futures Contracts

<i>Portfolio 1</i>	
Size	\$168 million
Allocation	70% stocks, 30% bonds
Beta (stock portion)	0.85
Target Modified Duration (bond portion)	4.3
Effective Duration (Cash equivalents and any hedged positions)	0.25
<i>6-month S&P Futures</i>	
Current Price	1526.00
Beta	0.92
Multiplier	250
<i>6-month Bond Futures</i>	
Current Price	96,500
Implied Modified Duration	5.2
Yield Beta	0.94

Exhibit 2 provides statistics on Portfolio 2 and the terms of a potential swap (Swap A) that Elkridge is interested in using to lower the portfolio's modified duration.

Exhibit 2. Portfolio 2 and Swap Contract

<i>Portfolio 2</i>	
Size	\$96 million
Allocation	100 percent bonds
Modified Duration	6.3
Target Modified Duration	4.5
<i>Swap A</i>	
Tenor	1 year
Payment Frequency	Quarterly

Long Float Duration	0.125
Short Fixed Duration	0.875

In reviewing Portfolio 1, Willow recommends using 187 S&P futures contracts to adjust portfolio beta to 1.41 to take advantage of projected stock market increases. Also reviewing Portfolio 1, Townsend would like to see the company reallocate its holdings to 55% stocks and 45% bonds by using bond futures contracts to capitalize on his projections for bond market increases.

Six months later, the bond futures contract price has fallen 6%. Over that same time, the stock market has risen 2.2%, the stocks in Portfolio 1 have generated a total return of \$2,199,120, and the S&P futures contracts are priced at 1547.00. However Willow is surprised to find the effective beta (realized hedged beta) did not meet her target of 1.41. She and Townsend discuss possible reasons this could have happened:

Reason 1. The beta of her stocks showed mean reversion.

Reason 2. The futures contract was initially mispriced.

Willow and Townsend then formulate two hypothetical situations with identical facts except:

Situation 1. Purchase 6-month contracts to increase equity exposure by \$10,000,000 (not a synthetic position).

Situation 2. The \$10,000,000 will not be received for 6 months and the contracts are being purchased to create a \$10,000,000 synthetic position.

Among its liabilities, Elkrige has a \$50 million floating-rate bond issuance outstanding with coupons paying LIBOR + 1% (resetting semiannually). The firm would like to pay a fixed rate instead and is looking at engaging in a \$50 million notional, 4-year, semi-annual swap (Swap B) where it would receive LIBOR.

Question #49 of 60

Assume the company had followed Willow's recommendation for Portfolio 1. Calculate effective beta and determine which of the two reasons for effective beta diverging from the target is *most likely*?

	<u>Effective Beta</u>	<u>Reason</u>
A)	0.87	1
B)	1.23	1
C)	1.23	2

Question #50 of 60

Assume that Elkridge has followed Townsend's advice. Using the data and assumptions in Exhibit 1, after six months, the loss on the bond futures position is *closest* to:

- A) \$1,105,890.
- B) \$1,175,370.
- C) \$1,250,640.

Question #51 of 60

Suppose Elkridge considers futures contract transactions to implement the strategies espoused by Willow and Townsend. A potential goal (means) of these transactions and the individual strategist's viewpoint supported by that goal would be to:

- A) decrease target beta by selling stock futures, as supported by Willow.
- B) increase stock exposure by buying stock futures, as supported by Townsend.
- C) increase modified duration by buying bond futures, as supported by Townsend.

Question #52 of 60

The number of contracts purchased for Situation 2 compared to Situation 1 would *most likely* be:

- A) greater.
- B) equal.
- C) less.

Question #53 of 60

In regard to its floating-rate bond issuance, in what direction must Elkridge feel interest rates are moving and what fixed rate will it pay on Swap B to have a net cost of funds of 7.25%?

	<u>Rate Direction</u>	<u>Fixed Rate</u>
A)	Fall	8.25 percent
B)	Rise	6.25 percent
C)	Rise	8.25 percent

Question #54 of 60

Extending the tenor of Swap A to three years, assuming a short fixed duration of 2.625, would result in a notional principal of:

- A) \$69,120,000.
- B) \$76,800,000.
- C) \$230,400,000.

Questions 55-60 relate to Execution of Portfolio Decisions: Monitoring and Rebalancing.

Wealth Management's top economist, Frederick Milton, is an economic cycle forecaster. Milton's economic forecasts indicate an economic upswing that will impact all goods and services sectors. Milton presents his economic findings to the rest of Wealth Management's professionals at their monthly meeting. All are excited about Milton's forecast of an improving economic condition that should translate into a steadily rising stock market.

Nathaniel Norton and Timothy Tucker have confidence in Milton's capabilities and decide to meet with their clients. Their first meeting is with Elizabeth Mascarella to whom Norton recommends a dynamic asset allocation strategy to take advantage of Milton's forecast. However, Mascarella is concerned because the somewhat persistent back-and-forth of economic activity has translated into an oscillating stock market. Mascarella questions Norton's recommendation and asks Tucker which strategy should be followed if the market continues as it has, instead of making such "wonderful" strides.

It is one year later and Frederick Milton's economic forecast has been correct, and the market has trended upward as expected. Mascarella's strategic allocation to equity, which was \$600,000 of a total portfolio of \$1,000,000, has increased 20%. Her overall portfolio, which contains equity, debt, and some cash, is now valued at \$1,150,000. Tucker meets with Mascarella and indicates it may be time to rebalance her portfolio.

Question #55 of 60

Assuming a steadily rising market, the *best* strategy for Mascarella is:

- A) buy and hold.
- B) constant mix.

C) constant proportion portfolio insurance.

Question #56 of 60

Determine the preferred dynamic rebalancing strategy if the market is expected to be highly volatile, but more or less flat.

- A) Buy and hold.
- B) Constant mix.
- C) Constant proportion portfolio insurance.

Question #57 of 60

Which of the following statements about CPPI strategies is probably *least* correct?

- A) CPPI strategies represent the purchase of portfolio insurance because they buy stocks as they rise and sell them as they fall.
- B) CPPI strategies offer good upside potential because they increase exposure to risky assets as the market rises.
- C) Due to the concave nature of CPPI strategies, they offer good downside protection.

Question #58 of 60

Mascarella has instructed Tucker to rebalance annually to maintain a corridor of $\pm 5\%$ for equity. Given the constraint, Tucker should:

- A) reallocate approximately \$70,000 of the increase in equity to debt and cash.
- B) reallocate the entire \$120,000 increase in equity to debt and cash.
- C) make no adjustments.

Question #59 of 60

Tucker has tried to make Mascarella understand the benefits of percentage-of-portfolio rebalancing relative to calendar rebalancing. Which of the following statements made by Tucker is probably *least* correct?

- A) Calendar rebalancing provides discipline while requiring less monitoring.

- B) Percentage-of-portfolio rebalancing minimizes the amount by which the allocations stray from their strategic levels.
- C) Combining calendar and percentage of portfolio rebalancing would be the most costly.

Question #60 of 60

Which of the following would generally suggest a narrower tolerance band?

- A) Assets in the portfolio tend to be illiquid.
- B) Highly volatile assets.
- C) Correlated portfolio assets.