

### Question #1 of 60

**B)** Yes, because he violated his client's confidentiality.

#### Explanation

In the meeting with Pavlica's children, King disclosed Pavlica's medical condition. Since King learned this information as a result of his professional relationship with the client, he has a duty to keep it confidential, even from her children. By breaking the confidentiality, King has violated Standard III(E) Preservation of Confidentiality. In this case, the trust assets are to be used solely for Pavlica. Even if the children or others had any claim, it would still be a violation to share information about one beneficiary with another.

#### **For Further Reference:**

*Study Session 1, LOS 1.b*

*SchweserNotes: Book 1 p.2*

*CFA Program Curriculum: Vol.1 p.15*

### Question #2 of 60

**B)** Yes, he violated Standard III(A) Loyalty, Prudence, and Care.

#### Explanation

In a trust relationship, the responsibility of the trustee is to act in accord with the terms of the trust. In this trust, King has full discretion, so he has no need to have approval from Pavlica. However, he does have the responsibility to act in her best interests, and changing the investment policy to take more risk when her needs for immediate funding have increased is not reasonable. It would normally reduce her ability to take risk. With no reasonable basis for the change, King is in violation of Standard III(A) Loyalty, Prudence, and Care to act solely in the best interest of his client and maintain loyalty to Pavlica, not her children.

#### **For Further Reference:**

*Study Session 1, LOS 1.b*

*SchweserNotes: Book 1 p.2*

*CFA Program Curriculum: Vol.1 p.15*

### Question #3 of 60

**B)** Yes, because he misrepresented the expected performance of the strategy.

#### Explanation

King has essentially guaranteed a certain level of portfolio performance by stating that Pavlica's spending requirements will definitely be met by the new strategy. This is a violation of Standard

I(C) Misrepresentation, which prohibits misrepresentations in dealing with clients. The investment strategy has some inherent level of uncertainty and by implicitly guaranteeing performance, King has misrepresented the strategy.

**For Further Reference:**

*Study Session 1, LOS 1.b*

*SchweserNotes: Book 1 p.2*

*CFA Program Curriculum: Vol.1 p.15*

### Question #4 of 60

C) No      Yes

**Explanation**

King has violated Standard VI(B) Priority of Transactions by trading his shares in VNC ahead of his client's shares in VNC. It doesn't matter that in this situation the client came out with a better price. King may not trade ahead of his clients. The purchase of the private placement in ShaleCo is best interpreted as in compliance and not a violation. There is no specific indication that an allocation to a private placement is unsuitable for a client with \$7 million. Likewise, there is no indication King knew or expected he would be later appointed to the board. If there were indications the investment was unsuitable, that would be a violation. If he had known he would or might be appointed to the board, he would have had to make a disclosure to avoid a violation. In addition, now that he is a board member, King must disclose this and also be careful not to violate Standard II(A) Material Nonpublic Information.

**For Further Reference:**

*Study Session 1, LOS 1.b*

*SchweserNotes: Book 1 p.2*

*CFA Program Curriculum: Vol.1 p.15*

### Question #5 of 60

C) King may accept the directorship as long as it is disclosed to his employer, clients, and prospects.

**Explanation**

King may accept the directorship even though it may create a potential conflict of interest, as long as the conflict is prominently disclosed in understandable language to all clients and prospects as well as to his employer. According to Standard VI(A) Disclosure of Conflicts, such disclosure is necessary so that all related parties can assess the impact the potential conflict will have on King's professional activities. If the directorship will provide additional compensation to King, that must also be disclosed and approved by his employer.

**For Further Reference:**

Study Session 1, LOS 1.b

SchweserNotes: Book 1 p.2

CFA Program Curriculum: Vol.1 p.15

**Question #6 of 60**

A) No            Yes

**Explanation**

Standard VI(A) Disclosure of Conflicts. Performance compensation, such as the one in effect at Rowan Brothers, encourages portfolio managers to act in their own interests instead of their clients' best interest (a potential conflict of interest) and encourages them to take additional risks to attain the 10% goal. Therefore, this compensation scheme must be totally disclosed to all clients and prospects. By not disclosing the fees to current clients (he only discloses the new fee structure to prospective clients), King has violated the Standard. It is not a violation to have such a compensation program, however, as long as it is disclosed.

**For Further Reference:**

Study Session 1, LOS 1.b

SchweserNotes: Book 1 p.2

CFA Program Curriculum: Vol.1 p.15

**Question #7 of 60**

B) *Performance Presentation*.

**Explanation**

Of the three Standards listed, *Performance Presentation* is the only Standard that was not violated during the initial selection process. Keenan used the hedge fund data to create an internal report to rank the hedge fund managers, but Keenan remained in compliance with the *Performance Presentation* Standard because this information was not communicated to clients.

A is incorrect. Keenan violated the Standard of *Independence and Objectivity*. Investment professionals should consider their clients' best interests to be of supreme importance in their decision-making process. Keenan appears to favor the employees' leveraged co-invest FOF over the retail FOF by selecting the majority of historically higher performing managers for the employees' FOF, at the possible expense of the bank's retail clients.

C is incorrect. Keenan violated the Standard of *Fair Dealing* by placing the majority of better performing managers in the employees' FOF.

**For Further Reference:**

Study Session 1, LOS 2.a

SchweserNotes: Book 1 p.6

CFA Program Curriculum: Vol.1 p.21

### Question #8 of 60

**B)** violated the *Independence and Objectivity* Standard.

**Explanation**

The Standard of *Independence and Objectivity* addresses the acceptance of gifts. It states that while no threshold exists for accepting or not accepting a gift, professionals should refrain from accepting gifts that might compromise, or give the impression of compromising, independence, or objectivity. In particular, Keenan cannot accept lavish gifts that could even appear to compromise his integrity from non clients under any conditions. (Disclosure and approval of his supervisor would only apply to lavish gifts from clients.) Keenan is responsible for selecting a vendor and, although the performance record of Carmichael's firm met Keenan's criteria for inclusion, the use of Carmichael's mountain house is effectively a gift for selection that may be considered by other parties as a compromise of Keenan's independence and objectivity. This violation is further supported by the fact that while Keenan has promised to take Carmichael's children to Walt Disney World at a *future* date, it is a conditional promise, and he instructs Carmichael to keep this offer confidential.

A is incorrect. Keenan did exercise diligence and has a reasonable and adequate basis, supported by appropriate research, for the recommendation of managers for the FOFs.

C is incorrect. The mere appearance of preferred treatment to Carmichael here gives rise to a violation of the *Independence and Objectivity* Standard.

**For Further Reference:**

Study Session 1, LOS 2.a

SchweserNotes: Book 1 p.6

CFA Program Curriculum: Vol.1 p.21

### Question #9 of 60

**C)** violated as Keenan failed to get the written consent from Grant and his supervisor.

**Explanation**

The Standard on Additional Compensation Arrangements addresses the potential for conflict of interest when an employee receives compensation from someone other than their employer.

Written consent from all parties involved (Grant and Keenan's supervisor) must be obtained prior to entering into such arrangements.

A is incorrect. The small amount of the fee does not relieve his responsibility to get written consent.

B is incorrect. Verbally disclosing the arrangement to his direct supervisor is not enough; Keenan should have received the written consent from both Grant and his direct supervisor before accepting the fee.

**For Further Reference:**

*Study Session 1, LOS 2.a*

*SchweserNotes: Book 1 p.6*

*CFA Program Curriculum: Vol.1 p.21*

### Question #10 of 60

A) violated the *Misrepresentation* Standard by describing the hedge funds' fee structure as a mechanism for delivering better returns.

**Explanation**

Keenan violates the Misrepresentation Standard because he may not misstate facts or present information in a way that might mislead investors. Misleading clients into believing an investment's principal or return is guaranteed is a violation, and while Keenan does not guarantee a certain return, his presentation would mislead clients by implying the fee structure is sufficiently motivational to yield superior returns.

B is incorrect. It is a violation to misrepresent a firm's or individual's experience, credentials, or qualifications, but it is not a violation to simply state the number of CFA charterholders on the management team, as long as superior performance is not implied. The information presented indicates that only factual information was provided.

C is incorrect. Keenan violated the *Misrepresentation* Standard.

**For Further Reference:**

*Study Session 1, LOS 2.a*

*SchweserNotes: Book 1 p.6*

*CFA Program Curriculum: Vol.1 p.21*

### Question #11 of 60

A) Yes                      Yes  
Yes                              Yes

### **Explanation**

---

Keenan violated the *Misconduct* Standard by acting in a way that lacks professionalism or integrity, including fraud, deceit, and dishonesty. Had Keenan operated in an honest fashion, he would have excluded Carmichael's fund from the FOF. Keenan also violated his *Loyalty to his Employer*, as that Standard requires Covered Individuals to act for the benefit of their employer, and to refrain from activities that may harm the employer's interest. Retaining a poorly performing manager because of a friendship shows loyalty to the friend, not the employer.

### ***For Further Reference:***

*Study Session 1, LOS 2.a*

*SchweserNotes: Book 1 p.6*

*CFA Program Curriculum: Vol.1 p.21*

### **Question #12 of 60**

**C)** did not violate any Standards.

### **Explanation**

---

Based on the facts presented, selecting the new fund for inclusion with the FOF did not violate any Standards.

A is incorrect. Market manipulation did not occur; investment managers may exploit legal, but asymmetric information.

B is incorrect. The *Suitability Standard* was not violated as suitability refers to whether an investment is appropriate for a client in light of the client's unique objectives, constraints, and level of understanding. It should be assumed that an investor in a hedge fund is adequately sophisticated and that this type of investment strategy is suitable.

### ***For Further Reference:***

*Study Session 1, LOS 2.a*

*SchweserNotes: Book 1 p.6*

*CFA Program Curriculum: Vol.1 p.21*

### **Question #13 of 60**

**C)** Neither statement is correct.

### **Explanation**

---

Neither statement is correct. Rose is wrong because while defined benefit (DB) and defined contribution (DC) do create an obligation to contribute, the risk to the sponsor is not the same. In a DB plan, the obligation is to make promised payouts and if plan assets are not sufficient to meet obligations, more must be contributed. In contrast, in a DC plan, the contribution is based

on a formula and once that amount is contributed, the sponsor has no further contribution obligations. The DB plan is considered riskier for the sponsor.

Boatman is wrong because cash balance and ESOP plans are unrelated. The purpose of an ESOP is to hold company stock. But, a cash balance plan is a DB plan that provides participants with a DC plan-like statement showing their balance in the plan.

**For Further Reference:**

*Study Session 6, LOS 13.e, g*

*SchweserNotes: Book 2 p.175, 176*

*CFA Program Curriculum: Vol.2 p.467, 473*

### Question #14 of 60

A) Statement 1.

**Explanation**

Statement 1 is true; maximizing the Sharpe ratio is an asset only based ratio and it ignores the variability in surplus. If the durations of plan assets and liabilities are different, then changes in interest rates would make the surplus vulnerable.

Statement 2 is false in that MCS could be applied to assets only or to the surplus (assets - liabilities).

Statement 3 is false; asset only tends to focus on asset return and not consider variability of surplus. This commonly leads to an over allocation to equity. By focusing on the correlation between assets and liabilities, the ALM approach will typically lead to a larger allocation to real rate bonds (not smaller), which will better track with inflation indexed benefits.

**For Further Reference:**

*Study Session 6, LOS 14.c*

*SchweserNotes: Book 2 p.215*

*CFA Program Curriculum: Vol.2 p.544*

### Question #15 of 60

A) crediting rate.

**Explanation**

The assistant is correct regarding crediting rate; that portion of return is typically not taxed. The other statements are incorrect. The underwriting cycle is a profitability cycle triggered by market competition when profitable companies lower insurance premiums to gain market share. It is not

triggered by interest rates. Life insurance companies generally have little inflation risk as their policies have a stated nominal amount paid.

**For Further Reference:**

*Study Session 6, LOS 13.i*

*SchweserNotes: Book 2 p.178, 192*

*CFA Program Curriculum: Vol.2 p.474*

### Question #16 of 60

**B)** Equity and Fixed Income combined as one firm.

**Explanation**

This is an easy question based on the GIPS guidelines. The key issue is client perception and a common investment decision process. Equity and Fixed Income (EFI) must report as one firm. While the teams have their own "members," the actual decision process is common and through the IPC, plus the members share authority in managing accounts. Real Estate and Private Equity (REPE) can be separate from EFI, reflecting a different CIO and investment decision process. If REPE wishes to comply with GIPS, more information regarding their investment process is needed to determine if they are one firm or two. The issues of support staff and even legal entity are not the determining factors in defining the firm for GIPS.

**For Further Reference:**

*Study Session 18, LOS 32.b*

*SchweserNotes: Book 5 p.118*

*CFA Program Curriculum: Vol.6 p.216*

### Question #17 of 60

**B)** Only statement 2 is correct.

**Explanation**

Statement 2 is correct. Statement 1 is incorrect. Beginning 2012, external valuations must be performed at least annually, unless the client agrees to a less frequent valuation, but in no case less frequently than every 36 months. The statement was incorrect in not allowing for an exception to the annual valuation.

**For Further Reference:**

*Study Session 18, LOS 32.o*

*SchweserNotes: Book 5 p.141*

*CFA Program Curriculum: Vol.6 p.259*

### Question #18 of 60



C) Both statements are correct.

**Explanation**

Both statements 3 and 4 are correct.

***For Further Reference:***

*Study Session 18, LOS 32.u*

*SchweserNotes: Book 5 p.154*

*CFA Program Curriculum: Vol.6 p.298-300*

**Question #19 of 60**

B) -2.56%.

**Explanation**

Price of bond in one year:  $N = 19 \times 2 = 38$ ;  $PMT = 7 / 2 = 3.5$ ;  $I/Y = 8 / 2 = 4$ ;  $FV = 100$ ;  $CPT \rightarrow PV = -90.32$

Value of coupons at end of one year:  $N = 1 \times 2 = 2$ ;  $PMT = 7 / 2 = 3.5$ ;  $I/Y = 8 / 2 = 4$ ;  $PV = 0$ ;  $CPT \rightarrow FV = -7.14$

The semiannual return is the rate of return between today and the accumulated value one year from now:

$N = 2$ ;  $PMT = 0$ ;  $PV = -100$ ;  $FV = (90.32 + 7.14) = 97.46$ ;  $CPT \rightarrow I/Y = -1.28\%$

The bond equivalent yield is  $-1.28\% \times 2 = -2.56\%$ .

***For Further Reference:***

*Study Session 10, LOS 20.f*

*SchweserNotes: Book 3 p.209*

*CFA Program Curriculum: Vol.4 p.27*

**Question #20 of 60**

C) Neither statement is correct.

**Explanation**

In the first sentence of the first statement, two of the three statements are correct. The repo rate is directly related to the maturity of the repo (the repo term) and inversely related to the quality of the collateral. The longer the repo term, the higher the repo rate and as the quality of the collateral increases, the repo rate decreases. Although the maturity of the collateral is considered in determining the quality of the collateral, however, it does not act as a separate factor in determining the repo rate. The last part of the first statement is correct.

The first sentence in the second statement is correct, but the second sentence is incorrect. If the availability of the collateral is limited, the repo rate will be lower, not higher. Limited availability makes the collateral more valuable due to its scarcity (e.g., callable bonds, long maturity bullets).

**For Further Reference:**

Study Session 11, LOS 22.b

SchweserNotes: Book 3 p.262

CFA Program Curriculum: Vol.4 p.109

### Question #21 of 60

**B)** 10.14%.

**Explanation**

The gross profit on the portfolio is: \$200 million  $\times$  8% = \$16 million.

The cost of borrowed funds is: \$60 million  $\times$  3% = \$1.8 million.

The net profit on the portfolio is: \$16 million - \$1.8 million = \$14.2 million.

The return on the equity invested (i.e., the portfolio) is thus: \$14.2 / \$140 = 10.14%.

Alternatively, the problem can be solved using:

$$R_p = R_i + [(B/E) \times (R_i - c)]$$

where:

$R_p$  = return on portfolio

$R_i$  = return on invested assets

B = amount of leverage

E = amount of equity invested

c = cost of borrowed funds

Using the figures above: 8% + [(60 / 140)  $\times$  (8% - 3%)] = 10.14%.

**For Further Reference:**

Study Session 11, LOS 22.a

SchweserNotes: Book 3 p.259

CFA Program Curriculum: Vol.4 p.106

### Question #22 of 60

**C)** 9.9.

**Explanation**

The duration is calculated with the following formula:

$$D_p = \frac{D_I I - D_B B}{E}$$

where:

$D_p$  = duration of portfolio (or the investor's equity duration in the portfolio)

$D_I$  = duration of invested assets

$I$  = amount of invested funds

$B$  = amount of leverage

$E$  = amount of equity invested

Using the values in the problem:

$$D_p = \frac{(7.2) 200 - (0.8) 60}{140} = 9.9$$

**For Further Reference:**

Study Session 11, LOS 22.a

SchweserNotes: Book 3 p.259

CFA Program Curriculum: Vol.4 p.106

## Question #23 of 60

C) Neither statement is correct.

### Explanation

Both statements are incorrect. It is true that portfolio managers, especially active managers, complain that using variance and standard deviation to calculate Sharpe ratios biases the results, because the variance includes returns in excess of the hurdle rate (i.e., positive outcomes). The only false part of the first statement is that semi-variance is easy to calculate. Because of the difficulties of calculating all the variances and correlations, neither regular variance nor semi-variance is easily calculated for large bond portfolios.

Although much of the second statement is true, shortfall risk is effectively the flip side of VAR. The output from a VAR calculation is the maximum loss at a given probability. In other words, you specify the probability and VAR provides the amount of loss. With shortfall risk, you provide the amount of loss (or other target amount or return) and shortfall risk provides the probability. They are both deficient in that they do not provide a measure of the magnitude of potential catastrophic losses. To help compensate for this deficiency in VAR, managers sometimes calculate tail value at risk (TVAR) which is VAR plus the expected value in the lower tail.

**For Further Reference:**

Study Session 11, LOS 22.c

SchweserNotes: Book 3 p.264

CFA Program Curriculum: Vol.4 p.112

### Question #24 of 60

C) Both Castillo and Diaz are incorrect.

#### Explanation

Castillo is incorrect. The name of a swaption refers to the fixed arm in the underlying swap. A payer swaption, for example, gives the holder the option of entering a swap as the fixed rate payer. To synthetically refinance Shaifer's fixed rate euro debt of 9.5%, Shaifer should buy a receiver swaption which would give Shaifer the option to enter a swap as pay-floating, receive fixed. If Euribor falls below the swap fixed rate of 7.60%, Shaifer will exercise the swaption and pay the lower floating rate while receiving 7.60%. In net, they would pay Euribor plus 1.9% ( $9.5\% + \text{Euribor} - 7.6\%$ ). In net, they would pay a floating rate, which would be 7.8% in one year, given the projected Euribor of 5.9% in one year. Note: The terms "receiver" and "payer" refer to the pay fixed arm of the swap. A receiver swaption, therefore, is an option to enter a swap as the receive-fixed counterparty.

So Diaz is incorrect because the effective rate is not 7.5% in one year. In essence, Shaifer has called in the old debt at 9.5% and synthetically refinanced its debt to a floating rate, which will be 7.8% in one year.

#### **For Further Reference:**

*Study Session 15, LOS 28.h*

*SchweserNotes: Book 4 p.220*

*CFA Program Curriculum: Vol.5 p.385*

### Question #25 of 60

A) Both are correct.

#### Explanation

Truxel is correct as international bond portfolio duration management has been made easier through the increasing availability of fixed income derivatives. Timberlake is also correct in saying that the European Monetary Union has made it easier to rotate across sectors, because there are now more non-governmental bonds available internationally.

#### **For Further Reference:**

*Study Session 11, LOS 22.h*

*SchweserNotes: Book 3 p.278*

*CFA Program Curriculum: Vol.4 p.129*

### Question #26 of 60

C) Only Timberlake is correct.

### **Explanation**

Truxel is incorrect because even moderate duration mismatches are a significant risk. Enhanced and other forms of indexing will match the benchmark duration. Timberlake is correct because Truxel's approach is to match quality and sector (weights) which still leaves room for individual security over/underweighting of improving/deterioration issuers. That is a common way to add value in enhanced indexing by using credit analysis to identify improving/deteriorating credits.

### ***For Further Reference:***

*Study Session 10, LOS 20.b*

*SchweserNotes: Book 3 p.201*

*CFA Program Curriculum: Vol.4 p.9*

### **Question #27 of 60**

A) 3.2.

### **Explanation**

If there is a parallel shift in the yield curve of 60 basis points for Treasury yields, the approximate percent change is the modified duration of the portfolio times 0.6%. The modified duration of the portfolio is a weighted average of the individual sector durations:  $(0.12 \times 5.3) + (0.3 \times 5.4) + (0.3 \times 5.5) + (0.28 \times 5.0) = 5.3$ . The modified duration of  $5.3 \times 0.6\% = 3.2\%$  change in the portfolio value.

### ***For Further Reference:***

*Study Session 10, LOS 20.h*

*SchweserNotes: Book 3 p.219*

*CFA Program Curriculum: Vol.4 p.34*

### **Question #28 of 60**

A) 3.2.

### **Explanation**

The spread durations for non-Treasuries are the same as their effective durations. The calculation and resulting change from a uniform widening of 60 bps in all spreads is the same as if the yield curve had shifted 60 bps with no change in the spreads.

### ***For Further Reference:***

*Study Session 10, LOS 20.i*

*SchweserNotes: Book 3 p.221*

*CFA Program Curriculum: Vol.4 p.36*

### Question #29 of 60

B) AAA.

#### Explanation

To determine which sector could generate the greatest tracking error, calculate the contribution to the portfolio's duration for each sector and do the same for the index. The sector whose duration contribution deviates the most from the benchmark will contribute the most to potential tracking error. The contribution to duration is the proportion invested in each sector times the sector's duration. For example, for AAA bonds in the portfolio, it is  $0.12 \times 5.3 = 0.636$ . For AAA bonds in the index, it is  $0.35 \times 5.3 = 1.855$ . The discrepancy between the portfolio and the index for this sector is  $0.636 - 1.855 = -1.219$ . This is the largest absolute difference of all the sectors. The calculations for all the sectors are as follows:

<i>Contribution to Effective Duration</i>			
	Portfolio	Index	Difference
AAA	0.636	1.855	-1.219
AA	1.620	1.620	0.000
A	1.650	1.375	0.275
BBB	1.400	0.500	0.900
TOTAL	5.306	5.350	-

#### **For Further Reference:**

Study Session 10, LOS 20.i

SchweserNotes: Book 3 p.221

CFA Program Curriculum: Vol.4 p.36

### Question #30 of 60

C) Seasonality.

#### Explanation

The following are rationales for trading in the secondary bond market:

- Yield/spread pickup trades.
- Credit-upside trades.
- Credit-defense trades.
- New issue swaps.
- Sector-rotation trades.
- Curve-adjustment trades.
- Structure trades.
- Cash flow reinvestment.

Seasonality is a secondary trading constraint (i.e., reason for not trading).

**For Further Reference:**

Study Session 10, LOS 21.e

SchweserNotes: Book 3 p.249

CFA Program Curriculum: Vol.4 p.79

### Question #31 of 60

**B)** -8.57%.

**Explanation**

To determine the exact forward discount for the base currency in the denominator:

$$f_{d,f} = \frac{F - S_o}{S_o}$$

where:

$f_{d,f}$  = forward premium or discount for currency f relative to d

F = forward rate

$S_o$  = spot rate

In the formula, be sure to put the currency that you want to make a statement about (whether it is at a premium or discount) in the denominator. Here we are discussing the £.

$$f_{d,f} = \frac{C\$1.60 - C\$1.75}{C\$1.75} = -8.57\%$$

So the British pound is trading at an 8.57% forward discount relative to the Canadian dollar.

**For Further Reference:**

Study Session 10, LOS 22.j

SchweserNotes: Book 3 p.281

CFA Program Curriculum: Vol.4 p.131

### Question #32 of 60

**C)** Neither currency.

**Explanation**

The decision to hedge currency risk is not related to the type of asset. It depends on the forward premium or discount (based on IRP) versus manager expectations of currency change. The CAD trades at a forward premium of  $4.8 - 4.0 = 0.8\%$ . This is less than the manager's predicted change of  $+2\%$ . Therefore, do not hedge the CAD by selling it forward. The GBP trades at a forward discount of  $4.8 - 11.0 = -6.2\%$ . The manager expects the GBP to depreciate  $2\%$ . A  $2\%$  loss is better than a  $6.2\%$  loss. Do not hedge.

**For Further Reference:**

Study Session 11, LOS 22.j

SchweserNotes: Book 3 p.281

CFA Program Curriculum: Vol.4 p.131

### Question #33 of 60

**B)** The Tatehiki bond because its excess return is 4.0%.

**Explanation**

Rolle should recommend investment in the Tatehiki bond if a hedged position will be taken. The easiest way to make this determination is to examine their excess returns, which is the bond return minus the risk-free rate in the foreign country.

The Knauff company bond return:  $8.0\% - 5.0\% = 3.0\%$ .

The Tatehiki company bond return:  $6.0\% - 2.0\% = 4.0\%$ .

Note that we assume both bonds have similar risk and maturities, and any currency risk is hedged, so the decision is based solely on the excess returns.

**For Further Reference:**

Study Session 11, LOS 22.j

SchweserNotes: Book 3 p.281

CFA Program Curriculum: Vol.4 p.131

### Question #34 of 60

**C)** 7.8%      8.1%

**Explanation**

The Knauf bond promises a return of 8% in euros. Since you hedge using current forward rates, which would incorporate the expected 0.2% depreciation in the euro relative to the dollar (the euro will be trading at a forward discount of  $4.8 - 5 = -0.2\%$ ), you effectively lock in the current forward discount. The expected return to U.S. investors would be 7.8%, the expected return on the bond (8%) less the forward currency differential (-0.2%).

The unhedged return for the Tatehiki bond is its return in yen of 6.0% plus the expected 2.0% appreciation in the yen geometrically linked which equals  $(1.06)(1.02) - 1 = 8.1\%$ .

**For Further Reference:**

Study Session 11, LOS 22.j

SchweserNotes: Book 3 p.281

CFA Program Curriculum: Vol.4 p.131



### Question #35 of 60

A) proxy hedge.

#### Explanation

This is a forward hedge, but it is more specifically a proxy hedge. The yen is sold forward as a proxy for the won. While riskier than selling the won forward, it can be used if no contracts on the won exist and there is expected to be a stable relationship (high positive correlation) between the won and yen. A MVHR would be based on regressing the Korean bond returns and the won returns to minimize the volatility of returns as received by the non-Korean investor.

#### **For Further Reference:**

*Study Session 11, LOS 22.j*

*SchweserNotes: Book 3 p.281*

*CFA Program Curriculum: Vol.4 p.131*

### Question #36 of 60

B) Cap          Put

#### Explanation

Crawfordville is exposed to rising interest rates as the interest rate payments they will make increase with increasing rates. Purchasing a cap would produce one-for-one inflows to offset outflows on their liabilities if rates rise.

Ryder has bond assets that will decline in value with falling bond prices (rising rates). Bond futures prices are directly linked to bond prices, and purchasing puts on futures will, therefore, produce approximately one-for-one gains (as the options move into the money) to offset losses on the bond assets. While selling calls would produce premium income, there is no link between that initial income received and any subsequent loss on the bonds. Therefore, selling calls on price is not an acceptable alternative to buying puts on price.

#### **For Further Reference:**

*Study Session 11, LOS 22.f*

*SchweserNotes: Book 3 p.272*

*CFA Program Curriculum: Vol.4 p.120*

### Question #37 of 60

B) invests only in efficient and transparent markets.

#### Explanation

A representative set of checkpoints for selecting an alternative investment manager would include assessing the market opportunity, the investment process, the organization, the people, the terms and structure, the ancillary service providers, and the documents. Low market efficiency is a common feature of many alternative investments. In fact, the reason that alternative investments present market opportunities is that their markets are not efficient.

**For Further Reference:**

*Study Session 13, LOS 24.b*

*SchweserNotes: Book 4 p.52*

*CFA Program Curriculum: Vol.5 p.10*

### Question #38 of 60

**B)** appropriate because private equity offers a high return but relatively low diversification.

**Explanation**

Historically, private equity returns have generally been higher than stock returns over most periods. Since a source of the return is often associated with IPOs and other market activity, the returns tend to be correlated with stock returns. This lowers the amount of diversification private equity can offer a standard stock and bond portfolio.

**For Further Reference:**

*Study Session 13, LOS 24.d*

*SchweserNotes: Book 4 p.54*

*CFA Program Curriculum: Vol.5 p.13*

### Question #39 of 60

**A)** The horizon is too short.

**Explanation**

The portfolio allocation to this class should be 5% or less with a plan to keep the money invested for 7-10 years and not 2 years as stated in the vignette. Five to ten investments is a recommended range to achieve diversification within the private equity investments. Since five investments times \$5 million is less than \$30 million (5% of the portfolio), the recommended size is appropriate.

**For Further Reference:**

*Study Session 13, LOS 24.d*

*SchweserNotes: Book 4 p.54*

*CFA Program Curriculum: Vol.5 p.13*

### Question #40 of 60

C) Both are correct.

#### Explanation

They were both correct. It is true that private equity benchmarks suffer from infrequent repricing. It is also true that many private equity investors create their own benchmarks.

#### **For Further Reference:**

*Study Session 13, LOS 24.e*

*SchweserNotes: Book 4 p.59*

*CFA Program Curriculum: Vol.5 p.15*

### Question #41 of 60

A) even though venture capital funds tend to have lower average returns than buyout funds.

#### Explanation

In contrast to VC funds, buyout funds usually have higher leverage, earlier and steadier cash flows, less error in the measurement of returns, less frequent losses, and less upside potential. These differences are the natural consequence of the buyout funds purchasing entities in later stages of development or even established companies where the risks and returns are lower. Due to the large number of failures and poor performers, even though venture capital has more upside potential, the average return to venture capital tends to be lower than the returns to buyout funds.

#### **For Further Reference:**

*Study Session 13, LOS 24.i*

*SchweserNotes: Book 4 p.69*

*CFA Program Curriculum: Vol.5 p.39*

### Question #42 of 60

C) decision risk.

#### Explanation

Farmington indicated that the clients have not expressed a concern even when the market and portfolio have not performed well. This indicates that decision risk, the risk of the client irrationally requesting a change in strategy because of recent investment losses, may not be an issue. Tax issues are always important. Since Carnegie will be investing in private equity, he certainly needs to find out about other closely held investments the Lewis family holds. Finally, the time horizon is too short. These are long-term, illiquid investments, so two years is unreasonable.

**For Further Reference:**

Study Session 13, LOS 24.c

SchweserNotes: Book 4 p.53

CFA Program Curriculum: Vol.5 p.11

### Question #43 of 60

A) Flat and Heavy.

**Explanation**

A flat tax structure on income, dividends, and capital gains can be best classified as a flat and heavy tax regime. Note that a common feature of this type of regime is the favorable treatment of interest income. A flat and light regime would extend the favorable treatment to dividends and capital gains.

**For Further Reference:**

Study Session 4, LOS 9.a

SchweserNotes: Book 2 p.40

CFA Program Curriculum: Vol.2 p.226

### Question #44 of 60

B) €2,154,426.

**Explanation**

Given a pretax return of 7%, an annual tax rate of 25%, and annual compounding (note that the account is taxed annually, so we reduce the annual return for taxes):

$$FV = 1,000,000 [1 + 0.07 (1 - 0.25)]^{15} = 2,154,426$$

**For Further Reference:**

Study Session 4, LOS 9.b

SchweserNotes: Book 2 p.43

CFA Program Curriculum: Vol.2 p.229

### Question #45 of 60

C) increase both her investment horizon and result in tax drag that exceeds the applicable tax rate.

**Explanation**

The reduction in portfolio risk can be expected to reduce expected returns. Since her investment objective is to accumulate assets that will generate income equal to her wage income, the

investment horizon will increase. When taxes are paid periodically during the holding period, a longer investment horizon will increase tax drag, and the tax drag will exceed the applicable tax rate.

**For Further Reference:**

Study Session 4, LOS 9.e

SchweserNotes: Book 2 p.55

CFA Program Curriculum: Vol.2 p.245

### Question #46 of 60

**B)** \$342,200.

**Explanation**

Given a pretax return of 12%, a 10-year holding period, a tax rate of 35%, and a cost basis of \$250,000:

$$FV = 250,000 [(1 + 0.12)^{10} (1 - 0.35) + 0.35] = 592,200$$

$$\text{gain} = 592,200 - 250,000 = 342,200$$

**For Further Reference:**

Study Session 4, LOS 9.b

SchweserNotes: Book 2 p.43

CFA Program Curriculum: Vol.2 p.229

### Question #47 of 60

**B)** 35%.

**Explanation**

The gross sale proceeds, tax, \$ tax drag, and % tax drag are:

$$FV = 250,000[(1 + 0.12)^{10}] = 776,462$$

$$\text{Tax} = (776,462 - 250,000)0.35 = 184,262$$

$$\text{TaxDrag} = \left( \frac{184,262}{(776,462 - 250,000)} \right) = 0.35$$

Because this is a (deferred) capital gains tax situation, the tax drag is equal to the capital gains tax rate of 35%.

**For Further Reference:**

Study Session 4, LOS 9.b

**Question #48 of 60****A)** 10.7%.**Explanation**

$$R_{AE} = \sqrt[9]{\frac{150,000}{60,000}} - 1 = 0.1071$$

The accrual equivalent after tax return is:

Note that 17.7% is the accrual equivalent tax rate [= 1 - (10.7 / 13.0)], but this is not the value that we are looking for in the question.

***For Further Reference:***

Study Session 4, LOS 9.c

SchweserNotes: Book 2 p.53

CFA Program Curriculum: Vol.2 p.243

**Question #49 of 60****C)** 1.23                      2**Explanation**

Effective beta is found by comparing the hedged equity return with the return of the stock market. The hedged equity return is the sum of the returns of the stocks held in the portfolio and the gain or loss on the contracts. Because Willow had a favorable view of the equity market and wanted to increase beta, she would have initially purchased S&P contracts and have a gain as the contract price rose:

Equity portfolio gain:	given	\$2,199,120
Futures gain:	$(1547.00 - 1526.00) \times 250 \times 187 =$	<u>981,750</u>
Total gain:		\$3,180,870

Return on portfolio of \$168 million of which 70% (\$117.6 million) is invested in stocks:

$$\$3,180,870 / \$117,600,000 = 2.7048\%$$

The portfolio's effective beta can be computed by looking at the portfolio's hedged return (2.7%) relative to the market's return (2.2%):

$$\text{Effective beta: } 0.027048 / 0.022 = 1.23$$

Both of the reasons discussed can cause effective beta to diverge from targeted beta but the facts of the question demonstrate Reason 1 is not plausible while Reason 2 is possible. Reason 2: During the 6-month holding period, the S&P contract changed by +1.38% (1547 / 1526 - 1).

This is substantially different from the market change of 2.2%. By itself, that does not prove the contract was initially mispriced because it is the contract price change plus risk free return on a full collateral position that should equal the index return. But it does leave the possibility the contract was initially mispriced. In contrast, Reason 1 is not plausible in this case. The stocks alone generated a return of 1.87% (\$2.2 million / \$117.6 million). Comparing this to the market return of 2.2% suggests they behaved as if their beta had been .85 (1.87% / 2.2%). This is exactly the same as the initial assumption given in Exhibit 1 so there is no evidence of the beta of her stocks showing mean reversion.

It is not necessary to calculate the initial target beta because it is given in the question data.

**For Further Reference:**

*Study Session 15, LOS 26.a*

*SchweserNotes: Book 4 p.132*

*CFA Program Curriculum: Vol.5 p.227*

**Question #50 of 60**

**A)** \$1,105,890.

**Explanation**

The first step is to determine the amount to be reallocated to bonds. The initial portfolio of \$168 million is composed of 70% stocks and 30% bonds. Therefore, stocks total: \$117,600,000 (70% × \$168,000,000). Townsend's recommended allocation to stocks is 55%, which is \$92,400,000 (55% × \$168,000,000). The total to be reallocated is therefore \$25,200,000. The second step is to calculate the number of contracts purchased. The formula is

$$\text{Number of contracts} = (\text{yield beta}) \left( \frac{MD_T - MD_P}{MD_F} \right) \left( \frac{V_P}{P_f \text{Multiplier}} \right)$$

Plugging in values from the above calculation and Exhibit 1:

$$\text{Number of contracts} = \left( \frac{4.3 - 0.25}{5.2} \right) \left( \frac{25,200,000}{96,500} \right) (0.94)$$

Number of contracts = 191.18, or 191 contracts.

The third step is calculating the price of the futures contract six months later: \$96,500 × (1 - 0.06) = \$90,710.

The final step is to calculate the loss: 191 × (\$90,710 - \$96,500) = (\$1,105,890).

B is incorrect. This number is derived using 203 contracts, which would result from plugging in \$90,710 as "f" in the contracts equation rather than \$96,500.

C is incorrect. This number is derived using 216 contracts, which would result from dividing (rather than multiplying) by the yield beta of 0.94.

**Candidate discussion:** The case information in Exhibit 1 specifically says to use a duration for cash and hedged positions of 0.25. Always read and follow explicitly given instructions or you will lower your exam score.

The default assumption for cash equivalents is a 0 duration. But the assumption given in this case is also completely logical. You would know that is reasonable from Level II and arbitrage pricing of contracts, as well as from Level III derivatives hedging and synthetic positions. The hedged position targets the risk-free rate at the time and for the period of the hedged. In other words, a six-month hedge would target the six-month risk-free rate. This is initially a 0.5 duration declining to a 0 duration at hedge expiration. Bottom line, assume 0 duration for cash unless given a different assumption (as in this case). Also note that it does not matter if the hedge is on equity, bonds, or any other asset. The net fully hedged position has a duration regardless of whether the underlying asset has a duration.

**For Further Reference:**

*Study Session 15, LOS 26.d*

*SchweserNotes: Book 4 p.142*

*CFA Program Curriculum: Vol.5 p.241*

### Question #51 of 60

C) increase modified duration by buying bond futures, as supported by Townsend.

**Explanation**

Townsend thinks bonds are poised to outperform, so increasing modified duration would be an achievable goal using the purchase of bond futures.

A is incorrect. The sales of stock index futures may be designed to lower target beta or stock market exposure. However, Willow would not support that strategy, as she thinks stocks are going up.

B is incorrect. The purchase of S&P futures may be designed to increase stock market exposure (or increase beta). However, Townsend would not support that strategy, as he thinks stock prices are going down.

**For Further Reference:**

*Study Session 15, LOS 26.d*

*SchweserNotes: Book 4 p.142*

*CFA Program Curriculum: Vol.5 p.241*



### Question #52 of 60

B) equal.

#### Explanation

Both situations require increasing equity exposure and all beta adjustments use variations of the same basic formula. A synthetic position requires using a future value in the amount for the numerator of the calculation. Situation 1 is \$10,000,000 today and not a synthetic position so the numerator value is \$10,000,000. Situation 2 is a synthetic position but the \$10,000,000 is already the value to be received 6 months in the future. The numerator is the same in both situations resulting in the same number of contracts. Note that if situation 2 had not specified that the \$10,000,000 is a future amount, the \$10,000,000 would have been increased to a future value at the risk free rate and Situation 2 would have required more contracts.

#### **For Further Reference:**

*Study Session 15, LOS 26.b*

*SchweserNotes: Book 4 p.136*

*CFA Program Curriculum: Vol.5 p.233*

### Question #53 of 60

B) Rise          6.25 percent

#### Explanation

The company has floating-rate bond obligations that it desires to convert into fixed-rate obligations via a swap mechanism. If the company prefers fixed payments, it must feel that interest rates are going to rise. The terms of the swap are that Elkridge would receive LIBOR from the swap dealer and pay a fixed rate. It also owes its bondholders LIBOR + 1%. To have a net cost of funds of 7.25%, the fixed rate Elkridge would pay would be 6.25%.

Pay to Bondholders:	LIBOR + 1 percent
Receive from Dealer:	– LIBOR
Pay to Dealer:	<u>6.25 percent</u>
Net Cost of Funds =	<u>7.25 percent</u>

A is incorrect. If the company were expecting interest rates to fall, it would keep its floating-rate obligations because the payments would be lower in the future as interest rates decrease. Also, a fixed rate of 8.25% would make the company's net cost of funds 9.25%.

C is incorrect. The company would want to engage in a swap transaction to pay fixed and receive floating if it expected a rising interest rate environment. However, the fixed rate on the swap would be 6.25%, not 8.25%, if the desired cost of funds is 7.25%.

**For Further Reference:**

Study Session 15, LOS 26.b

SchweserNotes: Book 4 p.136

CFA Program Curriculum: Vol.5 p.233

**Question #54 of 60**

A) \$69,120,000.

**Explanation**

Assuming a new short fixed duration of 2.625, the duration of the swap overall would become -2.5 (0.125 - 2.625). The notional principal would then be calculated as:

$$NP = (V_P) \left( \frac{MD_T - MD_P}{MD_{\text{swap}}} \right)$$

$$NP = \$96,000,000 \left( \frac{4.5 - 6.3}{-2.5} \right) = \$69,120,000$$

B is incorrect. This would be the notional if the swap duration were incorrectly calculated as -2.25 and inputted into the notional principal equation as such.

C is incorrect. This answer fails to adjust the short fixed duration to 2.625, giving the same swap duration (-0.75) as the original one-year tenor; the incorrect swap duration is then used in the notional principal equation.

**For Further Reference:**

Study Session 15, LOS 26.d

SchweserNotes: Book 4 p.142

CFA Program Curriculum: Vol.5 p.241

**Question #55 of 60**

C) constant proportion portfolio insurance.

**Explanation**

In a market expected to increase in relatively constant fashion, constant proportion portfolio insurance will outperform the other strategies. In a constant proportion strategy, a fixed proportion (m) of the cushion (= assets - floor value) is invested in stocks. CPPI refers to a constant proportion strategy with  $m > 1$ . Buy and hold is equivalent to the constant proportion strategy with  $m = 1$ , so its performance would be good, but not as good. A constant-mix strategy (CM) would be the poorest performer, because as the market continually rises, the CM strategy would dictate selling stocks.

**For Further Reference:**

Study Session 16, LOS 30.h

SchweserNotes: Book 5, p.38

CFA Program Curriculum: Vol.6 p.95

### Question #56 of 60

**B)** Constant mix.

**Explanation**

In a market expected to oscillate, constant mix strategies (fixed percentage allocation to stocks) outperform the others, since they involve buying/selling stocks when prices fall/rise. CPPI would perform worst in this scenario, with buy and hold performing better but not as well as CM.

**For Further Reference:**

Study Session 16, LOS 30.h

SchweserNotes: Book 5, p.38

CFA Program Curriculum: Vol.6 p.95

### Question #57 of 60

**C)** Due to the concave nature of CPPI strategies, they offer good downside protection.

**Explanation**

Although CPPI strategies offer downside protection, it is their convex nature that provides it. Statements A and B are correct.

**For Further Reference:**

Study Session 16, LOS 32.h

SchweserNotes: Book 5, p.128

CFA Program Curriculum: Vol.6 p.241

### Question #58 of 60

**C)** make no adjustments.

**Explanation**

The portfolio has increased from \$1,000,000 to \$1,150,000, representing a 20% increase (\$120,000) in equities and a \$30,000 increase in debt and cash ( $\$1,150,000 - \$720,000 = \$430,000$ ). Since equities now represent 62.6% ( $= 720,000 / 1,150,000$ ) of the portfolio and their strategic allocation is 60%, Tratman should take no action.

**For Further Reference:**

Study Session 16, LOS 30.f

SchweserNotes: Book 5, p.37

CFA Program Curriculum: Vol.6 p.91

### Question #59 of 60

C) Combining calendar and percentage of portfolio rebalancing would be the most costly.

**Explanation**

Combining the two would most likely lower costs, as the weights would be checked on a specified periodic calendar basis and then only adjusted if a percentage of portfolio rules were also violated. Essentially, two conditions must be met before rebalancing is done, instead of one condition.

**For Further Reference:**

Study Session 16, LOS 30.e

SchweserNotes: Book 5, p.36

CFA Program Curriculum: Vol.6 p.90

### Question #60 of 60

B) Highly volatile assets.

**Explanation**

Illiquid assets generally have higher costs associated with buying and selling. In that case, too tight of a tolerance band (i.e., corridor) could require high costs. The investor should always strive for a happy medium between the need to rebalance and the associated costs. Answers A and C would support wider corridors.

**For Further Reference:**

Study Session 16, LOS 30.f

SchweserNotes: Book 5, p.37

CFA Program Curriculum: Vol.6 p.91