

2011 Level III Mock Exam

The 2011 Level III Chartered Financial Analyst® Mock Examination has 60 questions. To best simulate the exam day experience, candidates are advised to allocate an average of 18 minutes per item set (vignette and 6 multiple choice questions) for a total of 180 minutes (3 hours) for this session of the exam.

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Vision 2020 Case Scenario

Vision 2020 Capital Partners (V2020) has operated for the last ten years originating and brokering corporate finance deals through private placements in emerging and frontier markets. Due to the global financial crisis, investment banking deals have declined and V2020 has struggled to generate enough fees to sustain its business. The board of directors of V2020, (“the board”) made up of corporate finance experts, has identified opportunities to generate a new revenue stream.

One such opportunity is the creation of a division to manage an Emerging and Frontier Market Balanced Fund (“the Fund”). The board has had several inquiries from clients asking for such a product. The board feels the Fund is an ideal business line to meet client demand, and create monthly asset management fees. The board thinks the Fund should also be required to act as a buyer of last resort for all its corporate finance client’s private placements. It believes this arrangement would act as a major incentive for private businesses to use their corporate finance services, thereby increasing revenues from their primary business activity.

Since none of the V2020 board members or senior managers are experienced in asset management, the board hires Lauren Akinyi, CFA, an independent consultant who works with various clients in the asset management industry. She is asked to undertake a study on an appropriate structure for the Fund to meet both corporate finance and Fund client needs. She is also asked to help V2020 set up policies and procedures for the new Fund to make certain that all capital market regulations have been followed. The board informs her that the policies and procedures should also ensure compliance with the CFA® Asset Manager Code of Professional Conduct.

Akinyi subsequently makes the following recommendations in a report to the Board concerning compliance with the CFA Asset Manager Code:

Recommendation 1: V2020 should abide by the following principles of conduct:

- Principle 1: act with skill, competence and diligence;
- Principle 2: act with independence and objectivity; and
- Principle 3: respond to all client inquiries.

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Recommendation 2: To take advantage of their vast business experience, the board of directors should implement new policies. Specifically, the board should:

- Policy 1: Take an active daily role in managing the Fund's assets;
- Policy 2: Designate an existing employee as a compliance officer; and
- Policy 3: Disclose any conflicts of interest arising from their business interests.

Recommendation 3: To avoid any conflicts of interest between the investment banking business and the new fund management business, a separate wholly owned subsidiary should be created to undertake the fund management business. The Fund would then provide a 100% guarantee to buy the private placements of the corporate finance clients without having to disclose to all clients the relationship between the two entities.

Recommendation 4: To ensure timely and efficient trades in each of the markets the Fund invests in, only one stockbroker in each market should be utilized. The board should also consider buying an equity stake in each of the appointed brokers as an added profit opportunity.

After the Fund completes its first year of operations, V2020 receives a letter from its regulator. The notification imposes fines for poor disclosures to its Fund clients and mandates the replacement of the senior fund manager as a condition for the renewal of V2020's asset management license. The board challenges the ruling stating the Fund made the necessary full disclosures. Not wanting to incur expensive legal fees or waste precious time, the board, without admitting or denying fault, settles out of court paying a fine. Subsequently, the senior fund manager is terminated but receives a multi-million dollar bonus upon leaving. After the replacement of the senior fund manager, the license is renewed for a further year. The regulatory body however gives a warning that if the Fund has any future violations their license will be permanently revoked. Subsequently, the Fund discloses to its clients that the regulator has renewed its license for one year after the termination of the senior fund manager, a condition of the renewal. They also disclose the settlement out of court and the fine paid.

-
1. Given the board's intended purpose for starting the Fund, which of the following principles of conduct under the Asset Manager Code of Professional Conduct is *least likely* violated?
 - A. Act for the benefit of clients.
 - B. Uphold the rules governing capital markets.
 - C. Act in a professional and ethical manner at all times.

Answer = B

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"Asset Manager Code of Professional Conduct," CFA Institute, Center for Financial Market Integrity

2011 Modular Level III, Vol.1, pp. 267, 270

Study Session 2-6-a, b

Summarize the ethical responsibilities required by the six components of the Asset Manager Code.

Interpret the Asset Manager Code in situations that present issues of compliance, disclosure, or professional conduct.

B is correct because the board gave instructions to Akinyi to ensure compliance with capital markets regulations, thus upholding one of the general principles of conduct of the Asset Managers Code. However, the desire for the Fund to act as a buyer of last resort violates the principle of acting for the benefit of clients: i.e. placing their interests before their own. By putting their own interests in front of their clients, the board is not acting in a professional and ethical manner. While the Fund may benefit corporate finance clients and meet the demand of some clients for a Fund, Fund clients' interests may not be protected by the Fund guaranteeing to buy 100% of the corporate finance clients' private placements. These placements may not meet the Fund's objectives and risk profile, thus not protecting the interests of the Fund's clients.

2. Which of the principles in Akinyi's Recommendation 1 is *least likely* sufficient to meet the principles of the Asset Manager Code?
- A. Principle 1.
 - B. Principle 2.
 - C. Principle 3.

Answer = C

"Asset Manager Code of Professional Conduct," CFA Institute, Center for Financial Market Integrity

2011 Modular Level III, Vol.1, pp. 267-270

Study Session 2-6-a, b

Summarize the ethical responsibilities required by the six components of the Asset Manager Code.

Interpret the Asset Manager Code in situations that present issues of compliance, disclosure, or professional conduct.

C is correct because the recommendation states that the Fund should respond to all client inquiries where the principles state the managers should communicate with clients in a timely manner. By accessing this mock exam, you agree to the following terms of use: This mock exam is provided to currently-registered CFA candidates. Candidates may view and print the exam for personal exam preparation only. The following activities are strictly prohibited and may result in disciplinary and/or legal action: accessing or permitting access by anyone other than currently-registered CFA candidates; copying, posting to any website, emailing, distributing and/or reprinting the mock exam for any purpose.

and accurate manner. While it is true managers should respond to client inquiries, they also have the responsibility to present performance information that is fair, accurate, relevant, timely and complete. This is a form of communication.

3. Which of Akinyi's policies in Recommendation 2 would *least likely* comply with the Asset Manager's Code if implemented?
- A. Policy 1.
 - B. Policy 2.
 - C. Policy 3.

Answer = A

"Asset Manager Code of Professional Conduct," CFA Institute, Center for Financial Market Integrity

2011 Modular Level III, Vol.1, pp. 269, 276-278

Study Session 2-6-b

Interpret the Asset Manager Code in situations that present issues of compliance, disclosure, or professional conduct.

A is correct because the Directors have corporate finance experience and business experience, not asset management experience and therefore they should hire professional asset managers to manage the Fund.

4. Which of the following would be *most* effective to prevent any violation of the Asset Manager Code as reflected in Akinyi's Recommendation 3?
- A. "The Fund" only retains a minority shareholding in V2020.
 - B. "The Fund" not participate in any of V2020's private placements.
 - C. Disclose to all clients the relationship between V2020 and "the Fund".

Answer = C

"Asset Manager Code of Professional Conduct," CFA Institute, Center for Financial Market Integrity

2011 Modular Level III, Vol.1, pp. 271, 280-282

Study Session 2-6-b, c

Interpret the Asset Manager Code in situations that present issues of compliance, disclosure, or professional conduct.

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Recommend practices and procedures designed to prevent violations of the Asset Manager Code.

C is correct because the Fund would comply with the Code if it made full disclosure to all of its clients regarding the relationship between the Fund and V2020 activities; the Investment Banking/corporate finance activities. Both parties should disclose any common ownership, even minority positions. It may disadvantage Fund clients if it were not allowed to participate in any of the private placements done by V2020 on behalf of their corporate finance clients

5. If Recommendation 4 were to be implemented, which aspect of the Asset Manager Code would *most likely* be violated?
- A. Fair dealing.
 - B. Best execution.
 - C. Priority of Transactions.

Answer = B

“Asset Manager Code of Professional Conduct,” CFA Institute, Center for Financial Market Integrity

2011 Modular Level III, Vol.1, pp. 268, 275 - 276

Study Session 2-6-b

Interpret the Asset Manager Code in situations that present issues of compliance, disclosure, or professional conduct.

B is correct because the Code calls for the Manager to maximize client portfolio value by seeking best execution for all client transactions. If trades only go through one stockbroker, best execution cannot be assured. In addition, any equity ownership in these brokers should be disclosed as this arrangement has the potential for conflicts of interest.

6. Does the Fund’s disclosure to its clients regarding the renewal of the license *most likely* comply with the Asset Manager Code?
- A. No.
 - B. Yes, the disclosure included the termination of the fund manager.
 - C. Yes, the disclosure included the out of court settlement and payment of fine.

Answer = A

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“Asset Manager Code of Professional Conduct,” CFA Institute, Center for Financial Market Integrity

2011 Modular Level III, Vol.1, pp. 269 – 270, 280 - 283

Study Session 2-6-c

Recommend practices and procedures designed to prevent violations of the Asset Manager Code.

A is correct because the Code calls for complete disclosures regarding significant changes in personnel and any regulatory or disciplinary action taken against the Fund. While they disclosed the conditional license renewal and the removal of the Fund Manager, they did not disclose the serious condition that any further violation will result in the Fund being closed. Clients should be told about the regulator’s warning so they can make an informed decision regarding whether to continue their investment in the Fund. Disclosure is not required for the payment of bonuses, or termination packages to employees.

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Rayne Brothers Case Scenario

Erin Mutini, CFA, a South African resident, is an employee of Oakwood Asset Management (OAM), an asset management company based in South Africa. OAM manages and sells its branded mutual funds and unit trusts through agents across Africa. Mutini was recently sent to Uganda to oversee OAM's new agency agreement with Rayne Brokers (Rayne), a licensed Ugandan stock brokerage company with a strong retail customer base.

Part of Mutini's oversight role is to establish policies and procedures to ensure the Ugandan sales force represents OAM in a professional manner. As a condition of its agency agreement, OAM requires all of Rayne's sales agents to adhere to South African financial regulations, generally considered to be stricter than those in Uganda. OAM also requires all of its sales agents to abide by the CFA Code of Ethics and Standards of Professional Conduct. OAM's lawyer has indicated South African laws are stricter than the CFA Code and Standards.

To inform the Rayne sales agents of their responsibilities under the OAM agency agreement, Mutini holds a meeting with them to discuss the financial regulations of South Africa and the CFA Code and Standards. To conclude the meeting, Mutini describes OAM's annual competition amongst its sales agents where the winner is determined by the value of products sold (assets under management), fees generated, and the number of new clients brought in. The competition prize is an all expense paid two-week holiday for two to Mauritius. Mutini advises the staff they should concentrate their sales efforts on OAM's front-end load funds since they earn the highest fees. She adds staff should not disclose this competition to clients.

Mutini next meets with Rayne supervisors to specifically discuss their roles in upholding the CFA Standards. She informs them they are responsible for the prevention of any violations of laws, rules, regulations or the Code and Standards by the staff directly under their supervision. To make their job easier, instead of focusing equally on all of the requirements Mutini suggests the supervisors should concentrate on:

- Communicating compliance policies and procedures to all covered staff;
- Undertaking periodic reviews to ensure procedures are followed; and
- Enforcing investment related policies.

Later that day, Mutini scrutinizes Rayne's marketing material with Rayne's most successful sales agent, Tom Okello, another CFA Charterholder. They are preparing for a sales meeting to introduce OAM products to a potential client. Mutini notices Rayne's responsibility to uphold the CFA Code and Standards is not mentioned anywhere in the marketing material. Neither does the material mention that

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some of Rayne's employees are CFA Charterholders. Mutini notices Okello does not use the CFA designation on his business card. When Mutini asks him why, he responds, "If I use it, people will think I have a duty to Rayne's clients. I don't have a duty to clients, as stockbrokers in Uganda are not required to uphold a fiduciary duty. I don't want to mislead our clients by using the CFA designation."

During the sales meeting with the potential client, Okello makes the following statements:

Statement 1: "Before making an investment for any of our mutual funds or unit trusts, Rayne follows an extensive due diligence process and research analysis. We will only invest in the company if that investment meets the investment criteria that I have outlined to you."

Statement 2: "Every six months you will be mailed an itemized investment statement with cash flows so that you can see if your portfolio is meeting your investment objectives. In addition, you can obtain other information about our firm and investment process from our website, which is updated on a regular basis to ensure the integrity of the site as well as offer confidentiality and security to our clients. For your security, we do not post client statements on the website."

-
7. According to the CFA Code and Standards, if there is a conflict, Mutini should *most likely* adhere to:
- A. Uganda's laws and regulations.
 - B. South Africa's laws and regulations.
 - C. the CFA Code of Ethics and Standards of Professional Conduct.

Answer = B

"Guidance for Standards I-VII," CFA Institute
2011 Modular Level III, Vol. 1, pp. 19-23
Study Session 1-2-a

Demonstrate a thorough knowledge of the Code of Ethics and Standards of Professional Conduct by interpreting the Code and Standards in various situations involving issues of professional integrity.

B is correct because Standard I (A) - Knowledge of the Law requires CFA Members to understand and comply with all applicable laws, rules and regulations including the CFA Institute Code of

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Ethics and Standards of Professional Conduct. In the event of conflict, Members must comply with the stricter law, rule or regulation, including those of the Code and Standards. As the South African laws are considered to be stricter than the CFA Code and Standards or Ugandan law, Mutini must adhere to the South African laws and regulations.

8. By participating in OAM's annual competition, Rayne employees *least likely* violate which of the following CFA Standards?
- A. Misrepresentation.
 - B. Independence and Objectivity.
 - C. Additional Compensation Arrangements.

Answer = C

"Guidance for Standards I-VII," CFA Institute
2011 Modular Level III, Vol. 1, pp. 27-29, 38-39, 99
Study Session 1–2–a

Demonstrate a thorough knowledge of the Code of Ethics and Standards of Professional Conduct by interpreting the Code and Standards in various situations involving issues of professional integrity.

C is correct because members and candidates must not accept gifts, benefits, compensation, or consideration that competes with or might reasonably be expected to create a conflict of interest with their employer's interest. In this case, holding a competition to encourage sales is unlikely to cause a conflict of interest with the employer's interests.

9. In her meeting with Rayne supervisors, Mutini is *least likely* correct with regard to:
- A. communicating with staff.
 - B. undertaking periodic reviews.
 - C. enforcing investment related policies.

Answer = C

"Guidance for Standards I-VII," CFA Institute
2011 Modular Level III, Vol. 1, pp. 101 – 103
Study Session 1–2–b

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Recommend practices and procedures designed to prevent violations of the Code of Ethics and Standards of Professional Conduct.

C is correct because a member or candidate with supervisory responsibility should enforce policies related to investment and non-investment related activities equally: i.e. not concentrate on investment related over non-investment related policies.

10. Given Okello's comment regarding his reason for not using the CFA designation, he will *most likely* violate which of the following CFA Standards?

- A. Duties to Clients.
- B. Misrepresentation.
- C. Reference to CFA Designation.

Answer = A

"Guidance for Standards I-VII," CFA Institute
2011 Modular Level III, Vol. 1, pp. 19-21, 63-64, 145
Study Session 1-2-a

Demonstrate a thorough knowledge of the Code of Ethics and Standards of Professional Conduct by interpreting the Code and Standards in various situations involving issues of professional integrity.

A is correct because as a CFA charterholder, Okello has a duty to clients under Standard III (A) - Loyalty, Prudence and Care which requires him to act for the benefit of his clients and place the clients' interest before his employer's or his own. Standard III (A) establishes a minimum benchmark for the duties of loyalty, prudence and care that are required of all members and candidates regardless of whether a legal fiduciary duty applies.

11. What CFA Standard did Okello *most likely* violate in his Statement 1?

- A. Suitability.
- B. Misrepresentation.
- C. Diligence and Reasonable Basis.

Answer = B

"Guidance for Standards I-VII," CFA Institute
2011 Modular Level III, Vol. 1, pp. 38-39, 78, 107

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Study Session 1–2–a

Demonstrate a thorough knowledge of the Code of Ethics and Standards of Professional Conduct by interpreting the Code and Standards in various situations involving issues of professional integrity.

B is correct because the sales agent implies that Rayne is the asset manager when in fact OAM is the asset manager. By omitting the fact that Rayne is only a sales agent and implying Rayne manages the portfolio, the sales agent is misrepresenting their professional activities and thus is in violation of Standard I (C) Misrepresentation.

12. Does Okello's Statement 2 *most likely* meet the recommended procedures for compliance with the CFA Standards?
- A. Yes.
 - B. No, with regard to investment statements.
 - C. No, with regard to the company's website.

Answer = B

"Guidance for Standards I-VII," CFA Institute
2011 Modular Level III, Vol. 1, pp. 41, 67

Study Session 1–2–b

Recommend practices and procedures designed to prevent violations of the Code of Ethics and Standards of Professional Conduct.

B is correct because recommended procedures for compliance of Standard III (A) are that regular account information should be submitted to the client at least quarterly not semi-annually.

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James Stam Case Scenario

James Stam is a currency management consultant at Horizon, a Canadian asset management firm. Stam consults with portfolio managers within the firm as well as external clients.

In September, Amanda Lee, a Canadian equity portfolio manager at Horizon, approached Stam for advice about a £5,000,000 position in a U.K. stock she had just purchased in her portfolio. She believed the stock would outperform similar Canadian stocks over the next three months; however, she was concerned that the British pound (£) would weaken relative to the Canadian dollar (C\$) during that period. Stam recommended that Lee hedge 100% of the position's pound exposure.

Lee immediately executed the hedge by entering into enough December futures contracts to sell £5,000,000 for Canadian dollars at a futures exchange rate of C\$1.75/£. At the time, the spot exchange rate was C\$1.80/£.

One month later, the U.K. stock is valued at £5,200,000, the spot exchange rate is C\$1.70/£ and the futures rate is C\$1.65/£. Lee asks Stam to calculate the net profit or loss on the hedged stock position. Before Stam begins his analysis, he makes the following statement to Lee:

“The return on a hedged stock will differ from the stock return achieved in foreign currency for the following reasons: foreign exchange transaction costs, stock price volatility, and the interest rate differential.”

Aaron Sykes is a Canadian bond portfolio manager at Horizon who wants to add a Mexican peso-denominated bond to his portfolio. Sykes' objective is to implement a currency hedge to minimize the Mexican bond's exposure to exchange rate changes. He consults with Stam, who notes that the foreign currency values of Mexican peso-denominated bonds react systematically to exchange rate movements and that the covariance between bond returns and movement in the peso's value is positive. Stam analyzes the position to determine an appropriate Mexican peso hedge ratio for Sykes.

The international equity portfolio manager at Horizon, Blain DuPont, believes the Canadian dollar will appreciate over the next two years against all of the six foreign currency exposures within his portfolio. DuPont approaches Stam for advice on hedging these exposures. Stam recommends directly hedging the major currency exposures (euro, pound, and yen) and cross-hedging the remaining three minor currency exposures using the euro, pound, or yen. The hedging currency will be the one with the closest correlation with the minor currency. Stam provides the following three facts in support of this hedge structure:

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- Fact 1. Currency futures and forward contracts are actively traded only for major currencies.
- Fact 2. In portfolios with assets in many currencies, the residual risk of each currency is partly diversified away.
- Fact 3. Changes in the exchange rates for major currencies are often closely related to changes in other currencies.

Stam recommends that DuPont implement the hedges with short-term futures contracts with a maturity of 3 months or less. He justifies the use of short-term futures contracts by stating:

“Short-term futures contracts are preferable to long-term futures contracts because they offer greater liquidity and lower transaction costs.”

A pension plan client of Horizon approaches Stam for advice on hedging foreign currency exposures within the plan’s asset mix. Stam considers three factors before recommending a strategic benchmark hedge ratio to the client:

- Factor 1. Asset types held by the plan.
- Factor 2. Forecasted short-term changes in exchange rates.
- Factor 3. Transaction and interest differential costs of hedging.

13. The net profit or loss on Lee’s hedged UK stock position is *closest to*:

- A. C\$660,000.
- B. C\$340,000.
- C. C\$500,000.

Answer = B

“Currency Risk Management,” Bruno Solnik and Dennis McLeavey, CFA
 2011 Modular Level III, Vol. 5, pp. 293-295
 Study Session 14-40-a

Demonstrate and explain the use of foreign exchange futures to hedge the currency exposure associated with the principal value of a foreign investment.

B is correct because:

$$\text{Profit/loss} = V_t S_t - V_0 S_0 - V_0 (F_t - F_0)$$

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$$\begin{aligned}
&= 5,200,000 \times 1.70 - 5,000,000 \times 1.80 - 5,000,000 (1.65 - 1.75) \\
&= 8,840,000 - 9,000,000 + 500,000 \\
&= \$340,000
\end{aligned}$$

14. In his statement to Lee, Stam is *most likely* correct with respect to:

- A. stock price volatility.
- B. interest rate differential.
- C. foreign exchange transaction costs.

Answer = B

“Currency Risk Management,” Bruno Solnik and Dennis McLeavey, CFA
2011 Modular Level III, Vol. 5, pp. 300-302

Study Session 14-40-c

Evaluate the effect of basis risk on the quality of a currency hedge.

B is correct because futures and spot exchange rates differ by a basis and this basis is created by the interest rate differential between two currencies.

15. The *most* appropriate recommendation that Stam should make to Sykes is that the hedge ratio be:

- A. equal to 1.
- B. less than 1.
- C. greater than 1.

Answer = C

“Currency Risk Management,” Bruno Solnik and Dennis McLeavey, CFA
2011 Modular Level III, Vol. 5, pp. 295-300

Study Session 14-40-b

Justify the use of a minimum-variance hedge when covariance between local currency returns and exchange rate movements exists and interpret the components of the minimum-variance hedge ratio in terms of translation risk and economic risk.

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C is correct because the investment has both translation and economic risk. The hedge ratio of translation risk is 1; the asset has positive covariance with the exchange rate movement therefore, the hedge must be more than 1 in order to hedge economic risk in addition to translation risk.

16. Which of the three facts that Stam provides to DuPont *least likely* supports his recommended hedge structure?
- A. Fact 1.
 - B. Fact 2.
 - C. Fact 3.

Answer = B

“Currency Risk Management,” Bruno Solnik and Dennis McLeavey, CFA
2011 Modular Level III, Vol. 5, pp. 303-304
Study Session 14-40-e

Explain the issues that arise when hedging multiple currencies.

B is correct because it provides support for not hedging each currency component in a multicurrency portfolio.

17. Are the reasons Stam provides to DuPont justifying the use of 3 month futures to implement the hedging strategy *most likely* correct?
- A. Yes.
 - B. No, with respect to liquidity.
 - C. No, with respect to transaction costs.

Answer = C

“Currency Risk Management,” Bruno Solnik and Dennis McLeavey, CFA
2010 Modular Level III, Vol. 5, pp. 302-303
Study Session 14-40-d

Evaluate the choice of contract terms (short, matched, or long term) when establishing a currency hedge.

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C is correct because transaction costs for hedges using short-term futures are greater because the contracts must be rolled over which generates more commissions.

18. With regard to the strategic benchmark hedge ratio, which of the three factors that Stam considers is *least* appropriate?

- A. Factor 1
- B. Factor 2
- C. Factor 3

Answer = B

“Currency Risk Management,” Bruno Solnik and Dennis McLeavey, CFA
2011 Modular Level III, Vol. 5, pp. 315-318

Study Session 14-40-i

Compare and contrast the major types of currency management strategies specified in investment policy statements.

B is correct because reliance on a short-term forecast is indicative of a tactical approach that is used in currency overlay. This is an active risk management technique employed to capture upside potential. The benchmark decision is a strategic decision that focuses on the long run.

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Goldsboro Partners Case Scenario

Goldsboro Partners, an investment management firm, intends to offer more products invested in equities traded on the Singapore Exchange (SGX).

Goldsboro is developing the Goldsboro Singapore Index (GSI); a proprietary index of Singapore equities comprised of five stocks traded on the SGX with the largest market capitalization. Goldsboro must decide how to structure the GSI. Information about the prices and market caps of these firms is found in Exhibit 1.

Exhibit 1
Five Largest Singapore Firms: Selected Information in US\$

| Firm | Price @1/1/2009 | Price @1/1/2010 | Change in Price | Market Cap @1/1/2009 (billions) | Market Cap @1/1/2010 (billions) | Change in Market Cap |
|---------------------|--------------------|--------------------|--------------------|---------------------------------------|---------------------------------------|----------------------------|
| SingTel | 2.35 | 2.53 | +7.7% | 48.5 | 52.5 | +8.2% |
| Wilmar | 5.77 | 6.80 | +17.9% | 32.7 | 41.2 | +26.0% |
| DBS Group | 11.62 | 13.28 | +14.3% | 26.6 | 30.1 | +13.2% |
| Jardine Matheson | 23.94 | 26.71 | +11.6% | 25.3 | 27.6 | +9.1% |
| UOB | 12.73 | 14.07 | +10.5% | 23.9 | 26.8 | +12.1% |
| Total | 56.41 | 63.39 | | 157.0 | 178.2 | |

Goldsboro has four large, institutional clients who indicated that they might invest a total of US\$240 million in a fund indexed to the GSI. These clients are very cost sensitive.

Goldsboro already offers two mutual funds that consist of stocks that are part of the Straits Times Index (STI), a value-weighted index of the 30 largest firms traded on the SGX. Exhibit 2 provides information about these two funds (GB1 and GB2), the STI index, and all stocks traded on the SGX.

Exhibit 2
Comparison of Goldsboro's 2 Funds, the STI, and the SGX

| | Fund GB1 | Fund GB2 | STI | SGX |
|---------------------------|----------------|----------------|----------------|---------------|
| Number of stocks | 12 | 12 | 30 | 612 |
| Average market cap | \$12.4 billion | \$13.2 billion | \$13.7 billion | \$2.7 billion |
| Dividend yield | 1.5% | 2.1% | 1.6% | 0.8% |
| P/E | 21.7 | 16.8 | 21.4 | 24.7 |
| P/B | 2.6 | 2.1 | 2.7 | 2.9 |
| Projected EPS growth rate | 11.0% | 8.4% | 11.2% | 13.7% |

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Goldsboro also offers three independently-managed funds, GB-STI-1, GB-STI-2, and GB-STI-3. The three funds are benchmarked against the STI index. For the year 2009, Jason Briggs, a client whose Singapore benchmark is the MSCI Singapore Free Index, pursued a core-satellite approach by investing in these three funds, earning a return of 12.4%. Information about these three funds, their returns, and Briggs' investments is found in Exhibit 3.

Exhibit 3
Briggs' Investments in Goldsboro's STI-benchmarked Funds

| | GB-STI-1 | GB-STI-2 | GB-STI-3 |
|-----------------------------|-----------------|-----------------|-----------------|
| Fund expected alpha | 5% | 2% | 0% |
| Fund expected tracking risk | 9% | 5% | 0% |
| Briggs' investment | \$20 million | \$20 million | \$10 million |
| Return during 2009 | 15% | 10% | 12% |

In 2009, the return on the MSCI Singapore Free Index was 11.7% and the return on the STI Index was 12.0%.

19. Based on Exhibit 1, for the year 2009, assuming no stock splits or stock dividends for the stock components and no rebalancing, which of these index structures would have *most likely* resulted in the largest return for the GSI?

- A. A price-weighted index.
- B. A value-weighted index.
- C. An equal-weighted index.

Answer = B

"Equity Portfolio Management," Gary L. Gastineau, Andrew R. Olma, CFA, and Robert G. Zielinski, CFA
2011 Modular Level III, Vol. 4, pp. 205-211
Study Session 11-32-d

Distinguish among the predominant weighting schemes used in the construction of major equity share indices and evaluate the biases of each.

B is correct because this weighting methodology produced the largest return of 13.5% for the GSI. The return on a value-weighted index is the percentage change in the total market

capitalization of the firms in the index or $13.5\% = \frac{178.2}{157.0} - 1$.

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20. Goldsboro's *best* choice for the GSI index portfolio structure is:

- A. a mutual fund.
- B. a pooled account.
- C. an exchange-traded fund.

Answer = B

"Equity Portfolio Management," Gary L. Gastineau, Andrew R. Olma, CFA, and Robert G. Zielinski, CFA

2011 Modular Level III, Vol. 4, pp. 214-216

Study Session 11-32-e

Compare and contrast alternative methods for establishing passive exposure to an equity market, including indexed separate or pooled accounts, index mutual funds, exchange-traded funds, equity index futures, and equity total return swaps.

B is correct because the clients are identified as being cost sensitive and, of the three choices offered, pooled accounts generally have the lowest fees.

21. According to the information provided in Exhibit 2, Fund GB1 is *best* characterized as having what equity style?

- A. Value.
- B. Growth.
- C. Market oriented.

Answer = C

"Equity Portfolio Management," Gary L. Gastineau, Andrew R. Olma, CFA, and Robert G. Zielinski, CFA

2011 Modular Level III, Vol. 4, pp. 222-227, 235-237

Study Session 11-32-i

Compare and contrast techniques for identifying investment styles and characterize the style of an investor when given a description of the investor's security selection method, details on the investor's security holdings, or the results of a returns-based style analysis.

C is correct because a market oriented equity style is one that is neither value nor growth. Fund GB1 has characteristics that are almost identical to the broader STI index. While two (dividend yield and P/E) of the four reported characteristics lean slightly toward a growth style, the other two (P/B, projected EPS growth) lean slightly toward a value style.

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22. Goldsboro's Fund GB2 would appeal to an investor who is *most* closely focused on:

- A. relative strength.
- B. earnings momentum.
- C. price relative to intrinsic value.

Answer = C

"Equity Portfolio Management," Gary L. Gastineau, Andrew R. Olma, CFA, and Robert G. Zielinski, CFA

2011 Modular Level III, Vol. 4, pp. 222-227, 235-237

Study Session 11-32-h,i

Explain the rationales and primary concerns of value investors and growth investors and discuss the key risks of each investment style.

Compare and contrast techniques for identifying investment styles and characterize the style of an investor when given a description of the investor's security selection method, details on the investor's security holdings, or the results of a returns-based style analysis.

C is correct because Fund GB2 follows a value style (higher dividend yield, lower P/E, P/B, and earnings growth). Value investors are focused on price relative to intrinsic value.

23. The characterization of Briggs' investment as following a core-satellite approach is *most likely*:

- A. correct.
- B. incorrect, because too little of the portfolio was passively invested.
- C. incorrect, because the funds invested in are benchmarked against the wrong index.

Answer = A

"Equity Portfolio Management," Gary L. Gastineau, Andrew R. Olma, CFA, and Robert G. Zielinski, CFA

2011 Modular Level III, Vol. 4, pp. 257-260

Study Session 11-32-r

Explain the core-satellite approach to portfolio construction and discuss the advantages and disadvantages of adding a completeness fund to control overall risk exposures.

A is correct. Fund GB-STI3 has an expected alpha and expected tracking error of 0% and can therefore be characterized as an index fund. 20% of the investment was placed in this fund, creating a core, with the remainder invested in non-index funds creating a satellite. A small core allocation might be indicative of a high risk tolerance.

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24. During 2009, the “misfit” active return earned by Brigg’s investments was *closest to*:

- A. 0.3%.
- B. 0.4%.
- C. 0.7%.

Answer = A

“Equity Portfolio Management,” Gary L. Gastineau, Andrew R. Olma, CFA, and Robert G. Zielinski, CFA

2011 Modular Level III, Vol. 4, pp. 257-260

Study Session 11-32-s

Distinguish among the components of total active return (“true” active return and “misfit” active return) and their associated risk measures and explain their relevance for evaluating a portfolio of managers.

A is correct because “misfit” active return is equal to the return of the manager’s normal benchmark minus the return of the investor’s benchmark. $0.3\% = 12\% - 11.7\%$, where 12% is the return on the STI index fund and 11.7% is the return on the MSCI Singapore Free Index.

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Brian O'Reilly Case Scenario

Brian O'Reilly is a capital markets consultant for the Tennessee Teachers' Retirement System (TTRS). O'Reilly is meeting with the TTRS board to present his capital market expectations for the next year. Board member Kay Durden asks O'Reilly about the possibility that data measurement biases exist in historical data. O'Reilly responds:

"Some benchmark indexes suffer from survivorship bias. For example the returns of failed or merged companies are dropped from the data series resulting in an upward bias to reported returns. This may result in an overly-optimistic expectation with respect to future index returns. Another bias results from the use of appraisal data in the absence of market transaction data. Appraisal values tend to be less volatile than market determined values for identical assets. The result is that calculated correlations with other assets tend to be biased upward in absolute value compared to the true correlations and the true variance of the asset is biased downward."

Board member Arnold Brown asks O'Reilly about the use of high-frequency (daily) data in developing capital market expectations. O'Reilly answers:

"Sometimes it is necessary to use daily data to obtain a data series of the desired length. High-frequency data are more sensitive to asynchronism across variables and, as a result, tend to produce higher correlation estimates."

Board member Harold Melson noted he recently read an article on psychological traps related to making accurate and unbiased forecasts. He asks O'Reilly to inform the board about the anchoring trap and the confirming evidence trap. O'Reilly offers the following explanation:

"The anchoring trap is the tendency for forecasts to be overly influenced by the memory of catastrophic or dramatic past events that are anchored in a person's memory. The confirming evidence trap is the bias that leads individuals to give greater weight to information that supports a preferred viewpoint than to evidence that contradicts it."

The board asks O'Reilly about using a multifactor model to estimate asset returns and covariances among asset returns. O'Reilly presented the factor covariance matrix for global equity and global bonds shown in Exhibit 1 and market factor sensitivities and residual risk shown in Exhibit 2.

Exhibit 1
Factor Covariance Matrix

| | Global Equity | Global Bonds |
|---------------|----------------------|---------------------|
| Global Equity | 0.0225 | 0.0022 |
| Global Bonds | 0.0022 | 0.0025 |

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Exhibit 2
Market Factor Sensitivities and Residual Risk

| | Sensitivities | | Residual Risk |
|----------|---------------|--------------|---------------|
| | Global Equity | Global Bonds | |
| Market 1 | 1.20 | 0 | 12.0% |
| Market 2 | 0.90 | 0 | 7.0% |
| Market 3 | 0 | 0.95 | 1.8% |

Finally, the board asks about forecasting expected returns for major markets given that price earnings ratios are not constant over time and that many companies are repurchasing shares instead of increasing cash dividends. O'Reilly responds that the Grinold-Kroner model accounts for those factors and then makes the following forecasts for the European equity market:

- Dividend yield will be 1.95%
- Shares outstanding will decline 1.00%
- Long-term inflation rate will be 1.75% per year
- An expansion rate for P/E multiples of 0.15% per year
- Long-term corporate real earnings growth at 3.5% per year

25. With respect to his explanation of survivorship bias, O'Reilly *most likely* is:

- A. correct.
- B. incorrect, because survivorship bias results in a downward bias to reported returns.
- C. incorrect, because survivorship bias results in an overly pessimistic view of expected returns.

Answer = A

"Capital Market Expectations," John P. Calverley, Alan M. Meder, CFA, Brian D. Singer, CFA and Renato Staub

2011 Modular Level III, Vol. 3, p. 15

Study Session 6-23-b

Discuss, in relation to capital markets expectations, the limitations of economic data; data measurement errors and biases; the limitations of historical estimates; *ex post* risk as a biased measure of *ex ante* risk; biases in analysts' methods; the failure to account for conditioning information; the misinterpretation of correlations; psychological traps; and model uncertainty.

O'Reilly's explanation of survivorship bias is correct.

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26. With respect to his explanation of appraisal data bias, O'Reilly *most likely* is:

- A. correct.
- B. incorrect, because the true variance of the asset is biased upward.
- C. incorrect, because calculated correlations with other assets tend to be biased downward in absolute value.

Answer = C

"Capital Market Expectations," John P. Calverley, Alan M. Meder, CFA, Brian D. Singer, CFA and Renato Staub

2011 Modular Level III, Vol. 3, p. 15

Study Session 6-23-b

Discuss, in relation to capital markets expectations, the limitations of economic data; data measurement errors and biases; the limitations of historical estimates; *ex post* risk as a biased measure of *ex ante* risk; biases in analysts' methods; the failure to account for conditioning information; the misinterpretation of correlations; psychological traps; and model uncertainty.

O'Reilly's explanation of appraisal data bias is incorrect because calculated correlations with other assets tend to be smaller in absolute value compared to the true correlations. O'Reilly is correct in that appraisal values tend to be less volatile than market determined values for identical assets and the true variance (and standard deviation) of the asset is biased downward.

27. With respect to his answer to Brown's question, O'Reilly *most likely* is:

- A. correct.
- B. incorrect, because high-frequency data are less sensitive to asynchronism.
- C. incorrect, because high-frequency data tend to produce lower correlation estimates.

Answer = C

"Capital Market Expectations," John P. Calverley, Alan M. Meder, CFA, Brian D. Singer, CFA and Renato Staub

2011 Modular Level III, Vol. 3, pp. 17-18

Study Session 6-23-b

Discuss, in relation to capital markets expectations, the limitations of economic data; data measurement errors and biases; the limitations of historical estimates; *ex post* risk as a biased measure of *ex ante* risk; biases in analysts' methods; the failure to account for conditioning information; the misinterpretation of correlations; psychological traps; and model uncertainty.

O'Reilly's answer is incorrect with respect to correlation estimates. High-frequency data are more sensitive to asynchronism across variables and, as a result, tend to produce lower

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correlation estimates.

28. Is O'Reilly's explanation of the anchoring trap *most likely* correct?

- A. Yes.
- B. No, because the anchoring trap is the tendency to temper forecasts so that they do not appear extreme.
- C. No, because the anchoring trap is the tendency for the mind to give a disproportionate weight to the first information it receives on a topic.

Answer = C

"Capital Market Expectations," John P. Calverley, Alan M. Meder, CFA, Brian D. Singer, CFA and Renato Staub

2011 Modular Level III, Vol. 3, pp. 22-24

Study Session 6-23-b

Discuss, in relation to capital markets expectations, the limitations of economic data; data measurement errors and biases; the limitations of historical estimates; *ex post* risk as a biased measure of *ex ante* risk; biases in analysts' methods; the failure to account for conditioning information; the misinterpretation of correlations; psychological traps; and model uncertainty

O'Reilly's explanation of the anchoring trap is incorrect. The anchoring trap is the tendency of the mind to give disproportionate weight to the first information it receives on a topic. Initial impressions, estimates, or data anchor subsequent thoughts and judgments.

29. Given the data in Exhibits 1 and 2, the covariance between Market 1 and Market 2 is *closest* to:

- A. 0.0017.
- B. 0.0225.
- C. 0.0243.

Answer = C

"Capital Market Expectations," John P. Calverley, Alan M. Meder, CFA, Brian D. Singer, CFA and Renato Staub

2011 Modular Level III, Vol. 3, pp. 29-31

Study Session 6-23-c

Demonstrate the application of formal tools for setting capital market expectations, including statistical tools, discounted cash flow models, the risk premium approach, and financial equilibrium models.

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The covariance between Market 1 and Market 2 is calculated as follows:

$$M_{12} = (1.20 \times 0.90 \times 0.0225) + (0 \times 0 \times 0.0025) + [(1.20 \times 0) + (0 \times 0.90)] \times 0.0022 = 0.0243.$$

30. Given O'Reilly's forecasts for the European market, the expected long-term equity return using the Grinold-Kroner model is *closest* to:

- A. 6.35%.
- B. 7.35%.
- C. 8.35%.

Answer = C

"Capital Market Expectations," John P. Calverley, Alan M. Meder, CFA, Brian D. Singer, CFA and Renato Staub

2011 Modular Level III, Vol. 3, pp. 35-37

Study Session 6-23-c

Demonstrate the application of formal tools for setting capital market expectations, including statistical tools, discounted cash flow models, the risk premium approach, and financial equilibrium models.

According to the Grinold-Kroner model, the expected long-term developed market equity return is equal to the sum of the: 1) expected income return (dividend yield minus the percentage change in the number of shares outstanding), 2) expected nominal earnings growth return (long-term inflation rate plus long-term corporate earnings growth rate), and 3) repricing return (expansion rate for P/E multiples). In this case:

$$E(R_e) = [1.95 - (-1.0)] + [1.75 + 3.50] + 0.15 = 2.95 + 5.25 + 0.15 = 8.35\%$$

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Aina Monts Case Scenario

Aina Monts, CFA, is a fixed income portfolio manager at Girona Advisors. She has been awarded the management of a €150 million portfolio for Fondo de Pensiones Lerida, a pension fund based in Barcelona, Spain. The previous manager was fired for underperforming the benchmark by more than 100 basis points in each of the last three years. Lerida's primary objective is to immunize its liabilities, which have a duration of 4.40 years, while achieving a total rate of return in excess of the Barclays Capital U.S. Aggregate Bond Index. The benchmark's duration is currently 4.42 years. At Girona's portfolio review meeting, Monts makes the following statement:

Statement 1: "We will invest the €150 million in a multi-sector portfolio with a yield-to-maturity of 6.75%. This is above Lerida's required rate of return of 6.25%. The duration of the portfolio will be equal to the duration of the liabilities and we will manage the portfolio with an expectation of beating the Barclays Capital U.S. Aggregate Bond Index."

Exhibit 1 presents key characteristics of Lerida's portfolio for the current period and from one year ago. Since rates have shifted over this period, Monts informs Lerida that an additional investment must be made to rebalance the portfolio and reestablish the original dollar duration. Monts plans to rebalance using the existing security proportions.

Exhibit 1
Fondo de Pension Lerida
Portfolio Characteristics

| Sector | Market Value (€000's) | | Duration (years) | |
|---------------------|-----------------------|---------|------------------|---------|
| | One Year Ago | Current | One Year Ago | Current |
| Treasury | 42,000 | 40,950 | 5.4 | 5.0 |
| Mortgage (MBS) | 37,000 | 36,316 | 3.9 | 3.7 |
| Corporate "Bullets" | 71,000 | 69,403 | 4.7 | 4.5 |

Monts will rebalance the portfolio by investing in securities that her research group has identified as providing the most attractive total return potential. Sector allocations for her portfolio and the benchmark, are presented in Exhibit 2.

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Exhibit 2
Sector Weightings

| | Portfolio | | | Benchmark | | |
|----------------|----------------|----------|---------------------------------|----------------|----------|---------------------------------|
| Sector | % of Portfolio | Duration | Contribution to Spread Duration | % of Portfolio | Duration | Contribution to Spread Duration |
| Treasury | 27.92 | 5.0 | 0.00 | 30.00 | 3.8 | 0.00 |
| Mortgage - MBS | 24.76 | 3.7 | 0.92 | 22.90 | 4.0 | 0.92 |
| Corporate | 47.32 | 4.5 | 2.13 | 47.10 | 5.0 | 2.37 |
| Total | 100.00 | | 3.05 | 100.00 | | 3.29 |

Monts also uses security selection in addition to sector rotation as sources of alpha and is evaluating several new trades. At the portfolio review meeting, Monts makes the following statements:

Statement 2: “I am concerned that certain types of securities in the portfolio pose a risk of not providing sufficient cash flow to pay liabilities when they come due. The allocation to mortgage-backed securities in the portfolio, for instance, exposes us to contingent claims risk. We should therefore increase the allocation to non-callable fixed-rate corporate bonds, which do not expose us to contingent claims risk.”

Statement 3: “Our research team anticipates that the credit fundamentals of most issuers will deteriorate over the coming months as the economy contracts. The market consensus is not in line with our view yet and spreads do not reflect the proper valuation.”

Statement 4: “Structural analysis of corporate bonds is a key part of our research process. Given Girona’s view that interest rates are in secular decline, we expect callable bonds to outperform bullets. In the event interest rates rise sharply, put structures will provide investors with some protection.”

31. Based on Monts’ Statement 1, the extension of classical immunization theory that Monts will use to meet Lerida’s investment objective is *best* described as:

- A. contingent immunization.
- B. symmetric cash flow matching.
- C. multiple liability immunization.

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Answer = A

“Fixed-Income Portfolio Management - Part I,” H. Gifford Fong and Larry D. Guin, CFA
2011 Modular Level III, Vol. 4, pp.9-10, 36

Study Session 9-28-b, i

Compare and contrast pure bond indexing, enhanced indexing, and active investing with respect to the objectives, techniques, advantages, and disadvantages of each;

Discuss the extensions that have been made to classical immunization theory, including the introduction of contingent immunization.

A is correct because an extension of classical immunization is to integrate immunization strategies with elements of active management strategies. The difference between the 6.75% YTM and 6.25% required rate is the cushion spread. As long as there is a spread cushion the manager can actively manage part or the entire portfolio.

32. Based on Exhibit 1, the cash required to rebalance the Lerida portfolio *is closest* to:

- A. €533,000.
- B. €3,331,000.
- C. €12,027,000.

Answer = C

“Fixed-Income Portfolio Management - Part I,” H. Gifford Fong and Larry D. Guin, CFA
2011 Modular Level III, Vol. 4, pp. 30-31

Study Session 9-28-g

Demonstrate the process of rebalancing a portfolio to re-establish a desired dollar duration.

C is correct because the portfolio has to be rebalanced to the initial level of dollar duration. The portfolio market value and dollar duration are provided for both periods. First calculate dollar duration as: Market value \times duration \times 0.01.

| (€000's) | One Year Ago | | | Current | | |
|----------|--------------|----------|-----------------|--------------|----------|-----------------|
| Sector | Market Value | Duration | Dollar Duration | Market Value | Duration | Dollar Duration |
| Treasury | 42,000 | 5.4 | 2,268 | 40,950 | 5.0 | 2,048 |

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| | | | | | | |
|------------------------|---------|-----|-------|---------|-----|-------|
| Mortgages | 37,000 | 3.9 | 1,443 | 36,316 | 3.7 | 1,344 |
| Corporate "Bullets" | 71,000 | 4.7 | 3,337 | 69,403 | 4.5 | 3,123 |
| | 150,000 | | 7,048 | 146,669 | | 6,515 |

Next, calculate the rebalancing ratio: $\frac{7,048,000}{6,515,000} = 1.082$.

Cash required = $0.082 \times (40,950 + 36,316 + 69,403) = 12,026,858$

33. Based on the data in Exhibit 2, Mont's positioning of the portfolio would suggest that the sector that poses the *most* tracking error relative to the benchmark is:

- A. treasury.
- B. mortgage.
- C. corporate.

Answer = C

"Fixed-Income Portfolio Management - Part I," H. Gifford Fong and Larry D. Guin, CFA
2011 Modular Level III, Vol. 4, pp. 19-20; 31-32

Study Session 9-28-h

Explain the importance of spread duration.

C is correct because contribution to spread duration is the key measure that provides the relative sensitivity to movements in spreads for a particular sector. The portfolio has an overweight to Treasury on a contribution to overall duration but is not a spread sector; a neutral position in mortgages and an underweight in corporate bonds (2.13 years in the portfolio vs. 2.37 years in the benchmark). The equal weight on a nominal basis in corporate bonds implies the duration of those bonds in the portfolio is shorter than the bonds in the index which will be less sensitive to changes in spread movement.

34. Is Mont's Statement 2 *mostly likely* correct?

- A. Yes.
- B. No, she is incorrect about corporate bonds.
- C. No, she is incorrect about mortgage-backed securities.

Answer = A

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“Fixed-Income Portfolio Management - Part I,” H. Gifford Fong and Larry D. Guin, CFA
2011 Modular Level III, Vol. 4, p. 38

Study Session 9-28-j

Explain the risks associated with managing a portfolio against a liability structure, including interest rate risk, contingent claim risk, and cap risk.

A is correct because when securities have a contingent claim provision, explicit or implicit, there is an associated risk. In a falling rate scenario, the manager may have higher coupon payments halted and receive principal as is the case with mortgage-backed securities. Mortgage-backed securities therefore have contingent claims risk. Fixed-rate corporate bullet bonds do not have contingent claims risk.

35. The strategy that is most likely to benefit from the environment described by Monts in Statement 3 is to:

- A. increase exposure to the crossover sector.
- B. rotate from consumer non-cyclical to consumer cyclical sectors.
- C. shift the portfolio's positions to shorter duration corporate bonds.

Answer = C

“Relative-Value Methodologies for Global Credit Bond Portfolio Management,” Jack Malvey,
2011 Modular Level III, Vol. 4, pp. 71-74

Study Session 9-29-d

Discuss common rationales for secondary market trading, including yield-spread pickup trades, credit-upside trades, credit-defense trades, new issue swaps, sector-rotation trades, yield curve-adjustment trades, structure trades, and cash flow reinvestment.

C is correct because curve-adjustment trades take place when the portfolio manager expects credit spreads will widen (either overall or in a particular sector). The specific strategy is to shift the portfolio's exposure to shorten spread duration by selling longer maturity corporate bonds and buying shorter maturity bonds, which lowers the contribution to spread duration.

36. Is Monts' Statement 4 *most likely* correct?

- A. Yes.

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- B. No, because callable bonds would underperform.
- C. No, because putable bonds would not provide protection.

Answer = B

“Relative-Value Methodologies for Global Credit Bond Portfolio Management,” Jack Malvey, 2011 Modular Level III, Vol. 4, pp. 79-82

Study Session 9-29-e

Discuss and evaluate corporate bond portfolio strategies that are based on relative value, including total return analysis, primary market analysis, liquidity and trading analysis, secondary trading rationales and trading constraints, spread analysis, structure analysis, credit curve analysis, credit analysis, and asset allocation/sector analysis.

B is correct because callable bonds significantly underperform non-callable bonds when interest rates decline because of their negative convexity. When the bond market rallies, callable structures do not fully participate given the upper boundary imposed by call prices.

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Stewart Mink Case Scenario

Stewart Mink manages the interest rate risk for Casford Bank, a small bank operating in the retail and small business market. It is January 1 and Mink is evaluating various exposures of the bank for the coming year. Given the bank's overall interest rate exposure, Mink's primary goal is to protect the bank should interest rates decline but retain the upside should interest rates go up.

Mink is concerned about an upcoming reset on a floating rate loan to Texmaco. Details on the loan and other relevant information are provided in Exhibit 1.

Exhibit 1
Texmaco Loan Information

| | |
|----------------------------|-------------------------|
| Face Value | \$60 million |
| Loan Due Date | One year from now |
| Rate | 180-day LIBOR + 200 bps |
| Reset frequency | Every six months |
| Next reset | June 30 th |
| Current spot 180 day LIBOR | 5 percent |

He gathers the following information on European style interest rate option contracts that could be used to hedge the Texmaco loan.

Exhibit 2
Information on Interest Rate Options

| | |
|-------------------------------------|-----------------------|
| Notional Amount | \$60 million |
| Underlying | 180-day spot LIBOR |
| Day count convention | 30/360 |
| Call exercise rate | 6.0 percent |
| Call premium | \$100,000 |
| Put exercise rate | 4.5 percent |
| Put premium | \$130,000 |
| Exercise date for both put and call | June 30 th |

Mink evaluates a put hedging strategy and a collar hedging strategy. He also examines methods to lower the cost of the collar.

Finally, Mink discusses the collar with Stan Peters, the bank's Chief Financial Officer, who indicates that the board of directors is concerned with potential volatility in the bank's earnings. Peters proposes that Mink initiate a long straddle at exercise rates of 5.0% instead of the collar.

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Mink responds: "I did not use a straddle for the following reasons:

Reason 1: The straddle will not protect against significant decreases in the LIBOR rate.

Reason 2: The straddle is more expensive to implement than the collar."

37. For Mink to achieve his primary goal, he should enter into a:

- A. long put option position with a strike below the current market rate.
- B. short call option position with a strike above the current market rate.
- C. collar with a call strike above the current market rate and a put strike below the current market rate.

Answer = A

"Risk Management Applications of Option Strategies," Don M. Chance

2011 Modular Level III, Vol. 5, pp. 439-444

Study Session 15-42-a, d

Compare and contrast the use of covered calls and protective puts to manage risk exposure to individual securities;

Determine the payoffs for a series of interest rate outcomes when a floating rate loan is combined with 1) an interest rate cap, 2) an interest rate floor, or 3) an interest rate collar.

A is correct because the long put protects the downside (decrease in interest rates) without reducing the upside potential (other than the premium paid for the put.)

38. Based on Exhibits 1 and 2, the effective cost of the put that would hedge the Texmaco loan at the time of its next reset is *closest* to:

- A. \$130,000.
- B. \$134,550.
- C. \$139,100.

Answer = B

"Risk Management Applications of Option Strategies," Don M. Chance

2011 Modular Level III, Vol. 5, pp. 439-444

Study Session 15-42-c

Determine the effective annual rate for a given interest rate outcome when a borrower (lender) manages the risk of an anticipated loan using an interest rate call (put) option.

B is correct because

Effective cost of the put purchased on January 1 for June 30th expiration.

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$$= \$130,000[1 + (.05 + .02)(180/360)]$$

$$= 134,550$$

39. Given a 180-day spot LIBOR of 6.0% on the June 30th reset date, what is the effective interest rate at the reset of the Texmaco loan, assuming a collar constructed from the loan and the options described in Exhibit 2?

- A. 8.16%
- B. 8.28%
- C. 8.39%

Answer = A

“Risk Management Applications of Option Strategies,” Don M. Chance

2011 Modular Level III, Vol. 5, pp. 438-455

Study Session 15-42-d

Determine the payoffs for a series of interest rate outcomes when a floating rate loan is combined with 1) an interest rate cap, 2) an interest rate floor, or 3) an interest rate collar.

A is correct because

Effective cost of the collar purchased on January 1 for June 30th expiration.

$$(\$130,000 - \$100,000)[1 + (.05 + .02)(180/360)]$$

$$= 31,050$$

Effective total amount of loan = \$60,031,050

$$\text{Put payoff} = \$60,000,000[\text{Max}(0, .0450 - .0600)](180/360)$$

$$= \$0$$

$$\text{Call payoff} = -\$60,000,000[\text{Max}(0, .0600 - .0600)](180/360)$$

$$= \$0$$

$$\text{Interest on loan} = \$60,000,000[.06 + .02](180/360)$$

$$= \$2,400,000$$

$$\text{Effective rate} = [(\$60,000,000 + \$2,400,000)/(\$60,031,050)]^{365/180} - 1$$

$$= 8.16 \text{ percent.}$$

40. For the collar that is constructed from the Texmaco loan and the options described in Exhibit 2, excluding the option premium(s), the rate Casford will receive for the last half of the year will be within the range of:

- A. 4.5 to 6.0%.
- B. 4.5 to 8.0%.
- C. 6.5 to 8.0%.

Answer = C

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“Risk Management Applications of Option Strategies,” Don M. Chance
2011 Modular Level III, Vol. 5, pp. 452-455

Study Session 15-42- d

Determine the payoffs for a series of interest rate outcomes when a floating rate loan is combined with 1) an interest rate cap, 2) an interest rate floor, or 3) an interest rate collar.

C is correct because the collar effectively locks the range (4.5% + 200 bp) to (6.0% + 200bp). Any upside after a LIBOR of 6 percent is captured by the buyer of the call and the floor is established at a LIBOR of 4.5 percent, the exercise rate for the put.

41. Compared to the collar created from the Texmaco loan and the options described in Exhibit 2, which of the following combination of option exercise rates will provide the lowest cost collar?

| | Put | Call |
|----|------|------|
| A. | 4.0% | 5.5% |
| B. | 4.0% | 6.5% |
| C. | 5.0% | 6.5% |

Answer = A

“Risk Management Applications of Option Strategies,” Don M. Chance
2011 Modular Level III, Vol. 5, pp. 452-455

Study Session 15-42-b

Determine and interpret the value at expiration, profit, maximum profit, maximum loss, breakeven underlying price at expiration, and general shape of the graph for the major option strategies (bull spread, bear spread, butterfly spread, collar, straddle, box spread).

A is correct because both the put and the call have lower exercise prices than the one being proposed. Hence, for the same underlying, the cost of the put with an exercise of 4 percent (instead of 4.5) less the premium received from writing the call at 5.5 percent (instead of 6) exercise should be lower than the one being proposed. Mink pays less for the 4 percent put and receives more for writing the 5.5 percent call.

42. Are Mink’s responses to Peters’ proposed strategy *most likely* correct?

- A. Yes.
- B. No, because Reason 1 is incorrect.
- C. No, because Reason 2 is incorrect.

Answer = B

“Risk Management Applications of Option Strategies,” Don M. Chance
2011 Modular Level III, Vol. 5, pp. 427-430, 433-444

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Study Session 15-42-b,c

Determine and interpret the value at expiration, profit, maximum profit, maximum loss, breakeven underlying price at expiration, and general shape of the graph for the major option strategies (bull spread, bear spread, butterfly spread, collar, straddle, box spread).

Determine the effective annual rate for a given interest rate outcome when a borrower (lender) manages the risk of an anticipated loan using an interest rate call (put) option.

B is correct. Reason 1 is incorrect. If LIBOR rates decline significantly the effective loan rate received, before costs, is held at 7% as the payoff on the put offsets declines in LIBOR. Reason 2 is correct. At an exercise rate of 5%, the call will cost more than \$100,000 and the put will cost more than \$130,000. The net cost of the collar is \$30,000. The cost of the straddle will be in excess of \$230,000.

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Alan Severn Case Scenario

Alan Severn, a portfolio manager at Morgan Capital, a British institutional asset manager, is meeting the investment committee for Cotswold Industries' pension plan. Cotswold, based in the United Kingdom and a client of Morgan, has traditionally been conservative, and the pension plan's portfolio is currently invested in U.K. stocks and bonds. Cotswold would like to evaluate the addition of a diversified U.S. stock index to the existing portfolio.

In order to help the investment committee with its evaluation, Morgan has provided the data in Exhibit 1.

Exhibit 1
Returns, Standard Deviations and Correlations

| | |
|---------------------------------------------------------------------------------|-------|
| Expected Return Current Portfolio (£) | 11.5% |
| Standard Deviation of Returns Current Portfolio (£) | 13.5% |
| Expected Return of US Index (\$) | 14.5% |
| Standard Deviation of Returns of US Index (\$) | 16.0% |
| Correlation of US Index Returns (£) and Current Portfolio Returns (£) | 0.65 |
| Expected Percentage Change in Exchange Rate (£/\$) | 6.7% |
| Standard Deviation of Exchange Rate Change (£/\$) | 8.5% |
| Correlation of US Index Returns(\$) and Percentage Exchange Rate Change (£/\$) | 0.45 |

Severn states: "In general, changing the asset allocation to include developed and emerging market international securities to the current portfolio will result in a new efficient frontier of portfolios where each new portfolio will offer higher levels of return but at higher levels of risk, provided the international securities have low correlations with the current portfolio."

James Bruch, a committee member, responds "I think we should not expand our investments to international markets." He elaborates with the following statements:

Statement 1: "Currencies can fluctuate wildly and investing in U.S. stocks exposes us to currency risk which could negatively impact returns, for this reason we should not invest in international markets."

Statement 2: "Because most U.K. companies have an international presence, we should focus on diversifying across different industries in the U.K. and not worry about diversifying globally across different countries."

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Statement 3: "Emerging markets are volatile and expose us to political risks. They are prone to suffering frequent financial crises, and offer no risk diversification benefits during these times because correlations with developed markets such as the U.K increase."

Severn responds to Bruch:

"Currency risk should not prevent us from investing globally. Currency risk can be eliminated by hedging with currency forwards or by diversifying across multiple currencies. Furthermore, the correlations between equity and currency markets are so low that overall currency risk is minimal."

"It is true that emerging markets are subject to periodic crises, but most of the time the crisis does not spread beyond the local region and correlations between emerging and developed markets remain low. Emerging markets are more likely to enjoy superior economic growth and over the years have become more integrated with developed economies. This increased integration with developed markets will result in attractive equity market returns."

43. Based on the information in Exhibit 1, a portfolio with a 70% allocation to the current portfolio and a 30% allocation to the U.S. stock index will have standard deviation of returns that is *closest to*:

- A. 12.4%.
- B. 13.1%.
- C. 14.4%.

Answer = C

"The Case for International Diversification," Bruno Solnik and Dennis McLeavey
2011 Modular Level III, Vol. 3, pp. 350-353

Study Session 8-27-a, b

Evaluate the implications of international diversification for domestic equity and fixed income portfolios, based on the traditional assumptions of low correlations across international markets.

Distinguish between the asset return and currency return for an international security.

C is correct.

The new portfolio standard deviation is calculated as follows:

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$$\begin{aligned}
&= \sigma_p = [W_d^2 \sigma_d^2 + W_f^2 \sigma_f^2 + 2 \times W_d \times W_f \times \rho_{d,f} \times \sigma_d \times \sigma_f]^{1/2} \\
&= [0.7^2 \times 0.135^2 + 0.3^2 \times 0.212^2 + 2 \times 0.7 \times 0.3 \times 0.65 \times 0.135 \times 0.212]^{1/2} \\
&= 0.144 \text{ or } 14.4\%
\end{aligned}$$

Where:

W_d = the proportion invested in the current portfolio

W_f = the proportion invested in the U.S stock index

$\rho_{d,f}$ = the correlation between current portfolio returns and U.S. index returns measured in pounds

σ_d = standard deviation of returns of current portfolio measured in pounds

σ_f = standard deviation of U.S index returns in pounds

$$\sigma_f = [\sigma^2 + \sigma_s^2 + 2 \times \rho \times \sigma \times \sigma_s]^{1/2} = [0.16^2 + 0.085^2 + 2 \times 0.45 \times 0.16 \times 0.085]^{1/2} = 0.212$$

σ^2 = variance of U.S stock index return in \$

σ_s^2 = variance of exchange rate change pounds/dollar

ρ = correlation of U.S index dollar returns and the exchange rate change

44. Based on Exhibit 1, the currency risk contribution of the investment in the U.S. stock index is *closest* to:

- A. 1.9%.
- B. 5.2%.
- C. 8.5%.

Answer = B

“The Case for International Diversification,” Bruno Solnik and Dennis McLeavey

2011 Modular Level III, Vol. 3, pp. 352-353

Study Session 8-27-c

Evaluate the contribution of currency risk to the volatility of an international security position.

B is correct. The currency risk contribution is calculated as $\sigma_f - \sigma$, the difference between the standard deviation of the returns of the U.S. index in pounds minus the standard deviation of the returns of the U.S. index measured in dollars.

$$\sigma_f = [\sigma^2 + \sigma_s^2 + 2 \times \rho \times \sigma \times \sigma_s]^{0.5} = [0.16^2 + 0.085^2 + 2 \times 0.45 \times 0.16 \times 0.085]^{0.5} = 0.212$$

$$\sigma = 0.16$$

$$\sigma_f - \sigma = 0.212 - 0.16 = 0.052$$

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45. Is Severn's statement about changing the asset allocation of the current portfolio accurate?

- A. Yes.
- B. No, he is incorrect about the impact on risk.
- C. No, he is incorrect about the impact on return.

Answer = B

"The Case for International Diversification," Bruno Solnik and Dennis McLeavey
2011 Modular Level III, Vol. 3, pp. 353-359

Study Session 8-27-d

Explain and justify the impact of international diversification on the efficient frontier.

B is correct. If the international securities have low correlations with the current portfolio, the new portfolio set will contain portfolios that have higher levels of returns for a given level of risk. That is, international diversification allows a money manager to enhance returns without increasing portfolio risk, decrease portfolio risk without reducing returns, or both enhance returns and decrease portfolio risk.

46. In his response to Bruch's Statement 1, Severn is *least likely* correct with respect to:

- A. hedging with currency forwards.
- B. diversifying across multiple currencies.
- C. correlations between equity and currency markets.

Answer = B

"The Case for International Diversification," Bruno Solnik and Dennis McLeavey
2011 Modular Level III, Vol. 3, pp. 366-367

Study Session 8-27-f

Explain why currency risk should not be a significant barrier to international investment.

B is correct. Currency risk can be partially reduced by investing in a mix of currencies. It cannot be eliminated through currency diversification.

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47. Is Bruch's recommendation in Statement 2 appropriate?

- A. Yes.
- B. No, because the portfolio is not well diversified internationally.
- C. No, because country correlations are less than industry correlations.

Answer = B

"The Case for International Diversification," Bruno Solnik and Dennis McLeavey
2011 Modular Level III, Vol. 3, pp. 377-380

Study Session 8-27-i

Distinguish between global investing and international diversification and discuss the growing importance of global industry factors as a determinant of risk and performance.

B is correct. In statement 2, Bruch recommends diversifying across industries in the U.K. and not across countries. By concentrating investment in the U.K. this portfolio is still exposed to the country risk. To be properly diversified the portfolio must be diversified across industries and countries.

48. In his response to Bruch's Statement 3, Severn is *least likely* correct with respect to:

- A. economic growth and equity returns.
- B. integration and equity market returns.
- C. the spread of crises and market correlations.

Answer = B

"The Case for International Diversification," Bruno Solnik and Dennis McLeavey
2011 Modular Level III, Vol. 3, pp. 380-384

Study Session 8-27-j

Summarize the basic case for investing in emerging markets, as well as the risks and restrictions often associated with such investments.

B is correct. In his response to Bruch's Statement 3, Severn is incorrect when he states that increasing integration between developed and emerging markets will result in attractive emerging market equity returns. This is more likely when capital markets are segmented.

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Daksa Kapoor Case Scenario

Daksa Kapoor, CFA, lives in London, where she works as the fixed income portfolio manager for the Cray Investments pension fund. Kapoor's portfolio holds £60 million in U.K. sovereign bonds, £110 in U.K. corporate bonds, and £85 million in U.K. mortgage-backed securities. The duration of this £255 million portfolio is 6.25 years.

The board of directors has established a policy prohibiting investment in any security rated below A by any of the major rating agencies. Recently, a bond held in the portfolio was downgraded to A3 by Moody's. The A3 rating is Moody's lowest A rating. Kapoor is worried about the possibility of another downgrade (to Baa1), which would require an immediate sale with significant transactions costs due to poor liquidity.

Kapoor is considering adding leverage to the portfolio by borrowing £55 million in a two-month repo agreement involving physical delivery of the portfolio's holdings of AAA-rated U.K. sovereign bonds. The duration of this liability is 0.17 years. The proceeds of the repo agreement would be invested in additional U.K. corporate bonds and the resulting £310 million portfolio would have a duration of 5.82 years.

If the repo agreement is not entered into, Kapoor intends to reduce the portfolio's duration to 4.00 years. She is considering using an interest rate futures contract. The futures contract is priced at £97,800 and the duration of the cheapest-to-deliver bond is 8.35 years. The conversion factor for the futures contract is 1.15.

The fixed income portfolio is benchmarked against the U.K. total bond market index. Kapoor has proposed adding non-U.K. bonds to the portfolio. In a presentation to the board of directors, she explains that her goal is to seek excess returns from international bonds. To achieve this goal, she will seek bond markets:

- I: that have the lowest correlations with U.K. bonds; and
- II: whose currencies are expected to appreciate relative to the British pound.

Kapoor is evaluating a £25 million block of German, euro-denominated bonds for possible inclusion in the portfolio. The duration of these bonds is 14.7 years. She has estimated the return correlation between German and U.K. bonds as 0.66 and the German country beta as 0.44.

49. The credit derivative that would *best* mitigate Kapoor's concerns about the A3-rated bond is a:

- A. credit forward.
- B. binary credit option.
- C. credit spread option.

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Answer = B

"Fixed Income Portfolio Management – Part II," H. Gifford Fong and Larry D. Guin, CFA
2011 Modular Level III, Vol. 4, pp. 123-128

Study Session 10-30-g

Compare and contrast default risk, credit spread risk, and downgrade risk and demonstrate the use of credit derivative instruments to address each risk in the context of a fixed-income portfolio.

B is correct because Kapoor is concerned about losses associated with a particular credit event; in this case a downgrade. "Binary credit options provide payoffs contingent on the occurrence of a specified negative credit event."

50. The characteristic of the repurchase agreement considered by Kapoor that would *most likely* increase the repo rate is the:

- A. term.
- B. collateral.
- C. delivery requirement.

Answer = A

"Fixed Income Portfolio Management – Part II," H. Gifford Fong and Larry D. Guin, CFA
2011 Modular Level III, Vol. 4, pp. 109-111

Study Session 10-30-b

Discuss the use of repurchase agreements (repos) to finance bond purchases and the factors that affect the repo rate.

A is correct because typically, the longer the maturity, the higher the rate. The very short end of the yield curve typically is upward sloping, leading to higher yields being required on longer-term repos.

51. If Kapoor enters into the repo and invests the proceeds as indicated, the duration of the portfolio's equity position will be *closest* to:

- A. 5.65 years.
- B. 5.99 years.
- C. 7.04 years.

Answer = C

"Fixed Income Portfolio Management – Part II," H. Gifford Fong and Larry D. Guin, CFA
2011 Modular Level III, Vol. 4, pp. 106-109

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Study Session 10-30-a

Evaluate the effect of leverage on portfolio duration and investment returns.

C is correct because the duration of the equity position in a leveraged portfolio is:

$$D_E = \frac{(D_A A) - (D_L L)}{E}, \text{ where } A \text{ is the value of assets, } L \text{ is the value of liabilities (debt), and } E = A - L. \text{ In this case, the duration of the portfolio's equity would be:}$$
$$D_E = \frac{(5.82 \times 310) - (0.17 \times 55)}{255} = 7.04, \text{ where } 0.17 = 2/12 = \text{the duration of the repo agreement.}$$

52. If the interest rate futures contract is used to reduce the interest rate exposure in Kapoor's portfolio, the number of futures contracts that should be sold is *closest* to:

- A. 611.
- B. 703.
- C. 808.

Answer = C

"Fixed Income Portfolio Management – Part II," H. Gifford Fong and Larry D. Guin, CFA
2011 Modular Level III, Vol. 4, pp. 114-118

Study Session 10-30-e

Construct and evaluate an immunization strategy based on interest rate futures.

C is correct because the approximate number of futures contracts needed to change a portfolio's duration from its initial level (D_i) to a target level (D_T) is

$$\# \text{ contracts} = \frac{(D_T - D_i) \times P_i}{D_{CTD} \times P_{CTD}} \times \text{conversion factor}, \text{ where } P_i \text{ is the initial market value of the portfolio and CTD refers to the cheapest-to-deliver bond (p. 117). In this case, the number of contracts is}$$
$$\frac{(4.00 - 6.25) \times 255,000,000}{8.35 \times 97,800} \times 1.15 = -807.97 \text{ or short 808 contracts.}$$

53. Which of these statements is *most* accurate regarding Kapoor's two-part approach to achieving excess returns from non-U.K. bonds?

- A. Both parts are appropriate.
- B. Part I is appropriate, but part II is inappropriate.
- C. Part I is inappropriate, but part II is appropriate.

Answer = C

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“Fixed Income Portfolio Management – Part II,” H. Gifford Fong and Larry D. Guin, CFA
2011 Modular Level III, Vol. 4, pp. 129-132

Study Session 10-30-h

Explain the potential sources of excess return for an international bond portfolio.

C is correct because low correlations will reduce the overall risk of the portfolio but not produce higher expected returns. Currency selection can add value. Currency appreciation relative to the British pound, if achieved, will produce excess returns.

54. If U.K. interest rates increase by 50 basis points, the percentage change in the value of the German bonds that Kapoor is evaluating will be *closest* to:

- A. 3.23%.
- B. 4.85%.
- C. 6.47%.

Answer = A

“Fixed Income Portfolio Management – Part II,” H. Gifford Fong and Larry D. Guin, CFA
2011 Modular Level III, Vol. 4, pp. 130-132

Study Session 10-30-i

Evaluate 1) the change in value for a foreign bond when domestic interest rates change and 2) the bond’s contribution to duration in a domestic portfolio, given the duration of the foreign bond and the country beta.

A is correct because the percentage change in value for a 100 bps change in U.K. interest rates is the duration of the bonds multiplied by the country beta, so the change for a 50 bps change will be half that or $0.50 \times 0.44 \times 14.7 = 3.23$.

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Sing-Siew Lee Case Scenario

Sing-Siew Lee is a senior consultant with Stowe Partners, a firm that provides GIPS compliance and verification services. Lee is preparing to meet with two clients, Orion Advisory Research and Gardere Associates.

Orion Advisory Research

Orion Advisory Research is an investment firm that manages retail and institutional accounts. Orion also manages a private equity fund. Orion has provided information on its measurement and reporting practices in order to help Lee evaluate the firm's compliance with the Global Investment Performance Standards (the GIPS® standards).

Trading Expenses

Commissions are negotiated and deducted when calculating rates of return. For separately managed retail accounts that have bundled fees, the gross return is reduced by the entire amount of the bundled fee. Custody fees for certain off-shore securities are charged on a per-transaction basis and are included in trading expenses.

Asset Valuation

Orion values its investments at the lower of cost or book value. Trade date accounting is used consistently for all transactions. In some cases, transactions may be recorded up to three days after the trade date.

Private Equity

Orion values the private equity fund on an annual basis and presents the following multiples: 1) total value to since-inception paid-in capital, 2) since inception distributions to since-inception paid-in capital, 3) since-inception paid-in capital to cumulative committed capital, and 4) residual value to since-inception paid-in capital. Orion aggregates its various strategies in its composites. The composites are separated by vintage year.

Lee advises Orion's pricing and valuation committee to use the hierarchy of valuation methodologies presented in Exhibit 1 to establish fair values for its investments in private equity.

Exhibit 1
Hierarchy of Private Equity Valuation Methodologies

| Methodology | Order | Description |
|-------------|-----------------|-------------------------------------------|
| 1 | Best | Present value of risk adjusted cash flows |
| 2 | Next-Best | Market transactions |
| 3 | Least Preferred | Market-based multiples |

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Gardere Associates

Gardere Associates is an investment fund that directly invests in commercial real estate. Gardere has asked Lee for advice on GIPS compliance. Lee indicates that an important disclosure requirement is presentation of total return, income return and capital return. Lee uses the information presented in Exhibit 2 to illustrate return calculations.

Exhibit 2
Selected Financial Information for Gardere Associates

| Item | Date | Amount |
|------------------------------------|----------------|--------------|
| Beginning Capital | March 31, 2010 | \$12,500,000 |
| Capital Contribution (weight=0.51) | May 15, 2010 | \$1,500,000 |
| Portfolio Fair Value | March 31, 2010 | \$11,700,000 |
| Portfolio Fair Value | June 30, 2010 | \$13,000,000 |
| Capital Expenditures | | \$2,700,000 |
| Property Sales Proceeds | | \$3,500,000 |
| Earned Investment Income | | \$120,000 |
| Non-recoverable Expenses | | \$312,000 |
| Interest Expense on Debt | | \$220,000 |
| Property Taxes Paid | | \$31,000 |

Prior to issuing his final reports to Orion and Gardere, Lee provides a statement with the following comments regarding the verification reports:

Comment 1: "It is recommended that the verification report cover all periods for which the firm claims GIPS compliance."

Comment 2: "The verification report confirms that the firm's processes and procedures are designed to calculate and present performance results in compliance with the GIPS standards."

Comment 3: "The verification report confirms that Stowe Partners has sole responsibility for maintaining the data and information necessary to perform the required calculations for the client."

55. With regard to trading expenses, Orion is **not** in compliance with GIPS® standards in its treatment of:

- A. custody fees.
- B. bundled fees.
- C. commissions.

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Answer = A

"Global Investment Performance Standards," Phillip Lawton, CFA, CIPM and W. Bruce Remington, CFA

2011 Modular Level III, Vol. 6, pp. 292-293

Study Session 18-48-e

Summarize and justify the requirements of the GIPS standards with respect to return calculation methodologies, including the treatment of external cash flows, cash and cash equivalents, and expenses and fees.

A is correct. Custody fees should not be considered direct transaction costs, even when they are charged on a per-transaction basis. They are not to be treated as a trading expense. Provision II.2.A.7.a-b.

56. Do Orion's policies on asset valuation *most likely* comply with GIPS standards?

- A. Yes.
- B. No, because valuations should be based on fair value.
- C. No, because settlement date accounting should be used for all transactions.

Answer = B

"Global Investment Performance Standards," Phillip Lawton, CFA, CIPM and W. Bruce Remington, CFA

2011 Modular Level III, Vol. 6, pp. 279-281

Study Session 18-48-d

Explain the requirements and recommendations of the GIPS standards with respect to input data, including accounting policies related to valuation and performance measurement.

B is correct. GIPS standards require the use of fair value for portfolio valuations.

57. Orion's private equity disclosure *least likely* meets GIPS standards with respect to the:

- A. use of multiples.
- B. timing of valuations.
- C. construction of composites.

Answer = C

"Global Investment Performance Standards," Phillip Lawton, CFA, CIPM and W. Bruce Remington, CFA

2011 Modular Level III, Vol. 6, pp. 329-332

Study Session 18-48-q

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Explain the provisions of the GIPS standards for private equity.

C is correct. GIPS standards require the separation of composites by strategy as well as vintage year.

58. Does Lee's proposed hierarchy of private equity valuation methodologies in Exhibit 1 *most likely* meet GIPS standards?

- A. Yes.
- B. No, the correct order of methodologies is 2, 3, 1.
- C. No, the correct order of methodologies is 3, 2, 1.

Answer = B

"Global Investment Performance Standards," Phillip Lawton, CFA, CIPM and W. Bruce Remington, CFA

2011 Modular Level III, Vol. 6, pp. 334-335

Study Session 18-48-r

Explain the GIPS Valuation Principles including the valuation hierarchy.

B is correct. According to GIPS standards, the correct order of valuation methodologies is:

- 1) Objective, observable quoted market prices for similar investments in active markets. (#2)
- 2) Quoted prices for identical or similar investments in markets that are not active. (#2)
- 3) Market-based inputs other than quoted prices that are observable for the investment. (#3)
- 4) Subjective, unobservable inputs. (#1)

59. Based on the information in Exhibit 2, Gardere's total return for the second quarter is *closest* to:

- A. 7.77%.
- B. 12.53%.
- C. 14.15%.

Answer = B

"Global Investment Performance Standards," Phillip Lawton, CFA, CIPM and W. Bruce Remington, CFA

2011 Modular Level III, Vol. 6, pp. 323-324, 380

Study Session 18-48-p

Explain the provisions of the GIPS standards for real estate and calculate total return, income return, and capital return for real estate assets.

B is correct.

Capital employed (C_E) is $\$12,500,000 + (\$1,500,000 \times 0.51) = \$13,265,000$

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Income return =

$$\frac{Y_A - E_N - I_D - T_P}{C_E}$$
$$\frac{120,000 - 312,000 - 220,000 - 31,000}{13,265,000} = -0.033$$

Capital return =

$$\frac{V_1 - V_0 - E_C \mp S}{C_E}$$
$$\frac{13,000,000 - 11,700,000 - 2,700,000 + 3,500,000}{13,265,000} = 0.1583$$

Total return = income return + capital return = $-0.033 + 0.1583 = 0.1253$

60. Which of the comments made by Lee is *not* consistent with GIPS verification standards?

- A. Comment 1.
- B. Comment 2.
- C. Comment 3.

Answer = C

"Global Investment Performance Standards," Phillip Lawton, CFA, CIPM and W. Bruce Remington, CFA
2011 Modular Level III, Vol. 6, pp.341-342
Study Session 18-48-w
Explain the purpose, scope, and process of verification.

C is correct. GIPS standards require that the firm being verified, and not. the verification firm (i.e., Stowe), maintain the data and information necessary for the calculations.

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