2018
CFA® EXAM REVIEW

AFTERNOON SESSION

LEVEL III CFA®
MOCK EXAM 1

WILEY

Published by John Wiley & Sons, Inc., Hoboken, New Jersey.

Level III Mock Exam A
Afternoon Session: Questions

The Afternoon Session of this Level III CFA® mock exam has 10 questions. For grading purposes, the maximum point value for each question is equal to the number of minutes allocated to the question.

Question	Topic	Minutes
1	Global Investment Performance Standards (GIPS®)	18
2	Ethics and Professional Standards	18
3	Ethics and Professional Standards	18
4	Portfolio Management—Asset Allocation	18
5	Portfolio Management—Fixed Income	18
6	Portfolio Management—Fixed Income	18
7	Portfolio Management—Equity	18
8	Portfolio Management—Alternative Investments	18
9	Portfolio Management—Derivatives	18
10	Portfolio Management—Performance Evaluation	18
	Total	180

Afternoon Session—Questions

Global Investment Performance Standards (GIPS®)

Question 1

Use the following information to answer the next six questions.

UpperQ Investments Attiengesellschaft is an investment management company that claims compliance with the Global Investment Performance Standards (GIPS®). The most recent performance presentation for the European Hedged Equity Composite is shown in Exhibit 1.

Exhibit 1
UpperQ Investments LLC Hedged Equity Composite (All Returns Expressed in Euros)

Year	Gross Return (%)	HF Equity Hedge Index Return (%)	Internal Dispersion (%)	Number of Portfolios	Composite Assets (€ millions)	Firm Assets (€ millions)
2015	–3.67%	–3.17%	1.3%	12	290	2,336
2014	5.57%	3.69%	2.5%	12	285	1,817
2013	–2.10%	–0.70%	4.4%	12	280	2,173
2012	0.88%	0.18%	4.2%	12	270	1,612
2011	3.10%	0.81%	5.1%	11	265	1,892
2010	4.31%	4.85%	5.8%	10	255	1,446
2009	7.44%	3.29%	5.2%	9	201	1,414
2008	–22.60%	–23.02%	5.0%	11	198	1,359
2007	–0.84%	–0.65%	5.4%	10	250	2,228
2006	–2.50%	–2.30%	2.8%	9	245	2,091

Notes:

1. UpperQ Investments LLC claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with GIPS. UpperQ Investments LLC has been independently verified for the period from April 1, 2003, through December 31, 2011. Verification assesses whether (a) the firm has complied with all the composite construction requirements of GIPS on a firmwide basis and (b) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. The Hedged Equity Composite has been examined for the period from January 1, 2009, through December 31, 2011. The verification and performance examination reports are available on request.
2. UpperQ Investments Attiengesellschaft, a subsidiary of UpperQ Capital AG, is based in Frankfurt, Germany, and manages international private pools of capital typically known as "hedge funds." Founded in March 1999, UpperQ manages a wide range of different hedge fund strategies. A full list of composite descriptions is available on request.
3. The composite was created in May 2007 and is composed of portfolios invested using management's discretionary fundamental stock selection process in international equity markets on both a long and short basis, with a general positive net exposure to equity markets.

4. The HF Equity Hedge Index returns are provided to represent market returns existing during the time periods shown. Index returns have been taken from published sources and represent the market value weighted average of the performance of hedge funds that voluntarily report into the HF Equity Hedge index. The index is not investable.
5. The internal dispersion is measured by the range (i.e., highest return minus lowest return) of annual returns of those portfolios that are included in the composite for the full year.
6. At December 31, 2015, the three-year annualized ex-post standard deviation of the composite and the benchmark are 12.3% and 13.2%, respectively.
7. Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available on request.

Samantha Eridge, CFA, is a prospective client who has requested more information regarding UpperQ's policy for calculating performance, and the firm has responded with the statement in Exhibit 2.

Exhibit 2
UpperQ Calculation Methodology

"UpperQ Investments AG calculates each portfolio's time-weighted rate of return on a monthly basis. For periods beginning on or after January 1, 2010, portfolios are valued when large cash flows occur, large being defined as comprising at least 5% of the estimated NAV of the fund at the time of the cash flow. In earlier periods, monthly returns are calculated using the Modified Dietz method. Returns for longer measurement periods are computed by geometrically linking the monthly returns."

Eridge wished to demonstrate to her work colleagues how the different calculations mentioned in Exhibit 2 are performed. She collates some information to perform a simple demonstration of the methods contained in Exhibit 3.

Exhibit 3
Example Performance Calculation Data

March 31 portfolio value	\$10,000,000
Contribution on March 12	\$500,000
Portfolio value on April 12 (including the \$50,000 cash flow)	\$10,500,000
April 30 value	\$10,000,000

---

1. With respect to the information regarding fees contained in Exhibit 1, the presentation:

   A. complies with GIPS.
   B. fails to comply with GIPS because the Standards require that returns are shown both gross and net of fees.
   C. fails to comply with GIPS because the Standards require a fee schedule to be disclosed in the report.

2. With respect to the reference to verification contained in the compliance statement in note 1 of Exhibit 1, the presentation:

    A. complies with GIPS.
    B. fails to comply with GIPS because the verification period should include the most recent year of performance.
    C. fails to comply with GIPS because the examination of the composite should include the most recent year of performance.

3. UpperQ has included in Exhibit 1 details about the internal dispersion of the portfolios in the composite (comprising the data in the table and note 5) plus details about the external dispersion of composite returns over time (note 6). Are these details compliant with GIPS?

	Internal Dispersion	External Dispersion
A.	Compliant	Compliant
B.	Not compliant	Compliant
C.	Compliant	Not compliant

4. The calculation policy disclosures made in Exhibit 2:

    A. comply with GIPS.
    B. fail to comply with GIPS because firms must revalue portfolios whenever an external cash flow occurs, regardless of the size of the cash flow.
    C. fail to comply with GIPS since GIPS do not define a large cash flow as a cash flow comprising at least 5% of the NAV of the fund at the time of the cash flow.

5. Using the data in Exhibit 3, the monthly return using the Modified Dietz method is *closest* to:

    A. –5.00%.
    B. –4.85%.
    C. –4.76%.

6. Using the data in Exhibit 3 and current GIPS requirements for return calculations, the monthly return is *closest* to:

    A. –5.00%.
    B. –4.85%.
    C. –4.76%.

Question 2

Use the following information to answer the next six questions.

Jack Mann, CFA, has recently been awarded the CFA charter and has secured a new role as a junior portfolio manager at Cavalier Investment Management Ltd (CIM), an institutional investment adviser with a broad base of clients including investment funds, hedge funds, and private client managed accounts.

Before Mann can start his new role, he must sign a contract and complete initial induction and training on key regulatory and compliance issues. As part of the induction process, Mann is required to acknowledge receipt of CIM's compliance manual.

Mann's initial role at CIM is to work alongside Ross Bassett, a senior fund manager who has been employed by CIM for several years. Mann notes that Bassett openly discusses holding securities for his personal account that are included in client portfolios. Mann questions Bassett as to the ethical nature of this situation, suggesting that this arrangement might lead to accusations of a conflict of interest from clients. Bassett refers Mann to the compliance manual of CIM, in particular to the extract shown in Exhibit 1.

Exhibit 1
Extract from CIM Compliance Manual Regarding Personal Account Dealing

> "CIM has a strict policy on personal account dealing transaction reporting which requires that employees must disclose holdings in which the employee has a beneficial interest upon commencement of the employment relationship and afterwards on an annual basis. All trades for personal accounts need to be precleared with compliance and duplicate trade confirmations logged with the firm on a monthly basis. Client concerns regarding personal account dealing conflicts of interest are addressed through the following disclosure that must be made to all clients:
>
> 'CIM investment managers are subject to strict policies and procedures regarding their personal trading.'"

Mann notices that Bassett regularly receives offers of gifts from brokers and clients of CIM. In particular, Mann notes the following arrangements that Bassett has recently agreed to in the first few weeks of working with him:

- Alberto Lyons, a sales trader with Roundhead Securities, a broker used by CIM, arranges and pays for lunch with Bassett. Bassett does not disclose this to his employer.
- Roundhead Securities organizes an investor conference in California and pays for the travel expenses, accommodations, and several rounds of golf for the participants. This offer is not unique to Bassett and he discloses it to his employer.
- A client offers Bassett the use of their private ski chalet for a ski season if their portfolio outperforms the benchmark index by more than 10% in any given year. Bassett discloses this arrangement to his employer.

Mann attends a presentation to a prospective client where Bassett presents information about the investment process at CIM along with a summary of past performance. Bassett is concerned that some of the information presented in the performance might be a misrepresentation of the performance of CIM funds. In particular, Mann notes the following issues:

- While there was no benchmark provided in the presentation, the reason for this disclosed in the report was the complexity and diversity of the strategies followed.
- Several of the calculations and data inputs of the performance presentation were not compliant with the CFA Institute Global Investment Performance Standards (GIPS®).
- A typographical error was noticed in the calculation of performance statistics, which Bassett promises to correct prior to the next time the presentation material is used.

Mann is charged mainly with administrative tasks in his day-to-day role, including the processing of proxy voting forms. Bassett informs Mann that there is no official policy on voting proxies at CIM, and that he only considers in detail votes on nonroutine matters such as a takeover approaches and changes in the structure of the company.

Mann notices that the marketing department of CIM has slightly altered the biography that he provided them before it was published on the website of the firm. The letters "CFA" after his name have been given a slightly larger font than his name, and the biography now explicitly states that Mann passed all three levels of the CFA program at the first attempt (which is factually correct).

Mann becomes aware of a soft-dollar arrangement that exists between CIM and Roundhead Securities. Under the agreement, Roundhead offers execution-only services under a direct market access (DMA) computer-driven system. Bassett has always been satisfied with the execution services of Roundhead and considers the fees to be very competitive when compared to the fees charged by other brokers. When asked what the soft-dollar commissions are used to pay for, Bassett replies that they are always used to benefit the client. Mann noticed that the soft-dollar account has been used to purchase research from Roundhead, and occasionally finance the commissions due on reversals of dealing errors on client accounts.

---

7. The extract from the compliance manual regarding personal account dealing rules displayed in Exhibit 1 *most likely*:

   A. complies with recommendations of the Standards.
   B. fails to comply with the recommendations of the Standards since disclosure of personal account holding should be made more frequently than annually.
   C. fails to comply with the recommendations of the Standards since CIM should fully disclose the details of the policy rather than use generic, nonspecific language.

8. How many of the gifts that Bassett has accepted are in violation of the CFA Standards of Practice?

   A. One.
   B. Two.
   C. Three.

9. With regard to the three potential issues Mann has discovered with the performance presentation delivered by Bassett, how many of these issues are likely to breaches of the CFA Institute Standards of Professional Conduct?

   A. Zero.
   B. One.
   C. Two.

10. Considering the information that Bassett discloses to Mann about the proxy voting process at CIM, it is *most likely* that this process:

    A. complies with CFA Institute Standards.
    B. fails to comply with CFA Standards since all proxies should be voted on by managers.
    C. fails to company with CFA Standards since firms should establish a formal proxy voting policy and disclose this to clients.

11. Which of the adjustments to Mann's biography made by the marketing department are likely to be in violation of the Standards?

	Font Size	**Reference to Success in Successive Years**
A.	Violation	Violation
B.	Violation	Not a violation
C.	Not a violation	Not a violation

12. The soft-dollar arrangement described by Bassett is *most likely* a violation of the CFA Institute Standards because:

    A. soft-dollar agreements are prohibited under the Standards.
    B. soft-dollar agreements cannot be used for electronic direct market access (DMA) execution services.
    C. soft dollars should not be being used to pay for the commissions due on trades to reverse errors.

Question 3

Use the following information to answer the next six questions.

Epic Advisers Ltd ("Epic") is an institutional investment adviser responsible for the management of several large multistrategy hedge funds. While the funds are registered offshore, Epic is located in the United States and as such is a registered Investment Adviser and subject to relevant law and regulations.

Two years ago one of Epic's flagship funds, run by manager Barry Wolf lost two-thirds of its value in a matter of a few weeks and was subsequently liquidated having failed to meet the margin calls of its prime broker. After some senior management changes, the fortunes of the company improved and a review is now being carried out into the policy and process followed by managers at the firm, with a long-term view to adopting the CFA Institute Asset Manager Code of Professional Conduct ("The Code").

Felicity Biggles is an ethics and regulatory consultant that has been hired to carry out the review. She has been tasked with explaining to senior management of the firm how following the requirements of The Code could potentially prevent a similar collapse in future.

Biggles begins her work by looking at an executive review of the reasons why the collapse took place. This review has some key points outlined in Exhibit 1.

Exhibit 1
Executive Summary of Circumstances that Contributed to Fund Collapse

1. The fund was engaging in relative value trades relating to different delivery in commodity futures markets. It would appear that inadequate stress testing failed to contemplate a scenario involving a breakdown in correlations brought about by a natural disaster that triggered the initial losses to the fund.
2. The fund was originally marketed as a convertible arbitrage fund, but over time the manager took larger and larger bets in commodity spread trades. While many investors seemed to be surprised at the strategy shift after the collapse of the fund, the manager had reported annually to investors the shift in strategy by the fund management team as it was taking place.
3. Epic Advisers did not have a compliance department, but did have a senior manager identified as chief compliance officer (CCO). The CCO was aware of the style drift and increase in concentrated risks at the fund and reported these findings to the CEO and board of Epic Advisers.
4. Barry Wolf, the manager of the fund that collapsed, had previously been disciplined by the regulator at a prior employer for not adhering to risk limits imposed on the fund that they were running. While Epic Advisers was aware of this, the investors in the fund were not.
5. Many investors in the fund were not aware of the level of leverage being employed by the fund both implicitly through the use of derivatives and explicitly through borrowed funds.

Biggles goes on to evaluate the current Code of Ethics employed by Epic. She begins by reviewing two of the firm's compliance procedures, shown in Exhibit 2 below:

Exhibit 2
Epic Advisers Code of Ethics

Risk Management Process:

Managers are directly responsible for understanding and managing the risks inherent in the funds that they run. The company is not deemed to be of a large enough size to warrant a separate risk management function.

Record Keeping:

Records substantiating investment activity, research, policies and procedures, as well as records of any violations and actions taken must be kept in electronic form at least five years, as required by local regulation.

---

13. With respect to the first issue in the executive summary in Exhibit 1 relating to stress testing, how would adopting The Code address this issue?

    A. The Code would not address this issue since there are no specific recommendations relating to stress testing in The Code.
    B. The Code addresses the requirement for adequate stress testing under the recommendations for having a reasonable and adequate basis for investment decisions.
    C. The Code addresses the requirement for adequate stress testing since it recommends that stress testing be outsourced to a specialist risk management services provider.

14. With respect to the second issue in the executive summary in Exhibit 1 relating to shift in strategy, how would adopting The Code address this issue?

    A. The Code would not address this issue since the manager already adhered to the recommendations of The Code through disclosing to investors the change in investment strategy.
    B. The Code would have addressed this issue through prohibiting a change in the strategy of the fund.
    C. The Code would have addressed this issue through requiring that the manager provide information regarding strategy changes well in advance of the changes taking place and giving investors an opportunity to take any actions that they deem necessary in response to the proposed strategy shift.

15. With respect to the third issue in the executive summary in Exhibit 1, did Epic Advisers adhere to The Code in establishing an effective compliance department?

    A. Yes.
    B. No, since The Code recommends that an entire compliance department should have been established at Epic Advisers.
    C. No, since The Code recommends that the CCO should have reported his findings directly to the regulator.

16. With respect to the fourth issue in the executive summary in Exhibit 1, did Epic Advisers adhere to The Code in handling the prior disciplinary actions against Wolf?

    A. Yes.
    B. No, since Epic should have disclosed the disciplinary action to investors.
    C. No, since Epic should not have hired a manager with a record of disciplinary action by the regulator.

17. With respect to the fifth issue in the executive summary in Exhibit 1 relating to the level of leverage in the failed fund, how would adopting The Code address this issue?

    A. The Code prohibits the use of derivatives and leverage.
    B. The Code recommends that the use of derivatives and leverage be disclosed to investors.
    C. The Code does not address the use of derivatives and leverage in fund strategies.

18. Are the compliance procedures listed in Exhibit 2 in adherence with the recommendations of The Code?

	Risk Management	**Record Keeping**
A.	No	No
B.	Yes	No
C.	No	Yes

Question 4

Use the following information to answer the next six questions.

John Guscott, CFA, is a risk analyst working for Superb Asset Management (SAM) and has been asked to review the currency exposure and hedging techniques employed by several of the international investment portfolios at the firm. The domestic currency of all of the funds managed by SAM is U.K. Sterling (GBP).

Guscott initially turns his attention to the North American Structured Investment Fund (NASI Fund). This fund has exposure to only two foreign markets, Canada and the United States, details of which are set out in Exhibit 1 (assume that all statistics relate to direct quotations to a U.K. investor):

Exhibit 1
Currency Exposure of the NASI Fund

	Canada	United States
Weight	30%	70%
Foreign asset price volatility	15.2%	17.5%
Exchange rate volatility versus GBP	14.2%	12.8%
Correlation of foreign asset price and exchange rate	0.4	–0.1
Correlation of domestic Canadian returns and domestic U.S. returns	0.8	

During his research, Guscott meets with Chris Brown, the manager of the Global Equity Income and Growth Fund (GEIG Fund). During a discussion with the manager of the fund, Guscott makes the following notes:

"The manager believes that inefficiencies occur in the foreign exchange markets that can be exploited to generate excess return consistently over the long term. One of the major strategies that we have been employing successfully over the past few years is exploiting forward rate bias through the carry trade executed in currency forward markets."

Chris Brown demonstrates a simple carry trade based on USD/GBP where the spot rate is 1.5050 and three-month forward points are –15.

Guscott's next task is to interview the management of the Emerging Markets Opportunity Fund (EMO Fund). Due to the potential for serious currency devaluations in emerging markets, the management team is very strict regarding their currency hedging policy. Despite the high interest rates often seen in emerging-market currencies, the fund always employs a 100% hedge of principal upon entering any foreign asset position and maintain the currency hedge as a static position over the life of the investment. In this way, management hopes to avoid suffering losses due to currency crises that may occur in the emerging markets in which they invest.

The management of the EMO Fund asks Guscott for advice with regards to the lowering the costs of hedging that they are finding excessively high. Guscott investigates options-based strategies that can help reduce the cost of enacting currency hedging. They also ask Guscott what is meant by "roll yield" in forward contracts and how this is likely to affect the return of their forward contract hedge positions.

---

19. Based on data in Exhibit 1, the expected domestic volatility of the NASI Fund is *closest* to:

    A. 13.5%.
    B. 18.5%.
    C. 20.8%.

20. Based on the information in Exhibit 1, which of the currencies, considered individually, would *most likely* have the highest minimum variance hedge ratio versus GBP (note that calculations are not required)?

    A. CAD.
    B. USD.
    C. Both would have the same minimum variance hedge ratios since both currencies are being hedged against GBP.

21. Based on the notes made by Guscott about management of the GEIG Fund, it is *most likely* that the fund is profiting from which of the following parity relations *not* holding?

    A. Covered interest rate parity.
    B. Uncovered interest rate parity.
    C. Purchasing power parity.

22. Given the data presented by Chris Brown, which of the following statements is *most likely* to be accurate in order to carry out a successful carry trade?

    A. The manager should go long the forward contract. The trade will be profitable as long as the exchange rate in three months' time is above 1.5035.
    B. The manager should go long the forward contract. The trade will be profitable as long as the exchange rate in three months' time is above 1.5035.
    C. The manager should go short the forward contract. The trade will be profitable as long as the exchange rate in three months' time is below 1.5035.

23. With regard to Guscott's suggestions to the manager of the EMO Fund on reducing the ongoing costs of hedging, which of the following option portfolios correctly describes a seagull spread?

    A. Long a high strike put, short a low strike put.
    B. Buying an out-of-the-money put and writing a deeper out-of-the-money put.
    C. Buying a protective put, writing a deeper out-of-the-money put, and writing an out-of-the-money call.

24. The forward contracts used to hedge positions in the EMO fund are *most likely* to exhibit roll yield that is:

    A. negative.
    B. positive.
    C. dependent on the forward premium/discount in the currency being hedged.

Question 5

Use the following information to answer the next six questions.

Jethro Mullins is a college graduate who has recently joined the graduate trainee scheme of a large buy-side multi-asset investment manager. The scheme will involve Mullins spending time in all of the major divisions of the firm, the first of which is the fixed-income division.

Mullins initially works alongside Ryusaki Tsurayaki, a bond fund manager who specializes in dedication strategies designed to ensure that portfolios meet the future liabilities of investors. One of the manager's clients is Ali Gug, a high net worth individual who is aiming to meet a personal liability due in 10 years' time, the present value of which is equal to $2,951,100.

The current Gug portfolio consists of three bonds, details of which are displayed in Exhibit 1. Each holding is of size $1 million par value.

Exhibit 1
Gug Fixed-Income Portfolio

Security	Price	Macaulay Duration	Modified Duration
Bond 1	102.36	3.7	3.6
Bond 2	97.61	9.9	9.7
Bond 3	95.14	16.9	16.6

Tsurayaki also runs a portfolio for a client called Haydee Yesenia. This portfolio is engaged in a dedication strategy known as contingent immunization. Details of the strategy are given in Exhibit 2:

Exhibit 2
Yesenia Contingent Immunization Strategy

Current portfolio value	$30 million
Portfolio modified duration	5.5
Liability to be paid in 8 years	$40 million
Effective annual discount rate applied to liabilities	5%

Tsurayaki demonstrates to Mullins how a derivatives overlay could be used to close the current duration gap on the portfolio run for Yesenia. He collates information on a relevant futures contract, which is displayed in Exhibit 3:

Exhibit 3
Futures Contract Information

Notional principal	$100,000
Coupon	6%
Range of maturities of deliverable bonds	8 years to 12 years
Basis point value (BVP) for one futures contract	$76.22

Mullins is very keen to find out as much as he can about fixed-income investing, and asks Tsurayaki many questions about the different strategies he employs. During the course of the conversation, Tsurayaki makes the following two statements:

Statement 1: "Immunizing a single liability is easy—once you have done it you can sit back and relax. Even if interest rates do change, you can be sure that you will meet your liability when it comes due."

Statement 2: "Duration matching only immunizes against a parallel shift in the yield curve. Any change in the shape of the yield curve would lead to the immunization failing and would cause assets to underperform the liability they are designed to meet."

Tsurayaki explains to Mullins that he expects interest rates to fall in the near future and wants to make a bond trade to profit from this view. Tsurayaki is looking to purchase a 15-year Treasury bond currently priced at 112.01. He expects that in 1 year's time the yield of the bond will have fallen to 2% and he will exit the position. He assumes that reinvestment income will be zero and that the expected price of the bond in 1 year's time if yield curves remain the same will be 111.50. Tsurayaki asks Mullins to decompose the total return expected on the trade.

---

25. Based on the data in Exhibit 1, the current money duration of the Gug fixed-income portfolio is *closest* to which of the following?

    A. $2,950
    B. $295,000
    C. $29,500,000

26. Is the Gug fixed-income portfolio immunized?

    A. Yes.
    B. No, since the present value of assets is different from the present value of the liability.
    C. No, since the duration of the portfolio is different from the duration of the liability.

27. Based on the data in Exhibit 2, can the portfolio run for Haydee Yesenia engage in active management?

    A. Yes, because the surplus is positive.
    B. No, because the yield of the portfolio is not high enough.
    C. No, because the portfolio value is lower than the present value of the liability.

28. The number of futures contracts required to close the duration gap on the Yesenia portfolio is *closest* to which of the following?

A. 0
B. 183
C. 203

29. Are Tsurayaki's statements correct?

	Statement 1	Statement 2
A.	Correct	Correct
B.	Correct	Incorrect
C.	Incorrect	Incorrect

30. If Tsurayaki's yield curve forecast is correct, then the actual price of the 15-year Treasury bond in 1 year's time will *most likely* be:

A. lower than $111.50.
B. equal to $111.50.
C. greater than $111.50.

Question 6

Use the following information to answer the next six questions.

Simon Carr is a fixed-income portfolio manager at Proficient LLC, a multi-asset investment advisor. As a fixed income expert, he has been asked to prepare a presentation to the board of Proficient on the sources of return in fixed-income markets. As part of his report he presents the default-risk-free par bonds with different maturities displayed in Exhibit 1:

Exhibit 1
Default-Risk-Free Par Bonds Used in Carr's Report

Security Descriptor			Price in 12 Months with Rolldown of Static Yield Curve	Yield Change Implied by Current Yield Curve over Next 12 Months
Maturity (Years)	**Coupon**	**Current Price**		
1	1.53%	100	100.00	0.73%
2	1.89%	100	100.35	0.77%
3	2.26%	100	100.72	0.70%
4	2.57%	100	100.89	0.49%

Carr intends to use the bonds in Exhibit 1 to demonstrate the performance of a 12-month investment in fixed-income instruments of different maturities given the yield curve scenarios displayed in Exhibit 2:

Exhibit 2
Yield Curve Scenarios Demonstrated by Carr

Scenario A	Yield curve remains static.
Scenario B	Yield curve moves up by a parallel shift of 50 basis points.
Scenario C	Interest rates evolve according to the forward rates implied by the original yield curve.

Carr also intends to use the bonds in Exhibit 1 to demonstrate the active fixed-income strategy of "riding the yield curve." For the purpose of his analysis, he assumes that changes in yield occur at the end of the 12-month holding period.

During his presentation, Carr makes the following two statements:

Statement 1: "When thinking about positioning for parallel shifts in the yield curve, an investor should always remember that there is a direct relationship between the future yield of the bond and the investor's holding period return."

Statement 2: "Another way to profit from a static yield curve is to sell convexity. This can be done by buying bonds with embedded options such as callable and putable bonds."

31. Based on the data in Exhibit 1, the holding period return for purchasing the 2-year-maturity bond and successfully riding the yield curve for 12 months is *closest* to which of the following?

A. 0.35%
B. 0.77%
C. 2.24%

32. Based on the data in Exhibit 1, the bond that would give the *highest* return from successfully riding the yield curve for 12 months is the bond with maturity of:

A. 2 years.
B. 3 years.
C. 4 years.

33. Buying the 4-year maturity bond in Exhibit 1 and holding it for 12 months will give a holding period return under scenario C in Exhibit 2 that will *most likely* be:

A. lower than 1.53%.
B. equal to 1.53%.
C. higher than 1.53%.

34. Buying the 4-year-maturity bond in Exhibit 1 and holding it for 12 months will give a holding period return under scenario B in Exhibit 2 that will *most likely* be:

A. lower than 1.53%.
B. equal to 1.53%.
C. higher than 1.53%.

35. Statement 1 by Carr is *best* described as:

A. correct.
B. incorrect, since there is an inverse relationship between the future yield of the bond and the investor's holding period return.
C. incorrect, since there no relationship between the future yield of the bond and the investor's holding period return.

36. Statement 2 by Carr is *best* described as:

A. correct.
B. incorrect, since convexity is sold by selling bonds with embedded options.
C. incorrect, since convexity may be sold by either buying or selling bonds with embedded options, depending on the nature of the embedded option.

Question 7

Use the following information to answer the next six questions.

Jimmy Stripes, CFA, is the chief investment officer of an investment management firm that specializes in running both active and passive equity portfolios. Stripes has been asked to present a short talk at an investment conference regarding the issues involved in running an equity portfolio as part of a broader investment portfolio.

Stripes divides his presentation time equally between passive and active equity strategies.

During his presentation on passive equity strategies, he mentions some well-known stock market indices that are often used as benchmarks for equity portfolios and discusses the different methods of weighting equity indices. He concludes with the following comment:

"Although disadvantages do exist to float-weighted methodology of constructing an index, it has become the main method of index providers in markets today due to the lower portfolio turnover and better representation of the manner in which equity portfolios are actually constructed. One drawback of the float weighting method however is that it is likely to overrepresent the liquidity of smaller companies in the index."

With regard to passive equity investment, Stripes presents a short segment on the relative merits of the approaches of full replication, stratified sampling, and optimization. He gives as an example of a hypothetical client who wishes minimize tracking error against the CAC 40 index in France.

In his segment on active equity management, Stripes chooses to focus on the merits of long/short investing. After the presentation, he is approached by Amir Butt, a long-only fund manager who is interested in expanding the scope of their investment offerings to include short-selling equities.

Butt has many questions for Stripes, listed below:

Question 1: "I have heard there are many arguments for pricing inefficiencies being more abundant on the short side of the market. Examples I have heard mentioned relate to buy-side investors, sell-side analysts, and management of companies themselves."

Question 2: "I am interested in the concept of alpha and beta separation. For example, if I have located a superior small-cap manager and I want to port the manager's alpha onto a large-cap systematic exposure, how might I go about doing this?"

Question 3: "I have heard that short-selling allows managers to avoid the constraints of long-only investing. I'm not sure why this would be the case, since the long-only manager can take a negative view on a stock by not holding it when it is part of the fund's benchmark. Can't they?"

Stripes enjoys his time at the conference and listens to many other speakers while he is there. He was very impressed by a presentation given that addressed socially responsible investing (SRI), but is concerned about style biases that may be introduced into portfolios by focusing on environment-related negative screening.

---

37. With respect to Stripes's comment at the conference on index weighting methodologies, the comment is:

    A. correct.
    B. incorrect, since float-weighted indices tend to have higher portfolio turnover than other index weighting methods.
    C. incorrect, since overweighting of smaller companies is not a drawback of the float-adjusted weighting method.

38. With regard to the hypothetical client who wishes to minimize tracking error against the CAC 40 index in France, the best indexing method for Stripes to recommend is:

    A. full replication.
    B. stratified sampling.
    C. optimization.

39. With respect to question 1 by Butt, how many of the examples given by Butt are likely to be genuine causes of price inefficiency on the short side?

    A. One.
    B. Two.
    C. All three.

40. How should Stripes respond to question 2 of Butt?

    A. Long the small-cap manager, short a small-cap future, buy a large-cap future.
    B. Long the small-cap manager, buy a small-cap future, short a large-cap future.
    C. Short the small-cap manager, buy a small-cap future, short a large-cap future.

41. With respect to question 3 of Butt, Stripes should *most likely* reply:

    A. Short-selling does not remove any constraints to long-only investing; however, it will give access to better opportunities.
    B. While long-only managers can express a negative view by not holding a security in the fund's benchmark, they are constrained in their negative view by the size of the holding in the benchmark. Short-sellers do not have this constraint.
    C. Short-selling removes the constraint of always having to look for undervalued securities.

42. Environment-related negative screening is *most likely* to lead to funds being overweight which of the following styles?

    A. Value and small-cap.
    B. Value and large-cap.
    C. Growth and small-cap.

Question 8

Use the following information to answer the next six questions.

The Baracas Foundation is considering adding alternative assets to what has historically been a portfolio invested entirely in traditional publicly listed equities and bonds.

The investment committee is meeting to decide which of the major types of alternative asset is *most likely* to meet their requirements.

During the meeting, committee members make the following comments:

Comment 1: “We look to real estate primarily to provide diversification and lower the downside risk of the portfolio. It is not a major objective that any allocation to real estate–related products should boost returns of the portfolio.”

Comment 2: “Due to the size of the foundation, any allocation to private equity is likely to not be large enough to meet the minimum commitment levels of more than two or three private equity limited partnerships. On this basis the foundation should consider allocating to a private equity fund of funds since the diversification benefits achieved in doing so are likely to outweigh any extra layer of fees in the fund-of-funds structure.”

The committee has also concluded that an allocation to commodities would be appropriate for the foundation, given the principal roles commodities are expected to play in an investment portfolio with respect to diversification and inflation hedging. They are looking at adding a position in three potential commodity investments displayed in Exhibit 1:

Exhibit 1
Three Potential Commodity Investment Positions Considered by the Baracas Foundation

Commodity	Investment Type	Investment Price	Commodity Spot Price
Gold	Spot	$1,300	$1,300
Gold	Futures	$1,250	$1,300
Crude Oil Services Company	Equity	$12.31	$61.55

The committee is also considering the performance data of several hedge fund indices, and the performance data of several large hedge funds of various strategies. One of the committee members who has previous experience working in a hedge fund environment cautions the committee about naïve use of this data. Specifically, they state that biases such as survivorship bias, stale price bias, and inclusion bias can significantly inflate hedge fund index returns. They also state the following issues with the Sharpe ratio when applied to hedge fund returns:

1. The ratio can be gamed by extending a short time period to a longer time period.
2. The ratio assumes zero skewness and excess kurtosis in investment returns—often not the case for hedge funds.

43. With respect to comment 1 made by the investment committee, it is *most likely* that the Foundation should invest in:

A. direct real estate.
B. real estate investment trusts (REITs).
C. both direct real estate and REITs.

44. Is comment 2 by the investment committee accurate?

A. Yes.
B. No, since the minimum commitment levels of fund of funds are likely to be just as high as the minimum commitment levels of individual private equity funds.
C. No, since fees of fund of fund structures are usually lower than that of fees for individual private equity funds.

45. With respect to the decision to allocate to commodities, it is *most likely* this will be suitable for the Baracas Foundation with respect to:

A. both diversification and inflation protection.
B. diversification, but not inflation protection.
C. inflation protection, but not diversification.

46. How many of the commodity investments displayed in Exhibit 1 are *direct* investments in commodities?

A. One
B. Two
C. Three

47. Which of the index biases mentioned by the committee member is unlikely to inflate hedge fund index performance?

A. Survivorship bias.
B. Stale price bias.
C. Inclusion bias.

48. How many of the issues with the Sharpe ratio, when applied to hedge fund returns listed by the committee member, are accurate?

A. Zero.
B. One.
C. Two.

Question 9

Use the following information to answer the next six questions.

Dan McCaw, CFA, is an equity portfolio manager who is considering using option strategies to profit from his views on share prices.

He collects the information given in Exhibit 1 for the premia of listed options on shares of Nelovo N.V., a large-cap stock listed in Amsterdam. Shares in Nelovo are currently trading at a price of €25 per share.

Exhibit 1
Option Premia for Nelovo N.V.

		Expiry		
	Call Premia (€)	**Jun**	**Aug**	**Nov**
Strike	30	0.77	1.38	1.85
	25	1.09	3.50	4.25
	20	5.71	7.84	8.36

	Puts	**Expiry**		
		Jun	**Aug**	**Nov**
Strike	30	5.45	5.93	6.21
	25	0.73	2.89	3.26
	20	0.53	0.93	1.23

Due to his expertise, McCaw has been asked by other fund managers at his firm to give a short presentation on delta hedging at the next asset allocation meeting.

49. If McCaw expects a fall in general market volatility, which of the following options strategies could he use to benefit from this?

    A. Long straddle
    B. Butterfly spread
    C. Inverse butterfly spread

50. The maximum loss from a bull spread using August puts with strike prices of €30 and €25 is *closest* to:

    A. €1.96
    B. €2.89
    C. €3.04

Question 10

Use the following information to answer the next six questions.

Katherine Kidman is a pension fund adviser who has been asked by the trustees of a pension fund to evaluate the performance of fund managers that the pension fund has or intends to invest in.

She begins by examining the performance of David Jones. David Jones is a U.K. value fund manager who runs a portfolio that produced a return of 6.14% over a one-month period. Over the same period, the market index generated returns of 6.11%.

Based on David's past portfolios, a normal portfolio with typical systematic risk exposures is determined to have generated returns of 5.96% over the period.

Katherine analyzes the performance of Jones' portfolio using a fundamental factor model. Exposures to fundamental factors are represented as standard deviations from mean values as calculated from market capitalization–weighted stocks. Results are displayed in Exhibit 1.

Exhibit 1
Micro Attribution with a Fundamental Factor Model

		Portfolio Exposure	Normal Portfolio Exposure	Active Exposure	Active Impact	Return
Market Index Return						**6.11%**
Normal Portfolio Return						**5.96%**
	Cash timing	1.17	0.00	1.17	0.08	
	Beta timing	1.06	1.00	0.06	0.04	
Total Market Timing						**X**
	Market size	–1.18	–0.91	–0.27	0.10	
	Financial leverage	0.05	0.06	–0.01	0.08	
	Earnings to price	0.09	0.03	0.06	-0.06	
Total Exposure to Fundamental Factors						**X**
	Technology	35.0	32.0	3.0	0.01	
	Energy	25.0	29.0	4.0	0.05	
	Telecommunications	40.0	39.0	1.0	–0.26	
Total Exposure to Economic Sectors						**X**
Unexplained Return Component						**X**
Actual Return of Portfolio						**6.14%**

Katherine reports to the trustees that Exhibit 1 shows that David has:

- Successfully managed to outperform an unambiguous benchmark
- Showed himself to be a successful fund manager with regard to market timing and exposure to fundamental factors

In her report on David, Katherine suggests that it may be appropriate for the pension fund trustees to also consider a macro attribution approach to evaluating his portfolio's performance.

Katherine next looks at a European fixed-income fund, which is managed by Jürgen Hamman who invests in German corporate bonds. To better understand the performance of the portfolio, Katherine breaks down its total return into the following components:

- Interest rate effect
- Sector/quality effect
- Security selection effect
- Trading activity effect
- Interest rate management effect

Using this breakdown she reports back to the trustees on a number of components of Jürgen's performance. She feels that it will be necessary to explain to the trustees how each effect is measured.

---

55. Over the period examined, it is *most accurate* to say that David's investment style:

    A. underperformed the market index by –0.15%.
    B. outperformed the market index by 0.03%.
    C. outperformed the market index by 0.08%.

56. The unexplained return component for the month considered in Exhibit 1 is *closest* to:

    A. 0.04%.
    B. 0.12%.
    C. 0.14%.

57. Katherine's comment that David has successfully managed to outperform an unambiguous benchmark showing him to be a successful fund manager with regard to market timing and exposure to fundamental factors is:

    A. correct both with regard to outperformance of an unambiguous benchmark and success in market timing and exposure to fundamental factors.
    B. correct with regard to outperformance of an unambiguous benchmark but incorrect regarding David's success in market timing and exposure to fundamental factors.
    C. incorrect with regard to outperformance of an unambiguous benchmark but correct regarding David's success in market timing and exposure to fundamental factors.

58. A macro attribution analysis approach would *most likely* be carried out at the level of the:

A. individual investment manager.
B. fund sponsor.
C. investment sector.

59. When considering the return components of Jürgen's fixed income fund, the return component due to changes in the forward rate would form part of the:

A. interest rate effect.
B. sector/quality effect.
C. security selection effect.

60. The interest rate management effect of the portfolio would be best calculated by subtracting the return of the:

A. portfolio if each security was repriced as if it were default free from the return of the portfolio.
B. entire treasury universe from the return of the portfolio if each security was repriced as if it were default free.
C. entire treasury universe from the return of the portfolio.

WILEY

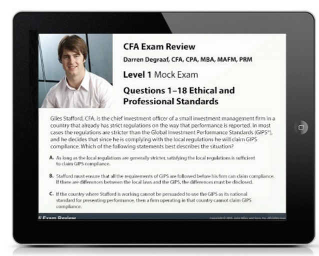
CFA® Mock Exam Answer Key

Congratulations on completing Wiley's CFA® Mock Exam!

Candidates who take one or more CFA mock exams can exponentially increase their chances of passing.

To check your answers and obtain
full solutions to this mock,
visit *www.efficientlearning.com/cfa/mock-exam*

Level III Mock Exam Review Seminar - Free



9am - 11am ET / 2pm – 4pm BT on Sunday June 10, 2018

To help you make the most of your Mock Exam experience with Wiley, we are offering to walk through how to answer 20 of the most typical and toughest questions on this mock exam in an online webcast. This live online class will be highly interactive with plenty of Q&A.

Delivered by a top CFA instructor who has helped thousands of candidates to pass the CFA exam, the 20 questions will be voted for by you!

Vote for your questions and register to join the live webcast at:

www.efficientlearning.com/cfa/mock-exam-review-webcast

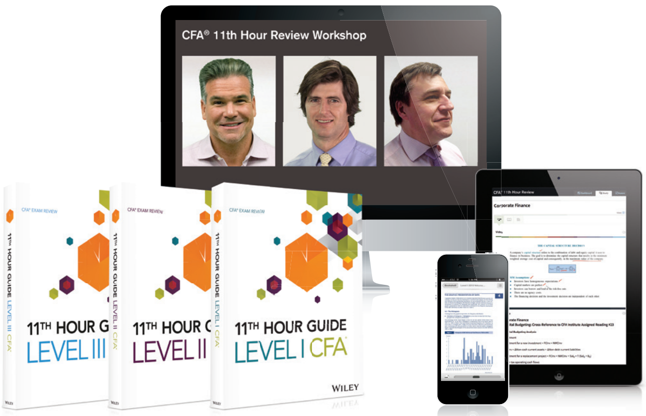
Voting closes Tuesday June 5, 2018.
Can't attend live? We will also record the class so you will be able to watch it later on demand.

Best wishes for your studies.

CFA® Exam Review

Cross the Finish Line

CFA® 2 Day Weekend Intensive Review Workshop



Date:
Saturday 12-Sunday 13 May, 2018 (Level I & II)
Saturday 2-Sunday 3 June, 2018 (Level III)
Time:
9:00am - 5:00pm
Venue:
Live Online Review Class with Q&A.
Also Recorded and Available on Demand
Places are Limited. Register Today.

Standard Price: $375 **Earlybird Price: $300**
Use code **CFA2DSOC**

May is crunch time for CFA candidates—make sure you are confident on exam day with a comprehensive class delivered by experienced instructors Peter Olinto, Darren Degraaf and Chris Ansell. This **live two-day weekend intensive bootcamp** will provide a detailed review of the most highly weighted topics on the CFA program combined with plenty of problem solving and question practice, designed to reinforce your understanding, improve your skill and increase the speed at which you can tackle even the toughest questions on exam day.

Combined with complementary access to **Wiley's 11th Hour Final Review package,** you'll have all the tips, techniques, strategies and study materials that you need in the final few weeks to gain a passing score.

Includes:

- 2 Day intensive workshop focused on CFA exam preparation
- Coverage of key concepts and formulas
- Question practice and exam techniques and short cuts
- Tactical tools and study strategies for your final review
- Wiley's 11th Hour Final Review Course with condensed review video lectures (27+ hours), 11th Hour study guide, mock exam, mock exam seminar (12+ hours), exam planner and formula sheets

Meet the Instructors:

Wiley's instructors have over 50 years combined experience of teaching both CPA and CFA Exam Review courses. They have helped thousands of students to pass the Level I, II and III CFA exams in more then fifty cities around the world.

Darren Degraaf
CFA®, CPA (US), CMA, PRM

Peter Olinto
CPA (inactive), JD

Chris Ansell
CFA®, MBA, MSc

"absolute genius and proving very valuable at this stage of the revision process."
– Doug, UK

"indispensable down the final stretch and had a HUGE impact on my studies. I thought it was better than the competition by a long stretch..."
- Christopher, USA

"PERFECT for getting through the material quickly ...makes it a breeze. Thanks!!"
– Paul, Canada

For further details please visit
www.efficientlearning.com/cfa/final-review-class

WILEY

WILEY