

Financial Exam Help 123™

2023 Level III Mock Exam

Morning Session Sample Exam Case Scenarios

This 2023 Morning Session sample mock exam has 3 questions for a total of 36 points. For grading purposes, the maximum point value for each question is equal to the number of minutes allocated to that question.

Question	Topic	Minutes
1	Portfolio Management – Derivatives	12
2	Portfolio Management – Equity	12
3	Portfolio Management – Alternative Investments	<u>12</u>
	Total:	36

Question 1 relates to Derivative Securities**AJBWU Case Scenario**

Mathew Degenek manages the equity portfolio for the Australian Jelly Bean Workers Union (AJBWU). The portfolio is valued at AUD 200 million, and is allocated 70% to large-cap equities and 30% to small-cap equities. Degenek believes that large-cap equity returns are going to fall over the next 6 months while small-cap equity returns will rise; therefore, he wants to implement a temporary change in the AJBWU equity portfolio. Exhibit 1 shows the existing portfolio details and the target values.

Exhibit 1
AJBWU Equity Portfolio
Current & Target Values

Current portfolio value	AUD 200,000,000
Large-Cap Equities	
Current allocation	70%
Current beta	1.15
Target allocation	40%
Target beta	0.85
Small-Cap Equities	
Current allocation	30%
Current beta	0.90
Target allocation	60%
Target beta	1.25

To avoid the cost of selling and buying equities, Degenek will implement the change using futures contracts. He has gathered data on large-cap and small-cap equity futures contracts in Exhibit 2.

Exhibit 2
Futures Contract Information

Large-Cap Equity Index Futures	
Price	AUD 97,000
Beta	1.02
Small-Cap Equity Index Futures	
Price	AUD 104,000
Beta	1.30

Question 2 relates to Equity Investments**SGIA Case Scenario**

Alpine Investment Management Company (Société de Gestion d'Investissement Alpine SA, SGIA) manage a variety of investment portfolios, both pooled funds and separately managed accounts. Ruben Garcia, managing director for equity funds at SGIA, has proposed the development of quantitative active investment strategies for their equity fund portfolios. Having developed a set of factors that he believes influence performance, Garcia directs Hannah Chirwa, SGIA's senior equity analyst, to compute the correlation of factor exposures with their subsequent holding period returns across all equity securities that SGIA owns.

Narender Edathodika, CFA, manages a European small-cap mutual fund at SGIA. The fund recently received a large cash inflow, giving the fund a cash position amounting to 10.8% of its total assets and consequently reducing its beta versus its benchmark index. Edathodika wants to restore the fund's beta to its mandated range as quickly as possible, so he has chosen to take a long position in futures on the benchmark index, until he can effect all of the necessary stock purchases.

Raheem Benjamin, CFA, manages separate accounts at SGIA, including the equity portfolio for the Trevor and Addison Kendall Foundation (Kendall) and Geneva Life Insurance Company (Geneva). The Kendall board of trustees are generally skeptical about market efficiency. They promote social welfare, wanting to avoid any association with military technology, alcohol, tobacco, and gaming. Their benchmark is a broad market equity index comprising 2,000 actively traded stocks. The management at Geneva prefer breaking up their equity portfolio into sector-specific subportfolios (each with its own sector-specific benchmark), and don't entertain any specific ESG goals.

Rafaella Álvarez and Andy Mandouki, portfolio managers at SGIA, are discussing active management approaches over a particularly enjoyable dinner (Álvarez chose the kibbeh nayyeh, while Mandouki opted for lobster paella). The conversation turned to Active Share and active risk, and they made these statements:

Álvarez: It's possible to have a portfolio with a high Active Share and a low active risk, and it's also possible to have a portfolio with a low Active Share and a high active risk.

Mandouki: Neither Active Share nor active risk is controllable by the manager. You make your decisions about your holdings, then cross your fingers and hope that they work.

Question 3 relates to Alternative Investments**Lake Volta Capital Case Scenario**

Alexander Mumin, CFA, is a portfolio manager at Lake Volta Capital (LVC), an alternative investment firm headquartered in Accra, Ghana. LVC incorporate hedge fund strategies as well as other alternative investments (e.g., private equity, private credit, private real assets). For their hedge funds, LVC use these categories to classify their managers' strategies:

- Equity-related
- Event-driven
- Relative value
- Opportunistic
- Specialty
- Multi-manager

Mumin specializes in convertible arbitrage, preferring to leave credit risk, interest rate risk, and equity market volatility risk unhedged in his portfolios, while monitoring them closely. He has a number of colleagues at LVC who specialize in specific strategies, including those shown in Exhibit 1.

Exhibit 1
Lake Volta Capital
Selected Portfolio Managers

Manager	Strategy
Layla Samir, CFA	Samir specializes in a market-neutral strategy that she adjusts frequently using algorithm-based models that she developed with the help of LVC's quantitative analysts.
Ernane Franque, CFA	Franque's approach is best described as relative value volatility arbitrage. He prefers to avoid active gamma trading by hedging his portfolio's gamma exposure with options.
Nebi Bekele, CFA	Bekele focuses on fixed income arbitrage, which she implements primarily by buying off-the-run government bonds, and selling duration-matched on-the-run bonds from the same issuer.

LVC recently received an investment of 1 billion Ghanaian cedis (GHS 1 billion, about EUR 83 million) from the Ghanaian Mine Workers Defined Benefit Pension Plan (the Plan). While debating whether or not to add hedge funds to their portfolio, the Plan's investment committee made these statements:

Statement 1: "We are not interested in strategies that depend on a specific event or series of events. We believe that such strategies are prone to error and are, therefore, too risky."

Statement 2: "We are comfortable with high leverage as long as a strategy is exposed to a limited number of risks: only those risks that are the main focus of the strategy."

Another portfolio manager at LVC, Branka Bergwijn, CFA, has a client – the Melissa Sergeant / Carrie Omar Educational Endowment (the Endowment) – which wants to add an investment in private real assets to their portfolio. Until she finds an appropriate private real assets investment, Bergwijn wants a proxy for the investment. She is considering three possibilities:

- Public REITs
- High-yield bonds
- Commodity futures