Level III 2024 Practice Exam
2 ⅕ Hours (132 Minutes)

Session 1 of the 2024 Practice Exam has 11 question sets. The format consists of either a free form constructed response question set (essay), or a question set consisting of a vignette or a short case followed by four multiple choice questions based on the vignette. Each question set is allocated 12 minutes for a total of 132 minutes.

Question Set	Topic	Minutes
1	Portfolio Management – Asset Allocation	12
2	Fixed Income	12
3	Fixed Income	12
4	Equity Investments	12
5	Derivatives	12
6	Portfolio Management – Institutional	12
7	Fixed Income	12
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10	Derivatives	12
11	Portfolio Management – Private Wealth	12
	Total	**132**

QUESTION SET 1
TOPIC: PORTFOLIO MANAGEMENT– ASSET ALLOCATION
TOTAL POINT VALUE OF THIS QUESTION SET IS 12 POINTS

Wealth management consultant Edward Kim is meeting with Paula Schwartz, a 55-year-old civil engineer with no dependents. Schwartz's portfolio consists of a taxable investment account and a tax-deferred investment account.

Schwartz lives in the United States, where interest and earned income are taxed at progressively higher income tax rates. Long-term capital gains and dividend income are taxed at lower tax rates compared to interest, earned income, and short-term capital gains. In taxable accounts, realized capital losses can be used to offset current or future realized capital gains. Schwartz is in a high tax bracket, and both of her accounts, combined, have equal proportions of dividend-paying domestic stocks, high-yield bonds, and non-dividend-paying domestic stocks focused on capital gains. Kim recommends reallocating some of these asset classes from Schwartz's tax-deferred account to her taxable account to take advantage of tax efficiency.

Kim explains to Schwartz the tactical asset allocation (TAA) strategies designed to capitalize on short-term economic and market forecasts. In outlining these strategies, he makes the following points:

Statement 1: Discretionary TAA is typically used to make quantitative forecasts that can include economic data points like credit spreads and inflation expectations.

Statement 2: Systematic TAA is typically used by investment managers to mitigate or hedge risk in distressed markets while enhancing return in positive return markets using qualitative interpretation of market conditions.

Statement 3: Systematic TAA widely uses trend and value signals.

Schwartz asks Kim about new investment opportunities to add to her investment portfolio. Given their positive short-term excess return forecast, Kim suggests international stocks trading in other developed countries. However, Schwartz tells Kim that she is not interested in adding international stocks to the account because she is only familiar with domestic stocks and feels more comfortable with them.

Kim also recommends using mean–variance optimization (MVO) technique to further evaluate potential asset allocations for Schwartz's taxable account. He suggests running separate optimization scenarios for both pre-tax basis and after-tax.

1. Given Schwartz's current portfolio and her country's tax laws, it is *least* appropriate for Kim to recommend Schwartz's taxable account to allocate more:

   A. high-yield bonds.
   B. dividend-paying domestic stocks.
   C. non-dividend paying domestic stocks focused on long-term capital gains.

2. Which one of Kim's statements regarding tactical asset allocation approaches is correct?

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

3. Schwartz's attitude toward international equity markets equity *most likely* reflects which of the following behavioral biases?

   A. Home bias
   B. Mental accounting bias
   C. Representativeness bias

4. In Kim's optimization scenarios, which combination of the following model inputs would *most likely* need adjustment?

   A. Expected returns and correlation of returns
   B. Expected returns and standard deviations of returns
   C. Standard deviations of returns and correlation of returns

QUESTION SET 2
TOPIC: FIXED INCOME
TOTAL POINT VALUE OF THIS QUESTION SET IS 12 POINTS

Peter Davidoff works as a portfolio manager at Prospero Investments and oversees the firm's euro-denominated corporate bond portfolio. Davidoff is preparing a slide deck with an overview of his bond portfolio along with a forecast of its total expected return for the upcoming year. During the presentation, Davidoff makes two comments regarding a risk measure of a bond portfolio known as convexity.

Comment 1: Coupon-paying bonds have more convexity than zero-coupon bonds of the same duration.

Comment 2: Convexity becomes more valuable when interest rate volatility is expected to increase.

Davidoff finishes his presentation with a summary in Exhibit 1 that shows the main characteristics of the bond portfolio. He explains that these data can be used to calculate Prospero's expected total return for the next year.

Exhibit 1

Notional principal of portfolio (in million EUR)	100
Average bond coupon payment (per €100 par value)	3.5
Coupon frequency	Annual
Investment horizon	1 year
Current average bond price	102.3
Expected average bond price in one year (assuming an unchanged yield curve)	103.7
Average bond convexity in one year	25
Average bond modified duration in one year	4.5
Expected average benchmark yield-to-maturity change	0.35%
Expected change in spread (spread expected to widen in this scenario)	0.20%
Expected currency losses (€ depreciation versus US$)	1.00%

A. **Justify** Davidoff's first comment with *one* reason for the convexity characteristics of coupon-paying bonds compared to those of zero-coupon bonds.

B. **Justify** Davidoff's second comment with *one* reason why convexity becomes more valuable when interest rate volatility increases.

C. **Calculate** the rolling yield for the euro-denominated corporate bond portfolio and the total expected return for the euro-denominated corporate bond portfolio.

QUESTION SET 3
TOPIC: FIXED INCOME
TOTAL POINT VALUE OF THIS QUESTION SET IS 12 POINTS

Eugene Williams recently joined Mongrovia State University as a portfolio manager responsible for managing the university's endowment. With extensive experience in portfolio management, he believes that the endowment can benefit from adding the fixed income asset class to its roster of acceptable investment instruments. For this reason, he developed a presentation for the endowment's management committee. Because some committee members have limited experience with fixed income, Williams incorporated into his presentation a review of basic fixed income valuation concepts. During his presentation, he makes the following three comments.

Comment 1: There are three main ways to approach fixed income returns: discounted cash flow, risk premium approach, and including fixed income asset classes in an equilibrium model.

Comment 2: Yield-to-maturity (YTM), one of the most commonly used metrics in valuing fixed income instruments, is the single discount rate that equates the present value of a bond's cash flows to its par value.

Comment 3: The only reason a bond's realized return may not equal the initial YTM is that the cash flows may be reinvested at rates above or below the initial YTM.

While talking about the details of the risk premium approach, Williams explains that academia generally identifies four main building blocks of the required return for fixed income asset classes: the short-term default-free risk rate, the term premium, the credit premium, and the liquidity premium. He mentions that from these four components, only the credit premium is observable.

In the conclusion of his presentation, Williams suggests that there is value in diversifying into emerging market bonds, in conjunction with domestic corporate bonds and US Treasury instruments. He underscores the crucial necessity of closely monitoring the economic health of the issuing country.

When describing emerging economies, he notes they generally have less-developed financial markets and a higher dependency on foreign borrowing but typically have more robust monetary discipline. With this in mind, he highlights those factors, such as a foreign debt over 10% of GDP, a consistent fiscal deficit-to-GDP ratio above 4%, and a persistent current account deficit exceeding 4% of GDP, which should raise concerns in the analysis of emerging market bonds.

1. Which statement regarding valuing fixed income instruments is correct?

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

2. When Williams is explaining the risk premium approach, which statement(s) is(are) correct?

   A. Identifying the number of building blocks
   B. Claiming that only the credit premium is observable
   C. Both identifying the number of the building blocks and claiming that only the credit premium is observable

3. Regarding the description of emerging markets, Williams is incorrect about their:

   A. financial markets.
   B. monetary discipline.
   C. reliance on foreign borrowing.

4. Regarding the characteristics of emerging market bonds, Williams is *least likely* correct about their:

   A. fiscal deficit-to-GDP ratio.
   B. foreign debt-to-GDP ratio.
   C. current account deficit-to-GDP ratio.

QUESTION SET 4
TOPIC: EQUITY INVESTMENTS
TOTAL POINT VALUE OF THIS QUESTION SET IS 12 POINTS

An analyst has compiled information and factor exposures for the three benchmark indices shown in Exhibit 1. When regressed against the entire US public equity market, the regression coefficients shown in Exhibit 1 were determined to be statistically significant at the 5% level.

Exhibit 1

	Index 1	**Index 2**	**Index 3**
Index Composition	Equal weighted	Price weighted β	Volatility weighted
Market	0.45	0.90	0.88
Size	0.33	–0.16	–0.38
Value	0.41	–0.06	–0.23
Yield	0.24	0.08	0.33
Momentum	0.01	0.54	–0.01
Quality	0.32	0.29	0.46

William Jones and Sarah Smith are individual investors who employ different investment strategies in the management of their personal portfolios. Jones invests in small-capitalization equity securities having low price-to-book ratios and high dividend yields. Smith is concerned primarily about downside risk and believes small-capitalization stocks offer inadequate returns given their risk characteristics.

1. Which benchmark index would be *most* appropriate for a risk-oriented strategy?

   A. Index 1
   B. Index 2
   C. Index 3

2. Which benchmark index would be *most* appropriate for a diversification-oriented strategy?

   A. Index 1
   B. Index 2
   C. Index 3

3. Which benchmark index would be *most* appropriate for Jones?

A. Index 1
B. Index 2
C. Index 3

4. Which benchmark index would be *most* appropriate for Smith?

A. Index 1
B. Index 2
C. Index 3

QUESTION SET 5
TOPIC: DERIVATIVES
TOTAL POINT VALUE OF THIS QUESTION SET IS 12 POINTS

Elizabeth Morgan is an investment advisor at Alpha Value Advisors (AVA) in San Francisco, California. Morgan specializes in exotic derivatives, foreign exchange, and interest rate products. Morgan manages several portfolios of individual high-net-worth clients.

Morgan is meeting with Mark LeBlanc, a US-based active investor in public and private securities. LeBlanc prefers to diversify his portfolio across various developed countries. LeBlanc holds a limited partnership investment in an Australian private equity firm. LeBlanc has committed to invest AUD 15 million in the private equity firm with a cap of AUD 5 million in a calendar year. LeBlanc receives a capital call from the general partner and plans to purchase AUD 3.5 million in the next six months. He is concerned that USD will depreciate against the AUD.

To reduce the risk of the planned purchase of AUD, Morgan proposes three potential option strategies and creates the summary table of six-month AUD/USD (number of AUD per 1 USD) pricing details in Exhibit 1.

Option Strategy 1: Buy a six-month AUD/USD call option with a strike price of 1.50 to hedge the risk of AUD depreciating against USD.

Option Strategy 2: Buy a six-month AUD/USD put option with a strike price of 1.46 to hedge the risk of AUD appreciating against USD.

Option Strategy 3: Buy a six-month USD/AUD put option with a strike price of 1.50 to hedge the risk of AUD appreciating against USD.

Exhibit 1

Strike Price	Call Premium	Put Premium
1.46	$0.0510	$0.0082
1.48	$0.0210	$0.0125
1.50	$0.0092	$0.0475

The current AUD/USD spot rate = 1.48 and each option contract size = 100,000 AUD/USD.

Vijay Raghav, another affluent client, co-founded the Network Artificial Intelligence Corporation (NAIC). Though he has retired, Raghav retains 20,000 NAIC shares. Having owned these shares since the company's inception, he has a very low tax basis on them. Concerned about taxes, he's hesitant to sell but wants to protect their value. He seeks Morgan's advice on safeguarding his investment from potential drops in NAIC's stock price, which currently stands at $25.12 per share. Morgan suggests employing option strategies for this purpose and showcases six-month option contract

pricing details for NAIC options in Exhibit 2. Raghav is receptive to the idea, prompting Morgan to offer the following two recommendations:

Recommendation 1: Implement a collar option.

Recommendation 2: Implement a bear put spread.

Exhibit 2

Call Delta	Exercise Price	Call Premium	Put Premium	Put Delta
0.925	$20	8.11	0.31	–0.159
0.522	$25	2.82	2.67	–0.504
0.137	$30	0.53	7.83	–0.813

NAIC's current stock price = $25.12 and each option contract = 100 shares.

After reviewing the recommendations, Raghav decides to hedge half of his NAIC holdings with bear put spreads and another half with collar option strategy. Six months after hedging, NAIC shares close at $22.35 per share on the option expiry date.

1. The option strategy that *most likely* reduces the risk of LeBlanc's capital call exposure is:

   A. Option Strategy 1.
   B. Option Strategy 2.
   C. Option Strategy 3.

2. Based on the information in Exhibit 1, the cost of implementing a long straddle option hedge for the AUD capital call is *closest* to:

   A. $117,250.
   B. $198,450.
   C. $207,200.

3. Based on the information in Exhibit 2, for a breakeven scenario, the percentage change in the NAIC share price for the collar strategy in Recommendation 1 is *closest* to:

   A. 2.11%.
   B. 4.26%.
   C. 8.52%.

4. Based on the information in Exhibit 2, the total option premium to hedge Raghav's NAIC holdings is *closest* to:

A. $42,800.
B. $45,000.
C. $47,200.

QUESTION SET 6
TOPIC: PORTFOLIO MANAGEMENT– INSTITUTIONAL
TOTAL POINT VALUE OF THIS QUESTION SET IS 12 POINTS

Eastern State University (ESU) is a public university located in the northeastern US. ESU was established by state law in 1884 and operates as a state institution. About 25% of its operating budget is funded by state appropriations, 30% by student tuition and fees, and the remainder by self-supporting activities, such as research grants, contracts, and its endowment. ESU is empowered by the state to issue revenue bonds for capital improvements, such as buildings and dormitories. ESU's bonds have a AA+ rating.

The ESU endowment (ESUE) consists of over 1,500 mostly donor-restricted separate funds with various purposes. The endowment exists to support the university in achieving its goals in perpetuity. ESUE funds are pooled in a unit trust invested in a passively managed portfolio of public equities and fixed income securities with low tracking error limits.

ESUE operating costs, including investment management expenses, average 0.5% of assets, primarily attributable to extensive fundraising activities generating contributions of 10-20% of new assets annually. The spending policy of the endowment has been to distribute 4% of assets annually. Total assets as of the last fiscal year were $1.1 billion, and the endowment funded about 2% of ESU's operating budget.

Recently an alumnus and successful technology entrepreneur donated $24 million to create a new fund within the ESUE to support a new Applied Machine Learning and Artificial Intelligence Center (AMLAIC). The objective of this AMLAIC endowment is to fund the operating costs of the center going forward and to maintain the purchasing power of the investable asset base, after funding the center's startup with $1 million in initial capital. This will be one of the larger funds in the endowment.

The ESUE Board of Directors has asked its financial advisor, Arthur Verdue, to analyze the new AMLAIC fund and the center's needs. Based on university staffing data, Verdue estimates AMLAIC annual operating expenses to be $1.8 million. The ESU Office of Sponsored Research estimates a 90% confidence interval for the mean value of annual research grant funds from outside sources to be $0.4 to $1.4 million. Both expenses and funding are expected to follow the Higher Education Price Index (HEPI) ten-year average inflation rate of 2.8%.

The Board also asks Verdue to review the investment approach of the entire endowment. The guidance given to Verdue includes:

- Recommend a different investment approach likely to generate higher returns that would not require an extreme increase in ESUE investment staff.
- Advise the board concerning factors related to the increased risks

associated with any different approach, given the board's historically conservative risk tolerance.

Verdue recommends the Endowment model to the Board.

A. **Determine** whether the ESUE spending policy is sufficient for AMLAIC's needs. **Justify** your response.

B. **Discuss** *two* of ESUE's liability characteristics that would favor an increase in risk tolerance.

C. **Identify** *three* characteristics of the recommended model that differ from ESUE's current approach. **Describe** the difference between the recommended model and the current approach for *each* characteristic.

QUESTION SET 7
TOPIC: FIXED INCOME
TOTAL POINT VALUE OF THIS QUESTION SET IS 12 POINTS

Lindsay Hannon is a fixed income portfolio manager at Alvin Investment Company. Hannon's role involves formulating liability-driven investment (LDI) strategies. He is planning to meet with a potential client, Victoria Lee, a wealthy owner of a mid-sized business having foreseeable future liabilities. To prepare for this meeting, Hannon compiles a concise summary of LDI strategies and illustrates how they can assist clients in meeting their anticipated liabilities.

When they meet, Hannon starts with an explanation of the four types of liabilities, broken down by the criteria of the certainty surrounding the amount and the timing of cash outlay(s). Lee explains that she currently has a single five-year liability. Hannon states it would be reasonable to use an immunization strategy. He presents Lee with two risk-free bond portfolios in Exhibit 1 that he believes are potentially suitable for funding Lee's expected future liability.

Exhibit 1

	Portfolio X	**Portfolio Y**
Cash flow yield	5.25%	5.27%
Macaulay duration	4.98	6.10
Convexity	101.12	114.17

Lee becomes curious about the convexity of these two portfolios and asks how to interpret this metric, independent of yield and duration. Hannon explains that assuming constant yield and duration, higher convexity is a beneficial property of a fixed income portfolio.

A. **Identify** *two* types of liabilities in a traditional LDI classification scheme. **Explain** the criteria that differentiate *each* from the others.

B. **Discuss** *one* reason why Hannon can recommend the immunization strategy approach to Lee.

C. **Determine** which portfolio in Exhibit 1 is *most* appropriate for Lee. **Justify** your response.

D. **Identify** whether Hannon's comment about convexity is correct. **Justify** your response.

QUESTION SET 8
TOPIC: ETHICAL AND PROFESSIONAL STANDARDS
TOTAL POINT VALUE OF THIS QUESTION SET IS 18 POINTS

John Jackson, CFA, is the senior portfolio manager at Xerxes Asset Management (XAM), a large organization which has adopted the Asset Manager Code of Conduct (AMC). Jackson's direct reports include Diane Davidson, junior analyst, and Parker Peters, CFA, client relationship manager.

Peters is collecting data and preparing for a meeting with a long-time client and has asked Davidson for assistance. Davidson submits a section for the report outlining the robust research process XAM has implemented regarding its public equities strategy, which incorporates analysis of financial statements, use of expert networks, technical analysis, and discussions with company management.

Davidson recalls a notable success story from two years ago involving a regional bank. This bank's shares saw a remarkable uptick in the first quarter, surpassing the benchmark. This surge can be attributed to a confluence of factors: an advantageous technical setup, a bullish perspective from the expert network on banks with similar structures, and the bank management's televised remarks about a conducive macroeconomic environment for mergers and acquisitions. Davidson then showcases a table detailing this exceptional quarterly outperformance in percentage terms from that period. However, she also highlights that even though they've retained their stake in the bank, its stock has not fared as well against the benchmark in subsequent times.

Peters prepares a section that focuses on XAM's trading policies. Peters emphasizes the firm's commitment to strict equality in trade allocations, with no preferential treatment being given to any accounts. Peters also notes that Jackson reviews trade allocation policies on an annual basis. While Jackson is also very involved with the risk management of the trading desk, a separate risk manager oversees this risk management function.

Peters finishes the presentation by summarizing the client's returns, as the money-weighted returns have exceeded the benchmark in eight of the last ten years.

1. Is Davidson's recap of the drivers of the regional bank investment's outperformance a violation of the Standards?

   A. No
   B. Yes, because reliance on expert networks is not permitted
   C. Yes, because the mention of potential mergers and acquisition activity is material non-public information

2. Is Davidson's table showing the quarterly outperformance a violation of the Standards?

   A. No
   B. Yes, because the table presents out-of-date information
   C. Yes, because the performance presents quarterly outperformance from that period.

3. Which of Peters' comments regarding the trading policies is a violation of the Asset Manager Code of Conduct?

   A. Jackson reviews trade allocation policies on an annual basis
   B. Client accounts and management's accounts are allocated equally
   C. Jackson's involvement in the risk management function of the trading desk

4. Does the use of money-weighted returns meet the standards for GIPS-compliant returns?

   A. No
   B. Yes, because returns have been tracked for more than five years
   C. Yes, on condition that the firm has control over the external cash flows and illiquid investments are a significant part of the investment strategy

QUESTION SET 9
TOPIC: PORTFOLIO MANAGEMENT – PRIVATE WEALTH
TOTAL POINT VALUE OF THIS QUESTION SET IS 12 POINTS

Louis Green, 68, founder of Green Giving Charity, has engaged Robert Yates for personal financial planning. Yates has been very successful over the years working for the Green Giving Charity managing their charitable funds. Green has asked Yates to conduct a full financial review of Green's personal situation for a one-time fee.

Green's assets are mostly in checking and savings accounts. He also has a small rollover IRA (Individual Retirement Arrangement). Green has no current debt. Green lives comfortably off his monthly salary income and has expressed a need to continue his lifestyle after retirement five years from now. Green's net worth totals $1.5 million dollars.

Green has expressed his desire to purchase a vacation house within the next three months. Green states that it is very important to him that he is able to put his twin teenage daughters through college starting next year. In addition, if his daughters graduate with a 3.0 or better GPA, Green would like to provide each child with a down payment on a house, if possible, but isn't sure if his retirement planning and future healthcare needs would support it. Green expects to retire in five years, which coincides with his daughters' graduation timeframe. Green's estate plan is to leave $100,000 to each of his daughters upon his passing, with the remainder of his estate left to Green Giving Charity. Green hopes that the Green Giving Charity will receive a substantial bequest.

Green also mentions several alternative investments that have performed extremely well for Green Giving Charity and wants to ensure the best performing assets have allocations in his personal portfolio. Yates mentions that alternative investments might not be appropriate for Green's portfolio but will begin drafting an investment policy statement to outline important information for managing Green's assets.

A. **Discuss** *two* liquidity preferences for Green's IPS that Yates should include in his initial IPS draft..

B. **Discuss** the issue of goal prioritization for Green regarding his retirement vacation home and the children's education..

C. **Discuss** *one* potential conflict of interest for Yates as Green's wealth manager.

D. **Identify** *three* potential concerns regarding using alternative investments in Green's personal portfolio.

QUESTION SET 10
TOPIC: DERIVATIVES
TOTAL POINT VALUE OF THIS QUESTION SET IS 12 POINTS

Sarah Bransfield is the co-head of equities at Schwinn Asset Management (Schwinn). Schwinn's offerings include many international mutual funds and ETFs focused on developed markets.

Schwinn's existing clients have expressed interest in having part of their portfolios allocated to emerging market funds. To meet this growing interest from existing clients, Schwinn is formulating an investment strategy to create a new ETF. In this new ETF, Bransfield intends to hedge both international equity exposure and the currency exposure of emerging markets. To research and understand the emerging market space, Bransfield gathers details of the potential emerging markets as presented in Exhibit 1 and lists the following strategies. Note: all currency quotes are in terms of the number of currency units in the numerator per 1 unit of currency in the denominator.

Strategy 1: Implement a carry trade in the currency pair INR/USD.

Strategy 2: Implement a carry trade in the currency pair MXN/USD.

Strategy 3: Implement a carry trade in the currency pair TRY/USD.

Exhibit 1

Country	Spot Rate	One-Year Forward Rate	Annual Yield
India	INR/USD = 83.36	INR/USD = 85.65	9.50%
Mexico	MXN/USD = 17.15	MXN/USD = 17.52	10.25%
Turkey	TRY/USD = 23.46	TRY/USD = 23.34	8.75%

The annual yield for the US is 5.25%.

Bransfield seeks a deeper understanding of the derivatives used to hedge the exchange rate volatility of developed countries. She schedules a meeting with Jerry McGraw, the portfolio manager of Schwinn International Growth ETF (SIGF). In its prospectus to investors, SIGF indicates that it actively manages equity and foreign currency exposures and that the ETF uses dynamic hedging every month to rebalance existing hedges. One of the foreign currency asset holdings in SIGF is denominated in Canadian dollars (CAD). One month ago, SIGF fully hedged its exposure using a six-month CAD/USD forward contract per the details provided in Exhibit 2.

Exhibit 2

	One Month Ago	Today
Value of SIGF CAD Assets (in CAD)	500 million	520 million
CAD/USD Spot Rate (Bid/Offer)	1.3342/1.3371	1.3326/1.3352
One-Month Forward Points (Bid/Offer)	23/28	31/37
Six-Month Forward Points (Bid/Offer)	155/175	165/191

McGraw, after reviewing the dynamic hedge scenario, creates a presentation with all data points for his upcoming monthly meeting with Bransfield. McGraw makes the following statements based on his calculations.

Statement 1: To establish the dynamic hedge, the all-in rate used by SIGF one month ago was 1.3497.

Statement 2: All else being equal, the roll yield on this dynamic hedge at the forward contract's maturity will be negative.

A. **Calculate** the total return for Strategy 1.

B. **Calculate** the amount SIGF needs to rebalance its CAD hedge today.

C. **Discuss** if the *two* statements made by McGraw are correct. **Justify** *each* response.

QUESTION SET 11
TOPIC: PORTFOLIO MANAGEMENT – PRIVATE WEALTH
TOTAL POINT VALUE OF THIS QUESTION SET IS 12 POINTS

Charles Cuomo manages Litt Advisory (LA), which specializes in personal client wealth management. Cuomo has recently hired Robinson Ross as a junior analyst. Prior to joining LA, Ross worked at a firm specializing in non-profit firms, which are exempt from taxes in their jurisdiction. Ross asks Cuomo about the various taxes individual clients may experience. Ross states:

Statement 1: Income and capital gain taxes most directly affect the day-to-day portfolio management of our clients' portfolios.

Statement 2: Our active large cap equity strategies are algorithm driven, generating large short-term gains and are only appropriate for clients in a low tax bracket.

Ross obtains his first client's file which contains the information shown in Exhibit 1.

Exhibit 1

Client Investment Positions				
Brokerage Account	**Value**	**Cost Basis**	**Est. Annual Return**	**After Tax Return**
Large Cap Equity Manager	$1,000,000	$750,000	8.0%	6.0%
International Developed Manager	$750,000	$450,000	12.0%	8.0%
Municipal Bond Account	$500,000	$475,000	2.5%	2.5%
Taxable Bond Account	$250,000	$300,000	4.0%	2.5%
Enerco Stock (Public Company)	$2,000,000	$100,000	6.0%	5.0%
Retirement				
Rollover IRA (Target 20XX Fund)	$1,500,000	$1,000,000	6.50%	6.50%
Tax Rate: 25%				

Prior to the meeting, Ross analyzes the tax efficiency of the clients' investments. Ross notices the concentrated position in Enerco stock and has a note from the previous advisor stating the client is looking for ways to better diversify the stock without resorting to an outright sale. However, short sales and derivative contracts are prohibited in the client's jurisdiction. In addition, no philanthropic goals are stated, but Ross believes there may be other ways to diversify before having to do an outright sale. Ross calculates the tax implications of an outright sale in Exhibit 2.

Exhibit 2

	Outright Sale
Market Value	$2,000,000
Tax Basis	$ 100,000
Capital Gain	$1,900,000
Tax on Sale (25%)	$ 475,000
Amount to Invest	$1,525,000
Market Value After 8 Years (8% return)	$2,822,669
Tax Basis	$1,525,000
Capital Gain	$1,297,669
Tax on Sale (25%)	$ 324,417
Final Value	$2,498,251

A. **Determine** the accuracy of Cuomo's two statements regarding taxes. **Justify** your response.

B. **Determine, based on** the tax efficiency ratios, the *least* tax efficient investment.

C. **Identify** the *most* appropriate diversification strategy for the concentrated position from the strategies listed below. **Explain** your rationale for *each* of the *two* strategies *not* selected.

i. Equity monetization
ii. Charitable remainder trust
iii. Exchange fund

D. **Calculate** the additional market value of utilizing an exchange fund for eight years versus selling the position outright. *Assume an annual market return of 8% over this period.*

END OF SESSION 1