

Index-Based Equity Strategies - Questions

Reading 1

Q1.1–Q1.4

The Mackenzie Education Foundation funds educational projects in a four-state region of the United States. Because of the investment portfolio's poor benchmark-relative returns, the foundation's board of directors hired a consultant, Stacy McMahon, to analyze performance and provide recommendations.

McMahon meets with Autumn Laubach, the foundation's executive director, to review the existing asset allocation strategy. Laubach believes the portfolio's underperformance is attributable to the equity holdings, which are allocated 55% to a US large-capitalization index fund, 30% to an actively managed US small-cap fund, and 15% to an actively managed developed international fund.

Laubach states that the board is interested in following a passive approach for some or all of the equity allocation. In addition, the board is open to approaches that could generate returns in excess of the benchmark for part of the equity allocation. McMahon suggests that the board consider following a passive factor-based momentum strategy for the allocation to international stocks.

McMahon performs a sector attribution analysis based on Exhibit 1 to explain the large-cap portfolio's underperformance relative to the benchmark.

Exhibit 1: Trailing 12-Month US Large-Cap Returns and Foundation/Benchmark Weights

Sector	Sector Returns	Foundation Sector Weights	Benchmark Sector Weights
Information technology	10.75%	18.71%	19.06%
Consumer staples	12.31%	16.52%	16.10%
Energy	8.63%	9.38%	9.53%

Sector	Sector Returns	Foundation Sector Weights	Benchmark Sector Weights
Utilities	-3.92%	8.76%	8.25%
Financials	7.05%	6.89%	6.62%

The board decides to consider adding a mid-cap manager. McMahon presents candidates for the mid-cap portfolio. Exhibit 2 provides fees and cash holdings for three portfolios and an index fund.

Exhibit 2: Characteristics of US Mid-Cap Portfolios and Index Fund

	Portfolio 1	Portfolio 2	Portfolio3	Index Fund
Fees	0.10%	0.09%	0.07%	0.03%
Cash holdings	6.95%	3.42%	2.13%	0.51%

Question 1.1

Compared with broad-market-cap weighting, the international equity strategy suggested by McMahon is *most likely* to:

- A.** concentrate risk exposure.
- B.** be based on the efficient market hypothesis.
- C.** overweight stocks that recently experienced large price decreases.

Question 1.2

The international strategy suggested by McMahon is *most likely* characterized as:

- A. risk based.
 - B. return oriented.
 - C. diversification oriented.
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Question 1.3

Using a sector attribution analysis based on Exhibit 1, which US large-cap sector is the primary contributor to the portfolio's underperformance relative to the benchmark?

- A. Utilities
 - B. Consumer staples
 - C. Information technology
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Question 1.4

Based on Exhibit 2, which portfolio will *most likely* have the lowest tracking error?

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