

## Equity Portfolio Management

### 共享题干题

【题干】Ayanna Chen is a portfolio manager at Aycrig Fund, where she supervises assistant portfolio manager Mordechai Garcia. Aycrig Fund invests money for high-net-worth and institutional investors. Chen asks Garcia to analyze certain information relating to Aycrig Fund's three sub-managers, Managers A, B, and C. Manager A has \$250 million in assets under management (AUM), an active risk of 5%, an information coefficient of 0.15, and a transfer coefficient of 0.40. Manager A's portfolio has a 2.5% expected active return this year. Chen directs Garcia to determine the maximum position size that Manager A can hold in shares of Pasliant Corporation, which has a market capitalization of \$3.0 billion, an index weight of 0.20%, and an average daily trading volume (ADV) of 1% of its market capitalization. Manager A has the following position size policy constraints:

■Allocation: No investment in any security may represent more than 3% of total AUM.

■Liquidity: No position size may represent more than 10% of the dollar value of the security's ADV.

■Index weight: The maximum position weight must be less than or equal to 10 times the security's weight in the index. Manager B holds a highly diversified portfolio that has balanced exposures to rewarded risk factors, high active share, and a relatively low active risk target. Selected data on Manager C's portfolio, which contains three assets, is presented in Exhibit 1.

Exhibit 1. Selected Data on Manager C's Portfolio					
	Portfolio Weight	Standard Deviation	Covariance		
			Asset 1	Asset 2	Asset 3
Asset 1	30%	25.00%	0.06250	0.01050	0.00800
Asset 2	45%	14.00%	0.01050	0.01960	0.00224
Asset 3	25%	8.00%	0.00800	0.00224	0.00100

Chen considers adding a fourth sub-manager and evaluates three managers' portfolios, Portfolios X, Y, and Z. The managers for Portfolios X, Y, and Z all have similar costs, fees, and alpha skills, and their factor exposures align with both Aycrig's and investors' expectations and constraints. The portfolio factor exposures, risk contributions, and risk characteristics are presented in Exhibits 2 and 3.

Exhibit 3. Portfolio Risk Characteristics			
	Portfolio X	Portfolio Y	Portfolio Z
Annualized volatility	10.50%	13.15%	15.20%
Annualized active risk	2.90%	8.40%	4.20%
Active share	0.71	0.74	0.63

	Portfolio X	Portfolio Y	Portfolio Z	Portfolio X	Portfolio Y	Portfolio Z
Market	1.07	0.84	1.08	103%	82%	104%
Size	-0.13	0.15	-0.12	-2%	7%	-3%
Value	0.04	0.30	0.05	-5%	18%	-6%
Momentum	0.08	0.02	0.07	7%	-3%	7%
Quality	0.10	0.35	0.11	-4%	-21%	-5%
Unexplained	—	—	—	1%	17%	3%
Total	n/a	n/a	n/a	100%	100%	100%

Chen and Garcia next discuss characteristics of long-short and long-only investing. Garcia makes the following statements about investing with long-short and long-only managers:

Statement 1: A long-short portfolio allows for a gross exposure of 100%.

Statement 2: A long-only portfolio generally allows for greater investment capacity than other approaches, particularly when using strategies that focus on large-cap stocks.

Chen and Garcia then turn their attention to portfolio management approaches. Chen prefers an approach that emphasizes security-specific factors, engages in factor timing, and typically leads to portfolios that are generally more concentrated than those built using a systematic approach.

1. 【单项选择题】The number of truly independent decisions Manager A would need to make in order to earn her expected active portfolio return this year is closest to:

- A. 8
- B. 11
- C. 69

参考答案: C

【莽学解析】

$$E(R_A) = IC \times \sqrt{BR} \times \sigma_{R_A} \times TC$$

$$E(R_A) = 0.15 \times \sqrt{BR} \times 5\% \times 0.40 = 2.5\%$$

$$2.5\% = 0.15 \times \sqrt{BR} \times 5\% \times 0.40$$

$$\sqrt{BR} = \frac{2.5\%}{0.3\%} = 8.33$$

$$BR = 69.44$$

2. 【单项选择题】Which of the following position size policy constraints is the most restrictive in setting Manager A's maximum position size in shares of Pasliant Corporation?

- A. Liquidity
- B. Allocation
- C. Index weight

参考答案: A

【莽学解析】A is correct. The maximum position size in shares of Pasliant Corporation (PC) is determined by the constraint with the lowest dollar amount. The maximum position size for PC under each constraint is calculated as follows:

Liquidity Constraint Dollar value of PC traded daily = PC market cap × Average daily trading volume  
 Dollar value of PC traded daily = \$3 billion × 1.0% = \$30 million  
 Liquidity constraint = Dollar value of PC traded daily × Liquidity % threshold  
 Liquidity constraint = \$30 million × 10% = \$3 million

Allocation Constraint Allocation constraint = AUM × Maximum position size threshold  
 Allocation constraint = \$250 million × 3.0% = \$7.5 million

Index Weight Constraint Index weight constraint = AUM × (Index weight × 10)  
 Index weight constraint = \$250 million × (0.20% × 10) = \$5.0 million

The liquidity constraint of \$3.0 million is less than both the \$5.0 million index weight constraint and the \$7.5 million allocation constraint. Therefore, the maximum allowable position size that Manager A may take in PC is \$3.0 million.

3. 【单项选择题】Manager B's portfolio is most likely consistent with the characteristics of a:
- A. pure indexer.
  - B. sector rotator.
  - C. multi-factor manager.

参考答案: C

【莽学解析】C is correct. Most multi-factor products are diversified across factors and securities and typically have high active share but have reasonably low active risk (tracking error), often in the range of 3%. Most multi-factor products have a low concentration among securities in order to achieve a balanced exposure to risk factors and minimize idiosyncratic risks. Manager B holds a highly diversified portfolio that has balanced exposures to rewarded risk factors, a high active share, and a relatively low target active risk—consistent with the characteristics of a multi-factor manager.

4. 【单项选择题】Based on Exhibit 1, the contribution of Asset 2 to Manager C's portfolio variance is closest to
- A. 0.0025.
  - B. 0.0056.
  - C. 0.0088.

参考答案: B

【莽学解析】

$$\text{Contribution of each asset to portfolio variance} = CV_i = \sum_{j=1}^n x_i x_j C_{ij}$$

Weight of Asset 2 × Weight of Asset 1 × Covariance of asset 2 with Asset 1, plus	$0.45 \times 0.30 \times$
Weight of Asset 2 × Weight of Asset 2 × Covariance of Asset 2 with Asset 2, plus	$0.45 \times 0.45 \times$
Weight of Asset 2 × Weight of Asset 3 × Covariance of Asset 2 with Asset 3	$0.45 \times 0.25 \times$
= Asset 2's contribution to total portfolio variance	0.00563

5. 【单项选择题】Based on Exhibits 2 and 3, which portfolio best exhibits the risk characteristics of a well-constructed portfolio?

- A. Portfolio X
- B. Portfolio Y
- C. Portfolio Z

参考答案: A

【莽学解析】A is correct. Well-constructed portfolios should have low idiosyncratic (unexplained) risk relative to total risk. Portfolio Y exhibits extremely high unexplained risk relative to total risk, and Portfolios X and Z have low unexplained risk relative to total risk. Therefore, Portfolio Y may be eliminated. Portfolios X and Z have comparable factor exposures. In comparing portfolios with comparable factor exposures, the portfolio with lower absolute volatility and lower active risk will likely be preferred, assuming similar costs. Portfolio X has lower absolute volatility and lower active risk than Portfolio Z, although both have similar costs. Finally, for managers with similar costs, fees, and alpha skills, if two products have similar active and absolute risks, the portfolio having a higher active share is preferred. Portfolio X has lower absolute volatility, lower active risk, and higher active share than Portfolio Z. As a result, Portfolio X best exhibits the risk characteristics of a well-constructed portfolio.

6. 【单项选择题】Which of Garcia's statements regarding investing with long-short and long-only managers is correct?

- A. Only Statement 1
- B. Only Statement 2
- C. Both Statement 1 and Statement 2

参考答案: C

【莽学解析】C is correct. Both Statement 1 and Statement 2 are correct. Statement 1 is correct because, similar to a long-only portfolio, a long-short portfolio can be structured to have a gross exposure of 100%. Gross exposure of the portfolio is calculated as the sum of the long positions and the absolute value of the short positions, expressed as percentages of the portfolio's capital.  $\text{Gross exposure} = \text{Long positions} + |\text{Short positions}|$ .  $\text{Gross exposure long-only portfolio} = 100\%$  (Long positions)  $+ 0\%$  (Short positions)  $= 100\%$ .  $\text{Gross exposure long-short portfolio} = 50\%$  (Long positions)  $+ 50\%$  (Short positions)  $= 100\%$ . Statement 2 is correct because long-only investing generally offers greater investment capacity than other approaches, particularly when using strategies that focus on large-cap stocks. For large institutional莽学教育官网 [www.mangxuejy.com](http://www.mangxuejy.com) 版权所有

investors such as pension plans, there are no effective capacity constraints in terms of the total market cap available for long-only investing.

7. 【单项选择题】Chen's preferred portfolio management approach would be best described as:

- A. top down.
- B. systematic.
- C. discretionary.

参考答案: C

【莽学解析】C is correct. Chen prefers an approach that emphasizes security-specific factors, engages in factor timing, and typically leads to portfolios that are generally more concentrated than those built using a systematic approach.

【题干】Three years ago, the Albright Investment Management Company (Albright) added four new funds—the Barboa Fund, the Caribou Fund, the DoGood Fund, and the Elmer Fund—to its existing fund offering. Albright's new funds are described in Exhibit 1.

### Exhibit 1. Albright Investment Management Company New Funds

Fund	Fund Description
Barboa Fund	Invests solely in the equity of companies in oil production industries in many countries.
Caribou Fund	Uses an aggressive strategy focusing on relatively new, high-growth industries in emerging markets.
DoGood Fund	Investment universe includes all US companies and sectors with high environmental, social, and governance (ESG) ratings and excludes companies with products or services related to aerospace or defense.
Elmer Fund	Investments selected to track the S&P 500 Index. Minimum investment is based on the assumption that markets are efficient.

Hans Smith, an Albright portfolio manager, makes the following notes after examining these funds:

Note 1: The fee on the Caribou Fund is a 15% share of any capital appreciation above a 7% threshold and the use of a high-water mark.

Note 2: The DoGood Fund invests in Fleeker Corporation stock, which is rated high in the ESG



space, and Fleeker's pension fund has a significant investment in the DoGood Fund. This dynamic has the potential for a conflict of interest on the part of Fleeker Corporation but not for the DoGood Fund.

Note 3: The DoGood Fund's portfolio manager has written policies stating that the fund does not engage in shareholder activism. Therefore, the DoGood Fund may be a free-rider on the activism by these shareholders.

Note 4: Of the four funds, the Elmer Fund is most likely to appeal to investors who want to minimize fees and believe that the market is efficient.

Note 5: Adding investment-grade bonds to the Elmer Fund will decrease the portfolio's short-term risk.

Smith discusses means of enhancing income for the three funds with the junior analyst, Kolton Frey, including engaging in securities lending or writing covered calls. Frey tells Smith the following:

Statement 1: Securities lending would increase income through reinvestment of the cash collateral but would require the fund to miss out on dividend income from the lent securities.

Statement 2: Writing covered calls would generate income, but doing so would limit the upside share price appreciation for the underlying shares.

8. 【单项选择题】The Barboa Fund can be best described as a fund segmented by:

A. size/style.

B. geography.

C. economic activity.

参考答案: C

【莽学解析】C is correct. The Barboa Fund invests solely in the equity of companies in the oil production and transportation industries in many countries. The fund's description is consistent with the production-oriented approach, which groups companies that manufacture similar products or use similar inputs in their manufacturing processes. A is incorrect because the fund description does not mention the firms' size or style (i.e., value, growth, or blend). Size is typically measured by market capitalization and often categorized as large cap, mid-cap, or small cap. Style is typically classified as value, growth, or a blend of value and growth. In addition, style is often determined through a "scoring" system that incorporates multiple metrics or ratios, such as price-to-book ratios, price-to-earnings ratios, earnings growth, dividend yield, and book value growth. These metrics are then typically "scored" individually for each company, assigned certain weights, and then aggregated. B is incorrect because the fund is invested across many countries, which indicates that the fund is not segmented by geography. Segmentation by geography is typically based upon the stage of countries' macroeconomic development and wealth. Common geographic categories are developed markets, emerging markets, and frontier markets.

9. 【单项选择题】The Caribou Fund is most likely classified as a:

A. large-cap value fund.

B. small-cap value fund.

C. small-cap growth fund.

参考答案: C

【莽学解析】C is correct because the fund focuses on new funds that are generally classified as small firms, and the fund has a style classified as aggressive. A widely used approach to

segment the equity universe incorporates two factors: size and style. Size is typically measured by market capitalization and often categorized as large cap, mid-cap, or small cap. Style is typically classified as value, growth, or a blend of value and growth.

10. 【单项选择题】The DoGood Fund's approach to the aerospace and defense industry is best described as:

- A. positive screening.
- B. negative screening.
- C. thematic investing.

参考答案: B

【莽学解析】B is correct. The DoGood fund excludes companies based on specified activities (e.g., aerospace and defense), which is a process of negative screening. Negative or exclusionary screening refers to the practice of excluding certain sectors or companies that deviate from accepted standards in areas such as human rights or environmental concerns. A is incorrect because positive screening attempts to identify companies or sectors that score most favorably regarding ESG-related risks and/or opportunities. The restrictions on investing indicates that a negative screen is established. C is incorrect because thematic investing focuses on investing in companies within a specific sector or following a specific theme, such as energy efficiency or climate change. The DoGood Fund's investment universe includes all companies and sectors that have favorable ESG (no specific sectors or screens) but with specific exclusions.

11. 【单项选择题】The Elmer fund's management strategy is:

- A. active.
- B. passive.
- C. blended.

参考答案: B

【莽学解析】B is correct. The fund is managed assuming that the market is efficient, and investments are selected to mimic an index. Compared with active strategies, passive strategies generally have lower turnover and generate a higher percentage of long-term gains. An index fund that replicates its benchmark can have minimal rebalancing.

12. 【单项选择题】Based on Note 1, the fee on the Caribou Fund is best described as a:

- A. performance fee.
- B. management fee.
- C. administrative fee.

参考答案: A

【莽学解析】A is correct. Performance fees serve as an incentive for portfolio managers to achieve or outperform return objectives, to the benefit of both the manager and investors. Several performance fee structures exist, although performance fees tend to be "upward only"—that is, fees are earned by the manager when performance objectives are met, but fund investors are not reimbursed when performance is negative. Performance fees could be reduced following a period of poor performance, however. Fee calculations also reflect high-water marks. As described in Note 1, the fee for the Caribou Fund is a 15% share of any capital appreciation above a 7% threshold, with the use of a high-water mark, and is therefore a performance fee. B is incorrect because management fees include direct costs of research (such

as remuneration and expenses for investment analysts and portfolio managers) and the direct costs of portfolio management (e.g., software, trade processing costs, and compliance). Management fees are typically determined as a percentage of the funds under management. C is incorrect because administrative fees include the processing of corporate actions such as rights issues and optional stock dividends, the measurement of performance and risk of a portfolio, and voting at company meetings. Generally, these functions are provided by an investment management firm itself and are included as part of the management fee.

13. 【单项选择题】Which of the following notes about the DoGood Fund is correct?

A. Only Note 2

B. Only Note 3

C. Both Note 2 and Note 3

参考答案: B

【莽学解析】B is correct because the fund becomes a free-rider if it allows other shareholders to engage in actions that benefit the fund, and therefore Note 3 is correct. In theory, some investors could benefit from the shareholder engagement of others under the so-called “free rider problem.” Specifically, assume that a portfolio manager using an active strategy actively engages with a company to improve its operations and was successful in increasing the company’s stock price. The manager’s actions in this case improved the value of his portfolio and also benefitted other investors that own the same stock in their portfolios. Those investors that did not participate in shareholder engagement benefit from improved performance but without the costs necessary for engagement. Note 2 is incorrect because a conflict of interest arises on the part of the DoGood Fund if it owns shares of a company that invests in the fund. Conflicts of interest can result for a company. For example, a portfolio manager could engage with a company that also happens to be an investor in the manager’s portfolio. In such a situation, a portfolio manager may be unduly influenced to support the company’s management so as not to jeopardize the company’s investment mandate with the portfolio manager.

14. 【单项选择题】Which of the notes regarding the Elmer Fund is correct?

A. Only Note 4

B. Only Note 5

C. Both Note 4 and Note 5

参考答案: A

【莽学解析】A is correct. For passively managed portfolios, management fees are typically low because of lower direct costs of research and portfolio management relative to actively managed portfolios. Therefore, Note 4 is correct. Note 5 is incorrect because the predictability of correlations is uncertain.

15. 【单项选择题】Which of Frey’s statements about securities lending and covered call writing is correct?

A. Only Statement 1

B. Only Statement 2

C. Both Statement 1 and Statement 2

参考答案: B

【莽学解析】B is correct. Writing covered calls also generates additional income for an equity



portfolio, but doing so limits the upside from share price appreciation of the underlying shares. Therefore, Statement 2 is correct. A is incorrect because dividends on loaned stock are “manufactured” by the stock borrower for the stock lender—that is, the stock borrower ensures that the stock lender is compensated for any dividends that the lender would have received had the stock not been loaned. Therefore, Statement 1 is incorrect. Frey is incorrect in stating that the funds would miss out on dividend income on lent securities.

【题干】Jack Dewey is managing partner of DC&H, an investment management firm, and Supriya Sardar is an equity analyst with the firm. Dewey recently took over management of the firm’s Purity Fund. He is developing a fundamental active investment process for managing this fund that emphasizes financial strength and demonstrated profitability of portfolio companies. At his previous employer, Dewey managed a fund for which his investment process involved taking active exposures in sectors based on the macroeconomic environment and demographic trends. Dewey and Sardar meet to discuss developing a fundamental active investment process for the Purity Fund. They start by defining the investment universe and market opportunity for the fund, and then they pre-screen the universe to obtain a manageable set of securities for further, more detailed analysis. Next, Dewey notes that industry and competitive analysis of the list of securities must be performed. He then asks Sardar to recommend the next step in development of the fundamental active management process. During the next few months, Dewey rebalances the Purity Fund to reflect his fundamental active investment process. Dewey and Sardar meet again to discuss potential new investment opportunities for the fund. Sardar recommends the purchase of AZ Industrial, which she believes is trading below its intrinsic value, despite its high price-to-book value (P/B) relative to the industry average. Dewey asks Sardar to perform a bottom-up style analysis of the Purity Fund based on the aggregation of attributes from individual stocks in the portfolio. Dewey plans to include the results of this style analysis in a profile he is preparing for the fund.

16. 【单项选择题】In managing the fund at his previous employer, Dewey’s investment process can be best described as:

- A. an activist strategy.
- B. a top-down strategy.
- C. a bottom-up strategy.

参考答案: B

【莽学解析】At his previous firm, Dewey managed a fund for which his investment process involved taking active exposures in sectors based on the macroeconomic environment and demographic trends. An investment process that begins at a top, or macro level, is a top-down strategy. Top-down portfolio strategies study variables affecting many companies or whole sectors, such as the macroeconomic environment, demographic trends, and government policies. This approach differs from bottom-up strategies, which focus on individual company variables in making investment decisions. It also differs from activist strategies, which take stakes in listed companies and advocate changes for the purpose of producing a gain on the investment.

17. 【单项选择题】Sardar’s recommendation for the next step should be to:

- A. review results from back-testing the strategy.
- B. make recommendations for rebalancing the portfolio.
- C. forecast companies’ performances and convert those forecasts into valuations.

参考答案: C

【莽学解析】The steps to developing a fundamental active investment process are as follows:1 Define the investment universe and the market opportunity—the perceived opportunity to earn a positive risk-adjusted return to active investing, net of costs—in accordance with the investment mandate. The market opportunity is also known as the investment thesis.2 Prescreen the investment universe to obtain a manageable set of securities for further, more detailed analysis.3 Understand the industry and business for this screened set by performing industry and competitive analysis and analyzing financial reports.4 Forecast company performance, most commonly in terms of cash flows or earnings.5 Convert forecasts to valuations and identify ex ante profitable investments.6 Construct a portfolio of these investments with the desired risk profile.7 Rebalance the portfolio with buy and sell disciplines. So, Sardar should recommend that the next step in the development of the fundamental active management process be forecasting companies' performances and converting those forecasts into valuations.

18. 【单项选择题】Based upon Dewey's chosen investment process for the management of the Purity Fund, rebalancing of the fund will most likely occur:

- A. at regular intervals.
- B. in response to changes in company-specific information.
- C. in response to updated output from optimization models.

参考答案: B

【莽学解析】Managers using an active fundamental investment process, like Dewey's, usually monitor the portfolio's holdings continuously and may rebalance at any time. In contrast, portfolios using a quantitative approach are usually rebalanced at regular intervals, such as monthly or quarterly, or in response to updated output from optimization models. A is incorrect because portfolios using a quantitative (not fundamental) active approach are usually rebalanced at regular intervals, such as monthly or quarterly. C is incorrect because construction of a quantitative portfolio (not a fundamental portfolio) typically involves using a portfolio optimizer, which controls for risk at the portfolio level in arriving at individual stock weights and leads to rebalancing decisions.

19. 【单项选择题】Which investment approach is the most likely basis for Sardar's buy recommendation for AZ Industrial?

- A. Relative value
- B. High-quality value
- C. Deep-value investing

参考答案: B

【莽学解析】Dewey has developed a fundamental active investment process for the Purity Fund that emphasizes financial strength and demonstrated profitability. High-quality value investors focus on companies' intrinsic values that are supported by attractive valuation metrics, with an emphasis on financial strength and demonstrated profitability. In their view, investors sometimes behave irrationally, making stocks trade at prices very different from intrinsic value based on company fundamentals. A is incorrect because investors who pursue a relative value strategy evaluate companies by comparing their value indicators (e.g., P/E or P/B multiples) with the average valuation of companies in the same industry sector, in an effort to identify stocks that offer value relative to their sector peers. AZ Industrial is trading at a high P/B relative to the industry average, which is contrary to relative value and suggests

that the relative value approach was not the basis for Sardar's buy recommendation. C is incorrect because a deep-value investing approach focuses on undervalued companies that are available at extremely low valuation relative to their assets. Such companies are often those in financial distress, which is not reflective of financial strength or demonstrated profitability. Therefore, Sardar's buy recommendation was not based on a deep-value investing orientation.

20. 【单项选择题】The analysis performed by Sardar on the Purity Fund can be best described as being based on:

- A. a holdings-based approach.
- B. manager self-identification.
- C. a returns-based style analysis.

参考答案: A

【莽学解析】Dewey asks Sardar to perform a bottom-up style analysis of the Purity Fund based on the aggregation of attributes from individual stocks in the portfolio, which describes a holdings-based approach to style analysis. The overall equity investment style is an aggregation of attributes from individual stocks in the portfolio, weighted by their positions.

【题干】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 observes that the benchmark used for the US large-cap equity component is a price-weighted index containing 150 stocks. The benchmark's Herfindahl-Hirschman Index (HHI) is 0.0286. McMahon performs a sector attribution analysis based on Exhibit 1 to explain the large-cap portfolio's underperformance relative to the benchmark.

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.

<b>Exhibit 2. Characteristics of US Mid-Cap Portfolios and Index Fund</b>			
	<b>Portfolio 1</b>	<b>Portfolio 2</b>	<b>Portfolio 3</b>
<b>Fees</b>	<b>0.10%</b>	<b>0.09%</b>	<b>0.07%</b>
<b>Cash holdings</b>	<b>6.95%</b>	<b>3.42%</b>	<b>2.13%</b>

## Exhibit 1. Trailing 12-Month US Large-Cap Returns and Foundation Sector Weights

Sector	Sector Returns	Foundation Sector Weights
Information technology	10.75%	18.71%
Consumer staples	12.31%	16.52%
Energy	8.63%	9.38%
Utilities	-3.92%	8.76%
Financials	7.05%	6.89%

21. 【单项选择题】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.

参考答案: A

【莽学解析】A is correct. Compared with broad-market-cap weighting, passive factor-based strategies tend to concentrate risk exposure, leaving investors vulnerable during periods when the risk factor (e.g., momentum) is out of favor.

22. 【单项选择题】The international strategy suggested by McMahon is most likely characterized as:

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

参考答案: B

【莽学解析】B is correct. McMahon suggests that the foundation follow a passive factor-based momentum strategy, which is generally defined by the amount of a stock's excess price return relative to the market during a specified period. Factor-based momentum strategies are classified as return oriented.

23. 【单项选择题】The initial benchmark used for the US large-cap allocation:

- A. is unaffected by stocks splits.
- B. is essentially a liquidity-weighted index.
- C. holds the same number of shares in each component stock.

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参考答案: C

【莽学解析】C is correct. The initial benchmark used for the US large-cap allocation is a price-weighted index. In a price-weighted index, the weight of each stock is its price per share divided by the sum of all the share prices in the index. As a result, a price-weighted index can be interpreted as a portfolio composed of one share of each constituent security.

24. 【单项选择题】Based on its HHI, the initial US large-cap benchmark most likely has:

- A. a concentration level of 4.29.
- B. an effective number of stocks of approximately 35.
- C. individual stocks held in approximately equal weights.

参考答案: B

【莽学解析】

$$HHI = \sum_{i=1}^n w_i^2$$

Using the HHI, one can estimate the effective number of stocks, held in equal weights, that would mimic the concentration level of the respective index. The effective number of stocks for a portfolio is calculated as the reciprocal of the HHI. The HHI is 0.0286; the reciprocal (1/0.0286) is 34.97. Therefore, the effective number of stocks to mimic the US large-cap benchmark is approximately 35.

25. 【单项选择题】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

参考答案: C

【莽学解析】

Based on this analysis, the US large-cap portfolio's information technology sector is the primary contributor to the portfolio's disappointing equity returns because it provided the largest negative differential relative to the benchmark, with a differential of -0.04%. Although the information technology sector had a positive return, this sector was underweighted relative to the benchmark, resulting in a negative contribution to the portfolio's returns.

26. 【单项选择题】Based on Exhibit 2, which portfolio will most likely have the lowest tracking error?

- A. Portfolio 1
- B. Portfolio 2



Sector	US Large-Cap Core Portfolio			Large-Cap Benchmark	
	Sector Return (A)	Sector Weight (B)	Contribution To Return (C)=(A)×(B)	Sector Weight (D)	Contribution To Return (E)=(A)×(D)
Information technology	10.75%	18.71%	2.01%	19.06%	2.04%
Consumer staples	12.31%	16.52%	2.03%	16.10%	1.98%
Energy	8.63%	9.38%	0.81%	9.53%	0.81%
Utilities	-3.92%	8.76%	-0.34%	8.25%	-0.32%
Financials	7.05%	6.89%	0.49%	6.62%	0.47%

C.Portfolio 3

参考答案: C

【莽学解析】C is correct. Of the three portfolios, Portfolio 3 has the lowest cash holding and the lowest fees. As a result, Portfolio 3 has the potential for the lowest tracking error compared with the other proposed portfolios.

【题干】James Leonard is a fund-of-funds manager with Future Generation, a large sovereign fund. He is considering whether to pursue more in-depth due diligence processes with three large-cap long-only funds proposed by his analysts. Although the funds emphasize different financial metrics and use different implementation methodologies, they operate in the same market segment and are evaluated against the same benchmark. The analysts prepared a short description of each fund, presented in Exhibit 1.

Exhibit 1. Description of Each Candidate Fund

Furlings: Furlings Investment Partners combines sector views and security selection. The firm's head manager uses several industry and economic indicators identified from his own experience during the last two decades, as well as his personal views on market flow dynamics, to determine how to position the fund on a sector basis. Sector deviations from the benchmark of 10% or more are common and are usually maintained for 12 to 24 months. At the same time, sector managers at Furlings use their expertise in dissecting financial statements and their understanding of the corporate branding and competitive landscape within sectors to build equally weighted baskets of securities within sectors. Each basket contains their 7 to 10 highest-conviction securities, favoring firms that have good governance, strong growth potential, competitive advantages such as branding, and attractive relative valuations. The Furlings master fund holds approximately 90 securities.

Asgard: Asgard Investment Partners is a very large asset manager. It believes in investing in firms that have a strong business model

and governance, reasonable valuations, solid capital structures with limited financial leverage, and above-average expected earnings growth for the next three years. Although the Asgard master fund invests in fewer than 125 securities, each sector analyst builds financial models that track as many as 50 firms. To support them in their task, analysts benefit from software developed by the Asgard research and technology group that provides access to detailed market and accounting information on 5,000 global firms, allowing for the calculation of many valuation and growth metrics and precise modeling of sources of cash-flow strengths and weaknesses within each business. Asgard analysts can also use the application to back-test strategies and build their own models to rank securities' attractiveness according to their preferred characteristics. Security allocation is determined by a management team but depends heavily on a quantitative risk model developed by Asgard. Asgard has a low portfolio turnover.

**Tokra:** Tokra Capital uses a factor-based strategy to rank securities from most attractive to least attractive. Each security is scored based on three metrics: price to book value (P/B), 12-month increase in stock price, and return on assets. Tokra's managers have a strong risk management background. Their objective is to maximize their exposure to the most attractive securities using a total scoring approach subject to limiting single-security concentration below 2%, sector deviations below 3%, active risk below 4%, and annual turnover less than 40%, while having a market beta close to 1. The master fund holds approximately 400 positions out of a possible universe of more than 2,000 securities evaluated.

When Leonard's analysts met with Asgard, they inquired whether its managers engage in activist investing because Asgard's portfolio frequently holds significant positions, because of their large asset size, and because of their emphasis on strong governance and their ability to model sources of cash-flow strengths and weaknesses within each business. The manager indicated that Asgard engages with companies from a long-term shareholder's perspective, which is consistent with the firm's low portfolio turnover, and uses its voice, and its vote, on matters that can influence companies' long-term value. Leonard wants to confirm that each manager's portfolios are consistent with its declared style. To this end, Exhibit 2 presents key financial information associated with each manager's portfolio and also with the index that all three managers use.

<b>Exhibit 2. Key Financial Data</b>		
<b>Fund</b>	<b>Index</b>	<b>Furlings</b>
<b>Dividend/price (trailing 12-month)</b>	<b>2.3%</b>	<b>2.2%</b>
<b>P/E (trailing 12-month)</b>	<b>26.5</b>	<b>24.7</b>
<b>Price/cash flows (12-month forward)</b>	<b>12.5</b>	<b>13.8</b>
<b>P/B</b>	<b>4.8</b>	<b>4.30</b>
<b>Average EPS growth (three to five years forward)</b>	<b>11.9%</b>	<b>11.0%</b>
<b>Net income/assets</b>	<b>2.8%</b>	<b>4.5%</b>
<b>Average price momentum (trailing 12 months)</b>	<b>10.5%</b>	<b>14.0%</b>

27. 【单项选择题】Which fund manager's investing approach is most consistent with fundamental management?

A. Furlings

B. Asgard

C. Tokra

参考答案: A

【莽学解析】A is correct. Furlings combines a top-down and bottom-up approach, but in both cases, the allocation process is significantly determined according to the managers' discretion and judgement. There is a strong emphasis on understanding financial reporting, and the sector managers focus on a relatively small number of firms. They also extend their analysis to other areas associated with fundamental management, such as valuation, competitive advantages, and governance. Finally, Furlings' top-down process depends largely on the views and experience of its head manager. B is incorrect. Asgard has many of the attributes associated with a fundamental manager. It invests in a relatively small number of securities and focuses on the companies' business model, valuations, and future growth prospects. Because of the scope of the securities coverage by each manager, however, Asgard depends heavily on technology and tools to support screening and ranking of securities attractiveness. Each manager can use his judgement to build his own quantitative models. Furthermore, the allocation process, although overlaid by a management team, also depends heavily on technology. Asgard has characteristics of both fundamental and quantitative managers. C is incorrect. Tokra exhibits the characteristics of a quantitative manager. The firm uses quantitative metrics to rank securities based on valuation, profitability, and momentum criteria and uses portfolio optimization to determine the final allocation. Tokra holds many positions typical of quantitative approaches.

28. 【单项选择题】Which of the following statements about the approaches and styles of either Furlings, Asgard, or Tokra is incorrect?

A. Furlings is a top-down sector rotator with a value orientation within sectors.

B. Asgard is a bottom-up manager with a GARP (growth at a reasonable price) style.

C. Tokra is a factor-based manager using value, growth, and profitability metrics.

参考答案: C

【莽学解析】C is an incorrect statement. Although Tokra is a factor manager, and although it uses a value proxy such as P/B and a profitability proxy such as return on assets, it does not use a growth proxy such as earnings growth over the last 12 or 36 months but rather a price momentum proxy. A is a correct statement. Furlings is a top-down manager. It makes significant sector bets based on industry and economic indicators derived from the head manager's experience, and it does select its securities within sectors while considering relative valuation. B is a correct statement. Asgard favors securities that have reasonable valuations and above-average growth prospects. It has a bottom-up approach and builds its portfolio starting at the security level.

29. 【单项选择题】Which manager is most likely to get caught in a value trap?

A. Furlings

B. Asgard

C. Tokra

参考答案: C

【莽学解析】C is the correct answer. A value trap occurs when a stock that appears to have an attractive valuation because of a low P/E and/or P/B multiple (or other relevant value proxies) appears cheap only because of its worsening growth prospects. Although a pitfall such as value trap is more common in fundamental investing, a quantitative process that relies on historical information and does not integrate future expectations about cash flows or profitability may be unable to detect a value trap. A is an incorrect answer. Although Furlings is a top-down manager, its sector portfolios are built through investing in a small number of high-conviction securities after its analysts have dissected the financial statements and analyzed the competitive landscape and growth prospects. Managers at Furlings are more likely than managers at Tokra to be aware of the significant deteriorating prospects of a security they are considering for investment. B is an incorrect answer. One of Asgard's investment criteria is identifying firms that have good potential cash flow growth over the next three years. The firm has access to database and support tools, allowing its analysts to evaluate many potential growth metrics. Managers at Asgard are more likely than managers at Tokra to be aware of the significant deteriorating prospects of a security they are considering for investment.

30. 【单项选择题】Which activist investing tactic is Asgard least likely to use?

- A. Engaging with management by writing letters to management, calling for and explaining suggested changes, and participating in management discussions with analysts or meeting the management team privately
- B. Launching legal proceedings against existing management for breach of fiduciary duties
- C. Proposing restructuring of the balance sheet to better utilize capital and potentially initiate share buybacks or increase dividends

参考答案: B

【莽学解析】B is the correct answer. Asgard invests in firms that have strong business models and good governance. Also, it approaches investing as a long-term investor looking to use its voice to improve the company's asset management. Asgard is unlikely to use an aggressive posturing or to invest or stay invested in companies with weak governance or where managers may be in breach of fiduciary duties. A is an incorrect answer. Engaging in positive conversations with management of companies with which Asgard has invested reflects a use of its voice to improve these companies' long-term value. C is an incorrect answer. Because Asgard is strong at modeling sources of cash flows and is known for investing in companies with a strong capital structure, it would be consistent for Asgard to propose ways to optimize the capital structure and shareholders' compensation.

31. 【单项选择题】Based on the information provided in Exhibits 1 and 2, which manager's portfolio characteristics is most likely at odds with its declared style?

- A. Furlings
- B. Asgard
- C. Tokra

参考答案: C

【莽学解析】C is the correct answer. Tokra indicates that it emphasizes three metrics: P/B, 12-month price momentum, and return on assets. Although the portfolio consists of securities that have stronger momentum than those of the index on average, and although the ratio of net income to assets is also favorable, the average P/B is somehow higher than that of the index. Although

this scenario could normally be explained by an emphasis on specific sectors with a higher P/B than other sectors, the low level of sector deviation tolerated within the strategy weakens that explanation. This should be explored with Tokra's managers. A is an incorrect answer. Furlings is a top-down sector rotator with a value orientation within sectors. The lower P/B and P/E and higher net income over assets are consistent with a relative value orientation. Because Furlings can take significant positions in specific sectors, however, there could be other circumstances in which the portfolio would have a higher P/B and/or P/E and or a lower net income /assets than the index if the fund were to emphasize sectors having such characteristics. Yet, this would not necessarily imply that the firm does not favor the most attractive relative valuations within sectors. B is an incorrect answer. Asgard invests in firms that offer reasonable valuations and above-average expected cash flow growth during the next three years. The data, such as P/B and average expected three-year profit growth, are consistent with its declared style. Again, it is not necessarily inconsistent to emphasize these aspects while investing in a portfolio that has a lower dividend yield, slightly higher P/E, and lower price momentum.

32. 【单项选择题】Leonard is looking at the style classification from Asgard as reported by Morningstar and Thomson Reuters Lipper. He is surprised to find that Asgard is classified as a blend fund by Morningstar and a value fund by Lipper. Which of the following statements is correct?

- A. Although the Morningstar methodology classifies securities as either value, growth, or core, the Lipper methodology assumes a stock can have the characteristics of many styles. This approach can result in a different classification for the same portfolio.
- B. The Lipper methodology can only lead to a value or growth classification. It does not offer a core/blend component.
- C. The Morningstar methodology classifies securities as either value, growth, or core by looking at the difference between their respective growth and value scores. It is possible that the Asgard funds hold a balanced exposure to both value and growth and/or core stocks.

参考答案: C

【莽学解析】C is a correct answer. Morningstar calculates a score for value and growth on a scale of 0 to 100 using five proxy measures for each. The value score is subtracted from the growth score. A strongly positive net score leads to a growth classification, and a strongly negative score leads to a value classification. A score relatively close to zero indicates a core classification. To achieve a blend classification, the portfolio must have a balanced exposure to stocks classified as value and growth, a dominant exposure to stocks classified as core, or a combination of both. A is an incorrect answer. Both Morningstar and Lipper classify individual stocks in a specific style category. Neither assumes a security can belong to several styles in specific proportion. B is an incorrect answer. The Lipper methodology does have a core classification. It sums the Z-score of six portfolio characteristics over several years to determine an overall Z-score that determines either a value, core, or growth classification.