

**Question #1 of 18**

Question ID: 1552444

Competitive positioning and environmental, social and governance (ESG) characteristics of a company are most likely to be used as information sources for:

- A) Fundamental active managers only.
- B) Neither quantitative nor fundamental active equity managers.
- C) Both quantitative and fundamental active equity managers.**

**Explanation**

Competitive positioning and environmental, social and governance (ESG) characteristics of a company are data that are unlikely to be expressed numerically, and as such are unlikely to be information used in a quantitative active equity approach. Fundamental active equity approaches focusing on bottom-up investing could consider such information as part of their approach.

(Module 15.1, LOS 15.a)

**Question #2 of 18**

Question ID: 1552529

An analyst performs style analysis on an actively managed domestic equity fund that was launched three years ago. A returns-based analysis using 36 months of historical returns indicates that the fund has value and growth exposures of 0.6 and 0.4, respectively. A holdings-based analysis using the most recently disclosed portfolio holdings indicates value and growth exposures of 0.2 and 0.8, respectively. The analyst is *least likely* to conclude that:

- A) the fund has used a value-oriented style for some of the time since its launch.**
- B) the output of the holdings-based analysis shows the average effect of the investment styles that have been used since its launch.
- C) the fund's current investment style is growth oriented.

**Explanation**

The fund's current investment style is based on its current portfolio holdings, which suggests that the fund has a growth-oriented style (current growth exposure of 0.8 compared to current value exposure of 0.2).

The output of the returns-based analysis shows the average exposure to investment styles over time. Because the fund has an average value exposure of 0.6 over 36 months, the fund is likely to have been value oriented for some of the time since it was launched.

(Module 15.4, LOS 15.i)

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### Question #3 of 18

Question ID: 1552486

Which of the following tactics is *least likely* be used by an activist investor?

Tactic 1: Seeking representation on a company's board of directors

Tactic 2: Initiating legal action against a company's management for breach of fiduciary duties

Tactic 3: Launching a full takeover bid for a company to implement significant corporate change

**A) Tactic 2.**



**B) Tactic 1.**



**C) Tactic 3.**



#### Explanation

Activist investors do not typically make full takeover bids for a company. Instead, they take a significant—but minority—position (less than 10%) and try to garner support from other shareholders in a proxy contest to push through their desired changes.

(Module 15.2, LOS 15.e)

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### Question #4 of 18

Question ID: 1552517

When starting the quantitative active investment process, a portfolio manager is *most likely* to select factors and models that differ from those of other quantitative investors to:

**A) avoid crowding.**



**B)** minimize transaction costs.



**C)** maximize short availability.



### Explanation

Quant crowding can occur if many investors follow similar strategies. Once a strategy becomes crowded, there is a risk that a period of poor performance could cause many investors to exit their positions at the same time, thereby exacerbating losses.

(Module 15.3, LOS 15.h)

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### Question #5 of 18

Question ID: 1552442

When comparing fundamental and quantitative approaches to active equity investing, which of the following statements is *most accurate*?

**A)** Manager judgment plays a large role in fundamental active equity approaches, but plays no role in quantitative active equity approaches.



**B)** Company financial statements would likely be a source of information for fundamental approaches but not for quantitative active equity approaches.



**C)** **Factor based modeling is likely to play a greater role in quantitative approaches than fundamental approaches to active management.**



### Explanation

Factor based modeling is a key ingredient of quantitative active equity approaches, since their focus is on identifying relationships between rewarded factors and stock returns. Company financial statements are likely to be a source of information for both fundamental and quantitative approaches, since accounts can be used to generate a fundamental opinion or to establish exposure to a quantitative factor such as valuation. Manager judgment plays a role in both fundamental and quantitative approaches – the fundamental manager will use judgment in making investment decisions, while the quantitative manager will use judgment in building models, particularly in deciding which factors and signals are relevant.




(Module 15.1, LOS 15.a)

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### Question #6 of 18

Question ID: 1552492

Which of the following statements regarding market-microstructure arbitrage strategies is *least* accurate?

- A) The typical time horizon of a trade is a few minutes. 
- B) High-frequency trading techniques are a fundamental part of the strategy. 
- C) **The strategy analyses limit order books of exchanges to identify very short-term mispricing opportunities.** 

#### Explanation

Market microstructure arbitrage strategies involve extensive analysis of the limit order books of trading venues to identify very short-term trading opportunities. The time horizon of the opportunities is usually a few milliseconds.

(Module 15.3, LOS 15.f)

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#### Question #7 of 18

Question ID: 1552464

An analyst examines leading economic indicators to better understand which industries are likely to outperform the market in the coming year. The approach the analyst is using is:

- A) the bottom-up approach. 
- B) an active quantitative approach. 
- C) **the top-down approach.** 

#### Explanation

The top-down approach uses information about the macroeconomic environment, while the bottom-up approach uses information about individual companies. Both approaches can be quantitative approaches.

(Module 15.1, LOS 15.c)

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#### Question #8 of 18

Question ID: 1552527

Andrea Silva, an investment consultant, has just been appointed by a U.S. university endowment to analyze the underperformance of its largest equity portfolio. Silva decides to begin with a style analysis of the portfolio by identifying the style indexes that provide significant contributions to portfolio performance. Silva's approach to style analysis is *best* described as:

A) manager self-identification.



B) returns based.



C) holdings based.



### Explanation

The aim of a returns-based approach is to determine a portfolio's investment style by identifying the style indexes that provide significant contributions to portfolio performance. This is typically achieved by regressing the portfolio's returns against the returns of a selection of style indexes.

Holdings-based style analysis examines the attributes of each individual stock in a portfolio and aggregates these attributes to determine the overall style of the portfolio.

(Module 15.4, LOS 15.i)

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### Question #9 of 18

Question ID: 1552530

Which of the following statements about equity style classification by Thomson Reuters Lipper and Morningstar is correct?

Statement 1: Funds that are considered *diversified* by Lipper have a portfolio-based style classification but not a prospectus-based style classification.

Statement 2: The Morningstar methodology classifies a fund as *blend* if it holds a balanced exposure to value and growth stocks, a dominant exposure to core stocks, or a combination of both these features.

A) Statement 1 only.



B) Neither Statement 1 nor Statement 2.



C) Statement 2 only.



### Explanation

All funds covered by Lipper are given a prospectus-based classification. Funds that are considered *diversified* (because they invest across sectors and/or countries) are also given a portfolio-based classification.

Morningstar classifies a fund as *blend* if it holds a balanced mixture of value and growth stocks, a dominant exposure to core stocks, or a combination of both these features. Note that Morningstar classifies a stock as core when neither the value nor growth characteristics dominate.

(Module 15.4, LOS 15.i)

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### Question #10 of 18

Question ID: 1552487

Which of the following listed companies is an activist investor *most likely* to invest in, based on the fundamental characteristics of the companies?

- Company 1: A large-cap utilities company with a weaker-than-average corporate governance rating
- Company 2: A small software company with strong earnings growth and positive share price momentum
- Company 3: A regional clothing retailer that has filed for bankruptcy, with \$8 billion in debt and \$1 billion in assets

**A) Company 1.**



**B) Company 3.**



**C) Company 2.**



#### Explanation

Activist investors target companies that, on average, feature slower earnings and weaker revenue growth than the market, negative share price momentum, and weaker-than-average corporate governance.

Company 1 has weaker-than-average corporate governance.

Company 2 has strong fundamental characteristics.

Company 3 would be more appropriate for investors that specialize in restructuring and distressed investing.

(Module 15.2, LOS 15.e)

**Question #11 of 18**

Question ID: 1552455

An active bottom-up manager invests in companies that trade at reasonable P/E multiples while offering above-average growth in earnings compared to their sector peers. The manager's investment approach is *best* described as:

A) relative value.



**B) growth at a reasonable price.**



C) deep-value investing.

**Explanation**

The manager's preference for companies that offer above-average growth in earnings (at reasonable valuation multiples) indicates a growth-based approach.

Both high-quality value and deep-value investing are value-based approaches that do not emphasize earnings growth.

(Module 15.1, LOS 15.b)

**Question #12 of 18**

Question ID: 1552480

Which of the following statements regarding activist equity investing is *most accurate*?

A) Activist investors tend to target companies that have multi-class share structures.



**The assets under management of activist hedge funds decreased sharply**

**B) during the global financial crisis of 2008/2009 and have since failed to recover to pre-crisis levels.**



C) Activist investors tend to target companies that have lower than average revenue growth with negative price momentum.

**Explanation**

Activist investors will target companies that are not being run efficiently. These tend to be companies that have slower than average revenue growth and negative price momentum. A multi-class share structure may hinder activist investors since this usually means that the founder's shares have multiple votes per share. The comment regarding the assets under management of activist hedge funds is incorrect.

(Module 15.2, LOS 15.e)

**Question #13 of 18**

Question ID: 1552510

A quantitative active equity investment manager gathers the following data regarding information coefficients (ICs) when backtesting the value, growth and size factors in their investment universe:

Factor	Pearson IC	Spearman Rank IC
Value	insignificant	significantly positive
Growth	significantly positive	significantly positive
Size	significantly positive	insignificant

If the manager is concerned about biases caused by outliers in the data, they should most likely conclude that the factors with strong predictive powers for subsequent returns are:

**A) Value, Growth and Size.**



**B) Value and Growth.**



**C) Growth and Size.**

**Explanation**

The IC measures the correlation between factor scores and subsequent market returns. The Pearson IC measures the correlation of values which can be biased by the existence of outliers in the data. In order to avoid this bias, the Spearman Rank IC should be used which looks at the correlation between the rank of factor scores and the rank of subsequent returns. The Spearman Rank IC suggests that there is predictive power for the factor when it is significantly positive, i.e. for the value and growth factors.

(Module 15.3, LOS 15.h)

**Question #14 of 18**

Question ID: 1552501

A fundamental active equity investment manager screens the stocks in their universe in order to create an equally weighted portfolio of securities that have a price-to-book ratio of less than one. Which of the following pitfalls of fundamental active investing is this manager most likely to be subject to?

**A) Behavioral biases.**



**B) The growth trap.**





**C) The value trap.****Explanation**

By screening the universe and allocating naïvely for stocks with a low price-to-book ratio the manager will likely be investing in many securities that appear attractively valued, but are correctly priced or even overpriced due to seriously deteriorating business conditions. This is referred to as the value trap.

(Module 15.3, LOS 15.g)

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Heidi Lagos is a senior vice president for EI Portfolio Management (EIPM), a firm that serves individual and institutional clients using fundamental and quantitative equity strategies.

Among the strategies that EIPM uses, they have found that the growth at a reasonable price (GARP) approach has performed well. Lagos evaluates the prospects for three stocks to determine which is the most attractive for a GARP portfolio using the following information.

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Stock	Stock Price	12-Month Forward EPS	5-Year EPS Growth Forecast
A	\$25.00	\$2.50	12%
B	\$6.00	\$0.25	15%
C	\$8.00	\$1.20	5%

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Lagos also uses factor-based active strategies using a hedged portfolio approach pioneered by Fama and French. In particular, she believes that small stocks should outperform large stocks. To exploit this belief, she first ranks all U.S. stocks by their market capitalization. She then divides the sample in half and creates two portfolios—one that goes long the smallest stocks and one that shorts the largest stocks. These positions are then executed by EIPM's trading desk.

One of Lagos's responsibilities is to monitor the performance of three other portfolios, each of which is based on one of the following strategies: a deep value strategy, a restructuring strategy, and a shorter-term earnings momentum strategy. One of Lagos's screens is to determine whether a portfolio's holdings may contain stocks whose favorable future growth prospects are already overreflected in their prices. In this case, Lagos becomes concerned that their future stock prices will decline.

Using holdings-based style analysis, Lagos and her staff also periodically evaluate the style of each fund to determine if the manager has strayed from their investment mandate. However, Judy Swan, an EIPM analyst, suggests that instead they regress the returns of each manager

against several passive style indices and constrain the sum of the slope coefficients to equal one. However, Lagos believes that the output from this method must be interpreted carefully.

Specifically, Lagos indicates that Swan's suggested method of style analysis has these three disadvantages:

1. To use this method, we must have knowledge of the portfolio's actual holdings.
2. The analysis is complex and must be adapted to each portfolio evaluated.
3. This method is unlikely to accurately characterize the extreme positions of the deep value strategy.

### Question #15 - 18 of 18

Question ID: 1562943

Using only the information provided, which of the following stocks is *most likely* appropriate for EIPM's GARP portfolio?

**A) Stock A.**



**B) Stock B.**



**C) Stock C.**



**Explanation**

We first calculate the forward price-to-earnings (P/E) ratio for each stock:

Stock A: P/E ratio =  $\$25.00 / \$2.50 = 10.00$ .

Stock B: P/E ratio =  $\$6.00 / \$0.25 = 24.00$ .

Stock C: P/E ratio =  $\$8.00 / \$1.20 = 6.67$ .

Next, we calculate the P/E-to-growth (PEG) ratio to determine which stock is most likely appropriate for a GARP portfolio:

Stock A: PEG ratio =  $10.00 / 12.0 = 0.83$ .

Stock B: PEG ratio =  $24.00 / 15.0 = 1.60$ .

Stock C: PEG ratio =  $6.67 / 5.0 = 1.33$ .

Stock A has the lowest PEG ratio and is, therefore, the stock most likely included in a GARP portfolio.

With its highest EPS growth rate and highest P/E ratio, Stock B is more likely appropriate for a long-term growth strategy. Stock C has the lowest P/E ratio and is more likely appropriate for a value-based strategy.

(Module 15.1, LOS 15.b)

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### Question #16 - 18 of 18

Question ID: 1562944

Is the hedged portfolio approach used by Lagos consistent with the approach pioneered by Fama and French?

- A) Yes.
- B) No, because of the method she uses for creating portfolios.
- C) No, because she does not short large-cap equity futures contracts.



**Explanation**

In the hedged portfolio approach pioneered by Fama and French, stocks are divided into quantiles, which is a defined percentage proportion of the stock universe. For example, the top 10% quantile for the size factor comprises the smallest 10% of companies. Typical quantiles are deciles (10%) or quintiles (20%). Lagos divides the sample in half to create her long and short portfolios. Therefore, she does not create the extreme portfolios used in the typical hedged portfolio approach. In fact, one of the critiques of the hedged portfolio approach is that ignores information in middle quantiles by creating extreme portfolios.

The hedged portfolio approach pioneered by Fama and French does not use futures contracts.

(Module 15.2, LOS 15.d)

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### Question #17 - 18 of 18

Question ID: 1562945

Which of the portfolios that Lagos monitors is *most likely* subject to her concern?

**A) The deep value portfolio.**



**B) The restructuring portfolio.**



**C) The shorter-term earnings momentum portfolio.**



#### Explanation

Lagos's concern is referred to as the growth trap. In a growth trap, favorable future growth prospects are already reflected, or overreflected, in the stock price. In this case, modest shortfalls in growth can lead to significant declines in the stock price.

The growth trap is applicable to growth stocks. In growth-based approaches, the analyst attempts to identify companies with revenues, earnings, or cash flows that are expected to grow faster than their industry or the overall market. One type of growth-based approach is to focus on shorter-term earnings momentum.

The growth trap would not apply to deep-value or restructuring investing portfolios that have low growth. Deep-value investing focuses on extremely low valuations relative to assets, often due to financial distress. Restructuring and distressed debt portfolios invest before or during an expected bankruptcy filing.

(Module 15.1, LOS 15.b)

(Module 15.3, LOS 15.g)

**Question #18 - 18 of 18**

Question ID: 1562946

Regarding Lagos's stated disadvantages of Swan's suggested method of style analysis, which of the following is *most accurate*?

**A) Disadvantage 1.**



**B) Disadvantage 2.**



**C) Disadvantage 3.**

**Explanation**

Swan is suggesting that EIPM should use returns-based style analysis. A disadvantage of this method is that constraints on outputs can limit detection of extreme styles, such as the deep value strategy. Thus, Lagos's third stated disadvantage is accurate.

Advantages of returns-based style analysis are that it does not require information on holdings, and it can be easily and universally applied. Therefore, Lagos's first and second stated disadvantages do not accurately characterize returns-based style analysis.

(Module 15.4, LOS 15.i)