Question #1 of 18

Question ID: 1552587

Which of the following is a characteristic of a managed futures strategy as a result of crowding?

A) Execution slippage. ✓

B) **Price inefficiency.** ✗

C) High leverage. ✗

Explanation

Execution slippage is the result of crowding as participants pursue similar strategies. While high leverage is a feature of managed futures, it is not specifically related to crowding. While exploiting pricing inefficiencies are often an objective of hedge funds, that characteristic is not specifically related to the question either.

(Module 17.3, LOS 17.e)

Question #2 of 18

Question ID: 1552588

The key factors an insurance settlements portfolio manager must successfully analyze include:

A) expected policy cash flows, ongoing premium payment obligations, and the eventual death benefit to be received. ✓

B) the underlying interest rate on the policy, the early termination provisions of the contract, and the government bond yield curve. ✗

C) **the probability that the insurance company will face financial pressure, the demeanor of the policy holder, and the age of the policyholder.** ✗

Explanation

Insurance settlement managers must be able to create a discounted cash flow analysis of all future cash flows. Continuing premium payments owed, buyout terms for existing holder, and eventual death benefits to be received at an uncertain point in the future are key factors they must consider.

(Module 17.3, LOS 17.f)

Question #3 of 18

Question ID: 1552589

Hedge Fund Z follows a short volatility strategy, while Hedge Fund Y makes insurance investments. Which of the following is *most accurate* concerning the funds?

A) Y's investments will be largely uncorrelated with market movements. ✓

B) Z has a natural hedge against market declines. ✗

C) Z's strategy is neither positively nor negatively correlated with the market. ✗

Explanation

A primary benefit of insurance strategies is the lack of correlation with the market. A short volatility strategy would have poor returns as volatility increases. Since markets tend to fall during volatile periods, it does not provide a hedge. Similarly, the volatility strategy will have a positive correlation with the market.

(Module 17.3, LOS 17.f)

Question #4 of 18

Question ID: 1552568

Opportunistic hedge fund strategies employ:

A) long and short positions in equity. ✗

B) a top-down approach. ✓

C) an investment in distressed debt. ✗

Explanation

Opportunistic strategies have a macro focus and generally follow a top-down approach. The other answers are more closely associated with a bottom-up approach.

(Module 17.1, LOS 17.a)

Leigh Winstanton is a relative value hedge fund manager. She is currently analyzing government bond and swaps markets for pricing discrepancies, collating the data displayed as follows:

- 5-year Treasury Inflation-Protected Securities (TIPS) coupon rate: 1% (priced at par)
- 5-year Treasury bond coupon rate: 3% (priced at par)
- 5-year inflation swap fixed rate: 1.5%

Winstanton also engages in convertible bond arbitrage trades. She collates data on a potential convertible arbitrage trade in the securities of Triste, Inc. (TST), a medium-sized manufacturer of agricultural equipment, displayed as follows:

- TST has in issue a 2-year 4% annual coupon convertible bond, priced at 115
- The conversion ratio of the TST convertible bond is 25 shares per USD 1,000 par
- Current price of TST shares is USD 50 per share
- Borrowing costs are USD 0.60 per year, per share
- Dividend per share is expected to be USD 1 per year, per share

Winstanton is investigating whether there is an immediate arbitrage opportunity from buying the convertible bond and converting into shares. Winstanton is also interested in how carrying this convertible bond arbitrage position through time will likely affect the profitability of the trade.

Winstanton is looking to hire a volatility trader to execute trades with the objective of hedging the exposure of the fund's existing relative value positions to large, unexpected movements in spreads and prices in times of market stress.

Question #5 - 8 of 18

Question ID: 1552600

To capture the pricing discrepancy between the Treasury bond market and the swaps market, Winstanton should execute which of the following trades?

A) Sell Treasuries, sell TIPS, receive fixed under inflation swap. ✗

B) Buy Treasuries, buy TIPS, pay fixed under inflation swap. ✗

C) Buy Treasuries, Sell TIPS, pay fixed under inflation swap. ✓

Explanation

The manager can earn excess return as follows:

- Buy Treasuries, locking in a fixed inflow coupon of 3%
- Short sell TIPS, locking in coupon outflow of 1% + future realized inflation
- Pay fixed leg of 1.5% and receive future realized inflation under an inflation swap

Net exposure = 3% – (1% – inflation) – (1.5% – inflation) = 0.5%

(Module 17.2, LOS 17.d)

Question #6 - 8 of 18

Question ID: 1552601

The immediate arbitrage profit from buying the TST convertible bond and converting into shares is *closest* to:

A) USD 4 per share. ✓

B) USD 6 per share. ✗

C) USD 10 per share. ✗

Explanation

Purchasing USD 1,000 par of the bond at a price of 115 per cent of par costs USD 1,000 × (115 / 100) = USD 1,150.

The cost per share of owning the shares through buying the convertible bond and converting is, therefore, USD 1,150 / 25 = USD 46.

The current shares are worth USD 50 in equity markets; hence, investors can lock in a USD 4 gain immediately from buying the convertible and short selling the shares today.

(Module 17.2, LOS 17.d)

Question #7 - 8 of 18

Question ID: 1552602

Introducing the costs and benefits of carrying the convertible arbitrage trade through time will:

A) decrease the profitability of the trade. ✗

B) increase the profitability of the trade. ✗

C) have no impact on the profitability of the trade. ✓

Explanation

Annual coupon income from the long convertible bond position will be USD 1,000 × 4% = USD 40 per USD 1,000 par.

The annual cost of borrowing and dividend that needs to be paid to the stock lender equals USD 0.60 + USD 1 = USD 1.60 per share. In total, this will cost USD 1.60 × 25 = USD 40 per USD 1,000 of par.

The coupon income is equal to the outflows of costs of borrowing and dividends; hence, carrying the position through time will not affect the overall profitability of the trade.

(Module 17.2, LOS 17.d)

Question #8 - 8 of 18

Question ID: 1552603

Considering the objective of the new volatility trader, which of the following volatility trading strategies would *most likely* be appropriate for adding to the fund?

A) Relative value volatility arbitrage using exchange-traded options.

B) Roll down using VIX futures.

C) Long positions in OTC options.

Explanation

In times of market stress, volatility increases—hence, to meet the objective of providing protection in times of market stress, the volatility trader should execute a long volatility strategy. The only strategy listed that is a long volatility strategy is taking long positions in OTC options. "Rolldown" profits are earned by selling long-dated VIX futures when the term structure of volatility is positively sloped, and benefiting from falling prices as futures fall over time. As such, the rolldown strategy is a short volatility strategy, not a long volatility strategy—so, it is inappropriate. A relative value volatility arbitrage strategy involves buying cheap implied volatility and selling expensive implied volatility—hence, it is volatility neutral rather than long volatility in nature.

(Module 17.3, LOS 17.f)

Glen Downing, CFA, recently took a new position as chief investment officer at Deep Dive Asset Management (Deep Dive), a hedge fund-of-funds (FoF) based in the Cayman Islands. Having worked only at mutual funds in the past, Downing is new to the hedge fund world and wants to get up to speed quickly to take advantage of what he believes to be exceptional market opportunities. Downing is particularly excited about the opportunities an FoF can offer, compared to that of individual hedge funds.

The first fund Downing considers for investment is Copernicus Management (Copernicus), a hedge fund that invests in many different asset classes. Copernicus's team relies on a top-down approach to screening potential investments, and the team's choice is often influenced by current market conditions. Downing will compare Copernicus to others in its peer group, but is unsure of how to classify the fund.

Another potential investment under consideration is APM International Advisors' global macro fund. APM management recently made the following claims during a sales pitch to Downing:

- **Claim 1:** "We tend to outperform other strategies in low-volatility markets."
- **Claim 2:** "Our strategies attempt to take advantage of markets that are not mean reverting."

- **Claim 3:** "Our high use of leverage—often in excess of 500% of capital—helps us to outperform other funds."

Finally, Downing is interested in a recent pitch made by Esoteric Investors (Esoteric), a hedge fund specializing in volatility trading. Downing has summarized Esoteric's pitch, breaking out its purported advantages into three parts:

- *Insurance-like returns*. Downing feels that adding Esoteric to his FoF should provide Deep Dive an exposure to insurance-like returns, because Esoteric often is a seller of VIX futures contracts.
- *Risk reduction*. Downing believes that adding an allocation to Esoteric will reduce overall portfolio risk due to the negative correlation between its long-volatility contracts and equity market returns.
- *Convexity*. Esoteric's salespeople told Downing that the fund's long-volatility positions exhibit strong negative convexity—another added benefit.

Question #9 - 12 of 18

Question ID: 1552605

Downing's excitement about FoF investing would *least appropriately* be based on a belief that:

A) he can provide better liquidity terms to his individual investors.

B) he may be able to invest in hedge funds closed to new investors.

C) his investors will have more transparency in their investments.

Explanation

FoF investments often provide more favorable redemption terms than do individual hedge funds. In addition, an FoF may be able to invest in closed hedge funds, due to previously arranged terms. One disadvantage, however, is that an FoF may not provide the same transparency of investments as individual funds do; this represents additional risk for investors.

(Module 17.3, LOS 17.g)

Question #10 - 12 of 18

Question ID: 1552606

Copernicus's investment strategy would *most accurately* be classified as:

A) specialist.

B) event driven.

C) opportunistic.

Explanation

Copernicus would be considered an opportunistic hedge fund because it invests across many asset classes, taking a macro-first, top-down view that considers which investments would be most favorable given current market conditions.

(Module 17.1, LOS 17.a)

Question #11 - 12 of 18

Question ID: 1552607

Which claim made by APM is *least accurate*?

A) Claim 3.

B) Claim 1.

C) Claim 2.

Explanation

Claim 1 is inaccurate: global macro funds are likely to *underperform* in low-volatility markets. Claim 2 is accurate; global macro funds also perform worse in mean-reverting markets. Claim 3 is plausible; global macro funds generally apply significant leverage to boost returns (often between 600%–700% of capital).

(Module 17.2, LOS 17.c)

Question #12 - 12 of 18

Question ID: 1552608

Esoteric's staff's statements regarding its volatility trading are *least accurate* regarding:

A) risk reduction.

B) convexity.

C) insurance-like returns.

Explanation

Some long volatility positions (e.g., long positions in variance swaps) exhibit *positive* (not negative) convexity, which indeed would be an advantage of adding this asset class. Volatility is highly negatively correlated with equity market returns, because spikes in volatility often coincide with sharp movements downward in equity markets. Thus, long-volatility contracts have a high negative correlation with equity. Selling volatility is a way to capture premia and provide regular cash flows, similar to insurance underwriting.

(Module 17.4, LOS 17.h)

Question #13 of 18

Question ID: 1552567

The failure of a merger to occur is a risk of which of the following hedge fund strategies?

A) Event driven. ✓

B) Equity related. ✗

C) Opportunistic. ✗

Explanation

Since the success of an event-driven strategy is dependent upon the event occurring, the failure of a merger to occur is a risk of that type of strategy. Equity-related strategies focus on stocks, and hence the primary source of risk is equity risk. Opportunistic strategies employ a top-down approach, often consider multiple asset classes, and vary with market conditions.

(Module 17.1, LOS 17.a)

Question #14 of 18

Question ID: 1552572

The payoff profile of merger arbitrage positions is similar to the return on:

A) a riskless bond, short a call, and short a put. ✗

B) a riskless bond, short a put, and long a call. ✓

C) a risky bond, short a call and long a put. ✗

Explanation

The strategy incorporates the time associated between merger announcement and transaction closing which is discounted at the risk free rate. M/A hedge funds also earn additional "premium" from equity holders which reflects the potential that the deal may not successfully close. Similarly, hedge funds are in effect, long a call if a higher bid were to surface. All cash flows are discounted at the risk free rate.

(Module 17.2, LOS 17.c)

Question #15 of 18

Question ID: 1552609

A conditional factor risk model is used in analyzing hedge fund returns. The purpose of the dummy variable in that model is to distinguish between:

A) managed funds and passive funds. ✗

B) periods of normal market activity and financial crises. ✓

C) funds in countries with high inflation and low inflation. ✗

Explanation

The dummy variable is employed in the model since factors may have different influence during normal periods and financial crises. Such a model is termed a *conditional linear factor model*, where the dummy variable allows for the conditional analysis.

(Module 17.4, LOS 17.h)

Question #16 of 18

Question ID: 1552586

Top down analysis is the key driver behind which of the following hedge fund strategies?

A) Global macro. ✓

B) Merger and acquisition. ✗

C) Fixed income arbitrage. ✗

Explanation

Global macro is focused on getting the big picture right on interest rate and equity market movements around the globe.

(Module 17.3, LOS 17.e)

Question #17 of 18

Question ID: 1552610

Which of the following is *least likely* included in the four-factor, conditional linear model used to quantify hedge fund strategies' risk exposures?

A) Credit risk.

B) Interest rate risk.

C) Volatility risk.

Explanation

The four risk factors are credit risk, volatility risk, equity risk, and currency risk.

(Module 17.4, LOS 17.h)

Question #18 of 18

Question ID: 1552611

A process which is helpful for creating linear conditional factor models that avoid multicollinearity is:

A) correlation residual factor analysis.

B) step-wise regression analysis.

C) mean-variance collinearity analysis.

Explanation

Step-wise regression was run by Hasanhodzic and Lo in their 2007 paper and demonstrated that removing the variables Bond and Commodity from their model resulted in a higher R^2 than prior analysis which included these variables. They concluded there was multicollinearity and removing those factors improved the model.

(Module 17.4, LOS 17.h)