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**EXCHANGE-TRADED FUNDS  
MECHANICS & APPLICATIONS**

1. An ETF is least likely to trade at a premium/discount to its NAV when:
  - (A) there are timing differences between the capture of the ETF trade price and the price used to calculate its NAV.
  - (B) the underlying securities are exchange-traded.
  - (C) the ETF is infrequently traded.

2. Consider the following two statements about exchange-traded funds:

<b>Statement 1:</b>	Large ETF orders may incur price-impact costs depending on the liquidity of the secondary market.
<b>Statement 2:</b>	ETFs that track stable indices will have a lower portfolio turnover cost.

It would be most accurate to state that:

- (A) only statement 1 is correct.
  - (B) only statement 2 is correct.
  - (C) both statements are correct.
3. A large bank's decision to issue exchange traded notes (ETNs) that track the S&P500 index is most likely to be motivated by the belief that:
  - (A) the return on the S&P 500 index would be higher than the bank's lending rate.
  - (B) the return on the S&P 500 index would be lower than the bank's borrowing rate.
  - (C) the yield on bank's unsecured debt would be higher than the swap fixed rate.
4. Exchange-traded notes (ETNs) are similar to exchange traded funds (ETFs), in that they both:
  - (A) are subject to total default by the issuer.
  - (B) hold underlying securities.
  - (C) use the creation/redemption process.
5. Settlement risk is most likely to be a concern for:
  - (A) ETFs using OTC derivative contracts.
  - (B) Exchange traded notes.
  - (C) ETF investors where the ETF sponsors lend securities to short sellers for a fee.
6. Bob Nelson, analyst for Sigma securities, is evaluating EUXL, a leveraged ETF on European stocks. While the ETF is listed on multiple exchanges, it primarily trades on OTC markets.

Nelson would most accurately assume that:

- (A) OTC quotes tend to be more "live" compared to exchange quotes.
- (B) The increased settlement complexity from fragmented markets will lead to a decrease in quoted spreads.
- (C) The increased settlement complexity from fragmented markets will lead to an increase in the quoted spreads.

7. ETF ownership costs are least likely to be increased by:

- (A) security lending.
- (B) bid—ask spreads.
- (C) portfolio turnover.

8. The maximum spread on an ETF is most likely to be negatively related to the:

- (A) probability of authorized participants (APs) completing an offsetting the trade in secondary market.
- (B) risk premium demanded by the authorized participants (APs) for carrying the trade until the close of trading.
- (C) spread quoted on the underlying securities.

9. ETFs are most likely to underperform the benchmark by their:

- (A) tracking error.
- (B) arbitrage gap.
- (C) expense ratio.

10. Zhang Wei, portfolio manager at Zenith Capital, makes the following two statements:

<b>Statement 1:</b>	For ETFs, hard closures entail creation halts and changes in investment strategy.
<b>Statement 2:</b>	When a bank ETN issuer is no longer interested in additional borrowings, the resulting creation halts may cause those ETNs to trade at a discount.

Regarding the statements made by Wei, it would be most accurate to state that:

- (A) neither statement is correct.
- (B) only statement 2 is correct.
- (C) only statement 1 is correct.

11. The arbitrage gap for an ETF is most likely to be narrow when:

- (A) the securities underlying the ETF are illiquid.
- (B) the ETF represents securities that are difficult to invest in directly.
- (C) the ETF and the securities underlying the ETF trade in the same market.

12. When an ETF trades on the primary market, this is most likely to refer to a trade that happens:

- (A) over-the-counter.

- (B) on an exchange.
  - (C) between Aps and issuers.
13. Compared to long-term buy-and-hold ETF investors, investors that trade frequently are most likely to be concerned with:
- (A) tracking error.
  - (B) management fees.
  - (C) trading costs.
14. PSTO ETF is quoted at a bid-ask spread of 0.10%. ETF commissions are 0.04% of trade value. Management fees are 0.09% per year. The average annual total cost of holding the PSTO ETF for 3 years is closest to:
- (A) 0.45%
  - (B) 0.15%
  - (C) 0.30%
15. Suppose that a particular mutual fund is benchmarked against a large-cap equity index. The fund manager unexpectedly receives a large inflow of cash and wants to quickly equitize this cash. The ETF strategy most appropriate in order for the fund manager to achieve this goal would be:
- (A) excess liquidity management.
  - (B) portfolio completion.
  - (C) portfolio liquidity management.
16. Spreads tend to be narrower for:
- (A) popular ETFs.
  - (B) fixed-income ETFs (as compared to large-cap equity ETFs).
  - (C) specialized ETFs such as those that track commodity indexes.
17. All else constant, significant tracking error in an ETF is most likely to cause the ETF to:
- (A) trade at a discount.
  - (B) outperform the underlying benchmark.
  - (C) be a poor instrument for hedging an exposure to the underlying index.
18. Which of the following is most likely to represent a passive strategy for constructing an ETF?
- (A) Smart beta.
  - (B) Representative sampling/optimization.

- (C) Alternative weighting.
19. An ETF's tracking difference is most accurately measured as the:
- (A) annualized standard deviation of the differences between the daily returns of the ETF and its benchmark.
  - (B) standard deviation of the difference in daily returns between the ETF and its benchmark.
  - (C) difference between the ETF's return (based on its NAV) and the return on the index tracked.
20. It would be most accurate to state that ETF shares can be created or redeemed by:
- (A) anyone, including individual investors using a brokerage account.
  - (B) accredited investors (i.e. qualified investors) only.
  - (C) a special group of institutional investors (APs) only.
21. ETFs trade in:
- (A) both primary and secondary markets.
  - (B) secondary markets only.
  - (C) primary markets only.
22. Which of the following is least likely a purpose of the in-kind creation/redemption of an ETF?
- (A) Lower cost.
  - (B) Narrowing the arbitrage gap.
  - (C) Tax efficiency.

