

UCLA MQE Lecture

“Understanding and Trading Volatility Derivatives”

Answers:

- 1) B is the correct answer. You can't be sure that NVDA won't gap down more than 10 points, and thus your loss would be more than \$1,000.
- 2) C both. A call is in-the-money if the stock is trading above the striking price, and a put is in-the-money if the stock is below the striking price.
- 3) C. \$VIX is a 30-day volatility estimate.
- 4) B. If \$SPX drops in price, an at-the-money put will increase in value. It is not always the case that \$VIX rises when \$SPX declines – it depends on the swiftness of the drop in price.
- 5) A. \$VIX is generally higher than HV20, but the two follow similar paths. It is a rare occasion when HV20 rises substantially above \$VIX.
- 6) D. Spike peaks are indeed buy signals for stocks, and the stock market tends to trend opposite to the direction of \$VIX.
- 7) C. It is the relationship of the various \$VIX futures prices. It slopes upward in a stock bull market and downward in a volatile stock bear market.
- 8) B. You always want to be in the near-term \$VIX options or futures, because when \$VIX rises, those contracts will adhere most closely to the price of \$VIX. There is some merit in C, but if \$VIX truly explodes, the \$VIX products will outperform owning \$SPX puts.
- 9) A. An ETN is an “exchange-traded Note” and as such, has risk if the underwriter should go out of business. \$VIX itself cannot be owned or traded. The ETF has its underlying securities (futures) in escrow, and those could be liquidated if necessary.
- 10) B. The underlying contract for \$VIX options during their trading lifetime is the corresponding \$VIX futures contract.
- 11) A. \$VIX options always display a forward skew, where deeply out-of-the-money calls trade with a higher implied volatility than do at-the-money calls.
- 12) C: because the prices of the June and July \$VIX futures could invert in a severely bearish market, meaning the spread could trade at large negative values, making your risk substantial. In the other two, the worst the spread can do is drop to zero, costing you 100% of what you paid for it, but nothing more.