FRAMEWORK Investing

VIX Futures

Now that we understand a bit about how the VIX is calculated and know enough to avoid the mistakes people often make when talking about VIX statistics, let's move on to how the VIX might be used by a directional investor.

Because the VIX tends to spike during equity market drops, investors I talk to tend to be interested about using the VIX as a hedging tool. There are a few interrelated features that make the VIX and ETFs based on the VIX ill-suited for hedging, in my opinion – term structure and basis risk.

Here is a diagram showing the VIX futures term structure that I pulled from the site vixcentral.com in the first week of June 2018. You will recognize the shape of the graph from one of the projections of the volatility surface that we saw a couple lessons ago.

The important thing to note is that the straight green dotted line at the bottom of the graph labeled 12.30 is the calculated value of the VIX on the day these data were pulled. This value, in other words, represents the "spot" or "cash" value of the VIX. The VIX futures contract expiring in June –the front month contract – is trading for 13.50 and is expiring on June 20, just one day from now as I am recording this.

The difference between the spot price and the futures price is called the "basis" of a contract. Basis for a futures contract is something like the time value on an option contract. Eventually, there is no more time before the futures contract expires; at that point, the value of the futures contract must be the same as the spot.

Vocabulary

Backwardation: Situation when a commodity's futures price is lower than its spot price. Term structure graph is downward-sloping.

Basis: The difference between the spot price of an asset and its future's price.

Basis Risk: The risk that an investor takes on when buying a futures contract in contango. It is the risk that the futures price will fall to converge with the spot price rather than the spot price will jump above the purchase price of the futures contract.

Contango: Situation occurring when a commodity's futures price is higher than its spot price. Term structure graph is upward-sloping.

Spot Value (a/k/a Cash Value): The market price for a commodity for delivery today versus for delivery in the future.

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