Fear And Regret Need Time To Forget

I was involved in an airplane conversation a few years back with someone doing psychology homework. When I pulled out the PowerPoint presentation I was going to be delivering at my destination, she asked me what line of work I was in, and when I said "commodities trading," she responded "oh, then you wouldn't know much about psychology then, would you?"

The poor lass certainly got an earful after that as I explained just how much trading is really a reflection of your personality. Markets famously operate on fear and greed, and a small cottage industry has sprung up to analyze sentiment, negative sentiment, the inverse of the converse of negative sentiment, etc. Put/call ratios and absolute levels of volatility receive their share of attention as well.

But as they say on Wall Street, quantitative analysis talks, unsubstantiated opinion walks. I promised several weeks ago to deliver an update of an equity tension index around the start of the baseball season, and this is on-time delivery by the standards of Chicago baseball.

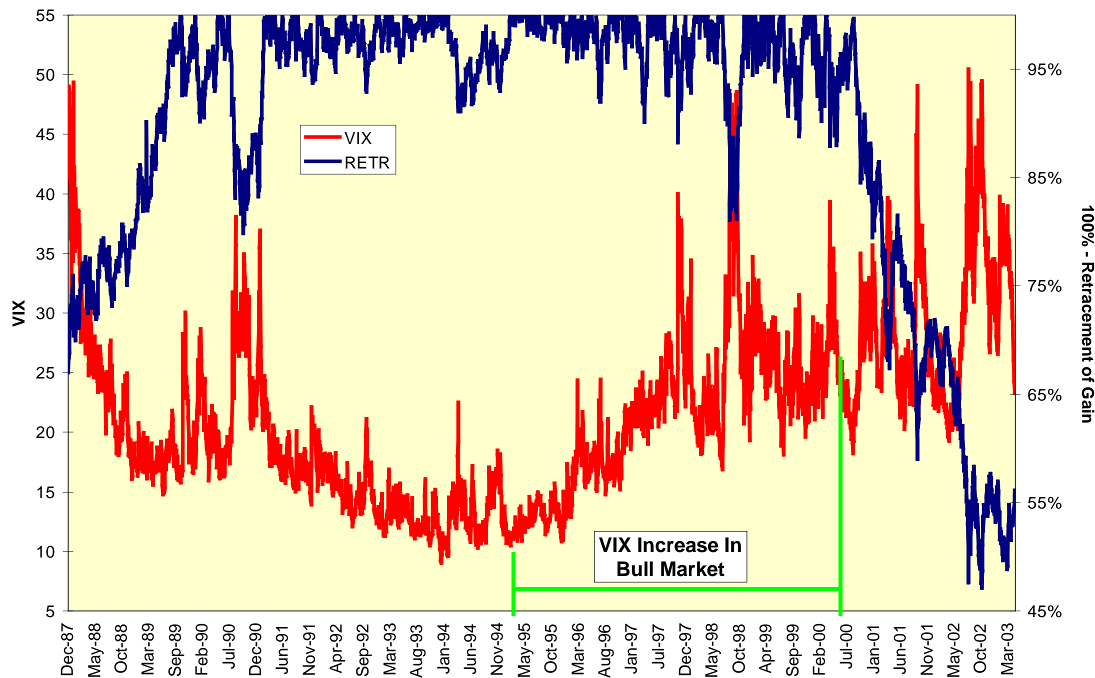
Shock And Regret

The relationship between retracement of gain and volatility has been illustrated several times in this space, and it was a useful construct in calling short-term bottoms in April 2000 and September 2001, and in warning that the downturn in October 2000 was nowhere near a bottom. But the concept of gain retracement loses its meaning in a prolonged bear market as investors gradually accept the reality that they did not liquidate at the high.

The longest and most consistent history relating volatility to equity market movements can be found in the S&P 100 (OEX) index and the associated volatility index (VIX) developed by the Chicago Board Options Exchange, which recently observed its thirtieth anniversary. We can map the VIX as a function of the complement of gain retracement:

100% - ((Last New High - Current OEX) / Last New High)

Each 100% reading on the right-hand scale represents a new high on the OEX. Even though the data are available from January 1986, the chart below begins at the December 4, 1987 retest of the Crash low to eliminate the massive visual distortion of the October 1987 crash.



Certain features of this relationship are obvious and remembered by all: The VIX jumps during Gulf War I, the onset of the Asian crisis and the Russian default/LTCM debacle in 1998. What stands out as counterintuitive and therefore worthy of further attention is the secular increase in volatility that took place over the entire 1995-2000 bull market. The VIX made a series of higher highs and higher lows, and if that's not an uptrend, what is?

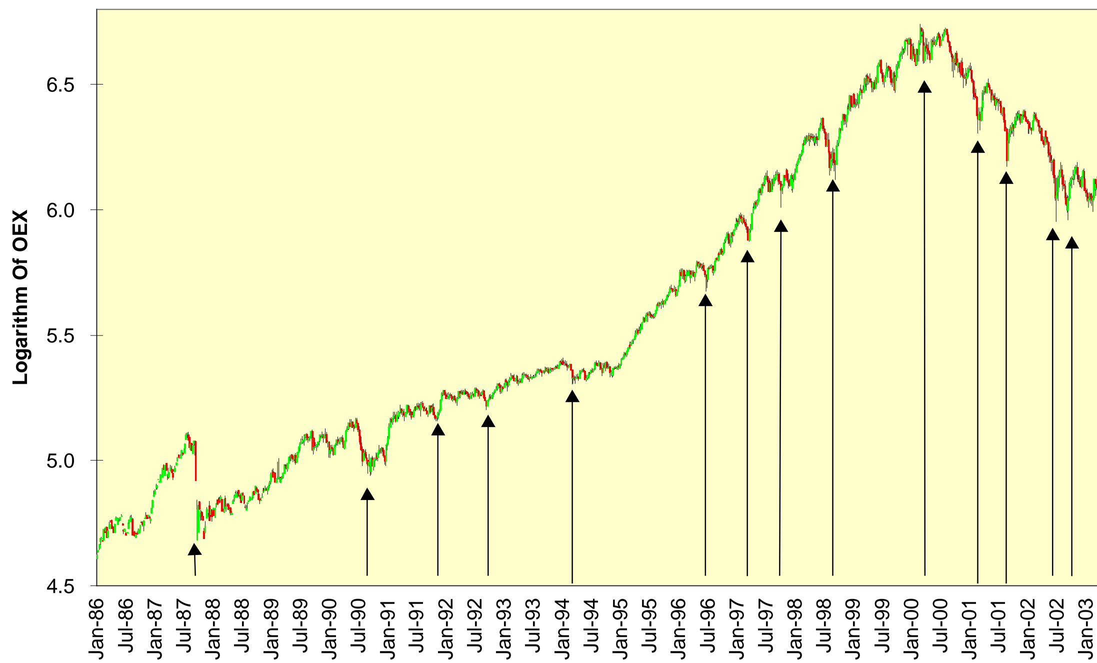
The reasons for the rising VIX/rising OEX combination include the greater dollar volatility of the underlying market and the growing sense that we were stretching the market to unsustainable levels. Of course, once the bear market began the VIX continued higher as demand for put options grew.

Last New Low

Once the bear market began, the spikes in the VIX were not associated with any absolute levels of the OEX, but rather with either a test of a former low or the establishment of a new low within the downtrend. We are, after all, languishing at levels most of us would have bet against seeing three years ago, but the VIX itself is down to levels associated with the giddy days of the late 1990s.

As the argument that the global financial system is safer and more stable now than then is difficult to make, how can this comfortable VIX be possible? The answer, I believe, is a combination of the age of our last new high, March 2000, and of our distance from the most recent new low, October 2002. The parade of last new lows, the retracement of gains on the way up and the new lows on the way down, is illustrated below. The arrows depict some, but not all, of the last new lows.

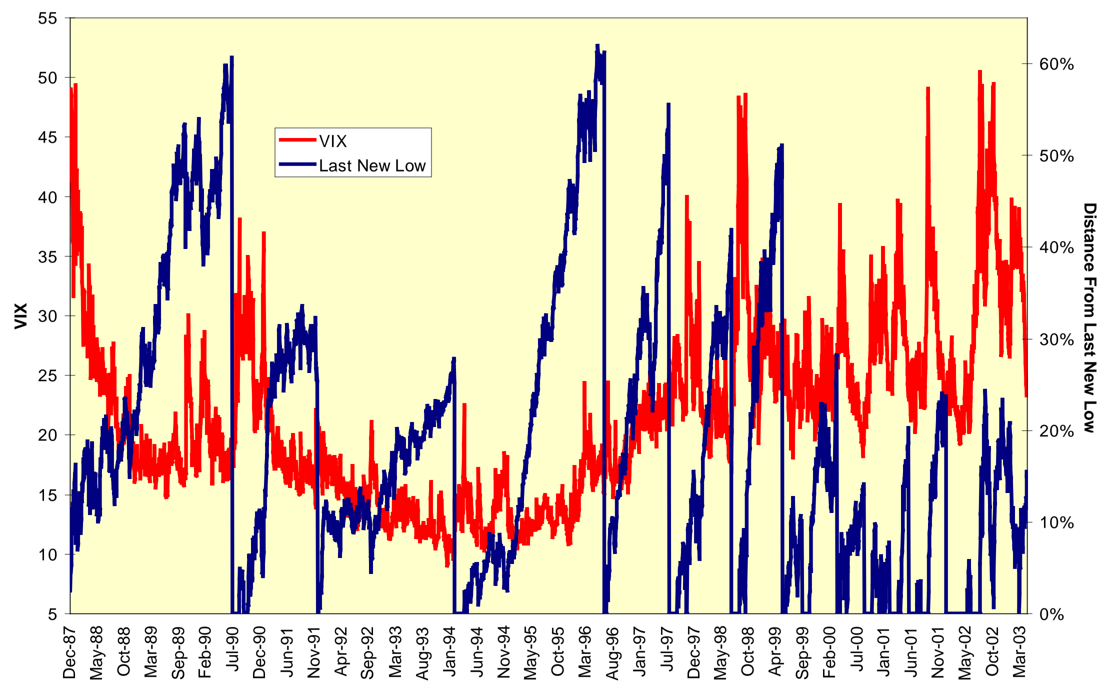
Looking For A Few Good Bottoms



This information can be restated in combination with the VIX by creating an index of the approach to and distance from the last new low, represented by 0% on the right-hand axis:

(OEX Low - Last New Low) / Last New Low

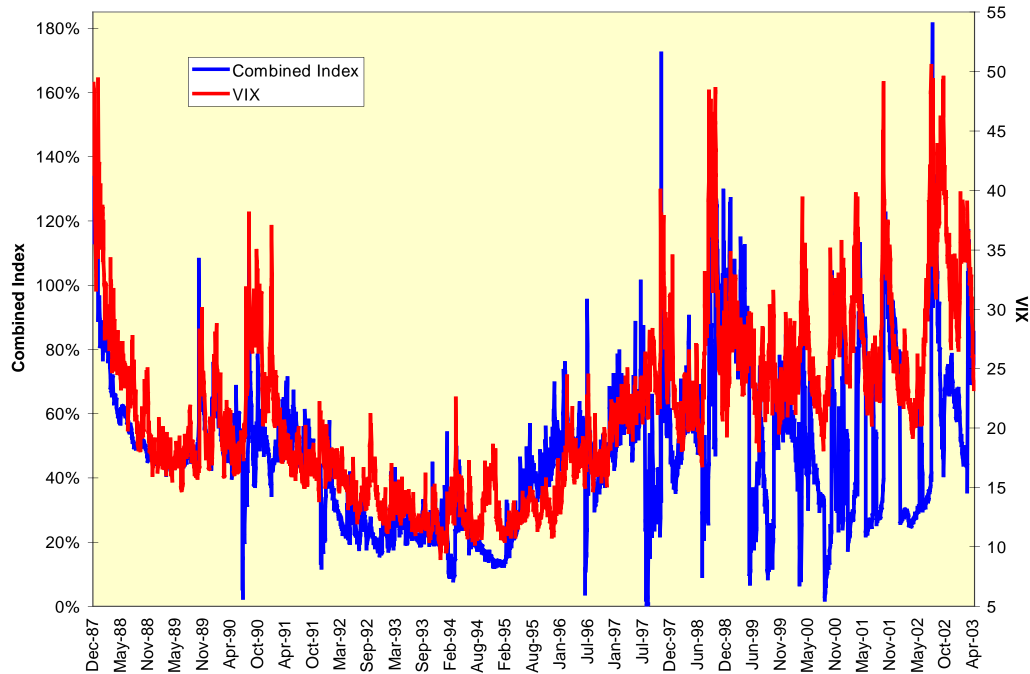
The Ground's Moving Up Fast



This measure tends to move in a rather jumpy fashion, especially in a bull market, but this does capture the stock market's tendency to put in spike bottoms, or bullish hammers in candlestick parlance. Each jump in volatility and each rejection of a new low has caused numerous proclamations over the past three years that the bear market was indeed over. By way of full disclosure, I've taken the bait myself on at least two occasions.

Time Heals All Wounds

The two measures, retracement of gain and approach to the last new low, can be combined with a time attenuation measure that reduces the impact of each. As I suspect I will be modifying this measure at least once in the near future - the jumpiness of the new low measure extends into the combined measure more than I like - I will not go into computational details at this time.



Still, as the chart indicates, it is a pretty decent start for a model that will let us get beyond the simplistic statement of "The VIX is high." We will be able to replace it with "The VIX is high given the path of the market to this point."