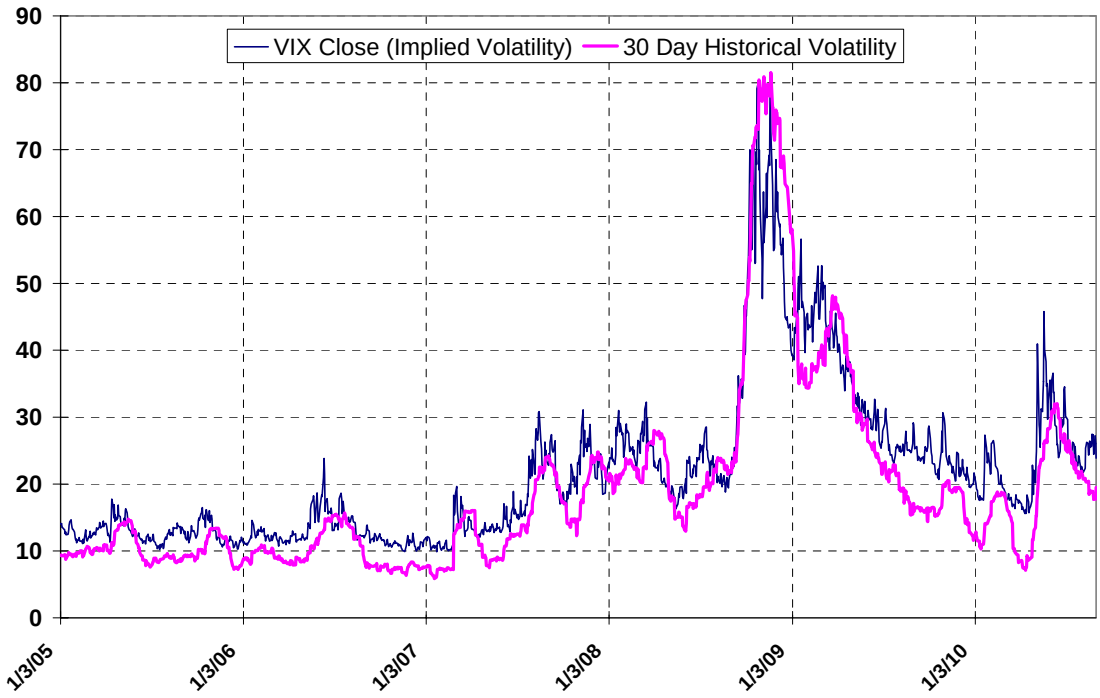
Historical versus Implied Volatility

30 Day Historical Volatility of the S&P 500 Index versus VIX Index of Implied Volatility
daily from 3 Jan 2005 to 1 Sep 2010



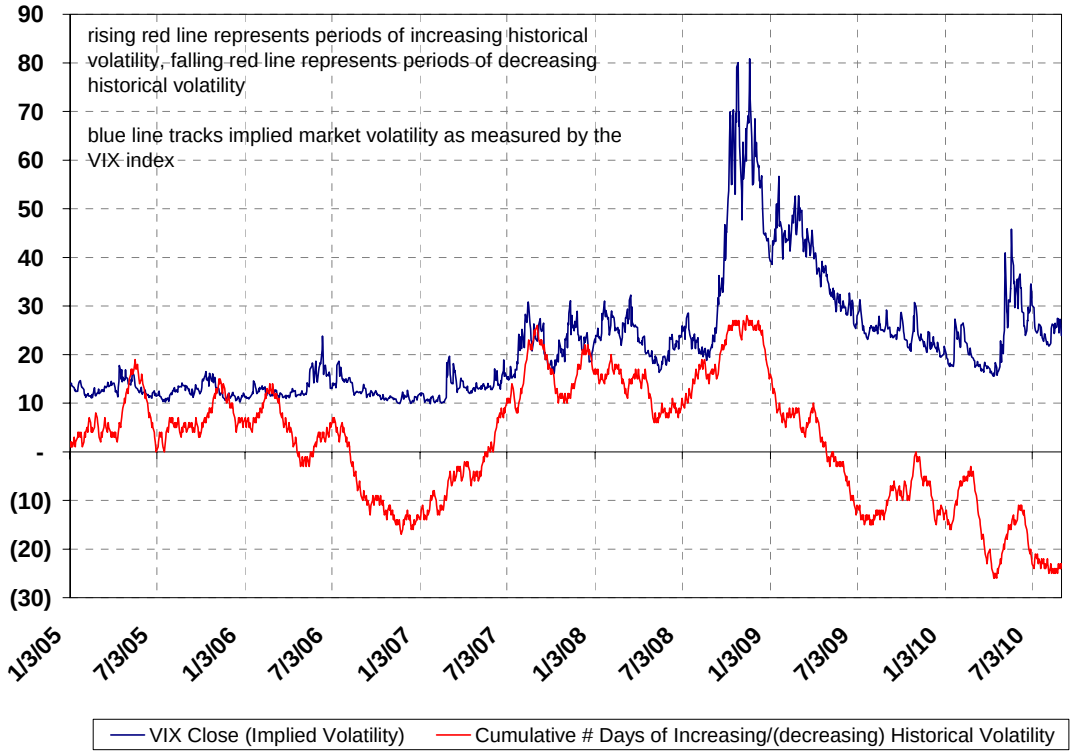
Source: Chicago Board Options Exchange and *Advisor* calculations (for historical volatility)

To what extent does the historical volatility of the stock market impact our expectations regarding the volatility of future stock price changes? To what extent do our expectations of market volatility anticipate actual market volatility? Both of these questions are addressed by this chart. The historical volatility is the annualized standard deviation of index price changes over the last 30 trading days. The implied volatility is the level of volatility implicit in stock option prices as measured by the VIX index produced by the Chicago Board Options Exchange (CBOE). Note that historical volatility has been calculated just on the index, whereas the VIX is based on option prices on all index stocks and not just the index itself.

The median historical volatility since 1990 has been 13.95; the median since 2005 has been higher at 14.96. The current level as of 1 September 2010 is 19.49 and is indicative of a more turbulent than average U.S. stock market. See the chart on the next page for a different view.

Historical volatility and implied volatility are closely correlated with a correlation of 0.90 (1.00 is a perfect positive correlation). One can observe from the chart that implied volatility leads historical volatility most of the time.

Implied Volatility versus Trends in Historical Volatility
VIX Index of Implied Volatility versus
Cumulative Days of Increasing/(Decreasing) Historical Volatility
3 Jan 2005 to 1 Sep 2010



Source: CBOE and *Advisor* calculations

This chart looks at trends in implied volatility not as a function of the level of historical volatility but as a function of historical volatility trends. The red line tracks the cumulative number of days of increases and decreases in historical volatility. Thus from early January 2007 to early September 2007, market volatility was increasing on average from day to day reflected in the change in the cumulative days of increases from -13 to +26, which indicates that over the time period there were 39 more days of increasing volatility than decreasing volatility. A pattern of generally decreasing volatility has prevailed from December 2008 through August 2010, interrupted by several notable periods of increasing volatility, most recently from April 20th to June 10th of this year.

Changes in implied volatility do not appear to be consistently influenced by accelerating or decelerating trends in historical volatility. Implied volatility remained largely unchanged despite the declining volatility trend in late 2006 and the increasing volatility trend in early 2007.