Diversification Arrives With Time

"The yelp of a beaten cur." – American League president Ban Johnson dismissing Charles Comiskey's warning the 1919 World Series was being fixed

If I have one complaint in this world it is too many people complain too much. Take diversification, for example. As investors have accepted indexation over the past thirty-five years and as the financial services industry has responded with index futures, options and more exchange-traded funds than you can shake a stick at, active managers have responded in horror too many stocks rise and fall in unison.

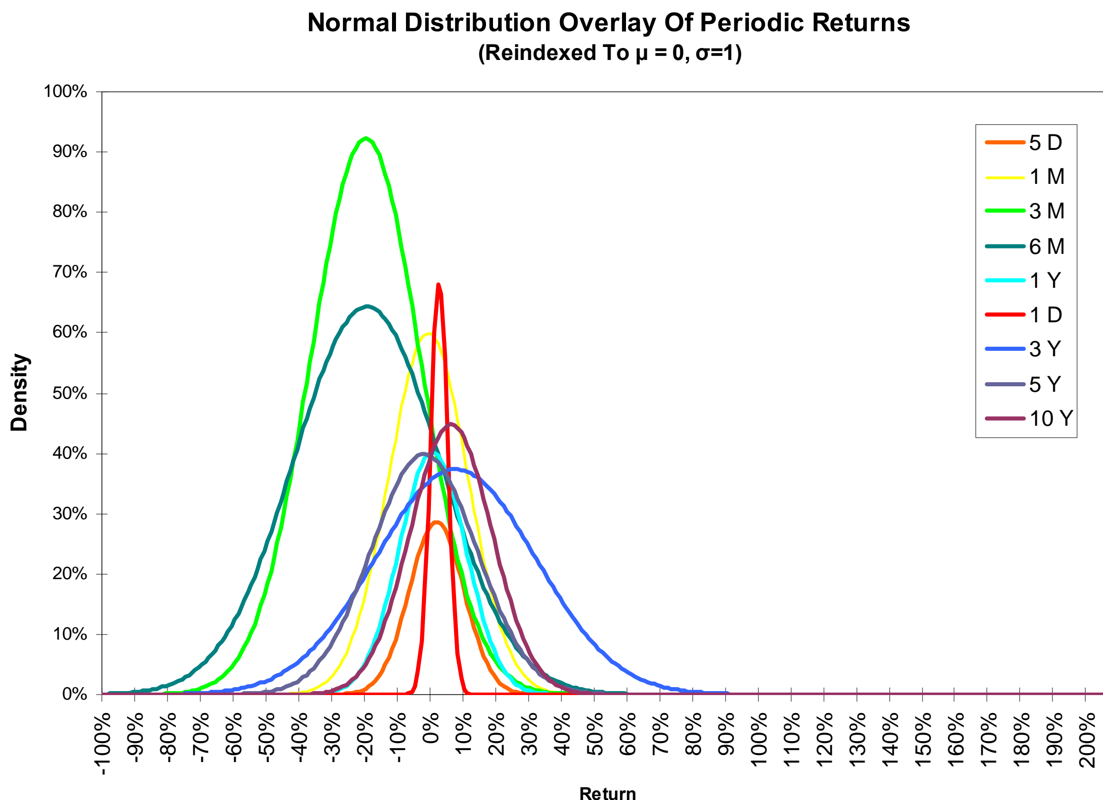
No one can deny a very high degree of short-term correlation of returns exists, which makes it sort of undeniable. Yes, high-frequency traders, index traders and algorithmic traders in whatever combination you choose have created a market wherein 9:1 ratios of advances to declines or vice-versa are common.

If you are one of those traders, great; you can take advantage of the situation. If you are not, why worry about the head-bangers' ball going on next door? A longer-term investor should focus on the longer term and not on intraday noise. Diversification arrives with time and time is the one asset always on an investor's side.

Consider the Black-Scholes options model and its main variants: Price, volatility and interest rates all move up and down and at unknown rates. Time moves in one direction (let's ignore that faster-than-light stuff, shall we?) and at a known rate. It is the only "gimme" in the world of trading.

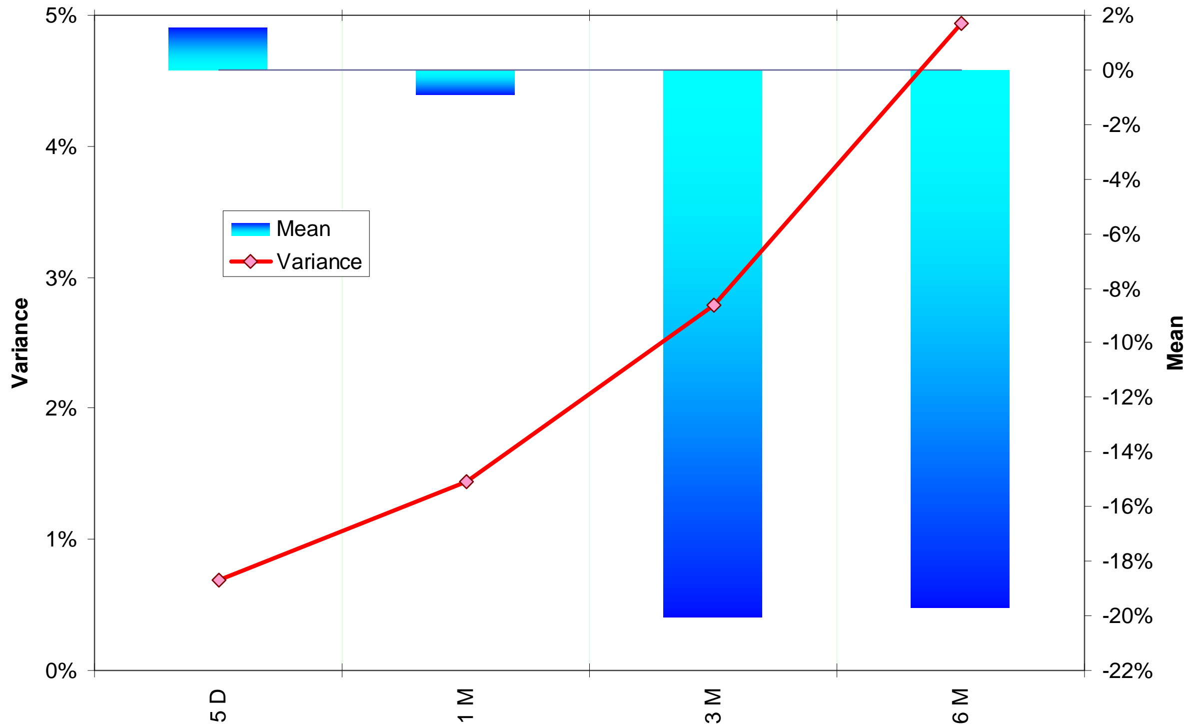
Demonstration

I examined all of the returns of the 2,956 members of the current Russell 3000 index (If you lose a barroom bet on how many stocks are in the S&P 500, you can come back with this beauty on a double-or-nothing) over a series of time periods range from one day to ten years. Each interval's distribution of returns was re-indexed to a normal distribution with a mean of zero and standard deviation of one.



These distributions are very, very different from one another. Please note how the peaked the red one-day distribution is; this is the high one-day correlation of returns that prompts so many complaints. However, by the time we get out to one year, the curve looks very much like the standard normal distribution.

We can view this in another way, and this is simply taking the most recent means and variances for five-day and one-, three- and six-month periods. Note how the variance climbs swiftly from 0.69% at a five-day interval to 2.788% at three months and 4.939% at six months. Wider variance and lower correlation, a restatement of covariance, go hand-in-hand; where they go hand-in-hand to is none of my business.



At the end of the whole affair, we are left with nothing to complain about, really: Hyper-caffeinated traders should be able to take advantage of short-term correlation of returns and long-term investors should not care a whit. Basket-trading has been an increasing feature of the trading landscape since the early 1980s; complaining about it makes no sense even as complaining about the complainers does.