

Efficient Markets Ignore Backward-Looking Risk

If you want to clear a room in a hurry, bringing up the efficient market hypothesis will do the trick. After all, all traders and investors have to believe they have some sort of an edge on the market, and everyone who has tried their hand more than once has acted on that belief. To believe in pure market efficiency, the notion existing prices incorporate all available information both public and private is to believe everything going forward is some sort of random Brownian motion process with a drift term establishing either a long-term uptrend or downtrend. It also suggests the study of fundamental information, backward-looking by definition, is a waste of time as that information is incorporated into prices already. Needless to say, technical analysis is scorned as well as past price patterns should have no effect whatsoever on future price movements.

The whole notion of market efficiency is somewhat nihilistic at its core as it disparages both major tools of market analysis. Interestingly, it does not disparage high-frequency trading, which at its core is nothing more than an attempt to capture systematically the Brownian motion or simple market noise created by the rapid-fire injection of quotes and sweeping of the best bids and offers out of electronic order books. No one claims HFT to be a device for searching out the economic value of any market or of providing signals to buyers and sellers or to borrowers and lenders. But, may the title of one presentation in a circular sent to the author recently, "Why economists drive Dodge Darts," implied, the search for value always may have been a fool's errand anyway.

While we are at it, the entire premise of U.S. financial reporting requirements going back to the securities acts of 1933 and 1934 and the establishment of the Securities & Exchange Commission has been better-informed investors will make better investment decisions or, failing that, at least will have a better chance at being duped by various promoters and charlatans masquerading as financial professionals. You are free to draw your own conclusions from eighty years of this theory as put into practice.

Risk And Return

If markets are efficient, they should generate future returns independent of even forward-looking, market-generated measures of risk. Let's take two of these risk measures for the Russell 1000 index as constituted in March 2014, the five-year credit default swap (CDS) cost for the 430 members of the index supporting those instruments and the moneyness skew between options at 90% of the at-the-money-strike and those at 110% of the ATM strike relative to the moneyness skew of an exchange-traded fund based on the Russell 1000 index, the IWB.

CDS costs are an odd way of measuring corporate health as they are based primarily on the probability a bond issuer will default on bond payments. CDS really flowered before the 2008 financial crisis as numerous bondholders, lenders and participants in the mortgage derivatives business either thought they were buying foolproof insurance against default or were participating synthetically and at low costs in various exotic instruments. Of course, it turned out too much of this risk was concentrated on the books of a few firms, AIG most prominently, and those exotic instruments proved to be illiquid at time of crisis, as they always are.

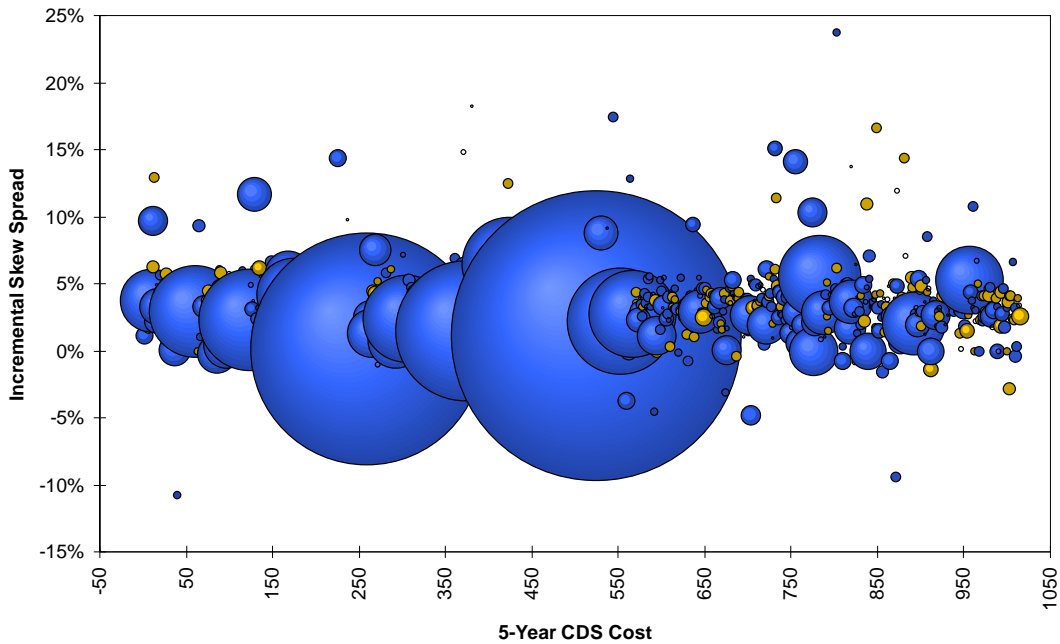
The CDS market effectively is a life insurance market; the instruments pay on the default of the issuer. This is very unlike the equity option market where put options are strung out along a large number of strikes and, much like health insurance, pay off on life's little bumps and bruises rather than on its termination.

Skew spreads tend to decline or even become negative during bullish trends. As so much of any stock's movements are determined by the broad market itself, these skew spreads can and should be normalized to the skew spread of the market itself.

Relative Price/Earnings Ratio

Now let's map the relative price/earnings ratio of each of the 430 stocks with active CDS to the Russell 1000 index' P/E ratio as a function of these incremental swap spreads and five-year CDS costs. Stocks with P/E ratios greater than that for the Russell 1000 index are depicted with blue bubbles; stocks with lower P/E ratios are depicted with gold bubbles. The diameters of the bubbles correspond to the absolute magnitude of the relative P/E ratio. If investors were willing to assign a higher multiple to low-risk stocks as measured by low CDS costs and negative incremental swap spreads, we should see the large blue bubbles clustering in the southwest corner of the chart. The pattern is random instead.

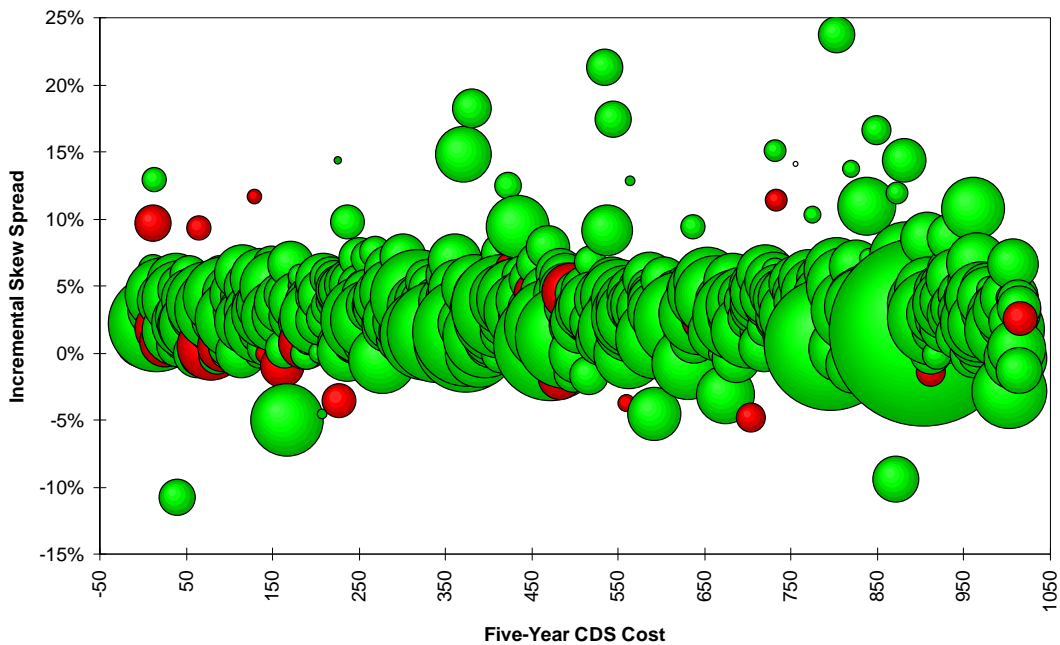
Relative Price/Earnings Ratio Unrelated To Risk Measures



Relative Return

Now let's make relative total return over the trailing one-year period the dependent variable; this is the total return for each stock relative to that for the Russell 1000 index itself. Stocks whose returns exceed the index are depicted with green bubbles, stocks whose returns are less than the index with red bubbles; the diameter of the bubble corresponds to the absolute difference in relative return. Once again, if total returns were a function of low risk, we should expect the green bubbles to be concentrated in the southwest corner of the map; they are not. Relative returns are not a function of either risk variable.

Trailing Total Return Unrelated To Risk Measures



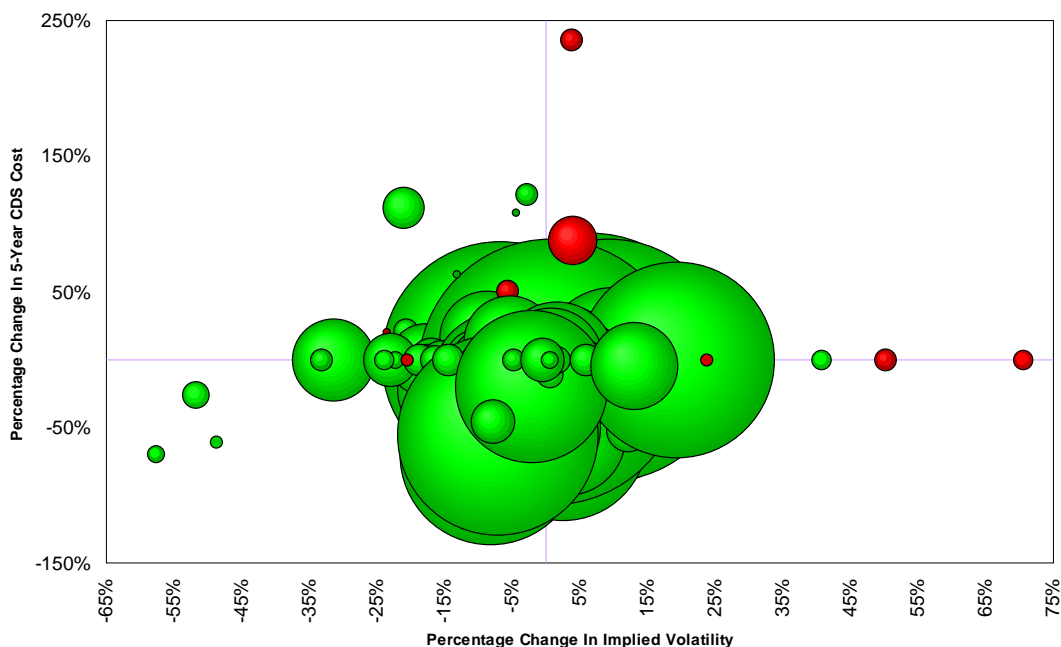
Weighted Returns

Finally, let's replace the incremental skew spread and the absolute level of five-year CDS costs with percentage changes in five-year CDS costs and in at-the-money volatility over a defined market regime, in this case the beginning of the 2012-2014 leg of the bull market beginning on November 14, 2012. The dependent variable will

be the total return for each stock multiplied by its index weight. Positive returns are depicted with green bubbles, negative returns with red bubbles; the diameters of the bubbles correspond to the absolute magnitude of the weighted return.

If weighted returns were related at all to declining risk during a bull market, we would see a cluster of large green bubbles in the southwest corner of the map; once again, we do not.

Weighted Returns Unrelated To Risk Measures



The efficiency of markets in setting current prices so that expected returns are independent of market-generated risk measures is at once astonishing and expected. The astonishing part is how each forward-looking time period's returns are essentially random and unpredictable. The expected part is this is exactly what the efficient market hypothesis so annoying to all of those whose livelihoods depend on selling prognostications holds. But as is true in so many fields, just because someone or some group does not like the answer does not mean it is not the answer.