

The Risks Of Risk-Free Bonds

One of the fairy tales taught to finance students is something called, “the risk-free rate.” While understood commonly to represent a cash-like instrument such as the three-month Treasury bill in the U.S. and other short-term government debt elsewhere, the simple fact of the matter is no such instrument is risk-free. Everyone’s paper currency is subject to the risks of inflation and to the currency becoming increasingly worthless on world markets and that is before accounting for extraordinary events such as whether the euro disappearing. Many of you probably know someone who trades in the scripophilly market who will be glad to sell you a handful of Confederate or Czarist bonds. Lincoln importuned against the government of the people, by the people and for the people perishing from the earth, but such things do happen.

Beyond physical disappearance, the biggest risks to risk-free government debt are posed by excessive monetary creation and excessive levels of public debt. If this sounds like the course of action taken globally during the financial crisis beginning in 2007, it is. Fortunately, or unfortunately as the case may be, the much-maligned credit default swap (CDS) market for insuring government debt became active during 2007 and started to provide a window into what investors thought of each government’s credit risk. A higher CDS cost represents a lower credit quality for the country in question.

The standard CDS contract is for \$10 million of underlying debt and is quoted in basis points. All the costs quoted below are priced in U.S. dollars except for the CDS on U.S. Treasury debt, which is quoted in euros on the charming assumption that should the U.S. default; the euro bloc will be unaffected. Assumptions are wonderful things.

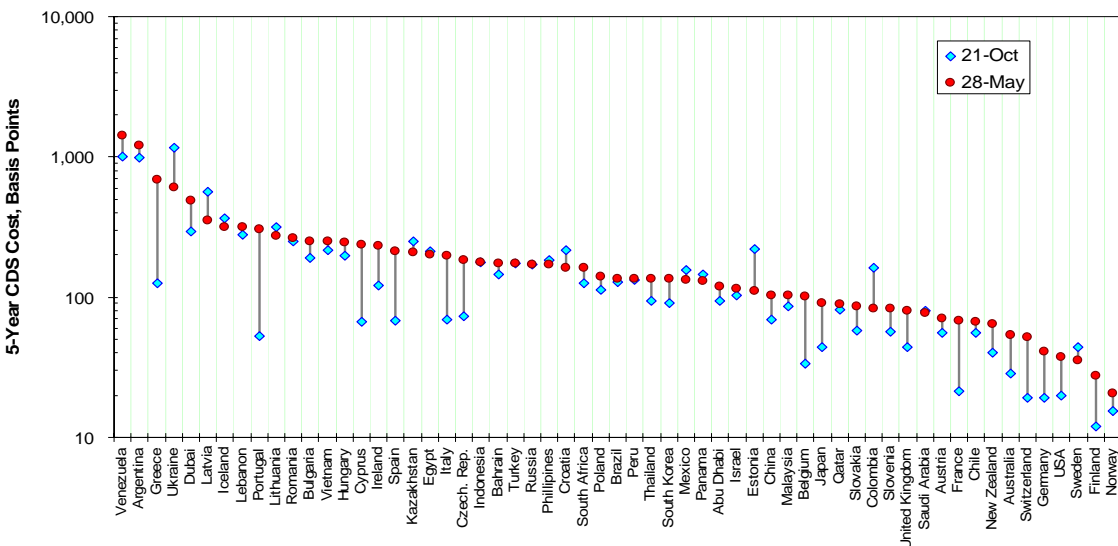
The CDS market became a good barometer for general risk levels, both higher and lower, after 2007. It should surprise no one CDS levels surged higher not only into the September 2008 default of Lehman Brothers but all the way into the February 2009 budget announcement of the new Obama administration. The peak occurred February 23, 2009 for the U.S.; this was followed by a joint statement from the Federal Reserve and the Treasury Department they would not allow further financial system failures. Translation: They would print the money and give it to you, thereby eliminating the risk. Hmm. Two weeks later a round of quantitative easings began with the U.K. and Switzerland announcing they would start the printing presses. The U.S. followed suit, and global financial markets took off in celebration.

CDS History Over Time

No counterfeiting scheme can last forever, and by October 21, 2009, the continued drive of global interest rates toward zero started to produce diminishing returns. Within a month, the house of cards started to do what all houses of cards start to do: Dubai announced it was going to delay repayment on its fantasy world in the Persian Gulf, Greece and Spain were downgraded in the first round of what was to become an ongoing drama in 2010, and the bonds of all of the quantitative easers saw their CDS costs rise. You cannot fool all of the people all of the times, as several snake oil salesmen have discovered over the years.

We can map the rise in CDS costs across a large number of countries on a semilogarithmic Y-axis; this means the vertical range represents percentage change. The usual basket cases are on the left-hand side of the chart; these include Ukraine, Venezuela, Argentina, Greece and Dubai.

Change In National 5-Year CDS Costs After U.S. CDS Trough
 Oct. 21, 2009 - May 28, 2010



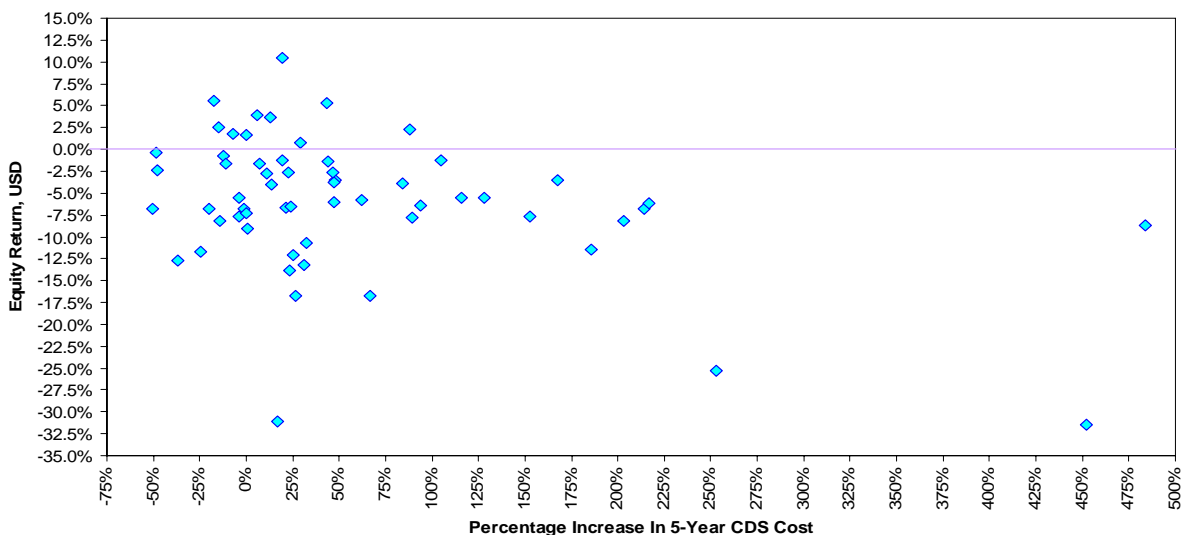
Stock And Currency Market Impacts

Should national stock markets react to rising and falling CDS costs? On the surface, we should expect the answer to be, “yes,” and that has been the case during periods such as the financial crisis of 2008 and again during the sovereign credit downgrades of November-December 2009. This is unsurprising; what do you expect a stock to do if and when a corporation’s bonds deteriorate?

The answer is not symmetric, however. Even though we had liquidity-induced bull markets globally after February 2009, we got to the point of diminishing returns for improving sovereign credit quality during the same October 2009 timeframe when we got to the point of diminishing returns to excess liquidity. Here again, the corporate analogy is appropriate: As a firm’s bonds get upgraded, we should expect their earnings prospects to rise as well and the stock to outperform, all else held equal. However, once a company gets to the exalted AAA-rating, all of the good credit news is in the market. As junk bond impresario Michael Milken noted in the 1980s, a junk credit could improve or get worse, but a AAA-credit could only get worse.

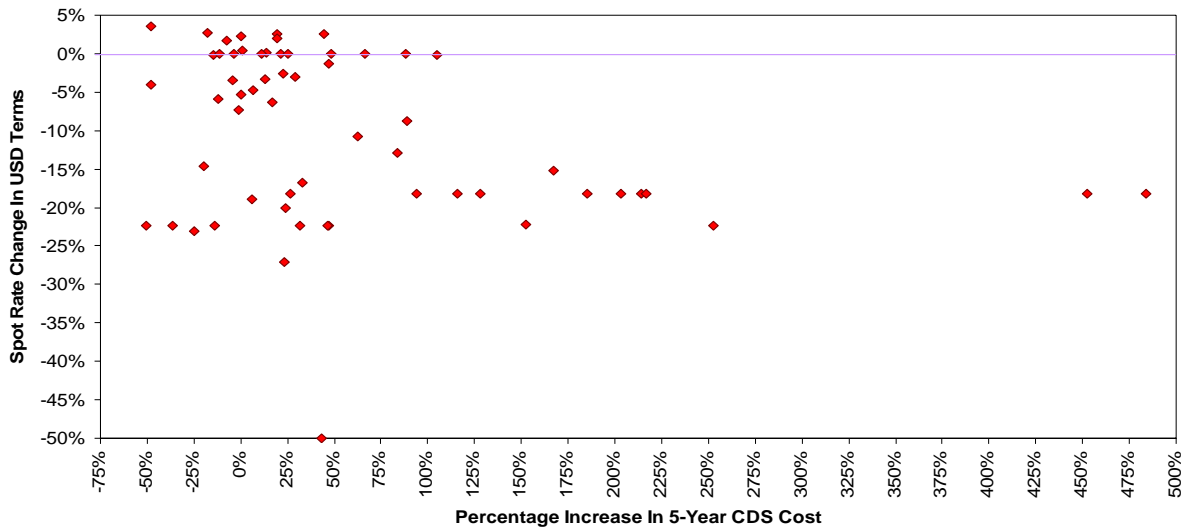
On a national basis, the response can be quite weak. After all, stocks are tied to corporate performance, not to sovereign debt performance. If we map total returns for stock markets against the percentage changes in sovereign CDS costs, we get a very weak negative relationship over the period in question.

National Stock Market Responses To Credit Default Costs
 Oct. 21, 2009 - May 28, 2010



We can observe a similar set of responses in the currency markets. Declining CDS costs do not lead linearly to a stronger currency; this often is the case because declining CDS costs are associated with lower interest rates and a flatter yield curve in that country. What is the response to rising sovereign CDS costs? As a country's credit quality deteriorates, it often has to raise its short-term interest rates to forestall capital outflows. Those higher short-term interest rates tend to support a country's currency, all else held equal. As a result, the cross-sectional response to changes in sovereign CDS costs can be quite random over a time period.

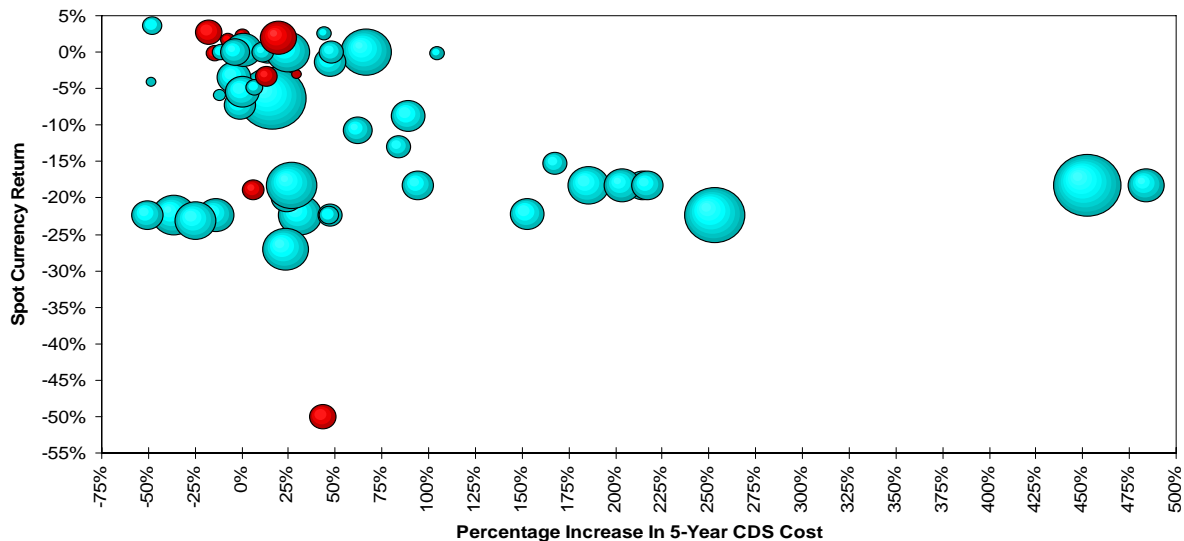
National Currency Responses To Credit Default Costs
Oct. 21, 2009 - May 28, 2010



Now let's play a little game with the transitive property of equality. If the responses to CDS costs are more random than we might expect for both equity and currency markets, and the responses to equity markets to currency changes often are random, then the responses of equity markets to changes in both CDS and currency markets should be random as well.

In the map below, the size of each bubble represents the national equity market's total return in USD; blue bubbles represent negative returns and red bubbles positive returns. The red bubbles are fairly small and are somewhat concentrated in the northwest quadrant of the map; we say "somewhat" because the magnitude of the scale makes the concentration look greater than it actually is.

Equity Returns As Function Of 5-Year CDS Costs And Currency Changes
Oct. 21, 2009 - May 28, 2010



Does this mean governments can continue to abuse their currencies and their creditors through irresponsible policies? The moralist should say, "No, this will catch up to us all sooner or later," the spendthrift will ask for

evidence of when irresponsibility has been punished. Even the widely panned European backstopping of Greek debt in May 2010 was accepted as the favored alternative when it was announced.

Just because a negative outcome has not happened does not suggest bad behavior should continue; crossing the street against a red light does not mean you will get hit by a car, but it does raise the chances of such an adverse event happening. Here the adverse event is future impoverishment of creditors via debt repudiation from a combination of inflation and currency debasement. The most expensive credit is the loan desired but not obtained because of a poor credit rating. That has happened in recent history; please note Argentina's permanent presence amongst the bad credit risks and the concomitant squandering of that nation's wealth. At the start of the 20th Century, Argentina was the seventh wealthiest country in the world. Past performance may not predict future results, but what else should you use?