Utilities Shocked By Carbon Cap

Sir Isaac Newton was not much of an investor; we know he exited his shares in The South Sea Company at a profit, but then re-entered the trade when the now-infamous bubble continued to inflate. He lost £20,000, an early lesson both in financial bubbles and what happens when genius fails.

Newton could have applied his third law of motion, that for every action there is an equal and opposite reaction, to the interplay between governments and markets through the ages. Markets inevitably win these battles, and governments never understand why. The reason is simple: Markets follow self-organizing laws of human behavior and dynamically form adaptive responses to actions imposed externally. The actions imposed by government inevitably arise from political processes which seek to restrict certain actions and reward others regardless of whether the subjects of those laws find them in their best interest. The struggle between adaptive and dynamic markets and static government policies is no struggle at all in the long run. Unfortunately, vast swaths of human misery have been created by various official policies originating from political systems as disparate as communism, fascism and various forms of democracy.

Non-totalitarian governments fell in love with the idea of taxation adopted as a tool the execrably named "social engineering" after World War II. When they realized but never really admitted their citizens found it too easy to structure their affairs in avoidance of these taxes, the tool fell out of favor in the early 1980s. A quarter-century of global prosperity on an unprecedented scale followed. By the mid-2000s, government interventionists adopted the strategy of if-you-can't-beat-them; join-them in the form of market-flavored strategies such as cap-and-trade schemes for emissions.

In reverse homage to Mark Twain's comment on Wagner's music, these were worse in practice than they sounded. The European experience involved a collapse in emissions prices as more sellers of credits emerged than expected.

Enter the United States

Just as it did in the two World Wars, the U.S. waited until the Europeans were knocking themselves silly before deciding to join the party; we have to suspect the switch from the Bush to the Obama administration might have contributed to the American cap-and-trade proposal, too. While the administration had bandied about various proposals for a cap-and-trade scheme in the U.S. for months, these plans were not released in detail, including the revenue expectations therefor, until the new budget was released on February 27, 2009.

How did the utility industry in general and electric utilities in particular react to these proposals? In the first two weeks after release the S&P 1500 Electric Utilities' total return was -9.14%; this compared to a total return of 0.64% for the S&P 1500 Supercomposite itself. These comparative total returns themselves suggest the market immediately reassessed utilities as riskier assets deserving of a lower price. By the first week of August 2009, the comparative total returns were 12.5% for the utilities and 37.7% for the broad market. We rest our case.

Debt Cost of Capital

A second and highly sensitive way of measuring the stress in an industry is the change in its debt cost of capital relative to the Treasury yield curve (see "Compare Yield Curves to Gauge the Stock Market," August 2007). The slope of any yield curve along the maturity segment between two and ten years can be described with a forward rate ratio (FRR). This is the rate at which we can lock in borrowing for eight years starting two years from now, divided by the ten-year rate itself. The more this number exceeds 1.00, the steeper the yield curve.

Yield curves can steepen in two ways. The first is for long-term interest rates to rise; this generally occurs in periods of strong credit demand, high volatility, high inflation risks or some combination thereof. The second way is for short-term rates to fall; this generally occurs when the Federal Reserve or another central bank deliberately drives short-term interest rates lower.

We can compare utility industry yield curves across credit ratings and compare them to both the Treasury and the dollar swap yield curves. A relatively steeper utility yield curve over time, especially at the long end, indicates the Treasury can claim investor funds at lower rates than can the utility industry. The fancy economic term for this action is "disintermediation." If you choose to visualize it as dining with a pig, we shall not quibble.

Credit Stress

Now let's compare the utility FRRs against the Treasury FRR over time. In Charts 1 and 2, the spread between the A-rated and BBB-rated utility industry bonds' FRR and the Treasury's FRR shows a rather clear break during the long bear market from 2007 into 2009. This means either the Treasury yield curve was becoming steeper as the

result of monetary ease, the utility yield curves were becoming flatter as the result of rising costs of capital even at the short end of the yield curve, or some combination thereof.

Running parallel to the FRR spreads on inverse scales are the option-adjusted spreads (OAS) of the utility bond indices. These spreads measure not the relative slopes of the utility yield curves relative to the Treasury yield curves, but rather the absolute spread, in basis points, utility borrowers have to pay over the Treasury rate. All else held equal, a higher debt cost of capital should be deleterious for a borrower.

Chart 1: A-Rated Utility Yield Curve And OAS Comparisons

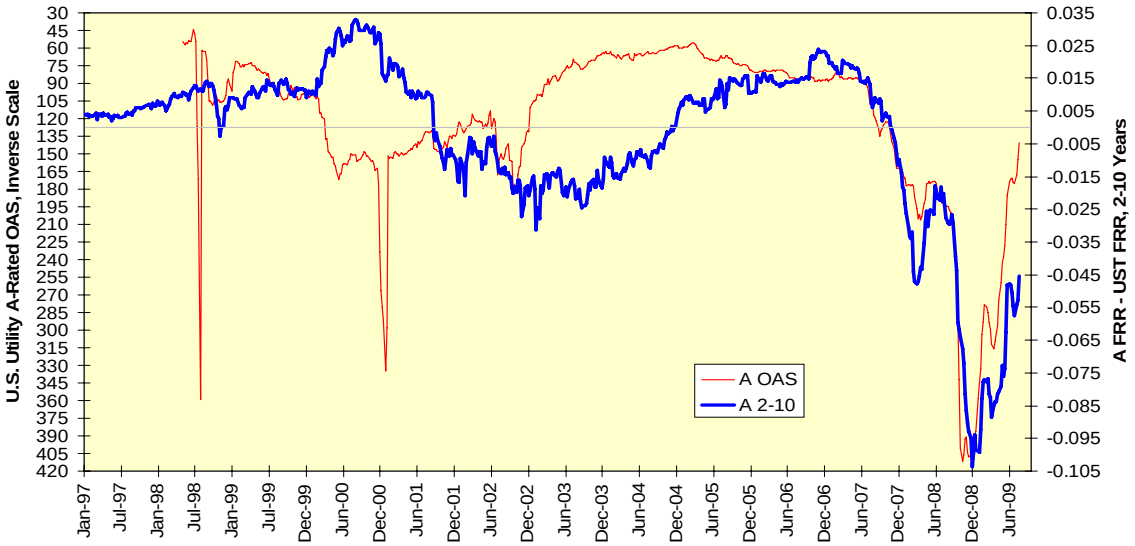
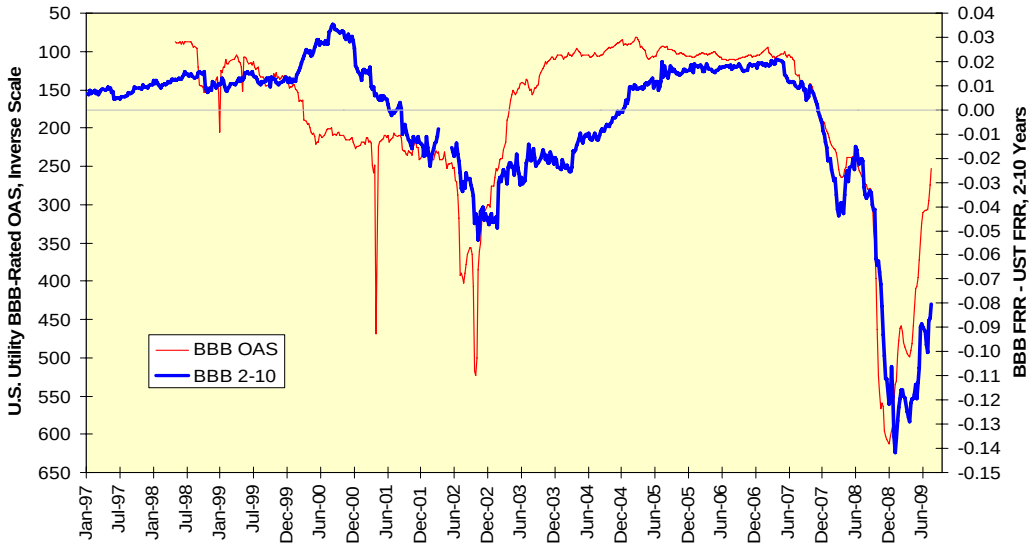


Chart 2: BBB-Rated Utility Yield Curve And OAS Comparisons



The FRR spreads and OAS levels tell us a behavioral story, too. They started to rebound from their mid-December 2008 lows, but then resumed narrowing right after the budget announcement. The OAS levels only fell significantly after the general market rally began in March 2009.

Both measures confirm the message of the utilities' yield curve shift and equity performance: The administration's plan to fund its spending plans via a cap-and-trade scheme turned utilities into a riskier asset for both debt and equity investors.

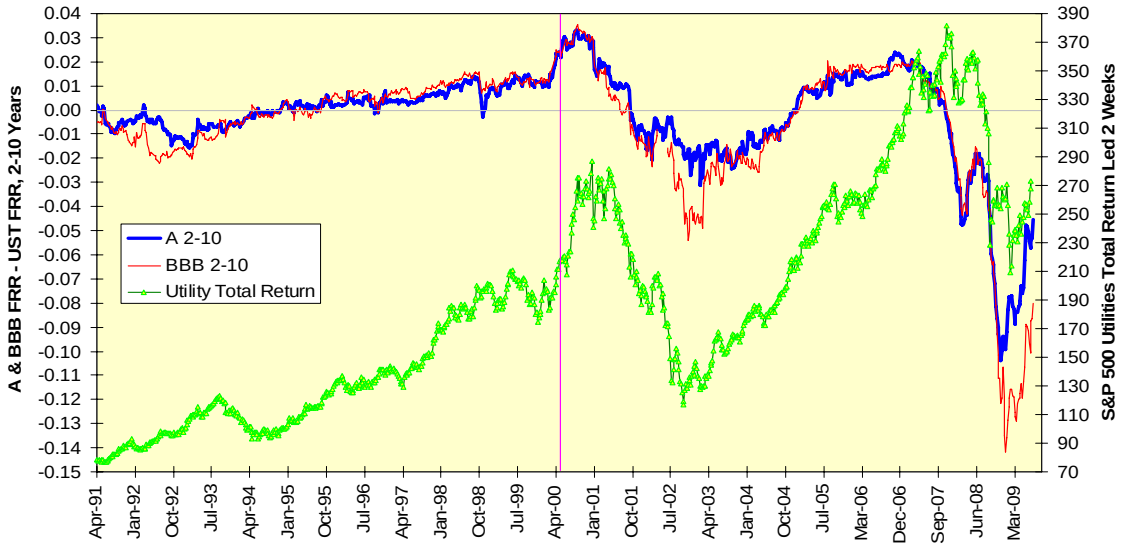
The Equity Link

The long-term total return history of the utility industry requires special narration. It went from being an interest rate-sensitive regulated industry to an industry undergoing gradual deregulation in the mid-1990s. Then it turned

into a highly leveraged and highly risky industry by the turn of the century as Enron and other merchant energy traders rose and fell. By the mid-2000s, the utility industry started to trade more as an economically sensitive industry than as an interest rate-sensitive industry.

Still it is instructive to note in Chart 3 how the A and BBB yield curve spreads lead the total return of the S&P 500 Utility index by two weeks on average and how no utility rally over the past two decades has occurred whilst the utility FRR levels were flattening vis-à-vis the Treasury FRR levels. Moreover, once Enron's troubles began in 2000, the rise and fall of the utility index' total return matched its FRR spreads closely.

Chart 3: Utility Stocks And Comparative Yield Curves



The trading and investing implications are very straightforward. If the Treasury yield curve steepens if and when risk-averse investors flee to short-term Treasuries, the yield curve spread will remain under pressure as utilities will be forced to pay more for even short-term funding. This will be a good time to avoid both utility debt and equity. If the Treasury yield curve steepens if and when the U.S. is forced by its creditors to start paying more for its debt, the yield curve spread is likely to narrow and that, too, will be a good time to avoid both utility debt and equity. This is not a very appealing outlook for utilities as an investment, is it?

What about what we economists like to refer to as "exogenous shocks," those bricks thrown through the windows of our ivory towers with notes taped to them with assorted threats? Cap-and-trade certainly qualifies as a threat to the industry; this can be offered simply as a statement of fact given the reception received by the administration's budget proposal.

Whether various ideologues like it or not, cap-and-trade and other forms of carbon taxation represent a grand social experiment at a time when the U.S. economy is stressed enough. It is instructive how both China and especially India have rejected these "green" schemes as deleterious to their national interests. As all economic activity is powered to some extent by carbon-derived energy, the scheme will fall upon all citizens everywhere in their roles as both producers and consumers. This is unavoidable. What is avoidable is investing in the utility industry. This is easy to do as well. Look around you at how much your life depends on the steady flow of electricity, natural gas and petroleum products and ask yourself whether you can power your life with windmills and the like. The answer, unless you are living in either a fantasy world or in a cabin in Montana is "no."

If you derive psychic income from doing "green" things, rest be assured the collective judgment of the market is they will pay less to finance your warm and fuzzy feelings. The history of governments who cross markets is an unhappy one. Even Isaac Newton, one of calculus' inventors, found that one out the hard way.