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When Bonds Fall, Fed Action Determines the Collateral Effects
By Jay Feuerstein, Founder and Chief Investment Officer at 2100 Xenon Group

Warren Buffet's Berkshire Hathaway recently issued $2.6 billion of debt despite the fact that the firm has plenty of cash available from its core insurance business. However, the lure of the lowest interest rates in modern history proved too great, even encouraging the Sage of Omaha to extend $1 billion of the debt out 30 years. Buffett clearly sees the value in borrowing at such low rates rather than investing, yet the United States Federal Reserve is currently buying $85 billion per month of bonds in an attempt to "quantitatively ease," and boost the economy. China is also adding to the demand, using its trade surplus to buy dollars and invest them in U.S. Treasury bonds. Fortunately for the United States government, this demand has been enough to buy the massive amounts of bonds the government is issuing to pay for record budget deficits. All of this works in delicate balance, but it can easily unravel. Even during the past 30 years of "bull" markets for bonds, they have experienced intermittent "bear markets" seven times. How those markets behave, and how they affect other markets depends squarely on what the Fed does. Simply put, bond markets that fall because of the Fed have completely different characteristics than those that fall despite the Fed.

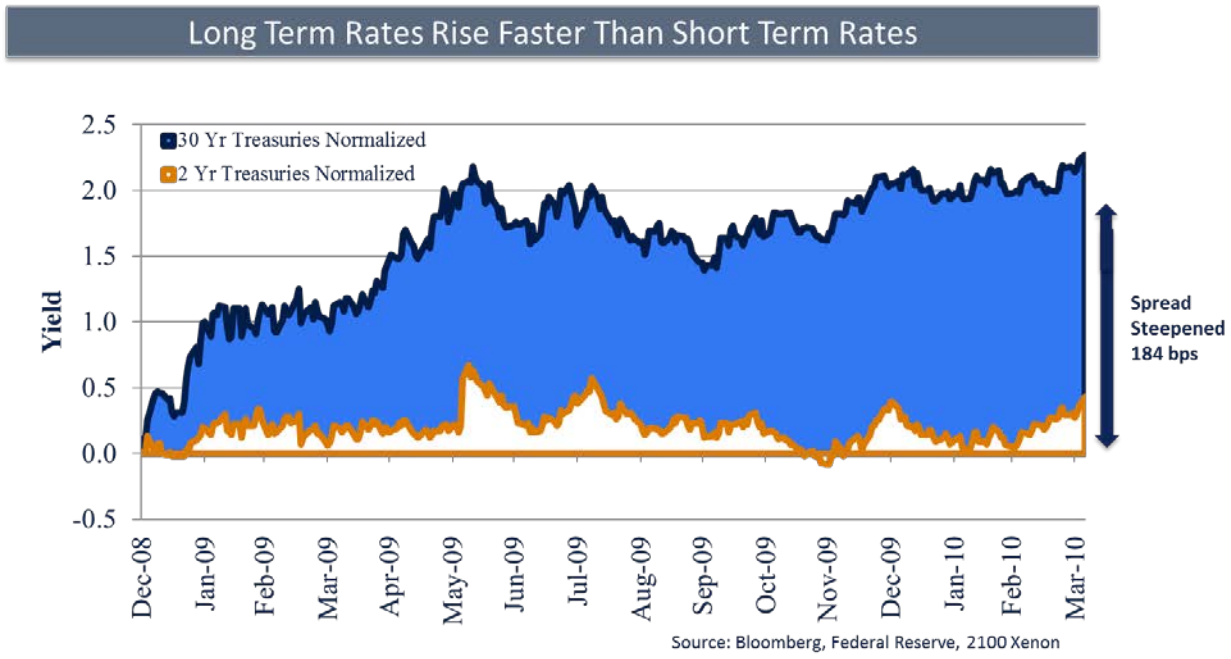
For the purposes of this discussion, the definition of a "bear" market in bonds is a 15 per cent price decline from peak to trough. Since 1980, seven such bear markets have occurred (see Exhibit 1 below), with the first starting in 1980, then repeating in 1981, 1984, 1987, 1994, 2000 and 2009:

Exhibit 1: Bear Market Periods

Bond Market Peak	Bond Market Trough	Long Bond Futures Return	Days Until the Fed Raised Rates from Peak
9/2/1977	2/21/1980	-37.05%	7
6/16/1980	9/29/1981	-39.54%	36
5/4/1983	5/30/1984	-21.62%	230
4/16/1986	10/19/1987	-20.11%	23
10/15/1993	11/11/1994	-17.79%	79
10/5/1998	1/18/2000	-18.45%	191
12/30/2008	6/10/2009	-18.27%	114

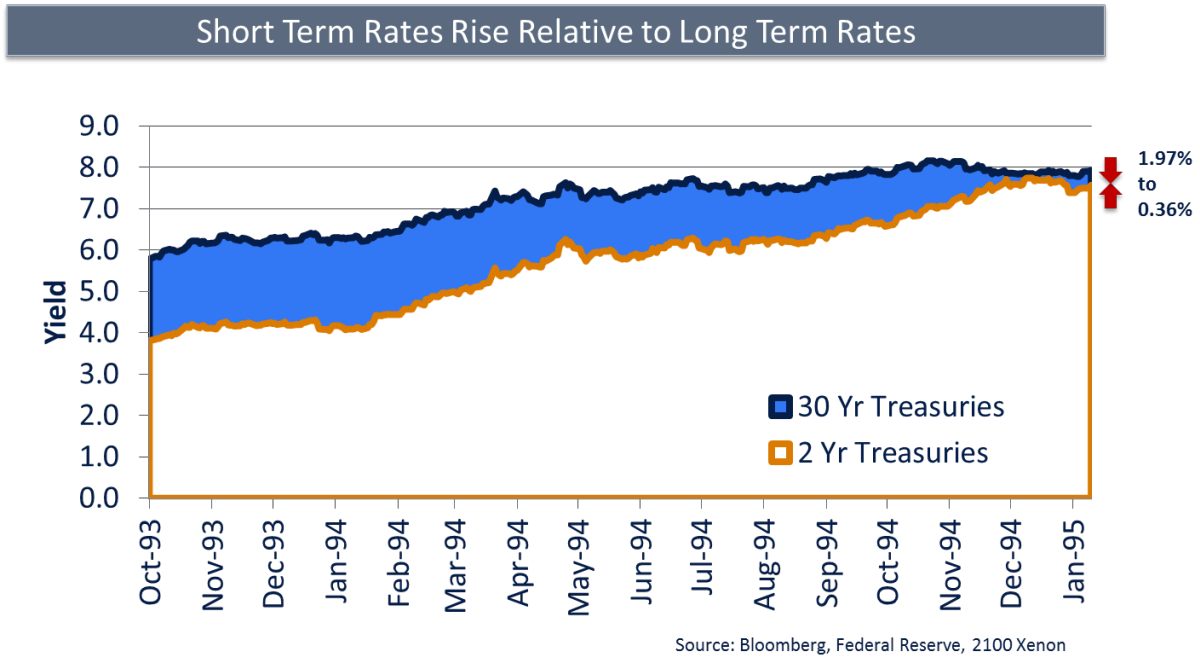
Of those seven periods, the Fed raised rates coincidentally four times. This means they raised rates within weeks of the "peaks" of the bear markets. The other three times, the Fed waited many months after the peak in bond prices to begin raising rates. This Fed behavior can be characterized as following the leadership of the market before ultimately ratifying the market's behavior with tightened Fed policy. The collateral effects on the bond market and other global asset classes are vastly different when the Fed acts later rather than earlier in its policy moves. For example, when the Fed waits to ratify market behavior with policy considerations, the yield curve steepens. (Refer to Exhibit 2 below.) This means that long-term bonds fall more than shorter-term fixed income instruments such as the Two-year Treasury. The reason for this is that inflationary expectations accelerate with lenient Fed policy. In the current environment, for example, the yield curve is steep because the Fed has said its policy is to promote inflation and the resulting improvement in employment and housing that typically results.

Exhibit 2: US 30 Year vs. 2 Yield Curve behaviors in a market led regime



In bear markets when the Fed is active from the beginning, the yield curve behaves quite differently. Tight Fed policy reduces inflationary expectations and most of the rate increase happens in short-term instruments. This is best illustrated by the period October 1993 through January 1995, when the yield curve flattened dramatically (see Exhibit 3 below). In some cases, such as 2005, tightening Fed policy can actually diminish inflationary expectations so much that bond yields decrease just as the Fed raises short-term rates. In cases such as this, the Fed's policy changes to not result in a "bear" bond market.

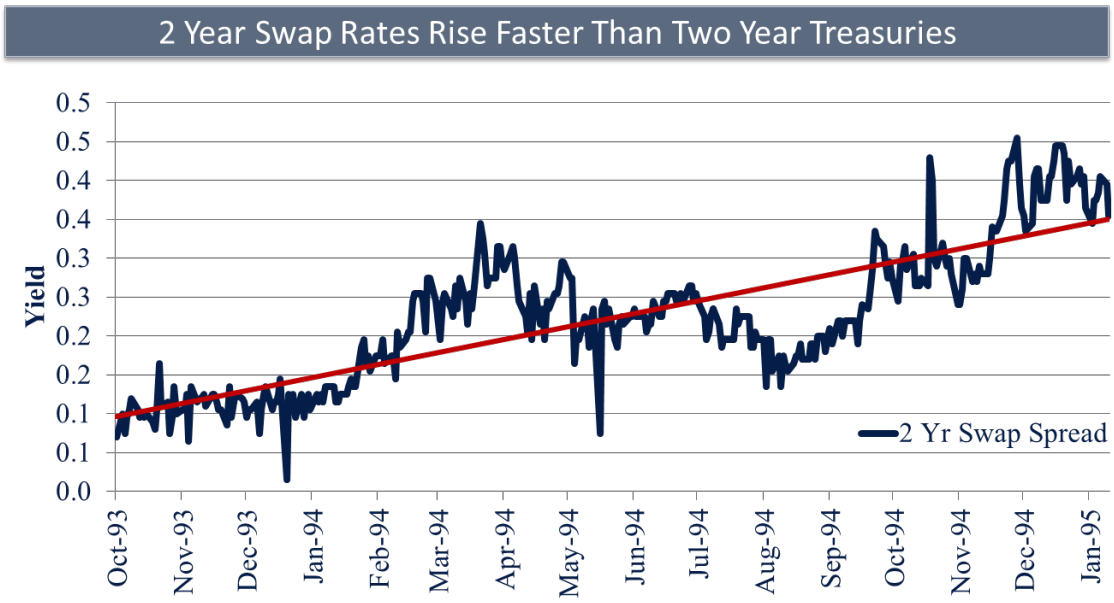
Exhibit 3: US 30 Year vs. 2 Yield Curve behaviors in a FED led regime



Source: Bloomberg, Federal Reserve, 2100 Xenon

Other fixed income relationships such as “swap spreads” also vary according to what the Fed does during a “bear” market. Swap spreads are measured by taking the difference between private and government borrowing costs of the same maturity. Also known as credit spreads, these relationships also tend to behave according to Fed policy. As short-term rates rise, credit spreads widen because of two reasons: first as a percentage of the overall level of rates and, second, because higher short-term rates put pressure on weaker credits, thereby driving up the probability of default. The period from October, 1993 to January, 1995, provides an excellent illustration of this point as shown in Exhibit 4 below. Wider “swap” spreads pay investors for the heightened credit risk.

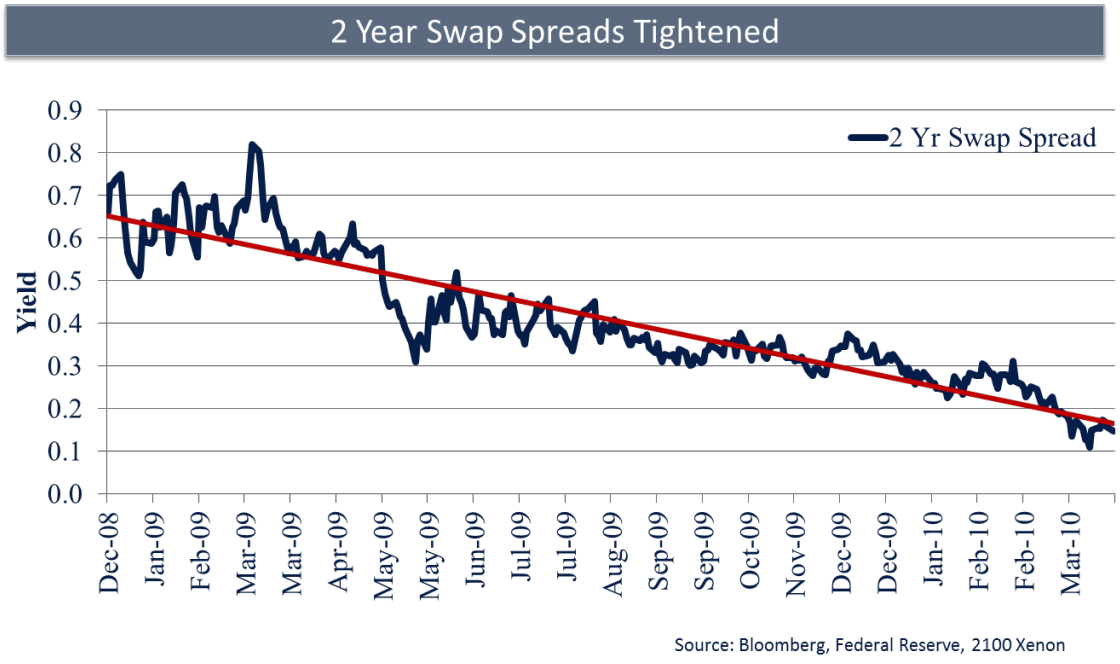
Exhibit 4: 2Y Swap Spread behavior in a FED ledregime



Source: Bloomberg, Federal Reserve, 2100 Xenon

This is not the case in the current economic environment. Swap spreads have actually narrowed as bond prices have fallen. Stronger economic growth has pushed bond rates higher without disturbing short-term interest rates, much as they did during 2009 and 2010 (see Exhibit 5). Such stability in short-term interest rates combined with stronger economic growth improves the credit worthiness of weaker borrowers. Swap spreads reflect their improved ability to repay their loans.

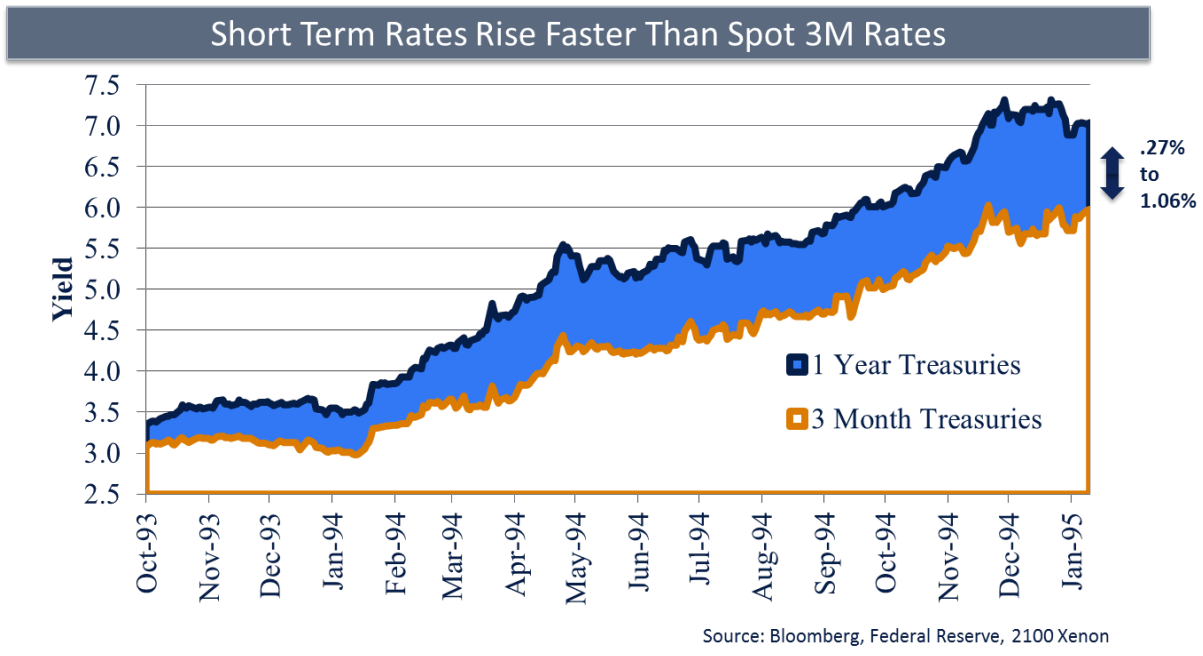
Exhibit 5: 2Y Swap Spread behavior in a market led regime



Source: Bloomberg, Federal Reserve, 2100 Xenon

Another important change happens to short-term interest rates when the Fed gets involved. The average increase in one-year T-bill rates in "bear" bond markets when the Fed is tightening is 355 basis points. Currently, the one-year T-bill yields 12 basis points. According to historical data, if the Fed began raising rates, investors could expect that yield to increase to 3.67 per cent by the time the Fed was done! On the other hand, when the Fed is not involved the yield increases, but only by 166 basis points. Carrying this concept forward, if the current environment (assuming the Fed does not tighten) turned into a "bear" market in bonds, the T-bill rate would end up at 1.78 per cent. In these instances not just the level of short-term interest rates change but the shape of the short-term curve changes, as well. When the Fed is active it increases expectations for higher rates and "farther out" short-term interest rates increase faster than spot rates, which "steepens" the curve. (See Exhibit 6).

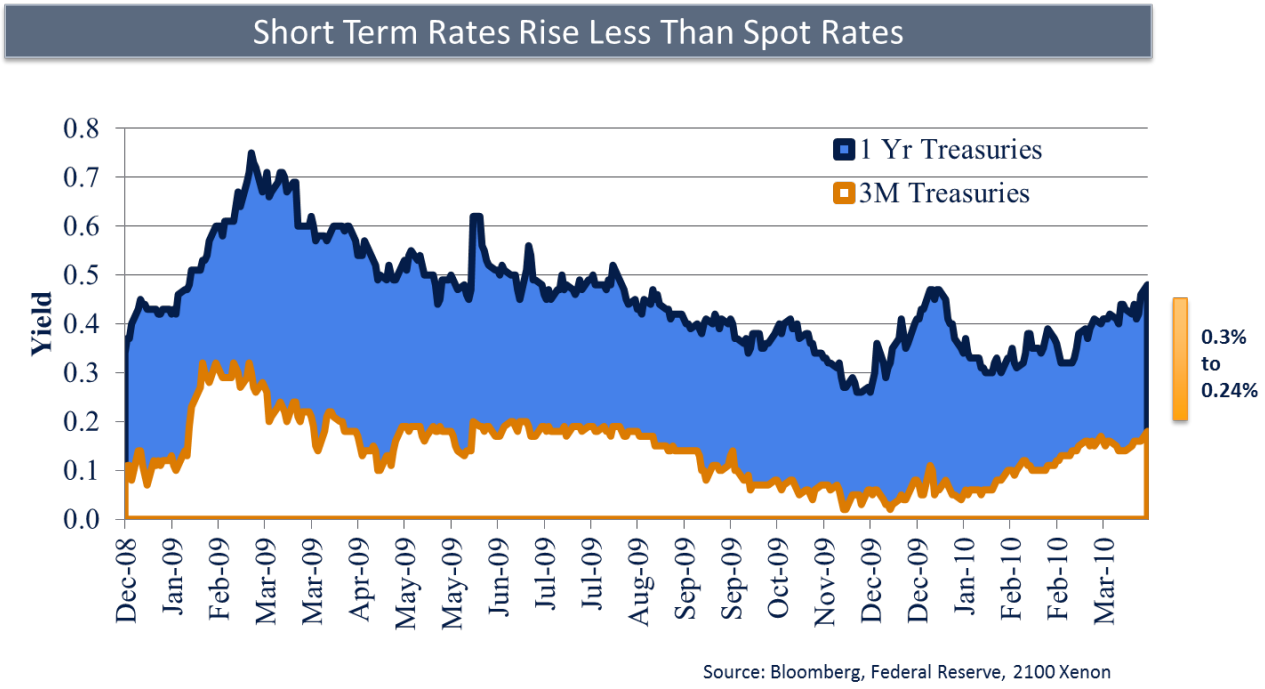
Exhibit 6: 3M vs 1Y Curve behaviors in a FED led regime



Source: Bloomberg, Federal Reserve, 2100 Xenon

However, when the Fed is not active, the interest rate curve barely changes at all since no part of the curve has a higher probability of rising rates than any other part of the curve. This is best illustrated from the period December, 2008 to March, 2010 (see Exhibit 7 below).

Exhibit 7: 3M vs 1Y Curve behaviors in a market led regime



Source: Bloomberg, Federal Reserve, 2100 Xenon

The Impact on Other Asset Classes

In addition to bonds, all global asset classes respond differently when the Fed changes course. For example, during the three periods when the market led the Fed to higher rates, the S&P 500 rallied an average of 26.33 per cent. The biggest stock surge was in 2009, when the S&P 500 rallied 44.8 per cent, but it also increased by double digits in 1984 and 2000. Moreover, stocks rallied globally during those times, as well. The Stoxx, a key European stock index, rallied an average of 24.72 per cent during market-led "bear" bond markets, and the Japanese Nikkei stock index averaged 26 per cent returns during those periods. When the Fed was active, however, returns dropped dramatically. The higher

short-term borrowing costs pushed the returns in the S&P 500 to just 1.92 per cent, and in the cases of the two foreign indices, the European STOXX index return was -0.95 per cent while the Nikkei fared better than the STOXX but not nearly as well as before. Its return was 12.43 per cent during those periods, which was less than half of the return it earned when the Fed was on the sidelines.

Commodities also benefitted from the Fed's largesse. Higher interest rates typically mean higher inflationary expectations, and a corresponding uptick in the GSCI Commodity index. But when the Fed was lenient, the commodity index increased an average of 26.23 per cent. When the Fed was actively trying to slow economic growth, it not surprisingly affected commodities, too. In those cases, commodities increased, on average half of the lenient periods, but still a meaningful 12.78 percent. The dollar index also had markedly different returns depending upon Fed activity when bond rates were going up. When the Fed was not involved, the dollar rallied by an average of 4.54 per cent, thereby strengthening from the economic growth in the United States. When the Fed was actively raising rates, the dollar actually weakened from expectations of the slowdown that would inevitably result from tightened policy. This behavior was in stark contrast to the "carry" theory, which says that money flows to the highest marginal interest rate. Instead, money flowed to what was perceived to be the strongest economy.

Meanwhile, the response by world government bond markets, as reflected in the WGBI index, was not intuitive. Global government bonds weakened right along with the U.S. bond markets when they were going down without help from the Fed. But when the Fed got involved, global government bonds actually strengthened while their U.S. counterparts continued to head south. Certainly, the strength in their respective currencies aided this behavior. Also, expectations of bigger U.S. government deficits with an ever bigger supply of Treasuries dampened demand for U.S. bonds. As a result, other world government bonds outperformed.

Capitalizing on the "Bear Market" in Bonds

Given this data, the investment strategies to pursue for market-led "bear" bond markets are clear. Investors should aggressively buy "risk" assets such as U.S. and global stocks, and especially emerging stock markets since credit quality tends to improve during these times. Investors should also buy commodities, and other assets denominated in dollars, including real estate. Foreign bonds, just like U.S bonds, are not good investments at this time. But, playing for a steepening long-term curve in the U.S., and the rest of the world, is a strategy that should perform well. In addition, the data shows that ultimately the market is right and the Fed gets involved. When that happens, short-term rates increase, swap spreads widen and short-term yield curves steepen. This leads one to conclude that perhaps now is the time to set up for those "trades," since the Fed has said it will actively change policy within the next two years.

Still, it might be too early to put on such positions because the bond market cannot yet be classified as a "bear."Bond prices have not yet fallen far enough to qualify. The question is whether they will. Though such a scenario faces headwinds from the "sequestration" initiative, continued weakness in the Eurozone and questions surrounding China's ability to continue its pace of economic growth, the likelihood is that bonds are in the midst of a bear market that could see prices fall more than 20 per cent, well beyond the parameters that define a bear market. The Bernanke Fed is committing to a course of inflation and growth, which tends to be bad for bonds. Moreover, the day will come when the Fed not only stops buying bonds but has to begin to sell all the bonds they have bought for the past four years. The 30-year Treasury bond is already more than six per cent from its highest price. The Chinese and other foreign investors will soon grow tired of paltry coupons, a weakening currency and endless supply. Maybe it is time for them to increase their stock and commodities holdings instead, and sell those bonds before there is nobody left to buy them.