Executive Summary

This Special Focus Report will:

- Recount the extended favorable environment for bond investors and detail how that environment is set to change.
- Quantify the risk/return potential for bond investors in an ultra-low, or rising, interest rate environment.
- Offer investment strategies to help improve the return potential for bond investors in the coming years.

The U.S. Federal Reserve has taken aggressive action to stimulate economic growth through their massive bond buying and ultra-low interest rate policy. Now that interest rates have recorded all-time lows, the so-called “exit” from that easing strategy likely includes higher interest rates at some point in the future. Until then, investors will need to transition their high-quality bond portfolios if they desire something more than today’s low yields, as well as anticipate the eventual risks of rising interest rates.
FED EASING

The U.S. Federal Reserve Board has a “dual mandate”: to provide price stability and to promote low unemployment. In an effort to achieve this goal following the 2008 financial crisis, the Fed lowered the Fed-controlled Fed Funds rate to essentially zero percent in order to stimulate economic activity. (The Fed Funds rate has a direct impact on short-term interest rates.) When this traditional monetary policy tool failed to stimulate an adequately strong and sustainable growth economy, the Fed stepped in to purchase both Treasury and Mortgage Backed Securities in an attempt to push longer-term interest rates lower, also stimulative for economic growth. These Fed purchases are known as “quantitative easing,” or QE. The third and latest round of QE targets $85 billion per month in government bond and Mortgage Backed Securities purchases. That excessive demand is intended to drive bond prices higher. Higher bond prices result in lower longer term interest rates.

Given the economic stimulus that is generated by the ultra-low rate environment, through the Fed’s near zero-rate policy and QE initiatives, investors are right to ponder: when will the Fed “exit” their strategy of aggressive easing? The exit strategy, as well as its timing, may affect the pace of economic growth, but will also have a direct impact on bond investors in particular. As the QE comes to an end, demand for bonds is likely to diminish, with the expected result of a decline in bond values and an increase in yields. Meanwhile, when the Fed Funds rate is ultimately adjusted upward from zero, interest rates in general are expected to rise as well.

INTEREST RATES AND BOND VALUES

Key for bond investors of course is the inverse relationship between bond values and the direction of interest rates. As interest rates fall, bonds rise in value, and vice versa. A picture that all bond investors should acknowledge is the three-decade secular downtrend in rates culminating in the ultra-low levels today. Exhibit 1 illustrates an impressive 30-year bull market for bond values as interest rates declined through multiple economic cycles. The annualized total return for the broadly followed Barclay’s Aggregate Bond Index over the 30-year period beginning at year end 1981 was 8.8%. A key insight for investors today is acknowledging that it is likely the bond bull market is essentially over, given there is little opportunity for rates to fall further and virtually no opportunity for appreciation as a consequence.

With the bond bull market likely nearing an end, bond investors must now focus on the effects of a flat interest rate environment, at best -- more importantly, they need to assess the risk of higher interest rates in the future. The sensitivity of a bond’s value to changes in interest rates is quantifiable through a metric known as “duration,” which is defined as the weighted average of the time until the interest and principal payments are received. The longer the maturity and the lower the interest payments -- the longer the duration, and thus the greater sensitivity to changes in interest rates.

After peaking around 16% in September 1981, the yield on the 10-year U.S. Treasury has been in a persistent decline, hitting a historic low around 1.38% in July 2012. Although it is not certain that the secular decline is over, the probability of declining rates from historical low levels is greatly reduced.

(Curian)
The impact of rising rates can be illustrated by a period of time in early 2009 when yields on the 30 year Treasury bond went up 1.65% (left) and the price of the 30 year U.S. Treasury went down -25.99% (right). Note how much more sensitive bonds with longer maturities, (and thus more duration), were to the temporary rise in rates compared to the shorter maturities. Given the potential for considerably higher rates in the future, even more than is illustrated in the exhibit, investors should monitor the duration of their bonds.

Investors would do well to understand the duration of their bond portfolio given the two possible investment scenarios ahead of them: an ultra-low interest rate environment, perhaps for an extended period, and ultimately the potential for rising interest rates in the future.

ULTRA-LOW FOR HOW LONG?
The ultra-low rate environment, defined by near-zero yields for short maturity investments like money market funds and around 2% or so for the highest quality, long maturity investment grade bonds like U.S. government securities, could last for a number of years. The Fed has suggested in their official communications that their near-zero target for Fed-controlled short-term rates could persist into 2015. The exit strategy for the Fed, both in reversing the QE bond buying and eventually increasing the Fed Funds rate, will be dependent on the strength of economic growth and improvements in employment levels. If the economy does not pick up as intended, then the ultra-low environment could persist.

WHAT IF RATES STAY LOW?
History provides a helpful guideline for future return expectations based on the starting level of interest rates. Exhibit 3 illustrates that the subsequent total return for investment-grade bonds has been closely tied to the starting yield levels. With the current ultra-low yields there is little room for rates to fall further or for price appreciation, leaving only the meager interest payments as the primary return generator. That meager total return should be viewed as one of the better outcomes for investment-grade bond investors, with periods of lower or even negative returns possible.
HOW HIGH MIGHT INTEREST RATES GO, AND WHEN?

Bond investors generally seek to earn a return on their investment, historically keeping pace with, or exceeding the pace of inflation in order to maintain the spending power of their investment. For today’s bond investors though, inflation levels are higher in many cases relative to the yield on high quality bonds, meaning investors are earning a negative “real” yield after subtracting inflation.

Historical tendencies suggest there is a risk of measurably higher interest rates, even if inflation remains subdued (see Exhibit 4). Assuming inflation remains stable around a modest 2% level, yields on high grade short maturity bonds could rise 1.5% and longer maturity bonds risk a 2.5% increase in yields if historic tendencies repeat. Recalling the duration math described earlier, a bond or bond fund with a duration of five years could feel as much as 7.5% to 12.5% downward pressure on their values. If inflation climbs higher than 2%, then the potential increase in interest rates is even greater.

A Loss of Purchasing Power (EXHIBIT 4)

Real yields are those after inflation is subtracted. Historically real yields are positive, meaning investors earn an actual return after accounting for inflation. Today’s low interest rates have resulted in negligible real yields on shorter maturity Treasuries. The 3/31/2013 real yields listed at the right side of the exhibit, are all near historical lows.

(Curian)
Another gauge for interest rate expectations is quantified in the futures market. The futures market reflects the level of rates that futures market participants are expecting. While subject to changes as the environment evolves, the futures market recently suggested anywhere from a 0.5% to 1.5% increase in interest rates depending on the maturity of the bond over the next two years. Exhibit 5 shows the US Dollar Swap curve, which serves as a proxy for future interest rates. Five years from now, according to the futures markets, rates could be 0.7% to 2.5% higher from current levels depending on the maturity.

For clues on the timing of the rise in rates, more than just the Fed’s suggested 2015 timing, the marketplace through the futures markets demonstrates an expected rise in short-term rates late in 2014. A more meaningful acceleration higher is priced in the three- to six-year time frame. Exhibit 6 displays the Euro Dollar futures market, which investors use as a gauge for Fed funds expectations given its size and liquidity. Of course the futures market can change according to investor expectations depending on economic progress, Fed communications and other factors.

Expectations from investors are for the Fed Funds rate, the inter-bank lending rate, to rise gradually starting in 2014 and increase to 1% in 2016. Still further increases are projected beyond 2016.
INVESTOR EXIT STRATEGY

In anticipation of the Fed’s exit from its easing strategy, perhaps before year’s end, bond investors should strategize how to exit from the risk of rising rates as well.

Knowing that the duration measure is a function of maturity and interest payments, an effective way to reduce sensitivity (duration) to interest rates is to either: hold bonds with reduced maturities or, increase the exposure to bonds with higher interest payments or yields.

Strategy Considerations:

• **Reduce maturities** through selling longer duration bonds, or bond funds, and buying shorter duration fixed income investments. Remember the “rule of one” when it comes to the duration of the portfolio, decreasing duration by half for example, has the potential to reduce sensitivity to rising rates by half.

• **Increase portfolio yields** through holding an allocation of below investment-grade bonds, which will reduce the sensitivity to interest rate changes. The higher credit risk though of lower quality bonds is the trade-off to achieve a lower duration, so continued economic strength is key to maintaining credit quality and thus relative price stability.

• **International bonds** from countries where interest rates are higher than in the U.S. can help to reduce durations. The added risk of holding bonds in a currency other than the U.S. dollar is the trade-off to achieve a lower duration, so a stable to declining dollar may be key to improved relative performance.

• **Adjustable-rate securities** may help control duration. Duration is affected by the fixed vs. flexible nature of the interest payments of a bond. While most bonds are issued with a fixed periodic payment, adjustable-rate bonds, or bond funds, have the flexibility to increase their payments. Exposure to adjustable rate bonds can mute sensitivity to interest rate changes.

• **Inflation adjusted securities**, whose payouts are adjusted according to the rate of inflation, like Treasury Investment Protection Securities (TIPS), can help to manage duration. But that assumes an increase in interest rates is accompanied by an increase in inflation so that the rate paid by the bond is also adjusted higher.

Another consideration to reduce the exposure to rising interest rates, and/or seek the potential of earning higher returns in an ultra-low rate environment, is to look beyond the bond market for opportunities.

• **Dividend paying stocks** can provide a reliable income stream, where the level of income received has the potential to increase over the years as companies increase their dividend payments. As well, potential dividend payments will be bolstered in a stronger growth environment, an environment expected to prompt the Fed to raise rates and thus negatively impact bond values. The potential for an increase in dividend income provides an advantage over fixed-income investments, but of course the value of an equity portfolio is considerably more volatile than that of fixed income investments.

• **Alternative investments/strategies** that have the ability to sell short investments to complement securities they own can potentially insulate the negative effect of rising interest rates, or even earn a positive return in a rising rate environment. Some alternative strategies look to manage risk in a predictable manner, with volatility that can be targeted similar to levels of fixed income investments.
Finally, with so many considerations on what, when and how to invest in anticipation of rising rates, investors may consider relying on a bond fund or other funds where the manager has broader flexibility to own a range of fixed-income and other investments, rather than attempt to manage the exposures themselves.

**INVESTORS FOUND THE ENTRANCE, NOW IT’S TIME TO LOOK FOR THE EXIT**

Investors are tempted by historical returns and the stability of those returns. The bond market has provided some of both over the last three decades. In recent years following the so-called Great Recession, investors have demonstrated an incredible enthusiasm for bonds, investing just over one trillion dollars in bond mutual funds in the last four years, see Exhibit 7. Many of those investors entering the bond market, either looking for higher returns compared to ultra-low money market yields or perhaps looking to insulate their investments from the volatile stock market, may not be aware of the risks of higher interest rates nor the low return potential going forward if rates stay low.

![Mutual Fund Bond Flows ($ Billions)](EXHIBIT 7)

As a result of the financial crisis, human emotions contributed to a mass exodus from the uncertainty of the stock market. More recently, the ultra-low yields on money markets and other short-term fixed income investments has driven investors into bond funds, seeking higher yields. Any meaningful rotation out of the popular bond funds risks downward selling pressure on bond values.

With the decline in interest rates likely nearing an end, the attractive bond returns of the last three decades cannot be repeated by virtue of the ultra-low levels of interest rates today. Either future scenario – persistently low rates or rising rates – will likely result in returns falling well short of bond investors’ expectations and objectives. Relative to holding low-yielding investment-grade bonds, barring a financial crisis or global recession, planning and putting in place an “exit strategy” now, has the potential for better returns going forward.

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2 Lipper 2013. The average yield for money market funds from 3/31/2012 to 12/31/2013 was 0.02% and the average yield for A-rated corporate debt funds during that same time period was 2.92%. Source: “Fed remained divided over QE duration: minutes”, Wall Street Journal’s Market Watch, April 10, 2013.
3 “The minutes of the March 19-20 meeting released Wednesday showed a wealth of opinion, from the one member who wanted to slow bond purchases immediately to a few who suggest more bond purchases may have to be made should the economy strengthen. A “few” favored slowing the purchases at midyear, with the program ending later in 2013. Several others thought that if labor conditions improve as expected, the Fed could slow purchases “later in the year and stop them by year-end.”

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