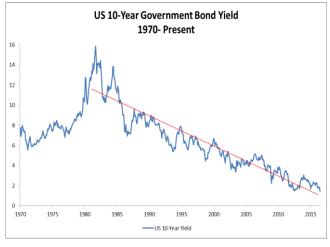


FIXED INCOME COMMENTARY - IS THE BOND BULL MARKET OVER?

SUMMARY

After a 35 year bull market in bonds, yields are bottoming and the next secular phase in the economy will feature rising rates and a possible rise in inflation. In the following note, we review the historical underpinnings for the performance of bonds in recent decades and share our outlook for the economy and fixed income markets.

HISTORY OF THE BOND BULL MARKET



Source: Bloomberg

Government historically bonds have been considered low-risk, liquid investments producing predictable income for conservative investors. While the perception of low-risk stems from the near absence of credit risk with high quality issuers and the size of these markets ensure liquidity and low transaction costs, the total return experienced by investors depends on current bond prices and coupons which are impacted by the direction and pace of interest rate changes. Bond prices move inversely to the direction of interest rates since interest payments are contractually fixed. Therefore, an environment of declining interest rates tends to boost the value of bonds, while rising interest rates will reduce the value of bonds.

The past 35 years were characterized by persistently declining interest rates that have supported bond returns. Rates have declined from a high of 15.85% in September 1981 to a modern era low of 1.36% on July 8, 2016 (see chart above).

A number of factors help explain the historical trend.

1. Hawkish Monetary Policy: In the early 1980s, the Federal Reserve, chaired by Paul Volcker, orchestrated a series of rate increases and tightened money supply in an effort to fight inflation, which peaked at 14.8% in 1980. While it triggered a massive recession, this policy move was instrumental in restoring the credibility of the Central Bank as an inflation watchdog and market participants soon came to anticipate rate increases if the economy grew too fast or neared full employment. This helped remove an inflation risk premium investors previously factored into bond prices.



Source: Bloomberg

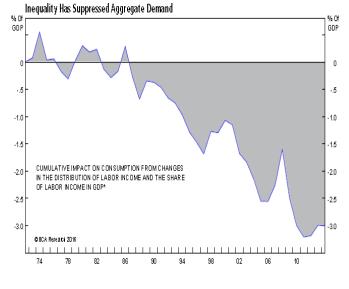
2. Lower Trend Growth: Another marked change that coincided with Fed action was a noticeable decline in trend GDP growth. Lower trend growth implies lower interest rates for the economy to reach equilibrium (i.e. to support full employment without inflation). GDP grew at a rate of 3.9% from 1948 until 1980, declining to 2.6% afterwards.

3. Rising Income Inequality: Policies supportive of financial markets, but detrimental to labor in general have contributed to rising income inequality since 1980 as the benefits of growth were realized via financial assets and thus accrued disproportionately to asset owners.

Wealthier individuals tend to save a larger proportion of their income while poorer households tend to consume a greater proportion of income. As shown in the table below, household consumption represents almost 70% of US GDP and it is easy to realize the potential drag on growth.

| Composition of US GDP (2015) | |
|-------------------------------|---------|
| Household consumption | 68.80% |
| Government consumption | 17.60% |
| Investment in fixed capital | 16.30% |
| Investment in inventories | 0.60% |
| Exports of goods and services | 12.70% |
| Imports of goods and services | -16.00% |

By some estimates, income inequality in the US may suppress as much as 3% of GDP.

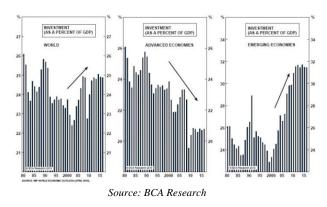


Source: BCA Research

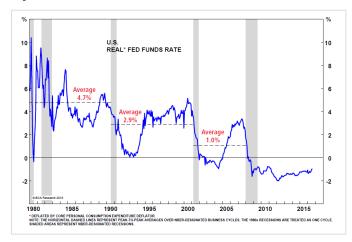
4. Deflationary Impact of Global Trade: The opening of major emerging economies, China in particular, and the rise of global trade, unleashed a deflationary wave on the world economy as vast pools of cheap labor became available and entire industries outsourced production to Asia and other emerging markets. This pressured labor wages in developed economies, thus containing inflation and contributing to lower bond yields.

5. Decline in Investment: With an economic boom taking place in emerging economies and lower growth in advanced economies, the world experienced a major shift in the destination of capital expenditures. As seen in the following chart, while investment remained consistent worldwide, it was really driven by new investment in emerging economies (particularly China) while advanced economies experienced a decline.

With investment in fixed capital representing about 16% of GDP, this shift acted as a drag on growth, lowering bond yields.



6. Central Bank Intervention: Since the 1980's US policy makers have been confronted with several major recessionary periods, including the Savings & Loans crisis (1990), dot-com bubble (2000) and housing bubble (2008). Each time, the policy response was dramatic, supporting financial markets and preventing wider systemic collapses. However, in the context of declining trend growth (see chart below), policy rates dropped lower and lower in each instance to provide the needed boost to the economy, culminating with quantitative easing and negative real rates (nominal yield adjusted for inflation).



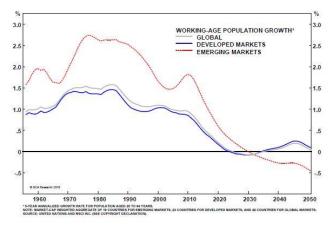
Source: BCA Research

MACRO ECONOMIC OUTLOOK

The challenge to the world economy is a shortfall in aggregate demand relative to a glut of savings. Normally when savings rise and investment drops, interest rates fall to lower rates in order to discourage savings and encourage investment. Today, we have seen savings rise following the 2008 crisis as households sought to reduce debt rather than consume. Corporations are investing less given reduced demand, choosing instead to return capital to shareholders (dividends or share buybacks) or take advantage of low interest rates to consolidate and boost earnings (financial engineering).

Looking ahead, government spending is likely to replace household and corporate spending in supporting the economy and preventing a recession. Fiscal expansion is becoming all the more likely as poorer households revolt against the effects of globalization by flocking to populist platforms, as seen in many European countries (e.g. Brexit vote) and even in the US presidential election. Redistributive tax policy and protectionism are also likely outcomes of the current situation.

Eventually, lack of investment and slower labor force growth (see projection in chart below) will create bottlenecks in the economy, raising the likelihood of a return to inflationary conditions.



Source: BCA Research

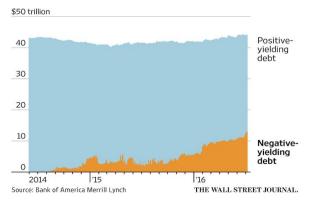
Outside the US, some countries may run into limits with regard to possible fiscal expansion, given already high debt/GDP ratios. Therefore foreign Central Banks are likely to experiment with debt monetization, which would likely translate into weaker currencies.

The bond markets are in transition and going through a bottoming process before establishing a new secular trend. The path of least resistance for yields is upwards, without any big spikes. Higher yields should and will be contained by the Fed, as they are working to closely manage a very slow and telegraphed program of raising rates when they deem it appropriate. They cannot raise rates sharply, as the US dollar will rise significantly, thereby undermining the economy.

CURRENT MARKETS

Currently, bond investors are not necessarily being compensated for the risks they are taking given low yields and the outlook for higher inflation long term. Outside the US, we have already seen sovereign bonds yields turn negative.

With about \$13 trillion in sovereign bonds priced with negative yields to maturity out of a total global sovereign debt universe of \$50 trillion, valuations are quickly becoming unfavorable in the traditional safe haven assets, to the point of turning risky for investors (see chart below). As negative interest rates show their limits by undermining banks, the odds of further declines in rates are shrinking.



The most likely outcome for US bond returns with limited rate increases by the Fed, earning a little less than the stated yield, is a flat return. As shown in the table below, the total return one year from today for the Barclays Aggregate index is likely to be between 0 and 1% (assuming no downturn in corporate credit), and a negative real return after inflation¹).

| BC Aggregate Index | | | | | | |
|--------------------|----------|--------|--------|----------|-----------|--------|
| Starting | Duration | Rate | Price | One Year | Assumed | Real |
| Yield | (Years) | Change | Impact | Return | Inflation | Return |
| 1.86% | 5.5 | -0.25% | 1.38% | 3.24% | 1.49% | 1.75% |
| 1.86% | 5.5 | 0.00% | 0.00% | 1.86% | 1.49% | 0.37% |
| 1.86% | 5.5 | 0.25% | -1.38% | 0.49% | 1.49% | -1.01% |
| 1.86% | 5.5 | 0.50% | -2.75% | -0.89% | 1.49% | -2.38% |
| 1.86% | 5.5 | 0.75% | -4.13% | -2.27% | 1.49% | -3.76% |
| 1.86% | 5.5 | 1.00% | -5.50% | -3.64% | 1.49% | -5.13% |

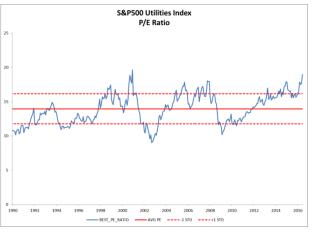
The "best" case for bonds would be a recessionary scenario in which case low yields may be driven even lower. We think this is a low probability. The

¹ Based on 6/30/16 yield and duration. Assumes a rate change at the end of the period. The inflation estimate is based on 10-year breakevens between nominal treasuries and treasury inflation protected securities (TIPS).

worst case for bonds would be a sharper increase in rates, possibly driven by a policy mistake or inflation fears. While a relatively low probability near term, this is going to be a growing risk in time.

Low interest rates are pushing conservative investors to seek yield in higher risk categories, be they long duration bonds (which can still offer modestly positive yield), corporate credit, or fixed income proxies such as Utility stocks. All of these choices introduce new risks and certainly higher volatility.

In particular, investors are in search of fixed income replacement in the form of dividend yielding stocks, such as Consumer Staples, REITs, Telecom and Utilities. As shown in the following chart, the Price/Earnings ratio on the S&P500 Utilities index is now more than two standard deviations above average and valuations are in the 99th historical percentile.



Source: Bloomberg

These securities are not fixed income instruments, and exhibit a different risk/return profile. Given the recent flight to these types of investments, the valuations look stretched and represent risk in portfolios expecting fixed income like behavior. This may create unintended consequences in portfolios that were simply looking for yield.

INVESTMENT RECOMMENDATIONS

Taxable Fixed Income:

In the short term, we are neutral on bonds; however in the long term, rates will rise one way or another. We believe the risk-reward trade-off is becoming unfavorable, especially in long duration bonds.

Credit sectors are fundamentally challenged as corporations re-lever their balance sheets to take advantage of low rates and the credit cycle is in its late innings. We prefer securitized assets such as high quality ABS (asset backed securities: investment structures of credit card, auto loan or home mortgage receivables) that benefit from different dynamics than corporates (e.g. housing recovery) and can offer some yield with lower interest rate exposure.

More than ever, we recommend active managers adept at security selection and with the ability to underweight duration.

Tax-Exempt Fixed Income

Municipal bonds have performed well and we believe they will continue to do so as the US economy proves resilient. On a taxable equivalent yield, municipal debt still looks competitive relative to taxable fixed income (see following chart). In fact, foreign investors have been flocking to municipals, despite not benefitting from the taxexempt benefit and we think that strong demand for this asset class will underpin returns.



Source: Eaton Vance

Global Fixed Income:

Given negative yields in many developed markets, better values lie in select countries with higher real yields and emerging markets. Foreign bonds can play a role in a portfolio to enhance returns and provide some diversification. It is critical to select skilled active managers while maintaining a long term outlook to navigate through these volatile markets.

Income Alternatives:

We are concerned with valuations in Utilities in particular, along with most high dividend sectors. On the other hand, Master Limited Partnerships (MLPs) troughed earlier this year, exhibiting attractive valuations and yields for a compelling total return potential.

CONCLUSION

One of the key tenets of prudent investing is to maintain diversification across asset classes as well as managers over time. Structuring a diversified portfolio with exposure to a broad spectrum of asset classes including fixed income, equities, hedge funds, private equity and real assets, provides investors with a more resilient portfolio to weather all conditions.

Despite today's challenging fixed income environment, our active managers continue to outperform and are equipped to successfully address the threat of rising interest rates, while providing critical liquidity and diversification in client portfolios.

Investment Research / Commentary Disclaimer:

Last Updated: September 2016

This material has been prepared by Windrose Advisors, LLC on the basis of publicly available information, internally developed data and other sources believed to be reliable. The information provided herein is for general informational purposes only and does not constitute an offer to sell or a solicitation of an offer to buy any securities or commodities, or investment advice relating to securities or commodities, or a representation that any security or commodity is a suitable or appropriate investment for any person. All information herein is written and prepared for large and experienced institutional investors with the highest degree of financial sophistication and knowledge and the capacity to withstand and assess any financial losses. Opinions expressed herein are current opinions as of the date appearing in this material only and are subject to change without notice. In the event any of the assumptions used herein do not prove to be true, results could vary substantially. All investments entail risks. There is no guarantee that investment strategies will achieve the desired results under all market conditions. No representation is being made that any account, product, or strategy will or is likely to achieve profits, losses, or results similar to those discussed, if any. No part of this document may be reproduced in any manner, in whole or in part, without the prior written permission of Windrose Advisors, LLC. You may not rely on the statements contained herein. Windrose Advisors, LLC shall not have any liability for any damages of any kind whatsoever relating to this material. You should consult your advisors with respect to these areas. By accepting this material, you acknowledge, understand and accept the foregoing