The Bond Landscape

Thomas Denkenberger

In a recent interview on Bloomberg TV, former Federal Reserve Chairman Alan Greenspan remarked, "I think there are two bubbles. We have a stock market bubble and we have a bond market bubble." This is a major statement coming from a man who once was one of the most powerful economic figures in the world. At 92 years old, he has seen a lot of ups and downs in the market. Should we be frightened by his statement?

While we believe it is important to listen to the thoughts of influential thinkers, we believe it is even more important to carefully do our own research and come to our own conclusions. Last Fall, our Q4 newsletter, *Party like it's 1999!?*, addressed the issue of a stock market bubble. We concluded that the U.S. stock market is significantly overvalued, but the global investor can find relative value in international developed markets, and absolute value in emerging market value stocks. In this letter we will review bond valuation theory and then explore bond markets around the world in search of bubbles and opportunities.

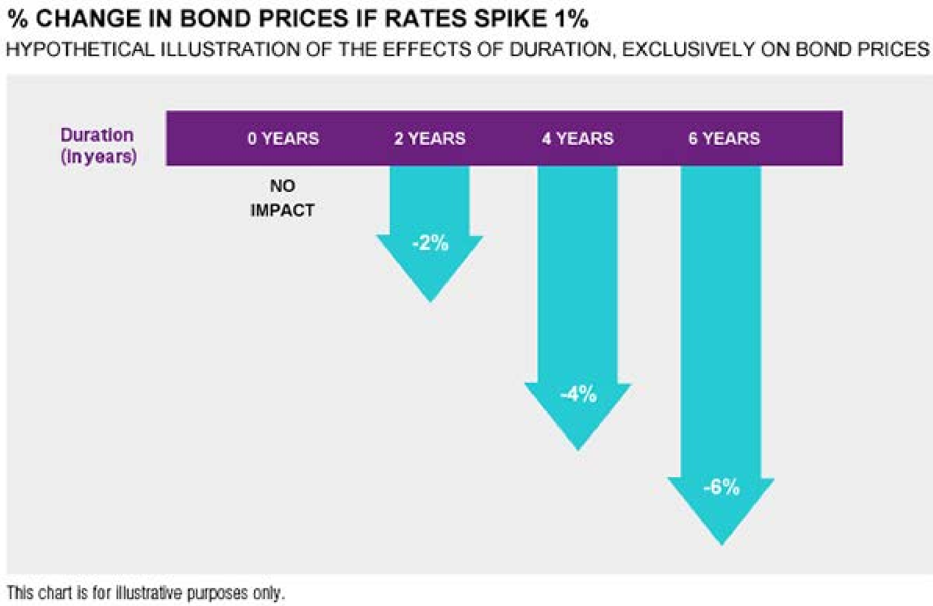
There are two primary risk factors embedded in bond prices:

1. Interest Rate Risk
2. Credit Risk

Interest rate risk is the risk that rising interest rates will cause a decline in the price of a bond. The easy way to visualize this is to think of bonds like a teeter-totter: as interest rates go up on one side, bond prices go down on the other. This makes investment sense; for example, if you own a bond that pays 3% and the prevailing interest rates rise to 4%, no one will pay full price for your old bond when they can buy a new bond that pays more. Thus, the price of your bond must fall to the point where its yield is competitive with newly issued bonds at 4%.

The amount a bond price will fall with rising interest rates is proportional to a bond's *duration.* Duration is different than a bond's maturity. The duration of a bond is also measured in years but is calculated using present value, yield, coupon, final maturity and call features. A full explanation of the calculation is beyond the scope of this letter, but what is important to understand is that duration is a quantitative way of measuring how much bonds will rise or fall in price when interest rates go up or down. Back to our teeter-totter visual, a short duration bond is like a tiny teeter-totter. When interest rates go up, the bond price only goes down a little. A long duration bond is like a huge teeter-totter; when interest rates go up, the bond price goes down a lot. Maturity is simply the length of time until the bond is fully repaid.

The price drop of a bond can be estimated quickly by multiplying the change in the interest rate by the duration of the bond. For example, long bonds with a duration of 25 years will experience a 25% price drop if interest rates rise by 1 percent, while short bonds with a duration of 1 year will only experience a 1% price drop under the same conditions. The converse is also true. If interest rates fall, bond prices will rise proportionally to duration. The way duration impacts prices is illustrated in a basic manner below:



https://www.blackrock.com/investing/resources/education/understanding-duration

The second major risk factor we need to consider in bonds is credit risk. Credit risk is the risk that the issuer of the bond will not pay the stated coupon, or in the worst case, will not repay the principal at maturity. Bonds are issued by many different institutions such as local and national governments, banks, and corporations. Large, stable countries like the U.S., Japan, and several countries in Europe are considered extremely safe and therefore have a very low credit risk. In the extreme, short term U.S. government bonds, call T-Bills, are considered a risk free asset because they have virtually zero credit risk. At the other end of the spectrum are bonds issued by struggling companies. If there is a significant chance a company may go bankrupt, investors demand a very high interest rate to compensate them for the credit risk.

With these basics in mind, let's look at the current opportunity set in bonds around the world. Beginning with ultra-low credit risk bonds from stable governments, we see that their yields are extremely low relative to history. Bonds can be classified as overvalued when their yields are much lower than normal. And when their yields are near the lowest point in 100 years, they may rightly be considered to be in a bubble. While these bonds are safe in terms of low default risk, they are not an attractive investment. In fact, low duration government bonds in Germany and Japan actually have negative yields. Investors actually have to pay for the privilege to loan money to these countries! While certain dire economic outcomes could be imaged where this might be a reasonable investment, we believe there are much better bond investments elsewhere.

Looking out to longer duration high quality government bonds we find positive yields, but only in the 1% to 3% range. Similar to how we view stock valuations, we believe that bond yields will eventually revert to their long term average. Using this framework, we expect long term high quality bonds to eventually revert to their average yield of 4 to 6 percent. Remembering that the effect of rising interest rates is proportional to duration, it is easy to see why we are not excited about being paid 3% in a bond with a 25 year duration which stands to lose 25 percent if interest rates rise 1 percent. Of the high quality government bonds, low duration U.S. Treasuries are currently the most attractive with a yield of 1.8% which is higher than all other high quality developed government bonds. Fortunately, as open minded global investors, we are not constrained to only high quality government bonds.

As we start to take on more credit risk, we can find more attractive yields. Walking up the risk spectrum, agency mortgage backed bonds yield slightly more than treasuries and non-agency mortgage backed bonds yield more to considerably more, depending on the credit quality of the borrower. Bonds issued by companies yield anywhere from slightly more than treasuries up to greater than 8% more depending on how risky the company is. Globally, we find that the best risk/reward tradeoff found in credit risk bonds is in U.S. non-agency mortgage backed bonds, short term emerging market government bonds, and global high yield corporate bonds. These three bond sectors all have lower duration and higher yield than the benchmark Barclays Aggregate Bond Index.

During the course of the business cycle, different bonds outperform at different stages. In the United States, we are entering the tenth year of economic expansion, which historically places us firmly in the late stage of an expansion. During this phase, we usually see strong economic growth, low unemployment, and increasing wage inflation. These factors combine to fuel inflation. At this point in the business cycle, keeping inflation contained is the primary concern, and thus we see the Federal Reserve raising interest rates to cool the economy and slow inflation.

As bond investors, we look at how this is likely to impact different types of bonds. Rising interest rates with the backdrop of a strong economy favors short duration bonds with credit risk because they have low duration and their credit risk is being supported by the strong economy. At the same time, long duration bonds with low credit risk are hurt badly due to their great duration risk and their low credit risk is not appreciated while the economy is still strong. Due to these considerations, we have positioned our bond holdings to have a lower duration and higher yield than the Barclays Aggregate Bond Index.

As 2018 has started to play out, interest rates have indeed begun to rise with growing fears of inflation. Our major bond fund holdings have outperformed the Barclays Aggregate year to date, and we expect this outperformance to continue as we progress through the late stages of this economic expansion.

Looking ahead, when the economy slips into contraction, long duration bonds with low credit risk will be favored because their duration will be a tail wind as interest rates fall and their low credit risk will be appreciated during economic hard times. Conversely, short duration bonds with high credit risk will not be optimal because falling interest rates will barely help their price and their high credit risk will be punished by a market becoming scared of growing defaults.

The economic transition from expansion to contraction is notoriously hard to predict accurately. Despite extensive research, we realize that we will not be able to time our investment moves perfectly. Similar to stock investing, where we slowly sell as stocks become overvalued and slowly buy as they become undervalued, in bond investing, we plan to slowly buy high quality interest rate risk as yields become more attractive and sell low duration high credit risk as the risks to the economy grow.

The primary canary in the coal mine that has been historically predictive of the economic switch from expansion to contraction is the inversion of the yield curve. During most of the business cycle, short term interest rates are lower than long term interest rates, and this produces a normal yield curve with a positive slope. But, six to nine months before a recession starts, the yield curve usually inverts which means that short term interest rates become higher than long term interest rates. In the past few months the yield curve has been flattening, but it looks to have many months to go before it actually inverts. We are watching it closely and will start to take on more high quality duration when it inverts. Until that time, we expect to remain cautiously optimistic about the economy and short term, higher credit risk bonds.

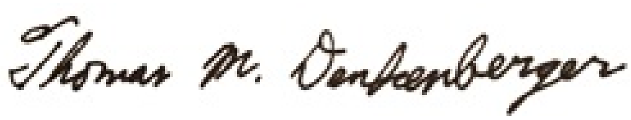
Alan Greenspan's career was focused on the U.S. economy, so it is understandable that his investment predictions are U.S. centric. As such, his statement that we have stock and bond market bubbles is only talking about U.S. stocks and U.S. government bonds. The data we see does largely confirm his statement. Fortunately, the global investment landscape is wonderfully more complex than just U.S. stocks and U.S. government bonds. There remains great opportunity to earn mid single digit returns in carefully selected short term, higher yielding bonds.

A quick update on stock valuations:

In our Q4 2017 newsletter we made the case for emerging market value stocks which were trading at a significant discount to U.S. stocks. In the six months since that publication, emerging market value stocks have outperformed U.S. stocks by 4.5% with returns of 10.3% and 5.8% respectively:

The blue line above is the S&P 500 represented by the Vanguard 500 Index Fund and the orange line is emerging market value stocks represented by the Schwab Fundamental Emerging Markets ETF. Despite this outperformance, we believe emerging market value stocks are still significantly undervalued, and we expect this return premium to continue over the coming years.

Best,



Thomas M. Denkenberger
Sankala Group LLC
T: (720) 549-3355

Sankala Group