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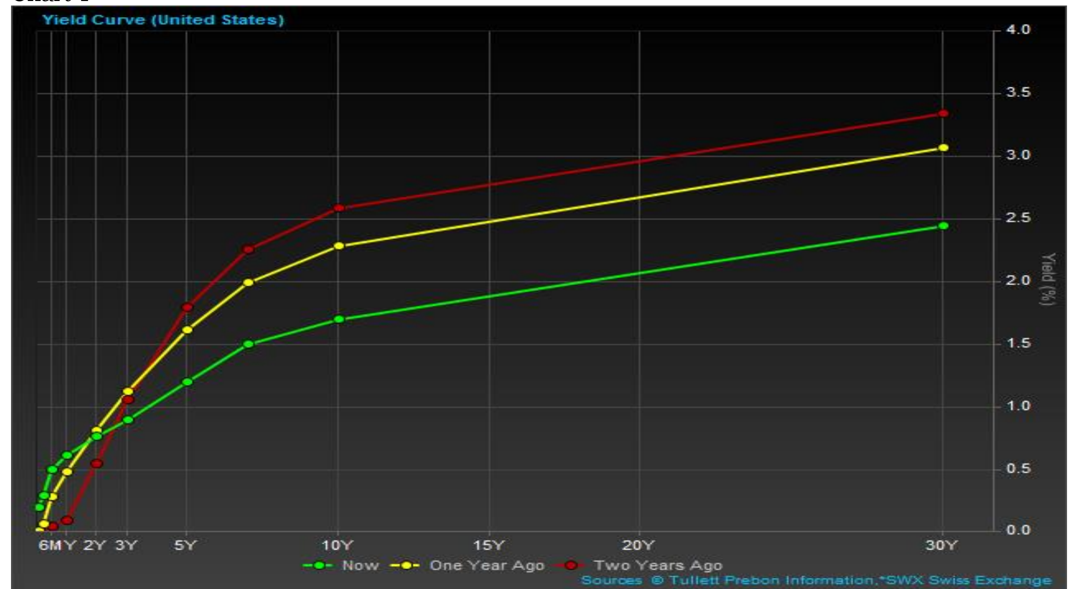
The Silent Killer

Regardless of your preferred outlet for financial news, you will find a plethora of disagreement about the future trajectory of interest rates. Irrefutably, there is a clear consensus that rates are historically low. Globally, short term rates are close to 0% and even longer term rates are only a few percentage points.

In general, rates have been low on an absolute basis for a while and have continued to trend lower. Over the last two years, rates have gone from low to even lower. Chart 1 below shows the yield curve for U.S. treasury bonds for three different time periods. The current curve is in green, while the curves from one and two years ago are in yellow and red, respectively. Over that time 10 year rates have gone from slightly over 2.5% to almost 1.5%.

Chart 1



Source: Factset

This phenomenon is not just limited to U.S. interest rates. Rates across the globe have fallen precipitously since the financial turmoil almost a decade ago. In fact, in June of this year the Swiss 30-year bond yield dropped below zero for the first time in history.

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In Chart 2 below we chose 10 year government yields for the U.S., Japan, U.K., Germany and Canada to represent developed economies around the world. From late 2006 until now, rates have progressively moved lower with some intermittent volatility. Remarkably, Japan started with interest rates below 2% which have trended to about 0% and have spent most of this year in negative territory.

Chart 2

Source: Factset, Baystate Wealth Management

The bottom line is that the majority of the world is experiencing historically low rates – including negative rates! According to some estimates, the total amount of global debt that is yielding a negative interest rate is currently over $11 trillion. Of interest is that textbooks literally have to be rewritten given that the zero lower-bound for rates is no more. Of relevance is that this is great for borrowers but not so great for savers or bond investors.

For borrowers this dynamic is straightforward. Lower rates of interest, otherwise known as the cost of money, makes it cheaper for people to buy homes, cars, go to college, and even start a business. On the other hand, for savers, there is another factor that is often "out of sight, out of mind". Indeed, this not so visible factor is inflation which determines the future purchasing power of capital.

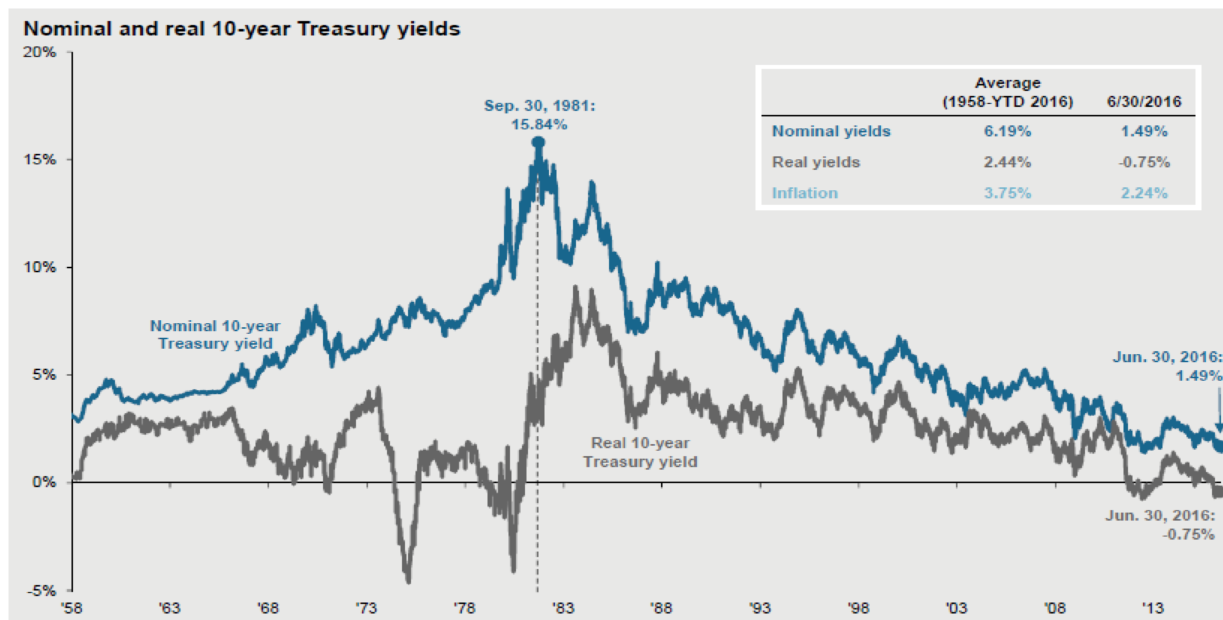
Looking at inflation in the rear view mirror over longer periods of time is clear as a bell. We all remember how much it used to cost to go to the movies, buy a car, or to fill up a cart with groceries. However, over shorter periods of time, we find that aside from Financial Planners, very few people consider the impact of inflation unless inflation is increasing at a problematic rate. For this reason, inflation is often referred to as "the silent killer" of retirement, returns, or personal finances.

The reason that I am combining the fact that we are in a near zero percent interest rate environment with the concept of inflation is that rates are not only low; they are even lower than you might think. Interest rates should be thought of in two ways. The first is the

“nominal” rate, which is simply the stated rate (e.g. CDs, bonds, savings accounts). The second is the “real” rate, which is the nominal rate minus inflation.

Currently, the real rate of interest on a 10 year treasury bond is actually negative. As of the end of June, it was negative by -0.75%. As of the time of this writing it’s slightly less negative at about -0.55%; nonetheless, it’s still negative.

Chart 3



Source: BLS, Federal Reserve, J.P. Morgan Asset Management.
Real 10-year Treasury yields are calculated as the daily Treasury yield less year-over-year core CPI inflation for that month except for June 2016, where real yields are calculated by subtracting out May 2016 year-over-year core inflation.
Guide to the Markets – U.S. Data are as of June 30, 2016.

Chart 3 above from JP Morgan shows the path of interest rates since the late 1950’s as well as the relationship between real and nominal rates. Over time, nominal 10 year yields have averaged a little over 6% while inflation has averaged 3.75%. Said differently, investors have, on average, been able to purchase 10 year government bonds with a yield of almost 2.5%. Today, although inflation is lower than average, due to the fact that nominal rates have been trending between about 1.5% and 2.0%, real yields are *negative* meaning investors are generating a loss on inflation adjusted dollars when holding a 10 year treasury until maturity given current inflation estimates.

At this point all we have done is to point out a problem. To that end, let us discuss solutions as well as the reasons an investor would accept a negative real yield and we will remain focused on the current 10 year treasury for this discussion. Why would someone accept a negative real rate? We see three main reasons:

1. The real yield is calculated with current inflation rates. An investor projecting a lower, or even negative rate, of future inflation might find the anticipated real yield to be more attractive. For example, investors purchasing 10 year treasuries in the mid-80’s (see Chart 3) received high nominal rates (~8%) but negative real yields (~5%) at the time. Yet, as time progressed and inflation subsided, their realized returns in real dollars increased. Realized real returns can only be evaluated at the end of the investment time horizon. In fact, this is referred to as horizon yield.
2. Some investor may believe that nominal rates will fall and increase the price of the bond. In other words, the yield on the bond could be a secondary consideration if the

goal is to sell the bond before maturity at a higher price. To be fair, although our interest rates are currently low, they could go lower.
3. Some investors may consider the negative rate a “cost” in exchange for having their money with a very low risk investment.

Regarding solutions, from our vantage point there are two main ways to ***potentially*** increase real yields. The first is to increase credit risk (default risk) and the second is to increase duration (interest rate risk).

Increasing credit risk is fairly straightforward. The good news is that U.S. government bonds are not the only debt instruments (bonds) available to investors. The bad news is that higher yields don’t come without some type of risk. As the risk of default rises (credit risk), so does the nominal and real yield. For example, there is a wide spectrum of risk within the corporate bond market. On one side there are AAA rated bonds from companies like Johnson & Johnson and Microsoft and consequently there are companies like Sprint that have a number of challenges and thus have a lower credit rating or higher risk of default. Nominal yields on high quality U.S. corporate debt like the aforementioned AAA rated companies is marginally higher than U.S government bonds, while companies like Sprint must offer coupons of about 8% - or higher. The same dynamic holds true, at least most of the time, with government bonds as well. Interest rates in less creditworthy countries will be higher than countries with more solid economies. For example, it should be expected that Greek debt will yield more than German bonds.

Aside from increasing credit risk, an investor can increase the length of time until their bonds mature. Under “normal” circumstances bonds that mature further in the future will pay higher rates of interest. As an example, please refer to Chart 1 where investors in 30 year U.S. bonds receive yields of about 2.5% whereas 2 year bonds yield about 0.5%.This upward sloping yield curve is considered normal and applies to government as well as corporate bonds. The risk of owning longer rather than shorter term bonds is called either duration or interest rate risk. If interest rates rise, investors with longer term bonds will likely experience greater declines in current bond prices. The reason this can be of concern is that it will prohibit investors from taking advantage of the higher rate environment. The loss on selling the longer bond would offset the higher coupon generated from purchasing a new bond. In addition, there is also risk for bond owners who intended to hold to maturity but for unforeseen reasons had to sell prior to maturity.

In summary, we have identified a fairly straightforward problem for investors and savers. Specifically, relatively safe and short-term deposit and debt instruments have historically low and near zero yields. To add insult to injury, in many instances real yields are negative. We have also given two solutions to this problem. Investors willing to take on more credit and duration risk can increase both nominal and real yields. To be clear, we do not think it should be taken lightly. For our clients at Baystate Wealth, in general we do have a slight bias toward credit but remain cautious on duration risk and prefer to limit that specific risk factor for now.

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