

## What If the World Turned “Normal” Tomorrow

### Stembrook Investment Commentary – May 2012

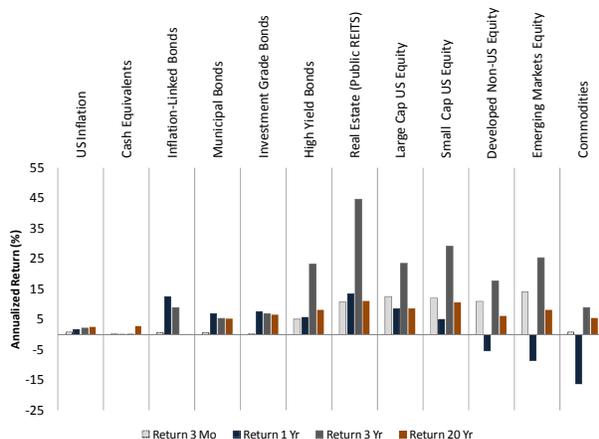
#### Market Review

At the beginning of the first quarter, investors took a renewed interest in riskier assets, though this appetite for risk moderated towards the end of the quarter as fears of European debt contagion and rising energy prices again took center stage. Overall, investor fear, as measured by the CBOE VIX Index, was down 34% from the beginning of the year. Equity valuations remain attractive and corporate balance sheets remain strong.

Equity markets resumed their post-recession rebound in the first quarter of 2012 after a weak 2011. US Large Cap Equities<sup>1</sup> delivered a robust return of 12.6%, compared to a 2.1% return for all of 2011. Developed Non-US Equities<sup>2</sup> rose 11.0% in the first quarter, after falling by 12.1% in 2011.

Emerging Market Equities delivered a solid return of 14.1% in the first quarter of the year after a difficult 2011, in which the index<sup>3</sup> was down 18.2%. Within the US market, the NASDAQ Composite returned 21.0% in the first quarter, continuing a strong rally for technology companies.

**Chart 1 – Global Market Returns as of 3/31/2012**



Source: see appendix

We continue to favor stocks over bonds and are maintaining our allocation to developed and emerging markets. Fixed income portfolios are diversified away from US Treasuries and into Municipals, Corporates, High Yield and Floating Rate Bonds.

Europe’s woes will continue to cast a shadow on financial markets for the foreseeable future, but given the level of attention focused on this problem, it is highly unlikely that another banking crisis will occur.

Low yields remain at the core of the fixed income market. Higher yielding spread products compensated investors well in the first quarter. High Yield Bonds<sup>4</sup> returned 5.1%, while Investment Grade Bonds<sup>5</sup> rose only 0.3% and the US Consumer Price Index rose 1.7% in the quarter. Municipal Bonds<sup>6</sup> took a breather in the first quarter rising 0.6%, after returning nearly 7% in 2011. All of the above mentioned markets did better than US Government Bonds<sup>7</sup>, which lost 0.4% in the quarter.

#### The Impact of Interest Rates

As interest rates have crept lower, and lower, and lower in recent years (see Chart 2), concern has grown over what will happen when they inevitably rise. To be fair, this concern has been raised for years and rates have, by

and large, continued their descent. Since an entire generation of investors has only experienced a falling rate environment, we thought it would be a useful exercise to consider what the world might look like if rates moved back to more normal levels. For this exercise, we will invoke an assumption used in economic studies termed *ceteris paribus*. Translated from Latin, this phrase means all other things being equal. This assumption vastly oversimplifies a complex set of relationships with the goal of isolating the impact of a change in one variable. Of course, in reality all other things are not equal, but for the purpose of illustration, we will hold to this assumption. Although there would be some meaningful positives, many negatives are associated with a rise in rates.

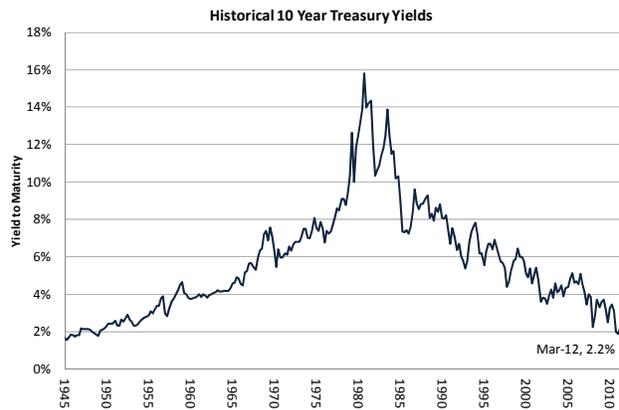
In our study, we will assume that market interest rates revert to historically normal levels. What does that mean? Since the end of World War II, the yield on short-term investments such as 30-day treasury bills or bank deposits, has averaged 4.3% versus 0.08% today. 10-year treasury bonds have averaged 5.7%, versus 2.2% today. And 30-year treasury bonds have averaged 6.0% versus 3.4% today. The gaping difference between current rates and historical averages can be seen in Chart 3.

It is important to note that these averages mask massive swings over time. For example, 10-year treasury rates reached as high as 15.8% in 1981 and were as low as 1.6% in 1946. Also, inflation, a major factor in bond pricing, has reached as high as 19.7% in 1947 and as low as -2.5% in 1949. More recently, the Consumer Price Index fell by 1.4% in 2009.

### Short-Term Deposits

Let's begin with the most straightforward example. If interest rates normalized tomorrow, interest paid on short-term deposits would rise, while the value of those deposits

Chart 2 – Interest Rates Since 1945



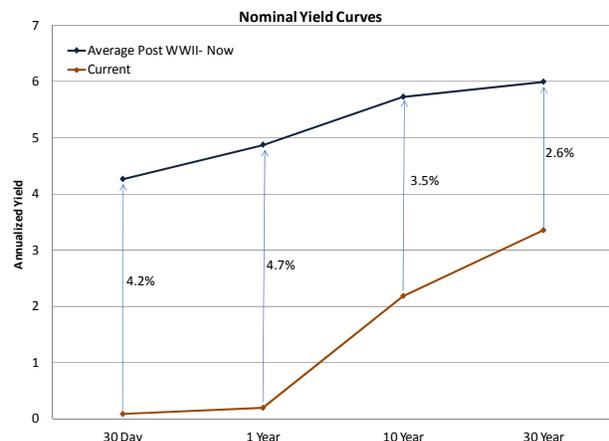
Source: Federal Reserve, 10 Year Treasury Bonds

would remain largely unchanged. For each of our examples we'll work with \$1 million as a base investment. If you held \$1 million in short-term deposits, you would currently receive annual interest of approximately \$800. If short-term rates rose to their historical average of 4.3%, your income would go from \$800 to \$43,000. Higher interest rates are better for savers holding their money in short-term notes or bank deposits, *ceteris paribus*.

### Bonds

Since bond prices tend to move in the opposite direction of yields, the value of existing bond holdings would initially fall if rates rose. But by how much? If the yield on a 10-year

Chart 3 – Today's Rates versus Historical Average



Source: Ibbotson, Federal Reserve, Stembrook Research

treasury bond rose from a current level of 2.2% to a more “normal” 5.7% then the market value of a \$1 million investment in bonds would fall by \$261,554 or 26.2%. This is a significant drop.

### Mortgages

What about a mortgage? Right now, rates on mortgages are very low by historical standards. Traditional 30-year fixed mortgages are tied to rates on government bonds. Historically, mortgage rates have tracked approximately 1.7% above the 10-year treasury yield. So, if rates on government bonds rise, so will mortgage rates, *ceteris paribus*. What if mortgage rates rose to more normal levels? If you wanted to purchase a \$1 million house with 20% down using a traditional 30-year fixed mortgage, you would put \$200,000 down and borrow \$800,000. At today’s rate of roughly 3.4%, payments on that mortgage would be \$3,526 per month before accounting for property taxes, insurance, etc. If mortgage rates rose to a more normal 7.4%, that monthly payment would be \$5,539. Since people often buy houses based on monthly payments, prices would have to fall to \$636,520 or 36.4% to keep monthly payments at current levels, *ceteris paribus*.

It is highly unlikely that the changes used in our example will happen as quickly or as dramatically as cited here, and this is a vastly simplified view of the world. For example, in the case of mortgages, a drop in the current extreme level of housing affordability would presumably offset some or all of this downward pressure on prices. However, after such

#### Why do bond prices fall when rates rise?

This occurs because the market is demanding a higher yield than existing bonds currently pay. An example may help. Say you own a bond paying a coupon of \$2 per year. This equates to 2% on a bond priced at \$100. If the market interest rate rose to 4%, then an investor could go out and buy a new bond that pays a coupon of \$4 per year for \$100. If you were in the market for a bond, would you choose the one that pays \$2 per year or one that pays \$4 per year? If you were like most investors, you’d choose the one paying \$4. So what if you now wanted to sell your bond paying a \$2 coupon. You’d have to reduce your price to make it attractive to potential buyers. In fact, if that bond had a ten year maturity, you’d have to reduce your price by 16.2% or \$16.20 to make the yield a new buyer receives on his \$2 coupon equate to the current market rate of 4%. That is why bond prices fall when rates rise.

an exceptional period of abnormal market behavior, it is useful to keep an eye on what a more normal environment might look like, and how a move to such an environment might impact your investments.

Rates remain as low as the are today for a variety of reasons. One key factor is the Federal Reserve’s attempts to stimulate the economy, avoid deflation and support the housing market. When this support is removed, and/or when bond investors’ expectations of future inflation rise, bond yields will follow.

**Table 1—Yields and their Immediate Impact on Valuations**

	Current Rate	New Rate	Current Value	New Value	Change in Price
Short-Term Deposits	0.08%	4.3%	\$1,000,000	\$1,000,000	0.0%
10-Year Treasury Bonds	2.2%	5.7%	\$1,000,000	\$738,446	-26.2%
Mortgage	3.4%	7.4%	\$1,000,000	\$636,520	-36.4%

Source: Federal Reserve, Stembrook Research

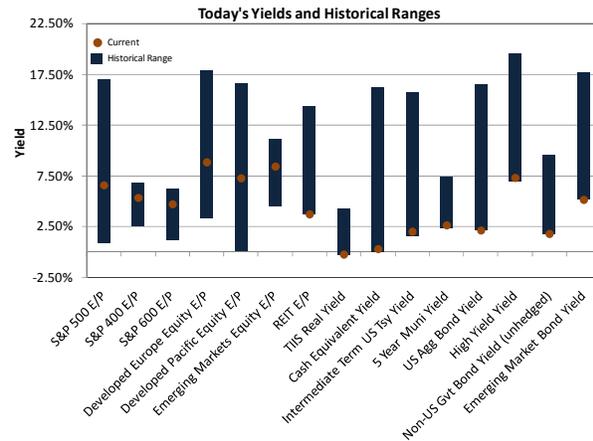
The dilemma of many savers today is how to find an investment that provides reasonable principal stability and meaningful returns above inflation. With rates so low, the traditional go-to investment, bonds, has become a much less attractive choice. Bonds present investors with very little income potential and the prospect of falling prices. This is the exact opposite of what a saver in 1980 was facing when the rate on a government bond was 16%.

### How are We Investing Your Assets Today

Our strategy is to invest in equities, where possible. We believe they present an attractive value for those who are willing and able to withstand their inherent volatility. US Large Cap Equities are valued at 14 times earnings, which is in line with historical norms. Equities in developed countries outside the US, primarily Europe and Japan, have even lower (i.e. more attractive) valuations. On a valuation basis alone, both Pacific Developed and European Developed Equity markets look attractive compared to Large Cap US Equities. The relative earnings yield between Large Cap US and European Equities is 0.7 compared to a historical average of 0.9 and the relative earnings yield between Large Cap US and Developed Pacific Equities is 0.9 compared to a historical average of 2. Commodities remain an attractive hedge against future inflation as well as providing exposure to positive economic growth.

A dramatic view of the divergence in valuations between equities and fixed income can be seen in Chart 4. Both equities and fixed income can be valued using yields. For bonds we use the familiar yields based on coupons. For stocks, a valuation measure that is particularly predictive of long-term future returns is earnings yield or the amount of earnings divided by the price you pay. This measure shows the percent of the price of a stock

Chart 4 – Yields Across Asset Classes



Source: See Appendix

that is currently generated by earnings. In the chart, this measure is abbreviated with “E/P.”

For portions of portfolios that require less volatility, we are diversifying fixed income investments to areas that provide better value and less exposure to rising rates. These include an overweight position in municipal bonds that we initiated in May 2011. Over this period, municipals have outperformed the aggregate bond index by 2.1%, before taxes. We continue to maintain an overweight allocation to municipal bonds given their spread to investment grade taxable bonds of 0.4%, compared to a historical average spread of *negative* 1.6%. In addition to our overweight to municipals, we have also favored corporate bonds over treasuries. Since adding this allocation this past January, corporate bonds have outperformed aggregate bonds by 0.89%. Corporate bonds still remain attractive today with a spread to the five year treasury of 2.4%, compared to a historical average spread of 1.6%.

### Investment Planning

The foundation of every client’s investment strategy is their Stembrook Strategic Investment Plan. This plan takes into consideration

your current portfolio, your expected saving and spending and various scenarios for market returns. Please contact me if something

has changed significantly with your unique state of affairs so that we may adjust your plan accordingly.

As always, I welcome your comments and questions and appreciate your continued confidence in our investment management and advice.

Sincerely,

A handwritten signature in blue ink, appearing to read "Peter D'Agati".

Peter D. D'Agati, CFA  
President  
Stembrook Asset Management, LLC  
83 Wayne Street, Suite 208  
Jersey City, NJ 07302  
Tel: 201-484-0063  
Fax: 201-484-0070  
[peter.dagati@stembrook.com](mailto:peter.dagati@stembrook.com)

## Endnotes

<sup>1</sup>S&P 500 Index

<sup>2</sup>MSCI EAFE GTR Index

<sup>3</sup>MSCI Emerging Markets GTR Index

<sup>4</sup>Bank of America Merrill Lynch High Yield Cash Pay Index

<sup>5</sup>Barclays Capital U.S Aggregate Index

<sup>6</sup>Barclays Capital Municipal 5-Yr Index

<sup>7</sup>Barclays Capital Intermediate Term Government Bond Index

Chart 1: Consumer Price Index – US, U.S. 30-Day Treasury Bills, Citigroup Inflation-Linked Index, Barclays Capital Munis 5-Yr Index, Barclays Capital Aggregate Bond Index, Merrill Lynch U.S. High Yield Cash Pay, Dow Jones Wilshire REIT Index, S&P 500 Composite Total Return, S&P SmallCap 600 Total Return, MSCI EAFE Index, MSCI EM (Emerging Markets) Index, Dow Jones UBS Commodity (Total Return) Index.

Chart 4: S&P 500 since December 1956. Source Standard & Poor's, BARRA, S&P 400 since June 1991. Standard & Poor's, BARRA, S&P 600 since December 1993. Standard & Poor's, BARRA, Developed Europe Equity since December 1974. MSCI Europe, Standard & Poor's Europe 350, Developed Pacific Equity since December 1974. MSCI Pacific, S&P/Citi PMI Asia Pacific, S&P Asia 50, REIT since March 1972. NAREIT all Equity, TIIS since March 1997. Citi Yield Book, Federal Reserve Bank, Cash Equivalent since December 1945. Ibbotson, Federal Reserve Bank, Thomson Reuters, Intermediate Term US Treasury Yield since December 1945. Ibbotson, Federal Reserve Bank, 5 Year Municipal Bond Yield since March 1988. Barclays Capital, Charles Schwab, BofA Merrill Lynch, Standard & Poor's/Investortools Municipal Bond Indices, US Aggregate Bond Yield since March 1976. Barclays Capital, High Yield since December 1984. BofA Merrill Lynch, Barclays Capital, Non-US Government Bond Yield since December 1984. Barclays Capital, Citi Yield Book, Emerging Market Bond Yield since December 1991. Bloomberg, Barclays Capital, Citi Yield Book

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Also note that each client's portfolio may differ given specific goals and constraints applied to the portfolio construction process.