

BOND MARKET REVIEW

A MONTHLY REVIEW OF
FIXED INCOME MARKETS



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Since 1988, Chandler Asset Management has specialized in the management of fixed income portfolios. Chandler's mission is to provide fully customizable, client-centered portfolio management that preserves principal, manages risk and generates income in our clients' portfolios.

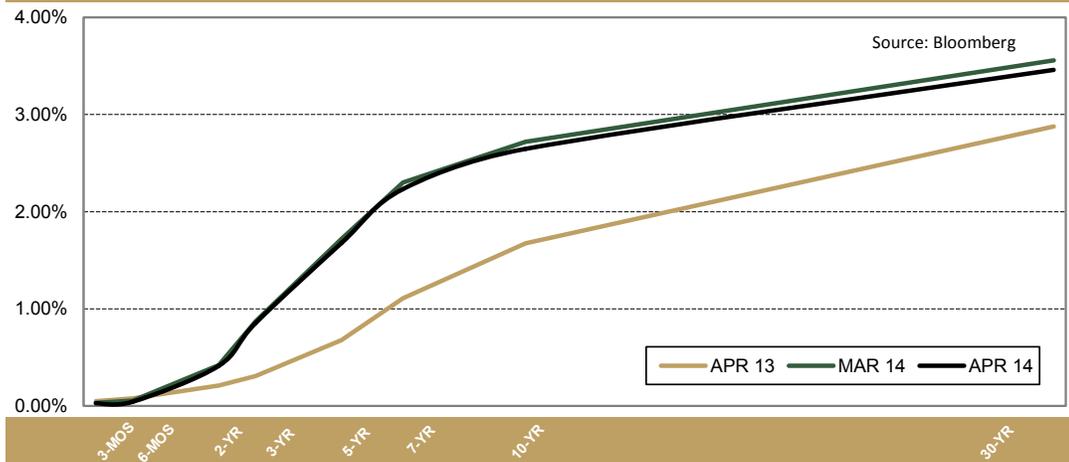
Market Summary

Recent improvement in economic data may have been fueled by a bounce in activity following weather-related weakness in the winter months, but overall it appears that economic activity is picking up. The April employment report was stronger than expected, as nonfarm payrolls grew by 288,000, versus expectations of 215,000. Private payrolls grew by 273,000 and government jobs rose by 15,000. The unemployment rate dropped to 6.3% from 6.7%, although the decline was partially due to a decline in the labor force. Meanwhile, recent manufacturing and consumer data has also been favorable. Housing data has been somewhat mixed, as firm pricing and higher mortgage rates seem to be curtailing sales volume. Overall, the economy seems to be improving modestly, following a weather-related slowdown in the winter.

As expected, the Federal Open Market Committee (FOMC) left policy rates unchanged at its April 29-30 meeting, and announced another \$10 billion reduction in asset purchases (to a level of \$45 billion from \$55 billion). We believe the process of unwinding quantitative easing will continue at a steady pace this year. The FOMC statement indicated that "growth in economic activity has picked up recently" after a weather-related slowdown in the winter. The Committee also noted that the labor market was showing improvement. There wasn't a post-meeting press conference or any changes to the Fed's forward guidance. Overall, there were no surprises in the FOMC statement. The next FOMC meeting is scheduled for June 17-18.

The yield on the two-year Treasury note edged down slightly in April, likely driven by geopolitical tensions which continued to fuel a flight to quality. We believe this offset the upward pressure on rates driven by the ongoing unwinding of quantitative easing by the Federal Reserve along with the anticipation of a potential fed funds rate hike next year.

THE YIELD CURVE HAS FLATTENED IN APRIL



During the past three months, the yield curve has flattened even as the Federal Reserve (Fed) has been tapering its purchases of long-term Treasury bonds. The shape of the yield curve is changing as market participants anticipate future fed funds rate hikes by the Fed which has begun to put upward pressure on shorter-term yields.

TREASURY YIELDS	4/28/2014	3/31/2014	CHANGE
3 Month	0.03	0.03	0.00
2 Year	0.41	0.42	(0.01)
3 Year	0.85	0.87	(0.02)
5 Year	1.68	1.72	(0.04)
7 Year	2.23	2.30	(0.07)
10 Year	2.65	2.72	(0.07)
30 Year	3.46	3.56	(0.10)

Source: Bloomberg

Economic Roundup

Consumer Prices

In March, overall CPI inflation increased to 1.5% on a year-over-year basis from 1.1% in February. The year-over-year Core CPI (CPI less food and energy) also increased slightly to 1.7% in March. The core inflation rate is still trending below the Fed's long-term goal of 2.0% and remains below the trigger rate for policy action of 2.5%.

Retail Sales

In March, Retail Sales increased sharply to 3.8% on a year-over-year basis versus a gain of 1.8% in February. This strong recovery was a reversal of the adverse weather reductions in the previous two months.

Labor Market

The April employment report was much stronger than expected as payrolls rose by 288,000 versus the 215,000 consensus estimate. Net revisions for job growth in March and February were +36,000. Private payrolls increased by 273,000 in April and government jobs increased by 15,000. The unemployment rate fell to 6.3% in April from 6.7% in March, partially driven by a decline in the labor force. The better than expected employment report in April may have been fueled by a rebound in activity following weather-related weakness in the winter months.

Housing Starts

Single-family housing starts rose 6.0% in March after rising 3.0% in February. Housing starts rebounded from the recent unfavorable weather in the past few months.

Credit Spreads Tightened Slightly

CREDIT SPREADS	Spread to Treasuries (%)	One Month Ago (%)	Change
3-month top-rated commercial paper	0.11	0.10	0.01
2-year A corporate note	0.43	0.47	(0.04)
5-year A corporate note	0.44	0.48	(0.04)
5-year Agency note	0.07	0.18	(0.11)

Source: Bloomberg

Data as of 4/28/14

Economic Data Has Improved

ECONOMIC INDICATOR	Current Release	Prior Release	One Year Ago
Trade Balance	(40.4) \$Bln MAR 14	(41.9) \$Bln FEB 14	(36.6) \$Bln MAR 13
GDP	0.1% MAR 14	2.6% DEC 13	1.1% MAR 13
Unemployment Rate	6.3% APR 14	6.7% MAR 14	7.5% APR 13
Prime Rate	3.25% APR 14	3.25% MAR 14	3.25% APR 13
CRB Index	309.53 APR 14	304.67 MAR 14	288.13 APR 13
Oil (West Texas Int.)	\$99.74 APR 14	\$101.58 MAR 14	\$93.46 APR 13
Consumer Price Index (y/o/y)	1.5% MAR 14	1.1% FEB 14	1.5% MAR 13
Producer Price Index (y/o/y)	1.7% MAR 14	1.3% FEB 14	1.1% MAR 13
Dollar/EURO	1.39 APR 14	1.38 MAR 14	1.32 APR 13

Source: Bloomberg

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Portfolio Construction—Taking Advantage of Volatility and Asset Correlations through Portfolio Rebalancing

The stellar equity market performance of the past two years has hardly gone unnoticed. Stocks measured by the Standard & Poor's 500 Index (S&P 500) and the Dow Jones Industrial Average Index generated double digit gains in 2012 and 2013. In fact, mutual fund flow data for 2013 shows money is flowing into stocks, out of bonds after a significant rally in stocks. This behavior of allocating more money *ex-post* to the most recent best performing asset is neither strategic nor tactical. It might be a result of investors' fear of missing out on future stock market returns. In our opinion, it warrants a high level discussion on portfolio construction and asset allocation. This discussion will guide you through the perspective of historical asset performance, volatility, correlations between asset classes and the benefits of portfolio rebalancing. For illustration purposes, we study the period between December 2003 to December 2013; and analyze only two asset classes – Stocks (measured by the S&P 500) & Bonds (measured by the Bank of America Merrill Lynch US Corporate, Government and Mortgage Index (BOA Agg Index)). Although for illustration purpose this analysis incorporates only two asset classes, a well-diversified portfolio may include other asset classes such as real estate, diversified commodities, etc.

Let's begin our study by analyzing volatility. Volatility is usually measured by standard deviation. Standard deviation measures the magnitude by which asset returns fluctuate around their long-run average. First, let's evaluate stock market volatility by analyzing the S&P 500. From December 2003 to December 2013 the average quarterly (QoQ) return of the S&P 500 was 1.80% and its standard deviation was 8.20%. This means over this 10 year period an investor would earn a QoQ return of 1.80% holding the S&P 500, but in any particular quarter an investor may experience a gain of 10.00% or a loss of 6.40%¹. On the other hand, the average QoQ return for the BOA Agg Index was 1.07% and

its standard deviation was only 1.81%; which means that the QoQ return for the BOA Agg Index could be up by 2.95% or down by 0.69%. The BOA Agg Index is certainly the less volatile of the two asset classes due to its lower standard deviation, but it also historically earns a lower return compared to the S&P 500. Now consider a separate portfolio, Portfolio X, with its assets equally weighted between the S&P 500 and the BOA Agg Index, and rebalanced to align the allocation to its target of 50% every quarter. The average

Rebalancing portfolios that consist of multiple asset classes automatically serve the purpose of strategic and tactical asset allocation without having to make these decisions deliberately.

QoQ return of Portfolio X was 1.57%, but its standard deviation drops by almost half to 3.92%. Portfolio X earns a return that is only 0.23% less than the S&P 500 but has less than half the volatility of the S&P 500. Another way of evaluating this situation is to calculate the growth of \$1,000 invested in these investment strategies; 100% stocks (S&P 500), 100% Bonds (BOA Agg Index) and 50% Stocks / 50% Bonds (Portfolio X). Over 10 years, \$1,000 would be worth \$2,043 if it was 100% invested in the

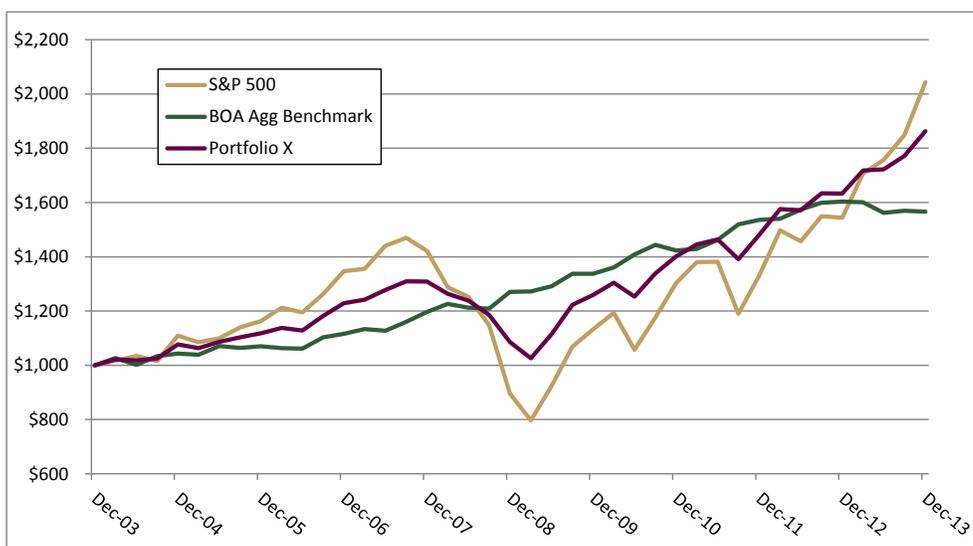
stocks, \$1,565 if it was 100% invested in bonds and \$1,862 if it was invested 100% in Portfolio X (See Table 1). Stocks look like the clear winner until we look at their performance during the financial crisis. During the period of December 2007 to March 2009 stocks fell by 43.94%, but Portfolio X fell by only 21.59%, less than half the amount of stocks. The outperformance of Portfolio X was a result of the allocation to bonds which returned a positive 6.31% during the crisis. The allocation to bonds cushioned the blow to Portfolio X's returns by offsetting a portion of the negative returns from the allocation to stocks.

One important reason why Portfolio X performs so much better compared to a portfolio of 100% stocks is due to the low correlation between stocks and bonds. Correlation between stocks and bonds vary over the long run; this means their returns do not move in tandem together. In fact, they often move in opposite directions. In times of

Table 1 (December 2003 - December 2013)	S&P 500	BOA Agg Benchmark	Portfolio X (50% Bonds/50% Stocks)
Quarterly Compounded Return	1.80%	1.13%	1.57%
Standard Deviation	8.20%	1.82%	3.92%
QoQ Return + One Standard Deviation¹	10.00%	2.95%	5.49%
QoQ Return - One Standard Deviation¹	-6.40%	-0.69%	-2.35%
Performance During December 2007 - March 2009	-43.94%	6.31%	-21.59%
10 Year Growth of \$1000	\$2,043.03	\$1,603.36	\$1,862.48

¹ This calculation is based on a statistical concept which states that 68% of all observations fall within one standard deviation of the average. For the purpose of calculation simplicity we use +/- one standard deviation. Please see additional disclosures at the end of this article. Table and Graph Source: Bloomberg

Portfolio Construction—Taking Advantage of Volatility and Asset Correlations Through Portfolio Rebalancing (CONTINUED)



class that has performed well and reinvests the gains into assets that have relatively underperformed and may be undervalued.

The advantages of a portfolio that contains multiple asset classes cannot be understated. Investors considering equities as their sole investment vehicle need to be aware that they are giving up significant advantages that result from asset class diversification. The trade-off between making a slightly lower return during bull markets is a small price to pay if it comes with a stable portfolio, reduced volatility and peace of mind.

extreme distress, stocks tend to fall and the resulting flight to safety causes prices of safe bonds to rise. Conversely, monetary and fiscal policy intervention tends to similarly impact both stocks and bonds. The most recent monetary policy actions by the Federal Reserve, the reduction in federal funds rate and quantitative easing (QE), potentially resulted in inflating the prices of many asset classes. From a portfolio construction standpoint, combining uncorrelated assets together not only allows the portfolio to realize the long-run returns on all the combined assets, but it also substantially reduces the portfolio's volatility. Reducing volatility is very important due to the mechanics of returns. For example, when a \$1,000 portfolio loses 33% of its value it will be worth \$670. For this \$670 portfolio to get back to its original \$1,000 (break-even) it will subsequently have to earn a return of 50%. A portfolio that has lower price volatility compared to the market inherently performs better than the market during down years; and is subsequently required to earn less to reach break-even – all the while helping to protect principal with lower volatility.

A portfolio consisting of multiple uncorrelated asset classes also protects investors better if one asset class (e.g. stocks) experiences a sudden decline in value. Rebalancing portfolios that consist of multiple assets classes automatically serve the purpose of strategic and tactical asset allocation without having to make these decisions deliberately. One important rule of investing is buying low and selling high. Rebalancing a portfolio automatically allocates capital out of the asset

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Additional Disclosures

Past performance is not indicative of future results. References to investment indices are for informational purposes and do not imply that managing portfolios to those styles will achieve comparable returns. Index returns assume reinvestment of all dividends, income and capital gains, if any, but do not reflect the deduction of transaction and/or custodial charges or the deduction of an investment management fee, which, if applied would have the effect of decreasing historical performance results. Indices are unmanaged, and one cannot invest directly in an index.

Standard and Poor's 500 Index (S&P 500)

The Standard and Poor's 500 Index - is a capitalization-weighted index of 500 stocks. The index is designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries. The index was developed with a base level of 10 for the 1941- 43 base period. See SPY US Equity for the tradable equivalent.

Bank of America Merrill Lynch US Corporate, Government and Mortgage Index (BOA Agg Benchmark)

The Bank of America Merrill Lynch US Corporate, Government and Mortgage Index tracks the performance of US dollar-denominated investment grade Government and Corporate public debt issued in the US Domestic bond market, including Mortgage Pass-Through securities but excluding Asset Backed securities. Qualifying bonds must have at least one year remaining to maturity and a fixed coupon schedule. Bonds must be rated investment grade based on a composite of Moody's and S&P. "Yankee" bonds (debt of foreign issuers issued in the US domestic market) are included in the Index provided the issuer is a Supranational or is domiciled in a country having an investment grade foreign currency long-term debt rating (based on a composite of Moody's and S&P).

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Fixed income investments are subject to interest, credit, and market risk. Interest rate risk: the value of fixed income investments will decline as interest rates rise. Credit risk: the possibility that the borrower may not be able to repay interest and principal. Low rated bonds generally have to pay higher interest rates to attract investors willing to take on greater risk. Market risk: the bond market in general could decline due to economic conditions, especially during periods of rising interest rates.