NORTHERN TRUST

Core/Core Plus
Investment Strategy

ACTIVE FIXED INCOME QUARTERLY UPDATE

March 31, 2017

SUMMARY:

- **Business and consumer sentiment indicators hit multi-year highs in the first quarter, driven by optimism over the Republican election sweep.**
- **We positioned portfolios for risk assets to perform well with duration short of benchmarks, Treasury inflation protected securities (TIPS), and an overweight to corporate bonds.**
- **Core portfolios slightly underperformed, while core plus portfolios outperformed their Bloomberg Barclays U.S. Aggregate Bond Index benchmark**

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ECONOMIC AND MARKET BACKDROP: STRONG POSITIVE SENTIMENT

Business and consumer optimism expanded across the globe in the first quarter. The potential for pro-growth initiatives by the new U.S. government pushed many economic sentiment indicators in the U.S. and abroad to the best levels in the last decade. The pillars of the pro-growth plan—tax reform, reduced regulation, and fiscal stimulus—have led investors to believe the U.S. economy can break out of the slow growth channel that has characterized this economic expansion.

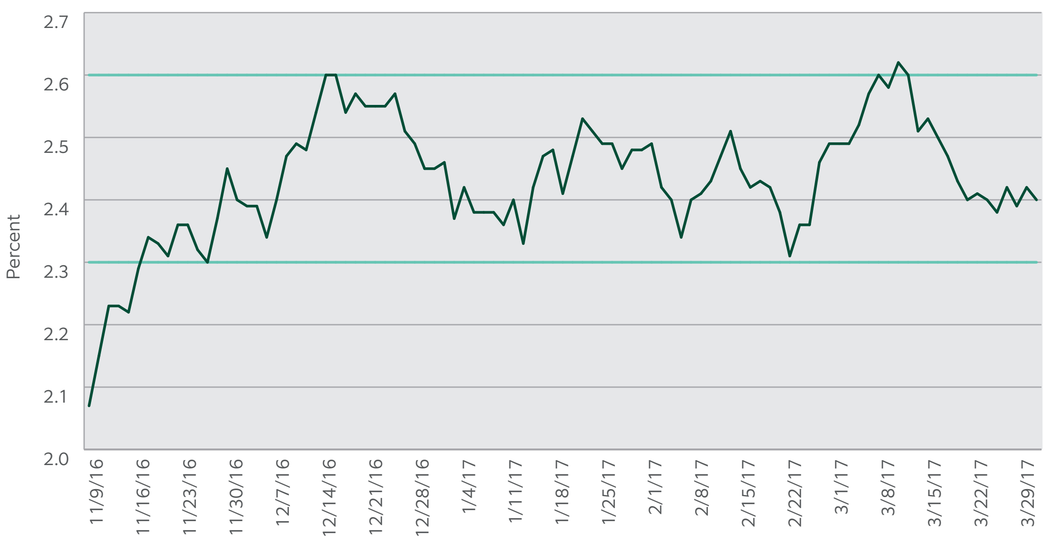
Late in the quarter this optimism was put to its first test. The Republican sponsored healthcare bill to replace the Affordable Care Act was pulled from the floor of the House of Representatives. While not a centerpiece of President Donald Trump's agenda, the bill's failure raised investor concerns. Despite Republican control of the White House and Congress, it may be more difficult to pass the president's agenda than previously thought without party unification and bipartisan cooperation.

The Federal Reserve has been watching these developments closely. They have wanted to raise interest rates for the past two years and have anxiously waited for investors to get on board. The business and consumer confidence exhibited since the election, in conjunction with higher inflation readings, appears to have done this. Investors provided the Fed a green light to increase their benchmark federal funds rate another 25 basis points at their March meeting, leaving their targeted range from 0.75% to 1.00%. Important for investors, Chair Janet Yellen noted after this increase that she continues to believe the ultra-accommodative policies in effect since the financial crisis should be removed slowly.

DURATION/CURVE: CHANGES WITH NEW OUTLOOK

Treasury yields were mixed over the first quarter, with small movements across the interest rate curve. Ten-year Treasuries traded in roughly a 2.30% to 2.60% range throughout, following the sharp increase in the aftermath of the election.

EXHIBIT 1: 10-YR U.S. TREASURIES



SOURCE: U.S. Dept of the Treasury

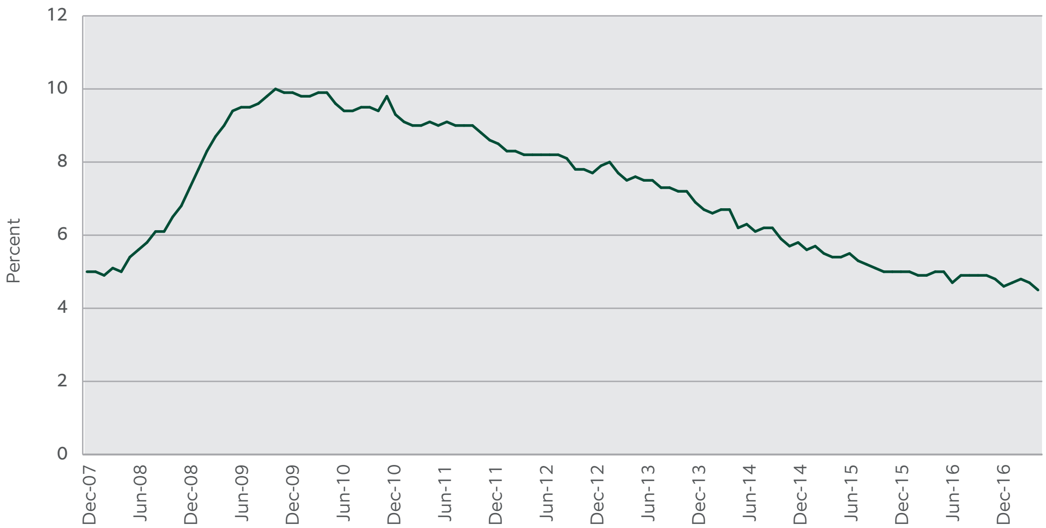
The U.S. election has caused us to change our interest rate views and the overall duration positioning across our portfolios. For the last seven years we've believed the U.S. economy would remain on a slow growth path and that interest rates would stay lower for an extended period. As such, portfolios had consistently been positioned neutral to long duration to our benchmarks. We believe the unexpected outcome of the U.S. election and the Republican sweep has changed the landscape for investors. While we don't believe this will lead to a bear market for bonds, we think interest rates will move into a higher channel.

We positioned portfolios neutral-to-short duration relative to their respective benchmarks in the first quarter. The decline in long-term rates created a modest, negative contribution to performance over the first quarter. We remain neutral-to-short duration, believing 10-year Treasury yields are likely to rise in the near-term as investors focus on the potential for better growth and higher inflation that may arise from the president's pro-growth agenda.

SECTOR ALLOCATION: OVERWEIGHT CREDIT

The U.S. economic expansion is one of the longest in the post-World War II. The economy has been consistently adding jobs for more than six years, leaving the unemployment rate relatively low.

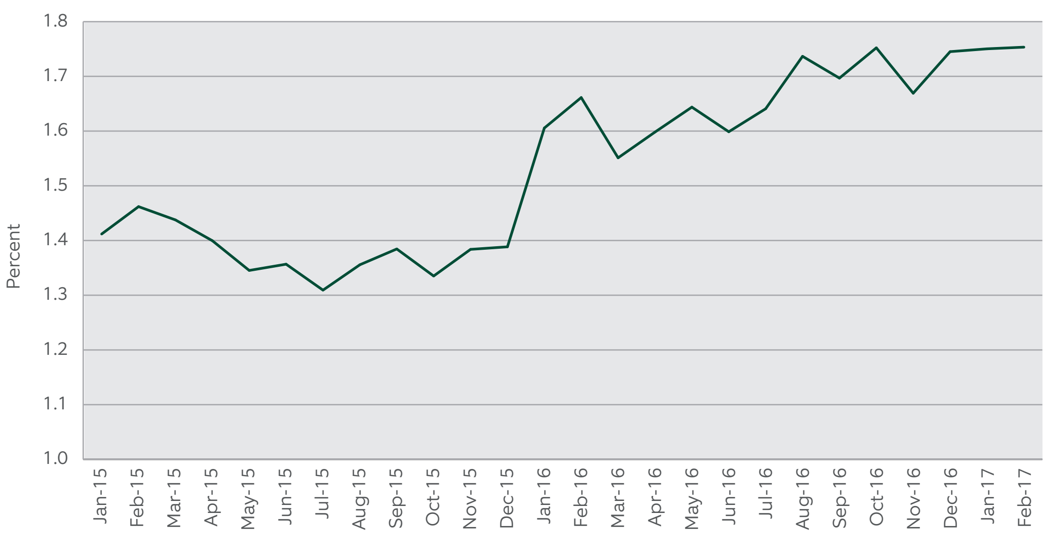
EXHIBIT 2: UNEMPLOYMENT RATE



SOURCE: Bloomberg Barclay's, U.S. Bureau of Labor Statistics

Given our belief the economy has the potential for additional fiscal stimulus, we think the combination of these factors could lead to higher inflation. Indeed, the Fed's preferred measure of inflation, the Personal Consumption Expenditures (PCE) Index, excluding food and energy, has been slowly rising over the last year and a half.

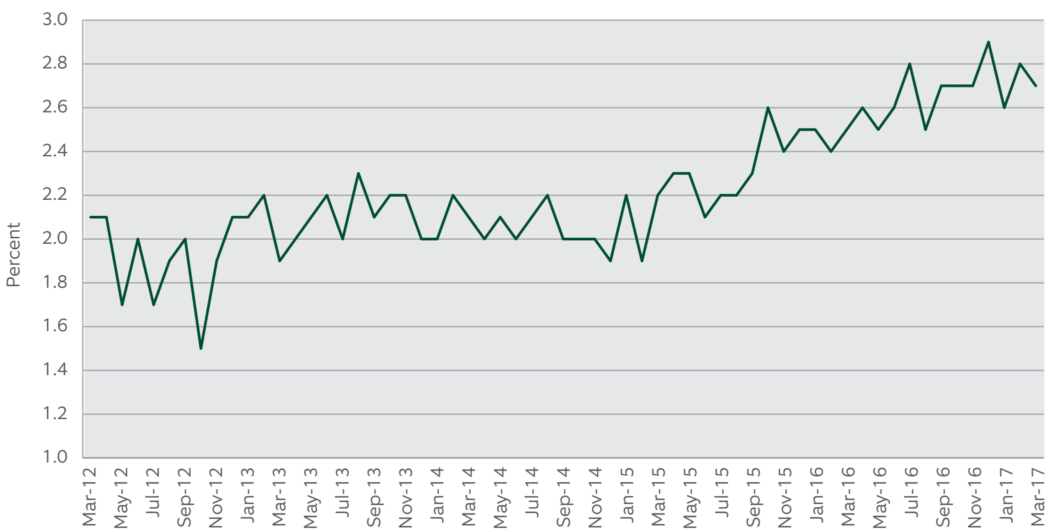
EXHIBIT 3: PCE, EX FOOD AND ENERGY



SOURCE: Bloomberg Barclay's, U.S. Bureau of Economic Analysis

A key factor driving the overall increase, and something we believe the Fed is watching closely, has been an increase in labor costs. Wages have been accelerating over the past year and a half, as illustrated by the rise in average hourly earnings. We believe inflation may continue to rise in this environment and that the low inflation environment witnessed since the financial crisis is fading. Accordingly, we purchased Treasury inflation protected securities (TIPS) following the election and continue to own these. TIPS provided a small, positive contribution to performance in portfolios in the quarter.

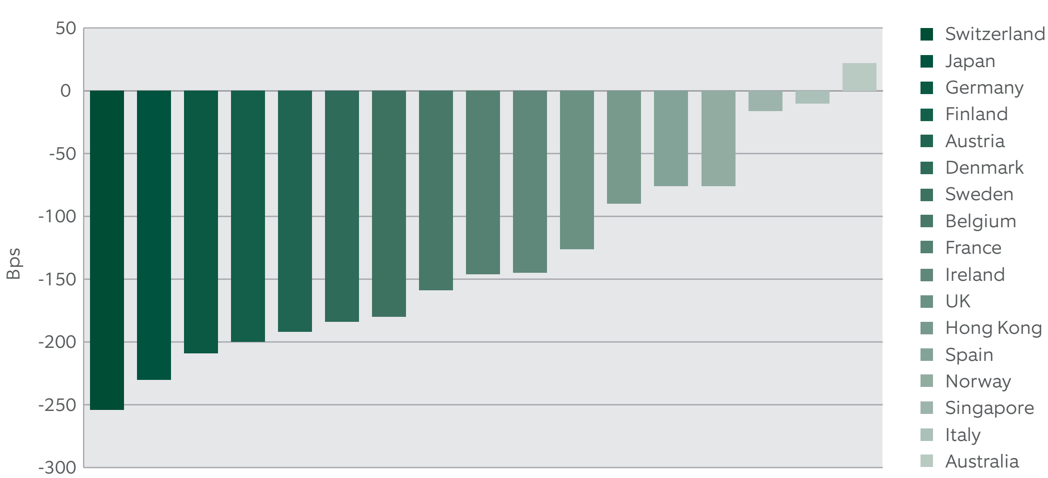
EXHIBIT 4: U.S. AVERAGE HOURLY EARNINGS



SOURCE: Bloomberg Barclay's, U.S. Bureau of Labor Statistics

The U.S. continued with some of the highest rates in the developed world in the first quarter. The large yield advantage has led foreign investors to pour money into U.S. Treasuries and investment-grade corporate bonds. The inflows provided fixed income managers with ample ammunition to purchase bonds in primary and secondary markets.

EXHIBIT 5: DEVELOPED MARKETS SPREAD TO TEN YEAR U.S. TREASURIES

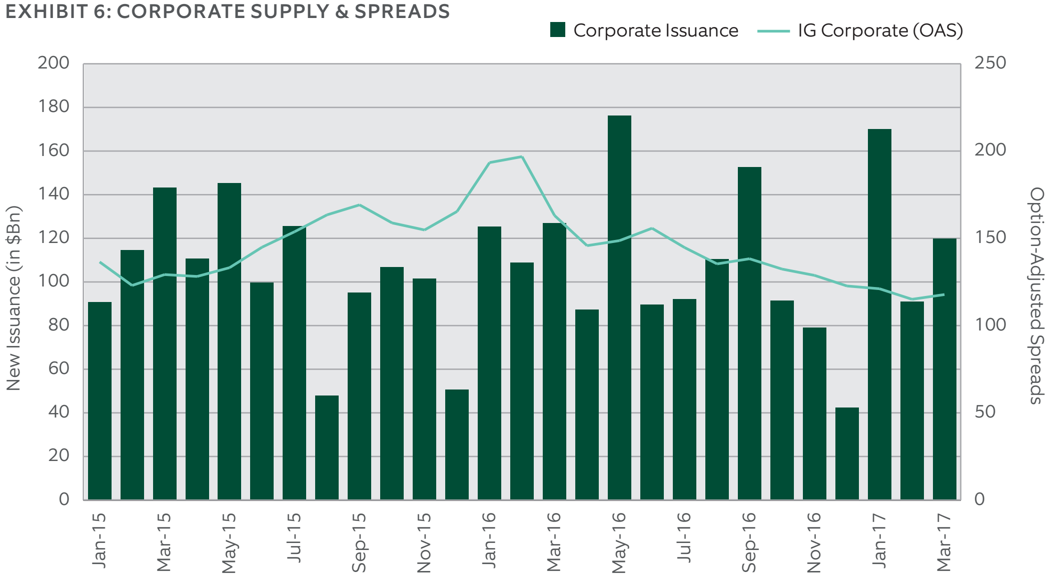


SOURCE: Northern Trust Fixed Income; Bloomberg Barclay's

We continued to be underweight U.S. government securities in the first quarter. We believe risk assets will do well as the probability of better growth and higher inflation increased since the Republican election sweep.

Investment-grade credit spreads contracted during the quarter even though issuers continued to flood the market. Issuance of new bonds set a first quarter record and follows four straight record years.

EXHIBIT 6: CORPORATE SUPPLY & SPREADS



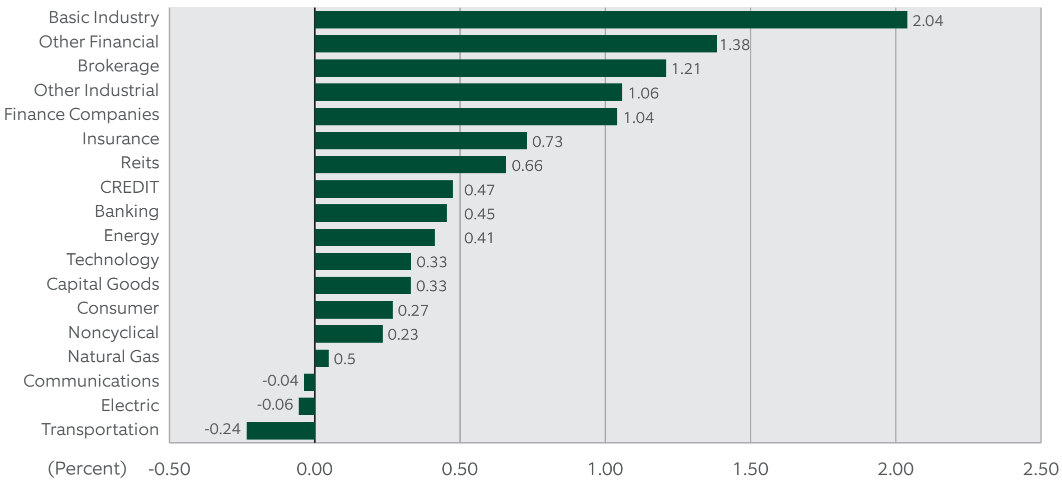
SOURCE: Northern Trust Fixed Income; Bloomberg Barclay's

We remained overweight credit risk assets such as investment-grade and high-yield corporate bonds. This provided a positive contribution to performance as credit spreads narrowed once again. Looking forward, we still prefer corporate bonds as a way to improve potential total returns. We believe a key investment implication from the U.S. election is the probability of better economic growth in the U.S. has increased. This growth may be translated into increased sales and cash flow of U.S. companies that may enhance their creditworthiness. Credit fundamentals deteriorated because of shareholder friendly activities and record merger and acquisition activity over the past few years. We believe this trend will begin to reverse in 2017. Better economic growth, higher interest rates, and better corporate cash flow are factors that could lead to further tightening of credit spreads for corporate bonds.

SECURITY SELECTION: POSITIVE ON FINANCIAL SECTOR, CORPORATE BONDS

We remain overweight exposure to the financial sector. While financial companies underperformed other sectors of the corporate bond market in 2016, we believe this is changing and they offer a relative value opportunity. Indeed, many financial sectors were some of the best performing in the first quarter. The potential for higher interest rates, lower corporate tax rates, and less regulation are all positives for this sector in our view. Financial companies also offer other advantages for fixed income investors. They are often some of the largest and most liquid issuers in the investment-grade universe, which are key considerations in constructing high-quality, well-diversified, and liquid investment portfolios that characterize our core and core plus strategies.

EXHIBIT 7: EXCESS RETURNS BY SECTOR – PAST 3 MONTHS



SOURCE: Northern Trust Fixed Income; Bloomberg Barclay's

After the election, we increased risk in our portfolios, adding corporate bonds that we believe may perform better in an economy with faster economic growth and higher inflation. We've been underweight two higher quality sectors of the market, albeit for different reasons. We've been underweight the technology sector as, generally speaking, companies in this sector are of higher quality and trade at lower credit spreads. We believe bonds of these companies offer less opportunity to appreciate in this environment. We've also been underweight the pharmaceutical sector. While companies in this space are also generally of higher quality, we've been underweight because of headline risk from the new administration's focus on reducing prices of the drugs they sell.

EXHIBIT 7: PERFORMANCE AS OF MARCH 31, 2017

NORTHERN FUNDS	1-Year Return	3-Year Avg. Annual Return	5-Year Avg. Annual Return	10-Year Avg. Annual Return	Avg. Annual Since Inception	Gross Expense Ratio	Net Expense Ratio	Inception Date
Northern Core Bond Fund[1]	0.36%	2.44%	2.51%	4.49%	4.57%	0.47%	0.43%	3/29/01
Benchmark: Bloomberg Barclays U.S. Aggregate Bond Index	0.44%	2.68%	2.34%	4.27%	4.68%	–	–	–
Northern Fixed Income Fund[1]	1.58%	2.60%	2.92%	4.24%	5.13%	0.49%	0.47%	4/1/94
Benchmark: Bloomberg Barclays U.S. Aggregate Bond Index	0.44%	2.68%	2.34%	4.27%	5.55%	–	–	–
Northern Short Bond Fund	1.45%	0.89%	1.13%	2.47%	4.00%	0.43%	0.41%	1/11/93
Benchmark: Bloomberg Barclays 1–3 Year U.S. Government/Credit Index	0.71%	0.96%	0.93%	2.34%	3.97%	–	–	–
Northern Short-Intermediate U.S. Government Bond Fund[1,2]	-0.74%	0.79%	0.51%	2.12%	3.02%	0.49%	0.43%	10/1/99
Benchmark: Bloomberg Barclays 1–5 Year U.S. Government Index	-0.13%	1.09%	0.90%	2.65%	3.57%	–	–	–
Northern U.S. Government Fund[1,2]	-1.26%	1.31%	0.81%	2.82%	4.08%	0.83%	0.46%	4/1/94
Benchmark: Bloomberg Barclays Intermediate U.S. Government Index	-0.67%	1.55%	1.23%	3.32%	4.67%	–	–	–

Performance quoted represents past performance and does not guarantee future results. Investment return and principal value will fluctuate so that shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than that shown here. Performance data current to the most recent month end is available by calling 800-595-9111.

The Advisor has agreed to reimburse certain expenses of the Fund. The contractual reimbursement arrangement is expected to continue until at least July 31, 2017. After this date, the contractual arrangements may be terminated if it is determined to be in the best interest of the Fund and its shareholders. In the absence of fee waivers, yield, total return, growth since inception and dividends would have been reduced. Total return is based on net change in NAV assuming reinvestment of distributions.

Annualized for periods greater than one year.

[1]**Mortgage-Backed Securities Risk:** Mortgage-backed investments involve risk of loss due to prepayments and, like any bond, due to default. Because of the sensitivity of mortgage-related securities to changes in interest rates, the Fund's performance may be more volatile than if it did not hold these securities.

[2]**U.S. Government Guarantee:** U.S. government guarantees apply only to the underlying securities of a Fund's portfolio and not the Fund's shares.

Alpha: Measures a fund's risk-adjusted performance and represents the difference between a fund's actual performance and its expected performance, given its level of risk.

Barclays 1 – 3 Year U.S. Government/Credit Index is an unmanaged index of securities issued by the U.S. government and corporate bonds with maturities of one to three years. It is not possible to invest directly in an index.

Barclays 1 – 5 Year U.S. Government Index is an unmanaged index of securities issued by the U.S. government with maturities of one to five years. It is not possible to invest directly in an index.

Barclays Intermediate U.S. Government Index is an unmanaged index including all public obligations of the U.S. Treasury and all publicly issued debt of U.S. government agencies with maturities of up to 10 years. It is not possible to invest directly in an index.

Barclays U.S. Aggregate Bond Index is an unmanaged index of prices of U.S. dollar-denominated investment-grade fixed income securities with remaining maturities of one year and longer. It is not possible to invest directly in an index.

Basis Points (bps): Unit of measure used in quoting yields, changes in yields or differences between yields. One basis point is equal to 0.01%, or one one-hundredth of a percent of yield and 100 basis points equals 1%.

Beta: Beta represents the systematic risk of a portfolio and measures its sensitivity to a benchmark.

Bond Risk: Bond funds will tend to experience smaller fluctuations in value than stock funds. However, investors in any bond fund should anticipate fluctuations in price, especially for longer-term issues and in environments of rising interest rates.

ERISA: Employee Retirement Income Security Act of 1974 (ERISA) enacted rules for U.S. qualified plans to help protect the retirement assets.

Option-adjusted spread (OAS) is the difference in yield between two fixed income securities (generally between a fixed income security with credit risk and a comparable treasury bond), adjusted for differences in duration and embedded options.

Yield-to-Worst (YTW) is the lowest potential yield that can be received on a bond assuming options available to the issuer are exercised.