NORTHERN TRUST

Core/Core Plus Investment Strategy

ACTIVE FIXED INCOME QUARTERLY UPDATE

September 30, 2017

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SUMMARY:

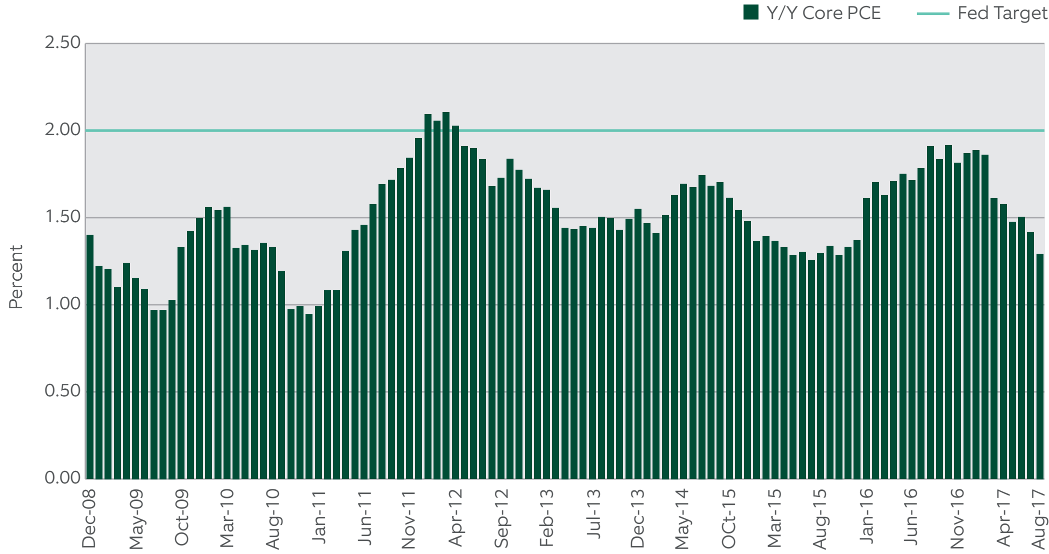
- **Global economic growth improved and became more synchronized, prompting central banks to reconsider their accommodative policies.**
- **The Federal Reserve has been more hawkish, signaling they prefer to continue to slowly tighten policy despite modest growth and inflation.**
- **Corporate credit spreads tightened and our overweight to corporate debt was the largest contributor to our outperformance of the Bloomberg Barclays U.S. Aggregate Index benchmark.**

GLOBAL ECONOMY IMPROVES, WITH GREATER SYNCHRONIZATION

Global economic growth continued to improve in the third quarter and became more synchronized. For the first time since 2010, developed economies are all showing growth. Also, businesses and consumers are showing the most confidence in their prospects in a decade. The U.S. expansion that began in 2009 continued, making it one of the longest in the post-World War II period. At the end of the quarter, President Trump released his long-awaited tax-reform plan, the result of a months-long process and a key promise in his campaign. While many obstacles and changes may occur before any of his plan becomes legislation, risk assets performed well as this was announced, with U.S. stock indices making new all-time highs.

Inflation remained low in the third quarter, as it has been since the global financial crisis. Low inflation has caused global central banks to take their benchmark interest rates to all-time lows and provide additional policy accommodation through bond purchase programs. In the U.S., core personal consumption expenditures (PCE), the Federal Reserve's preferred measure of inflation, peaked in January and has since declined on a year-over-year basis. Core PCE has been below the Fed's 2% target in virtually every month since the global financial crisis began in 2008.

EXHIBIT 1: CORE PCE (PERSONAL CONSUMPTION EXPENDITURES)

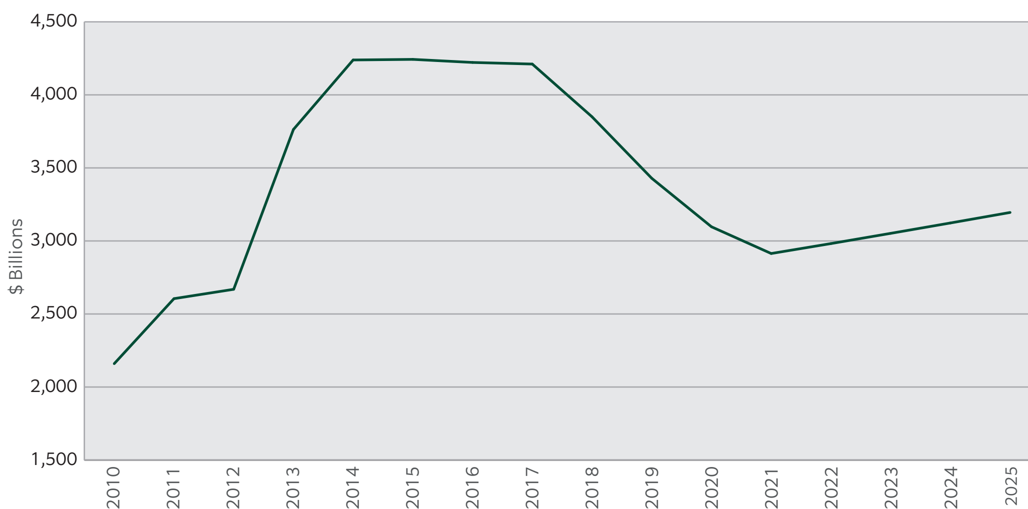


SOURCE: Northern Trust Fixed Income, Bloomberg Barclays

FED TO REDUCE ITS BALANCE SHEET

Despite modest growth and low inflation, the Federal Reserve announced plans at their September meeting to continue slowly removing policy accommodation by reducing the size of their balance sheet. The years-long plan to reduce the Treasury and mortgage-backed bonds held by the Fed started Oct. 1. The program will reduce their holdings slowly and mechanically, allowing $10 billion worth of bonds to mature each month without replacing them. Every three months, assuming economic conditions warrant, the number of bonds allowed to mature without reinvestment will grow, until the amount reaches $50 billion per month.

EXHIBIT 2: FEDERAL RESERVE PORTFOLIO NORMALIZATION

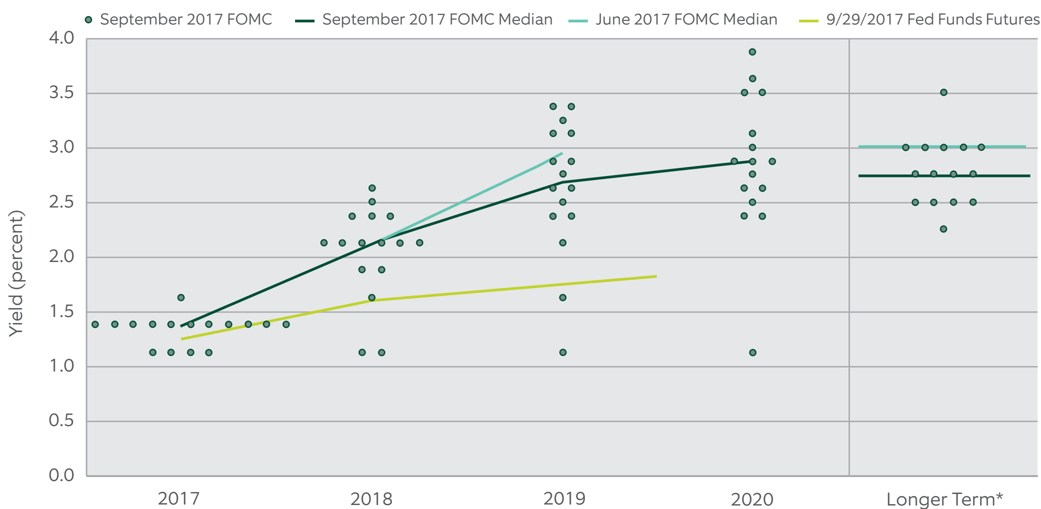


SOURCE: Northern Trust Fixed Income, Federal Reserve Bank of New York
Data based on median response to the Federal Reserve's long-run balance sheet in the New York Fed's June 2017 Surveys of Primary Dealers and Market Participants. Project figures are rounded.

Fed Chair Janet Yellen made it clear after the September meeting that she's concerned inflation will rise over the next few years, and she doesn't want to wait to tighten policy. The long economic expansion has created jobs for the last seven years, pushing unemployment below what the Fed considers to be the equilibrium rate. The demand for labor remains strong, so they're concerned this may push wages higher. With interest rates still near historical lows, the Fed prefers to continue to tighten policy slowly, despite recent data continuing to show the modest growth and inflation that's characterized this long expansion.

While the Fed has increased the fed funds rate three times since December 2016, fixed income investors doubt they can repeat this in the coming year. The continued slow-growth, low-inflation environment has them pricing in fewer hikes next year than Fed members predict.

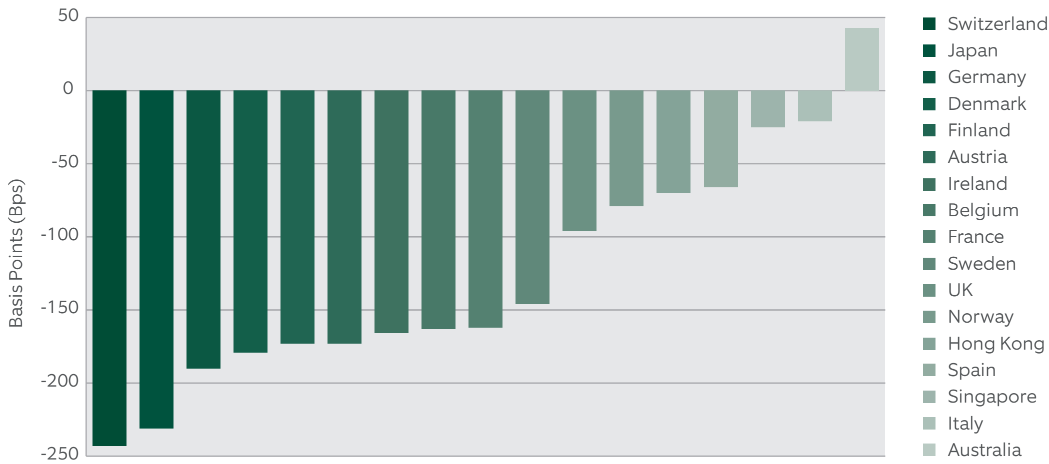
EXHIBIT 3: FED VS. MARKET EXPECTATIONS



SOURCE: Northern Trust Investment Strategy, Bloomberg, Federal Open Market Committee (FOMC) Summary of Economic Projections. Most recent FOMC projections as of the 9/20/2017 committee meeting. *Longer term represents FOMC expectations for where the rate is expected to converge over time. Fed funds futures data as of 9/29/2017.

Other central banks are watching the Fed's moves closely. Growth in their economies has picked up, so they've begun to ponder removing their own accommodative policies. The European Central Bank (ECB) noted they'll have a robust discussion of their bond purchase program when they meet in October. The Bank of England was also more hawkish, noting an interest rate increase may be appropriate in the coming months. The hawkish comments from three of the largest central banks caused sovereign debt yields to rise across the globe into quarter-end. While yields rose across all developed economies, U.S. debt continued to have a tremendous yield advantage over other countries, driving foreign investors into our market.

EXHIBIT 4: DEVELOPED MARKETS SPREAD TO TEN YEAR U.S. TREASURIES



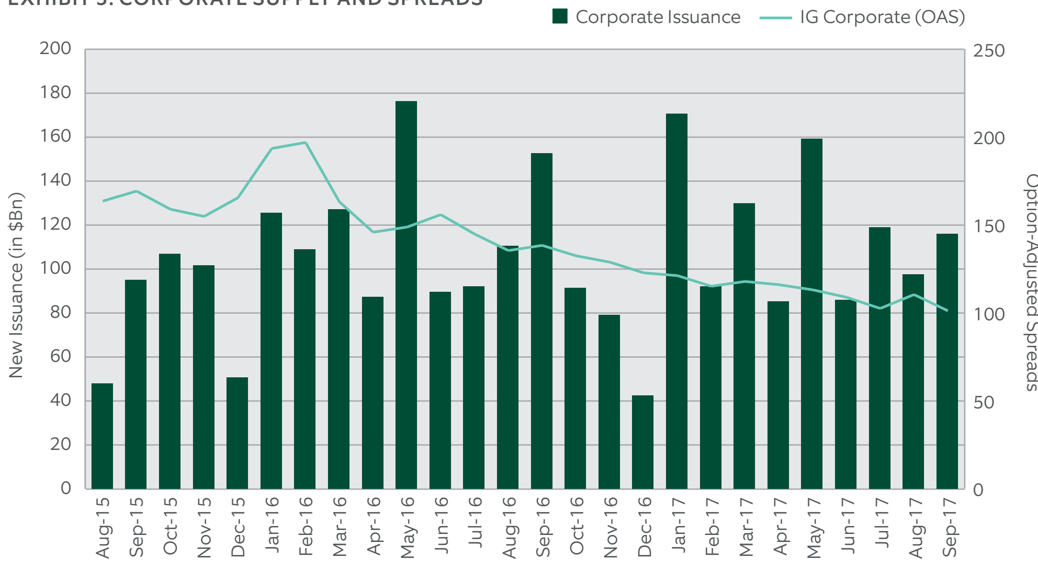
SOURCE: Northern Trust Fixed Income; Bloomberg Barclays

Portfolios were generally neutral duration relative to their benchmarks during the third quarter. While we believe interest rates will slowly rise across the interest rate curve, until September we didn't see many opportunities to position portfolios for this view. Portfolios were generally underweight bonds with one- to seven-year maturities and overweight maturities 10 years and longer. Curve positioning was a small, positive contributor to performance as yields on shorter maturities rose and those longer than 10 years were relatively flat.

CREDIT SPREADS CONTINUED TO TIGHTEN DESPITE FLOOD OF NEW ISSUES

Investment-grade and high-yield credit spreads contracted during the quarter, ending at their tightest levels in the last few years. This happened even though issuers continued to flood the market. Throughout 2017, the investment-grade market has seen large inflows of money from domestic and international investors. If current trends persist, this will mark the fifth year in a row that investment-grade bond issuance has set a record. It's a testament to investor demand for yield that credit spreads have continued to grind tighter.

EXHIBIT 5: CORPORATE SUPPLY AND SPREADS



SOURCE: Northern Trust Fixed Income; Bloomberg Barclays, SIFMA, Thomson Reuters

We remained overweight credit risk assets such as investment-grade and high-yield corporate bonds throughout the quarter. This provided a positive contribution to performance as credit spreads narrowed. Looking forward, we still prefer corporate bonds as a way to potentially improve total returns. Credit fundamentals have deteriorated due to shareholder-friendly activities and record merger and acquisition activity over the past few years. We believe this trend is reversing in 2017, driven by improved company fundamentals. Sales, earnings and cash flows have been improving and we believe this trend will continue. In addition, we believe investment-grade and high-yield corporate bonds may benefit in the fourth quarter from a slowdown in new issuance and the president's tax reform plan.

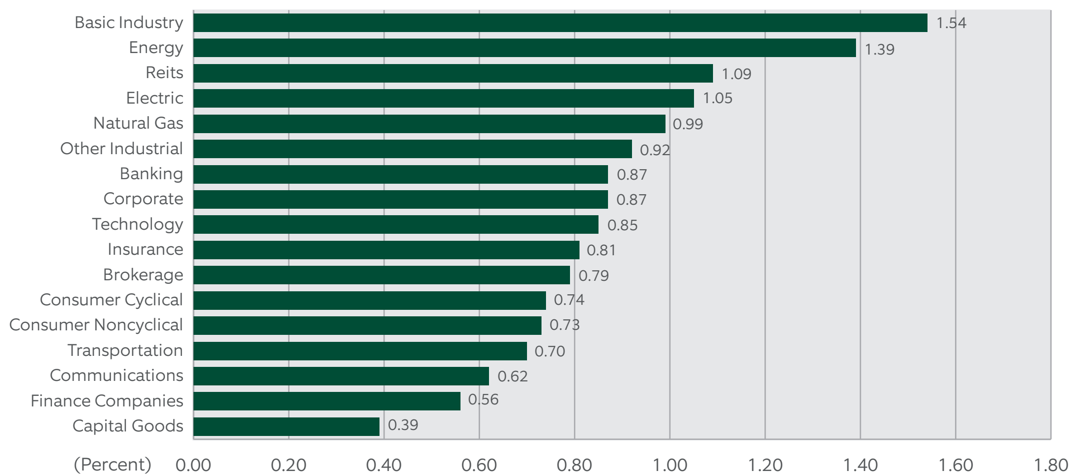
We added to our investments in AAA-rated agency mortgage-backed securities (MBS) in the quarter. MBS have been sold this year as investors worry about how the market will handle the Fed's plan to reduce MBS holdings from its balance sheet. To fund this position, we sold most of our remaining holdings in asset-backed (ABS) and commercial mortgage-backed securities (CMBS). ABS and CMBS spreads have tightened this year and we believe MBS represent better relative value. We believe the Fed desires to sell its bonds slowly over the next few years to avoid disrupting the MBS market. We believe this asset class should benefit as investors realize the Fed's sales will be a non-event for MBS. Also, the yield advantage available in MBS is attractive in the low interest rate environment.

SECURITY SELECTION: ADDING LOWER-RATED ISSUERS

We've taken more risk in our portfolios since the U.S. election last November, adding lower-rated issuers that carry more credit risk. Our security selection in corporate bonds contributed to performance in the quarter as credit spreads tightened more for lower-rated credits.

We lightened our large overweight to the banking sector. These issuers have outperformed other sectors of the investment-grade bond market this year. Investors view the Trump administration's plans to roll back post-financial-crisis regulations as positive for bank earnings and cash flows.

EXHIBIT 6: EXCESS RETURNS BY SECTOR – PAST 3 MONTHS



SOURCE: Northern Trust Fixed Income; Bloomberg Barclays

We remain underweight the pharmaceutical sector for two reasons. First, companies in this space are generally of higher quality and we've believed lower-quality issuers will perform better in the current environment. We've also been underweight due to the headline risk we believe exists from the new administration's focus on reducing drug prices.

EXHIBIT 7: PERFORMANCE AS OF SEPTEMBER 30, 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]	0.05%	2.49%	2.03%	4.65%	4.58%	0.49%	0.43%	3/29/01
Benchmark: Bloomberg Barclays U.S. Aggregate Bond Index	0.07%	2.71%	2.06%	4.27%	4.68%	–	–	–
Northern Fixed Income Fund[1]	0.71%	2.70%	2.39%	4.44%	5.13%	0.50%	0.47%	4/1/94
Benchmark: Bloomberg Barclays U.S. Aggregate Bond Index	0.07%	2.71%	2.06%	4.27%	5.53%	–	–	–
Northern Short Bond Fund	1.15%	1.13%	0.97%	2.33%	3.96%	0.44%	0.41%	1/11/93
Benchmark: Bloomberg Barclays 1–3 Year U.S. Government/Credit Index	0.66%	1.05%	0.91%	2.09%	3.92%	–	–	–
Northern Short-Intermediate U.S. Government Bond Fund[1,2]	-0.85%	0.74%	0.19%	1.97%	2.96%	0.52%	0.44%	10/1/99
Benchmark: Bloomberg Barclays 1–5 Year U.S. Government Index	-0.06%	1.17%	0.83%	2.38%	3.51%	–	–	–
Northern U.S. Government Fund[1,2]	-1.31%	1.23%	0.36%	2.73%	4.03%	0.92%	0.47%	4/1/94
Benchmark: Bloomberg Barclays Intermediate U.S. Government Bond Index	-0.66%	1.58%	1.01%	3.08%	4.62%	–	–	–

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, 2018. 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.

Bloomberg 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.

Bloomberg 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.

Bloomberg 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.

Bloomberg 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.

Please carefully read the prospectus and summary prospectus and consider the investment objectives, risks, charges and expenses of Northern Funds before investing. Call 800-595-9111 to obtain a prospectus and summary prospectus, which contains this and other information about the funds.

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