# Market Bulletin

June 16, 2017

# Investing in a rising rate environment

## In brief

- The next few years are likely to be tough for investors in fixed income, as U.S. monetary policy tightens, just as duration, a measure of sensitivity to interest rate changes, has risen to multi-decade highs within U.S. fixed income.
- Investors can take action to help shield their fixed income portfolio from the impact of tighter monetary policy by understanding and managing duration and diversifying within fixed income—across the risk spectrum, sectors and geographies.
- Despite the expected challenges ahead, fixed income continues to play an important role in helping investors diversify their portfolios and contain volatility.

## The outlook for fixed income

Since the financial crisis, the Federal Reserve's (Fed's) interest rate cuts and large-scale asset purchases, meant to spur recovery, have helped bonds to rally. A benchmark index has returned 4% in the last decade.[1] However, the road ahead looks bumpier for bonds, as the Fed continues to tighten monetary policy. With U.S. inflation heading towards the central bank's 2% target and the country's labor market dynamics strengthening, the Fed is likely to tighten monetary policy in two ways: by raising interest rates and by reducing the size of its balance sheet.

In the last three years, the Fed has raised interest rates just four times—the most gradual rate hiking cycle in history. However, with the U.S. economy continuing to motor along, we believe the pace of interest rate hikes may increase, with at least one more rate rise this year, followed by three to four in 2018. Contrary to our views, markets are pricing in just two more 0.25% rate hikes by June 2019. This would suggest investors are not yet fully braced for a faster-moving Fed in the next two years.

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[1] Index is the Bloomberg Barclays US Aggregate.

## Shrinking the balance sheet

One important point is that the terminal fed funds rate (or target level of interest rates in the hiking cycle) is expected to be much lower than in the past. The Fed forecasts long-term rates of 3%—below the historical average of 5.3%. That would leave the Fed with less ammunition to fight the next recession and may require it to lean on alternative monetary policy tools.

One such alternative tool is shrinking the balance sheet and, now, after the first rate hikes, the Fed is actively discussing it. Since raising interest rates has been the Fed's tool of choice for tightening monetary policy, investors and Fed officials can gauge its impact on the economy, investors, however, are not as accustomed to balance sheet reduction.

**Exhibit 1** depicts the Fed balance sheet's expansion since 2002 with quantitative easing (QE) bringing it to $4.5 trillion currently, with $2.5 trillion held in U.S. Treasuries and another $1.8 trillion held in mortgage-backed securities (MBS). The Fed has been maintaining these levels by reinvesting principal repayments and rolling over or replacing maturing securities.

## The balance sheet journey: When, where and how long?

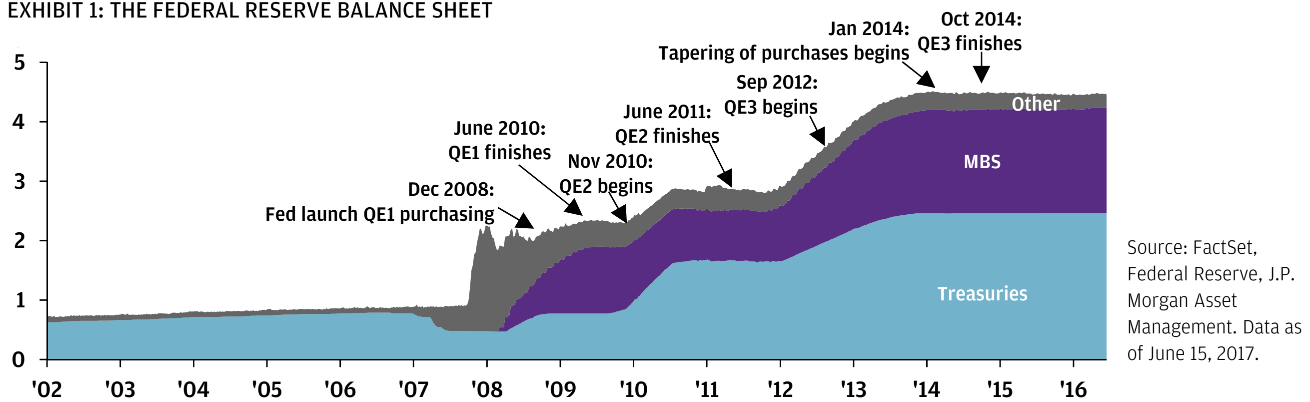
We think of the Fed's balance sheet reduction as a journey. Before embarking, we consider three questions: When will it begin? Where is the final destination? How long will it take?

Fed officials commented at their June meeting that it would likely be appropriate "this year" to change its bond reinvestment program. This has led investors to believe that the Fed will begin reducing its balance sheet in late 2017. We have received fewer clues about what level the balance sheet will be reduced to. Looking at **Exhibit 1**, a natural assumption might be that the goal is to reduce the balance sheet to its pre-QE level of about $1 trillion. However, considering the increase in currency in circulation—combined with changes in capital requirements for banks—it seems likely the Fed will look to reduce the balance sheet to a significantly higher level, $2.5 trillion.[2]

The most pressing question for investors may be how long this balance sheet journey might take. In the June meeting of the Federal Open Market Committee announced that it would begin reducing the balance sheet at a rate of $10 billion per month. Going forward, the Fed will look to increase the rate of decline, by $10 billion per quarter until it reaches a rate of $50 billion. At its peak the Fed could be reducing the size of the balance sheet by $600 billion per year. However, without any details on the final destination of the balance sheet it is difficult to assess how long this journey will take.

After years of balance sheet expansion, a reversal is likely

EXHIBIT 1: THE FEDERAL RESERVE BALANCE SHEET




Source: FactSet, Federal Reserve, J.P. Morgan Asset Management. Data as of June 15, 2017.



[2] $2.5 trillion is composed of approximately $1.5 trillion in currency circulation, $0.5 trillion in reverse repo, $ 0.4 trillion in other deposits.

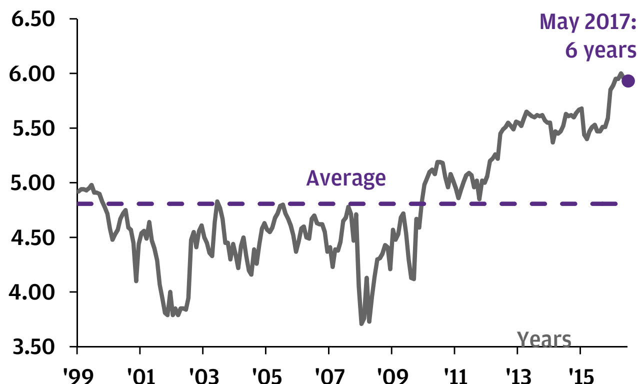
## Effects of an unprecedented reduction

What effect will reducing the balance sheet have on fixed income markets? Reducing a balance sheet of this size is unprecedented. The Fed owns 13% of U.S. government debt and 33% of the U.S. MBS market. With this in mind, it is likely that balance sheet reduction will push up bond yields as the Fed goes from being a net buyer to a net seller of fixed income.

A complicating factor is that tighter monetary policy is expected to come at a time when duration within U.S. fixed income is at multi-decade highs **(Exhibit 2)**. Long duration means bond benchmarks are highly sensitive to changes in interest rates. This is a consequence of low bond yields and both corporations and governments borrowing at longer maturities to lock in historically low rates.

**Duration for the benchmark index has risen from 3.7 years in December 2008 to six years in 2017**

**EXHIBIT 2: MODIFIED DURATION OF BLOOMBERG BARCLAYS US AGGREGATE BOND INDEX**




Source: Bloomberg, Barclays, FactSet, J.P. Morgan Asset Management. Data as of June 15, 2017.

## What can investors do about these challenges?

Fixed income investors need not be helpless in the face of tighter monetary policy. Not all fixed income sectors respond the same way to a rising rate environment. Three key actions are likely to help fixed income portfolios: understand and manage duration, diversify across fixed income sectors and invest internationally.

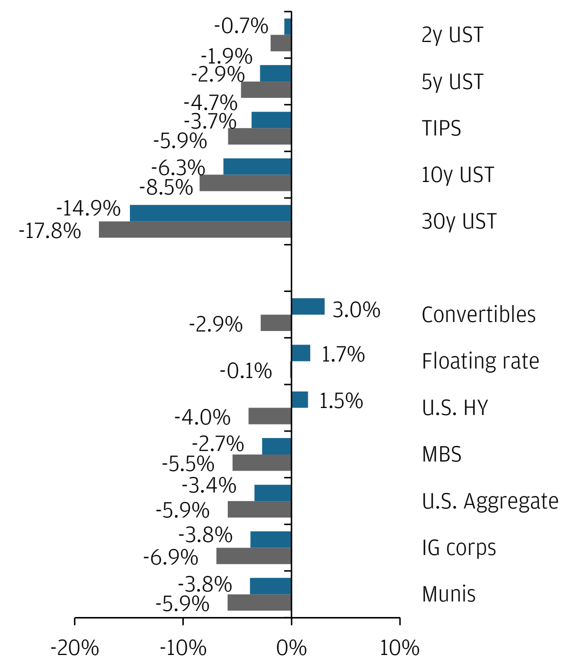
How do various fixed income sectors hold up when rates rise? **Exhibit 3** highlights the price and total return performance of different fixed income sectors when rates rise by 1%.

### 1. Understand and manage duration

Long-dated U.S. Treasury bonds tend to decline most sharply when rates rise, shorter-dated Treasuries less so. However, long-term investors do benefit from reinvesting at higher yields as rates rise.

**When rates rise, the price and total return performance differs among fixed income sectors**

**EXHIBIT 3: IMPACT OF A 1% RISE IN INTEREST RATES**




Source: Barclays, U.S. Treasury, FactSet, J.P. Morgan Asset Management. Data as of June 15, 2017.
Sectors shown above are provided by Barclays and are represented by – Broad Market: U.S. Aggregate; MBS: U.S. Aggregate Securitized - MBS; Corporate: U.S. Corporates; Municipals: Muni Bond 10-year; High Yield: Corporate High Yield; TIPS: Treasury Inflation Protection Securities (TIPS). Floating Rate: FRN (BBB); Convertibles: U.S. Convertibles Composite. Yield and return information based on bellwethers for Treasury securities. Sector yields reflect yield to worst. Correlations are based on 10-years of monthly returns for all sectors. Change in bond price is calculated using both duration and convexity according to the following formula: New Price = (Price + (Price * -Duration * Change in Interest Rates))+(0.5 * Price * Convexity * (Change in Interest Rates)^2).
Chart is for illustrative purposes only. Past performance is not indicative of future results. This model assumes an instantaneous increase in rates and that investors take a full year of coupons. We have also assumed a parallel shift in the yield curve and have not factored in changes in spreads, which can also impact bond returns.

## 2. Diversify across fixed income sectors

Outside the Treasury market, some higher risk sectors are likely to hold up well during a rate hiking environment. Our model suggests investors see a 4% price decline when rates rise by 1%, but the large coupons on offer in U.S. high yield, allow investors, on a total return basis, to offset these price declines.

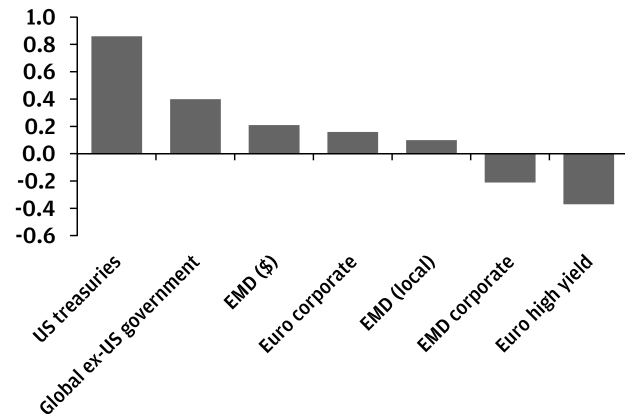
## 3. Look to invest internationally

Although economic growth in the rest of the world is improving, it is likely that monetary policy divergence between the U.S. and other countries will continue for the time being. This means that diversifying internationally can help shield an investor's portfolio from tighter U.S. monetary policy.

Many international fixed-income benchmark indices have a low, or even negative, correlation with movements in U.S. rates. Furthermore, U.S. investors historically have had little international exposure in their fixed income allocation. The U.S. debt market makes up 33% of global debt, yet U.S. investors' fixed income portfolios have a 92% allocation to U.S. debt markets.[3] A bias toward domestic fixed income within a portfolio makes sense—investing internationally comes with either currency risks or hedging costs. However, with the relatively low cost of hedging today and the diversification benefits of international fixed income, investors may want to think about increasing their global exposure. **(Exhibit 4)**

**Diversifying internationally can lower correlation to movements in U.S. rates**

**EXHIBIT 4: CORRELATION OF SECTORS TO US 10-YEAR TREASURY**




Source: Bloomberg, Barclays, FactSet, J.P. Morgan Asset Management. EMD sectors are represented by the J.P. Morgan EMBIG Diversified Index ($), the J.P. Morgan GBI EM Global Diversified Index (LCL) and the J.P. Morgan CEMBI Broad Diversified Index (Corp). European Corporates are represented by the Barclays Euro Aggregate Corporate Index and the Barclays Pan-European High Yield index. Sector yields reflect yield to worst. Duration is modified duration. Correlations are based on 10 years of monthly returns for all sectors. Data as of June 15, 2017.

## Why hold fixed income at all?

Considering the challenging outlook, it is understandable if investors question whether they should hold any fixed income at all. Even with a challenging outlook, fixed income still has an important part to play in investors' portfolios.

For long-term investors, including fixed income within a portfolio makes for a much smoother passage to their end goal— and that matters, as well. **Exhibit 5** illustrates the flatter movement of a 40/60 stock-bond portfolio compared to the more volatile S&P 500 and a 60/40 stock-bond portfolio. The S&P 500 has fallen far more than either of the two diversified portfolios and more importantly, has taken two or more years longer to recover its original value.

Fixed income's benefit historically can be seen during the last 20 years, when the S&P 500 had a negative month: while equities historically fell 3.6% on average those months, the benchmark U.S. bond index on average rallied 0.5%.

Another reason to stay invested in fixed income is that it can provide downside protection if economic growth falters and a recession occurs sooner rather than later. In an environment in which risk assets may underperform, investors may turn back to the historical safety of core fixed income.

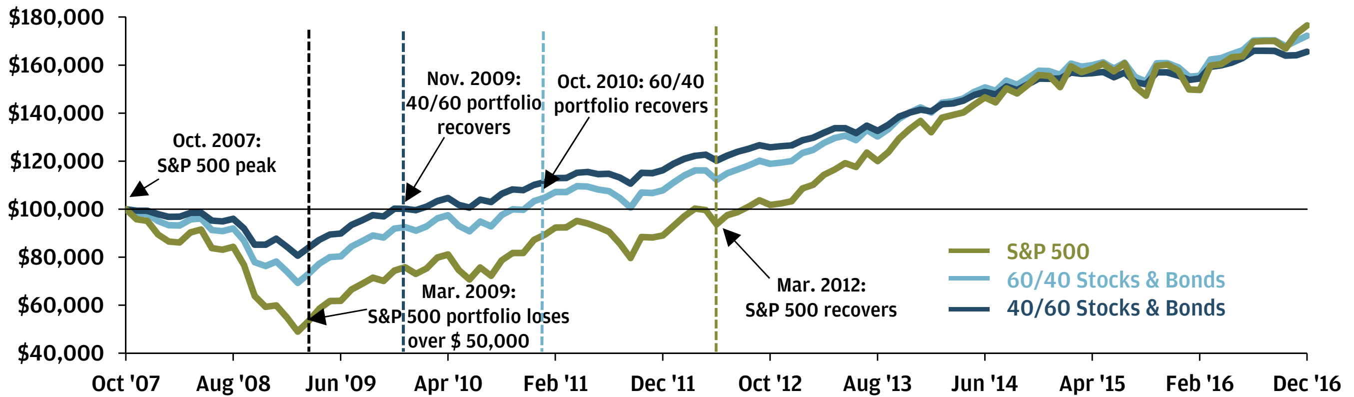
Although a recession in the short term is not our base case, no one can know with certainty. The Anxious Index survey, which asks economists to predict a decline in real GDP in the following quarter, indicates that while economists may not be worried about a



[3] Strategic Insight Simfund and Morningstar.

A diversified portfolio of stocks and bonds has declined less than the S&P 500 and recovered its value sooner

**EXHIBIT 5: EQUITIES VS. EQUITY AND FIXED INCOME BLEND**

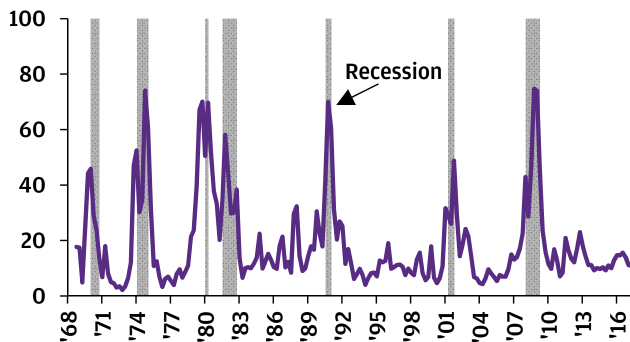



Source: Barclays, FactSet, Standard & Poor's, J.P. Morgan Asset Management. Data are as of June 15, 2017.

recession today, the profession's track record of predicting them is pretty poor. Typically, economists don't start predicting declines in growth until the middle of a recession. **(Exhibit 6)** Staying diversified can help protect investors against unforeseen changes in the economic landscape.

Economists struggle to forecast a fall in GDP ahead of time

**EXHIBIT 6: ANXIOUS INDEX**




Source: Survey of Professional Forecasters, J.P. Morgan Asset Management.

Data as of June 15, 2017.

## Investment implications

- With economic data improving, the Fed is gradually raising interest rates. This rate hiking cycle is likely to continue, and we are also likely to see the Fed begin to reduce the size of its balance sheet, further tightening monetary policy.
- A tighter monetary policy outlook is likely to be a headwind for fixed income investors going forward. However, managing duration, diversifying into other fixed income sectors and looking internationally may help an investor weather this tighter monetary policy environment.
- It is understandable for investors to be questioning the benefits of holding fixed income in their portfolios considering the challenging outlook for the asset class. However, fixed income helps diversify a portfolio and reduce volatility by protecting on the downside.

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