John Hancock INVESTMENTS

Flexible is the new core: fixed-income investing for the next 30 years

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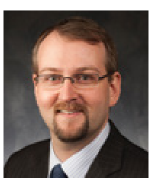

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Because the Bloomberg Barclays U.S. Aggregate Bond Index is a proxy for the highest-quality, most liquid U.S. dollar-denominated securities in the market, changes in interest rates are by far the most significant driver of its returns.

Key takeaways

- The unprecedented 30-year run of declining interest rates in the United States may have encouraged a sense of complacency among some fixed-income investors; those who fail to prepare for the new realities of the market could be facing a difficult investment environment.
- To drive returns, passive strategies based on the Bloomberg Barclays U.S. Aggregate Bond Index (Agg) are geared toward today's historically low interest rates falling even further.
- Beyond focusing solely on interest-rate risk, a truly diversified bond portfolio seeks to harness diverse sources of risk and return in the fixed-income markets, namely credit, liquidity, and currency.
- The broader investment mandate offered by a flexible, global multi-sector bond portfolio is a simple solution to the challenges posed by an Agg-centric strategy.

Executive summary

In this white paper, we discuss how an extraordinary set of circumstances set the stage for an unprecedented bull market in bonds and examine the potential ramifications for investors going forward. In the early 1980s, the combination of a flagging economy and high inflation led to record-high interest rates, as measured by the 10-year U.S. Treasury. It was a situation that couldn't last, and as the economy regained its footing and inflation returned to more normal levels, investors in passive strategies—who therefore had significant exposure to Treasuries—reaped the benefits.

Looking ahead, however, investors should be cautious about tying too much of their portfolios' performance to changes in interest rates. The other significant drivers of bond returns—specifically, credit quality, liquidity, and currency fluctuations—offer more attractive risk/return profiles. The strategies best positioned to pursue those diverse drivers of returns are those with more flexible mandates than a traditional core bond portfolio typically offers.

In 1981, the United States was fighting an economic battle on two fronts: persistently high unemployment and steadily climbing inflation, the much-maligned combination dubbed stagflation, which had come to characterize the final years of the prior decade. The country had just emerged from one recession and was on the verge of beginning another; the markets were volatile and the future uncertain. The U.S. Federal Reserve (Fed), led by Chairman Paul Volcker, was near the end of an aggressive tightening cycle, having raised the benchmark for short-term lending—the federal funds rate—from 6% in 1977 to a staggering 20% by mid-1981. In September of that year, the yield on 10-year U.S. Treasuries hit an all-time high of nearly 16%.[1]

The Fed's actions were bold and in many ways controversial, but the markets responded and eventually the economic tide began to turn. By 1983, inflation had dropped significantly, and soon after the job market began to improve. The economic challenges of those years were in many ways without precedent, and what happened next was, in hindsight, equally surprising: For the next 30 years, yields in the Treasury market moved in one direction—down—until in July 2016; yields on 10-year Treasuries reached an all-time low of 1.37%.[1] After adjusting for inflation, yields that summer were essentially zero.

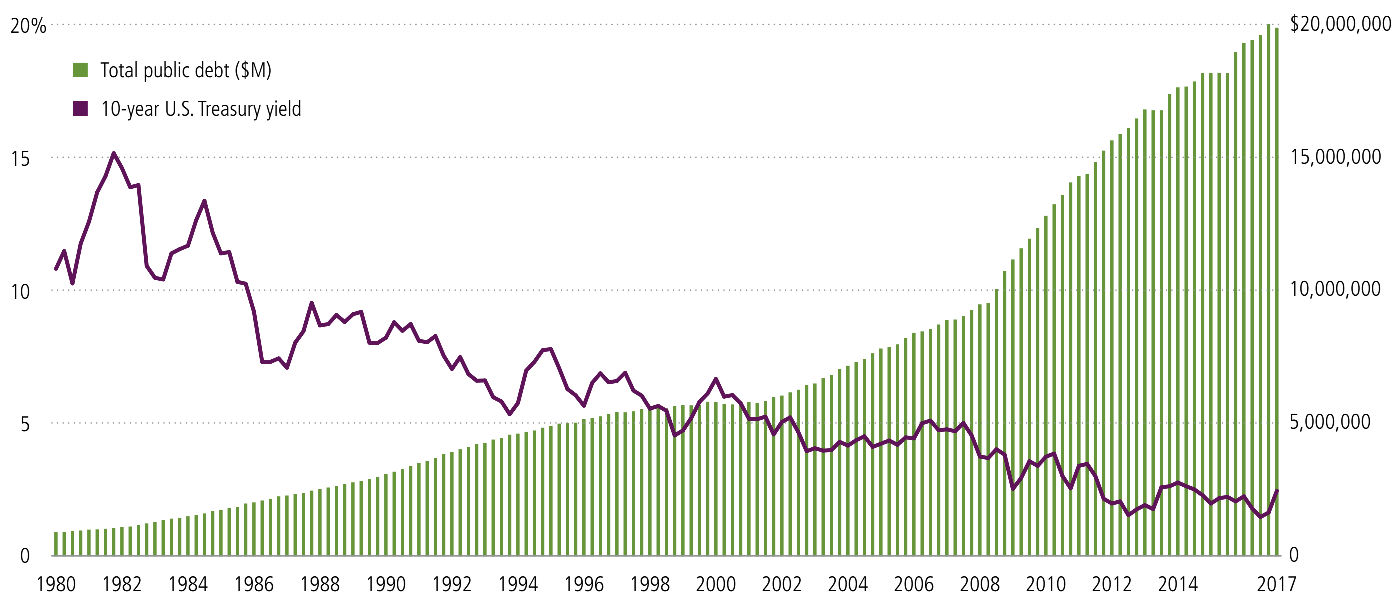
How did we get here? During the past three decades, demand for Treasuries has grown considerably as the U.S. mutual fund industry matured and the governments of emerging economies, such as China, increasingly sought to hold foreign reserves. It's no coincidence that the total outstanding U.S. federal debt has tripled since 2002 as investors' appetite for debt grew.

During this time, a passive, index-oriented strategy that mirrored the Bloomberg Barclays U.S. Aggregate Bond Index (Agg)—the bellwether proxy for the broad-based bond markets, investing heavily in government securities and, to a lesser degree, in investment-grade corporate debt—would have posted consistently solid returns year after year. But with interest income near historic lows and the possibility for rates to fall even further looking increasingly slim, investors are now starting to realize that the strategy that worked so well for the past 30 years is unlikely to continue its epic run. Over the past year, flows into intermediate-term bond funds, which tend to mirror the Agg, have been in net redemptions while flows into more flexible mandates have approached $50 billion.

We believe this reallocation of assets is not a temporary trade; rather, it represents a reexamination of what investors expect from their fixed-income allocations in the context of a diversified

The volume of U.S. Treasury debt has soared, along with investor demand

10-year U.S. Treasury yields and federal debt, 1980–2017



Source: U.S. Department of the Treasury, Federal Reserve Bank of St. Louis, as of 1/1/17.

portfolio. At the heart of this shift in thinking is the understanding that there are multiple sources of risk in the fixed-income markets, each of which will ebb and flow over time, and each of which, when actively managed, can be harnessed to serve as a driver of returns.

Redefining the risks and opportunities in fixed income

The total return for a bond typically has two parts: any interest payments made by the issuer plus (or minus) any change in the market price of the security. While the market price of any particular bond is driven by several factors, most fixed-income securities decline in price as interest rates rise and increase in price when rates fall. Quantifying the expected magnitude of the change in price is part art and part science: The longer a bond's duration (which measures its sensitivity to interest-rate movements), the bigger its expected price swings. But a bond's market price depends on the type of bond it is and how influenced it is by other forces in the fixed-income markets—namely, credit, liquidity, and currency changes. While all of these risk factors have the potential to affect a bond's price over time, not all bonds are subject to each of these factors equally.

Take, for example, U.S. Treasuries, the largest and most heavily traded segment of the bond markets. Treasuries are sometimes referred to as a risk-free asset because of the federal government's authority to raise tax revenue to pay back debt. This risk-free label, however, is a bit of a mischaracterization. Treasuries and government-backed securities carry virtually no risk of default; they are, however, subject to changes in price driven by interest-rate fluctuations. In fact, changes in interest rates are by far the most significant factor driving the value of Treasuries and government-backed securities; credit, liquidity, and currency exchange rates have a much smaller impact on prices in the Treasury market, and therefore represent less of an opportunity to drive their returns.

The Agg entails concentrated risks—and limited opportunities as a result

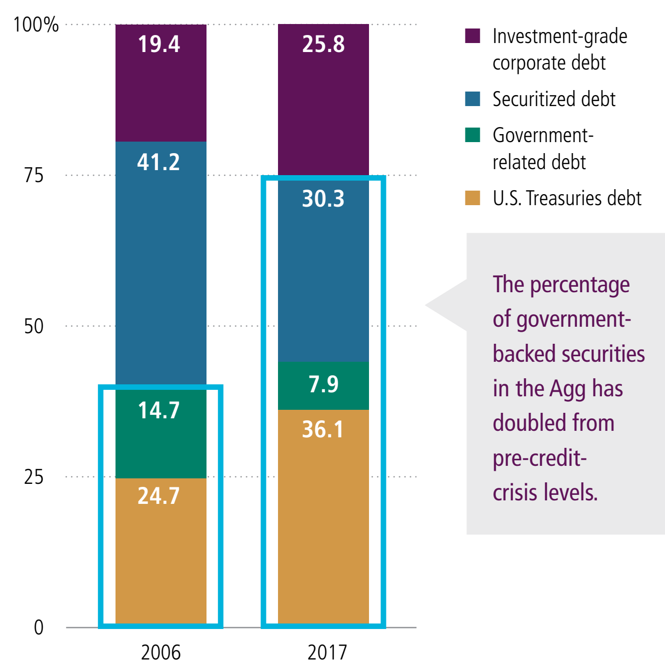
For investors interested in a fixed-income portfolio that is diversified by risk and therefore able to pursue multiple sources of returns, the Agg poses a challenge. To be eligible for inclusion in the Agg, a bond issue must meet certain credit quality, maturity, and size requirements; issues that clear these hurdles are automatically included in the index.

Today, mortgage giants Fannie Mae and Feddie Mac remain in the conservatorship of the federal government. While this is relatively new territory and it remains to be seen what would happen in the event of a default, we believe the two government-sponsored enterprises are likely supported by the full faith and credit of the U.S. government. That would mean that more than 75% of the Agg is supported by the federal government.

As rates were falling over the past 30 years and the value of U.S. Treasuries generally was rising, this wasn't a problem. But when that trend reverses course, investors exposed to the singular risk factor driving the performance of Treasuries—and ultimately, the Agg itself—could be facing a difficult investment environment.

Not only has the duration of the Agg (i.e., its price sensitivity to interest-rate changes) been creeping higher over time, but the interest income it offers to help offset any decline in prices has dropped to a near all-time low, down from more than 13% in 1980 to a little more than 2% today.[2] The bottom line? For over three decades, fixed-income investors could weather a small 1% rise in interest rates and still achieve a positive return. Today, this is no longer the case. A 1% rise in rates could potentially deliver a loss of more than 3% for the index and strategies that mirror it.

The Agg today is dominated by government-backed debt



Source: Bloomberg Barclays, as of January 2017. It is not possible to invest directly in an index. Past performance does not guarantee future results.

There is good news: As we described earlier, interest rates are just one factor that can drive bond prices. The perceived credit quality of the issuer, the level of liquidity in the market, and, in the case of international debt, changes in foreign exchange (FX) rates also play a role in driving the value of bonds. For active investors who understand how to navigate the risks, these factors can add resilience to a portfolio, particularly in the event of rising rates.

Gradually rising rates can be good news for credit-sensitive securities

Credit risk, or default risk, is the risk that the issuer of a bond will fail to make timely coupon payments or will be unable to repay investors' principal. The risk of default is inherent in virtually all fixed-income securities and is the reason investors sometimes talk about the fixed-income markets being asymmetric. Typically, the upside of investing in a bond is that investors receive payments on time and in full and are repaid their principal investment at maturity. The downside, however, is that if an issuer defaults, the bond may be worth only 30 to 40 cents on the dollar—or worse.

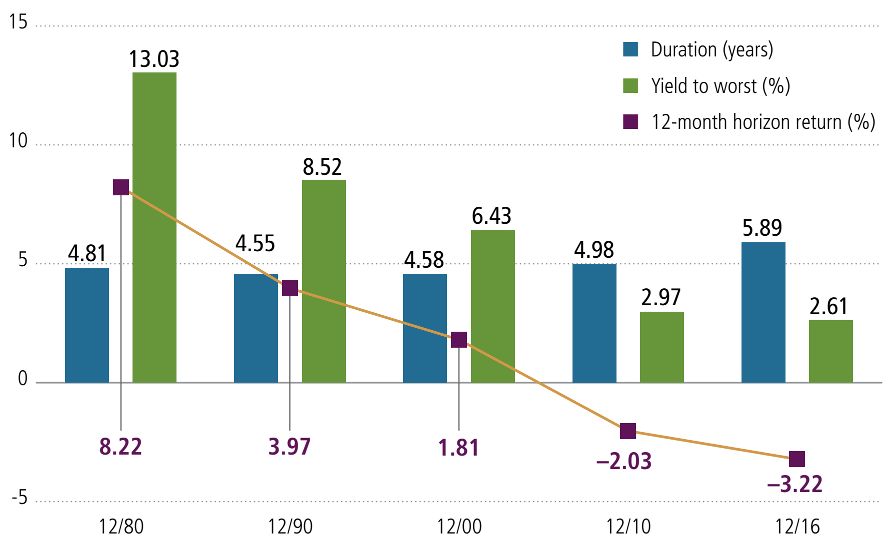
Avoiding defaults is paramount when investing in securities that carry credit risk, and different types of bonds carry different levels of risk. As discussed earlier, Treasuries carry essentially no risk of default; high-quality corporate debt, meanwhile, carries a slight risk, and corporate debt rated below investment grade carries a relatively higher level of default risk.

Moreover, the risk of default is not static over time. This can be illustrated by looking at the default rate for the companies in the high-yield corporate debt market along with the spread, which is the yield advantage the asset class offers over Treasuries with similar maturity characteristics. Put differently, the spread is the yield premium that investors require for taking on the added risk of default posed by high-yield corporate bonds. It stands to reason that defaults and spreads tend to move in the same direction over time: When the rate of default in the market is low, as it is now, investors are usually willing to accept a relatively small yield premium to compensate for that additional risk versus Treasuries. When the default rate in the market is high (or expected to rise), as was the case in the 2008–2009 credit crisis, investors require a much higher yield premium.

There are two basic ways that investors stand to benefit from owning bonds that carry some risk of default. The first is relatively straightforward: additional income. Non-Treasury bonds will almost always offer a yield premium over Treasuries with comparable maturities. The second way is through changes in the spread. When spreads are declining, or tightening, it means that the

The future performance of index-oriented strategies is unlikely to mirror the past

Projected return of the Bloomberg Barclays U.S. Aggregate Bond Index given a 1% increase in interest rates



The Agg's performance, 1980–2016

Number of years	37
Years with losses	3
Average annual total return (%)	7.79
Worst calendar year return, 1994 (%)	–2.92
Best calendar year return, 1982 (%)	32.62

Source: Bloomberg Barclays, Morningstar Direct, John Hancock Asset Management, as of 12/31/16. For illustrative purposes only. It is not possible to invest directly in an index. Past performance does not guarantee future results.

prices of high-yield bonds are rising, the prices of Treasuries are falling, or both are happening simultaneously. What might cause these price changes?

High-yield corporate bond prices tend to rise when the economy is improving and the default rate in the market is falling; investors view the asset class as becoming less risky and may be more eager to own high-yield bonds. As for Treasury prices declining, we know this happens when prevailing interest rates rise, a trend that occurs when investors become more optimistic about the economy and are more willing to take investment risks. The bottom line is that segments of the bond market that contain credit risk—corporate bonds, emerging-market debt, and commercial mortgage- and asset-backed securities, for example—can add value to a portfolio without being dependent on declining interest rates, as long as investors take steps to minimize their exposure to issuers that go on to default on their debt.

A sudden loss of liquidity can be a pitfall for unprepared investors

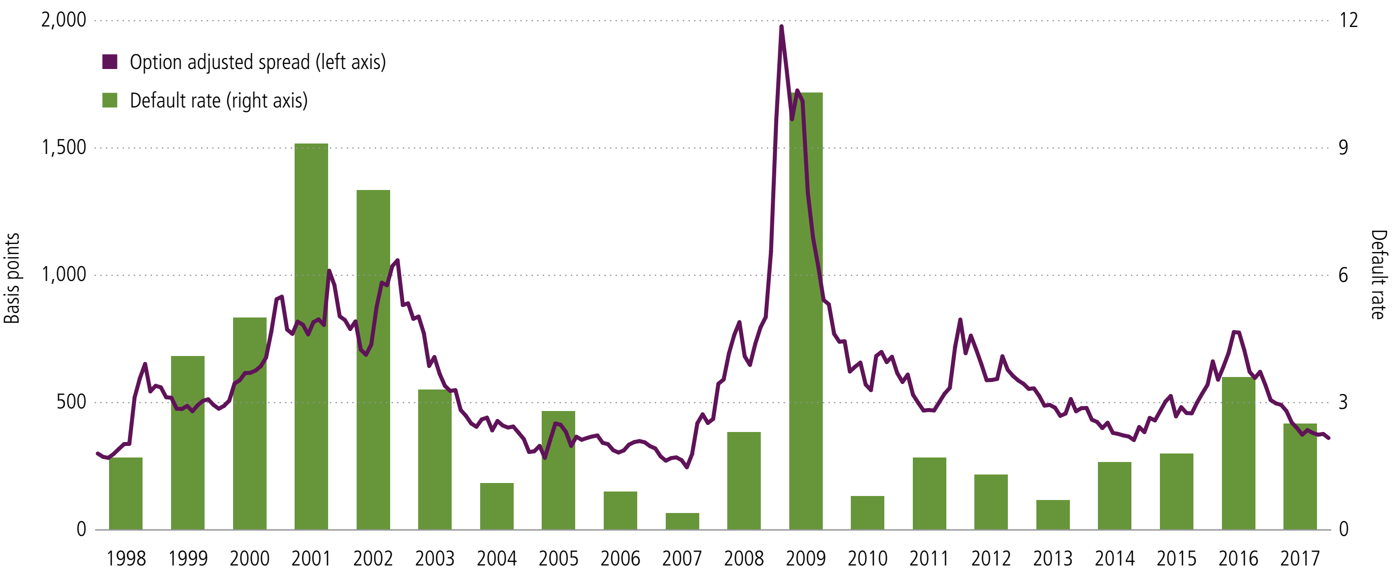
The liquidity of a security is a measure of how easily buyers and sellers can be matched up under various market conditions. Liquidity matters, as many investors learned in 2008, because in the absence of buyers, it can be very hard to determine the value of a security that, in essence, cannot be sold.

The unraveling of the auction rate securities (ARS) market is a prime example of the often underappreciated liquidity risks securities can carry. Prior to 2008, ARS were a niche, but not uncommon, type of fixed-income instrument and a key funding mechanism for many municipal issuers and closed-end funds. At that time, the ARS market had grown to over $200 billion, and appeared to be such a reliable source of funding that the securities were occasionally (inappropriately) marketed to investors as cash alternatives.

What made the securities unique was that, unlike most bonds, the interest rates on ARS were variable and reset periodically using a method called a Dutch auction, which typically took place every 7, 28, or 35 days. These auctions served to not only determine the interest rate issuers would pay, but also allowed existing bondholders to sell their positions to interested buyers. When occasionally there were more sellers than buyers, brokerage firms stepped in as bidders of last resort and purchased the securities to hold on their own balance sheets until demand picked back up. This prevented a failed auction, in which would-be sellers are unable to find buyers. Between 1984

High-yield spreads tend to reflect the health of the market

Spreads and default rates in high-yield bonds



Source: John Hancock Investments, John Hancock Asset Management. Option-adjusted spreads, which reflect the yield advantage in basis points over U.S. Treasuries and are adjusted to reflect the potential for bonds being called, are those of the BofA Merrill Lynch U.S. High Yield Master II Index, as of 7/31/17. The default rate is tracked by J.P. Morgan; the 2017 default rate is a forward-looking estimate as of 3/1/17. One hundred basis points equals one percent. It is not possible to invest directly in an index. Past performance does not guarantee future results.

and 2007, there were a total of 44 failed auctions.[3] As the credit crisis began unfolding in late 2007, however, brokerage firms suddenly stopped soaking up the excess supply in the market and would-be sellers of ARS found they could not exit their positions at any price. In February 2008, auction failures totaled in the thousands; today, the ARS market has essentially ceased to exist.

This extraordinary reversal is one extreme example of the dangers of not taking liquidity risk into account when building a bond portfolio. Beyond ushering in the demise of the ARS market, the 2008 credit crisis has reduced the liquidity in other areas of the bond market. The Federal Reserve Bank of St. Louis reports that broker-dealer bond inventories of debt securities have fallen dramatically, from over $800 billion at their peak to around $300 billion today, a decline of nearly two-thirds.[4]

Broker-dealers have had to adjust to a post-crisis regulatory environment and are more reluctant to hold trading inventory risk on their balance sheets. In essence, they have preferred to move away from a storage business, in which they hold inventory to facilitate trading, and into the moving business, bringing together buyers and sellers with lower balance sheet risk.

For U.S. Treasury investors, and by extension investors in Agg-like strategies that traffic exclusively in the most liquid segments of the bond markets, the consequences of this change are minimal. But for investors in those segments that are less heavily traded, this change is significant. The loss of de facto broker-dealer buyers suggests that the need to understand and manage the changing liquidity characteristics of fixed-income investments is greater than ever. As we've seen in the ARS market, owning securities that lose their liquidity can mean courting damaging losses.

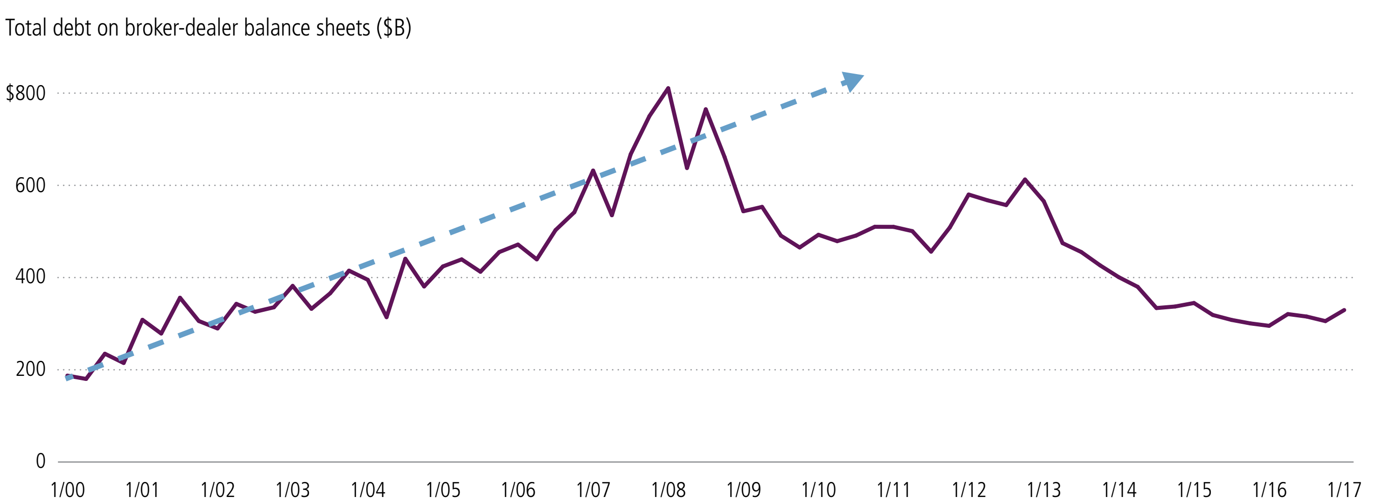
Changes in currency exchange rates can add value and diversification for global investors

One of the underappreciated facets of investing in the global bond markets is the effect that currency fluctuations can have on a portfolio's returns. Under the most straightforward circumstances, when securities denominated in foreign currencies appreciate relative to the U.S. dollar, that change in FX rates will add to the portfolio's total return. When those foreign currencies weaken, that change detracts from returns.

An investor can decide, and many often do, to not have a view on future FX rates, and therefore will hedge all foreign holdings back into U.S. dollars, typically using currency forwards. On the other hand, investors with broader mandates or higher risk tolerances may decide the outlook for a particular currency is favorable versus the U.S. dollar and will decide to hold unhedged foreign securities, thereby adding a source of potential returns, albeit a narrowly defined one, to the portfolio.

Often, this kind of binary, U.S.-centric view of the FX markets is where the use of the currency markets ends. But views on the FX markets don't need to be tied to a view on the U.S. dollar. While

Broker-dealers have purged riskier debt positions from their balance sheets



Source: Federal Reserve Bank of St. Louis, as of 1/1/17.

any currency position must, by definition, be paired with another currency, that pair doesn't need to include the U.S. dollar. For example, a long position in the Australian dollar versus the New Zealand dollar may be used to express a bullish outlook on commodities, which are far more abundant in the former country. Likewise, a long position in the euro versus the Canadian dollar could be used to implement a view that economic recovery in the continent will outpace growth in Canada.

Like all other sources of return, foreign currency exposures carry risks, risks that must be thoroughly researched, quantified, and managed in order to contribute positively to performance. But it is a source of returns that is unavailable to investors in Agg-centric strategies. In the same way that the Agg carries little credit risk and essentially no liquidity risk, it carries zero FX-rate risk as it is made up entirely of U.S. dollar-denominated securities.

Conclusion

There are multiple sources of risk in the fixed-income markets, each of which, when understood and managed, has the potential to add to the returns of a portfolio. This diversity is in stark contrast to Agg-based strategies, which, in today's market, can only derive returns from two sources: income, which continues to be near all-time lows, and capital appreciation, which is almost entirely dependent on an unlikely further decline in U.S. interest rates.

The simple solution to this challenge, as many investors have begun to realize, is to adopt a broader mandate. Shifting from a U.S.-based investment set to a global one triples the size of the investment universe; adding flexibility with regard to credit and currencies allows a portfolio to tap into a much broader range of returns, ultimately making it far less reliant on a favorable interest-rate environment in the United States to drive performance.

The fixed-income team at John Hancock Asset Management is ideally suited to investing in exactly this kind of environment. Our global multi-sector team averages over 25 years of experience, and has been running flexible global mandates since the late 1990s. Moreover, we offer a long track record as active currency managers, a skill set many managers lack.

Our investment philosophy hinges on viewing ourselves as risk managers first, bond managers second. We are constant students of today's complex, interconnected global economy, as we believe any manager of a global multi-sector strategy must be. Ultimately, we seek to offer investors access to a portfolio diversified not simply by security type or sector, but by the source of risk and return that drives individual securities' price movements and, in the end, performance for the markets themselves.

Global multi-sector bond funds' performance is driven by a broad range of factors

	Bloomberg Barclays U.S. Aggregate Bond Index	Global multi-sector strategy
Interest income	✔	✔
Incremental income from spread sectors and foreign markets		✔
Declining U.S. interest rates	✔	✔
Declining interest rates in foreign markets		✔
Spread tightening	✔	✔
Increasing liquidity		✔
Currency exchange rates		✔

Source: John Hancock Asset Management, 2017. It is not possible to invest directly in an index.

1 U.S. Department of the Treasury, Federal Reserve Bank of St. Louis, as of 12/31/16.

2 Bloomberg Barclays, as of 7/31/17.

3 "Florida Schools, California Convert Auction-Rate Debt," Bloomberg, 2/22/08.

4 Federal Reserve Bank of St. Louis, July 2017.

The Bank of America Merrill Lynch (BofA ML) U.S. High Yield Master II Index tracks the performance of globally issued, U.S. dollar-denominated high-yield bonds. The Bloomberg Barclays U.S. Aggregate Bond Index tracks the performance of U.S. investment-grade bonds in government, asset-backed, and corporate debt markets. It is not possible to invest directly in an index.

Diversification does not guarantee a profit or eliminate the risk of a loss.

Fixed-income investments are subject to interest-rate and credit risk; their value will normally decline as interest rates rise or if a creditor is unable or unwilling to make principal or interest payments. Investments in higher-yielding, lower-rated securities include a higher risk of default. Foreign investing, especially in emerging markets, has additional risks, such as currency and market volatility and political and social instability. Currency transactions are affected by fluctuations in exchange rates. The use of hedging and derivatives could produce disproportionate gains or losses and may increase costs. Fund distributions generally depend on income from underlying investments and may vary or cease altogether in the future.

Request a prospectus or summary prospectus from your financial advisor, by visiting jhinvestments.com, or by calling us at 800-225-5291. The prospectus includes investment objectives, risks, fees, expenses, and other information that you should consider carefully before investing.

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