Fixed income white paper | August 2014

Building the new "core"
An analysis of unconstrained fixed-income investing

With interest rates at all-time lows, investors must adopt new approaches to fixed-income investing—and to address this challenge, a number of funds have adopted an "unconstrained" approach to fixed income. In this white paper, we explain the approaches being employed in this space so investors can make a deliberate choice between them.

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Executive summary

- With rates at all-time lows, investors will need to adopt new approaches to fixed-income investing.
- Given the current asymmetric risk scenario in which interest rates are more likely to rise than fall over time, investors are appropriately more cautious than ever about duration risk.
- However, an approach that eliminates duration brings its own set of risks.
- It is very difficult to time interest-rate changes, and this approach can underperform for extended periods.
- If you compensate by increasing credit risk in order to generate yields, the resulting portfolio may be increasingly correlated with equities. This can be problematic if the role of the fund is to diversify risks within a portfolio that already holds equities.
- To tackle this challenge, a number of funds have adopted an "unconstrained" or "multi-sector" approach to fixed income. Within these categories, we observe a wide variety of strategies that will produce very different outcomes.
- An investor should understand the approaches being employed in this space and make a deliberate choice between them. The approaches include short-duration/long-credit funds, absolute return funds, arbitrage funds, go-anywhere funds, multi-sector bond funds and aggressive credit funds.
- Whichever style an investor chooses, it is worth spending the time to truly understand the capabilities of the asset manager. This is because the multi-sector/unconstrained approach requires broad expertise across fixed-income asset classes, global reach and a disciplined process that has been tested over market cycles.

Building the new "core"

Over several decades, many investors came to believe one thing was certain in investing: Stocks are risky and bonds are safe. In recent years this perception has been changing. Near all-time-low interest rates have caused many people to grow concerned about the safety of their bond positions. This is because moving forward, there is a significant risk that interest rates will move higher—and when rates rise, bond values fall.

As we consider positioning going forward, we have to ask ourselves an important question: What does it mean to be safe in fixed income, anyway? Does safety lie in high credit quality? Or maybe in duration management? It certainly doesn't lie in emerging markets. Or does it? In our view, this is somewhat of a trick question. There is no such thing as "safe" fixed income. Risks in a portfolio are also sources of potential return. Any portfolio that delivers a return carries risk. So, instead of trying to eliminate risks, it's important to build a portfolio that diversifies risk-return streams but is also dynamic and able to change risk exposures as markets change.

It used to be easier

Today's investors increasingly recognize a need to move away from the fixed-income approach of the past. Over the last 30 or more years, a traditional bond portfolio consisted primarily of so-called "core" bonds, including U.S. Treasury bonds, agency mortgage-backed securities and investment-grade corporate bonds. Most of the time, investors received income in the range of 4% to 9%. Equally, if not more importantly, volatility was moderate and principal returns over time were positive as interest rates were generally declining.

This strategy worked well for most investors. The approach lacked flexibility, but flexibility was not needed to generate attractive returns. Most of us weren't concerned with looking outside a traditional benchmark because interest rates served as a wind at the back of high-quality bond positions, as Figure 1 illustrates.

The yield on the Barclays U.S. Aggregate Index peaked on September 30, 1981, at 16.50%. In the 32 calendar years that followed, index returns were positive 29 times, as illustrated in Figure 2. On average, the return investors received was 8.68%.

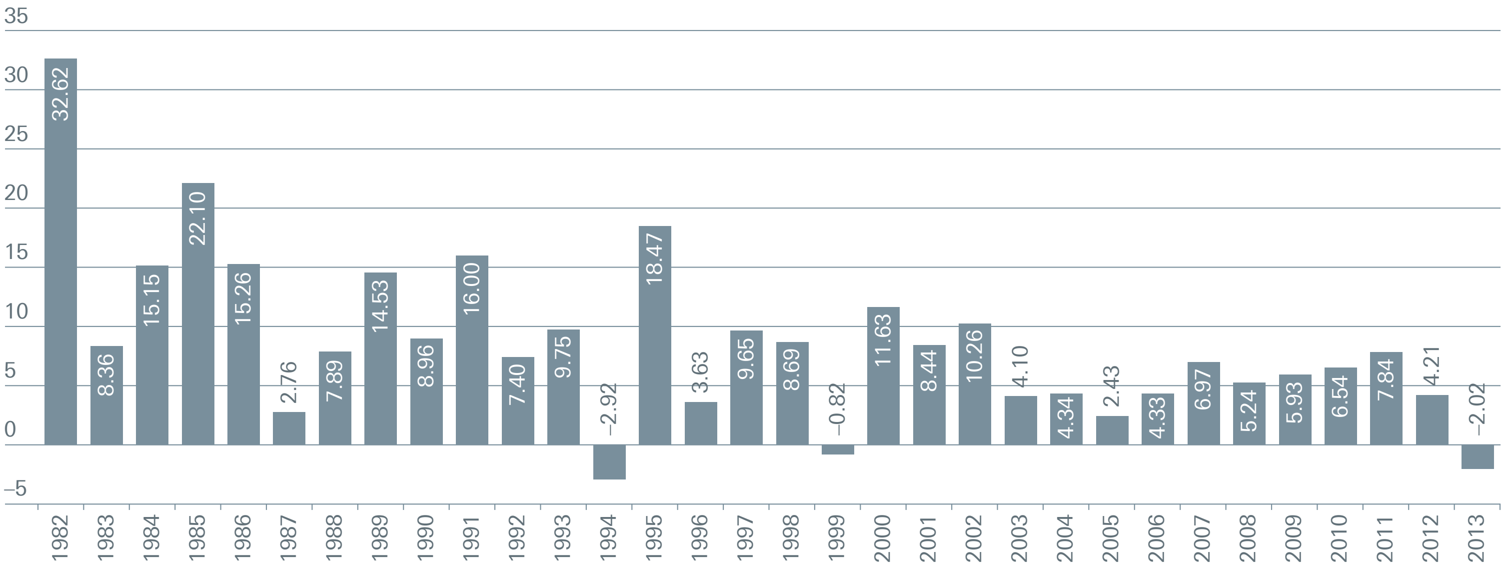
Today, most people have accepted that past bond returns are not an appropriate way to set expectations moving forward. The current yield of the Barclays U.S. Aggregate Index is a modest 2.33%. This presents an asymmetric risk scenario, where the potential over time for increasing interest rates is much greater than the probability of declining rates.

A new fixed-income environment means investors need to redefine risk in bond investing. Traditionally, when investors referred to risk in fixed income, they were referring to credit risk. Looking at the credit ratings of the bonds in the portfolio gave a strong indication of the risk level. Occasional bouts of interest-rate volatility kept investors aware of the threat rising interest rates could pose, but duration was not viewed as the significant risk that it's currently considered to be.

Figure 1: Barclays U.S. Aggregate Index yield shows interest rates served as a wind at the back of high-quality bond positions

Source: Barclays as of 7/31/14. **Performance is historical and does not guarantee future results.** Index returns do not reflect fees or expenses, and it is not possible to invest directly in an index. See back page for index definitions.

Figure 2: Barclays U.S. Aggregate Index returns were positive in 29 calendar years from 1982 to 2013



Source: Barclays as of 7/31/14. **Performance is historical and does not guarantee future results.** Index returns do not reflect fees or expenses, and it is not possible to invest directly in an index. See back page for index definitions.

Today, this has flipped on its head. Investors discount credit risk while believing that duration is the major issue. When credit risk was the focus, investors recognized that taking a moderate amount was warranted. With the focus now on duration risk, investors seem to be taking a more extreme view, seeking to eliminate duration by moving to negative- or zero-duration portfolios. But this approach can limit return potential and correlation benefits, just as did a strategy that attempted to take no credit risk during the 1982 to 2013 period.

We believe a better approach views both credit and duration risks as revenue sources that can be emphasized or deemphasized strategically. An active equity manager may overweight one sector or another within the equity markets based on outlook, although rarely will that manager dial a sector allocation entirely to zero. Similarly, Modern Portfolio Theory suggests that fixed-income managers should over or under weight sectors or credit/duration calls in a balanced way.

We like to think of duration and credit quality as two dials that can be dialed up or down depending upon an investor's tactical views. Turning down the duration dial reduces the investor's exposure to interest-rate risk at the cost of less income. Dialing up credit risk increases income levels, but exposes the portfolio to potential losses if lower-quality debt goes out of favor due to higher default rates or greater economic uncertainty.

Looking back at Modern Portfolio Theory brings up another interesting point. We've discussed how equity and fixed-income portfolios have generally been managed, but what is most important is how these two portions of a portfolio work together. As we'll discuss in more detail later, high-quality bonds have been a valuable addition to portfolios because they provide a strong balance to equities. Investors concerned about an equity pullback should welcome some duration in a portfolio because duration-sensitive bonds tend to hold up when equities are weak. Lower-quality bonds, on the other hand, offer strong diversification relative to U.S. Treasuries, but higher correlation to equities. Choosing your investment strategy in fixed income should be influenced by the need to diversify away from equity risk while realizing that lower quality bonds will at times offer the most value.

The pros and cons of duration

Many investors have responded to today's low-rate environment by seeking to eliminate duration, or at least reduce it significantly. We agree tactically that there is an asymmetric risk that rates will move higher over time. At times, the tactic of eliminating duration may make sense, but investors have to be aware that eliminating duration comes at a cost.

Fixed-income risks

While focus of this discussion is on duration and credit, there are a variety of risks in fixed income including:

Interest-rate risk: When interest rates rise, prices of debt securities generally decline. The longer the duration of the fund's debt securities, the more sensitive it will be to interest rate changes.

Credit risk: Because issuers of lower-quality debt may be in uncertain financial health, the prices of their debt securities can be vulnerable to bad economic news or a deterioration in the firm's financial position.

Foreign investment risk: Adverse political, economic or social developments could undermine the value of a bond's investments or prevent a bond fund from realizing the full value of its investments. Additionally, foreign securities markets generally are smaller and less liquid than U.S. markets.

Liquidity risk: In certain situations, it may be difficult or impossible to sell an investment—even one that is of high credit quality—in an orderly fashion at an acceptable price.

Convexity risk: Convexity measures how a bond's duration changes as interest rates change. As interest rates rise and fall, certain issuers may pay off their bonds earlier than expected (which is called prepayment risk) or later than expected (which is called extension risk). Prepayment forces investors to reinvest at lower yields, while extension keeps assets tied up in lower-yielding obligations.

Removing duration can have several negative effects. First, it leads to less income in the portfolio to protect against principal losses. Second, if rates decline, the portfolio will not benefit. While falling rates are unlikely to be a trend, anyone who eliminated duration during the first half of 2014 learned how hard it can be to time interest-rate movements. But even if rates had simply remained unchanged, a longer-duration portfolio would have been better off due to the higher yield. Balancing the cost of lower duration with the risk of interest-rate volatility should help drive the decision of how much interest-rate risk is appropriate.

So if duration will be a serious risk in the future, but eliminating duration is not always the best solution, how should investors approach managing interest-rate risk?

First, it may make sense to pull back duration to some extent, without completely eliminating it. But it is also important to consider duration in the context of yield. The less yield a portfolio offers per unit of duration, the more concerned an investor should be.

The late 1970s provide a useful example of the importance of yield in a rising-rate environment. From the beginning of 1977 through November 30, 1981, the yield of the Barclays U.S. Aggregate Index rose by 900 basis points. To put this in perspective, let's compare that move to what we saw last year. In 2013, the index's yield rose by 69 basis points, from 1.79% to 2.48%, which led to a loss on the index of 2.02%.

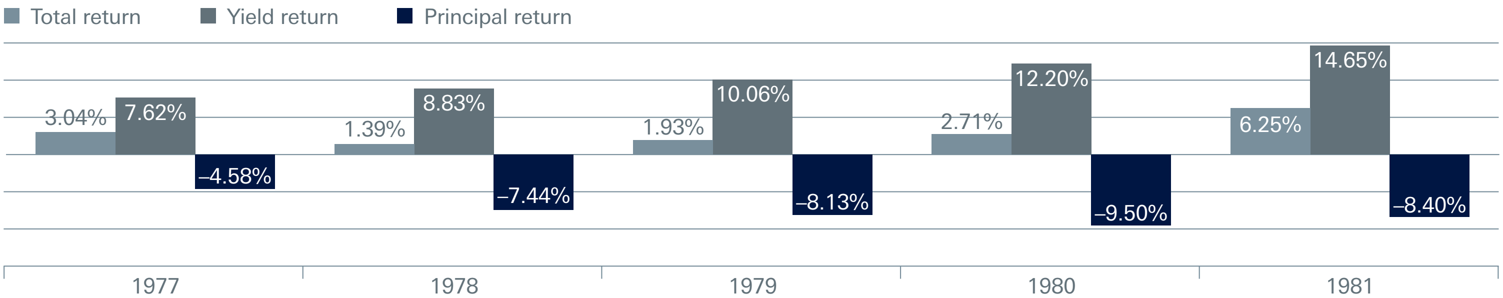
So an increase of 900 basis points over 59 months must have gotten pretty ugly, right? It depends how you look at it. Total returns every year from 1977 through 1981 were actually positive. How can that be? As Figure 3 illustrates, principal returns were in line with what most of us would have expected, with an average principal loss of 7.6%. But when you add in the income return, the picture looks a lot brighter. The average income return during these years was 10.7%, leading to an average total return (income return minus principal loss) of 3.06%. Investors who spent all of the income saw their principal take a significant hit. But for those who reinvested and focused on total returns, this period was not nearly as painful as the rate increase would suggest.

Investors today who are counting on income returns to bail them out of a rising-rate environment may be very disappointed if they are investing in a portfolio that looks like the Barclays U.S. Aggregate Index. Today, the index yields just 2.33%. This is a far cry from the 10.7% yields that were available in the late 1970s and early 1980s (the average of the time periods shown in Figure 4). Also, the duration of the index is currently 5.62 years. Therefore, if interest rates were to rise by 100 basis points, the principal loss on the index would be expected to be about 5.62%. Even after income returns, expected total return would be –3.29%.

While we think it is far-fetched to believe interest rates will increase by 9% in the next five years, the point to take away is that today's environment is very different from what we've dealt with in the past. Even a small movement in rates can overcome income returns and lead to a total return loss, as we saw in 2013.

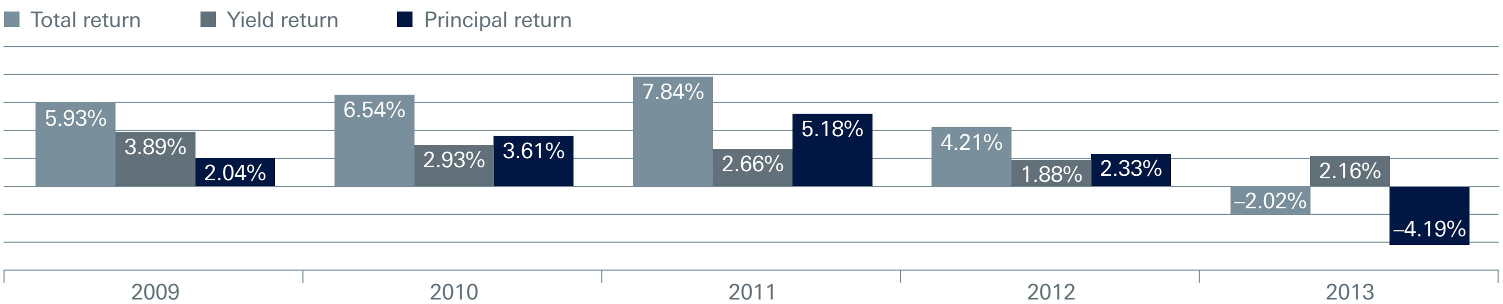
The last five years show a different trend than what we saw from 1977 to 1981. From 2009 through 2013, investors received a fairly low yield, but also positive principal returns, due to declining interest rates. This led to fairly attractive

Figure 3: Investors who reinvested income weren't significantly hurt in a rising-rate environment (1977–1981)



Source: Barclays as of 7/31/14. **Performance is historical and does not guarantee future results**. Index is the Barclays U.S. Aggregate Index. Index returns do not reflect fees or expenses, and it is not possible to invest directly in an index. See back page for index definitions.

Figure 4: The last five years show a different trend than 1977 to 1981



Source: Barclays as of 7/31/14. **Performance is historical and does not guarantee future results.** Index is the Barclays U.S. Aggregate Index. Index returns do not reflect fees or expenses, and it is not possible to invest directly in an index. See back page for index definitions.

total returns. But 2013 showed how this can change when rates reverse course. Increasing interest rates led to a loss of principal but there was not enough income to compensate for the principal losses.

So when deciding where to point the duration dial, we need to remember a few important points:

— There is an asymmetric risk that interest rates will move higher in coming years, and a more cautious approach to duration is warranted.
— Despite this risk, eliminating duration is not always the best answer as interest rates are very difficult to time.
— Duration is not only a risk but also a return stream as it helps to increase yield and tends to have a positive impact on portfolios in periods of economic weakness.
— There are risks to any duration-management strategy—regardless of where a manager positions duration.
— Duration should always be viewed relative to yield.

Credit risk

Default risk is the key driver of returns in lower-credit-quality bonds. These positions pay more income because there is a greater probability that the issuer will default and the bond holder won't get what was promised. So, it makes sense that default expectations would be an important consideration when assessing credit risk.

In recent years, default rates have been exceptionally low in corporate credit. The default rate on high-yield bonds is currently only 2.2% vs. an average of 4.3%. More importantly, this rate is expected to stay low for at least the next 12 to 24 months. High-yield issuers are in better shape than they have been at many points in the past. A growing economy provides a strong backdrop for these companies to be successful (even if the growth is slow), and corporate balance sheets are in good condition. Also, many issuers have refinanced debt in recent years. This means they will have less debt coming due in the near term. Defaults are often triggered when debt comes due, so pushing off the maturity date on debt is another factor that should lead to a continued trend of low defaults.

Credit spreads are typically linked to default rates. When we talk about spreads, we are referring to the difference in yield between a U.S. Treasury asset and a non-U.S.-Treasury asset with similar characteristics. In recent years, credit spreads

Figure 5: The spread on high-yield bonds is lower than its average (in basis points)

Source: Credit Suisse as of 7/31/14. **Performance is historical and does not guarantee future results**. High-yield bonds are represented by the Credit Suisse High Yield Index. Index returns do not reflect fees or expenses, and it is not possible to invest directly in an index. See back page for index definitions.

have been tightening, leading to strong returns in credit sensitive bonds. Figure 5 shows that the spread on high-yield bonds is currently 451 basis points, compared to a historic average of 584 basis points. Why is the spread so low? It goes back to the default discussion. Investors are comfortable that defaults will remain low, so they are demanding less compensation for credit risk.

But there is another factor that is easily overlooked when assessing credit spreads: the overall interest-rate environment. A 451-basis-point spread might seem tight if the 10-year U.S. Treasury yield were in line with a longer term average of 5.53%, but with the U.S. Treasury yielding only 2.58%, the spread appears much more substantial. The bottom line is that credit spreads cannot be looked at in a vacuum. We must consider what alternate bonds are paying and we must consider the default environment. With very low interest rates along with very low default rates, it seems to make sense that fixed-income investors have dialed up credit risk in recent years.

The importance of correlation

As discussed, rising interest rates are a reasonable concern for most investors in this low-rate environment. U.S. Treasury rates tend to be the benchmark by which other yields are compared, so higher U.S. Treasury rates will have implications for all other types of bonds. Therefore, it is important to consider the correlation of an asset class to U.S. Treasury movements. Figure 6 shows 10-year correlations of various fixed-income categories to the 10-year U.S. Treasury bond. As you can see, not all bonds have historically moved in tandem with U.S. Treasuries.

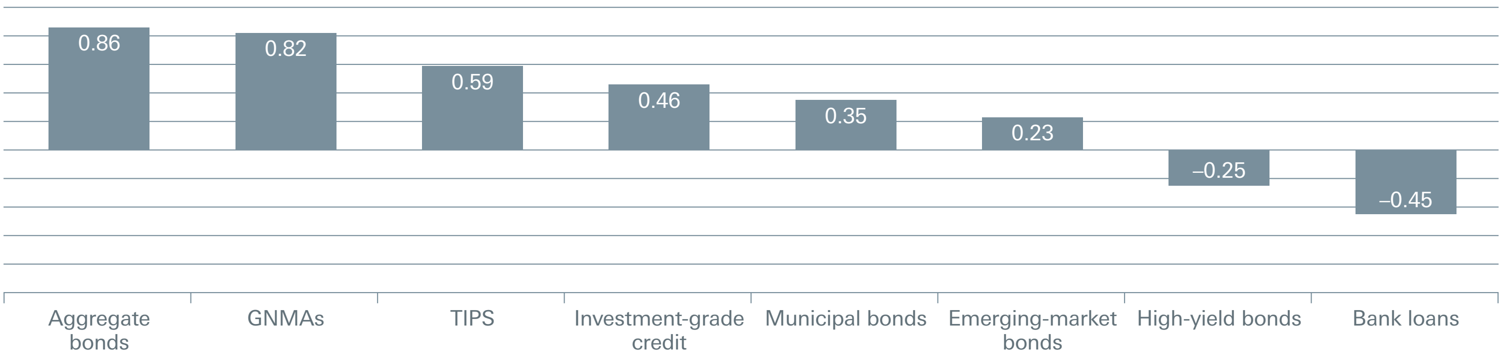
This chart highlights why managing your duration and credit quality dials is so important. Dialing up credit risk leads one to asset classes such as high-yield bonds and bank loans, which tend to have lower correlations to U.S. Treasuries.

This is not a coincidence. When interest rates increase, typically the economy is doing well and investors are optimistic. This can lead to more risk taking, and a move towards equities—or lower-quality bonds. A growing economy is very beneficial to lower-quality companies. As investors grow less concerned that these companies will default, they are more attracted to the higher yields these bonds offer. Therefore, when interest rates move higher, lower-quality bonds tend to outperform. This was evident in 2013, when the Barclays U.S. Aggregate Index lost 2.02% but high-yield bonds returned a positive 7.53%.

Simple enough. As it sounds, if you want to protect against higher interest rates, you just load up on credit risk and you'll be fine. In certain environments, that might work when considering only fixed income, but in the context of a broader portfolio that includes equities, this approach creates challenges.

One of the many benefits of a fixed-income portfolio is it serves as a balance to equity positions. When equity markets are weak, there is often a "flight to quality," or a movement toward higher-quality fixed income. This leads to low correlations between high-quality bonds and stocks, but

Figure 6: Not all bonds have historically moved in tandem with U.S. Treasuries



Source: Morningstar as of 7/31/14. **Correlation is historical and does not guarantee future results**. Chart shows correlation of asset classes to the Citigroup Treasury Benchmark 10-Year Index. Asset-class representation is as follows: aggregate bonds, Barclays U.S. Aggregate Index; GNMAs, Barclays GNMA Index; TIPS, Barclays U.S. TIPS Index; investment-grade credit, Barclays U.S. Corporate Index; municipal bonds, Barclays Municipal Bond Index; emerging-market bonds, JPM EMBI Global Diversified Index; high-yield bonds, Credit Suisse High Yield Index; bank loans, S&P/LSTA Leveraged Loan Index. It is not possible to invest directly in an index. See back page for index definitions.

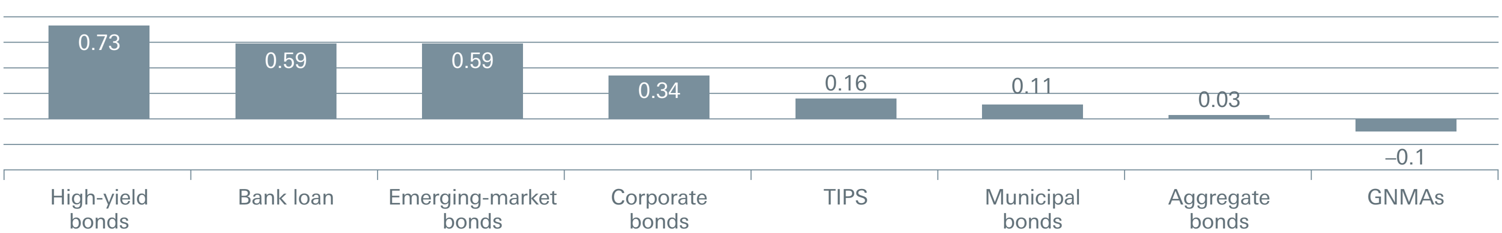
much higher correlations between stocks and lower-quality bonds. So if a portfolio is over-exposed to high-yield debt, the fixed income and equity portions of the portfolio will tend to underperform at the same time.

In other words, the diversification effects of a mixed equity and fixed-income portfolio are reduced if the entire portfolio becomes more highly correlated to equity markets. If the economy worsens and equities underperform, the negative effects can be felt across the entire portfolio. Figure 7 shows the correlation between fixed-income asset classes and the S&P 500 Index. As you can see, the asset classes with the lowest correlations to U.S. Treasury movements have the highest correlation to equity movements.

So, when deciding where to point the credit dial, we need to keep a few points in mind:

— Default rates in corporate bonds are very low and expected to stay low for at least the next 12 to 24 months.
— High-yield issuers have refinanced debt and extended maturities in recent years. This leads to fewer bonds maturing and lower likelihood of an increase in defaults.
— Credit spreads are tight relative to historical averages but low default rates combined with a very low interest-rate environment make tighter spreads more reasonable.
— Not all bonds react the same to increases in U.S. Treasury yields. Since lower-quality debt tends to offer reduced correlation to U.S. Treasuries, investors should consider an allocation to high yield as a part of a diversified fixed-income portfolio.
— But high-yield debt is more closely correlated to equity markets, so high-yield investors need to consider their holdings in the context of their overall portfolios.
— Portfolios should consist of a strong mix of bonds with different characteristics in order to provide a smoother return stream over time. Depending upon a manager's view, credit quality and duration should be adjusted to capture the opportunities available.

Figure 7: The asset classes with the lowest correlations to U.S. Treasury movements have the highest correlation to equity movements



Source: Morningstar as of 7/31/14. **Correlation is historical and does not guarantee future results**. Chart shows correlation of asset classes to the S&P 500 Index. Asset-class representation is as follows: U.S. Treasuries; Citigroup Treasury Benchmark 10-Year Index; high-yield bonds, Credit Suisse High Yield Index; bank loans, S&P/LSTA Leveraged Loan Index; emerging-market bonds, JPM EMBI Global Diversified Index; investment-grade credit, Barclays U.S. Corporate Index; TIPS, Barclays U.S. TIPS Index; municipal bonds, Barclays Municipal Bond Index; aggregate bonds, Barclays U.S. Aggregate Index; GNMAs, Barclays GNMA Index. It is not possible to invest directly in an index. See back page for index definitions.

Choosing your approach

Given the challenges we've discussed so far, a more unconstrained approach that relies less on index positioning and more on where there is value in the market can add a great deal of value to investors' portfolios.

Adjusting your duration and credit quality dials will be important, but on its own, this is too simplistic. Investors also need to know what role the fixed-income allocation will play in a broader portfolio. We believe in an approach that can invest anywhere the manager sees fit and where the manager has the ability to adjust to changing markets. But we also believe that managers should have conviction in their portfolio holdings and that a longer-term strategic vision needs to be incorporated along with the shorter-term tactical approach.

In recent years we've been of the opinion that the long-term outlook for rates is ominous, but economic data did not support an immediate increase in rates. Therefore our approach has been to keep duration longer than many peers, while planning to moderate the duration over time. Despite interest-rate volatility in 2013, this strategy has been very successful as rates have remained well below consensus estimates. When economic data starts to show signs of greater strength and consistency, we'll look to be more aggressive in trimming duration. At the same time, we've been comfortable with credit, so we've held a large portion of our portfolios in corporate bonds (both investment-grade and high-yield) as well areas such as emerging markets.

Our positioning over time will be very strategic in nature. We'll generally implement trades based upon a 3-6 month outlook, but will opportunistically take advantage of tactical trades when we feel the risk/return tradeoff is attractive. Our approach to duration will be methodical, and we will not try to guess the direction of rates on a very short term basis. Short-term interest rate movements are simply too unpredictable.

According to a survey conducted by the Philadelphia Federal Reserve, Wall Street economists have incorrectly predicted the direction of interest rates 53% of the time, with a typical margin of error of 86 basis points. Does that mean investors should not alter duration? Not when the risk is as asymmetric as it is today. But duration and credit management should be based on long-term conviction in addition to short-term tactical views. We've had conviction in a moderate-duration, credit-sensitive strategy in recent years, but as our conviction changes, so will our portfolio.

This approach isn't for everyone. Some investors simply don't want to take duration risk. That is a totally valid approach for someone who doesn't want to worry about interest rates and is willing to give up some yield and potential return. For these types of investors, we still think a multi-sector approach makes sense, but you can invest in a duration-constrained portfolio (as opposed to an unconstrained portfolio that can take any duration position that the manager chooses). This allows you take advantage of many of the opportunities in fixed income while minimizing the risk you're most concerned about.

Building your allocation

Fixed-income investing today requires looking outside of the traditional "core" bond allocations. We've talked quite a bit about U.S. Treasuries and high-yield bonds because they represent opposite ends of the spectrum. But in between there are a huge number of options for unconstrained managers to select from. International diversification further reduces correlation to U.S. Treasury rates as foreign bonds will be most impacted by the interest-rate-environment in the local market rather than in the United States. It also provides the opportunity to invest in companies or governments that fall outside of the typical U.S.-based index. Other areas such as non-agency mortgage-backed debt, municipal bonds and convertible securities all offer unique characteristics that may provide outsized opportunities in certain environments.

Figure 8 highlights the value of a more diversified approach to fixed income. Changing market environments cause dispersion in returns among bond sectors. Allocating to the correct sector can lead to very strong results, but if an investment thesis proves incorrect, the portfolio will suffer. Therefore, a portfolio that holds a wide range of bonds, but overweights the sectors in which the manager has the most conviction, has a better opportunity for strong results. The challenges outlined in this white paper have led to a dramatic growth in "unconstrained" or "nontraditional" fixed-income allocations. So what does unconstrained mean, anyway? When you look closely, it becomes clear that unconstrained means different things to different people. There is a wide dispersion of strategies, but at the core most of them are in some way designed to provide positive returns in a rising-rate environment.

A few of the main strategies are briefly outlined below. Based on a review of the largest funds in Morningstar's Nontraditional Bond and Multisector Bond categories, we estimated how much money is allocated to each strategy. (This represents 87% of total assets in the two categories.)

Short-duration/long-credit funds

— Seek yield by increasing credit risk. Reduce duration, often using derivatives.
— Offer low to negative duration. Some funds must maintain low duration, while others have more flexibility.
— May be appropriate for investors who are comfortable with increased credit risk but do not want exposure to duration.
— Approximately 5% of assets in the two Morningstar categories are invested in strategies that implement this approach.

Absolute-return funds

— Seek to provide positive return regardless of the environment.
— Often times implement a long/short approach.
— May be appropriate for investors who are willing to give up yield and potential returns to attempt to reduce portfolio volatility.
— Approximately 15% of assets in the two Morningstar categories are invested in strategies that implement this approach.

Arbitrage funds

— Try to generate returns by focusing on company-specific events that are uncorrelated to the overall market.
— Include merger arbitrage, capital structure arbitrage and convertible arbitrage.
— May be appropriate for investors who are not focused on income and want a low-risk strategy that is uncorrelated to bond-market returns.
— Approximately 2% of assets in the two Morningstar categories are invested in funds that implement this strategy.

Figure 8: Changing market environments cause dispersion in returns among bond sectors (in percentages)

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	YTD
TIPS 11.97	IG corp. bonds 10.31	TIPS 16.57	HY bonds 27.94	HY bonds 11.95	EM bonds 10.25	HY bonds 11.92	TIPS 11.64	UST 20.30	HY bonds 54.22	HY bonds 14.42	UST 16.99	EM bonds 17.44	HY bonds 7.53	EM bonds 9.10
UST 11.24	EM bonds 9.70	UST 14.66	EM bonds 22.21	EM bonds 11.62	Bank loans 5.06	EM bonds 9.86	UST 9.77	GNMAs 7.87	Bank loans 51.62	EM bonds 12.24	TIPS 13.56	HY bonds 14.71	Bank loans 5.29	Munis 6.18
Agg. bonds 9.59	Agg. bonds 8.44	EM bonds 13.65	Bank loans 9.97	TIPS 8.46	Munis 3.51	Bank loans 6.7	GNMAs 6.98	Agg. bonds 5.24	EM bonds 29.82	Bank loans 10.13	Munis 10.70	IG corp. bonds 9.82	IG corp. bonds –1.53	UST 5.99
GNMAs 9.56	GNMAs 8.22	Agg. bonds 10.26	TIPS 8.40	IG corp. bonds 5.39	GNMAs 3.21	Munis 4.84	Agg. bonds 6.97	TIPS –2.35	IG corp. bonds 18.68	IG corp. bonds 9.00	IG corp. bonds 8.15	Bank loans 9.66	Agg. bonds –2.02	TIPS 5.86
Munis 8.99	TIPS 7.90	IG corp. bonds 10.12	IG corp. bonds 8.24	Bank loans 5.17	TIPS 2.84	GNMAs 4.61	EM bonds 6.16	Munis –2.47	Munis 12.91	UST 8.10	GNMAs 7.90	TIPS 6.98	GNMAs –2.12	IG corp. bonds 5.62
EM bonds 8.29	HY bonds 5.80	Munis 9.60	Munis 5.31	UST 4.87	Agg. bonds 2.43	Agg. bonds 4.33	IG corp. bonds 4.56	IG corp. bonds –4.94	TIPS 11.41	GNMAs 6.67	Agg. bonds 7.84	Munis 6.78	Munis –2.55	HY bonds 4.22
IG corp. bonds 7.08	Munis 5.13	GNMAs 8.69	Agg. bonds 4.10	Munis 4.48	HY bonds 2.26	IG corp. bonds 4.30	Munis 3.36	EM bonds –12.03	Agg. bonds 5.93	Agg. bonds 6.54	EM bonds 7.35	UST 4.23	EM bonds –5.25	Agg. bonds 3.66
Bank loans 4.45	Bank loans 4.24	HY bonds 3.10	GNMAs 2.85	GNMAs 4.35	UST 2.04	UST 1.38	HY bonds 2.65	HY bonds –26.17	GNMAs 5.37	TIPS 6.31	HY bonds 5.47	Agg. bonds 4.21	UST –7.85	GNMAs 3.53
HY bonds –7.08	UST 4.01	Bank loans 1.91	UST 1.25	Agg. bonds 4.34	IG corp. bonds 1.68	TIPS 0.41	Bank loans 2.08	Bank loans –29.10	UST –9.92	Munis 2.38	Bank loans 1.52	GNMAs 2.42	TIPS –8.61	Bank loans 2.57

Source: Morningstar as of 7/31/14. **Performance is historical and does not guarantee future results**. Asset-class representation is as follows: aggregate bonds, Barclays U.S. Aggregate Index; bank loans, S&P/LSTA Leveraged Loan Index; emerging-market (EM) bonds, JPMorgan EMBI Global Diversified Index; GNMAs, Barclays GNMA Index; high-yield (HY) bonds, Credit Suisse High Yield Index; investment-grade (IG) corporate bonds, Barclays U.S. Corporate Index; municipal bonds (munis), Barclays Municipal Bond Index; Treasury Inflation Protected Securities (TIPS), Barclays U.S. TIPS Index; U.S. Treasuries (UST), Citigroup Treasury Benchmark 10-Year Index. Index returns do not reflect fees or expenses, and it is not possible to invest directly in an index. See back page for index definitions.

Go-anywhere funds

- Provide an opportunistic approach to fixed-income investing.
- Credit quality and duration can vary significantly depending on the market environment.
- Allocation will be driven by sector rotation, including large exposure to international markets when appropriate.
- May be appropriate for investors who want a portfolio management team that can invest in any strategy it believes appropriate given market conditions.
- Approximately 20% of assets in the two Morningstar categories are invested in funds that implement this strategy.

Multisector bond funds

- Generally have a fairly risky credit profile, with heavy allocations to high-yield and emerging-market bonds.
- Put less focus on managing duration: They will generally maintain portfolio duration in the three- to five-year range.
- May be appropriate for investors who are seeking a higher level of income but also want some diversification away from high-yield bonds.
- Approximately 23% of assets in the two Morningstar categories are invested in funds that implement this approach.

Aggressive credit funds

- Take a similar approach to Multisector bond funds, but with a more aggressive credit profile.
- Will often have greater sector concentration and will, in some cases, allocate to equities
- May be appropriate for investors who are focused on maximizing income and total return but don't want a pure high-yield bond portfolio.
- Approximately 23% of assets in the two Morningstar categories are invested in funds that implement this strategy.

The strategies listed above are just a sampling of some common approaches portfolio managers are taking to manage their way through a challenging fixed-income market. With such a wide variety of strategies and approaches, it has become more challenging to compare fund performance relative to like strategies.

This can be seen when looking at Morningstar and Lipper categories. Morningstar now has a Nontraditional Bond category, which is where funds that implement many of the strategies we've discussed are categorized. But the Morningstar Multisector Bond category has many similarities to the Nontraditional Bond category. Both categories have funds that call themselves unconstrained, but slight differences can lead to different categorization. Lipper has taken a similar approach and now has an Alternative Credit Focus category in addition to a Multi Sector income category. Looking at differences between how Morningstar and Lipper categorize various funds shows how challenging it is to separate the wide range of options available.

To make sense of this, investors should ask themselves a series of questions:

- Do I want to anchor in a low-duration portfolio or do I want to allow my manager more flexibility?
- Am I willing to give up income/yield in exchange for more stability?
- Do I have enough confidence in the investing team that I am comfortable with them making large concentrated bets?
- In pursuit of income, is it acceptable if the portfolio becomes quite highly correlated to equities?
- Am I strongly focused on income and ready to take significant risk to optimize it?

The importance of investment capabilities

Taking an alternative approach to fixed-income management offers several benefits that could potentially lead to better investment results, but there's one problem: It's hard—much harder than tracking an index. An unconstrained portfolio can invest in any bond, in any fixed-income asset class, from any country on the globe. This gives a portfolio manager a mind-boggling number of options. Having a framework for how the fund will be managed is a good start, but there are many other important considerations.

Getting unconstrained investing right over cycles is complex and takes a variety of capabilities that only a small number of asset managers possess:

A global perspective of the interest-rate environment. Unconstrained portfolios invest globally. Therefore, understanding the factors that drive interest rates in various countries is vital. If done properly, this is a significant benefit, as not all interest rates will move together, but getting it right requires extensive capabilities.

Research coverage of non-U.S. credits. Just as not all domestic bonds track U.S. Treasury yields, not all foreign bonds track their respective sovereign rates. Strong global research capabilities will allow some managers access to key information that may leads to better investment decisions.

Strong multi-sector capabilities across fixed-income asset classes. Unconstrained investing is much too daunting of a task to be taken on by a single manager. It requires sector specialists to work together as a part of the portfolio construction team, in addition to firm resources to help the team create the most fitting allocation.

Conviction to move assets across sectors—and a process to do so. Unconstrained managers must consider factors such as credit spreads, yield curve shifts, global positioning, geopolitical factors and potential changes in central bank policy. Properly assessing the impact of each of these factors on a variety of markets will lead better allocation decisions.

Experience in operating in the process over a long time frame and multiple historical cycles. Unconstrained investing is an ever-changing battle. Opportunities come and go, and managers must be able to adapt to new markets. Traditional portfolios limit a manager's investable universe, so it can be difficult to adjust to an unconstrained mandate.

Institutional discipline to the mutual-fund space. As the name implies, unconstrained investing allows unlimited flexibility to portfolio managers. But, it's important to differentiate between unconstrained and undisciplined. Regardless of the strategy, managers need to have conviction in their positioning, and they need to implement a framework around how decisions will be made.

We encourage investors to take the time to truly understand the capabilities of their asset managers.

Conclusion

Fixed-income investing today presents a set of challenges that investors have not had to deal with in more than 30 years. Interest rates near all-time lows have made it more challenging to find attractive levels of income, and investors are rightly concerned about potential losses from interest-rate increases. When building a fixed-income portfolio, investors should keep the following points in mind:

— There is an asymmetric risk that interest rates will move higher in the future. While caution is warranted, simply eliminating all duration is not a good long-term solution. Investors should consider an investment's yield relative to its duration when assessing interest-rate risk.
— Credit spreads have tightened due to low defaults, and investors need for income. High-yield bonds offer attractive diversification benefits relative to U.S. Treasuries but higher correlations relative to equities.
— Bond diversification will be increasingly important in the future. Taking a more unconstrained approach to fixed income could potentially yield better results than a traditional "core" bond portfolio.

If there is one thing that nearly all investors can agree on, it is that fixed-income investing requires a much more nuanced approach in today's market than it has in the past. Deciding how much duration risk to take, what type of credit quality is most likely to outperform and which manager's strategy is the best for one's needs is a serious challenge. We recommend discussing these issues with a trusted financial advisor. No one strategy will be best for all investors, and an advisor can help one find the mix of bonds that works best for one's situation.

Definitions: The Barclays GNMA Index tracks the performance of fixed-rate securities backed by mortgage pools of the Government National Mortgage Association (GNMA). The Barclays Municipal Bond Index tracks the performance of investment-grade, fixed-rate municipal bonds with maturities greater than two years. The Barclays U.S. Aggregate Index tracks the performance of the broad U.S. investment-grade, fixed-rate bond market, including both government and corporate bonds. The Barclays U.S. Corporate Index (alternately the Barclays U.S. Corporate Investment Grade Index) tracks the performance of the investment-grade, fixed-rate, taxable, corporate bond market. The Barclays U.S. TIPS Index tracks the performance of U.S. Treasury inflation-linked securities. One basis point equals 1/100 of a percentage point. The Citigroup Treasury Benchmark 10-Year Index tracks the performance of the 10-year U.S. Treasury bond. Correlation is a measure of how closely two variables move together over time. A 1.0 equals perfect correlation. A –1.0 equals total negative correlation. Credit quality measures a bond issuer's ability to repay interest and principal in a timely manner. Rating agencies assign letter designations such as AAA, AA and so forth. The lower the rating, the higher the probability of default. Credit quality does not remove market risk and is subject to change. Credit risk refers to the risk that a borrower will default on any type of debt by failing to make payments which it is obligated to do. The Credit Suisse High Yield Index tracks the performance of the global high-yield debt market. Duration, which is expressed in years, measures the sensitivity of the price of a bond or bond fund to a change in interest rates. The JPMorgan Emerging Markets Bond Index (EMBI) Global Diversified tracks the performance of external debt instruments (including US-dollar-denominated and other external-currency-denominated Brady bonds, loans, Eurobonds and local market instruments) in the emerging markets. Modern Portfolio Theory is a theory about how risk-averse investors can construct portfolios to optimize or maximize expected return based on a given level of market risk. Spread refers to the excess yield various bond sectors offer over financial instruments with similar maturities. When spreads widen, yield differences are increasing between bonds in the two sectors being compared. When spreads narrow, the opposite is true. Standard deviation is often used to represent the volatility of an investment. It depicts how widely an investment's returns vary from the investment's average return over a certain period. The yield curve is a graphical representation of how yields on bonds of different maturities compare. Normally, yield curves slant up, as bonds with longer maturities typically offer higher yields than short-term bonds. The S&P/LSTA Leveraged Loan Index tracks outstanding balance and current spread over LIBOR for fully funded loan terms. The S&P 500 Index tracks the performance of 500 leading U.S. stocks and is widely considered representative of the U.S. equity market.

Bond investments are subject to interest-rate and credit risks. When interest rates rise, bond prices generally fall. Credit risk refers to the ability of an issuer to make timely payments of principal and interest. Investments in lower-quality ("junk bonds") and non-rated securities present greater risk of loss than investments in higher-quality securities. Investing in derivatives entails special risks relating to liquidity, leverage and credit that may reduce returns and/or increased volatility. Investing in foreign securities, particularly those of emerging markets, presents certain risks, such as currency fluctuations, political and economic changes, and market risks. A bond portfolio may lend securities to approved institutions.

The forecasts provided are based upon our opinion of the market as at this date and are subject to change, dependent on future changes in the market. Any prediction, projection or forecast on the economy, stock market, bond market or the economic trends of the markets is not necessarily indicative of the future or likely performance.

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