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Adapting to liquidity issues in the bond market

Over several years, the U.S. bond market has seen a drop in trading liquidity as market makers such as U.S. broker/dealers have meaningfully reduced their trading balance sheets. Bond market liquidity, while not evaporating, has not been as fluid as it once was. Even as new bond sales have increased market size, fewer primary dealers are willing to handle them.

Even as liquidity has ebbed and flowed, particularly since 2014, there are sound practices that fixed income professional investors can take to evaluate and execute trades. Unlike equities, which can rely on computerized stock exchanges to bring buyers and sellers together, the bond market tends to be sold primarily over the counter (OTC), requiring person-to-person transactions. Buying and selling bonds effectively can require good working relationships with dealers — an approach that our traders have developed, along with a keen understanding of the market. This paper offers an overview of liquidity and its impact, as well as an outline of some of our own practices, to provide insight into how investors can manage through even illiquid periods.

Executive summary

- Bond market liquidity, by several measures, has declined since the global financial crisis.
- A few events, while isolated, have led to concerns that liquidity issues could remain challenging.
- Amid this backdrop, Delaware Investments continues to adapt to a changing marketplace, focusing on risk management and other procedures to help ensure we execute trades even in less liquid environments.
- Even periods of relative illiquidity can offer potential opportunities. Through research, there is the potential to identify mispriced securities, and purchase them at a lower cost.
- A series of sound practices — on the trading desk, by investment teams, and companywide — can help investors navigate the new realities of bond market liquidity.

The decline of fixed income liquidity

In recent years, liquidity — specifically, the risks associated with a lack of it — has emerged as a major topic in the world of fixed income. Liquidity risk stems from the lack of relative ease in security trading, when there is a risk that an investment cannot be bought or sold quickly enough or in sufficient size to execute the trade. While always a factor, liquidity risk has become more pronounced in recent years.

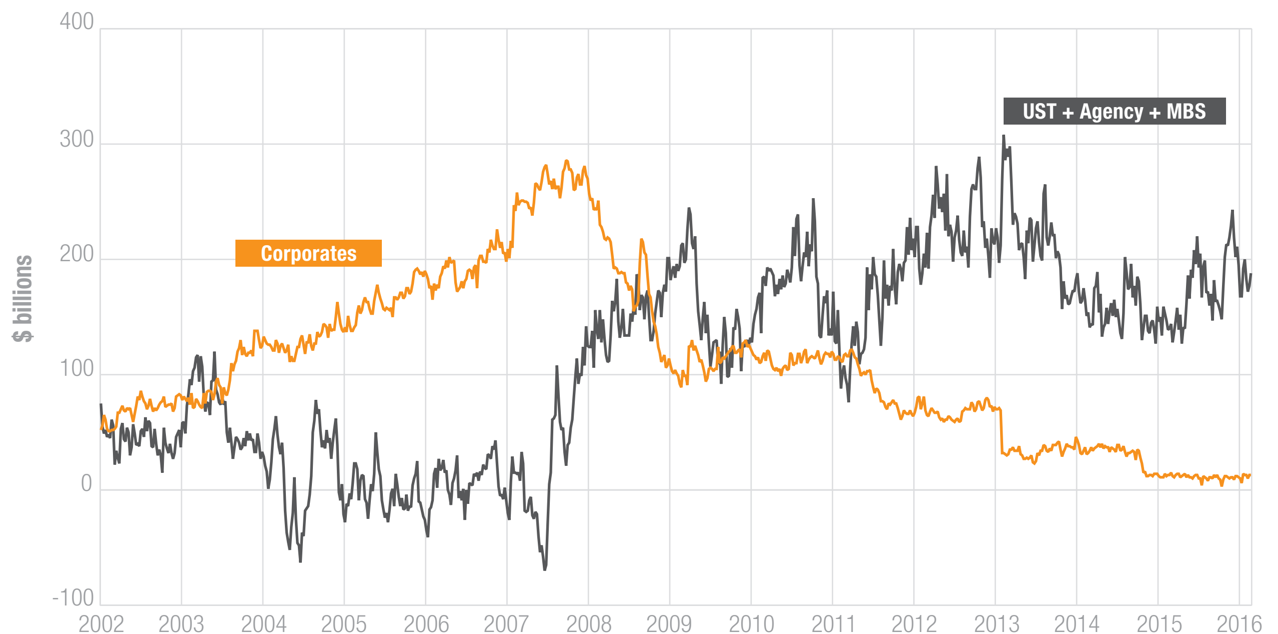
By the numbers it's easy to see why, and hard to dispute, that liquidity has diminished in the bond market.

There have been a number of new regulations, proposed or put into effect since the global financial crisis, and intended to address liquidity risk management. For example, new rules call for stricter capital requirements and the Securities and Exchange Commission in 2015 proposed liquidity management rules that would affect mutual funds and exchange-traded funds (ETFs). The result has been a significant impact on the market. The increased regulatory pressure has made it expensive for broker/dealers to carry large amounts of bond inventories on their balance sheets.

Federal Reserve data that suggest that dealer inventories of fixed income corporate securities declined 75% from 2007, which was before the financial crisis, to 2014, have often been debated among organizations ranging from the Brookings Institute to JPMorgan Chase. Regardless of the exact depths of the declines, we believe that the drop in primary dealer inventories has led to asset managers becoming less able to express their investment views perfectly — due to an occasional inability to buy and sell the securities they target.

Dealer inventories in U.S. corporate bonds have continued to fall

Primary dealers' holdings in U.S. corporates vs. high-quality government-backed issues



Source: Federal Reserve Bank of New York

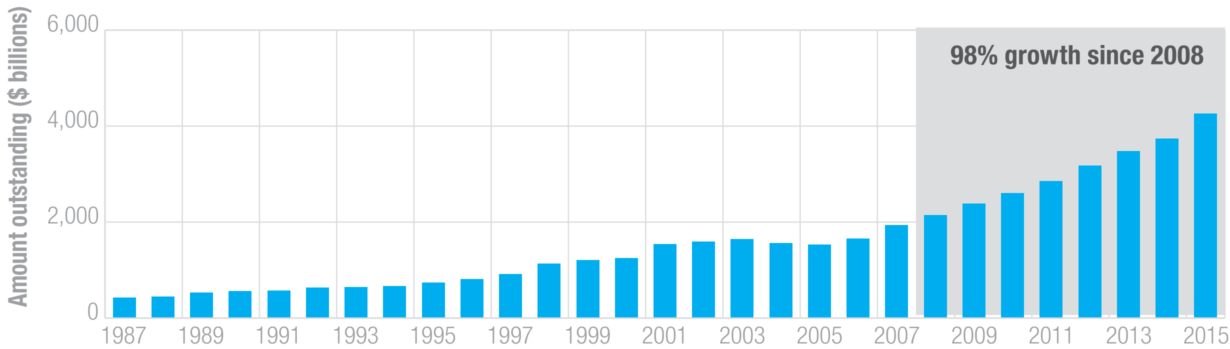
Dealer holdings include inventories in corporate bonds, U.S. Treasurys, agency bonds, and mortgage-backed securities (MBS).
Please see page 8 for important disclosure information.

All charts shown throughout are for illustrative purposes only.

Increased regulations combined with considerable growth in the bond market, as seen in the charts below, have added to the liquidity challenges in the credit market.

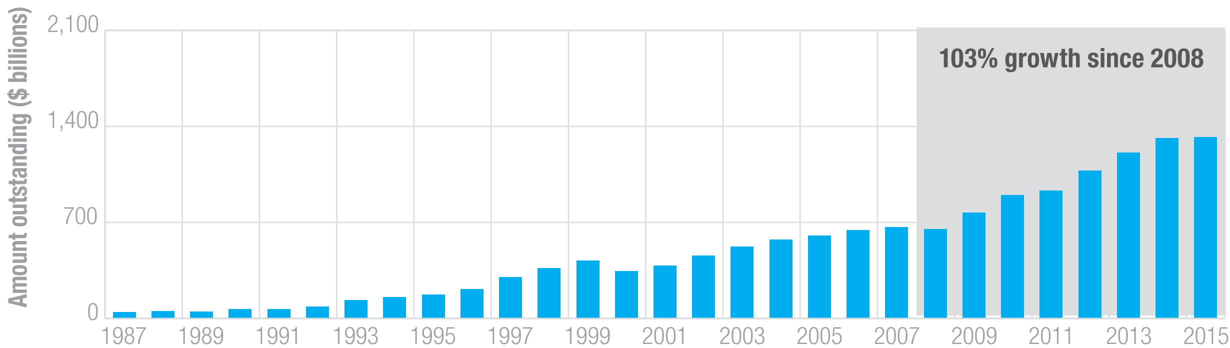
Growth of credit markets since the global financial crisis

U.S. investment grade has nearly doubled since the crisis began



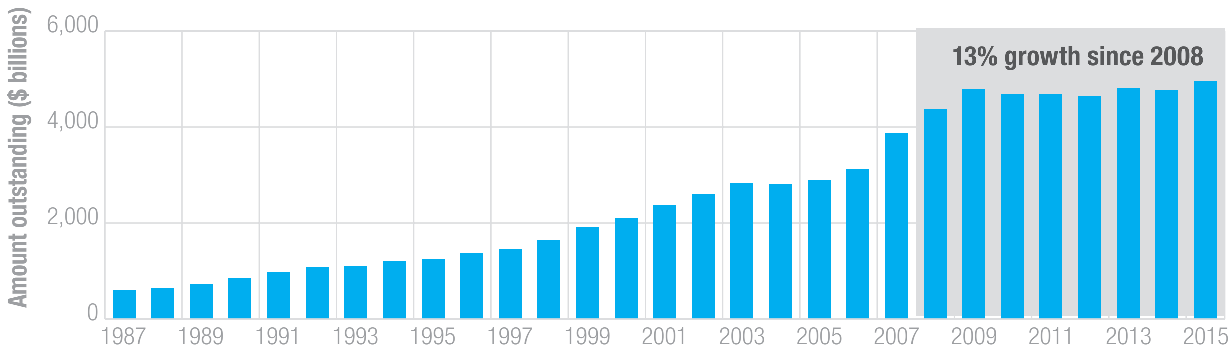
Barclays U.S. Corporate Investment Grade Index

High yield corporates grew slightly more than investment grade during the same period



Barclays U.S. Corporate High-Yield Index

Mortgage-backed securities have grown, but not as much



Barclays U.S. Mortgage-Backed Securities (MBS) Index

Source (all three charts): Barclays. Please see page 8 for important disclosure information.

All charts shown throughout are for comparison purposes only.

Past performance is no guarantee of future results.

While liquidity can be a risk, we rely on time-tested practices and an understanding of the market to execute trades.

Compounding the issue has been the notable growth in assets in bond mutual funds. Since the financial crisis, which led many investors to turn to bond funds especially for retirement savings, these assets have more than doubled, rising from $1.6 trillion in 2007 to $3.3 trillion at the end of 2014, according to the Investment Company Institute (ICI). U.S. mutual funds now own 17% of all corporate bonds, up from 9% in 2008, the ICI has reported.[1] The risk in regard to liquidity is that during periods of market stress, more-concentrated mutual fund ownership tends to mean larger price drops, according to the International Monetary Fund (IMF).[2] The thinking is that any shock to the system could trigger many investors to simultaneously seek redemptions, thereby challenging the funds to meet those redemption demands.

That is not entirely a theoretical scenario. The bond market has undergone several temporary liquidity events in the past few years, such as the so-called "taper tantrum" in 2013 that affected market fluidity. In December 2015, there was a more high-profile instance in which a single fund, citing a lack of liquidity in some of its distressed-debt securities, couldn't meet redemption requests and blocked clients from withdrawing assets.

Outlook and potential ramifications

Those events have heightened concerns among some investors, analysts, and traders that the bond market could be subject to more volatility that for years was more commonly associated with other asset classes.

Liquidity risk can manifest itself in a number of ways. It can be reflected in dealers' unwillingness to take on risk, wider bid-ask spreads (that is, the price difference between the highest amount a buyer is willing to pay for an asset and the lowest price a seller is willing to sell it), lower levels of trading activity, and smaller transaction sizes. In the high yield market, bond prices could be vulnerable to declines if market participants demand higher liquidity risk premiums, one of several factors that influence the price of a bond. It is important to note, however, that if credit fundamentals deteriorate or higher risk premiums are called for, it is possible to manage through that kind of environment. Because a significant portion of the bond market remains an over-the-counter market based on personal, one-to-one matching of buyers and sellers, we feel it is essential to rely on experience, market awareness, and strong working relationships to help identify and close trades even under difficult market conditions.

Liquidity is an important factor that should not be ignored or minimized. It has been and remains a core, fundamental piece of effective portfolio risk management. The new realities of the fixed income market mandate that we adapt in order to help facilitate liquidity in our investments and portfolios.

1. Source: ICI, 2015 Investment Company Fact Book.
2. Source: IMF, Global Financial Stability Report, April 2015.

Please see page 8 for important disclosure information.

Working amid liquidity issues

It's important to recognize that while liquidity issues have been capturing headlines, most of the major events to date were episodic and limited in nature, in our view. In late 2015, for example, high yield liquidity became challenging, stemming primarily from one fund with an overconcentration in distressed assets, a small sample of the high yield market. Since then, through the first quarter of 2016, the broad liquidity of the high yield market generally improved.

Overall, fixed income trading continues to function. However, liquidity has had an impact not only on different sub-asset classes of the bond market, but on different sectors of corporate bond issues as well. For example, the steep decline of commodity prices in the past few years presented challenges for some energy issues (particularly those tied to companies that were highly leveraged, meaning they held a significant amount of debt). The energy collapse, which intensified in early 2016 before recovering somewhat, had a certain viral effect — for example, it tended to drive down prices in other sectors. Despite this, the challenges to liquidity that have occurred generally do not appear to have been systemic, but rather relatively contained within a specific area of the large fixed income market.

The role of electronic trading platforms

After the stricter capital requirements imposed by regulators post-financial crisis, a pullback by dealer banks, traditionally the bond market middlemen, might have been inevitable. As dealer inventories have indeed shrunk, the share of trades conducted on "dark pool" platforms, which allow traders to buy and sell securities anonymously, could further add to bond market liquidity.

Dark pools for equities, which unlike stock exchanges don't publish buy-and-sell orders, emerged as a way that institutional investors, such as managers of pension plans or endowments, could trade large stock positions without tipping off the broader market to their moves. With reduced dealer inventory in fixed income, there has been some use of dark pool platforms in bonds, as a way for buyers and sellers to reach each other.

To date, these electronic platforms remain a fraction of overall bond trading; trading, based on human interface, still dominates the business. The platforms lack the ability to take risk, as well as lacking syndicate business (when underwriters coordinate the placing of new issues) and other client services sought by the buy-side community. In part, that's because these platforms are focused solely on trading execution, and not on dealing directly with broker/dealers. This could result in potentially losing access to the nuanced information that comes from the interpersonal communication, which is a hallmark of the bond market. It could potentially impact the ability to effectively execute a trade during sensitive market conditions. While electronic trading platforms may seem to have some promise, we believe it's unlikely that the way fixed income is currently traded will materially change in the near term. As the fixed income market continues to evolve, we maintain an active and ongoing analysis of these innovations.

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Practices to address liquidity

In an effort to guard against liquidity issues, there are a number of sound practices and steps professional investors can take. For us, these occur at different levels of an organization and within several different bond investment functions, and are worth considering for other investors.

Following sound practices and relying on teamwork can help in times of market stress and thin liquidity.

Trading level

With no central exchanges — such as the New York Stock Exchange or Nasdaq that facilitate the trading of stocks — bond dealing relies not only on skill and experience, but also on working relationships.

Our traders, on average, have years of experience working with their counterparts, typically bank traders. Even though the banks have more limited balance sheets than in the past, they have evolved in recent years. They haven't been stagnant; rather, they have adapted their business practices to adhere to stricter rules. Our familiarity with the banks, forged over many years, enables us to work efficiently, even when market liquidity is thin.

Portfolio level

In volatile conditions, investment teams will gravitate toward more liquid investments, and liquidity has become even more important with the shifts in the fixed income world. As a result of ongoing liquidity issues, each of our investment teams is placing an even larger emphasis on the need for liquid positions, so that they can maneuver their portfolios, especially in times of market stress.

Many firms impose a hierarchy that segregates the work of portfolio managers and traders. At Delaware Investments, we believe a sound practice is to forge a close partnership among analysts, traders, and portfolio managers. That means that the role of a trader is not restricted to executing trades — instead the role is broader than it is at most firms, and involves helping to risk-manage our portfolios as well.

Our portfolio managers, traders, and analysts work in constant, close collaboration to help ensure sufficient liquidity, at both the individual security level and the portfolio level. This may result in shifts in a portfolio's holdings, as it is important to size holdings and positions appropriately to help ensure liquidity.

Portfolio managers strive for adequate liquidity pools in their portfolios, such as through Treasurys, agency mortgage-backed securities, and high-quality corporate bonds. Traders monitor up-to-the-minute lists of liquid securities within specific sectors, or may place greater emphasis on the more current, on-the-run securities. In addition, teams work together to perform portfolio stress testing to help ensure adequate liquidity pools — that is, they regularly check if the portfolio could meet threshold liquidity requirements, if there were to be hypothetical redemption demands. Also, traders maintain their sell-side relationships to try to achieve optimum information flows.

Please see page 8 for important disclosure information.

It is also important to note the contributions of all segments of the fixed income team, especially in liquidity-strained markets. Research and analysis groups serve a key role, for example, in identifying companies that have good credit fundamentals but may be mispriced in the market — representing a value opportunity.

Companywide level

We don't limit liquidity considerations to the context of every new investment decision, or within a particular fund. Rather, we consider liquidity in a companywide context. On the surface, this detail may seem to be of marginal importance, but it can have a marked impact. For example, some firms with partitioned investment teams may discover that they have several different funds amassing large, similar positions in a security, or securities, with liquidity issues.

According to an investigation in fall of 2015 by *The Wall Street Journal*, more than half of the 18 largest bond funds in the industry invested 15% or more of their funds in rarely traded securities, a practice that runs counter to long-held Securities and Exchange Commission (SEC) views on funds.

As an example, if one of our portfolios were considering an investment in a less liquid bond — one with appealing risk-reward characteristics, but lacking ideal fluidity — the investment teams first would seek to limit the security's exposure to below a typical position size. In addition, the managers could assess whether other internal investment teams are contemplating a position in the security, which could add to the vulnerability of the firm if it needed to reduce its position. In that regard, if the core high yield strategy invests in a less liquid bond, it might cap its exposure below a typical level and monitor other portfolio exposures.

We look to have resulting portfolios that are sized appropriately. Perhaps of even more importance is that we aim to size risk appropriately. Managing and accepting some risk is fundamental to our role as credit managers, but the goal is that the risk will be, in our opinion, at the appropriate level for the trade and ultimately for the portfolio.

One way teams help ensure adequate liquidity pools is to stress-test portfolios.

Conclusion

The data, of course, cannot be disputed — liquidity has decreased in the fixed income market and reflects a structural change in the bond market, one that appears unlikely to change given the new capital rules.

That said, there is still a role for fixed income in many investors' portfolios, and the trading of these securities has not abated. Our traders and investment teams are using their acumen and experience to adapt to the new market realities. We use a series of sound practices to strategically position our portfolios in an effort to avoid the traps that can come with liquidity. These practices include maintaining strong relationships with our counterparties, and empowering our teams to be more involved in risk management at the portfolio and companywide level.

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In addition to these practices, we are following an overall portfolio management path that we believe is appropriate for a challenging liquidity environment. That strategy includes building in liquidity buffers, maintaining a bias toward higher-quality assets, and continuing to focus on income sources of return. It is our belief that this type of strategic approach, along with keen risk management, can help maneuver through illiquid periods and potentially buffer our investors from the impact of volatility.

The views expressed represent the Manager's assessment of the market environment as of May 2016 and should not be considered a recommendation to buy, hold, or sell any security, and should not be relied on as research or investment advice. Views are subject to change without notice and may not reflect the Manager's views.

Investing involves risk, including the possible loss of principal.

Past performance is no guarantee of future results.

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The Barclays U.S. Corporate Investment Grade Index is composed of U.S. dollar–denominated, investment grade, SEC-registered corporate bonds issued by industrial, utility, and financial companies. All bonds in the index have at least one year to maturity.

The Barclays U.S. Corporate High-Yield Index is composed of U.S. dollar–denominated, noninvestment grade corporate bonds for which the middle rating among Moody's Investors Service, Inc., Fitch, Inc., and Standard & Poor's is Ba1/BB+/BB+ or below.

The Barclays U.S. Mortgage-Backed Securities (MBS) Index measures the performance of agency mortgage-backed pass-through securities (both fixed-rate and hybrid adjustable-rate mortgage) issued by the Federal National Mortgage Association (Fannie Mae), Federal Home Loan Mortgage Association (Freddie Mac), and Government National Mortgage Association (Ginnie Mae).

Index performance returns do not reflect any management fees, transaction costs, or expenses. Indices are unmanaged and one cannot invest directly in an index.

International investments entail risks not ordinarily associated with U.S. investments including fluctuation in currency values, differences in accounting principles, or economic or political instability in other nations. Investing in emerging markets can be riskier than investing in established foreign markets due to increased volatility and lower trading volume.

Fixed income securities and bond funds can lose value, and investors can lose principal, as interest rates rise. They also may be affected by economic conditions that hinder an issuer's ability to make interest and principal payments on its debt.

High yielding, non-investment-grade bonds (junk bonds) involve higher risk than investment grade bonds.

Investments in mortgage-backed securities (MBS) may involve risks. MBS represent an ownership interest in a pool of mortgage loans. The individual mortgage loans are packaged or "pooled" together for sale to investors. These mortgage loans may have either fixed or adjustable interest rates.

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