Reduced liquidity: A new reality for fixed-income markets
Understanding the causes and implications of a less liquid trading environment

Executive summary

- Decreased liquidity in fixed-income markets is a structural change resulting from industry consolidation, stricter regulatory oversight, and increased capital requirements.
- Evidence of today’s less liquid environment is seen in a widening of “bid/ask” spreads and shrinking dealer inventories.
- Liquidity is more likely to be compromised for riskier fixed-income segments than for U.S. Treasuries, and for longer-duration and smaller-sized issues.
- Overall, reduced bond market liquidity should be considered a long-term phenomenon, potentially leading to higher transaction costs and a higher risk premium for certain sectors.
- Investors can take steps to manage the challenges of reduced liquidity, with confidence that fixed income remains a strategically important asset class in a diversified portfolio.

Today’s fixed-income investors face a less liquid market

In recent months, a reduction in bond market liquidity has been the subject of headlines and a topic of discussion among fixed-income investors. The liquidity squeeze reflects a growing structural change in financial markets that has resulted from industry consolidation, increased capital requirements, and stricter regulatory oversight of large banks that have traditionally served to “make” markets for fixed-income securities through proprietary trading of short-term positions, which involves placing the firm’s capital at risk.

The origins of reduced liquidity can be traced to the 2008-2009 financial crisis, which led to the disappearance of large firms such as Lehman Brothers and Bear Stearns, passage of the Dodd-Frank Wall Street Reform and Consumer Protection Act, and increased capital requirements related to Basel III standards. These factors have limited the number of market participants and reduced the profitability and extent of proprietary trading. While banks’ trading operations previously included dedicated proprietary trading desks that were designed to generate profits based on market or security-specific views, such operations have generally been curtailed. Remaining dealer trading operations are designed with a more narrow focus on facilitating trades through taking temporary positions in securities—a more limited use of banks’ proprietary capital. This transition can be viewed as a shift from an industry trading model that included principal and agency aspects to one that is more purely agency-based.

This change in the market landscape raises a number of questions for investors:

- Are the effects of reduced liquidity distributed evenly across fixed-income sectors?
- Is the reduction in liquidity a temporary or long-term phenomenon?
- How might reduced liquidity contribute to a potential downturn in fixed-income markets, which could be brought on by a rise in interest rates or by credit-related concerns?
- What steps are fixed-income managers taking to offset the impact of reduced liquidity?
In the pages that follow, we explore these questions and address the practical implications that fixed-income investors should consider in a less liquid market.

**How liquidity is defined and measured**

Before examining the implications of reduced liquidity in fixed-income markets, it may be helpful to first understand what is meant by the term “liquidity” and how the availability of market liquidity can be measured.

**Definition**

Broadly, liquidity can be considered the ease with which trades can be conducted in the marketplace, taking into account the cost of trade execution, market impact costs (the change in a security’s price as a result of an individual trade), and the time frame required to complete the transaction.

Liquidity in the marketplace is facilitated by securities dealers, who are willing to take proprietary positions in securities on a temporary basis, matching buyers with sellers. Dealers earn a “spread” on transactions, which is the difference between the price a dealer is willing to pay for a security and the price at which a dealer offers to sell it. The ability of dealers to facilitate transactions can vary; it is generally easier to accommodate trades given longer time frames and smaller transaction sizes. To the extent that liquidity is reduced, buyers and sellers generally experience longer time frames for transactions to clear and must tolerate greater intraday volatility and wider spreads.

It’s important to understand that dealers are not long-term investors in markets. Therefore, while the availability of liquidity that dealers provide can affect the quality of market trading (allowing for “smoother,” well-functioning markets vs. “choppy” markets that move in fits and starts), the availability or lack of liquidity is generally not indicative of long-term market supply and demand and may not be a reliable indicator of the long-term fundamental value of securities. The ultimate providers of liquidity in the market remain institutional investors, including asset management firms and hedge funds. Ultimately, market prices reach equilibrium levels that reflect demand and supply from such investors.

**Measurement**

Market liquidity can be measured in a variety of ways, one of which is the spread between the price at which dealers are willing to buy and sell securities. This “bid/ask” spread may widen—indicating that dealers require greater compensation to trade—if there are fewer dealers willing to transact in the marketplace or if it becomes more expensive for dealers to conduct proprietary trading activities. As shown in Exhibit 1, the bid/ask spread for investment-grade corporate bonds, as represented by the MarketAxess BASI, has increased significantly during the past year, indicating a reduction in liquidity for these bonds.
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Exhibit 1: Bid/ask spread for investment-grade corporate bonds

High-Grade Bid-Ask Spread Index (BASI)

Source: MarketAxess

Another measure of market liquidity is the size of dealer inventories, which indicates their willingness to hold proprietary positions on their balance sheets. In Exhibit 2, we can see an overall reduction in dealer inventories for both investment-grade and high-yield corporate bonds over the past year or more, with a significant dip in inventories during the sharp market sell-offs in the fourth quarter of 2014 and the third quarter of 2015. This suggests that the general decrease in dealers' willingness and/or ability to hold inventories becomes more acute during periods of market stress, particularly for riskier assets.

Exhibit 2: Dealer inventories in investment-grade and high-yield corporate bonds

Source: New York Federal Reserve

Other gauges of market liquidity, including trading volume by trade size and “best-to-cover” ratios, which measure the difference between executed trade prices and the second-best dealer bids/offers, provide similar evidence of reduced liquidity in the marketplace over recent periods.
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How the effects of reduced liquidity are distributed across fixed-income sectors

Because reduced dealer participation in markets results from decreased ability to risk proprietary capital or to profit by doing so, we can expect liquidity to be most compromised for riskier segments of fixed-income markets, including high-yield bonds, emerging-markets debt, certain types of lower-quality structured securities (which may include commercial mortgage-backed and non-agency residential mortgage-backed securities), and fixed-income securities of longer duration, which are more sensitive to interest-rate risk. Additionally, liquidity is less readily available for smaller issues and for seasoned, “off the run” securities that trade less frequently than more recently issued securities.

Higher-quality, lower-risk sectors, including U.S. Treasuries, agency-issued structured securities (including residential mortgage-backed securities), high-quality, short-term structured securities such as asset-backed securities, and government-backed agency debt, are more likely to continue functioning with adequate liquidity even as dealers are less active in these markets as well.

Will the reduction in liquidity be a short- or long-term phenomenon?

Regulations that restrict the ability of banks to put capital at risk are intended to be permanent and will be implemented incrementally over the next several years. Accordingly, we expect the reduction in fixed-income market liquidity to persist, with the potential to progressively worsen over time. That said, the appetite of banks and securities dealers to engage in market-making activities may fluctuate, depending on the attractiveness of other profit-generating businesses in which these firms engage (e.g., investment banking, asset management, mortgage lending, and retail banking) and which vie for the use of the firm’s capital.

As banks have exited the business and as securities dealers conduct less proprietary trading, the role of dealers has changed from one in which they acted in a principal capacity to one in which they serve as an agent to locate and match buyers and sellers. Without clear indications of prices at which buyers and sellers are willing to transact, dealers increasingly serve to enable price discovery rather than to facilitate transactions through proprietary positions. It is notable that assets of investment managers have grown larger in relation to inventories of securities held by dealers. An eventual offshoot of these trends could be the emergence of peer-to-peer trading networks that may allow for institutional investors such as insurance companies, endowment funds, or other investors to directly engage in trading. This would reduce the market’s dependence on dealers as a source of liquidity.

Overall, we consider the decline in market liquidity to be a longer-term, structural change affecting fixed-income markets, potentially leading to higher transaction costs and, at the margins, increasing the risk associated with fixed-income investments, particularly for lower-quality and more thinly traded issues. While this increased cost may be borne to a degree by investors, another potential result of reduced market liquidity is a higher risk premium associated with certain sectors of the bond market, which could result in higher expected returns for fixed-income securities over time.
The impact of decreased liquidity during periods of market stress

Since the implementation of market reforms and increased capital requirements for banks, fixed-income markets have experienced bouts of heightened volatility and risk aversion, although not a market crisis per se. In a severe market sell-off, a well-functioning dealer network may mitigate the effects of a downturn but cannot prevent such declines from occurring. In addition, particularly for riskier securities, market liquidity typically evaporates under conditions of extreme market stress, regardless of the presence of dealers in the market. While reduced dealer engagement in fixed-income markets may imply a higher cost to trade and diminished ability to liquidate or take on new positions, fundamental factors affecting the relative values of securities—rather than temporary effects of market liquidity—are more likely to drive markets over time.

How are fixed-income portfolio managers adjusting to reduced market liquidity?

Fixed-income managers have a number of means at their disposal to effectively manage portfolios under conditions of reduced liquidity. These may include obvious steps such as increasing their holdings of more liquid, tradable assets such as Treasuries and mortgage-backed securities, or cash. These types of holdings may temper the need to sell lower-quality, less-liquid securities that may be earmarked as long-term positions and that the portfolio manager may be comfortable holding through a period of market stress.

Portfolio managers can also make use of instruments that provide fixed-income or credit-market exposure, including exchange-traded funds (ETFs) or derivative-based investments such as CDX, an index of credit default swaps that is easily traded and that serves as a proxy for broad exposure to credit markets. These securities may serve as a “relief valve” in the portfolio, readily available to sell as needed while providing effective, low-cost, fixed-income exposure.

Additionally, portfolio managers may come to rely more heavily on fixed-income traders to assess available market liquidity, identify the most desirable issues from a particular issuer (by issue size, maturity, position in the capital structure, or other characteristics), and to effectively implement market trades. For portfolios that are focused on less-liquid market segments, such as high yield and emerging markets, the inclusion of several dedicated traders within the portfolio management team is often warranted.

The client base associated with a fixed-income fund or account may also have a bearing on a portfolio manager’s ability to effectively manage through periods of limited market liquidity. Funds that have a higher proportion of actively trading investors may be subject to more flows associated with “hot money” coming into and out of the fund, which can create challenges during periods of reduced market liquidity. Managers may mitigate these difficulties by seeking a balanced client base and by implementing policies that limit the ability of more active investors to benefit at the expense of longer-term investors in the fund.

Finally, because many portfolio managers aim to generate excess returns over medium- to long-term time frames, periods of limited market liquidity may serve as opportunities to purchase securities at temporarily depressed levels. Managers that have the ability to independently assess value during market sell-offs may be able to use such conditions to their advantage, particularly as performing fixed-income securities have a known value at maturity.
Implications for fixed-income investors

In light of this changing market landscape, what should investors keep in mind when selecting fixed-income investments?

- First, investors should not consider the reduction in liquidity a temporary occurrence that will “blow over,” thus warranting a tactical change in exposure to fixed income as an asset class. Despite the likely persistence of less-liquid market conditions, long-term fundamental drivers of value in fixed income remain intact. This should provide investors with the confidence to maintain exposure to fixed-income securities, particularly as a prudent source of diversification in light of the recent volatility that has buffeted equities and other asset classes.

- Second, because riskier fixed-income sectors may be more heavily affected by reduced liquidity than shorter-term, higher-quality securities, investors should assess the composition of their fixed-income portfolios to ensure they are comfortable with the risk/return profile of their holdings and their time frame for investment.

- Lastly, fixed-income investors may benefit from evaluating the steps that portfolio managers are taking to manage effectively through periods of limited liquidity—including potential changes to the composition of portfolio holdings as well as to the structure of management teams.

Despite the challenges that a less-liquid market environment may entail, we believe fixed income remains a strategically important asset class that can continue to play a useful role in our clients’ portfolios, if managed effectively.

Visit us at www.tiaa-cref.org/assetmanagement for additional information about TIAA-CREF’s fixed-income capabilities.