Fixed-Income Market Liquidity: Issues and Implications

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The topic of liquidity in the fixed-income market has garnered a lot of attention from the media, academia, and asset managers. This paper presents William Blair’s fixed-income team’s thoughts on the topic of bond-market liquidity.

Liquidity Defined

To understand the issue of fixed-income market liquidity, it is first important to define liquidity and review the integral role of dealers. A security’s liquidity profile is considered strong when a market participant can trade large quantities of the security quickly and with minimal cost. Fixed-income securities are traded over the counter, and therefore dealers stand willing to act as the counterparty for a trade using their firm’s capital. Ultimately, dealers desire to match buyers and sellers. However, the dealer assumes the risk that orderly markets dissipate while it holds the security.

Because dealers play an essential role in providing liquidity, it is useful to think about how a dealer considers each of the aforementioned factors when establishing the price at which it is willing to trade.

- **Ability to trade large quantities.** At very large quantities, a dealer is concerned that a small disruption in orderly markets can result in a large nominal loss. Therefore, the larger the order, the larger the risk, all else equal.

- **Ability to trade quickly.** If immediacy is required, the dealer must adjust the price to protect against the possibility of adverse conditions while the dealer seeks other buyers or sellers for the security. Therefore, a party that demands immediacy must be willing to accept a disadvantageous price.

- **Ability to trade at minimal cost.** For fixed-income securities, the cost is best measured by the bid-ask spread. Dealers provide the prices at which they will trade a security given the quantity and immediacy desired by a counterparty. A dealer is willing to trade at a lower cost if the counterparty is willing to sacrifice one of the two aforementioned factors (smaller quantities and/or longer time to trade execution).

Therefore, a fixed-income investor balances the desire to minimize trading assets against the desire to trade large quantities and trade quickly, as figure 1 shows.

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**Figure 1: A Balancing Act**

![Diagram showing the balancing act between minimal cost, immediacy, and large quantities.](image-url)
What Is the Issue?
Fixed-income market liquidity has become a concern because of the confluence of three factors.

The Fixed-Income Market Has Grown Significantly
Figures 2 and 3 illustrate the growth of the fixed-income market over the past decade. These figures show that multiple segments of the fixed-income market experienced growth. U.S. Treasuries and agency mortgage-backed securities have grown as the Federal Reserve has targeted those instruments in its large-scale asset purchase programs (quantitative easing). The Federal Reserve’s balance sheet totaled $4.5 trillion as of June 30, 2015, a stark increase from the $0.9 trillion at the end of 2007.

Corporate bonds have also grown as issuers have sought to lock in longer-term financing at low nominal yields. At the end of 2007, there were $3.3 trillion of corporate bonds outstanding. As of June 30, 2015, the corporate bond market had $6.7 trillion outstanding.

As a result of this growth, there are more potential investors that may want to trade large quantities of fixed-income securities. When dealers believe large quantities of these securities may trade, trading costs will rise through dealers setting bid prices lower.

There are more potential investors that may want to trade large quantities of fixed-income securities.

Figure 2: U.S. Federal Reserve Total Assets, 12/31/04–6/30/15 (in Trillions)

Source: Federal Reserve, Bloomberg, as of 6/30/15

Figure 3: Corporate Debt Outstanding, 12/31/04–6/30/15

Source: MarketAxess, as of 6/30/15
Pooled Investment Vehicles Have Grown in Prominence

Figure 4 shows how pooled investment vehicles (mutual funds and exchange-traded funds) have grown in prominence as holders of fixed-income securities. In addition, there are many fixed-income mutual funds that have assets in excess of $25 billion, with some funds having more than $50 billion and some more than $100 billion. In those funds, it is common to see position sizes in excess of $200 million. Therefore, pooled investment vehicles may incur larger trading costs because of the potential that they will need to trade large quantities with immediacy, as the pooled vehicles promise a liquidity profile of either daily (for a mutual fund) or second by second (for an exchange-traded fund) to investors within those funds.

Regulation Has Constrained the Risk-Taking Activities of Dealers

Regulation enacted in the aftermath of the global financial crisis has sought to constrain the risk-taking activities of banks. Capital requirements have risen, and as a result dealers have less access to their companies’ balance sheets to facilitate trades.

This does not mean that dealers do not facilitate trades. Many large banks have reported robust performance from their Fixed Income, Commodities, and Currency (FICC) divisions over the past few years.

Rather, the role that dealers play when facilitating trades has changed. Dealers have less ability to use their firms’ balance sheets to absorb potential losses. To mitigate that risk, dealers set prices in an effort to better match buyers and sellers. If dealers predict large selling activity, dealers will set prices lower to lure prospective buyers.
What Are the Implications?

We believe the factors described above are unlikely to change in the short term. As a result, William Blair’s fixed-income team believes the following implications are important for fixed-income investors to consider.

The Role of Price Volatility

The first implication for fixed-income investors to consider is that price volatility will be the mechanism by which dealers match sellers and buyers, and there will continue to be bouts of heightened volatility.

We contend that the fear of large selling activity will spur bouts of fixed-income market volatility, and we believe that two events that occurred over the past three calendar years exemplify how such volatility will manifest: the “taper tantrum” of 2013 and heavy outflows from a large fixed-income mutual fund in 2014 and 2015. Figure 5 shows how fixed-income market volatility spiked during these periods, and figures 6 and 7 illustrate how interest rates and spread sectors performed during these periods.

Figure 5: MOVE Index, 12/31/11–10/26/15

We contend that the fear of large selling activity will spur bouts of fixed-income market volatility.
In May 2013, Ben Bernanke, then chair of the Federal Reserve, warned that the Fed might begin to taper the pace of its asset-purchase program. A few weeks later, it was announced that Bernanke would not be reappointed chair of the Federal Reserve. This created uncertainty over who would lead the Fed and what “taper” would mean to the new leader.

We believe that marketmakers set prices with the fear that the Federal Reserve would begin to sell from its portfolio of U.S. Treasury and mortgage-backed securities, and those segments of the market were hardest hit. At the same time, outflows occurred from fixed-income funds. The corporate bond market performed well during this period on a relative basis, as risk spreads narrowed, the new-issue market remained robust, and high-yield corporate bonds generated robust gains.

Volatility remained elevated until it was announced that Janet Yellen would be the Federal Reserve’s new chair, and volatility subdued to more normal levels as the Fed embarked on its program of tapering its large-scale asset-purchase program.

In September 2014, Bill Gross, the renowned portfolio manager of PIMCO Total Return Fund, announced that he was leaving PIMCO. At the time, PIMCO Total Return Fund was the largest fixed-income mutual fund, with assets under management of $221.6 million on August 30, 2014. In the months that followed, PIMCO Total Return Fund experienced significant outflows. While many actively managed funds received the proceeds to reinvest, we observed that the Vanguard Total Bond Market Index Fund, a passively managed mutual fund, appears to have been a notable beneficiary, as shown in Figure 8.

This created a seller and buyer mismatch; the buyer wanted to buy U.S. Treasuries according to their weights in the index, while the seller sought to sell fewer U.S. Treasuries and more spread sector securities. Dealers set prices to attract investors so that the dealer maintains as little exposure to the security as possible: U.S. Treasury prices rose significantly during the height of this phenomenon, and risk premiums widened. We believe that this phenomenon was a factor that contributed to the performance of U.S. Treasury rates and the spread sectors as these events unfolded.
We believe that these events illustrate how the fixed-income market will function during future periods when demand to sell securities is high. The fixed-income investor must adapt to consider the following points:

- Volatility that used to be absorbed by dealers is now being imposed upon end investors.
- It is important for investors to distinguish whether price volatility is due to a change in the security’s fundamental risk profile or trading dynamics. It may be a behavioral bias that investors try to attribute all price movements to changes in fundamental variables. Distinguishing whether prices change due to fundamental factors or liquidity dynamics is critical for optimal decision making.
- Markets continued to function despite increased volatility and selling. During both periods, issuers were able to access the new-issue market and several large-cap banks reported robust performance from fixed-income trading activity.

**Fixed-Income Investors With Reasonable Asset Bases Are Well Positioned**

The second implication is that fixed-income investors with reasonable asset bases are well positioned to manage through periods of lessened liquidity. We believe this to be the case for two reasons.

First, total position sizes matter. It is easier for dealers to queue up buyers on a $10 million trade than it is for trades of $100 million in secondary markets.

Second, electronic trading platforms provide an alternative to dealers when trading reasonable amounts. Electronic trading platforms have grown in prominence as a tool that links asset managers anonymously to dealers and other asset managers. We consider the growth in platforms since the global financial crisis to be innovation that attempts to solve the liquidity puzzle mentioned above. However, electronic trading platforms cannot accommodate the scale on which larger fixed-income managers transact.

**Fears of Sustained Illiquidity May Be Overblown**

The third implication is that while there are reasons for concern, fears of sustained illiquidity may be overblown. There are several investors with strategic demand for fixed-income securities that stand willing to purchase fixed-income securities and provide liquidity when other parties wish to sell, including:

- Corporate pension funds seeking to de-risk their pension obligations;
- Foreign investors, as U.S. rates are higher than those found in other developed economies;
- Older investors, as the demographic composition in the developed world increases demand for less volatile investment instruments; and
- Insurance companies, as they demonstrate consistent demand for fixed-income securities.
About the Author

Tom Brennan joined William Blair as a product specialist in September 2010. Tom was previously a consultant at Ennis Knupp & Associates in Chicago, where his primary responsibility was researching fixed-income investment managers. He began his career in 2005 as a consulting group analyst with Smith Barney. Tom is a member of the CFA Institute and CFA Society of Chicago. Education: B.S., economics, magna cum laude, Bradley University; M.B.A., with honors, University of Chicago’s Booth School of Business.

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