The US Department of the Treasury and Corporate Bond Liquidity

July 2016

In the July 2015 *Strategy in Practice: Peer-to-Peer Bond Trading* paper, Dimensional explored the perceived lack of corporate bond market liquidity, the implications for investors, and the emergence of alternative electronic trading platforms in the fixed income markets.[1]

After examining liquidity metrics such as corporate debt issuance, average daily trading volume, and dealer inventory velocity, Dimensional concluded that there was no convincing evidence of a reduction in liquidity in the corporate bond market and that the market is evolving to overcome its structural dependence on the traditional dealer model.

In a July 2016 blog post, "Examining Corporate Bond Liquidity and Market Structure,[2]" the US Department of the Treasury also explored the perceived lack of liquidity in the corporate bond market. Using some of the same metrics that Dimensional incorporated in its analysis, the US Treasury arrived at a very similar conclusion to that of Dimensional. The US Treasury states, "Although there have been anecdotal reports of periods during which liquidity conditions have been challenging, the corporate bond market has always been less liquid than many markets, and the available data does not show convincing broad-based evidence of dwindling liquidity."

By the US Treasury's metrics the available data does not show evidence of a reduction in liquidity in the corporate bond market.

In reviewing common measures of liquidity, the US Treasury highlighted several market trends.

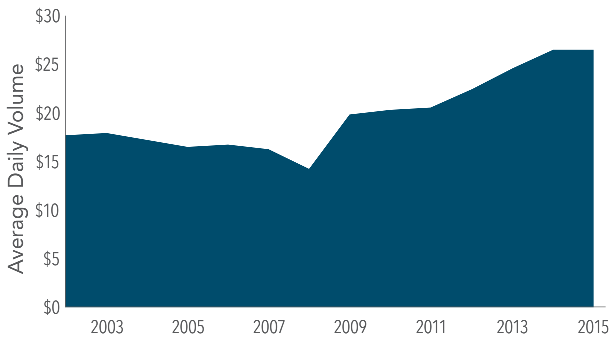
CORPORATE BOND MARKET TRADING VOLUMES

The daily average trade volume of the corporate bond market has nearly doubled since the financial crisis of 2008. The US Treasury asserts that trade volume is a direct measure of the level of activity that the market can accommodate.

The US Treasury adds that record-breaking issuance has led to a decrease in "turnover." Turnover is a measure of the total amount of principal traded as a percentage of the amount of issuance outstanding for the securities traded.[3]

1. Plecha, David and Alexander Fridman, "Peer-to-Peer Bond Trading." (Strategy in Practice, Dimensional Fund Advisors, July 2015).
2. All statements and positions in this paper attributed to the US Department of the Treasury can be found at: *www.treasury.gov/connect/blog/Pages/Examining-Corporate-Bond-Liquidity-and-Market-Structure.aspx*.
3. Defined by MarketAxess.

Exhibit 1: Corporate Debt Average Daily Volume (in Billions), *2002–2015*



Source: ***www.sifma.org/research/statistics.aspx***

The US Treasury argues, "While turnover is commonly cited as a measure of liquidity, its application may be limited given a variety of factors affecting the corporate bond market, including the increase in recent years of smaller issuers whose bonds trade less frequently and the prevalence of long-term holders who naturally trade less frequently."

BID-OFFER SPREAD

The difference in price between where securities are bought and sold is an indication of the transaction cost in corporate bonds. The US Treasury finds that bid-offer spreads on investment grade bonds are in line with, or below, recent historical levels. The reduction in spreads may be a positive indication of the ability for buyers and sellers to efficiently transact in corporate bonds.

DEALER INVENTORIES

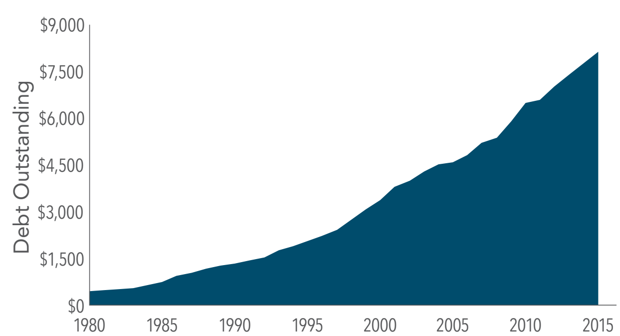
Some market commentators proclaim that declining dealer inventories signal a reduction in corporate bond liquidity. However, the US Treasury contends that the link between dealer inventories and liquidity is not straightforward. While dealers historically held large inventories to facilitate principal intermediation, dealers have now evolved to a model of agency intermediation. Under a model of agency intermediation, dealers look to match buyers and sellers of bonds directly, rather than acting as principal or holding the bond positions on their own balance sheets. Acting as agents enables dealers to hold smaller inventories, which in turn reduces their balance sheet risk and capital required by new regulations. Additionally, the direct matching of buyers and sellers may result in tighter bid-offer spreads.

The US Treasury adds that some market participants may consider dealer inventories to be "shock absorbers" during times of market stress. The notion is that dealers may buy bonds and expand their inventories in times when the market demands liquidity. However, the US Treasury claims that even at their peak in 2006, dealer inventories represented less than 1% of the corporate bond market, and thus are unlikely to be able to provide shock absorption. The US Treasury states, "Dealers holding large inventories in times of stress may not have the capacity to take on significant additional positions. Instead, they may be motivated to reduce their own positions, often at the same time customers are attempting to do so."

CORPORATE BOND ISSUANCE

The US Treasury attests that primary issuance in the corporate bond market is not only an important indicator of financing activity but also an indirect indicator of the secondary market's health. Investors look at secondary market liquidity when evaluating whether to buy new issues. The US Treasury adds, "Corporate bond issuance is influenced by a number of factors, but its continued strength to date suggests that secondary market liquidity conditions have not been constraining issuance. Investment grade issuance has set records for four straight years and the first quarter of 2016 was similarly strong."

Exhibit 2: Corporate Debt Outstanding (in Billions), *1980–2015*



Source: ***www.sifma.org/research/statistics.aspx***

ELECTRONIC TRADING

The US Treasury estimates that 20% of investment grade corporate bond trading is now performed through electronic interfaces. Dimensional executed approximately 8% of its US dollar corporate bond secondary trades on peer-to-peer electronic trading platforms in 2015. The US Treasury adds that electronic trading continues to have a profound effect on market structure and may be associated with the reduction of bid-offer spreads and trade sizes. Furthermore, electronic trading can improve operational efficiency for dealers and market participants and potentially increase price competition by enabling buyers and sellers to gather quotes from multiple counterparties.

CONCLUSION

By the US Treasury's metrics, which are similar to Dimensional's, the available data does not show broad-based evidence of a reduction in liquidity in the corporate bond market. Daily average trading volume has increased, bid-offer spreads are contracting, and corporate bonds issuance is at all-time highs. Historically, dealers have not demonstrated a willingness to increase their inventories to provide liquidity to market participants.

The corporate bond market is, however, undergoing an evolution driven by technology, regulation, and the desire by some investors to improve their operational efficiency and reduce trading costs. Dimensional believes that our systematic focus on the drivers of expected returns and our flexible and patient trading approach enable us to evolve with the market and to continue providing highly diversified portfolios for our clients.

Source: Dimensional Fund Advisors LLC