MSRB Municipal Securities Rulemaking Board

Trends in Municipal Bond Ownership

BACKGROUND

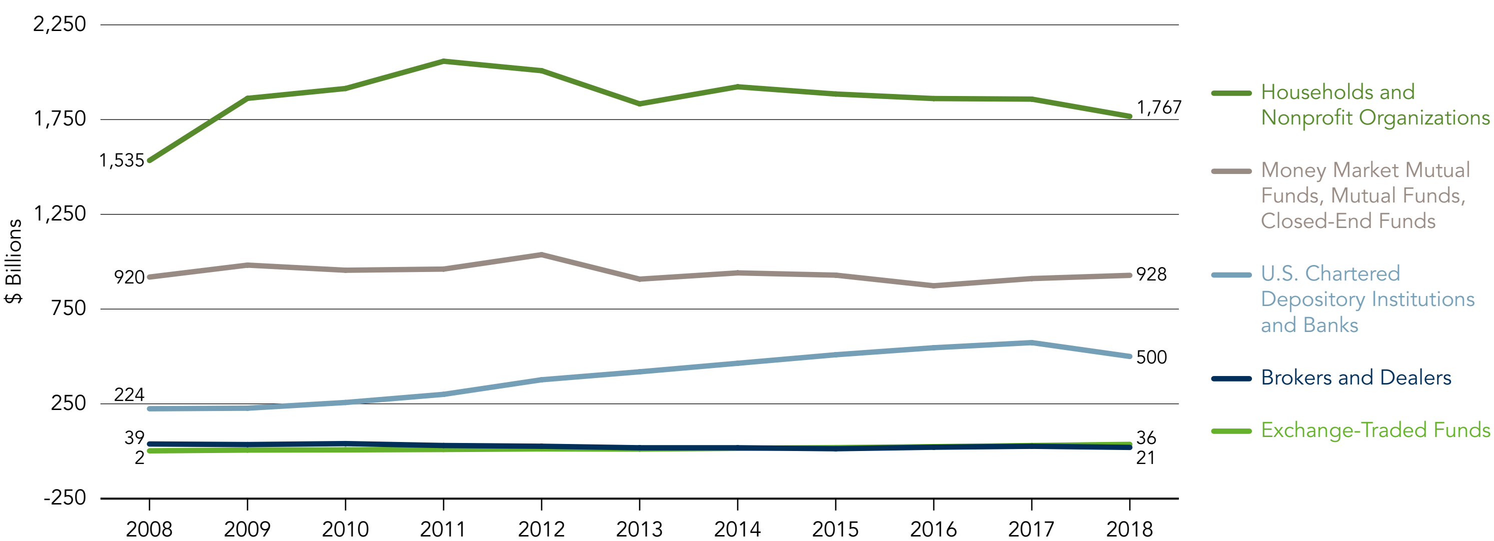
As measured by the Federal Reserve Board, the market value of municipal bonds owned by various categories of investors presents an interesting snapshot into market dynamics over and within the recent 10-year period. While household ownership has remained steady in recent years, there has been a sharp increase in holdings of municipal bonds by mutual funds and exchange-traded funds (ETFs). An understanding of the changes to ownership of municipal bonds may provide insight into aggregate market dynamics, the potential effect of changing market conditions on ownership behavior and risks to the market.

The Trends

Federal Reserve data show that direct retail holdings by households have increased over the 10-year period, to $1.76 trillion in 2018 from $1.53 trillion in 2008, as shown in Chart 1. This category includes individual and nonprofit organization holdings of municipal bonds, as well as other categories that may not be separated by the Federal Reserve in its calculations.[1] While the 10-year period shows a 15% increase, the past five-year period has shown a slight decline (-3.6%), and from 2017 to 2018, direct holdings declined by $90 billion. This recent decline may reflect the move to ownership of municipal securities through mutual funds and ETFs and may also reflect a decrease in demand for individual securities caused by a prolonged period of low interest rates.

Meanwhile, municipal securities ownership through mutual funds (closed-end and money market) has continued its steady growth, from $919 billion in 2008 to $928 billion

Chart 1: Municipal Bond Holdings by Ownership Type, 2008–2018



Source: Federal Reserve Board Financial Accounts of the United States. March 8, 2018 (2017: Q4 Release).

[1] For example, domestic hedge fund assets of U.S. Households.

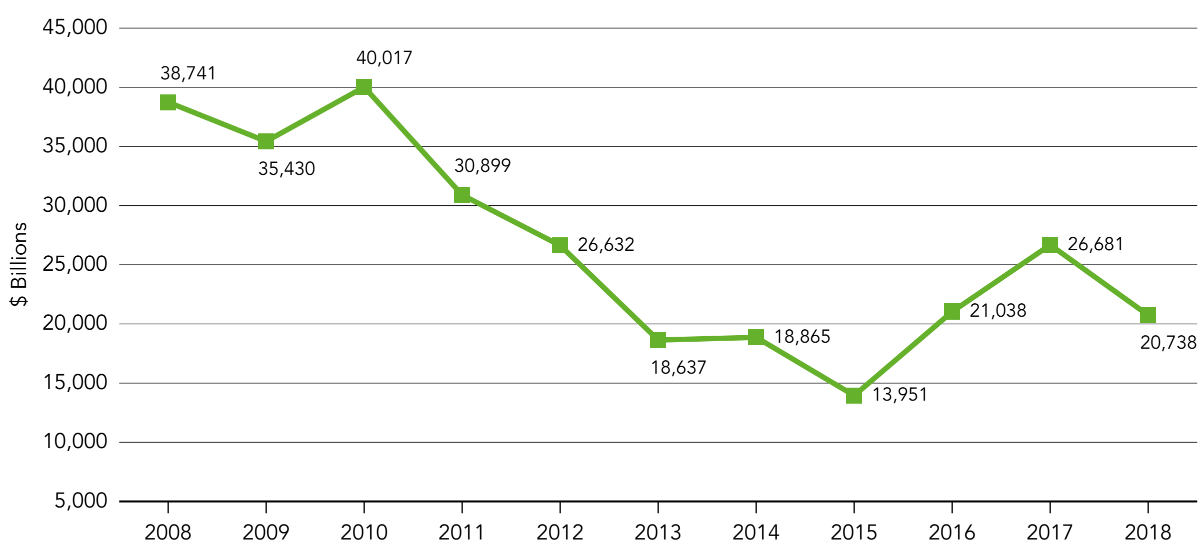
in 2018, making mutual funds the largest investor group behind households and non-profit organizations. Within this category, municipal bond ownership has shifted away from money market funds and toward other types of mutual funds. Investors may be shifting to ownership of municipal bonds through mutual funds given the ongoing low interest rate environment, as these vehicles may provide a higher rate of return by investing in a large portfolio of securities that may include high-yield bonds. Mutual funds may also offer a diversity of holdings, even for small investment sizes. Access to professional management and the ability to redeem shares may be additional considerations for investors when investing in municipal securities through mutual funds as opposed to directly holding municipal securities.

The changes to municipal bond holdings by banks can be interpreted in multiple ways depending on the time period observed. Over the 10-year period ending 2018, municipal holdings by banks and U.S.-chartered depository institutions increased over 120%, from $224 billion in 2008 to $500 billion in 2018. However, from 2017 to 2018, banks reduced holdings by $73 billion. Factors that may have initially fueled increased holdings include the relaxed tax rules associated with the 2009 American Recovery and Reinvestment Act (ARRA). ARRA provided a safe harbor for banks, allowing them to deduct 80% of the interest costs on tax-exempt bonds issued in 2009 and 2010, given certain limits. Previously, banks could only deduct interest attributable to bank-qualified bonds. Though the safe harbor expired in 2010, general economic conditions in the subsequent years led to continued bank investment in municipal securities as fewer opportunities exist for banks to lend in traditional ways, such as through mortgages. The Tax Cut and Jobs Act of 2017, which reduced corporate tax rate to 21% from 35%, has contributed to a reduced appetite for municipal bonds by banks. The reduction in the effective corporate tax rate results in increased after-tax yields on taxable securities, thereby reducing the desire for banks to hold municipal bonds compared to corporate bonds. This dynamic may have contributed to the recent year's decline in holdings. However, additional changes to regulations as part of the 2018 amendments to the Dodd-Frank rules related to capital adequacy could provide incentives for banks to hold on to municipal securities in the near-term.[2]

A final notable trend in municipal bond holdings is the steady increase in municipal bond investment through ETFs. Representing roughly 1% of municipal assets, ETFs are the fastest growing mechanism for municipal bond investment, with approximately 20% growth over the 2017–2018 period, and an over 220% increase over the past five years—from $11.3 billion in 2013 to $36.4 billion in 2018.

Dealer inventories of municipal securities have varied over the last 10 years, but have primarily come down, with a 10-year decline in holdings to approximately $20.7 billion in 2018 from $38.7 billion in 2008, as shown in Chart 2. The number of dealer firms in the municipal market continues

Chart 2: Municipal Bond Holdings by Brokers and Dealers, 2008–2018



Source: MSRB

[2] The Economic Growth, Regulatory Relief, and Consumer Protection Act of 2018 allows investment-grade municipal securities to qualify as level 2B high quality liquid assets (HQLA)for the purposes of Liquidity Coverage Ratio rules.

to decline, which possibly has contributed to the 10-year reduction in municipal bond inventories. For example, since October 2009, the number of MSRB-registered dealers is down by 35%.[3] This decrease is a result of both the exit of registered dealers from the market, and the mergers and acquisitions of dealer firms. However, dealer inventories seem to be bouncing back from the 2015 low of $13.9 billion, and the most recent three-year average holding value of $22.8 billion may indicate that dealer inventory levels have readjusted to a new normal. A recent MSRB report found that despite the decreasing number of MSRB-registered dealers and reduced dealer inventories, trading activity in municipal securities has remained relatively stable over the past several years, with robust dealer participation and overall activity becoming less concentrated among top dealers.[4] This indicates that a large proportion of the dealers who have recently left the market may have participated only minimally in municipal securities trading.

Impact of ETFs on the Municipal Bond Market

Like mutual funds, ETFs own the underlying assets and can create and redeem shares daily. However, unlike mutual funds, investors in ETFs can trade in and out of positions throughout the day because ETFs trade like a stock, which makes them attractive to investors who want to be able to react to market movements in real-time. Although ETFs trade independently, their value is intrinsically related to the underlying securities. While there has been concern about how the growth of fixed-income ETFs might have an impact on the underlying securities that comprise individual ETFs, as well as on the bond market as a whole, a report published by the MSRB in 2018 does not show any evidence of deterioration of municipal bond liquidity because of the recent rapid growth of municipal bond ETFs.[5]

Conclusion

Given changes in the ownership profile of municipal securities, including the significant drop in the number of dealers and shrinking dealer inventories of municipal securities, as well as the corresponding increase in mutual fund and ETF holdings of municipal securities, the MSRB sees the potential for liquidity risk in a rising interest rate environment. Mutual funds and ETF holdings were 47 times larger than dealer holdings in 2018, compared to 24 times larger in 2008. An increase in interest rates would cause a mutual fund's net asset value (NAV) to decline. Declining NAVs could lead to redemptions by individual investors of their mutual fund shares and the sale of municipal bonds by mutual funds could lead to market dislocation as the liquidity needs of mutual funds could exceed the willingness or ability of dealers to increase their municipal securities holdings. Though not nearly as pronounced, similar trends can be seen with separately managed accounts and municipal bond ETFs. Should mutual funds see significant redemptions by investors, NAVs and the overall value of investors' municipal bond positions may be impacted. The MSRB continues to monitor changes to municipal bond holdings by ownership type to identify trends and changing market dynamics.

[3] MSRB, *2018 Fact Book*, 2018, http://msrb.org/Market-Topics/~/media/0E0BB4E995084FF9947332AAE974AF3F.ashx?.

[4] MSRB, *Dealer Participation and Concentration in Municipal Securities Trading*, May 1, 2019, http://www.msrb.org/Market-Topics/~/media/6B95B382FD7B4EE494D2A34EFAD463AC.ashx.

[5] Simon Wu and Meghan Burns, "Municipal Bond ETFs: Liquidity Impact on the Municipal Bond Market," Municipal Securities Rulemaking Board, April 2018.