

## BONDWAVE DATA DIGEST – VOLUME 2

### In for the Duration

**BondWave introduces the second Data Digest that explores and mines our extensive data library of the fixed income marketplace where we frequently come across interesting patterns, observations and new data.**

**Volume 2 explores corporate and municipal bond duration's past conventions and current trends around trade activity and new issues.**

### Duration Worries

In addition to liquidity concerns in the fixed income market, many have expressed concern about growing duration in fixed income portfolios. Duration measures the weighted average of the times fixed income cash flows (interest and principal payments) are received. It is also a measure of risk. As a risk measure, duration expresses the price sensitivity of bonds to interest rate changes. Higher durations mean greater price sensitivity. So, all else being equal, a bond with a duration of 6 will lose more in price than a bond with a duration of 5 if there is an interest rate increase.

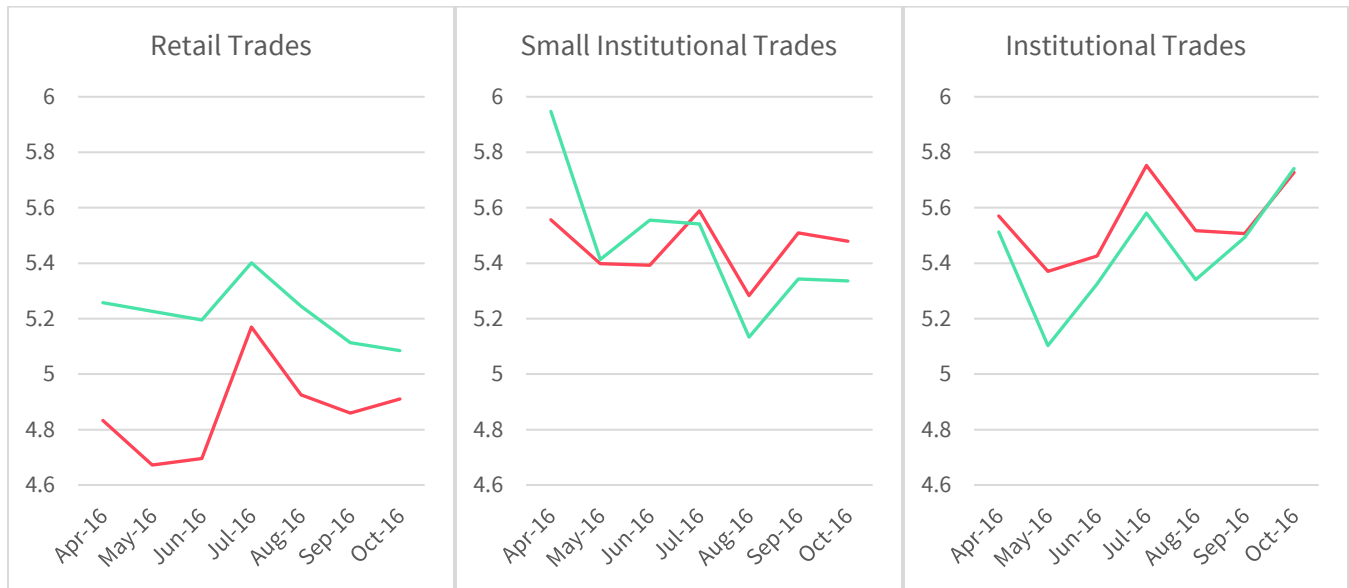
Currently, many economists are predicting a better than 50% chance of a Fed rate hike by year end. Given that, BondWave decided to look at its proprietary transaction database to see if there are any general trends in duration.

BondWave can attribute fixed income trades to either the bid side or the offer side of the market for both dealers and their customers. In this way, we can see the difference in duration between what is being bought by customers and what is being sold by customers.

### Duration Trends

The following graphs examine trade activity between the beginning of April and the end of October as reported to TRACE (corporate bonds) and EMMA (municipal bonds). BondWave applies a proprietary algorithm to the raw trade data to attribute a side (bid or offer) to each trade. BondWave then groups trades by size: 1 – 99 bonds = Retail, 100 – 999 bonds = Small Institutional, 1,000 and up bonds = Institutional.

## Corporate Bonds

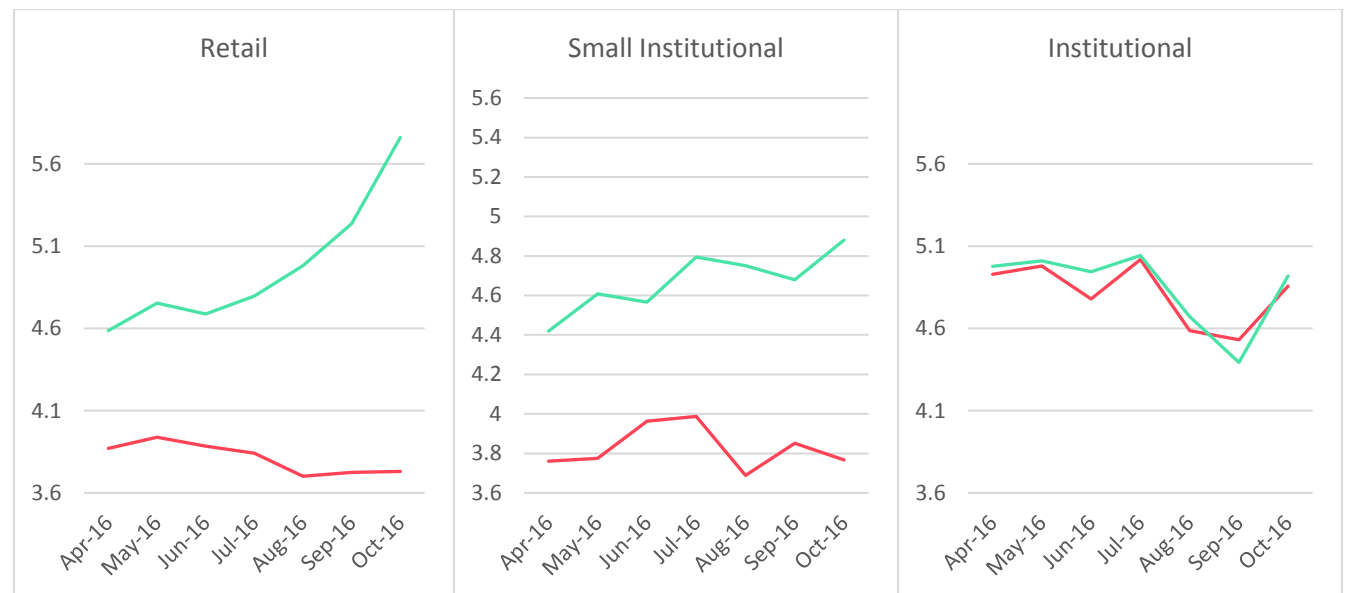


Sources: TRACE, EMMA and BondWave

Customer Sells Average Duration — (red line)  
 Customer Buys Average Duration — (green line)

- While retail sized trades appear to be adding duration (higher duration of buys vs. sells), they are doing so at lower absolute levels than institutional or small institutional trades.
- Institutional trades currently appear very neutral with respect to duration.

## Municipal Bonds



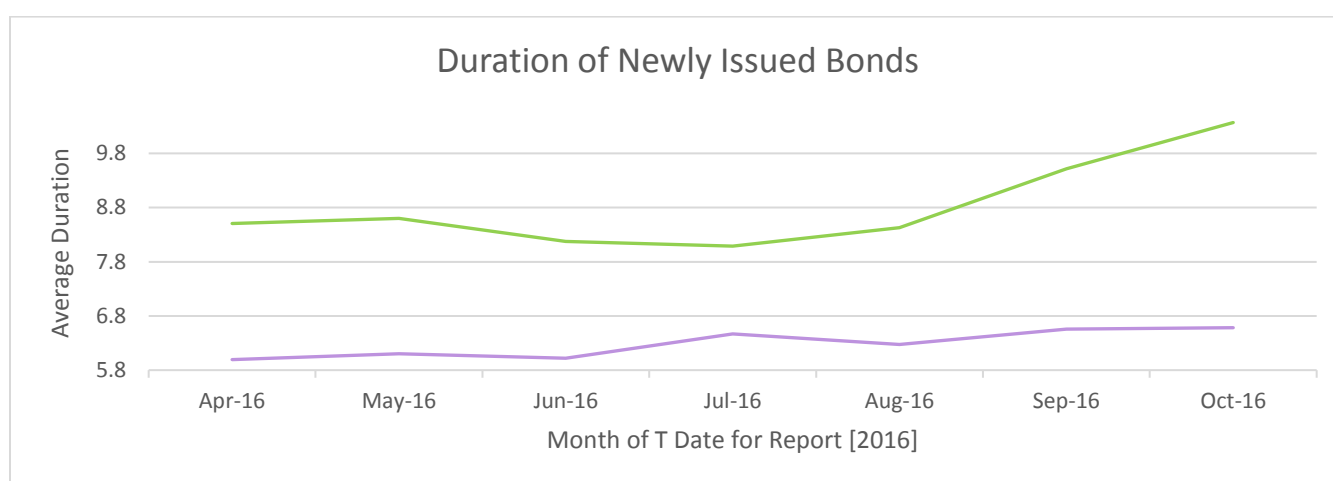
Sources: TRACE, EMMA and BondWave

Customer Sells Average Duration — (red line)  
 Customer Buys Average Duration — (green line)

- Retail sized trades were adding over two years of duration (5.76 for buys vs. 3.73 for sells) in October.
- Small institutional trades were selling similar duration bonds as retail, but the duration of their purchases (4.88) was almost a year lower.
- Institutional sized trades remain relatively neutral on duration.

The differences between retail and Institutional duration changes is directly related to the new issue calendar. Municipal bonds issuers are taking greater advantage of favorable long term interest rates by bringing more bonds at the long end of the curve than are their corporate counterparts.

## New Issue Corporate vs Municipal Bonds



Sources: TRACE, EMMA and BondWave

Municipal Bonds Issued  
Corporate Bonds Issued



## Conclusion

While some bond market commentators have expressed concern over duration exposure for investors, trade data suggests that only certain pockets of the corporate and municipal bond markets have extended the duration of their purchases beyond the duration of their sells. For corporate bonds, while retail traders have added modestly to their duration exposure, they have done so from a lower base than small institutional and institutional traders. In municipal bonds, both small institutional and retail traders have significantly added to their duration exposure.

This increase in duration is often characterized as investors reaching for yield, a demand issue. However, examining the duration of newly issued bonds (particularly in the municipal market) might suggest it is a supply issue. With historically low interest rates and an expectation that they will go higher soon, municipal issuers appear to be taking advantage of current market conditions to issue new bonds at the longer end of the curve.

## About BondWave

BondWave LLC (BondWave®) is a financial technology company and registered investment advisor specializing in fixed income solutions. We serve a wide range of customers, from small independent RIAs to some of the largest broker-dealers and custody providers in the financial services industry. Traders and advisors use our tools to provide a superior fixed income experience to their clients.

We believe in the value of investing in individual bonds and the importance of this asset class in any investor's overall strategy. In the past, because of the size and complexity of the bond market, simple tools did not exist to make investing easy for traders and advisors to more effectively service their clients. As a result, the vast majority of retail investors access bonds via funds where they are unable to achieve the same benefits that individual bonds offer.

BondWave has developed the tools to meet this challenge.



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