

BondWave Trade Insights - Volume 3

How Bonds Trade

By Paul Daley, Managing Director, BondWave

INTRODUCTION

Studying volume patterns in the equity markets is a common occurrence. Every broker who has designed a trading algorithm has spent time studying how a stock trades. These studies are used to either mimic or predict intra-day volume patterns or to understand optimal times within the day or venues within the market to place orders. Originally, these studies were performed by quantitative research departments. More often they are now performed by trading desks in the never-ending pursuit of competitive edge.

Studies of bond trading patterns seem to have been of much less interest to market participants. From a historical perspective, perhaps this is understandable. Until relatively recently there was no data to study. Trading venues was a misnomer in an over-the-counter market, and despite the promises of automation, that largely remains true today. And while there is no National Market System for bonds (with the resulting ability to lace together pre- and post- trade information into a cohesive whole) we do have access to a wealth of post-trade information that can be organized and understood. That understanding of post-trade data can also provide insights to patterns that are very useful in a pre-trade world.

BondWave has begun to study fixed income trading patterns as a means for improving trading decisions. This review of trading patterns for corporate bonds (registered and 144a securities), agency bonds and municipal bonds represents some high-level patterns we feel will be of interest to the market. For the seasoned professional much of this information is what they already understand about the market through years of interaction. This will hope to quantify what they already understand qualitatively. For the novice this information might speed the movement up the learning curve.

This is the first year BondWave has attempted to show how the fixed income markets trade. Hopefully, it will not be the last. As we find interesting patterns to discuss we hope to expand the scope of what is intended to be a yearly review. To that end, suggestions for further exploration are always appreciated. In the meantime, enjoy the graphs. We have endeavored to provide the data with the minimum of commentary so that the reader can explore it with the least amount of prejudice possible while remaining engaged.



bondwave

Imagine that

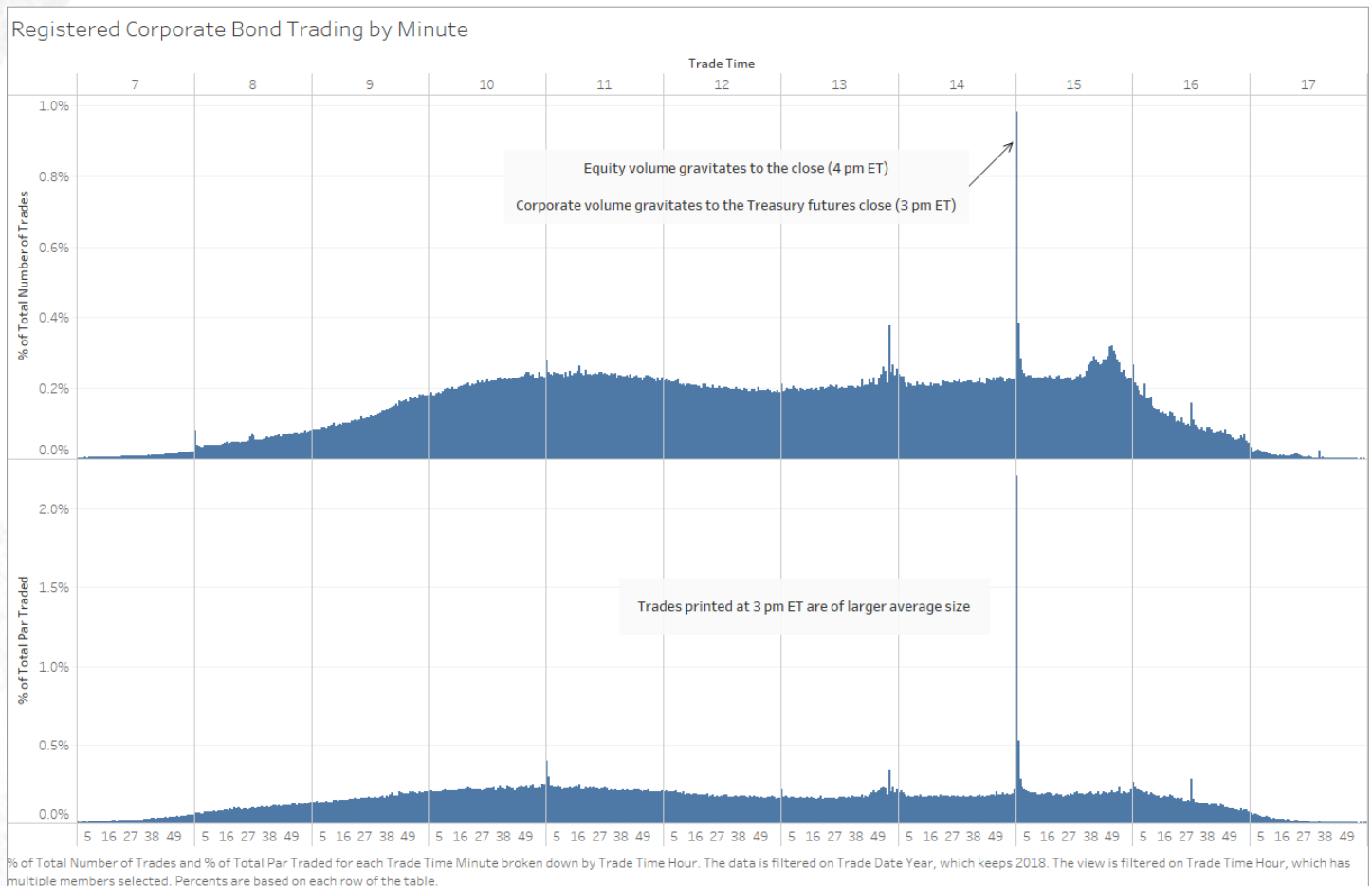
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THE DATA

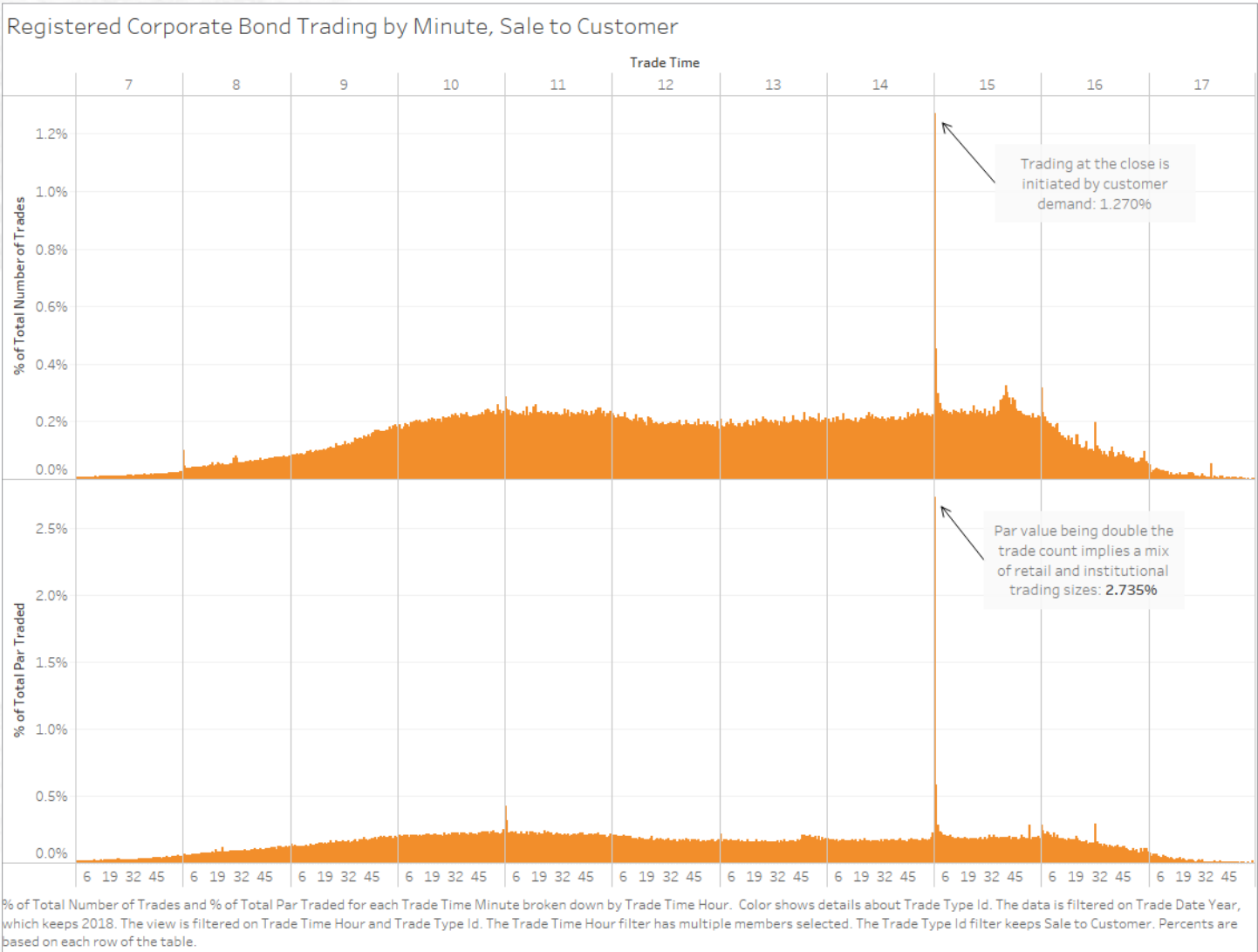
For registered corporate bonds and municipal bonds all data is for all trading days in 2018. For 144a corporate bonds and agency bonds all data is for May 2018 through December 2018. FINRA's Bond Trade Dissemination System (BTDS) and Agency Debt Trade Dissemination Service (ATDS) data sets are utilized for corporate and agency bonds, respectively. MSRB's Real-Time Transaction Reporting System (RTRS) data set is utilized for municipal bonds.

REGISTERED CORPORATE BONDS



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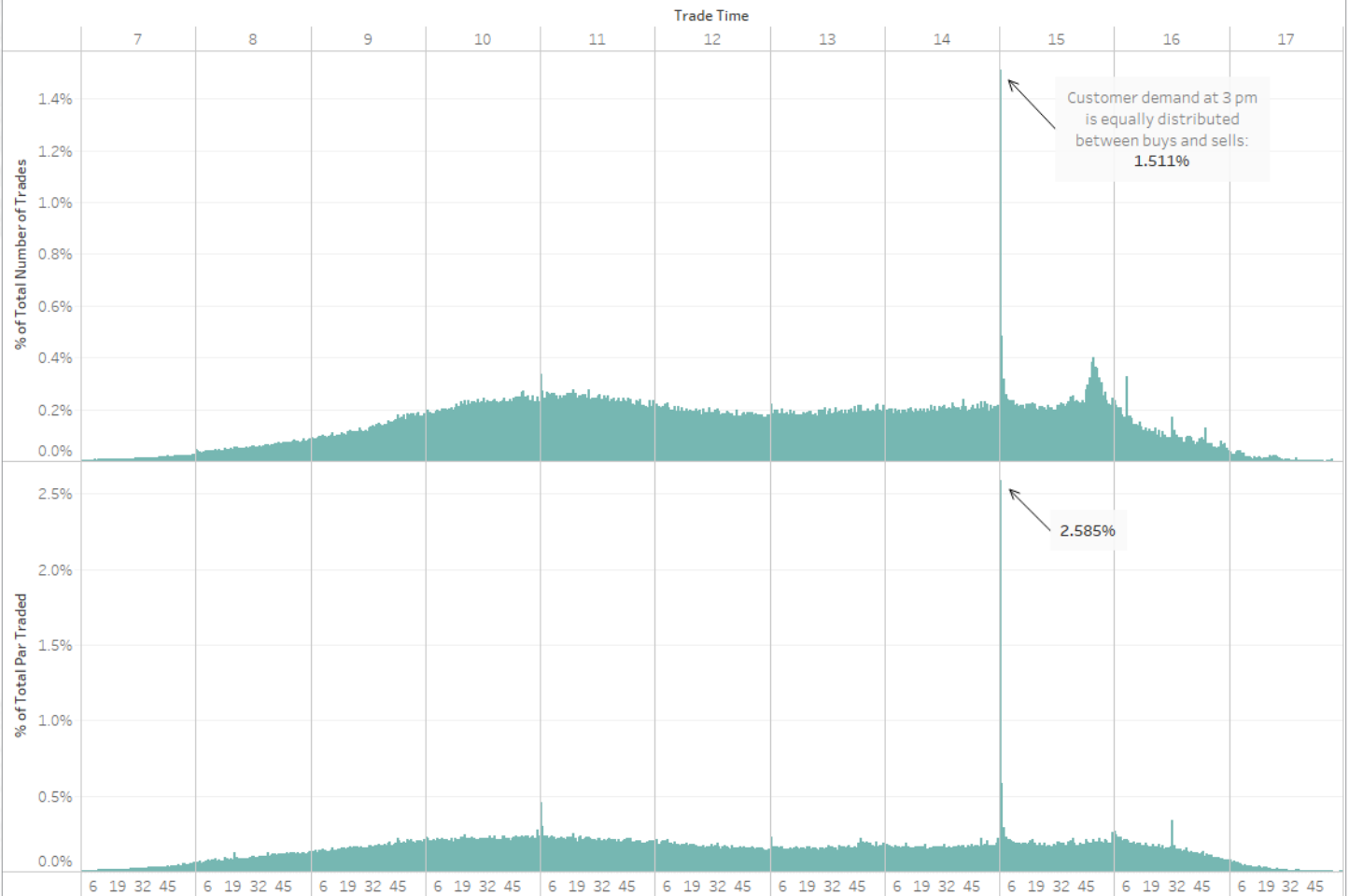
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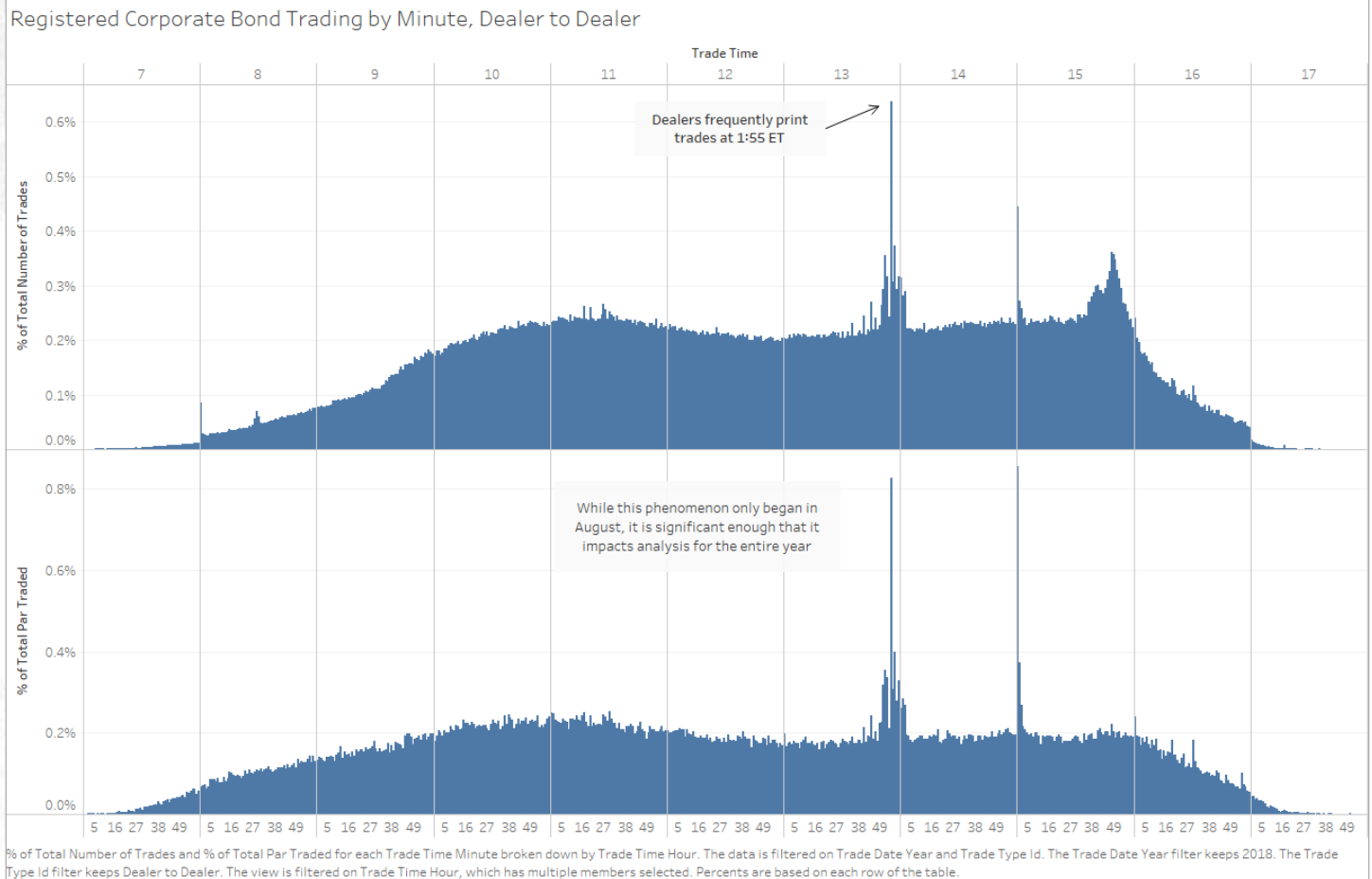
Registered Corporate Bond Trading by Minute, Purchase from Customer



% of Total Number of Trades and % of Total Par Traded for each Trade Time Minute broken down by Trade Time Hour. Color shows details about Trade Type Id. The data is filtered on Trade Date Year, which keeps 2018. The view is filtered on Trade Time Hour and Trade Type Id. The Trade Time Hour filter has multiple members selected. The Trade Type Id filter keeps Purchase from Customer. Percents are based on each row of the table.

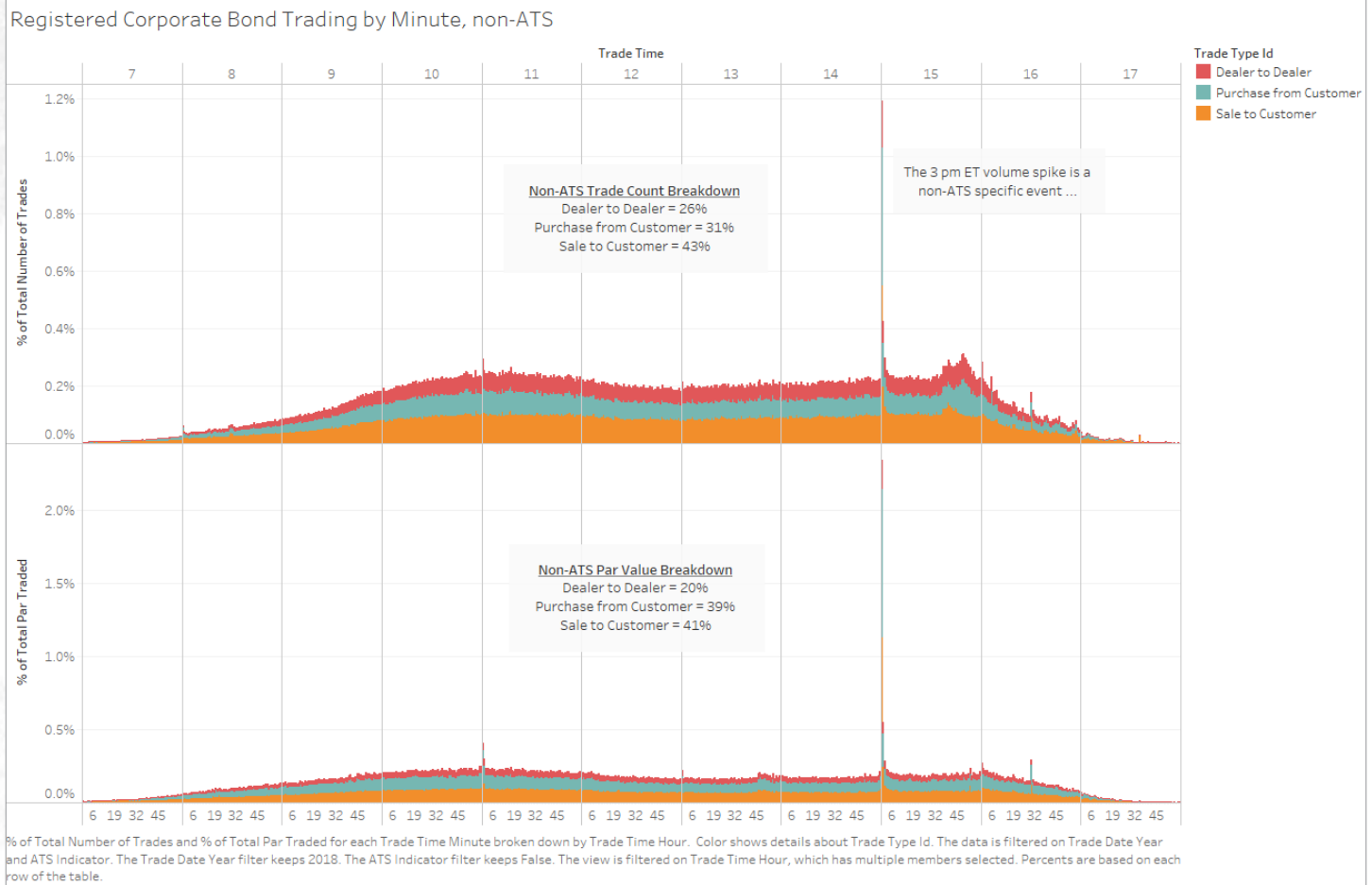
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How Bonds Trade



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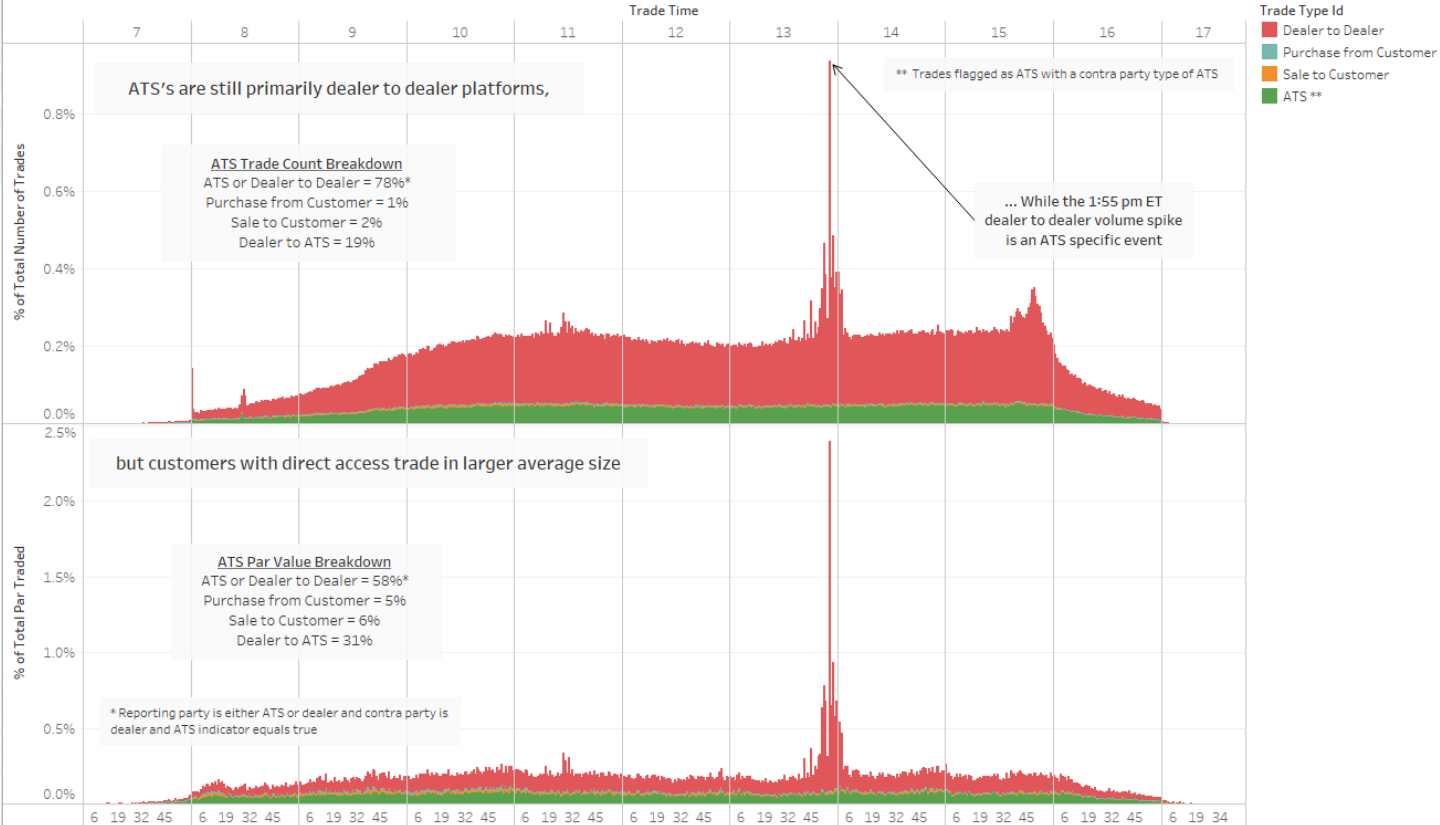
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Registered Corporate Bond Trading by Minute, ATS



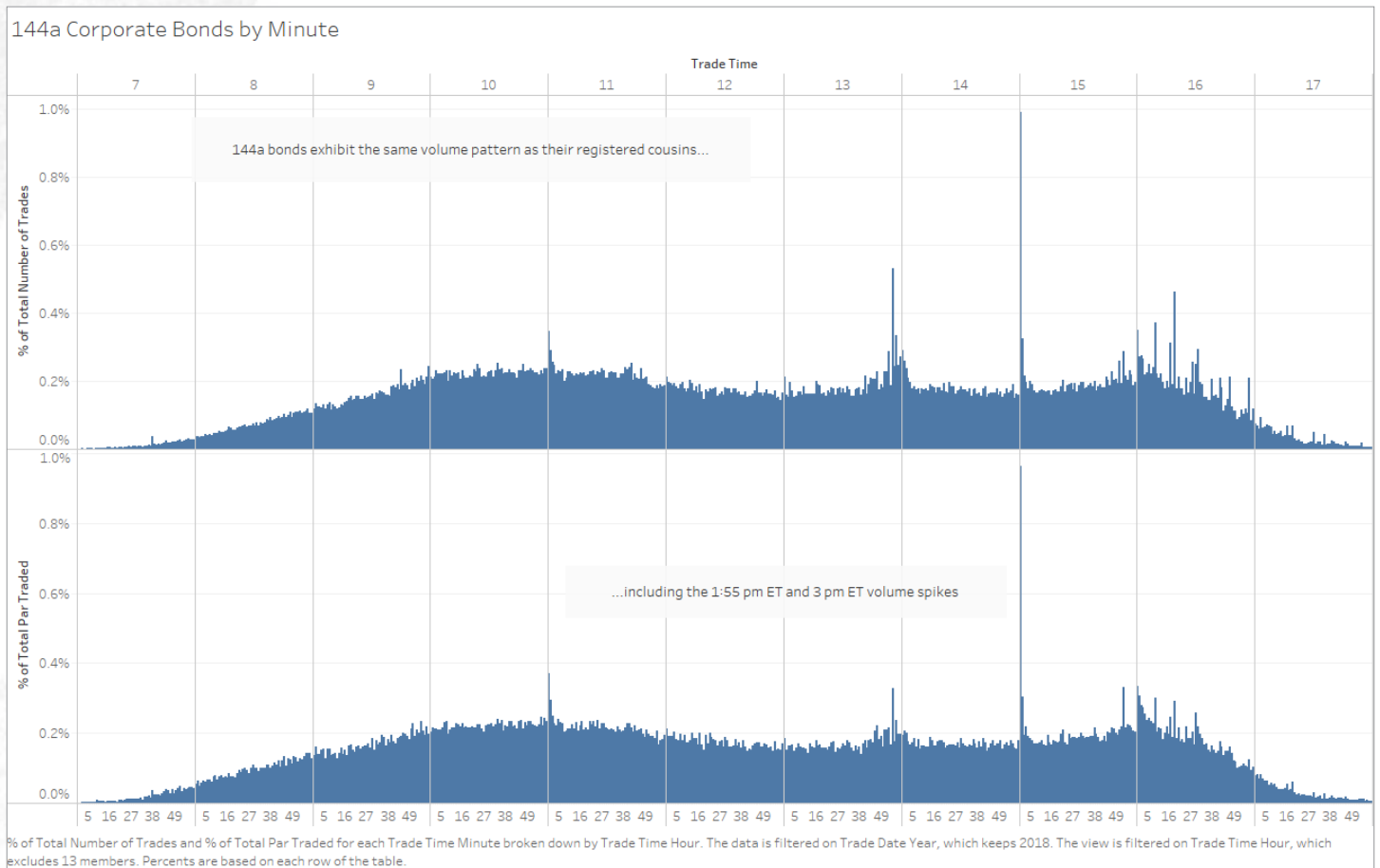
% of Total Number of Trades and % of Total Par Traded for each Trade Time Minute broken down by Trade Time Hour. Color shows details about Trade Type Id. The data is filtered on Trade Date Year and ATS Indicator. The Trade Date Year filter keeps 2018. The ATS Indicator filter keeps True. The view is filtered on Trade Time Hour, which has multiple members selected. Percents are based on each row of the table.



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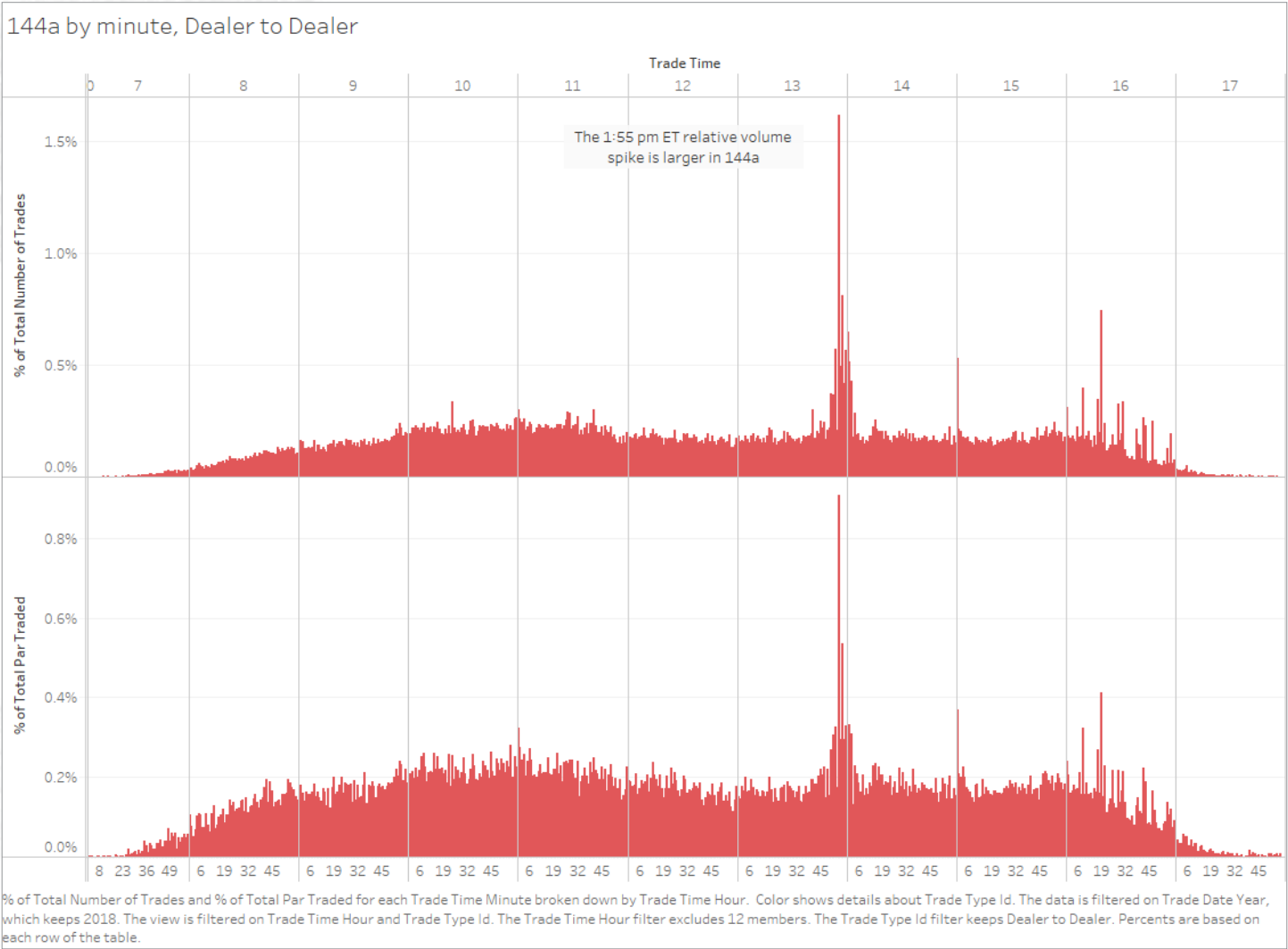
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144A CORPORATE BONDS



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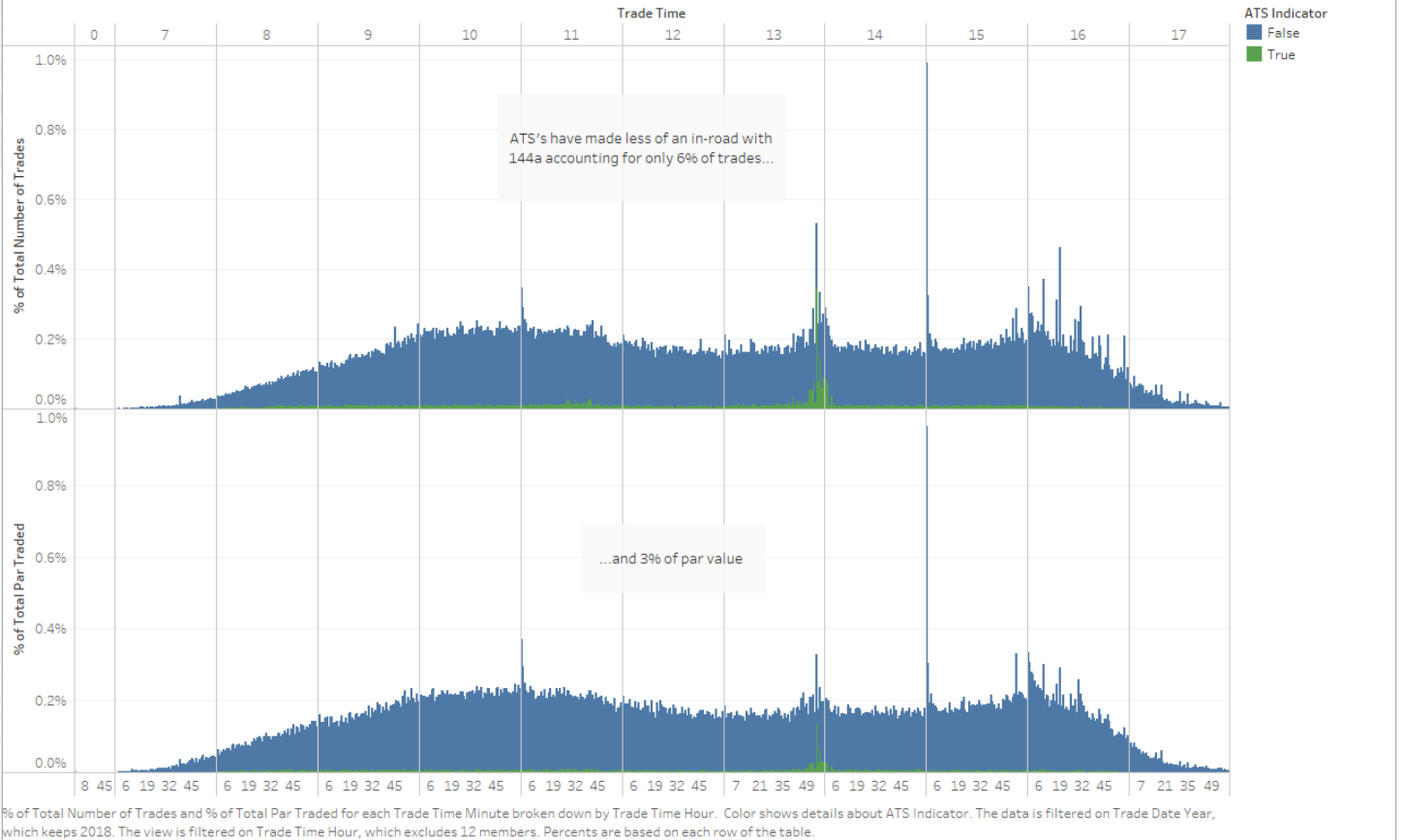
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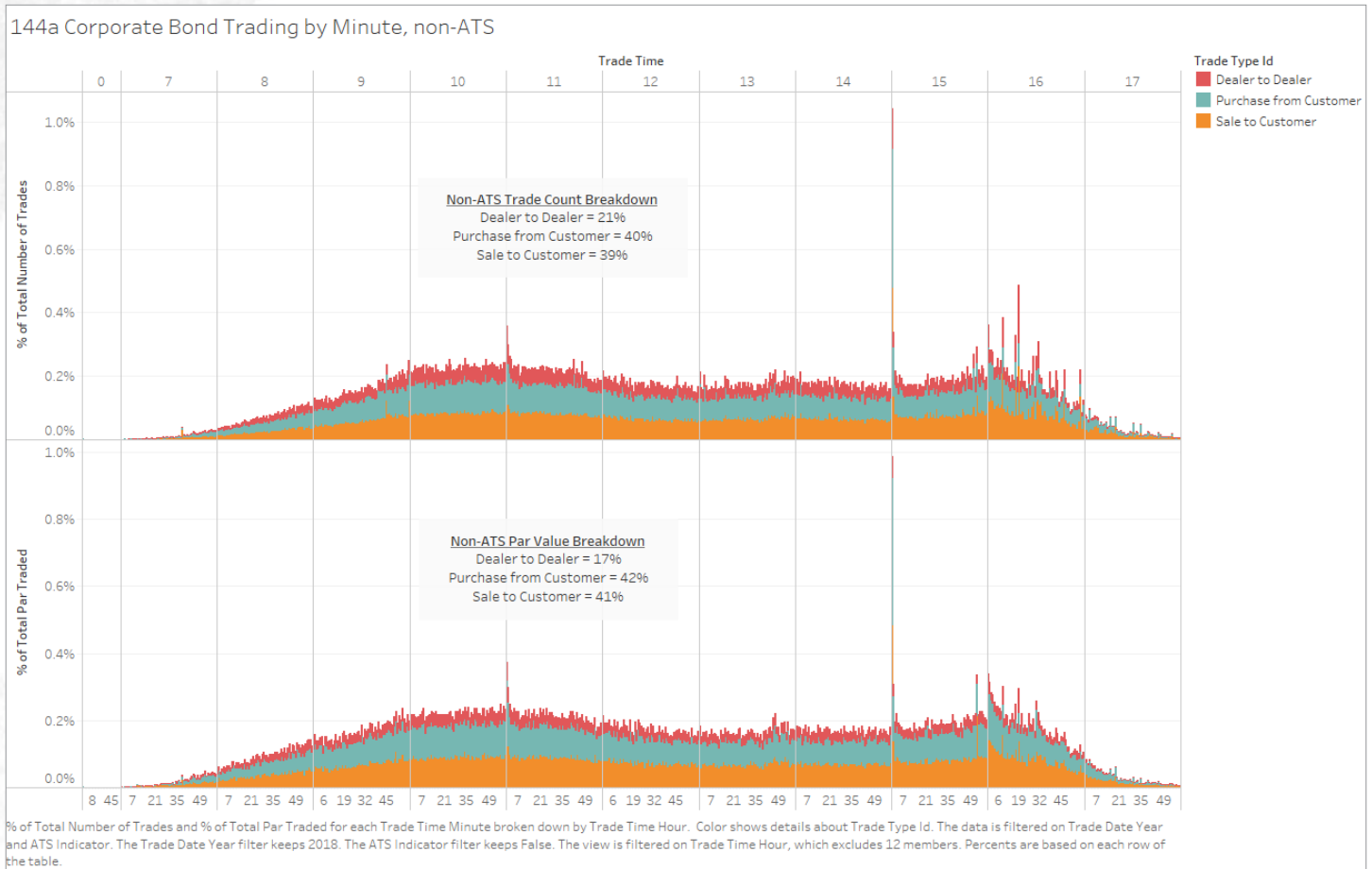
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144a Corporate Bond Trading by minute, ATS vs non-ATS



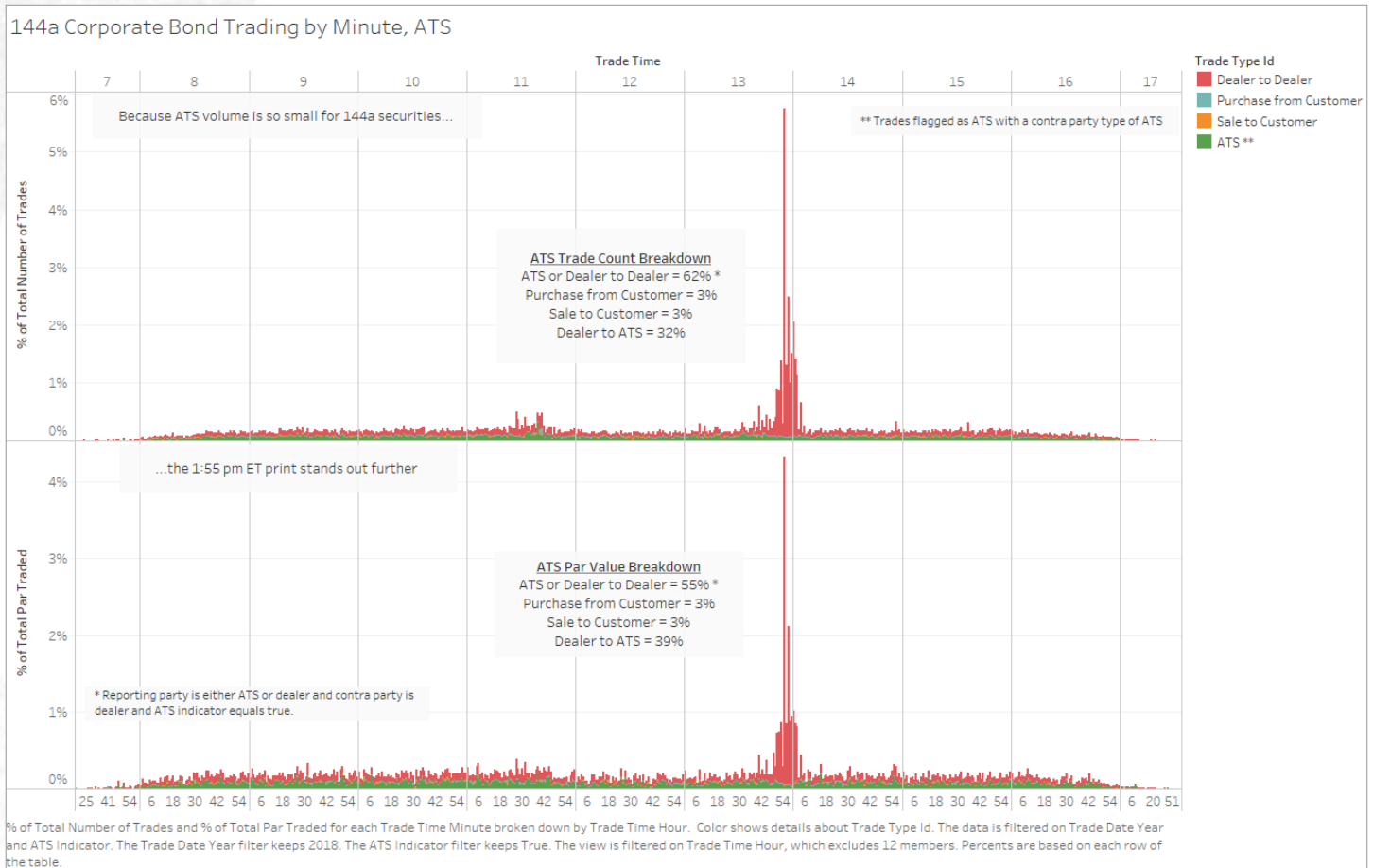
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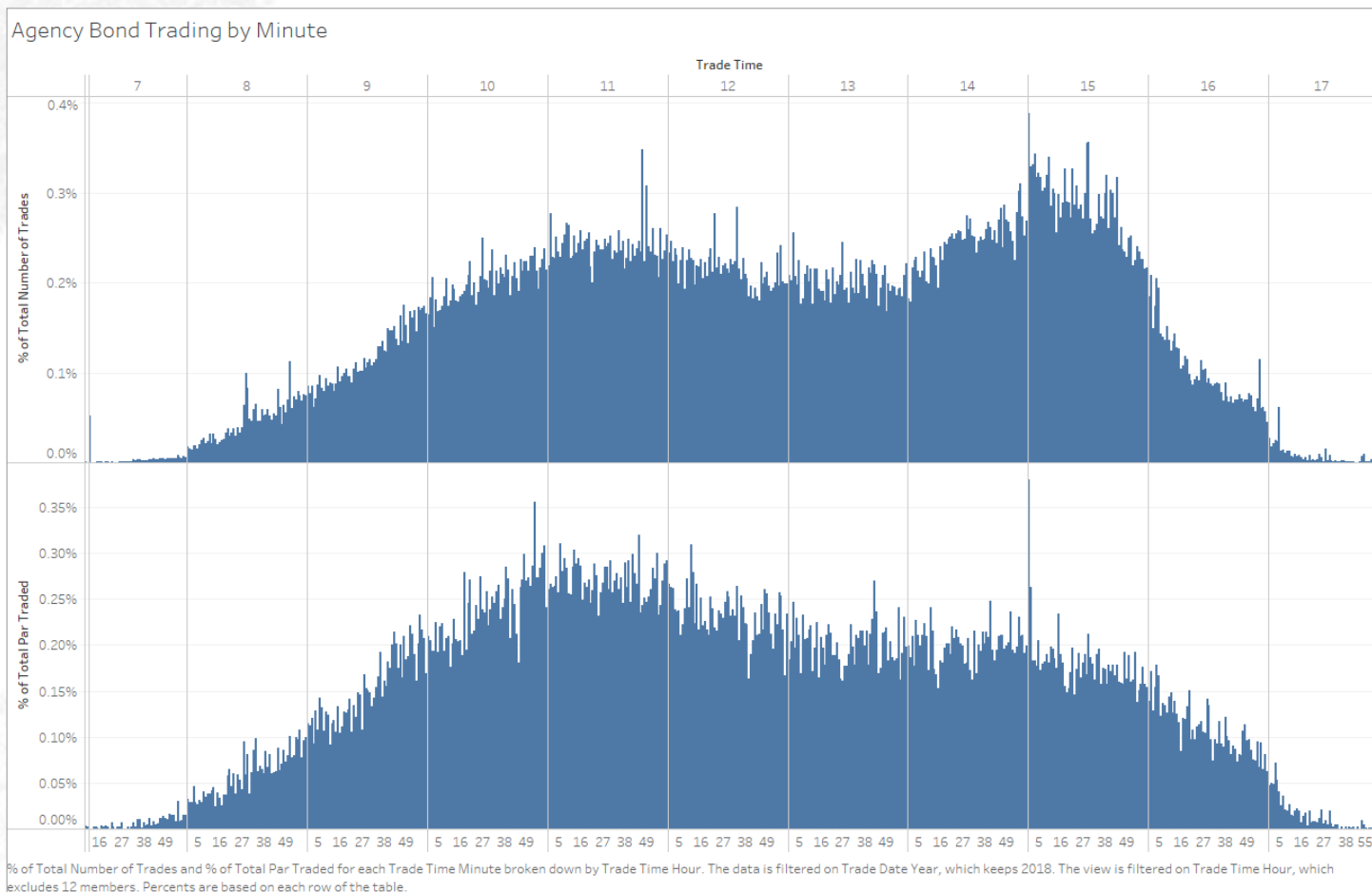
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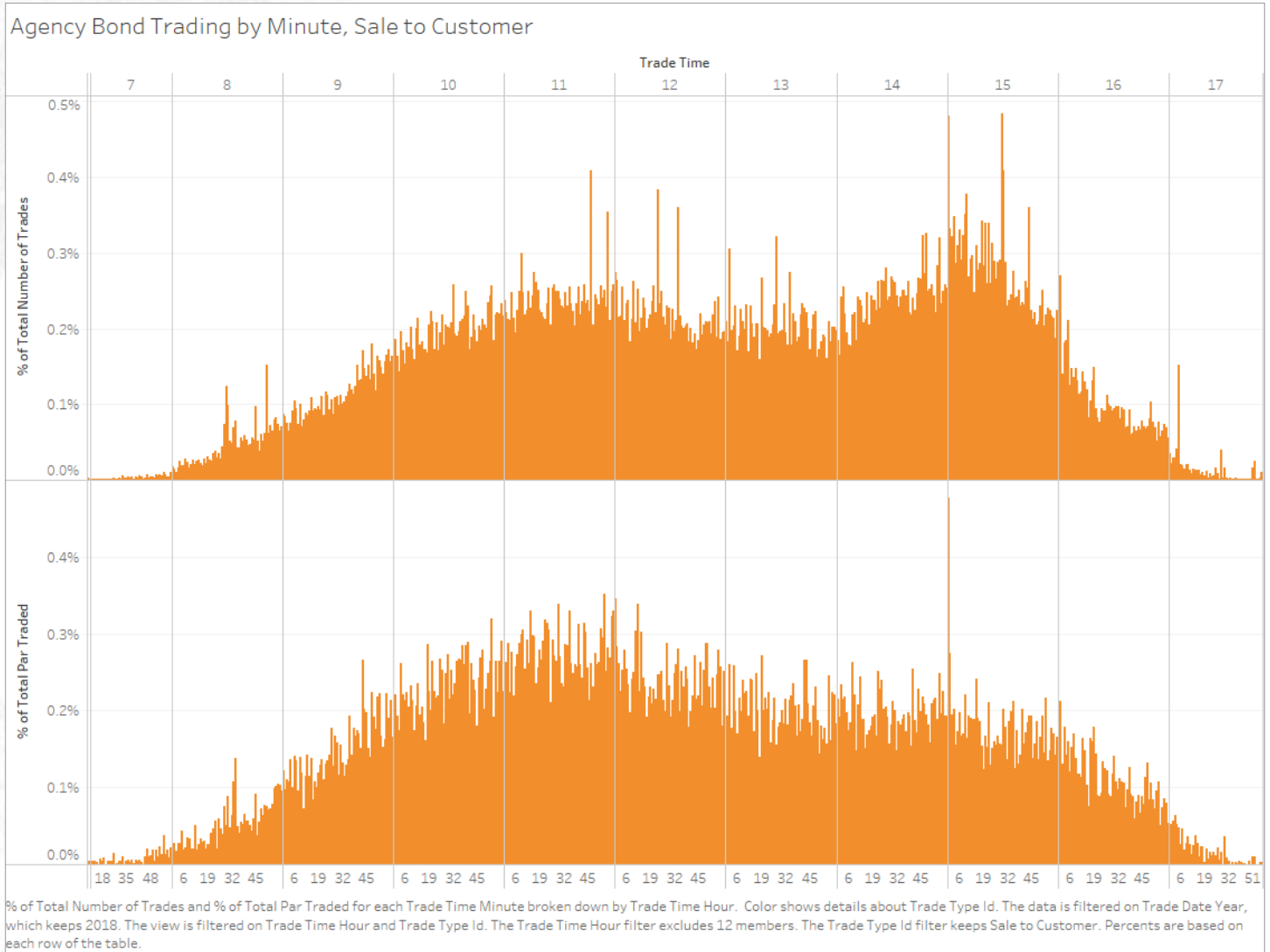
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AGENCY BONDS



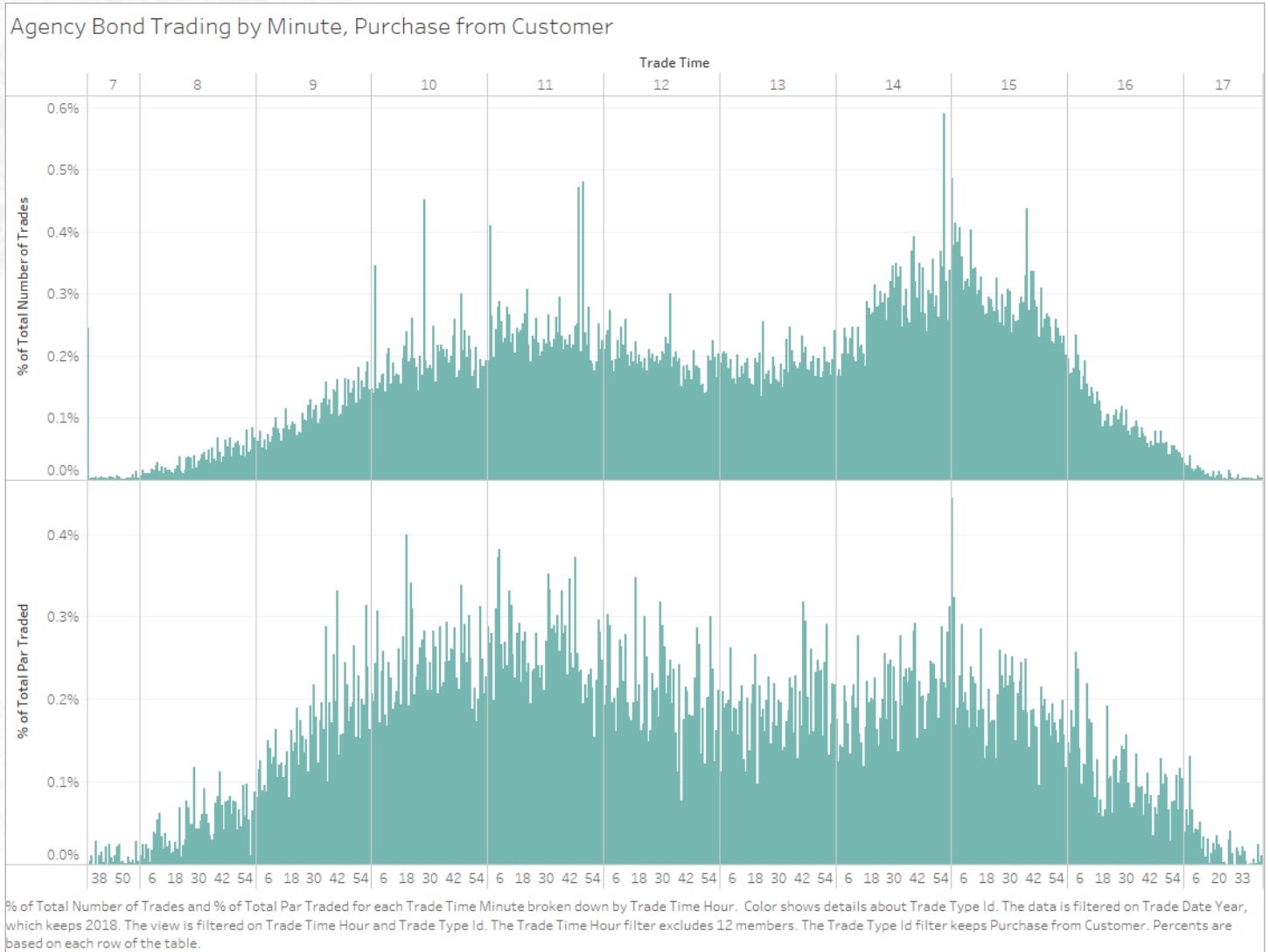
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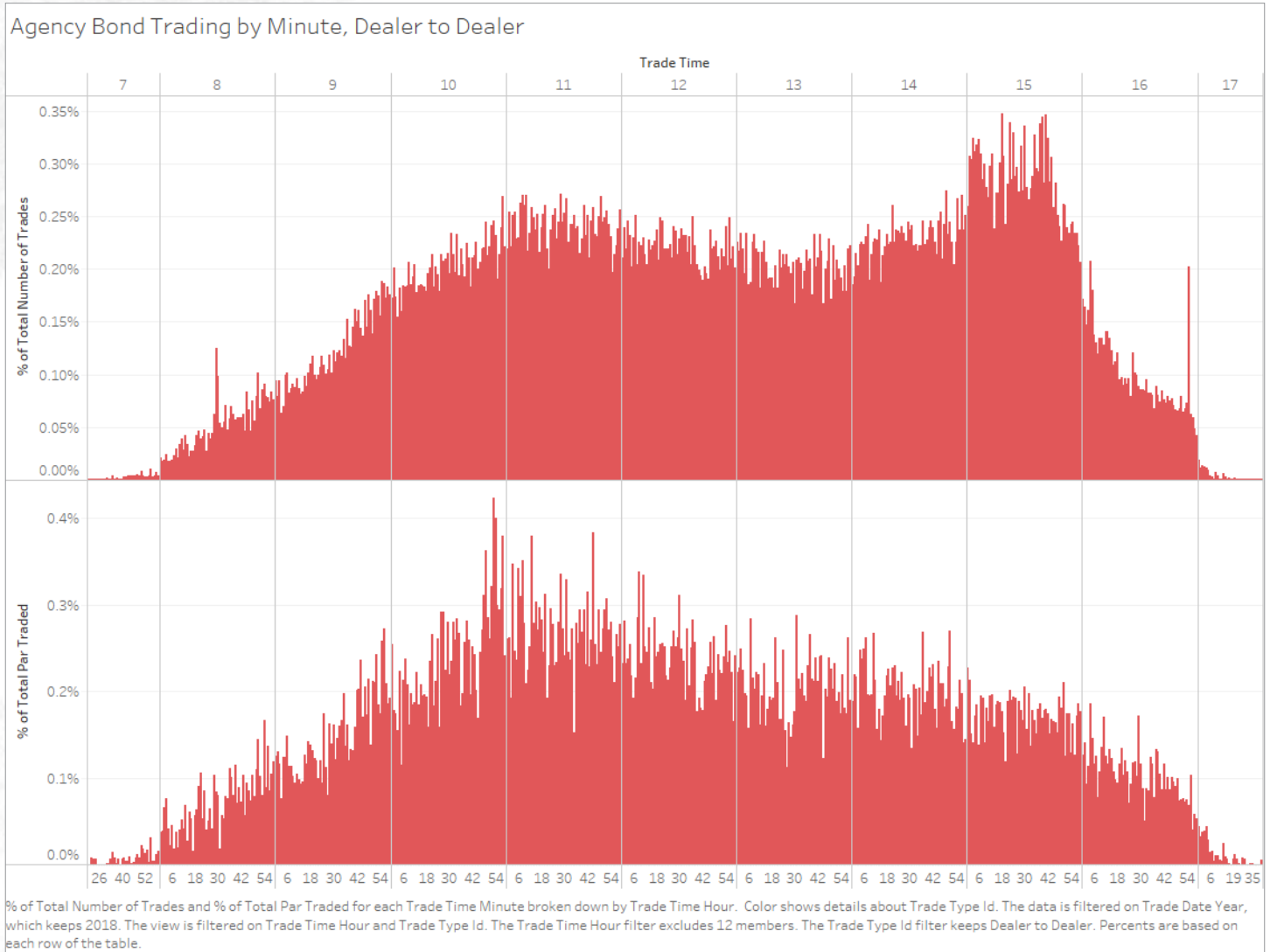
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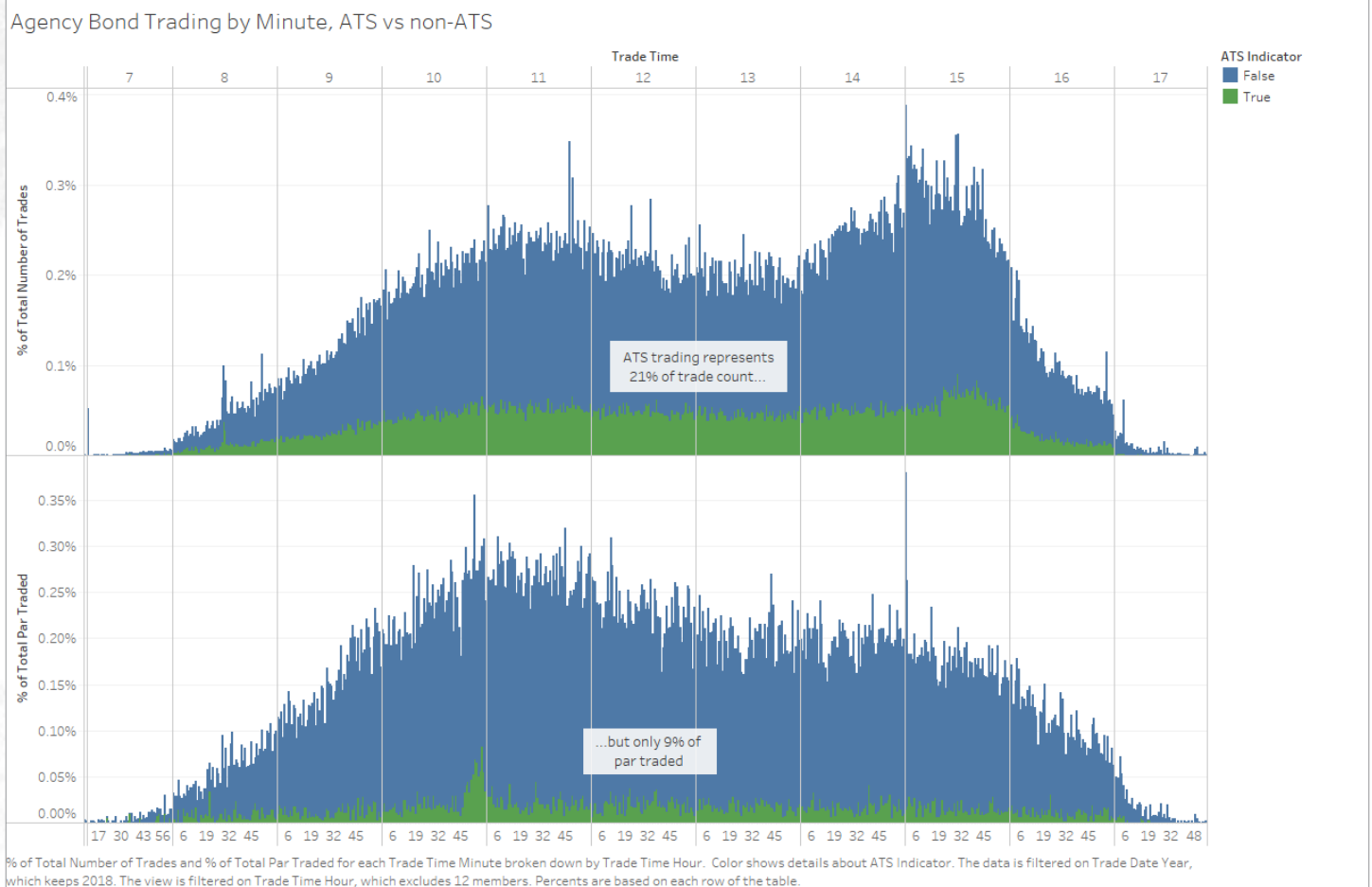
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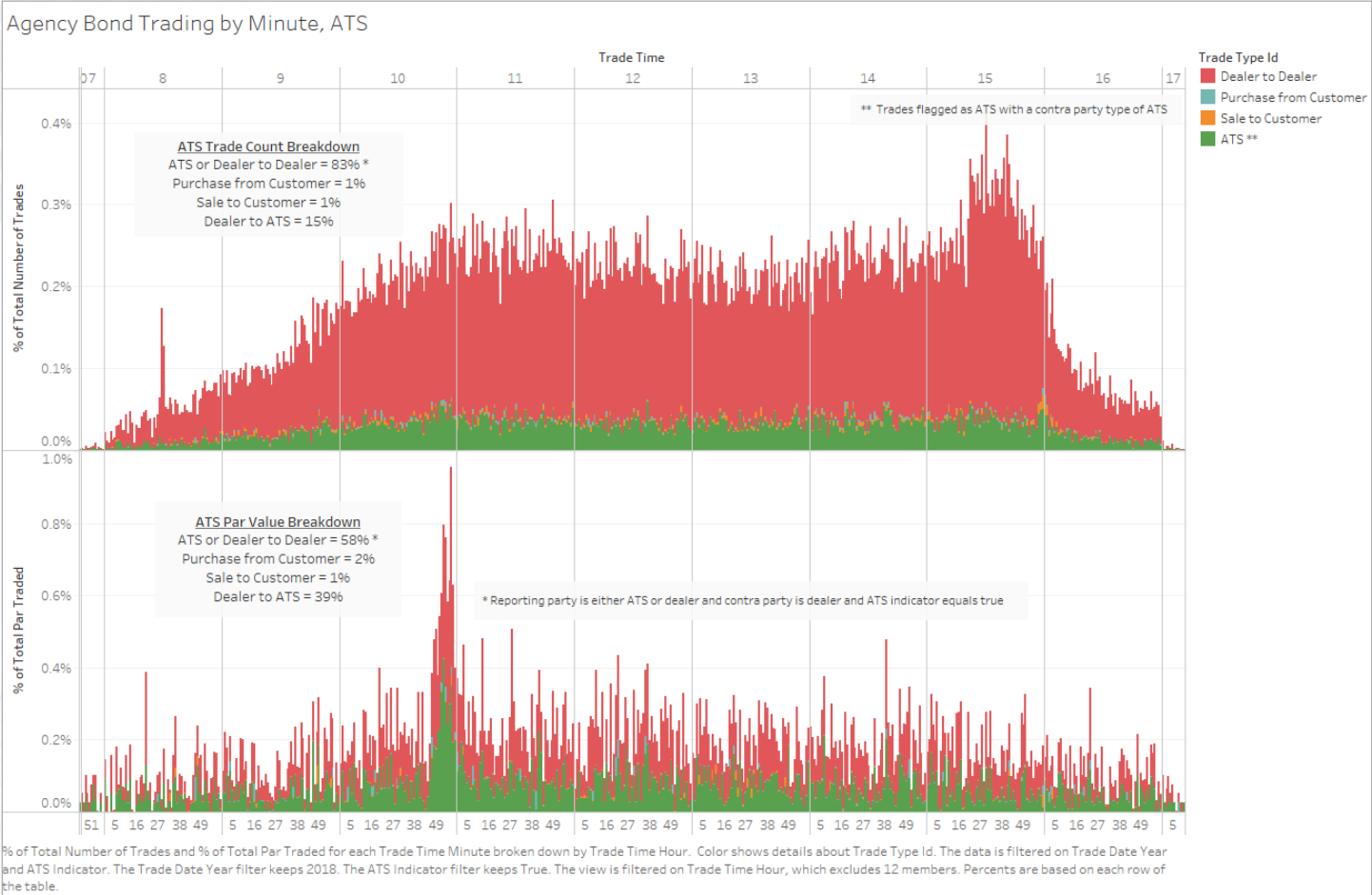
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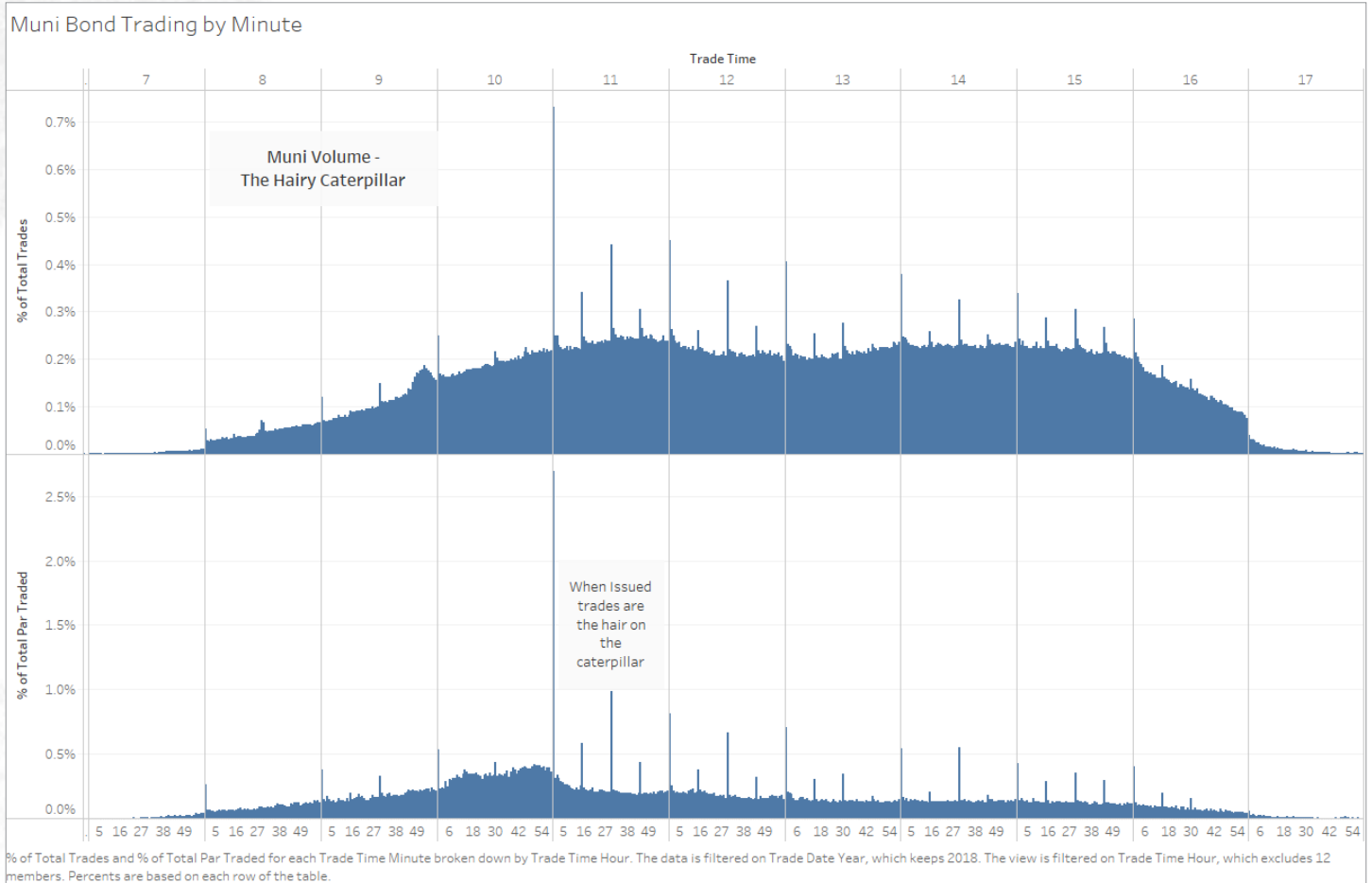
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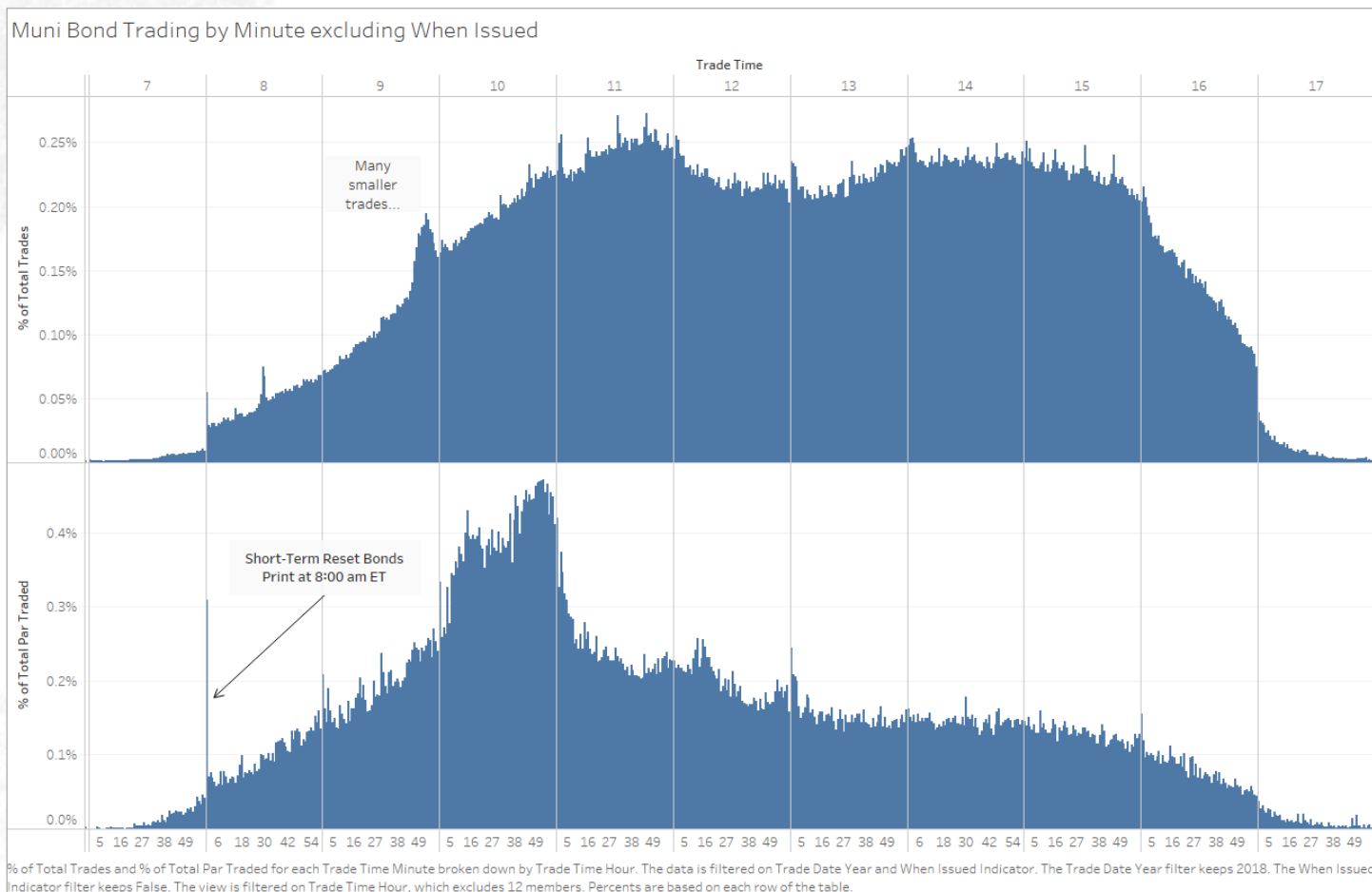
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MUNICIPAL BONDS



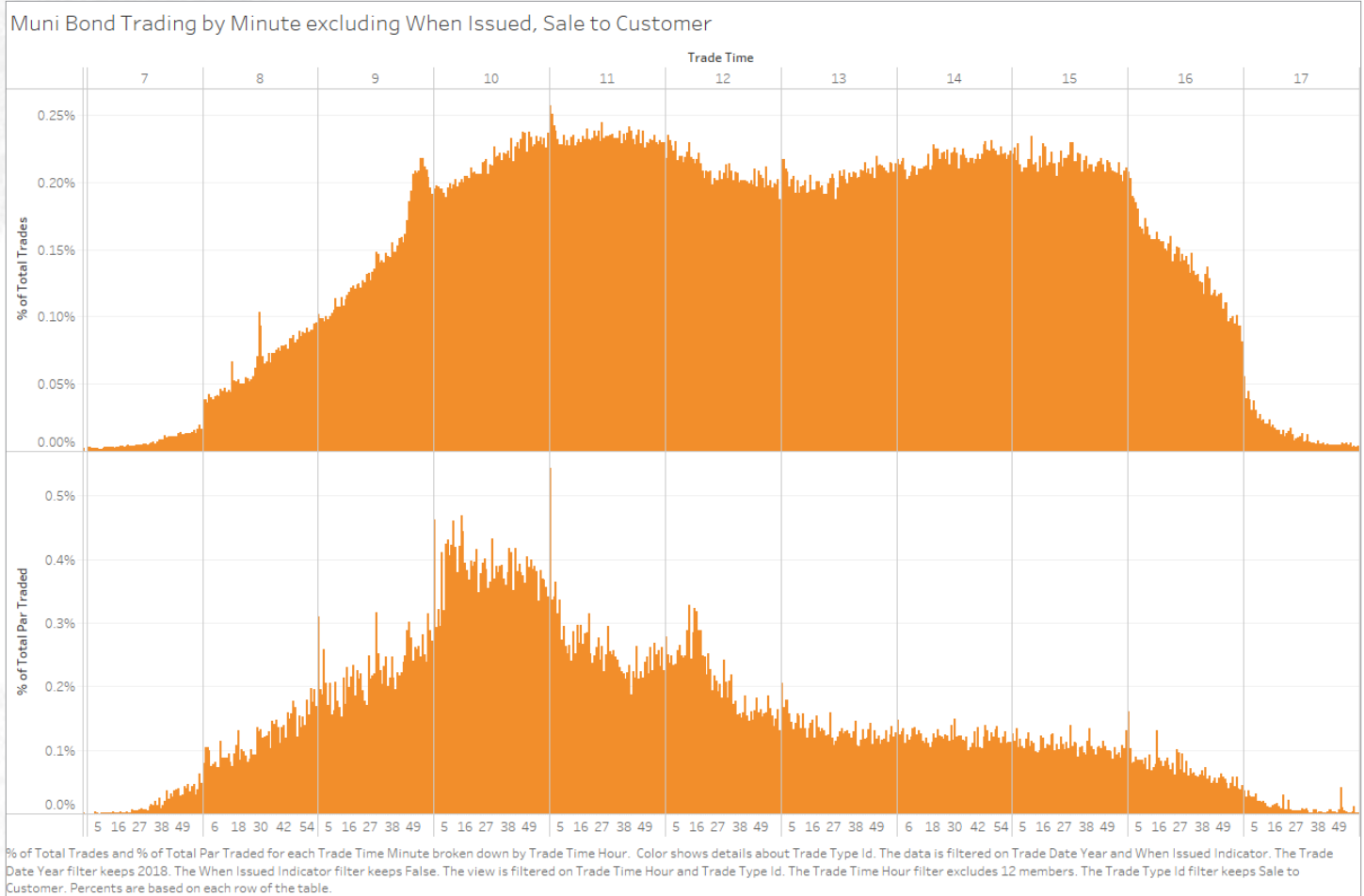
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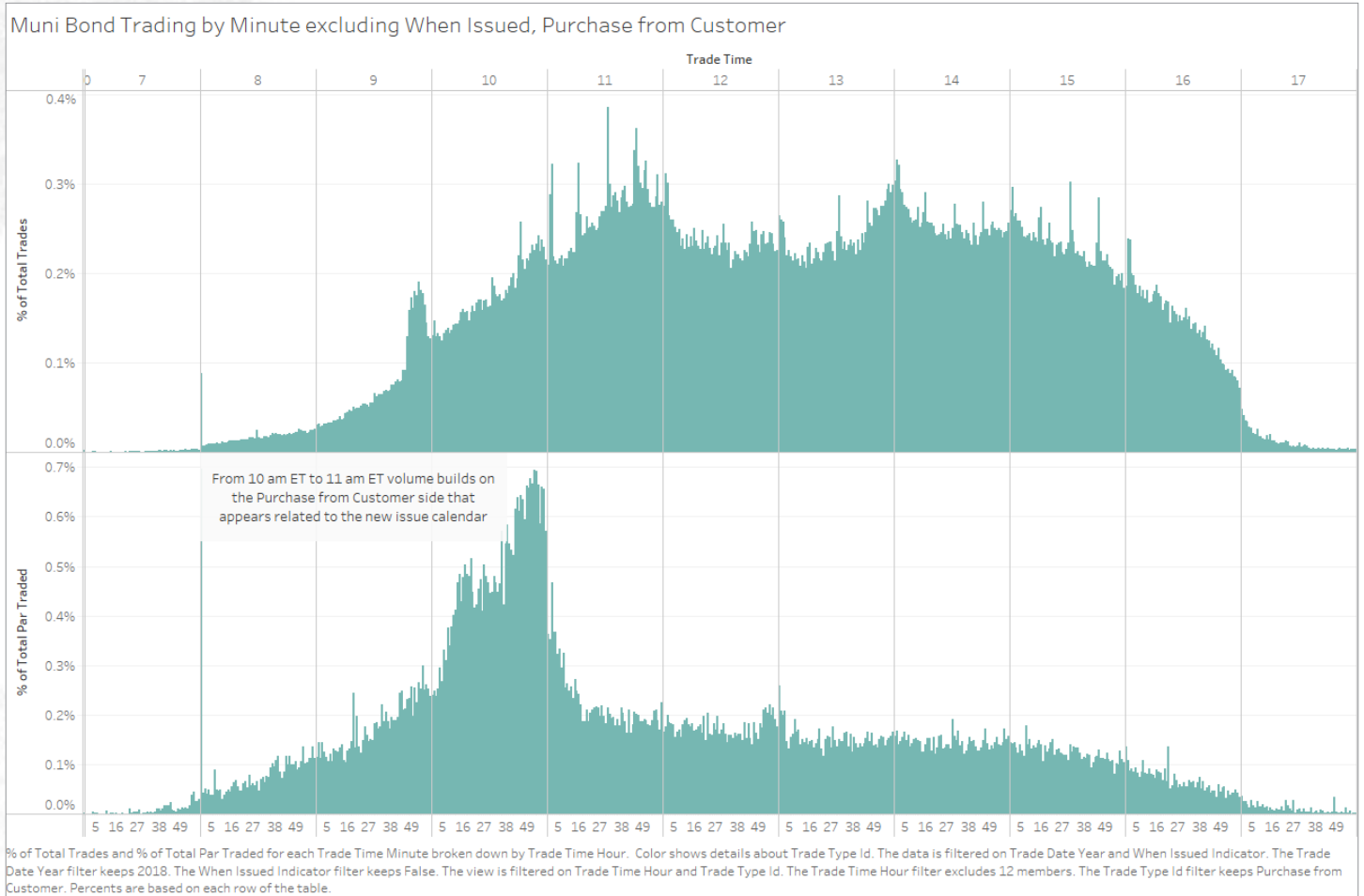
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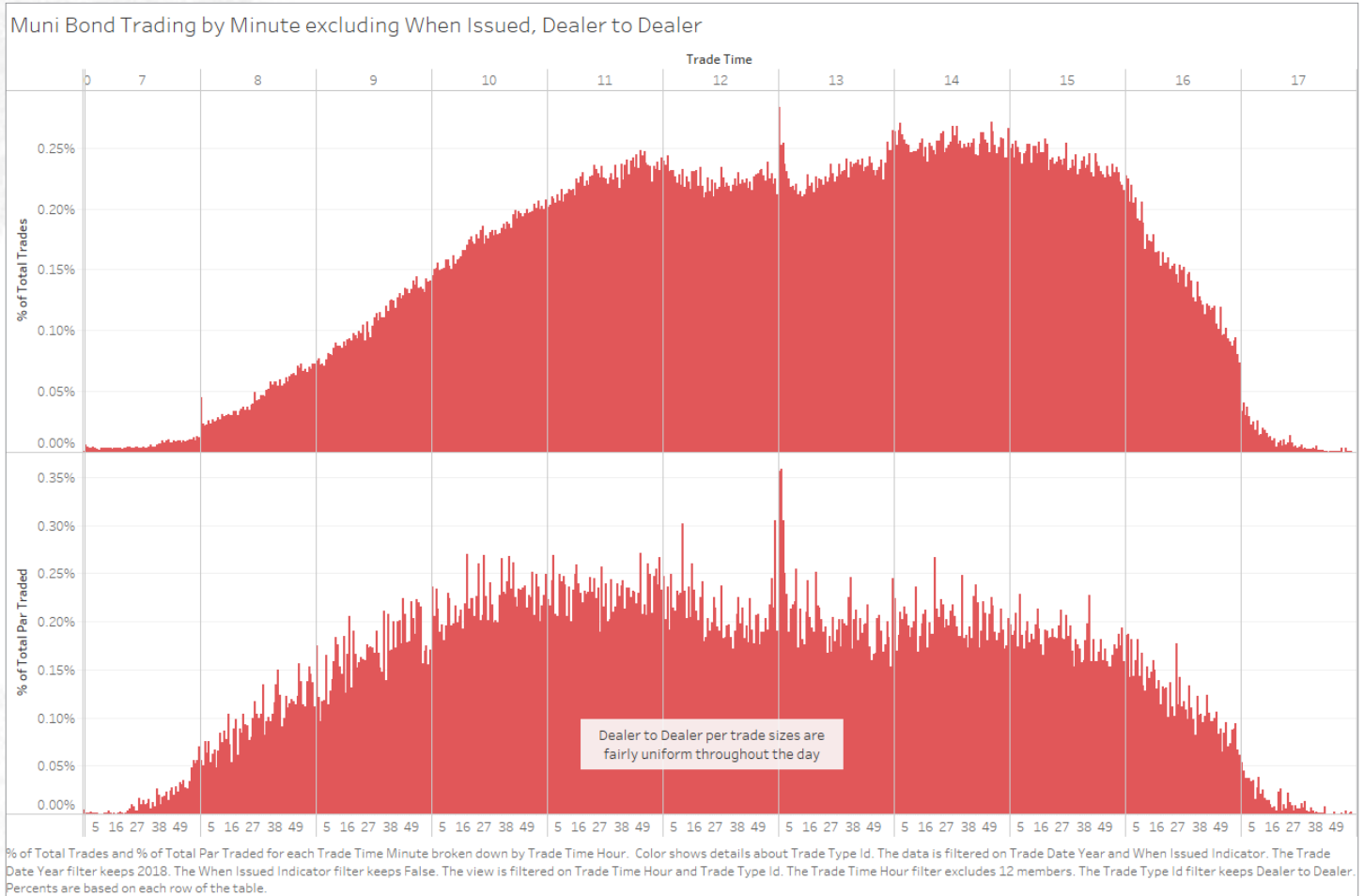
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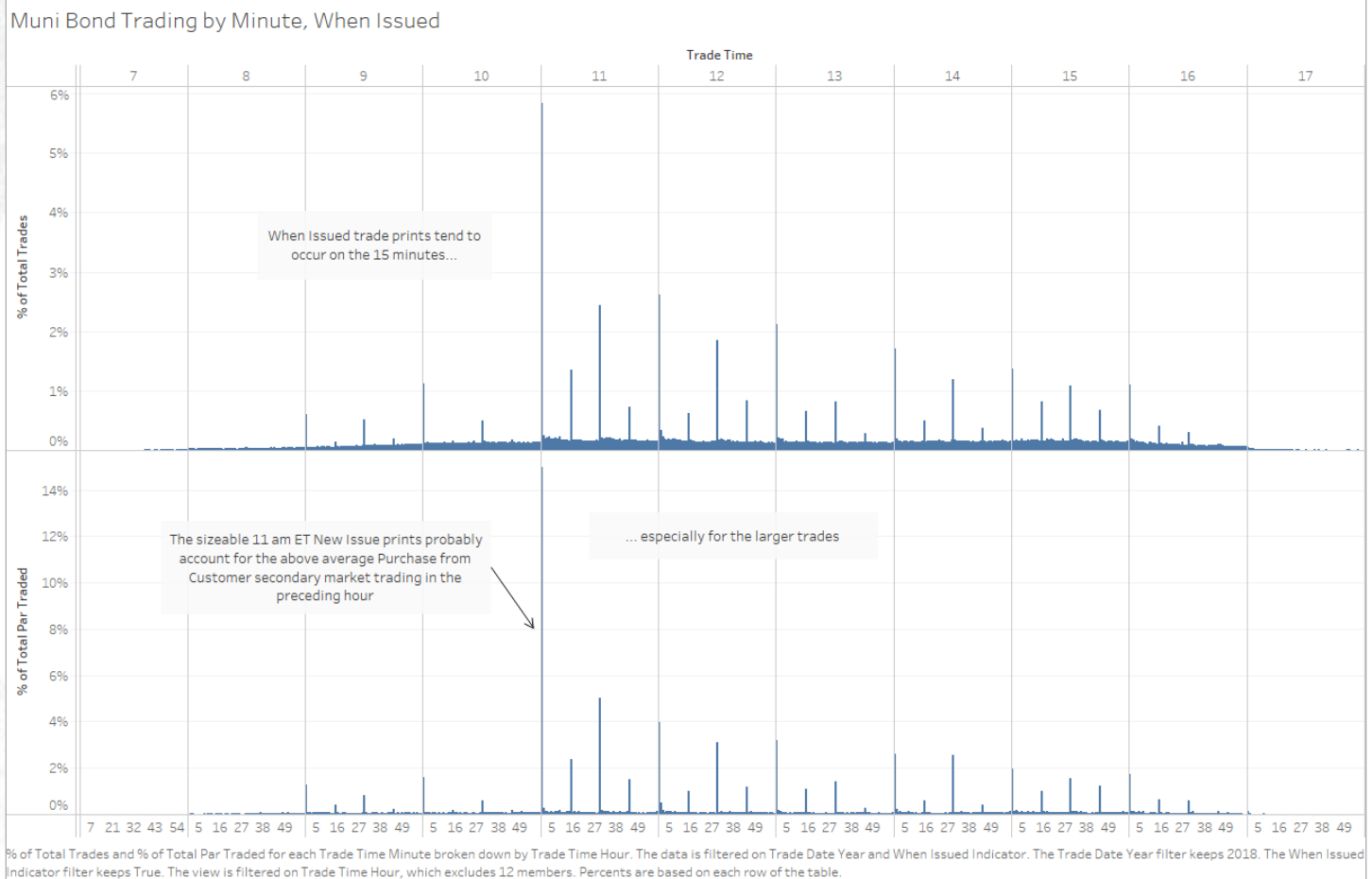
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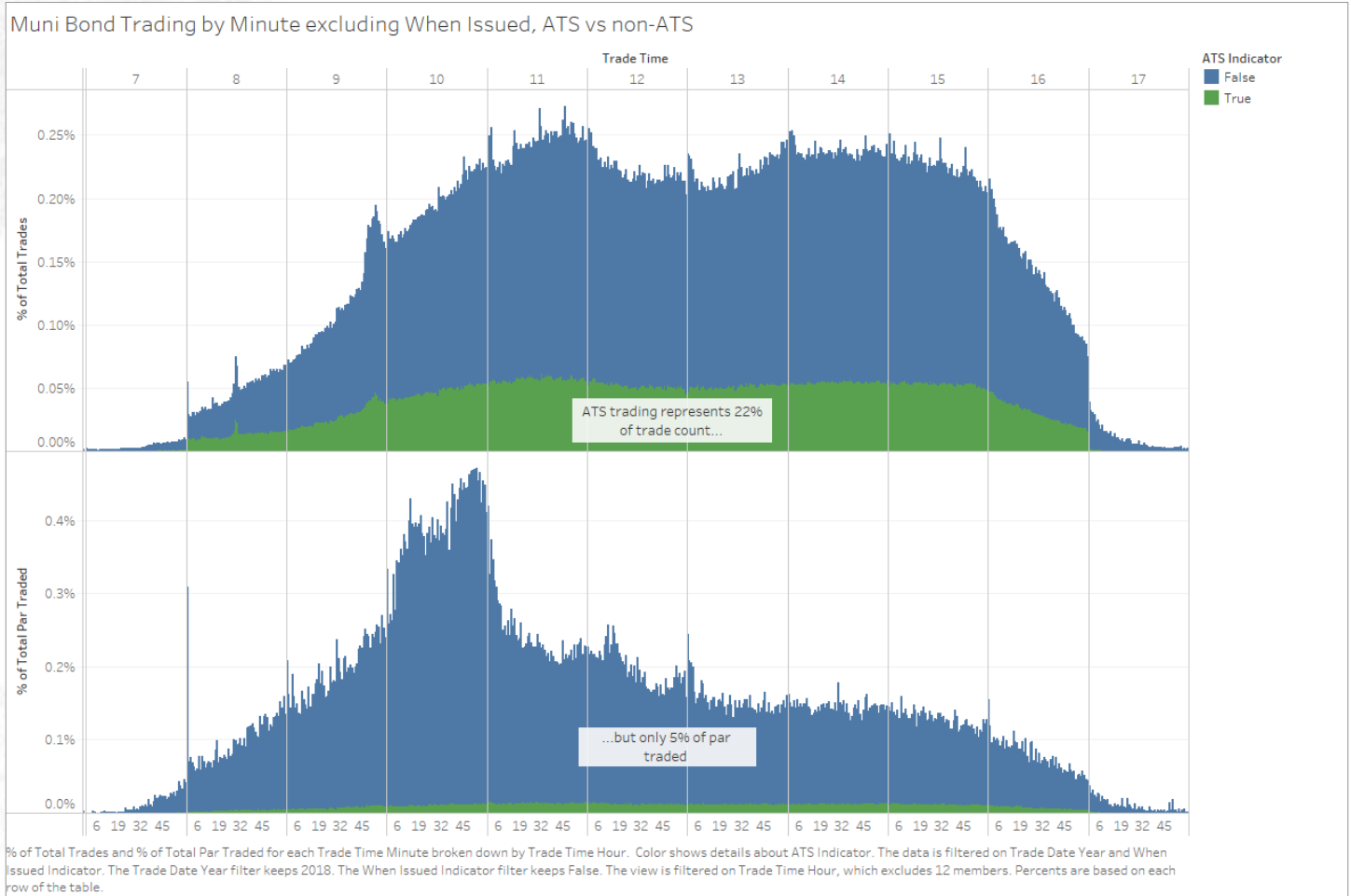
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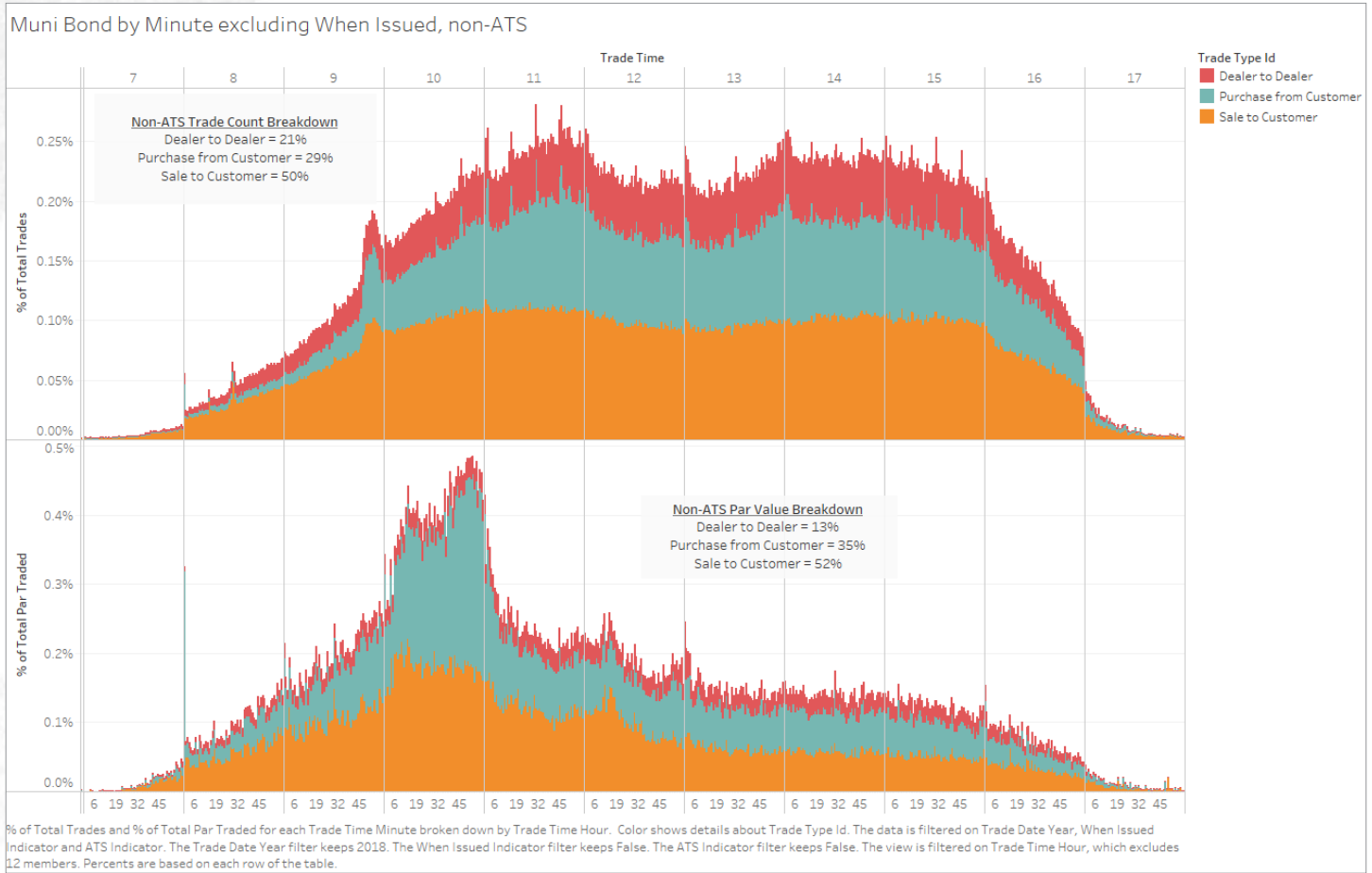
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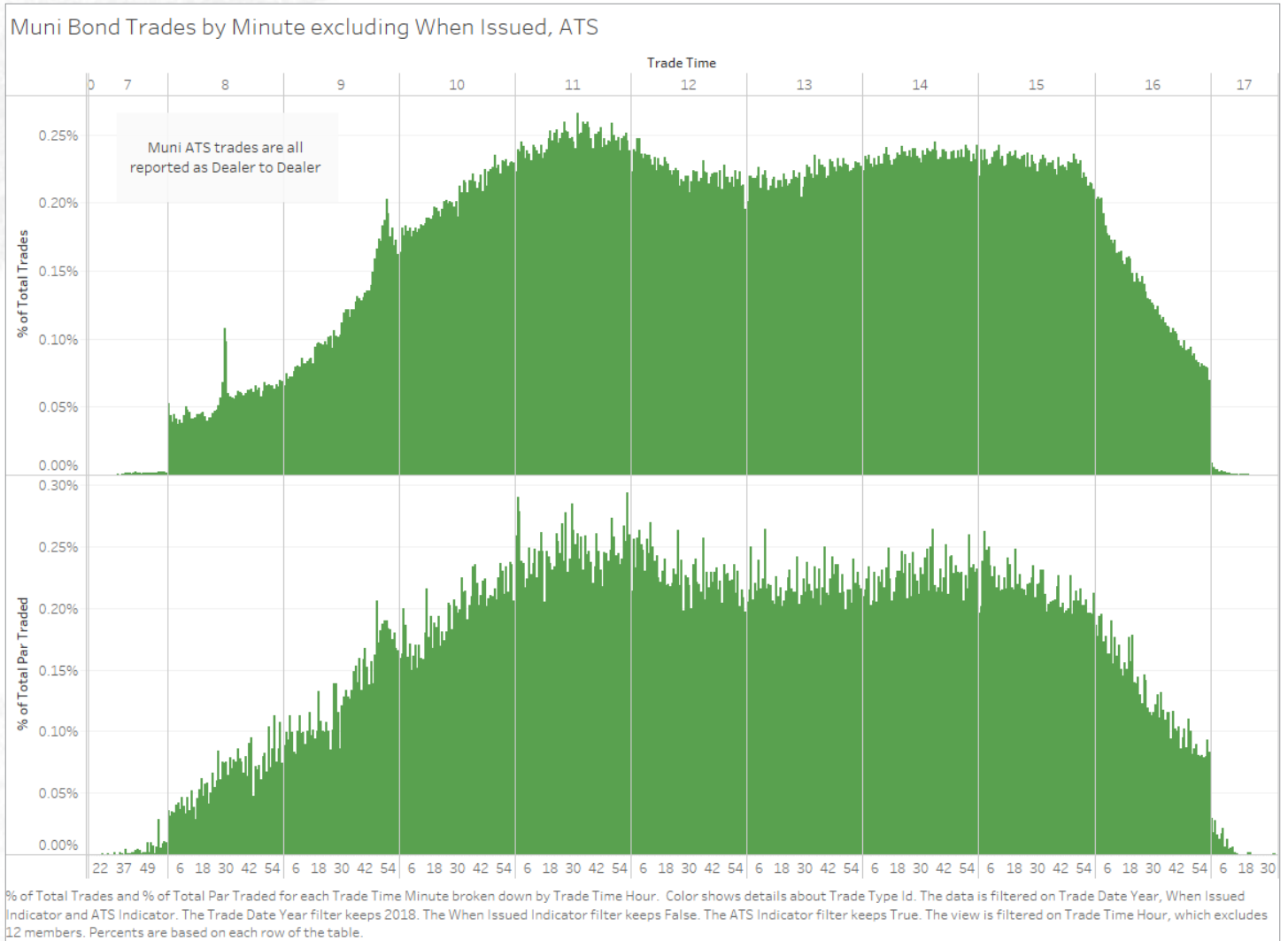
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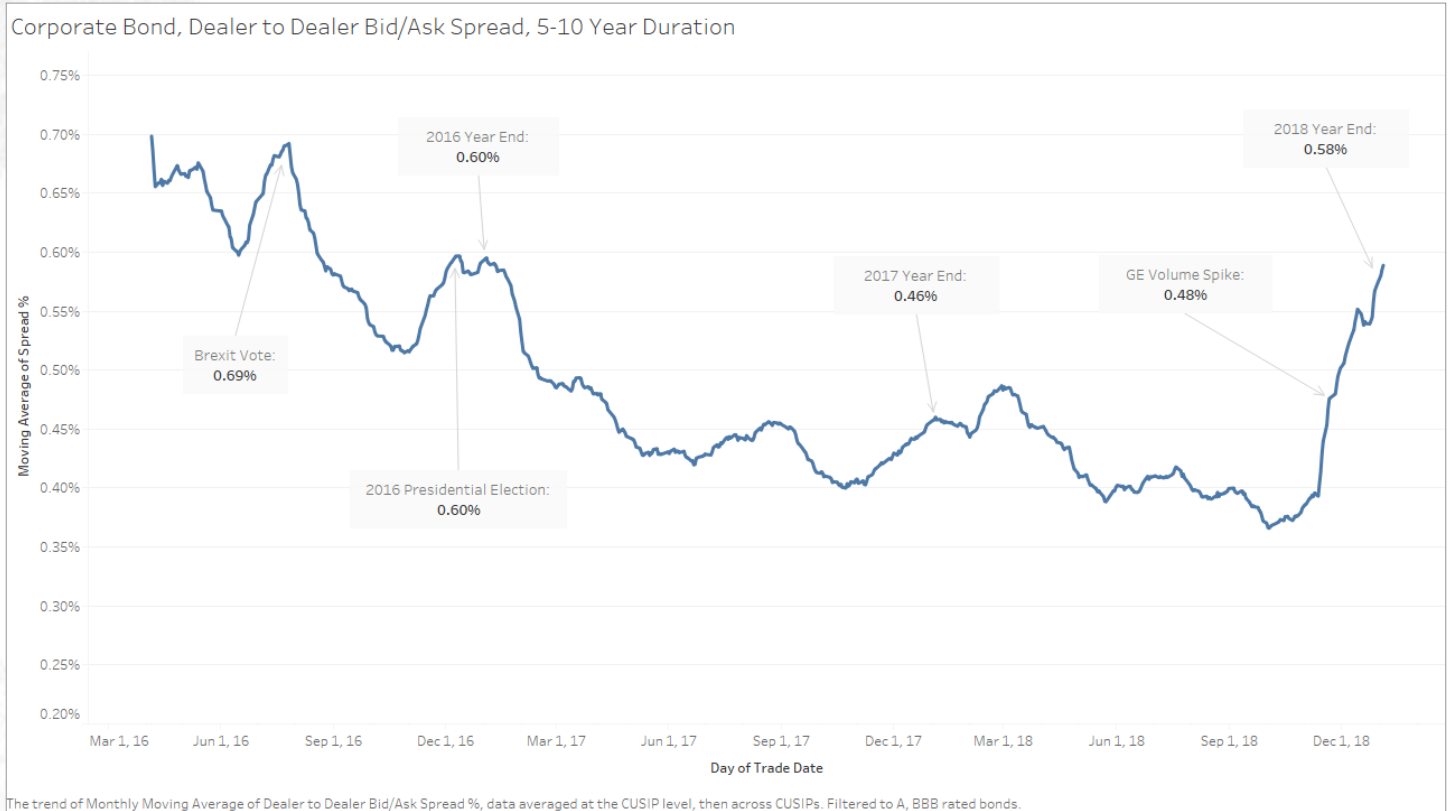
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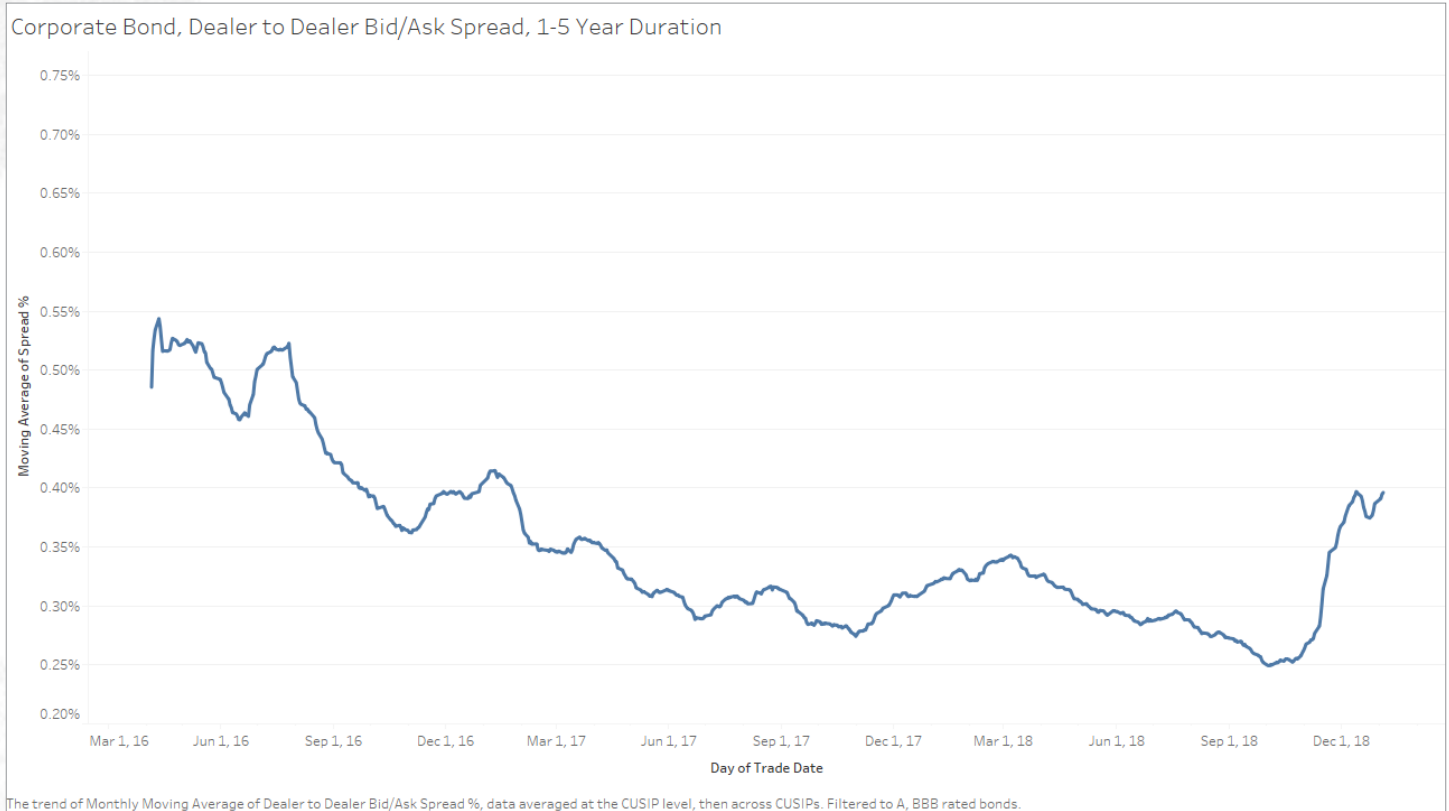
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DEALER TO DEALER BID/ASK SPREADS 2016 TO PRESENT



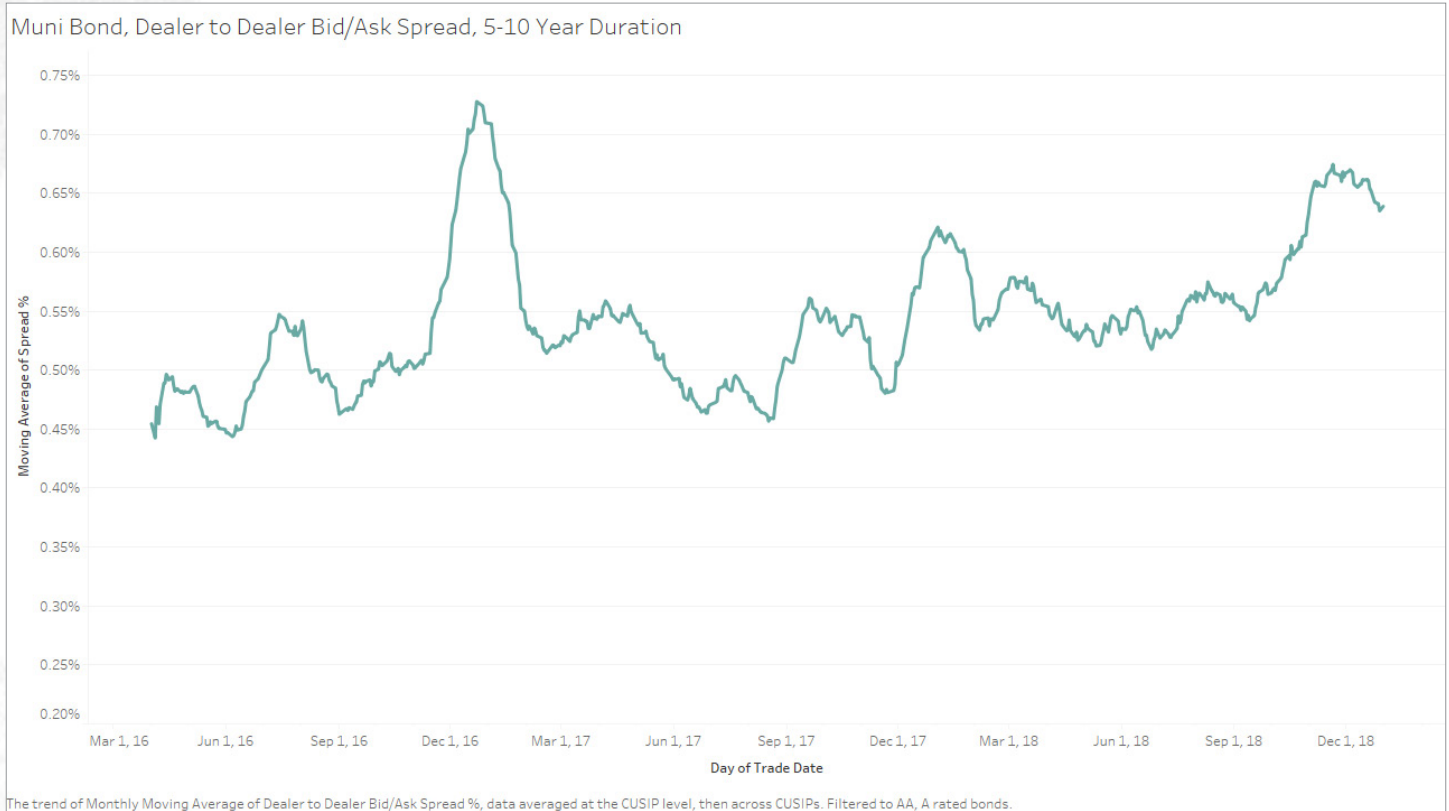
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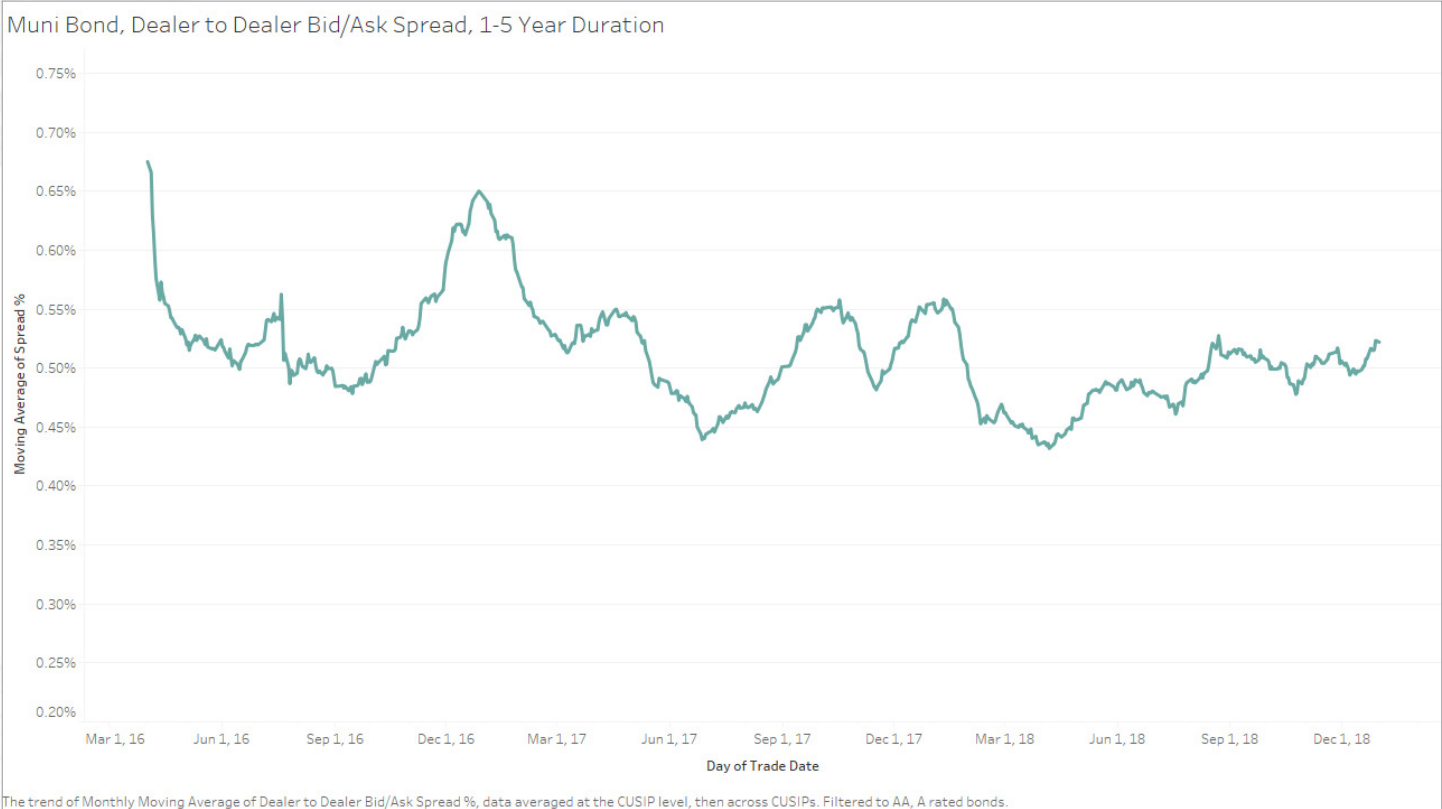
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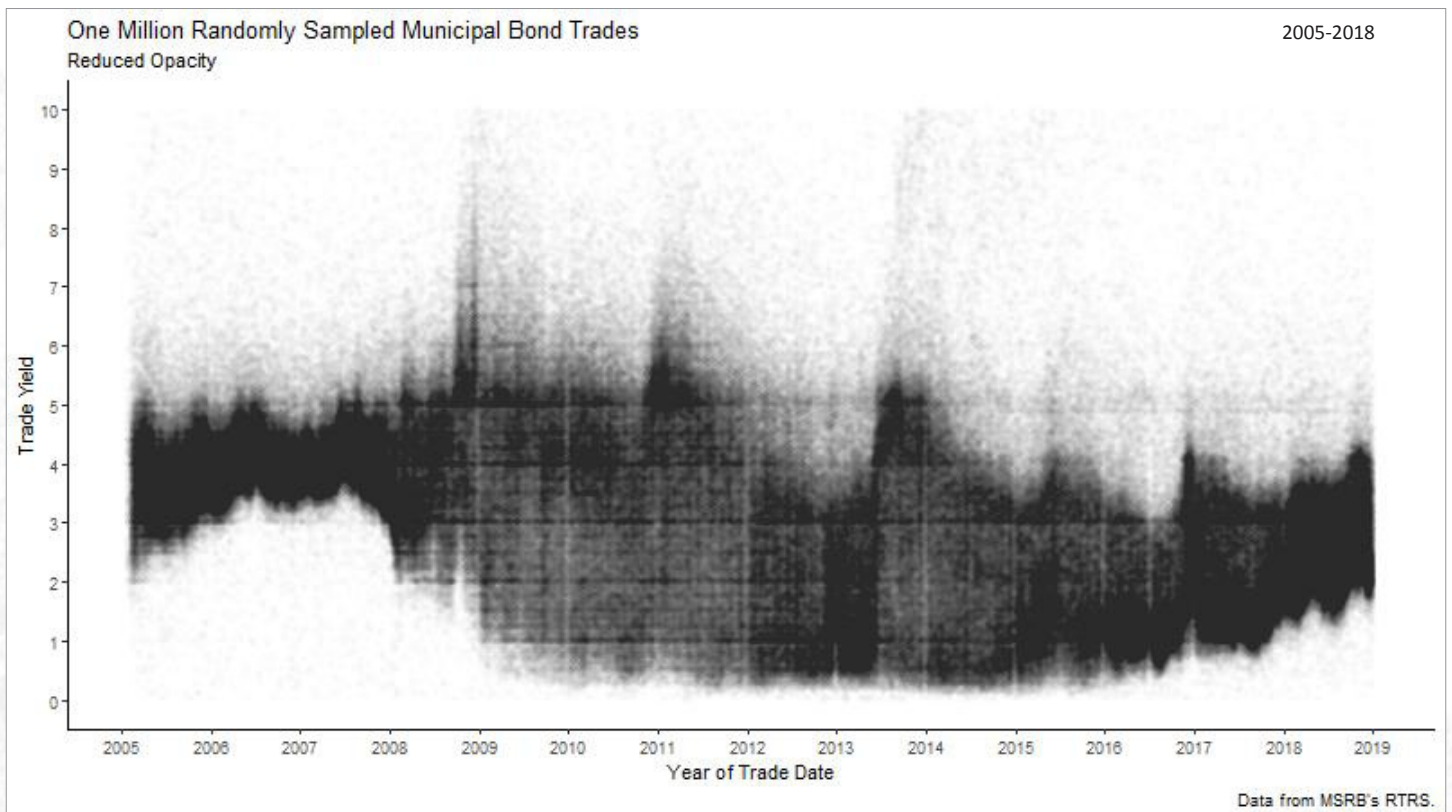
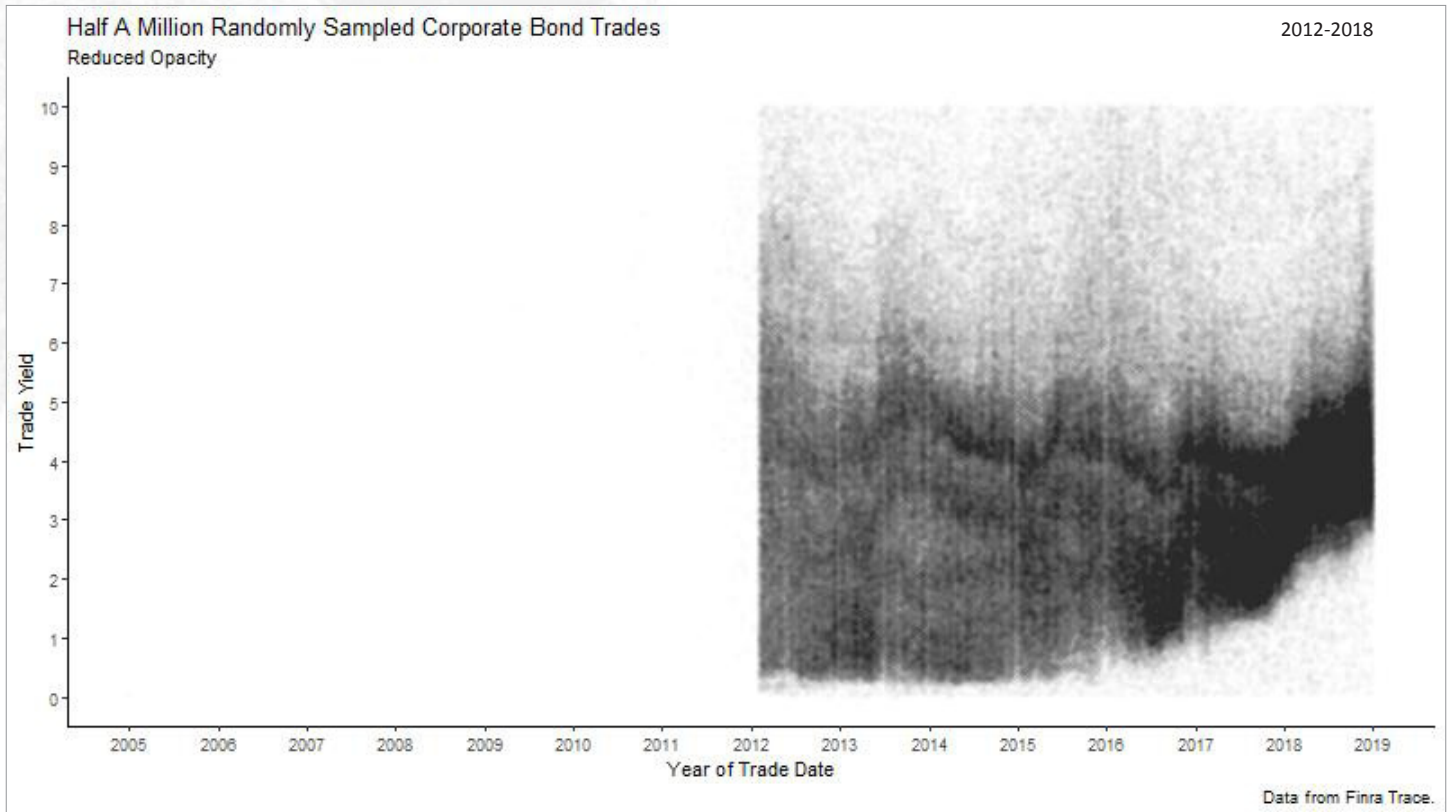
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ABOUT BONDWAVE LLC

BondWave is a financial technology company 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. By creating sophisticated, yet simple solutions for all stakeholders in the investment process, we help traders and advisors better leverage individual bonds as they work to achieve the investment objectives of their clients. Our tools enable strategy-based investing – including portfolio creation, monitoring and rebalancing – while greatly enhancing the communications between the trading desk, advisors and their clients. BondWave is liquidity and trade agnostic and our sole focus is to provide a simple, sophisticated user experience around individual bond investing.

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