Q2 2020

# Improving the Search for Corporate Bond Liquidity

## *Greater and Smarter Transparency*

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DATA | ANALYTICS | INSIGHTS

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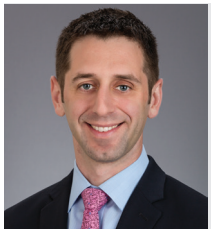


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## METHODOLOGY

In Q4 2019, Greenwich Associates interviewed 349 buy-side traders in the Americas and EMEA working on equity, fixed-income or FX trading desks. Respondents were asked a series of questions focusing on changes in market structure, including electronic trading. We also incorporated results from the 2019 Greenwich Associates U.S. Fixed-Income Investors Study, which asks nearly 1,000 U.S. fixed-income traders and PMs about their trading activity and quality of service received by their dealer counterparties. Finally, senior analysts at Greenwich Associates conducted a series of in-depth phone interviews with market participants to provide additional color.

**47%**

**OF INVESTORS ARE SPENDING LESS TIME ON THE PHONE WITH DEALERS THAN THEY WERE A YEAR AGO**

**THE MARKET NEEDS NOT ONLY TRADING PROTOCOL INNOVATION BUT ALSO VASTLY IMPROVED MARKET TRANSPARENCY WITHOUT INCREASING INFORMATION LEAKAGE**

# Executive Summary

*Corporate bond market structure has shown its resilience in 2020 like never before. Even in the most volatile days, before the Federal Reserve stepped in and the migration to working from home was just beginning, volumes surged, the largest trading venues kept pace, and dealers kept providing liquidity. While the Fed's intervention certainly leaves many feeling like the market could not find its way, market functioning in the face of unprecedented risks and impossible-to-know outcomes would not have been possible had the last decade's innovation never taken place.*

*But as the world and the market both work their way out of the depths of the crisis, the corporate bond market is turning its attention to what can be done to improve markets and market structure going forward.*

*Improving market transparency for both liquidity providers and investors is certain to be on the list, albeit in a way that does not create new information leakage nor discourage dealers from providing much needed liquidity. New data that helps determine the location of every bond and reveals how dealers are sourcing liquidity are good examples.*

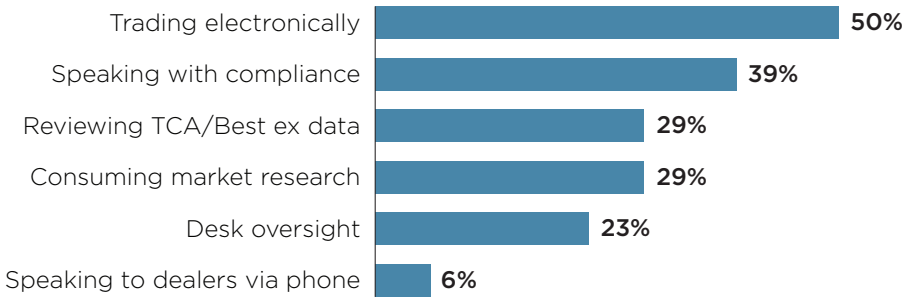
*Further, corporate bond dealers must continue down the path of digitizing their franchise—not just via more electronic execution, but also by utilizing technology to inject more efficiency into every part of their business. This will require not only more data, but a new way of putting that data to work (think artificial intelligence)—something the market has been working on for years, but must continue to emphasize.*

*A foundation now exists where all market participants appreciate the value technology can bring to their franchise and the market as a whole. And while some still resist the "new way" and dream of the "old days," the new way is now the only way forward. At the risk of sounding cliché, those that embrace new ideas while still maintaining key relationships will continue to be the most successful.*

# Introduction

The U.S. corporate bond market has, by many measures, fully moved on from the financial crisis of over 10 years ago. The buy side has weaned itself off dealer balance sheets as the only source of liquidity. More than half of buy-side traders told us they are spending more time trading electronically, while, conversely, 47% said they were spending less time on the phone with dealers—even during times of market stress. And credit ETFs have proven a robust method of risk transfer even in the highly volatile markets we've experienced in 2020.

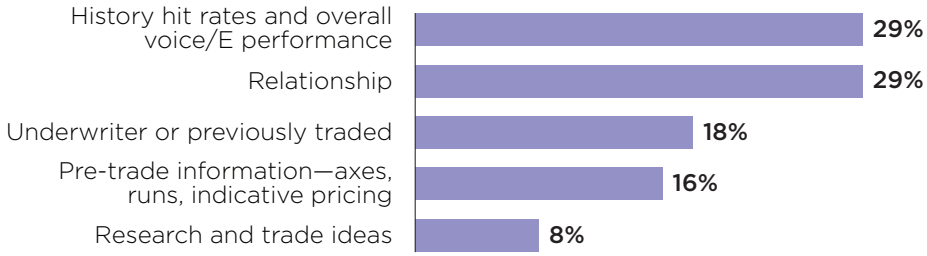
## PERCENT OF BUY SIDE SPENDING MORE TIME ON EACH ACTIVITY




Note: Based on 251 buy-side respondents.
Source: Greenwich Associates 2019 Market Structure and Trading Technology Study

But while investment and trading decisions are more data-driven than ever, a surprising amount of activity is led by gut feel and old-fashioned human intuition. This is particularly true for voice trades, where "relationships" matter as much to the buy side as "historic hit rates" when choosing which banks to trade with. This is not a bad thing necessarily. People are what make good trading desks great. Nevertheless, it speaks to a huge opportunity to further improve market transparency, efficiency and liquidity formation, particularly in light of the turbulent markets we've found ourselves faced with this year.

## CRITERIA FOR COUNTERPARTY SELECTION—CREDIT, VOICE TRADES

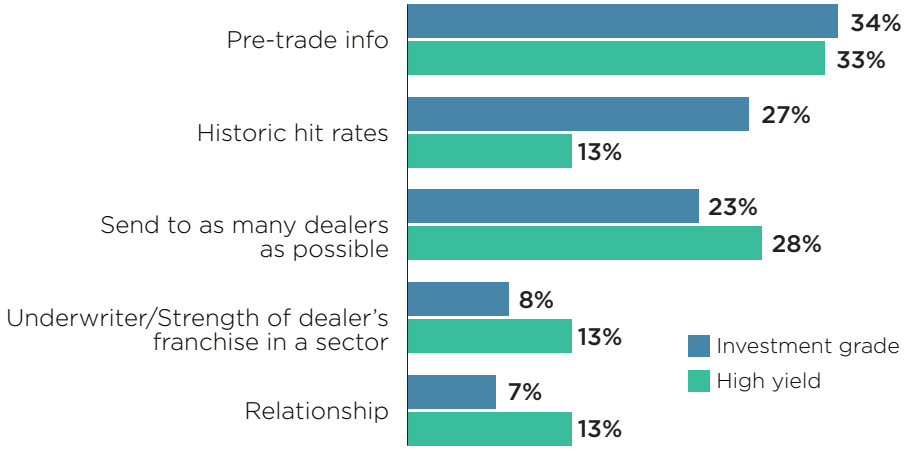



Note: Based on 524 respondents.
Source: Greenwich Associates 2019 Market Structure and Trading Technology Study

Electronic trading growth over the past five years has certainly helped moved markets forward, both in terms of how dealers provide and the buy side sources liquidity. But there is still more work to be done. For trades sent to electronic venues, for instance, pre-trade

information (axes, runs, etc.) is the most important factor when selecting counterparties, whereas relationships rank fifth. This parallels recent Greenwich Associates data showing that 50% of investors say the counterparty mattered "very little" or "not at all" when trading electronically. This is good for the buy side and new liquidity providers, but less exciting for relationship-driven broker-dealers.

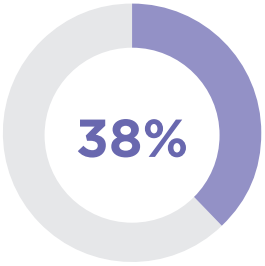
## CRITERIA FOR COUNTERPARTY SELECTION—CREDIT, ELECTRONIC TRADES




Note: Based on 380 respondents.
Source: Greenwich Associates 2019 North American Fixed-Income Investors Study

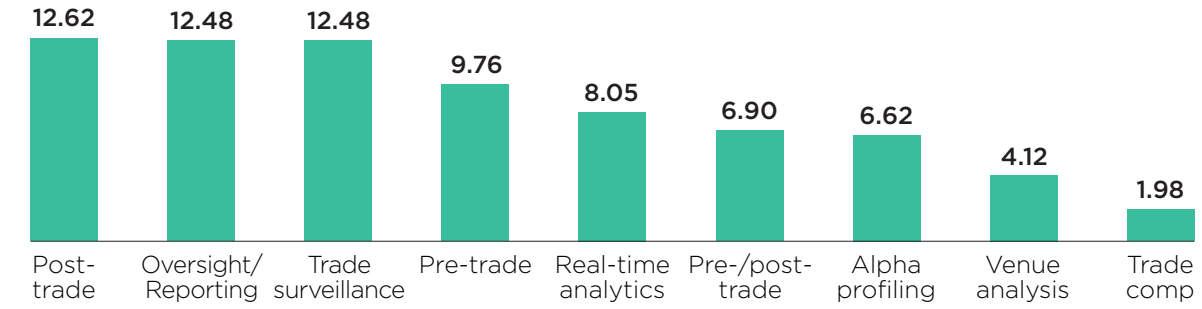
These findings—that pre-trade data matters more and the counterparty matters less—highlight two major points:

1. While the adoption of transaction cost analysis (TCA) by corporate bond market participants is improving, with 38% of fixed-income investors saying they now use TCA, traders today see its value primarily in post-trade review and desk oversight. Liquidity-seeking and pre-trade analysis is still largely carried out using axes, runs and TRACE, sometimes via a proper front end but often via Excel. And the tools provided by the trading venues are used by the buy side more often for directing electronic orders than for determining which liquidity provider to call for off-venue trades.




**of fixed-income investors say they now use TCA**

## VALUE BUY SIDE PLACES ON FIXED-INCOME TCA

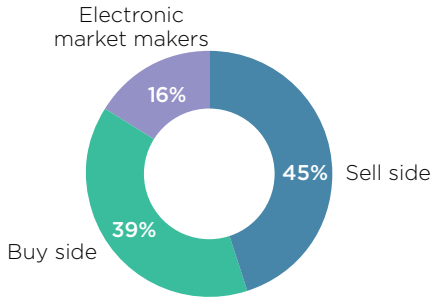



Note: Based on 42 credit-focused buy-side respondents. Respondents were asked to allocate 100 "value points" to the functions above. The chart shows the average number of points allocated to each function, so the values do not sum to 100.
Source: Greenwich Associates 2019 Market Structure and Trading Technology Study

2. Electronic trading has certainly grown beyond its "odd-lot" roots, but with roughly 70% of the investment-grade market still executed via bilateral communication, there is still more work to be done. For electronic trading to gain more share, the market needs not only trading protocol innovation but also vastly improved market transparency—without increasing information leakage.

A large asset manager told us that traders on the desk spend way too much time "thinking about where the market is" or trying to determine the right price of a given bond. Improvements in liquidity-seeking tools can reduce the time traders spend digging through dealer axes, however, ultimately leaving them to focus on what they are there for—trading.

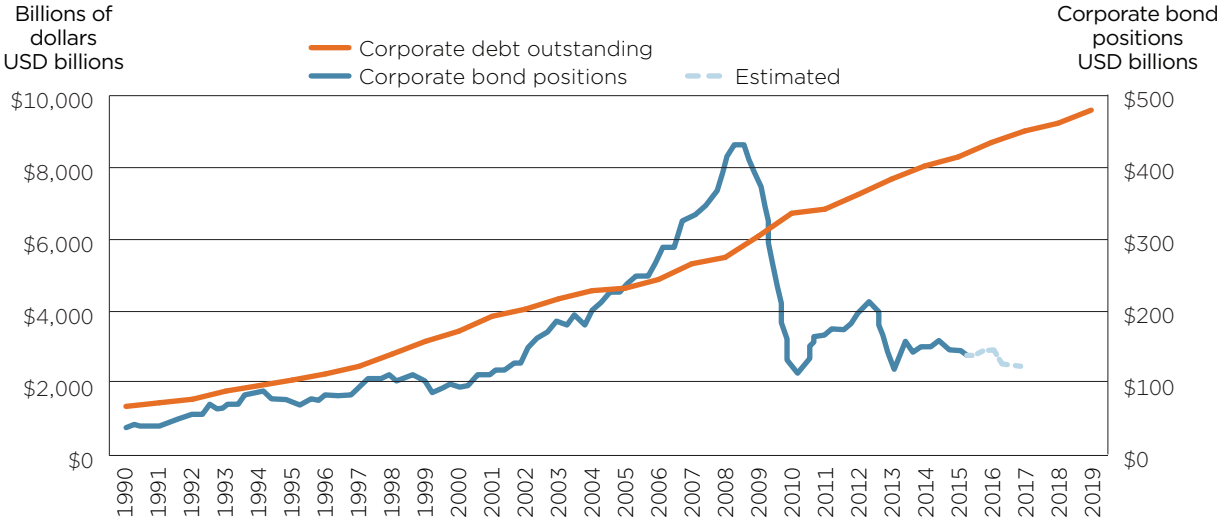
## WHO HAS THE BIGGEST INFORMATION ADVANTAGE IN THE FIXED-INCOME MARKET TODAY?




Note: Based on 100 respondents.
Source: Greenwich Associates 2019 Market Structure and Trading Technology Study

Dealers need more transparency too. While many assume they are the holders of the prices and the bonds, dealer inventories tell a different story when compared to corporate issuance outstanding. Furthermore, Greenwich Associates recently found that nearly 40% of buy-side traders in our recent research felt they had the information advantage, proving that innovation in transparency and electronic bond trading needs to take the role of the dealer into account while enhancing that role, rathering than cutting it out.

## CORPORATE DEBT OUTSTANDING/DEALER INVENTORIES




Source: Board of Governors of the Federal Reserve System (U.S.)

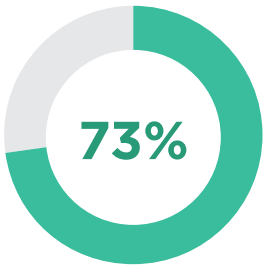
# Pre-Trade Decision-Making

Investment decisions from a portfolio manager have no chance of success if the instruments required to implement that strategy cannot be bought or sold. This is not a new revelation. At some firms, however, much tighter relationships between portfolio management and trading coupled with more accurate and actionable liquidity metrics are starting to vastly improve investment implementation outcomes.

To that point, one asset manager told us that their desk should never see an order hit their order management system (OMS) without prior notification that it was coming from the portfolio manager. This reinforces both the need for close collaboration between the two teams and the idea that pre-trade analysis is moving from simply examining expected pricing levels to also including estimates on how long it will take to get the order done at the expected price. Investment and trading outcomes are increasingly intertwined.

**Investment and trading outcomes are increasingly intertwined.**

This way of thinking requires communication as well as increased and more efficient use of both external and internal data sources. Activity by counterparty, for instance, is data that every buy- and sell-side firm has but that many struggle to put it to good use. OMS and Execution Management System (EMS) vendors have stepped in to help in this regard, but the process for each firm is as unique as the data it collects. So while 73% of fixed-income investors using an OMS use one provided by a third party, analysis of internal data is still often done via internal systems.




of fixed-income investors using an OMS use one provided by a third party

> **The more data we capture, the better decisions we can make.**
>
> *~Large U.S. asset manager*

Trading venues and dealers are also stepping up their game as pre-trade data sources. Trading venues have unique insights into not only orders that were executed, but those that were never executed, losing RFQ responses, counterparty responsiveness, and in some cases, order ideas that never made it into the market. And while privacy rules limit exactly what they can do with much of that data, putting the appropriate data to work for individual clients and aggregating data to alleviate any privacy issues still can create impactful results.

For years, dealers have been sending “axes” and “runs” to clients—sometimes directly, but increasingly through aggregators such as Bloomberg, MarketAxess, Neptune, Tradeweb, Trumid, or an OMS/EMS. But dealers are also stepping up their game by providing streaming

two-sided prices on more liquid names, and less frequent, but still consistent, indicative pricing on a broader universe of bonds. This proves to be a big part of a virtuous cycle. As dealer prices help the buy side better understand the liquidity profiles of bonds on the order blotter, increased sell-side access to liquidity scores makes it easier for them to quote tighter and more continuous prices to their clients.

It is still worth noting, however, that while dealer liquidity sourcing is more data-driven today, several of our study participants pointed out that trader "experience" or "gut feel" remains a big component in determining how best to satisfy a client's liquidity needs.

**Understanding where most bonds sit requires both the stitching together of numerous transactions since the bond's issue date along with a trader's intuition.**

# Finding the Bonds and the Liquidity

Pre-trade data, ultimately, is only as good as post-trade data. While this sounds a bit paradoxical on the surface, the purpose of pre-trade information is to determine where an order is mostly likely to be executed and at what price. And while past performance is no guarantee of future results, the best source of pre-trade liquidity information comes from data about already executed orders.

Based on our research, there are at least two key elements that could benefit every corporate bond trader (but to which few, if any, currently have access). First, and most obvious, is the location of every corporate bond from every issuer. If market participants knew who had what bonds, then trading would be simplified to agreeing on a price—saving significant amounts of time. Unfortunately, this data is not easy to come by. While some investment funds have to report their holdings, understanding where most bonds sit requires both the stitching together of numerous transactions since the bond's issue date along with a trader's intuition which is not likely to represent a complete data set.

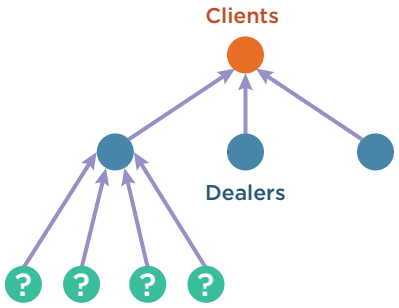
Most buy- and sell-side firms know what bonds they have bought and sold and with whom. Even for the largest firms, that is only a small percentage of the entire bond universe. Further, that data isn't always stored in such a way that it can be put to work. FINRA knows every bond that was traded and the counterparties via TRACE, although determining holdings would still require many assumptions. Firms such as DTCC and Broadridge do have a marketwide view into most, if not all, bond trades and their counterparties, and if a method to mine that data could be created without causing information leakage or privacy breaches, with the appropriate governance policies the result could be quite powerful.

Second, and ideally with the aforementioned data in hand, corporate bond investors could benefit from knowing more about how their orders are executed. Both dealer and buy-side participants in our study

noted that they rarely know much about how the liquidity for their order was sourced beyond principal (from the dealer's balance sheet) or agency. There is little more for the buy side to know about orders executed on a principal basis, with dealers simply taking the bonds on their balance sheet. These orders can be spotted even when the dealer isn't forthcoming with the information, as they are often executed more quickly and show in TRACE as a single order, all but confirming the dealer balance sheet usage.

A deeper understanding of agency and/or riskless principal orders, however, could prove useful to the buy side, especially in cases where there are more bonds to be traded after the initial execution. For instance, a buy-side trader might receive a single price for the $10 million worth of bonds they sold via a large dealer. To achieve that price, that dealer executed three separate trades with three separate counterparties, all of different sizes and prices, some over the phone, some electronically.

DEALER LIQUIDITY SOURCE TRANSPARENCY




Source: Greenwich Associates 2020

The client, of course, receives the same average price whether or not they know how the dealer sourced it. However, gaining more insight into each of those executions could prove helpful for not only post-trade analysis, but also for pre-trade analysis. Data like this, generated from thousands of trades, could provide new insights into the liquidity of a given bond, given the price and size of the order.

It may also open the buy side up to liquidity from smaller counterparties they might not have otherwise looked to in every situation. U.S. investment-grade bond investors had just shy of 12 major counterparties on average in 2019, executing slightly more than one-quarter of their volume with non-bulge-bracket dealers (and only 14% for high-yield bonds). While there are no guarantees, deeper insights into order executions could create more opportunities for investors and dealers alike to find one another outside of the most utilized relationships.

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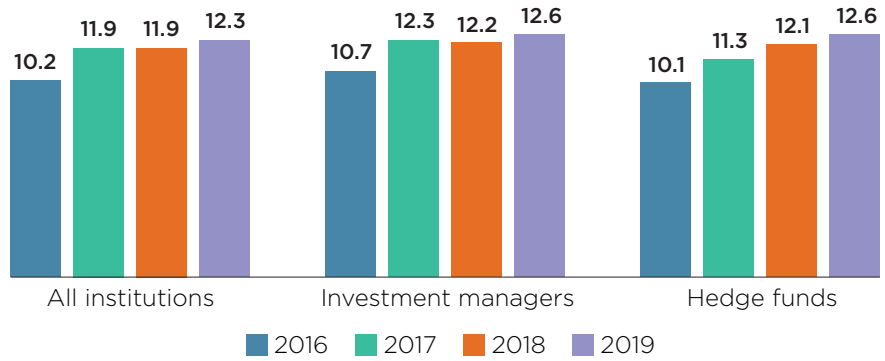
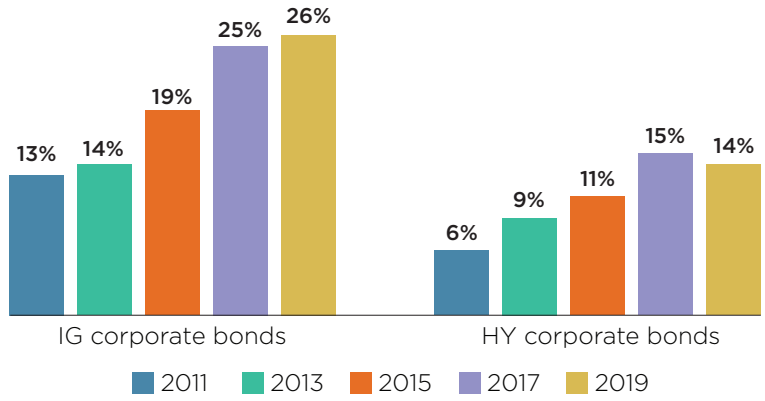
## AVERAGE NUMBER OF MEANINGFUL DEALER RELATIONSHIPS

Investment-Grade Credit Investors—U.S.




Note: Based on responses from 109 investment-grade credit investors in the U.S. in 2016, 111 in 2017, 112 in 2018, and 125 in 2019.
Source: Greenwich Associates 2016–2019 North American Fixed-Income Investor Studies

## PROPORTION OF TRADING VOLUME EXECUTED BY NON-BULGE BRACKET DEALERS—U.S.




Note: Based on responses from 124 investment-grade credit investors in the U.S. in 2011, 123 in 2013, 112 in 2015, 111 in 2017, and 125 in 2019.
Source: Greenwich Associates 2011–2019 North American Fixed-Income Investor Studies

For the dealers, there remains some benefit to not disclosing this level of detail of course. Their network of liquidity is a huge part of the value they bring to clients, and every counterparty involved in our example trade is concerned about information leakage. Also, it remains a non-trivial and often a manual exercise to disseminate this information. Based on our research, in the rare cases this level of detail is disseminated, it is done over the phone.

# Injecting More Technology into Bond Markets

As with nearly every market challenge today, technology can and likely will solve this problem in the not too distant future. Technology not only makes it easier for the sell side to share execution details with clients efficiently but also to find natural liquidity from multiple sources to ensure the true best outcome.

There are a few key challenges that need to be overcome to make this idea work. First, making executions more transparent must still be accompanied by mechanisms to minimize information leakage. At first glance, this sounds like an oxymoron, but transparency doesn't need to equate to information leakage. Market depth can be displayed without letting on which counterparties are involved and the intentions of those counterparties.

Second, there is a real technology challenge to finding actionable insights in a jumble of new data sources. Internal, external, structured, and unstructured data all come into play here. Our data shows that more buy-side traders feel that the impact of artificial intelligence is often more overexaggerated than underappreciated—likely because it has yet to show its true value in their day-to-day.[1] That said, AI is inevitably going to play a big role in navigating corporate bond markets in the coming years. If done well, the amazing complexity of AI will remain barely detectible to the end user, who will be left with more accurate pricing, liquidity scores and other pre- and post-trade insights.

# A Crystal Ball?

The tools and technology made available to dealers and other liquidity providers in the coming months and years will help the buy side execute the difficult trades more efficiently and at better prices, all while ensuring capital is used even more efficiently than it is today. To that point, recent conversations with large asset managers, hedge funds and dealers tell us the market is convinced more electronification is coming. Estimates for how much volume will be traded electronically in three to five years range from 40–50%. This seemed crazy only five years ago but does not seem crazy anymore.

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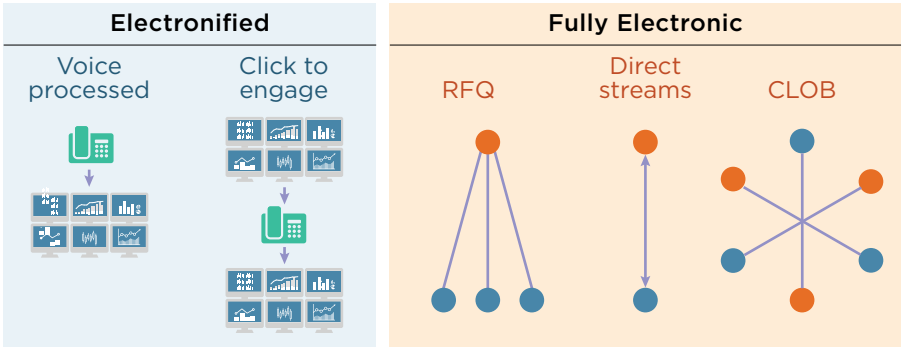
Electronic trading and electronification more broadly contain several categories. Fully electronic trading includes trades that are in comp (RFQ) and not (direct streams), all-to-all, dealer-to-client, and dealer-to-dealer. The market has also found value in voice-processed trades, as they have come to be known, where order details are executed bilaterally

[1] Source: Greenwich Associates 2019 Market Structure and Trading Technology Study

and booked via a platform so the trade details can be matched. And in recent months, a "click to engage" model has also emerged, where price discovery begins electronically, details are negotiated manually, and then trades are executed on a platform.

## CORPORATE BOND MARKET ELECTRONIFICATION




Source: Greenwich Associates 2020

More transparency without new information leakage is ultimately what the market needs. More information on who holds what bonds, how every bond is actually executed and actionable information about a given bond's liquidity profile are increasingly available and will benefit dealers and investors alike. In addition, we expect dealers to further electronify their franchises to maintain their role in the market and meet clients where this new market structure is leading them.

While we will do quite a bit more research in the coming months to further define corporate bond market electronification, all of its forms play into the modernization of the bond market. Tapping new data and adding to existing market conventions will yield meaningful liquidity improvement for the buy side, while continuing to redefine the important role the dealers play.

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