

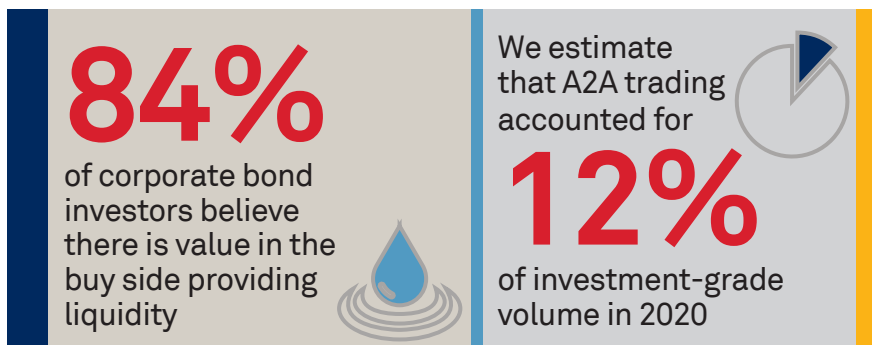
All-to-All Trading Takes Hold in Corporate Bonds



CONTENTS

- 2 Executive Summary
- 3 Introduction
- 4 Protocol Diversification
- 5 The Buy Side and Liquidity Provision
- 6 Buy-Side Liquidity and Price Improvement
- 7 Don't Forget the Banks
- 9 Post-COVID State of the Market Structure
- 11 Looking Forward

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Executive Summary

Hope and lofty expectations for change were at the heart of corporate bond market innovation conversations a decade ago. Today, many of those hopes and expectations have become reality and, in some cases, have gone much further than anyone could have imagined.

The nearly one-third of volume traded electronically in the United States now consists of much more than dealer-to-client RFQ trading. In all-to-all markets, where asset managers provide liquidity to dealers and each other, dealers trade with one another electronically, and nonbank liquidity providers that are building up notable client franchises are now at the center of the corporate bond market's growth and evolution.

This is by no means a story of platforms and the buy side disintermediating the dealers. The big dealers themselves have reshaped their businesses to trade profitably via algorithms, managing client relationships electronically, and to interact with anonymous liquidity in markets in ways that few if any people expected.

This progress has created a virtuous cycle. Electronic executions have grown because more and more accurate real-time data is now available to all market participants. And the more electronic executions grow, the more accurate and plentiful real-time data can become. This data allows for both better pre-trade analytics: Which liquidity pool is right for my trade right now? And it then allows for a better analysis of those executions post-trade, which makes pre-trade analytics even smarter the next time.

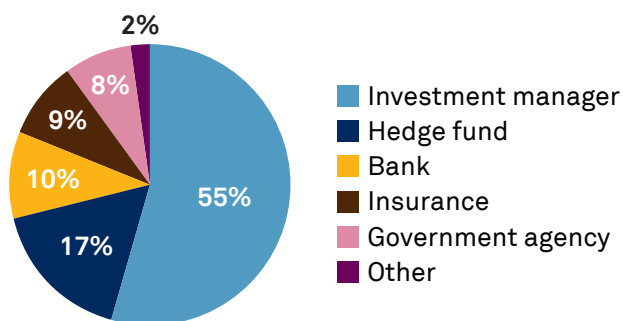
While this evolution has disrupted long-held views on how the market does and should function, liquidity takers and liquidity providers have adapted as they have for all of the market's history—to best utilize this new market structure to grow their business and keep their clients happy and coming back for more.

METHODOLOGY

In Q4 2020, Greenwich Associates interviewed 69 U.S.-based corporate bond investors. Respondents were asked a series of qualitative and quantitative questions about various corporate bond market structure issues, such as electronic trading, provision of liquidity and information leakage. In addition, analysis provided by trading venues and market participants, available via Greenwich MarketView, helps inform on trading activity segmented by trading protocols such as RFQ, CLOB and voice trades.

Respondents

Institution Type



Note: Based on 69 respondents.

Source: Greenwich Associates 2021 Market Structure & Trading Technology Study

Introduction

The incredible evolution of the corporate bond market over the past decade was moving forward at a swift pace as 2020 began. In March, the COVID-induced market panic began bringing with it (among other things) a huge test of corporate bond market structure. Trading activity overall was so high between March and June that despite record electronic-trading volumes of over \$10 billion a day in May and June, e-trading as a percentage of the whole took a dip. In hindsight, that relative dip proved a slingshot to move the market forward even faster than it had been moving before.

In [2017 Greenwich Associates research](https://www.greenwich.com/fixed-income-fx-cmds/electronic-trading-matures-corporate-bonds),¹ the buy side expected all-to-all trading (A2A) to be the largest source of new liquidity in the next two years. At the time, A2A trading made up about 5% of the total market. In [2019](https://www.greenwich.com/fixed-income/corporate-bond-trading-2019),² we estimated A2A trading made up 8% of market volume, with the buy side again ranking it as the top source of new liquidity in the next two years. The punchline: They were right. We estimate that A2A trading accounted for 12% of investment-grade volume in 2020—a huge jump. MarketAxess makes up the majority, with Tradeweb, Trumid, ICE, and others also contributing.

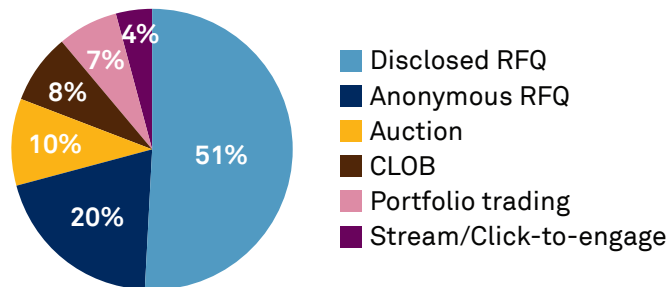
¹ <https://www.greenwich.com/fixed-income-fx-cmds/electronic-trading-matures-corporate-bonds>

² <https://www.greenwich.com/fixed-income/corporate-bond-trading-2019>

Protocol Diversification

The absolute numbers only tell part of the story. Whereas A2A trading had previously been only MarketAxess Open Trading and the retail-focused central limit order books (CLOBs), like those offered by ICE Bonds and Tradeweb Direct, now most of the major platforms have A2A activity on the board, with protocols ranging from anonymous RFQ to CLOB to periodic auctions. To further that point, our data shows that dealer-to-client disclosed RFQ trading—the original corporate bond e-trading—accounted for only half of e-trading activity in 2020. Besides the aforementioned execution methods—anonymous RFQ, disclosed RFQ, CLOB, and periodic auctions—portfolio trading (not to be confused with list trades) and click-to-engage dealer pricing streams also emerged.

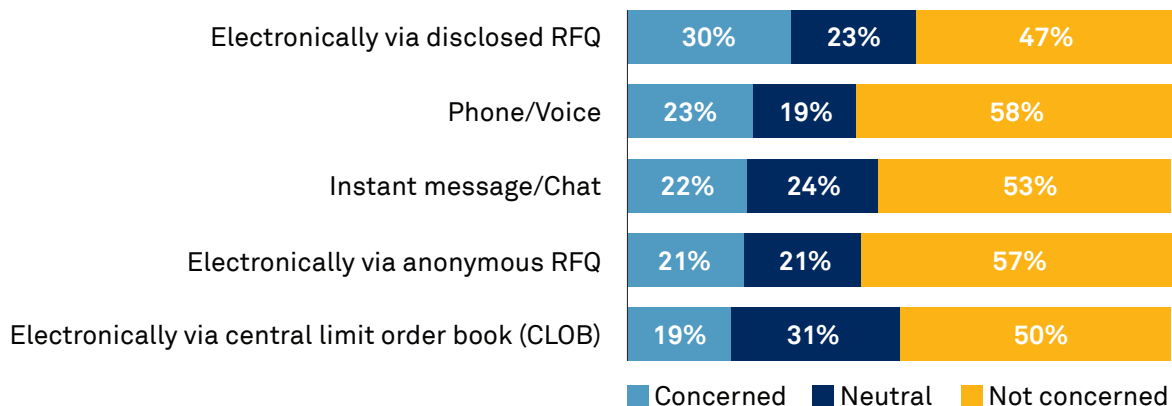
Investment-Grade Corporate Bond Electronic Volume by Execution Protocol–2020



Source: Greenwich MarketView

Concerns regarding information leakage are likely playing a part in the protocol diversification of corporate bond trading too. While less than a third of buy-side traders are concerned or very concerned with information leakage when trading electronically via disclosed RFQ, more concern exists around that execution method than any of the others—even trading via phone. So while counterparty relationships remain a key element of the corporate bond market, information leakage concerns have helped the growth of anonymous liquidity taking in corporate bonds for the buy and sell sides alike.

Level of Concern with Information Leakage When Trading U.S. Corporate Bonds



Note: Based on 69 respondents.

Source: Greenwich Associates 2021 Market Structure & Trading Technology Study

It should also come as no surprise then that the buy side is less concerned with who is on the other side of their trades when trading electronically. In 2019, our research found that 23% felt the counterparty to an electronic trading “mattered a lot”—in 2020, only 14% felt the same.

How Much the Counterparty Matters When Trading Electronically



Note: Based on 67 respondents.

Source: Greenwich Associates 2021 Market Structure & Trading Technology Study

The Buy Side and Liquidity Provision

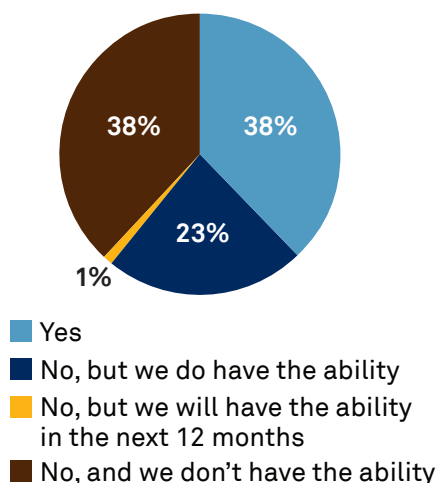
These views and changes in sentiment are playing a part in the market’s evolving liquidity dynamics, specifically the buy side’s provision of liquidity. First, we should reiterate that, generally speaking, buy-side firms do not act as market makers but instead, price makers. Their activity in this vein can be equated to placing a limit order in a listed market, as opposed to a market maker who consistently offers a given security to both buy and sell throughout the day. [We wrote about this in 2016](#),³ and it remains as relevant today as it was then.

Providing Liquidity

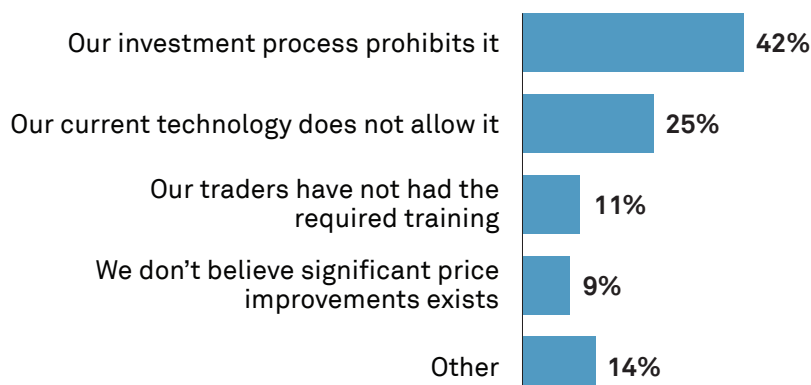
Value in the buy side providing liquidity (92)



Provided liquidity in the corporate bond market in the past 12 months (92)



Reasons preventing firms from providing liquidity in the corporate bond market (57)



Note: Numbers in parentheses represent number of respondents.

Source: Greenwich Associates 2021 Market Structure & Trading Technology Study

³ <https://www.greenwich.com/blog/difference-between-price-makers-and-market-makers>

With that caveat behind us, asset managers and hedge funds are now a much bigger part of the liquidity-provision story. Of the buy-side corporate bond traders that participated in this research, 38% said they had provided liquidity in the past 12 months, with another 25% either able to or planning to in the next 12 months. Conversations with the trading venues suggest the percentage is likely much higher at the firm level, with nearly 75% of buy-side firms trading electronically having provided liquidity over the past year. Our data also shows that 84% of corporate bond investors believe there is value in the buy side providing liquidity, a sign that any lingering skepticism is gone.

Data from MarketAxess drives this point home even further. In the first half of 2020, asset managers provided more liquidity (measured by notional volume) on the Open Trading portion of the platform than did ETF market makers—a large, emerging subsegment of liquidity providers in their own right. Looked at another way, real-money liquidity provision was 25% of the total dealer-provided liquidity on Open Trading in the same period. While that group's liquidity contribution is only about 10% across the whole platform, the data still suggests that the buy side in aggregate is acting as a top-tier corporate bond dealer.

Additional conversations with market participants and trading platforms also point to liquidity provision coming from hedge funds, systematic trading firms and even pensions—trends that are appearing to continue in 2021.

Dealers still play a huge role in the market, of course. The buy-side effect is much smaller in emerging market bonds, for instance, and is bigger in high-yield markets than those for investment-grade bonds. We also can't ignore the fact that despite e-trading gains, roughly two-thirds of the market by volume is traded bilaterally. Lastly, to reiterate the point made above, this does not mean that some asset managers are turning into market makers, but increasingly, they are seeing price improvement from making the price rather than crossing the spread.

Buy-Side Liquidity and Price Improvement

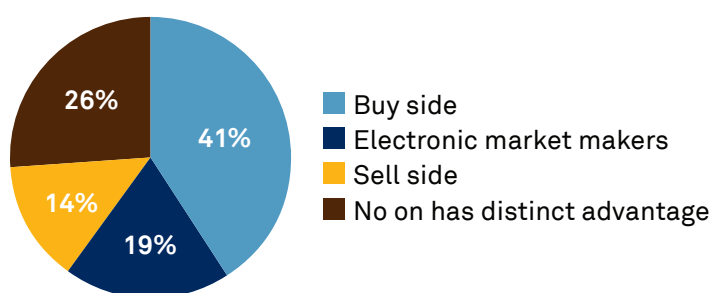
To put that price improvement into perspective, when an asset manager puts liquidity into the market by resting a buy or sell order at a particular price, it creates an opportunity for them to execute at mid (half way between the current bid and ask prices), which would have been unattainable had they simply sent an RFQ. If we assume an average bid-ask spread of 4 basis points (bps), then executing at mid would save the order initiator 2 bps on the trade. That would translate to \$6 million in possible savings on a \$30 billion day in U.S. corporate bonds. Such savings could also be calculated by comparing the buyer's execution price to real-time evaluated prices for that bond at the time of execution.

Now of course, the buy side is not part of all orders, not every order can receive such price improvement, and it is unlikely that the buy side will be the liquidity provider for every trade. But in this prolonged period of low U.S. Treasury yields and tight credit spreads, every dollar saved for a fund manager is one more dollar back in the return column for the fund.

To demonstrate this, MarketAxess in their most recent earnings report showed that bettering the bid-ask spread saved their clients \$1.1 billion in 2020. For liquidity takers, they calculate savings as the difference between the anonymous all-to-all price and the next-best name-disclosed price—and for liquidity providers, as the difference between the executed price and the evaluated price for that bond at that moment. By definition, estimating savings based on what could have happened requires some art and assumptions. Nevertheless, the point is that opportunity exists for price improvement in the new world.

It remains unclear whether this increase in buy-side liquidity provision and the price savings it brings has helped the buy side gain an information advantage, or if the information advantage they have has allowed for more buy-side liquidity provision. It is quite clear, however, that the buy side no longer feels the sell side has a big information advantage. In 2019, 45% of fixed-income investors felt the sell side had an information advantage. This year, only 14% believe that is true. We could chalk some of that up to the virtualization of the sell-side trading floor. Information just isn't shared as freely over Zoom and chat. Regardless of the reason, the market structure has surely changed.

Biggest Information Advantage in the Fixed-Income Market Today



Note: Based on 155 respondents.

Source: Greenwich Associates 2021 Market Structure & Trading Technology Study

Don't Forget the Banks

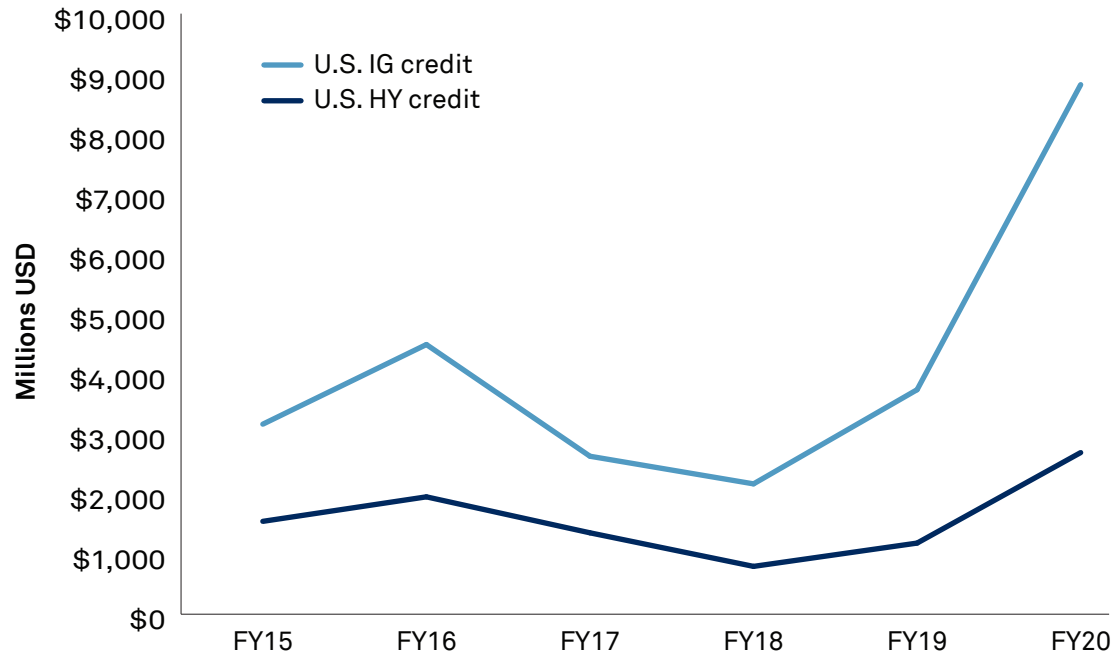
Of course the sell side, generally speaking, hasn't loved A2A trading or anonymous trading. They want the buy side to care about their trading counterparty, even when in digital form. Seventy-nine percent of dealers in a [2020 Greenwich Associates study](#)⁴ Greenwich Associates study pointed to relationships as their key differentiator—something that is hard to maintain when you don't know your trading counterparty. However, according to Coalition Greenwich data, dealer revenues have increased over the past three years—proof, perhaps, that the efficiency of e-trading is now a benefit to the banks.

The market volatility of 2020 certainly helped, but the trend was already underway pre-pandemic. Corporate bond trading and pricing algorithms are helping profitability, while anonymous A2A and dealer-focused protocols are helping dealers more effectively access broader liquidity pools while managing risk and balance sheet capacity. This, coupled with e-trading activity in general, shows that dealers are increasingly adopting an “if you can't beat 'em, join 'em” attitude.

MarketAxess, through its all-to-all OpenTrading platform, saw a 48% increase in dealer-initiated RFQs (aka dealers seeking rather than providing liquidity) in 2020, which equates to about \$1 billion per day. And 40% of those orders were ultimately matched with a buy-side counterparty providing the liquidity—something that would have seemed crazy five years ago. The trend is only accelerating in the early months of 2021.

⁴ <https://www.greenwich.com/fixed-income/bond-dealers-adapt-through-unprecedented-2020>

Top 10 Dealer Revenue—U.S. Corporate Bonds



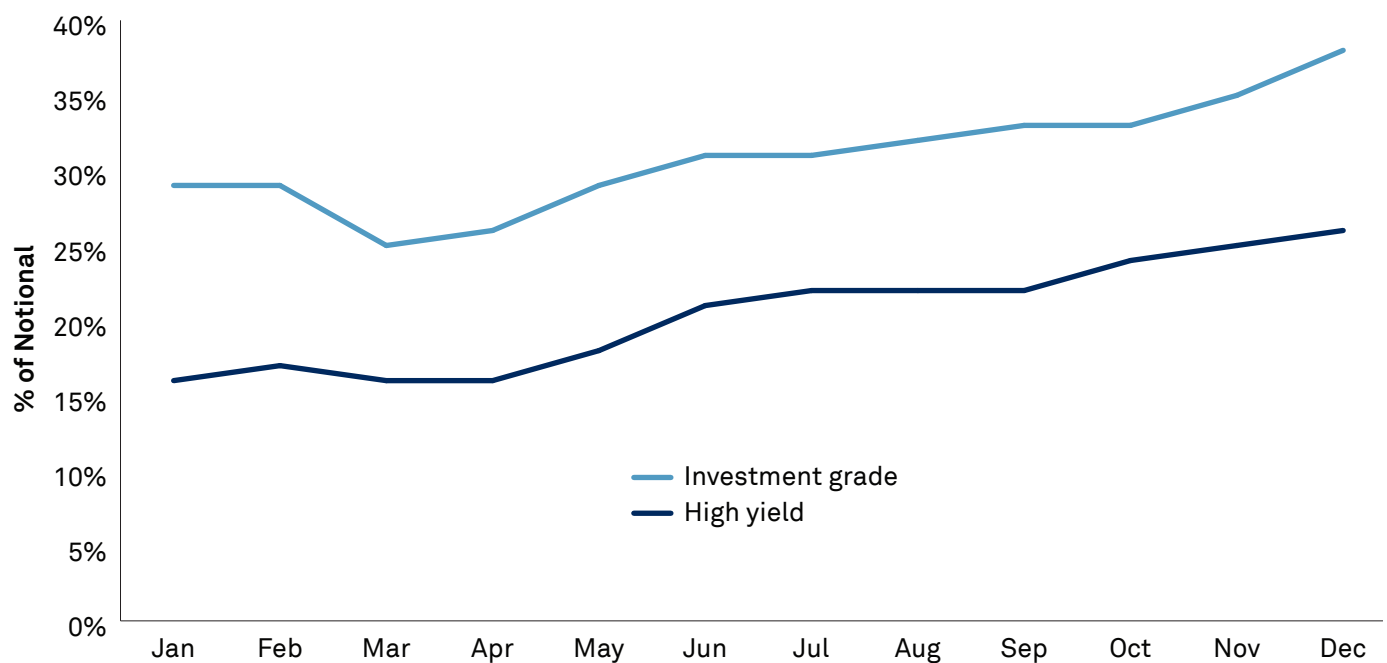
Source: Coalition Greenwich

Further, Tradeweb's Dealerweb Sweep product has also proven to be one of its corporate bond growth stories in 2020, with our estimated ADV of roughly \$700 million in 4Q 2020. Sweeps is shaking up a dealer-to-dealer market that, until now, hadn't managed to keep pace with the electronification of the dealer-to-client market.

Post-COVID State of the Market Structure

With market participant roles blurring and trading protocols evolving, electronic trading accounted for 31% of investment-grade volume and 21% of high yield in 2020. Both of those jumps are notable. Investment-grade e-trading topped out at 38% in December, a record. While December e-trading numbers tend to outperform, often at the hands of lower-than-average total market volume, the fact that nearly 40% of corporate bond activity was trading via a screen is incredible.

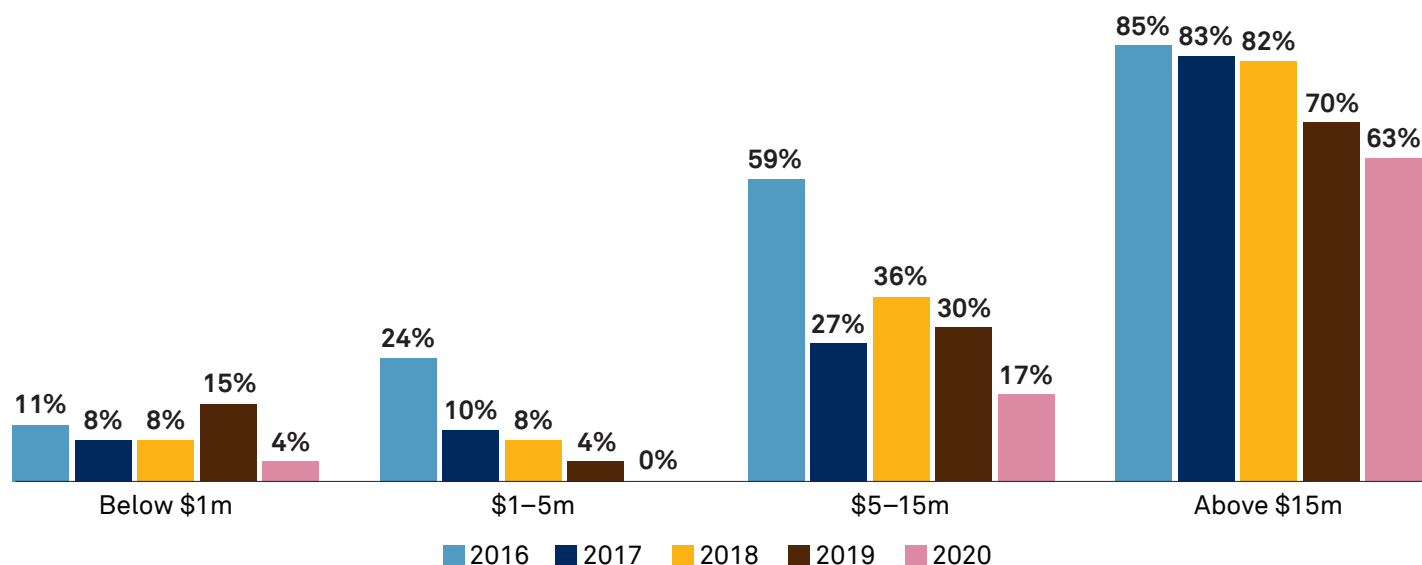
U.S. Corporate Bond Electronic Trading 2020



Source: Greenwich MarketView

Trading investment-grade bond orders with a notional size of \$5 million or below is now easy, with no one telling us that orders between \$1–5 million are hard to get done. Amazingly, fewer traders in 2020 told us it was difficult to trade larger orders, between \$5–15 million in size, than told us it was hard to trade orders between \$1–5 million in 2016—an incredible sign of e-trading progress. Even the largest blocks over \$15 million are increasingly easier to execute onscreen based on our qualitative metric.

Percent of Investment-Grade Corporate Bond Investors that Believe it is “Hard” to Execute Order by Notional Volume

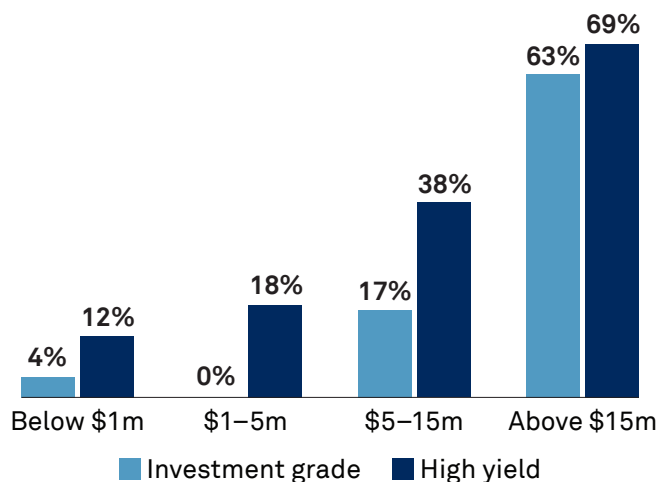


Note: Based on 34 respondents in 2016, 39 in 2017, 40 in 2018, 69 in 2019, and 24 in 2020.

Source: Greenwich Associates 2021 Market Structure & Trading Technology Study

2020 was also a banner year for e-trading of high-yield bonds. We estimate the ADV of high-yield bonds traded electronically was \$2.1 billion in 2020, up 65% from 2019. Put another way, 14% of high-yield bonds were traded electronically in 2019 compared to 21% in 2020. Furthermore, trader perceptions about execution difficulty ended the year within striking distance of the investment-grade market. Macroeconomics drove both supply and demand for these assets in 2020, which in turn drove work-from-home traders to source the bonds electronically more than ever before.

Percent of Corporate Bond Investors that Believe it is “Hard” to Execute Order by Notional Volume—2020



Note: Based on 24 respondents.

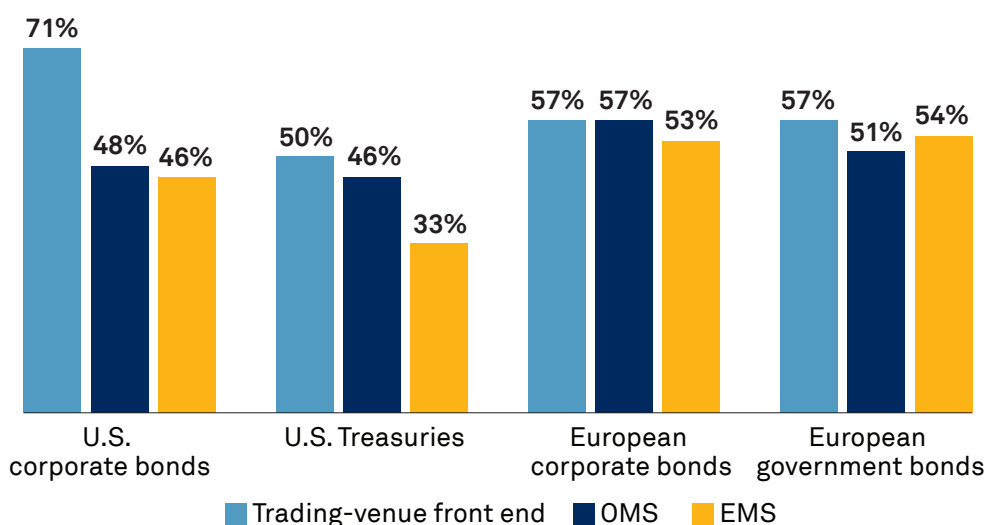
Source: Greenwich Associates 2021 Market Structure & Trading Technology Study

Looking Forward

The market structure and technology advancements of the past year have certainly benefited investors, and increasingly the banks, but navigating the market has consequently gotten more complex. Gone are the days when you just needed to know whom to call, or whom to include in an RFQ, for that matter.

To that point, we found it interesting that corporate bond investors rely on the trading venue front end to execute their trades much more than in other segments of the bond market. This can make it harder for the buy side to aggregate data and liquidity from multiple venues in one place. However, while the competing bond platforms offer different protocols and liquidity pools, the existence of the largest liquidity providers on every platform make aggregation of multiple venues unnecessary for most. Users then focus on only the biggest and most diverse venues and/or those where they have historically seen the most price improvement.

Systems Used to Execute Electronic Bond Trades



Note: Based on 75 respondents.

Source: Greenwich Associates 2021 Market Structure & Trading Technology Study

Also, we are still early in the corporate bond trading system evolution, [something we examined in detail in 2020](https://www.greenwich.com/fixed-income/fixed-income-trading-system-evolution).⁵ Our research has found that corporate bond trading systems for the buy side are proving more valuable as data aggregators/analyzers than as liquidity hubs, which is different from other heavily electronic markets like equities and FX. The challenge for the buy side is not interacting with market liquidity, but often aggregating the data needed to make decisions pre- and post-trade.

The next 12–24 months will focus on trading-desk process improvement that takes into account the new diversity of trading methods and liquidity sources, with an increasing focus on A2A trading and the buy side's ability to and interest in providing liquidity. Competition among trading venues is a very good thing for the marketplace, as it leads to innovation and competitive pricing. But ultimately, investors do not want a fragmented market, so it feels likely that over time the trading venues that make it will do so by leaning in on their strengths and unique offerings.

⁵ <https://www.greenwich.com/fixed-income/fixed-income-trading-system-evolution>

Lastly, we shouldn't forget how market participants ultimately make their money. The buy side looks to provide better-than-average returns to their customers at a below-average price. And the sell side works to service their customers by providing liquidity while maintaining a laser focus on costs and balance sheet consumption. New liquidity sources and trading protocols are providing opportunities to improve on both top- and bottom-line growth for the buy and sell side alike. Relationships still do matter, but execution quality should matter more.

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