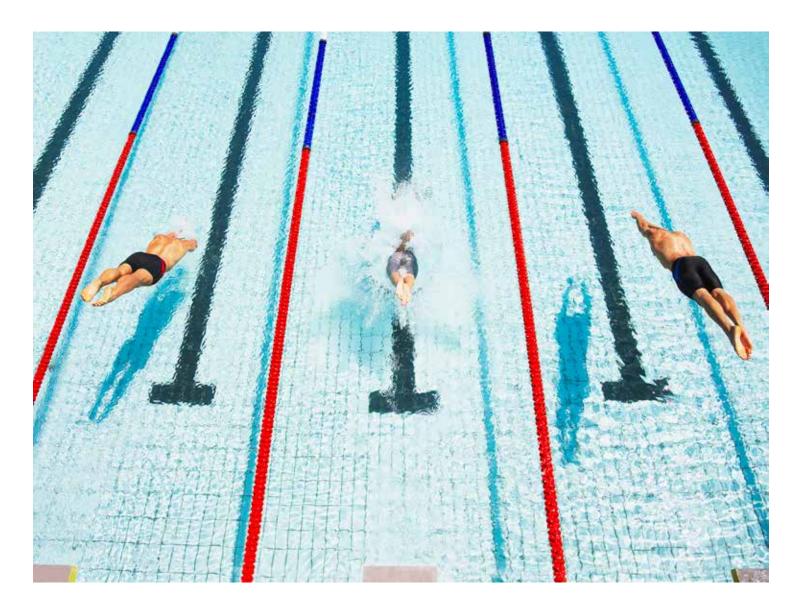
Coalition Greenwich A division of CRISIL

Q2 2023

Fixed-Income EMSs: The Time is Now





CONTENTS

- 2 Executive Summary
- 3 Introduction
- 5 There is a Disconnect in the Data
- 8 The Market is at a Tipping Point for EMS Adoption
- 12 Conclusion

100% of trading professionals believe fixed-income EMSs give them an edge while trading

g

90%



of traders agree using a fixed-income EMS helps their firm meet fiduciary duties by ensuring best execution

Executive Summary

Changing fixed-income market dynamics are causing traders to rethink their execution strategies and technology. Buy-side professionals have long relied on their order management systems (OMSs) and trading venue front-ends to provide them with the broadest possible view of the market when seeking liquidity. In the past, these approaches were justified by the dearth of available data and a smaller number of liquidity sources.

Audrey Blater is a senior analyst on the Market Structure & Technology team.

Coalition Greenwich reached out to 41 senior fixed-income trading professionals in the U.S. Asset management firms, hedge funds and insurance companies with a combined AUM exceeding \$22 trillion were contacted between March and May 2023 to gather opinions underscoring trends resulting from recent growth of data channels, liquidity sources and information, creating a pressing need for more advanced trading technology.

The results led us to one overarching conclusion: The tipping point for fixed-income execution management system (EMS) adoption is upon us.

The term tipping point, in this case, doesn't mean that adoption is widespread as yet. Only 39% of our study respondents identify as using an EMS. And, when we look at the platforms the respondents defined as an EMS, the percentage of those using a true multi-venue, multidata source, built-for-purpose EMS dropped to 12%. It's important to note that just by agreeing to participate in our study, our respondents are likely more aware of trading technology than the long tail of buyside traders. However, the evolution of electronic trading in the U.S. corporate bond market, coupled with the increasingly competitive investing landscape, suggests that things are, in fact, starting to change.

There remains a laundry list of reasons to send a directed request-forquote (RFQ) to five dealers, pick up the phone and ask for color, and/or trade via chat. Although often the case, the desire to connect to more liquidity sources and access more data is apparent, as nearly half of respondents can't consolidate execution capabilities using their current tech setup, and a mere 15% participate in central limit order books (CLOBs) to provide liquidity. Approximately 40% of OMS users can't connect directly to their dealers—despite wanting to. The burgeoning EMS movement is becoming galvanized by the growing need to enhance trader capabilities as market structure evolves. The number of data-producing channels has expanded over the past five years and now includes a multitude of execution protocols, dealer prices, evaluated prices, liquidity scores, a plethora of communication pipes, and enhanced post-trade regulatory reporting.

Legacy methods are "seeing" a smaller and smaller fragment of the overall market, limiting the liquidity picture and pre-trade transparency. The top reason for using an EMS, expressed by 63% of respondents, was access to liquidity from multiple sources in a single blotter. Meanwhile, 61% of respondents point to the future desire for advanced analytics made possible by the aggregation and consumption of more data.

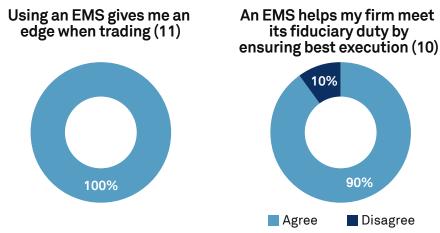
In that vein, this study examines the current state of the corporate bond traders' desktop technology, how the buyside trades corporate bonds today, demand for EMSs in the fixed-income market, and the tools buy-side traders hope to have access to tomorrow.

Introduction

Everyone wants an edge. Whether it comes in the form of competitive sports, education, parenting, or otherwise, rational people seeking to achieve that "edge" look to data and other information to help them make more informed and efficient decisions, particularly when conditions change. This concept certainly holds true in fixed-income markets where, in recent years, swaths of new data are coercing traders to consider new ways to engage the market and seek liquidity. The rise of EMSs has moved front and center as a result.

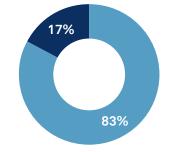
According to our recent study, the majority of buy-side participants—particularly those already using an EMS believe that EMSs provide several advantages. Overwhelmingly, respondents feel that using an EMS affords them improved speed, access to information, compliance, scale, and ultimately, cost savings via better execution quality. These characteristics make it possible for firms to reduce transaction costs and live up to their fiduciary responsibilities, particularly at a time when markets have become inherently more complex and the abundance of data continues to grow. The ability to harness more information for improved trading outcomes is a must-have.

Additional Impacts of EMS Usage



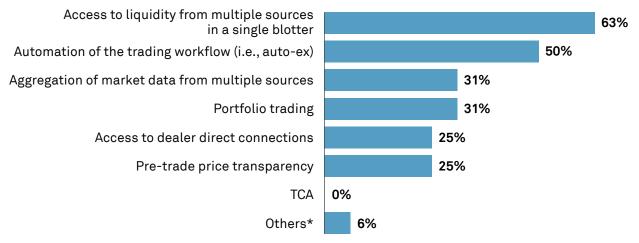
Note: Numbers in parentheses represent the number of respondents. Source: Coalition Greenwich 2023 Fixed-Income EMS Study

The proposed SEC BestEx rule will push more fixed-income market participants toward an EMS (12)



Beyond the mounting sources of expansive data and information, numerous volatility-provoking frictions that didn't exist in the past decade—such as fast and unexpected changes in yields, backing up of rates, inflation, regional bank defaults, economic turmoil, and more—will push traders to consider new strategies to seek liquidity and best execution. As a result, key technological functionality, including access to liquidity from multiple sources in a single blotter and more automation of trading workflows, makes EMS adoption highly desirable.

Most Used EMS Functions



Note: Based on 16 respondents. *Order routing. Source: Coalition Greenwich 2023 Fixed-Income EMS Study

Coalition Greenwich and bond market participants as a whole have been talking about EMS adoption for nearly a decade at this point. So what's different now? While the technology may have existed five years ago, the market just wasn't ready for it. Consolidating liquidity across multiple pools either wasn't technically possible or just wasn't necessary. Today, both of these things have changed.

We now track seven different trading venues for U.S. corporate bonds (not including single-dealer offerings) and seven different trading protocols, with most of those venues offering their own flavor of some if not all of those protocols. This landscape has improved liquidity for the buy side by creating different tools for different situations, but it has also added complexity. Despite this, the former outweighs the latter by far. So when people ask why now is the right time for an EMS, that combination of choice and complexity is the answer.

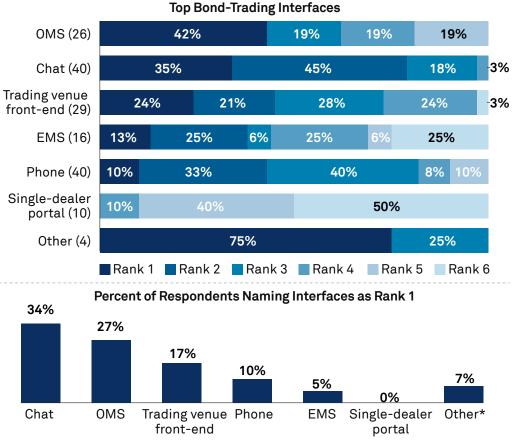
The following sections provide insights from study respondents describing the ways traders are seeking liquidity currently, as well as the future technological demands for navigating today's—and tomorrow's—fixed-income market. While all roads seem to point to EMS adoption, several roadblocks remain, and the uptake has been unexpectedly slow. However, there is compelling evidence in our findings to suggest that the adoption of and significant investment in technological solutions is on the horizon.

There is a Disconnect in the Data

Broadly speaking, there is a disconnect when it comes to harnessing data and technology available in the market that's needed to find liquidity. Fixed-income traders have long relied on a mix of traditional and somewhat advanced methods for this purpose. On the technical side, 26 of 41 buy-side respondents will look to their OMS as their trading interface to engage the market.

While a popular choice, OMSs have limitations, even though they are widely accepted as the only technology available to fixed-income traders to alleviate some of their administrative burden. Confusion about OMS and EMS functionality is not a new concept for the buy side—in fact, it even preceded the electronification of equity markets during the mid-2000s.

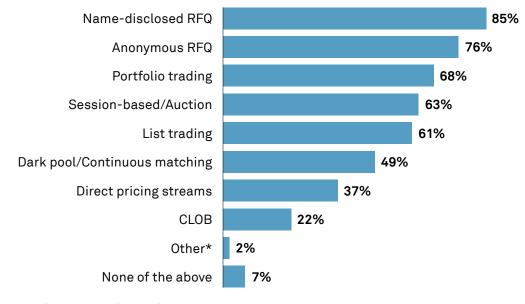
Currently, despite the availability of EMS technology, relying on chats versus automated, documented processes embedded within an EMS still prevails as the preferred way to get trades done. According to all 41 participants, 34% look to chat versus only 27% trading with technology as their top choice. In some cases, trading-venue frontends are also being utilized, albeit by a small percentage of study participants. Picking up the phone is still a consideration that remains in the mix.



How the Buy Side Trades Bonds

Note: Based on 41 respondents. May not total 100% due to rounding. *RFQ, OEMS, Excel Source: Coalition Greenwich 2023 Fixed-Income EMS Study

Looking toward the various forms of fixed-income electronic trading, data is still not being maximized. It's unsurprising that name-disclosed RFQs are table stakes, followed closely by anonymous RFQs and portfolio trading. These methods put a discrete number of counterparties in competition with each other to achieve best execution. Session-based trading and lists offer efficiency but may use data specific to a platform or dealer. Although the result is a winning bid or offer and a cover exists, an EMS is needed to tie all of these sources of information together to be sure the right protocol is chosen for the current time and order.



Most Used Electronic Trading Protocols

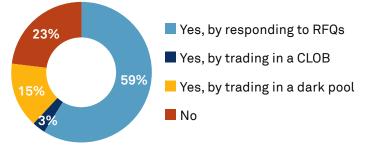
Note: Based on 41 respondents. *Algo Source: Coalition Greenwich 2023 Fixed-Income EMS Study

Is the Buy Side Ready to Provide Liquidity?

Sell-side traders once had the information advantage. Fast-forwarding to today, the buy side often has a broader view of market activity—something that is starting to drive more liquidity provision. Seventy-seven percent of our respondents claim to be doing that today, primarily via responding to anonymous RFQs in open-to-all trading environments. This compares to only 29% in 2016, according to Coalition Greenwich research.¹ While the progress here is impressive, we've only scratched the surface.

¹ See Coalition Greenwich In Search of New Corporate Bond Liquidity; March 2016.

Buy-Side Liquidity Provision

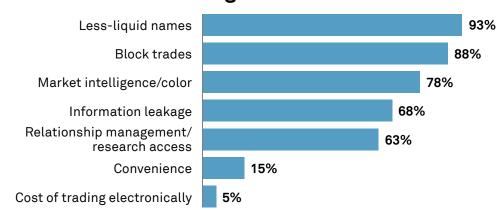


Note: Based on 39 respondents. Source: Coalition Greenwich 2023 Fixed-Income EMS Study

This shift begs the question of how EMS adoption might change these statistics and increase the number of firms providing liquidity to the market. For starters, a proper EMS streamlines the recognition of open-to-all trading opportunities as well as the act of responding. Perhaps more importantly, EMS users can look across all venues simultaneously, thereby eliminating the pain of maintaining and monitoring multiple watch lists for each venue. While we're not suggesting that this completely disintermediates the dealers (the market needs their capital and pricing), it does unlock liquidity and drives more competitive pricing—both of which the buy side very much needs.

What Does Today's Trading Environment Tell Us About Data Use and Efficiency?

There is a real willingness from buy-side trading desks to consume more market insights and trade more efficiently. However, the disconnect in the data is again evident when participants most often prefer picking up the phone to trade less-liquid names and block trades. Findings suggest a broader view of the market using an EMS would ultimately help traders understand how to best navigate higher-touch trades and make better decisions about manually or electronically transacting an order.



Situations for Trading via Phone

Source: Coalition Greenwich 2023 Fixed-Income EMS Study

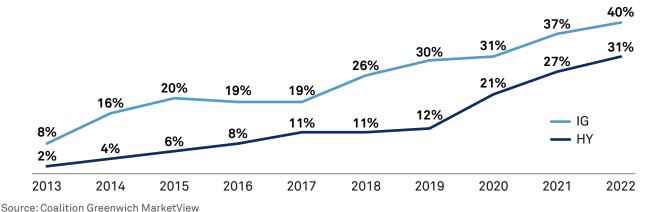
Note: Based on 40 respondents.

The Market is at a Tipping Point for EMS Adoption

There's a strong desire to use technology to augment rather than replace what traders do. Study results show that buy-side traders want access to data that gives them an edge, saves time and eases regulatory burden. As a result, the fixed-income market is at a tipping point where some traders, while reluctant to use technology, acknowledge that the writing is on the wall and that change of habit is imminently necessary. For those of a certain age, it used to be fun to go to the music store and browse CDs and tapes. But would you ever give up on-demand streaming music to get that experience back? Unlikely.

To move forward, buy-side traders need a broader view of the market and data to manage today's complexity. So why is this change to more advanced technological solutions happening so slowly? The lag in the evolution of market structure could be to blame. One might argue that although EMSs existed five years ago, the degree to which the electronification of fixed-income markets has grown in the intervening period means that vastly more fixed-income data and electronic liquidity is now available.

The number of data-producing channels has become extensive during this time, including electronic trading, a multitude of protocols, evaluative pricing methods, aggregation tools, a plethora of communication pipes, and regulatory reporting. Even the top fixed-income platforms now have at least five different channels (e.g., portfolio trading, auctions, CLOBs, RFQs, and request-for-stream (RFS)), and new venues continue to pop up.

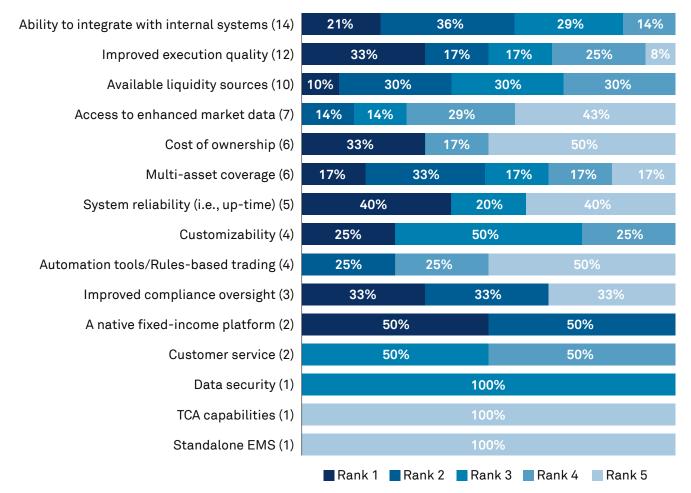


Electronic Trading—Percentage of Average Daily Notional Volume

EMS functional categories that study participants viewed as being most important paint a clear picture that traders are aware they need a new game plan to deal with today's data-rich environment. For instance, the ability to integrate information with other systems downstream suggests a greater desire for data and workflow efficiency without all the hacks.

Improved execution quality and the ability to view available liquidity sources go hand-in-hand and are also key attributes. Our study rankings are spread out over a number of different categories, which is typical of newer systems and technology. Different traders prioritize different functionality, although each category is a component of an EMS and ultimately simplifies much of the cobbling of software that tends to happen.

Most Important Features/Functions of an EMS

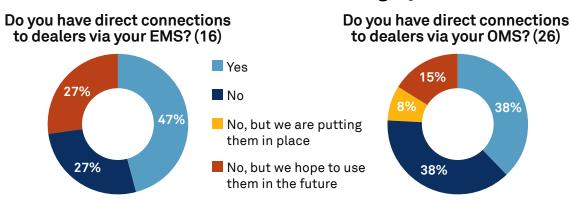


Note: Numbers in parentheses represent number of respondents. May not total 100% due to rounding. *RFQ, OEMS, Excel Source: Coalition Greenwich 2023 Fixed-Income EMS Study

Desired Growth in Direct Connections Beckons the Use of Better Technology

Bond traders certainly do not want the fragmentation that U.S. equity market participants are faced with today. The proliferation of trading venues, protocols and, more recently, direct dealer pricing streams has created a market that is more transparent and provides better access to liquidity. An EMS can simplify that landscape without losing the benefits, just as an iPhone does for the internet.

There's been a lot of talk about the growth of direct dealer connections over the past few years. About 15 large dealers are actively streaming, although the top few are ahead of the rest in terms of technology, volume and the breadth of products they quote (i.e., Bank of America, Citi, JPMorgan, Morgan Stanley, Goldman Sachs, and Jane Street). Nevertheless, those buy-side firms willing and able to take in these feeds alongside liquidity from the trading venues via an EMS are seeing liquidity and pricing unique to them, and often liquidity not shared via traditional electronic channels.



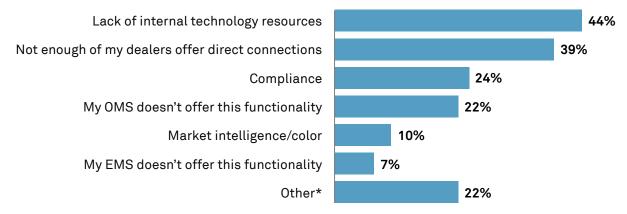
Direct Dealer Connections via Trading System

Note: Numbers in parentheses represent number of respondents. May not total 100% due to rounding. Source: Coalition Greenwich 2023 Fixed-Income EMS Study

Bringing in and trading via direct dealer connections is more than a technology challenge. Getting compliance comfortable with proving best execution when trading via dealer streams is also slowing down adoption. In theory, aggregating streams from multiple dealers alongside on-venue liquidity creates a more comprehensive view of the market, and, hence, better outcomes. But for compliance teams used to measuring best execution as selecting the best price from responses to an RFQ, rewriting those rules and rewiring expectations is no small feat.

This, again, is where the EMS comes in. Legacy OMSs were built with assumptions about how the bond market operates including booking voice trades, staging orders into a trading venue and receiving a fill for that order, and, in some cases, examining execution quality post-trade. But, as we've already discussed, today's market structure is very different and gives newer EMSs an advantage, as they have been built using new technology to operate in a real-time and much more heavily electronified market. The change allows for a more accurate pre- and post-trade execution analysis—support to help get compliance over the hump.

Roadblocks to Trading Directly with Dealers



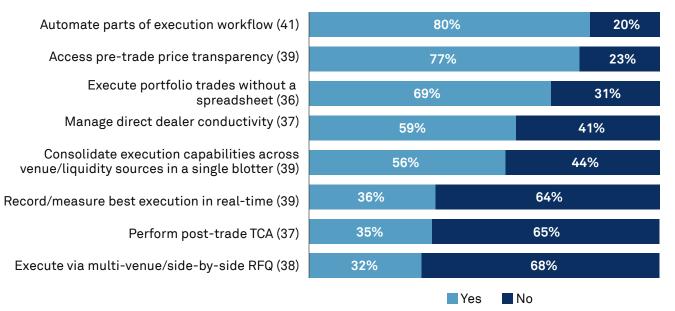
Note: Based on 41 respondents. *Resourcing on the dealer side. Source: Coalition Greenwich 2023 Fixed-Income EMS Study

The Buy Side Wants Automation and Liquidity Aggregation

The current state of traders' technology setup is a good use-case to argue the need for an upgrade to more advanced technology. Participants point to a number of their current capabilities, including automation of parts of their workflow, access to pre-trade pricing transparency and more streamlined execution as top widgets.

While EMSs also offer this functionality, important differences emerge further down the list. For instance, the consolidation of execution capabilities across venues and liquidity is a key feature of an EMS and roughly half of participants are able to do this with their current setup. Likewise, about one-third of respondents can perform transaction cost analysis (TCA) in real-time or post-trade, particularly across liquidity sources.

Capabilities of Current Trading Technology Setup

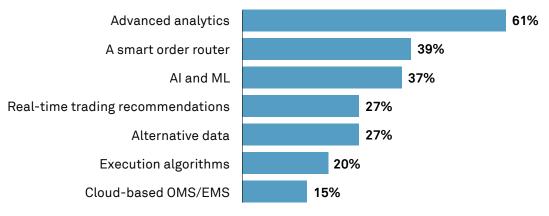


Note: Numbers in parentheses represent number of respondents. May not total 100% due to rounding. Source: Coalition Greenwich 2023 Fixed-Income EMS Study

The demand for advanced technology shows there is an awareness that the future is here. Among the respondents, there is optimism that the power to evoke change and generate return is already available, even though traders aren't yet adopting all the available tools. Future-proofing a fixed-income trading business for an increasingly data-rich and technologically advanced future will require a strong foundation to support it.

It's obviously challenging—maybe even impossible—to achieve competitive advantage if data inputs are limited. Traders viewing only a portion of the market are increasingly handicapped by small data sets that may be subject to biases. Larger data sets can weed these out and offer better insights. Because of the current structural dynamics in the market, smart order routers and algos operate in their respective bubbles. Artificial intelligence (AI) and especially machine learning (ML) are strongly desired, given the lack of historical or available fixed-income data needed to train models.

Demand for Advanced Technology



Note: Based on 41 respondents. Source: Coalition Greenwich 2023 Fixed-Income EMS Study

Conclusion

While we are still in the early innings of EMS adoption, it's clear there are meaningful advantages to turning to this technology to navigate today's markets. While cutting-edge EMSs have been available to the market for a while, only the more progressive adopters are already realizing significant improvements. Others currently find themselves at a tipping point when it comes to future-proofing their technology stack.

There is a pressing need to expand previously limited views of the market, given the plethora of new data channels that have sprung up over the past five years that now include more electronic trading, a multitude of protocols, evaluative pricing methods, aggregation tools, numerous communication pipes, and regulatory reporting. The direction of travel is clear: Sooner rather than later, legacy methods just won't cut it anymore.

Considerations for EMS adoption that traders should deliberate include:

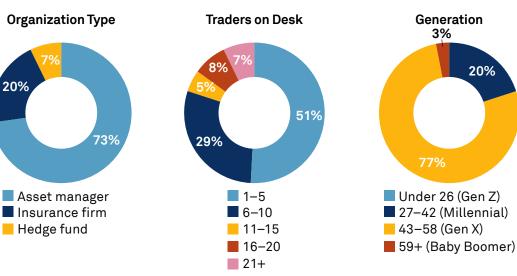
- Access to liquidity from multiple sources in a single blotter
- Automation of the trading workflow
- Aggregation of data from multiple channels (e.g., emails, chats, screens, runs, multi-dealer platforms (MDPs), single-dealer platforms (SDPs))
- Consolidation of trading protocols
- Direct connectivity to dealers and venues
- Pre-trade transparency
- Control of information leakage
- Convenience
- Real- or near-time awareness of changing market conditions
- Consolidation of TCA
- Cost savings

METHODOLOGY

Between March and May 2023, Coalition Greenwich conducted interviews with 41 trading professionals in the U.S. to examine the changing role of EMSs for institutional fixed-income trading.

Respondents

20%

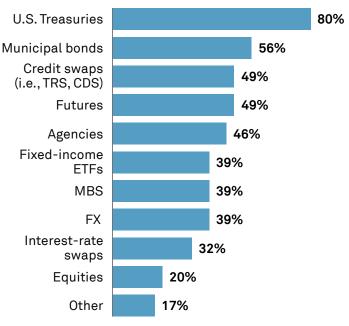


Respondent Roles



Asset Classes Traded on Desk in Addition to Corporate Bonds

20%



Note: Based on 41 respondents.

Source: Coalition Greenwich 2023 Fixed-Income EMS Study

Coalition Greenwich, a division of CRISIL, an S&P Global Company, is a leading global provider of strategic benchmarking, analytics and insights to the financial services industry.

We specialize in providing unique, high-value and actionable information to help our clients improve their business performance. Our suite of analytics and insights encompass all key performance metrics and drivers: market share, revenue performance, client relationship share and quality, operational excellence, return on equity, behavioral drivers, and industry evolution.

Cover Illustration: $\textcircled{\sc op}$ iStockphoto/Robert Daly About CRISIL

CRISIL is a leading, agile and innovative global analytics company driven by its mission of making markets function better. It is majority owned by S&P Global Inc., a leading provider of transparent and independent ratings, benchmarks, analytics, and data to the capital and commodity markets worldwide.

CRISIL is India's foremost provider of ratings, data, research, analytics, and solutions with a strong record of growth, culture of innovation, and global footprint.

It has delivered independent opinions, actionable insights and efficient solutions to over 100,000 customers through businesses that operate from India, the U.S., the U.K., Argentina, Poland, China, Hong Kong, and Singapore.

For more information, visit www.crisil.com Disclaimer and Copyright

This Document is prepared by Coalition Greenwich, which is a part of CRISIL Ltd, an S&P Global company. All rights reserved. This Document may contain analysis of commercial data relating to revenues, productivity and headcount of financial services organisations (together with any other commercial information set out in the Document). The Document may also include statements, estimates and projections with respect to the anticipated future performance of certain companies and as to the market for those companies' products and services.

The Document does not constitute (or purport to constitute) an accurate or complete representation of past or future activities of the businesses or companies considered in it but rather is designed to only highlight the trends. This Document is not (and does not purport to be) a comprehensive Document on the financial state of any business or company. The Document represents the views of Coalition Greenwich as on the date of the Document and Coalition Greenwich has no obligation to update or change it in the light of new or additional information or changed circumstances after submission of the Document.

This Document is not (and does not purport to be) a credit assessment or investment advice and should not form basis of any lending, investment or credit decision. This Document does not constitute nor form part of an offer or invitation to subscribe for, underwrite or purchase securities in any company. Nor should this Document, or any part of it, form the basis to be relied upon in any way in connection with any contract relating to any securities. The Document is not an investment analysis or research and is not subject to regulatory or legal obligations on the production of, or content of, investment analysis or research.

The data in this Document may reflect the views reported to Coalition Greenwich by the research participants. Interviewees may be asked about their use of and demand for financial products and services and about investment practices in relevant financial markets. Coalition Greenwich compiles the data received, conducts statistical analysis and reviews for presentation purposes to produce the final results.

THE DOCUMENT IS COMPILED FROM SOURCES COALITION GREENWICH BELIEVES TO BE RELIABLE. COALITION GREENWICH DISCLAIMS ALL REPRESENTATIONS OR WARRANTIES, EXPRESSED OR IMPLIED, WITH RESPECT TO THIS DOCUMENT, INCLUDING AS TO THE VALIDITY, ACCURACY, REASONABLENESS OR COMPLETENESS OF THE INFORMATION, STATEMENTS, ASSESSMENTS, ESTIMATES AND PROJECTIONS, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARISING OUT OF THE USE OF ALL OR ANY OF THIS DOCUMENT. COALITION GREENWICH ACCEPTS NO LIABILITY WHATSOEVER FOR ANY DIRECT, INDIRECT OR CONSEQUENTIAL LOSS OR DAMAGE OF ANY KIND ARISING OUT OF THE USE OF ALL OR ANY OF THIS DOCU-MENT.

Coalition Greenwich is a part of CRISIL Ltd, an S&P Global company. ©2023 CRISIL Ltd. All rights reserved.

