

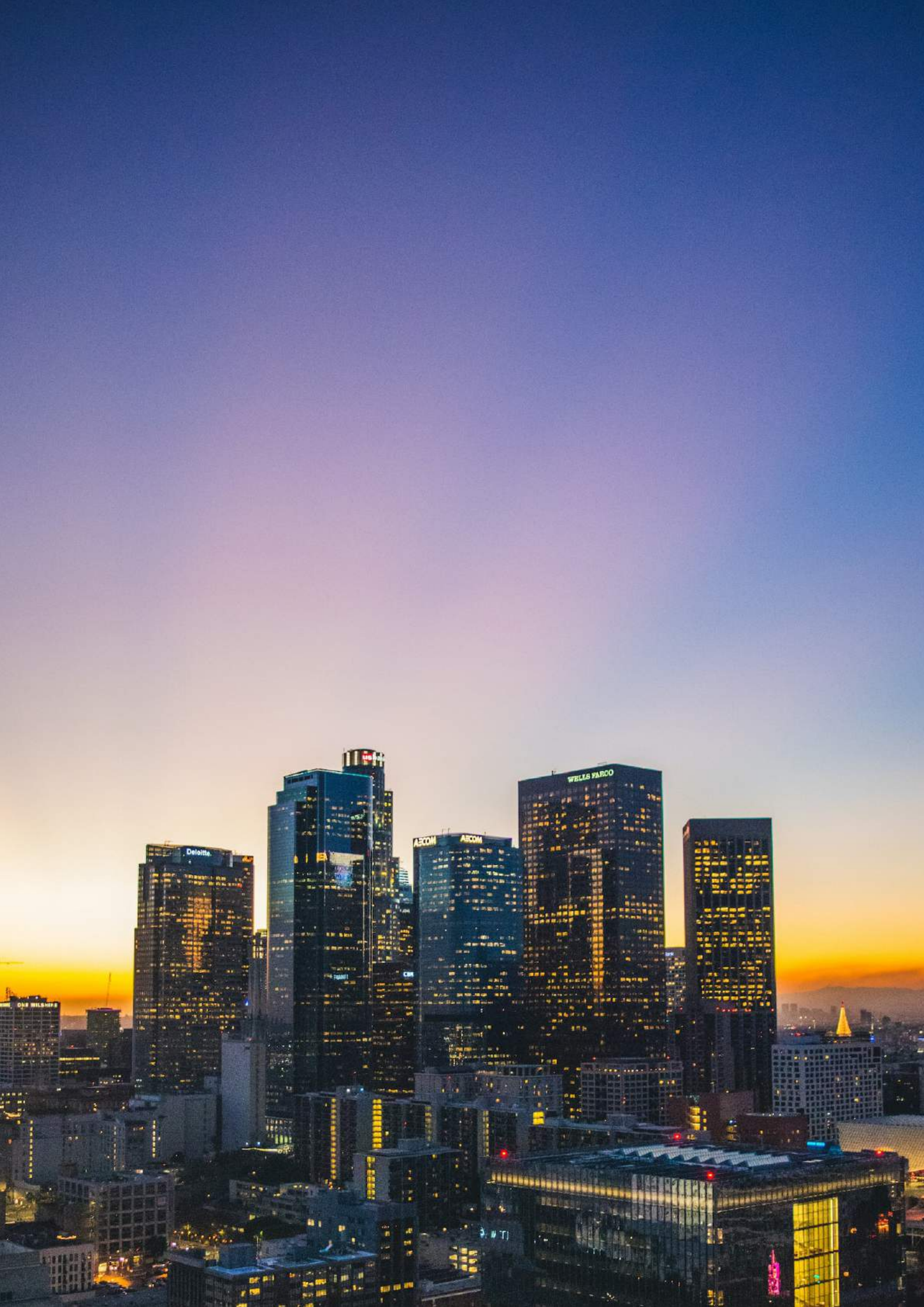


Fixed Income

LEADERS SUMMIT

Facing the Future:

Leveraging Technology, Enhancing Trading
Operations and Overcoming Obstacles



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Methodology

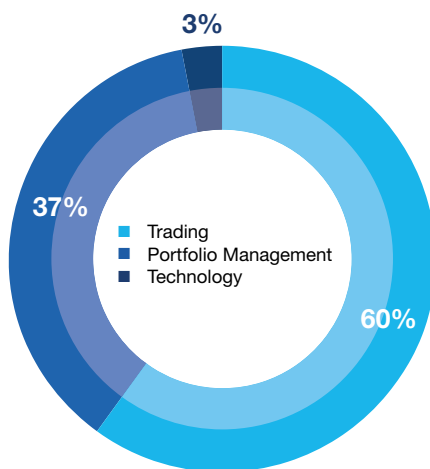
In Q2 of 2022, WBR Insights surveyed 100 Heads of Fixed Income Trading and similar from buy-side firms across the USA, to find out about the challenges they are facing in 2022 and the innovative solutions being brought to the table.

The survey was conducted by appointment over the telephone. The results were compiled and anonymized by WBR Insights

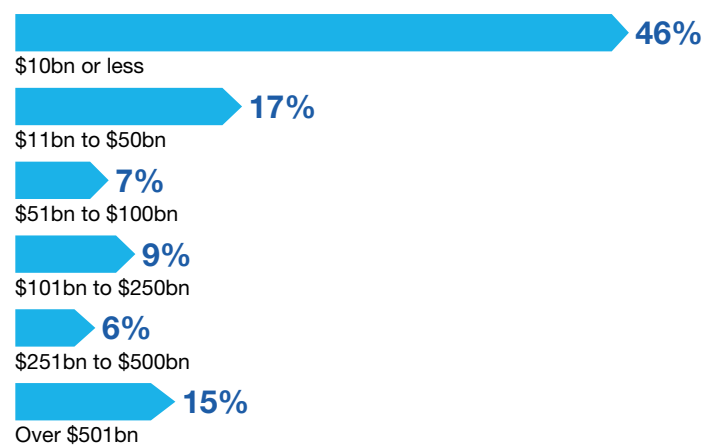
and are presented here with analysis and commentary by MarketAxess and the Fixed Income Leaders USA community.

The WBR Insights topics detailed in this report will be covered in the FILS USA event, discover more here.

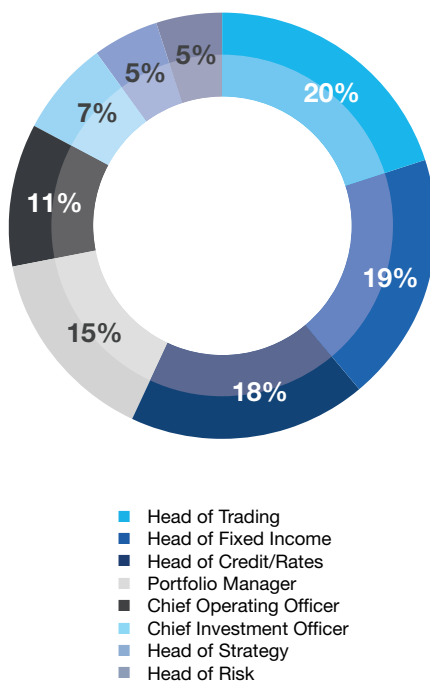
What is your organization's primary business?



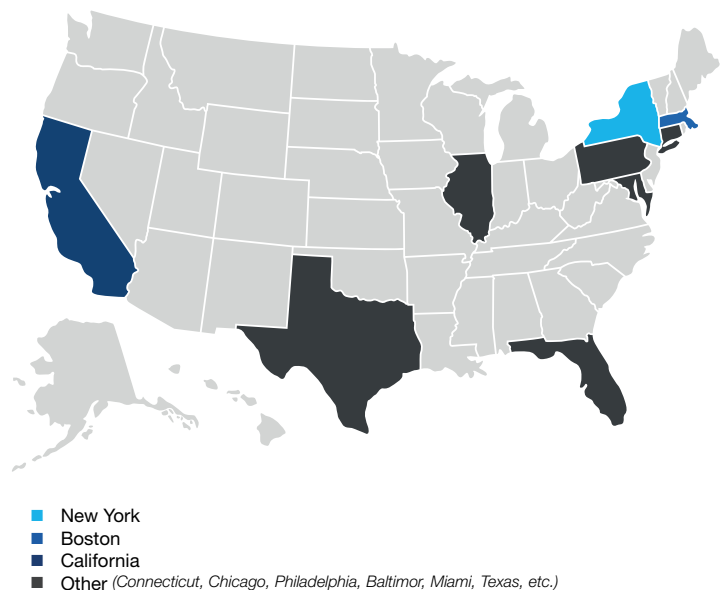
What is the AUM in USD at your organization?



What is your job title?



Where is your organization located?



Key Findings

Fixed income professionals face a rapidly evolving business landscape. Technological developments are transforming the way they work, with new trading tools and digitization enhancing their capabilities – while creating new and different challenges.

The survey highlighted a depth of individual responses and opinions, however, some key themes stood out.



1

Trading tools:

Most specialists expected their use of trading tools to increase over the coming two years. Portfolio trading has strong potential, with the vast majority (86%) set to boost their use of such tools.

2

Information leakage and liquidity:

These are the primary concerns preventing our respondents from trading in bigger blocks through electronic platforms, at 34% and 31% respectively.

3

Execution queue concerns:

We asked our respondents to describe their satisfaction with their ability to analyze pre-trade price and liquidity of bonds in the execution queue. The results highlight a sharp division, with 53% either satisfied or very satisfied and 47% just slightly satisfied or pointing to room for improvement.

4

AI and automation:

Technology is helping to address these concerns. However, automation will certainly grow in industry use. Just 14% of our respondents expected it to decrease, 30% thought it would remain the same, and an impressive 56% expected to see their workflows become more automated.

What and Why Are Clear. Now We Are Answering the How

By Chris Concannon, COO and President, MarketAxess

It's always particularly gratifying when an industry survey brings back results that validate a narrative that you've already formed and told to the market. I write this introduction, then, in the happy knowledge that we're on the right track.

If there was any doubt, that narrative is that our big and very particular corner of the financial world is now firmly primed to dive much deeper into a more electronic, more digital, more data-driven future. The facts bear us out.

The single most used word throughout the survey was "digitization" – not of assets (yet), but of processes and workflows. There is a clear desire for technologies to optimise each step of the trading workflow – right from investment thesis all the way through to post-execution analysis and performance evaluation. Indeed, the sheer breadth of investment areas outlined by respondents in question 17 shows that there's virtually no part of fixed income trading that isn't being transformed or modernized.

So, it's no longer a case of what or why. It's just a case of how. And that "how" is coalescing around a few central points:

- ◆ **"Managing the data explosion"** as one respondent put it. That is, finding better, faster ways to consume and analyse relevant pre-trade data and integrate it into successful execution. Not just data on price – although that remains critical – but also on factors like real liquidity availability and market depth.
- ◆ **Diversification and enhancement of trading protocols:** using a range of different electronic execution mechanisms to optimise the outcome on every trade. That trend is clear from our own Q1 results, which showed increased client (and dealer) use of all our newest protocols, including Live Markets

(our Open Trading-based central limit order book), Mid-X (sessions based-trading), Dealer RFQ and Portfolio and list trading. Our portfolio trading volumes hit a new record in Q1 – and we see from the responses here that the trend is set to continue.

- ◆ **Automation adoption:** more and more firms (over 50% in this survey) are looking to move some (mostly somewhere between 20-40%) of their flow to zero or low-touch. That story has changed little in the past few years – it's still a case of wanting to create more value from the talent on the desk, and to reduce wasted time and lost opportunities.

The critical enablers to all of these are also touched on in this report: AI & machine learning, and liquidity depth. On the former, that means using the machine to better mine, interpret and action the data. On the latter, that means continuing to expand the all-to-all liquidity pool and helping to lower the cost of execution.

All of this is, of course, what MarketAxess is working on for our clients, and what we champion. There will be much discussion on these topics while we're together in Nashville, and we very much look forward to being in the middle of those discussions. I'll see you there.



Chris Concannon
COO and President
MarketAxess

 **MarketAxess®**

Part One

Certainty of Execution: Use of execution protocols and tools

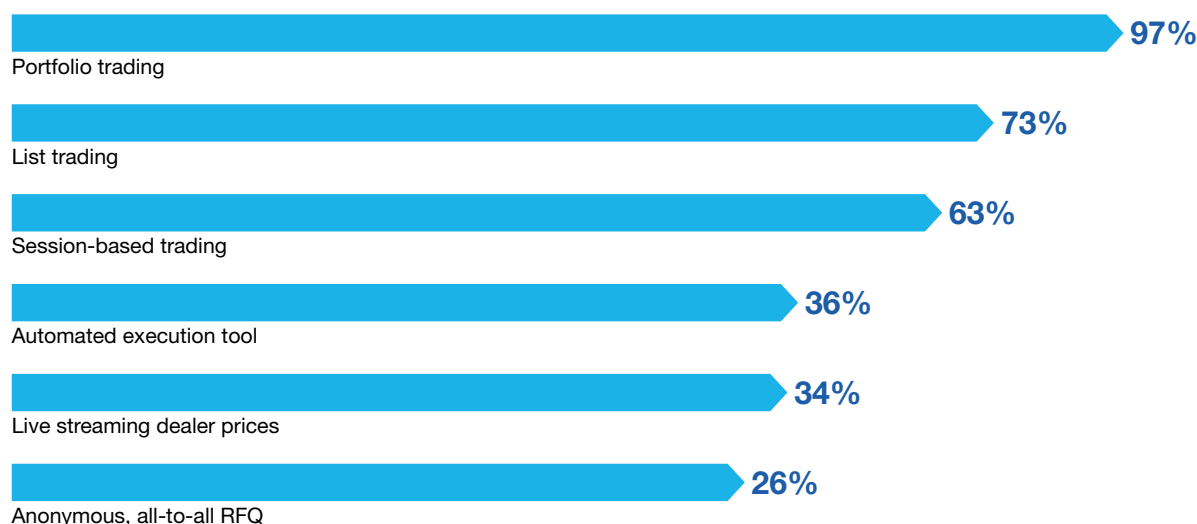
Fixed income professionals expect greater use of trading tools

Most respondents expected their use of all six tools to either stay the same or increase. In fact, the largest expected decreases were in live streaming dealer prices and session-based trading; even here, just 11% said they expected to see a decline in each of these criteria.

Perhaps most significant is the expected increase in several tools. In particular, 86% of respondents said they will expand their use of portfolio trading. Large proportions of respondents also expected to boost their use of list trading (56%) and session-based trading (41%).

Which of the following trading tools or protocols does your organization use?

Respondents asked to select all that applied



"It surprises me that so many people are doing portfolio trading, almost 100%. It has been a very focused area for the street, so I suppose the buy-side also follows. Although the response rate for anonymous, all-to-all RFQ is quite low, I am a little surprised at this. I have never understood the point of sending things out anonymously. My experience has always been at larger shops, and perhaps my perception is that they get more pointed and better responses if they see our name on there."

Tom Melvin
Director of North America Credit Trading, Invesco

"No huge surprises here, although it is interesting to note how portfolio trading is now used by almost 100% of respondents. Portfolio trading has now become a widely accepted protocol and one of the many tools that traders have available in their toolset. From my point of view, it will be interesting to see how all-to-all evolves not only from an industry's uptake but also from a regulatory standpoint."

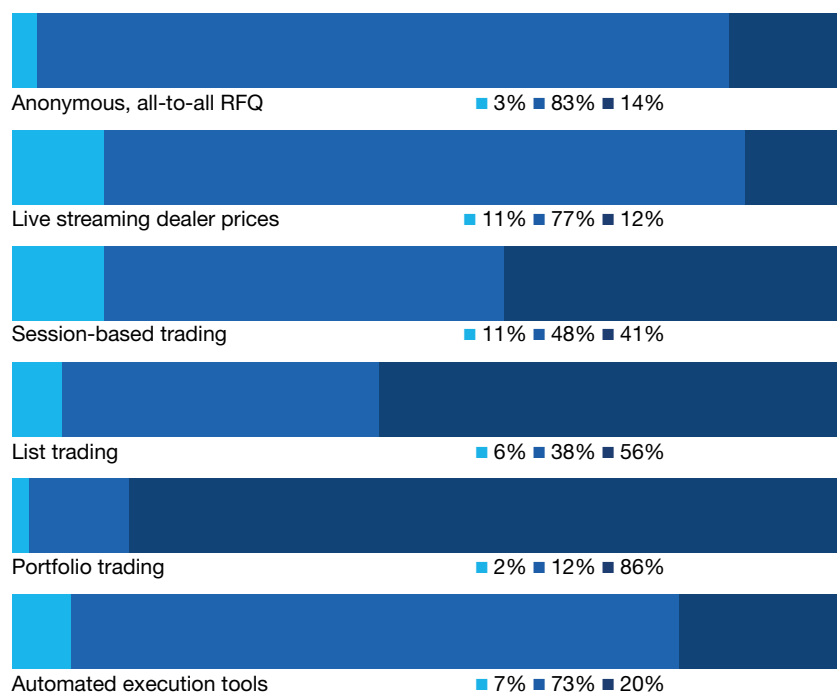
Irene Cerquaglia
Conference Director, Fixed Income Leaders USA 2022

Tools of the trade

We asked our respondents if they expect their use of a range of trading tools to increase, decrease or stay the same over the next 12-24 months. The results were instructive.

Do you expect your use of the following trading tools change in the next 12-24 months?

■ Decrease ■ Stay the same ■ Increase



“Portfolio and list trading protocols remain, unsurprisingly, highly popular in enhancing the ability to effectively transfer risk. We have seen that, as we bring greater depth to the available liquidity pool, greater sophistication to the pricing and execution workflow, and new protocols for execution so the use cases for PT are expanding. In other words - even in volatile markets, we’re helping clients to trade large, illiquid baskets of bonds – including in EM and Eurobonds - in an efficient and discreet manner.”

Matt Walters

Product Head, Portfolio Trading, MarketAxess

Are there any tools or protocols that were not included in the previous question that you would expect to make up any significant proportion of your execution workflow?

YES
44%

NO
56%

Those respondents who answered yes to the previous question were asked to explain their answers further. Here is what they told us:

“Alternative security examination and execution would also make up a significant proportion of the execution workflow.”

“Trading desk, data streaming, risk and data security all play a vital role in the execution workflow.”

“ESG protocols would make a significant addition.”

“Risk, compliance, real-time price management are important tools.”

“Skill-set development protocols are important while managers work on intensive solutions.”

“CRM is something that is essential in the execution workflow.”

“ESG jumps out to me here. The original, large focus on ESG started in Europe, however, I think that focus on ESG in the States is going to increase even more so than we have seen over the past few years.”

Tom Melvin
Director of North America Credit Trading, Invesco

“It is fascinating to see ESG protocols being mentioned. ESG is becoming more and more important, and it is shown by the fact that it is no longer something that portfolio managers only need to pay attention to. Trading desks are also stepping up their game and shifting their mindset to become more ESG driven.”

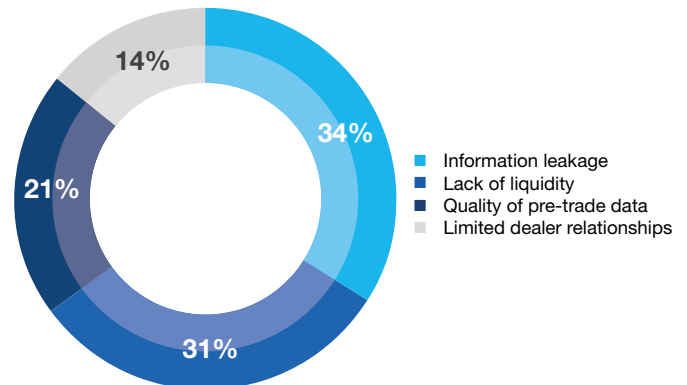
Irene Cerquaglia
Conference Director, Fixed Income Leaders USA 2022

Business barriers: the challenges of trading

Electronic platforms offer the potential to trade bigger blocks, though many fixed income traders are facing barriers. What is holding them back?

For just over a third of respondents (34%), information leakage was the biggest challenge. That was followed by a lack of liquidity, at 31%. It is perhaps no surprise to find these two issues are so high on the list, given their implications for daily trading. Further down the list were quality of pre-trade data (21%) and limited dealer relationships (14%), which have also become significant obstacles for some.

What is the biggest barrier you face in trading bigger blocks across electronic platforms?



"I'm not overly surprised with these results, although I think, based on the evidence of our own experience, that the perception of information leakage and liquidity is worse than the reality. That is – the mix of new protocols through which to trade, and the all-to-all liquidity pools in which to use them, offer ways to trade discreetly and effectively in larger sizes, and to do so using accurate, reliable pre-trade price information. The acceleration in adoption of tools such as Live Markets, our all-to-all central limit order book, and Mid-X, our new sessions-based trading protocol, bears this out. It shows that for those actively seeking to address these barriers and improve their execution efficiency, there are ways to do it."

Rich Schiffman

Head of Open Trading, MarketAxess



Appetite for improvements

Buy side firms have expanded their use of execution protocols and tools over the past decade and beyond. However, our survey shows a clear appetite for further growth among fixed income leaders.

We asked our respondents, what enhancements to existing trading protocols they are using today would they most like to see delivered in the next 12-24 months. Here is what they told us:

“From a competitive and development point of view, AI seems or is the most important inclusion for us over the next few months.”

“The entire industry is moving towards digitization, and we are chasing some of our own digital solutions, too.”

“Cybersecurity will need to be regularly upgraded and enhanced.”

“Digitized enhancements are the ones to work on for all trading protocols over the next 12-24 months.”

“I wish to see more enhancements in the ESG trading solutions.”

“We are targeting intelligent cybersecurity enhancements in the next 12-24 months.”

“As we see here and later in the survey, the most popular word in the open responses to this report was “AI”. That’s no surprise, and we know that behind those responses is the need for deeper, faster analysis; more intelligent AI-based pricing; more detailed execution metrics; and greater process digitization.

We know we have to put AI in the context of the use case. So by pulling together and deploying all our relevant market-wide and proprietary data for solutions across each critical area, I know we’re leading the charge for the AI innovation our clients want.”

David Krein

Head of Data & Research, MarketAxess

“Again, to see ESG being mentioned is quite surprising. A year ago, when asking traders if they were focusing on ESG initiatives the answer would have been that it is something portfolio managers focus on and that it does not pertain to trading activities.

Although less surprising, cybersecurity is also somewhat unexpected as an answer. However, it clearly highlights concerns on information leakage and the need to strengthen their existing infrastructure.”

Irene Cerquaglia

Conference Director, Fixed Income Leaders USA 2022

What improvements would best support fixed income traders in their working lives? Perhaps unsurprisingly, digital innovations were at the top of the list, with calls for seamless digital communication; digitized risk and compliance management; and digital enhancements to trading workflow protocols, more broadly.

“The entire industry is moving towards digitization, and we are chasing some of our own digital solutions, too,” according to one respondent. Another respondent hit on a similar theme. “Digitized enhancements are the one to work on for all trading protocols over the next 12-24 months.”

Speed is of the essence, with a growing appetite for more real-time trade performance and reporting tools. However, that is combined with a continuing – and unsurprising – emphasis on security. “We are targeting intelligence cybersecurity enhancements,” said one respondent. Another emphasized the need for cybersecurity “to be regularly upgraded and enhanced”.

Part Two

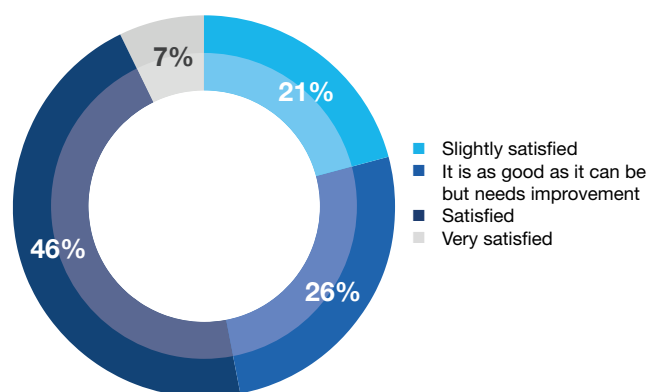
Data and Analytics:

Price discovery, liquidity insight, and opportunities for alpha

Price discovery and liquidity: opportunities for alpha

The ability to analyze pre-trade price and liquidity of bonds in the execution queue is vital for fixed income professionals. So how satisfied are they with their capabilities? They are sharply divided.

How satisfied are you with your ability to analyse the pre-trade price and liquidity of the bonds in your execution queue?



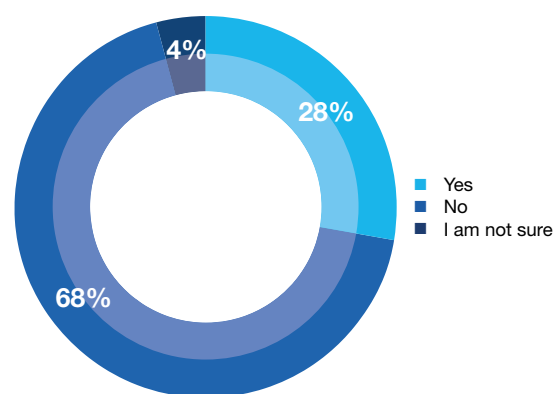
Execution queue: the division among professionals

A combined 53% of respondents were either satisfied or very satisfied on this score. Breaking down this figure further shows that just 7% of respondents overall were very satisfied with their capabilities.

Perhaps the most significant results, however, were on the other side of the fence. Only about a fifth were 'slightly satisfied'. A somewhat higher proportion of respondents (26%) said their capability in the area was as good as it could be but required improvement. This suggests there is still some way to go for buy-side firms to enhance their fixed income trading performance.

However, none of our respondents said that they were 'not at all satisfied', which perhaps provides some room for encouragement. Although, there is clearly still a long way to go.

Do you currently share pre-trade pricing, liquidity and execution data across the trading and PM functions?



"I find this question very interesting. Although it is now widely accepted that collaboration between PMs and traders is key, many firms are still not embracing this new mindset. The trader's role is evolving to become more strategic and better support portfolio managers in their portfolio diversification activities. With the trading desk becoming more data-driven than ever before, it is somewhat disappointing to see firms not embracing this collaboration piece more and overcome internal silos."

Irene Cerquaglia

Conference Director, Fixed Income Leaders USA 2022

The trading and PM functions are not sharing data

What is behind these figures?

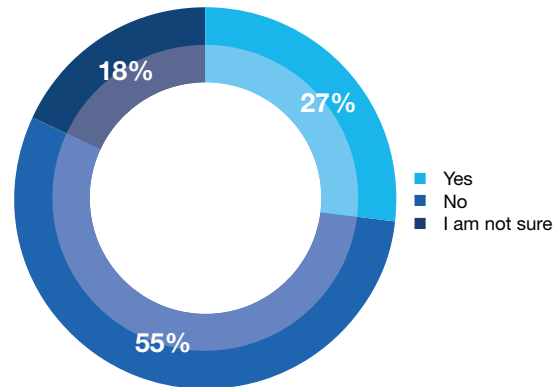
Perhaps data-sharing deficiencies are a factor. We asked our respondents if they currently share pre-trade pricing, liquidity, and execution data across the trading and PM functions. Only 28% said they do. More than two-thirds (68%) said they did not share data across the functions.

Building relationships across functions

It seems certain that improvements could be made to the relationship between trader and PM, to the benefit of both.

While it is clear that our fixed income respondents see a need to improve the relationship between traders and PMs in a range of specific functions, most still do not plan to better integrate the investment strategy and execution workforce. However, this was far from a commanding majority, at just 55%.

Are you exploring ways to better integrate the investment strategy and execution workflows?



"I am a little surprised at the large 'no' response indicated on the survey. We have a very extensive pre-trade process in place specifically for portfolio trading. Our goal is to potentially get some of that similar functionality moved to single-line trading.

Portfolio trading analysis can provide us with information on the top four to six dealers positioned to bid on this trade before we even send anything to the market. We are trying to harness this to potentially enable it to work on single-line trades that are in block size as well.

We take in multiple handbuls of variances to try and analyze the portfolio trade that are built in-house. With portfolio trading being as popular as it is, I am surprised that people are not moving that mentality over to single line trades."

Tom Melvin

Director of North America Credit Trading, Invesco



Data is not being shared across trading and PM functions

Of the remainder, 27% of respondents said they are looking at ways of improving integration, while 18% said they were not sure; the latter figure suggests potential for growth among those who would like to boost integration.

It is increasingly clear, then, that at least a sizeable minority of fixed income traders see a pressing need to better integrate the investment strategy and execution workflows.

We asked these respondents why they are exploring this route. Here is what they told us:

“We consider seeking opportunities for diversification and strengthening of certain processes.”

“We are considering moving workflow towards one single platform and simultaneously will also have to work on aligning investment strategies accordingly.”

“We are working on this in order to gain better visibility in the future.”

“It is always good to have diverse perspectives from a contingent and opportunistic point of view.”

“Our long-term goal is to achieve seamless operations, so we are exploring such operations.”

“It is a hyper-competitive market and in order to deliver results in a hyper-competitive market we need better strategies and workflows.”

Visibility is key, with one respondent saying, “*we are working on this in order to gain better visibility in the future*”. Others pointed to the potential boosts to connectivity and business alignment.

“*Our long-term goal is to achieve seamless operations, so we are exploring such operations,*” noted one of our respondents.

Of course, business goals are at the heart of any such operational developments and plans. Several respondents highlighted demands around the performance of the business and competitive leverage.

“*It is a hyper-competitive market,*” one respondent said. “*In order to deliver results in a hyper-competitive market, we need better strategies and workflows.*”

Part Three

The Sophisticated Future of Fixed Income? Automation, AI, and the evolution of the desk

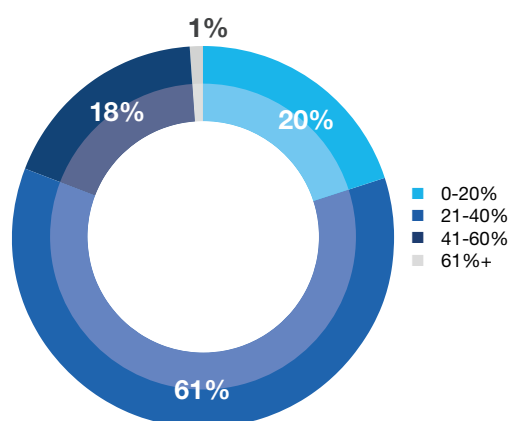
Is automation the future?

Our survey demonstrates the crucial importance of technological innovation, which is central to the future development of fixed income trading and PM. However, what does this mean in practice?

Fixed income workflows are increasingly automated

Automation and artificial intelligence are already significant focuses for buy-side fixed income traders. For most of our respondents (61%), between 21-40% of their workflow was automated. A fifth had only automated 20% of their workflow, while a similar proportion (18%) had automated between 41%-60%.

How much of your workflow is automated today?



“Despite volatile market conditions, MarketAxess hit record automated trading activity in Q1, with Auto-X assisting nearly 300,000 trades for a new high of nearly 130 active clients. This growth trajectory is mirrored here, with most respondents reporting they are automating 21-40% of flow, but nearly 60% reporting they intend to grow usage in order to reach their automation potential.

There is much more the machine can do. We continue to focus on increasing the intelligence behind the mechanics, in order to realize the tremendous cost-savings automation can bring across liquidity pools. Our vision is to create a seamless connection between trader, machine, and the MarketAxess ecosystem.”

Gareth Coltman
Global Head of Automation, MarketAxess

“Our experience has been pretty good in using automated workflows, especially where we were a little slow to the game in auto execution, setting up parameters and trusting in the kind of comprehensive pricing that the credit platforms were using.

However, once we did studies of that information versus executions that we performed in-house, we quickly got comfortable with the automated execution, especially for the larger list with smaller-sized bonds included.

If we send out a list of 65 names, very often 45 to 50 of those names will get auto executed. Those levels are proving to be very accurate to where pricing ends up at the end of the day.”

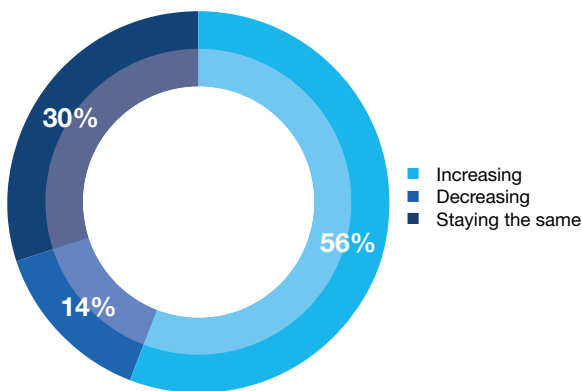
Tom Melvin
Director of North America Credit Trading, Invesco

Automation is set to increase

While these results are important in isolation, it is vital to look to the future. We asked our respondents how they expect their workflow automation to evolve in the coming two years. Just 14% said it would decrease, while 30% expected it to remain the same. However, an impressive 56% believed more of their workflow would become automated over the period, a clear indicator that AI and automation are here to stay and will only grow more significant.

Still, there are obstacles in the road ahead. The survey highlighted a diverse range of barriers to increased automation of the trading workflow, ranging from the current quality of automation to a belief that automation is restrictive and monotonous.

Do you see that increasing, decreasing or staying the same in the coming 12-24 months?



"We fall in the camp where we would see automation of our workflow increasing. I think people that may see it decreasing, potentially see some increased volatility in the markets."

Electronic platforms are only as effective as the people who respond. As the market gets more volatile, dealers could be less inclined to respond and so could buy-side accounts. So that could lead to a decrease in the space of automation."

Tom Melvin

Director of North America Credit Trading, Invesco

"I think many buy-side firms are now focusing on workflow automation initiatives that they were forced to put on hold during the pandemic. So, rather than investing in brand new initiatives, they are carrying on with what could not be a priority in the last couple of years. This means that after a certain period of adjustment, we will probably see workflow automation stay the same. Although, I would be surprised to see it decrease moving forward."

Irene Cerquaglia

Conference Director, Fixed Income Leaders USA 2022

Embracing technology – while avoiding pitfalls

We asked our respondents what the biggest barriers are to automating more of their flow. Here is what they told us:

“Portfolio and client demands has set a tone where automation could cause compliance issues.”

“Data seems to be fragmented in certain locations that affects decisions on increasing automation.”

“We are finding it difficult to locate smarter automation solutions.”

“Automation forces change, and change management is a big barrier keeping us away from automation.”

“Automation is restrictive and monotonous. We would like more intelligent solutions compared to automation.”

“The operational culture does not support a lot of automation.”

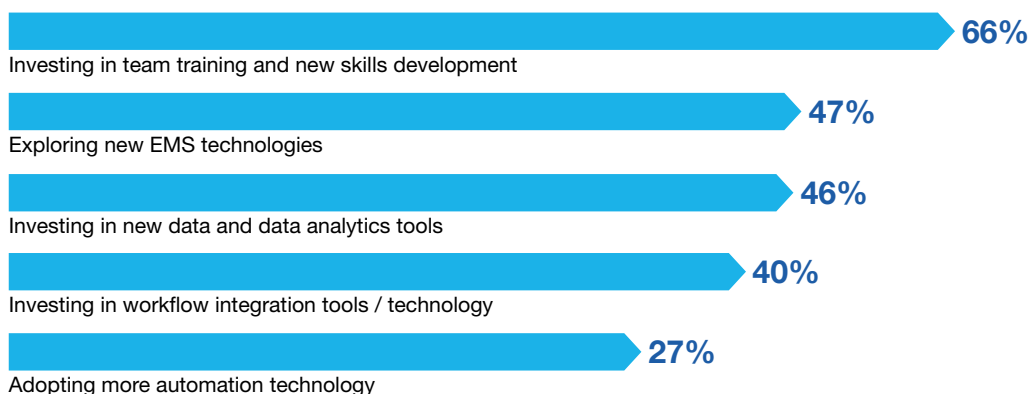
Human resources: the importance of training

To embrace these new technologies, investing in team training and skills is a key priority. Two-thirds of respondents planned to boost their efforts in this area. There is also significant investment planned for new data/data analytics tools and workflow integration tools/technology, according to our respondents 46% and 40% respectively.

Only 27% of respondents planned to adopt more automation technology, though this may be down to significant recent investments. It may now be a case of further integrating and utilizing those investments.

How will your organization be integrating new technologies and training your team to evolve your trading desk in the next 12-24 months?

Respondents asked to select all that applied



Indeed, there are a wide range of uses for AI that were highlighted in the survey. We asked our respondents does AI/ML play a significant role in the trading workflow. Here is what they told us:

“ML and AI help us collect essential data points and deliver insights faster than legacy tools, assisting decision-making procedures.”

“Higher integration of AI could take a while before it achieves a significant role.”

“There are certain sections of analysis that are supported by AI right now. I would not say that this is a significant contribution.”

“AI plays a significant role is analysing the workflow to support decisions on enhancements and security.”

“Trends analysis and deep learning is where AI plays a significant role.”

“By the end of this year, we should have a few more upgrades that would provide AI with a significant role in trading.”

Several respondents pointed to use cases in trend analysis and critical analysis, as well as price handling and post-trade analysis. However, it is important not to overplay the current depth of penetration; one respondent said that while certain sections of analysis are supported by AI, *“I would not say that this is a significant contribution.”* This attitude was echoed by several others.

Overall, it seems that automation and AI are already impacting fixed income trading, with much more is expected in the future. *“Higher integration of AI could take a while before it achieves a significant role,”* noted one respondent.

Conclusion

Seizing the future

Heads of fixed income today rely on a range of trading tools and execution protocols. We can see the impact on our daily working lives – however, how could it change in the coming years?

While the specific needs of buy-side firms will differ, it is clear fixed income trading needs to expand digitization if it is to meet the challenges in the coming years. As one of our respondents insisted: *“No major enhancements apart from digitization make sense.”*

Technology brings a wide range of opportunities and challenges, much of them well documented. Yet while each buy-side firm will integrate technology to suit its own workflow, heads of fixed income must consider how to prepare for future advances from an organizational perspective.

Automation will be key. However, the human element will always be crucial, with 66% of respondents planning to boost their investments in training in the next two years. It is clear that automation will support our experts, not the other way round. In the words of one expert, *“AI provides insight that guide decisions at critical levels on the trading workflow.”*

Key takeaways

- **Embrace technology – when it helps:** New trading tools and automation are here to stay, playing a key and growing role in fixed income trading, PM, and other functions. However, it must be adapted to suit the needs of your buy-side firm.
- **Breaking down barriers:** There is perhaps a worrying division between the trading and PM functions when it comes to sharing data. It will be important to focus on building connections over the coming years, elevating both tasks.
- **The power of insights:** There is a big division in the sector between those firms who are satisfied with their execution queue interactions and those who think there is big room for improvement. Buy-side firms should ensure they have the systems in place – and the employees’ trust – to boost their performance.
- **Invest in training:** It may seem obvious, but it is particularly important to invest in the right training to prepare your people for the future. While we cannot predict what is around the corner, our survey suggests significant changes are on the horizon. It is vital to be prepared.

About MarketAxess



MarketAxess (Nasdaq: MKTX) operates a leading electronic trading platform that delivers greater trading efficiency, a diversified pool of liquidity and significant cost savings to institutional investors and broker-dealers across the global fixed-income markets. Over 1,900 firms leverage MarketAxess' patented technology to efficiently trade fixed-income securities. MarketAxess' award-winning Open Trading® marketplace is widely regarded as the preferred all-to-all trading solution in the global credit markets. Founded in 2000, MarketAxess connects a robust network of market participants through the full trading lifecycle, including automated trading solutions, intelligent data products and a range of post-trade services.

For more information, please visit www.marketaxess.com and on Twitter [@MarketAxess](https://twitter.com/MarketAxess)

About WBR Insights



We use research-based content to drive conversations, share insights and deliver results. Connect with our audience of high-level decision-makers in Europe and Asia from industries including Retail & eCommerce, Supply Chain & Procurement, Finance, as well as many more. From whitepapers focused on your priorities, to benchmarking reports, infographics, and webinars, we can help you to inform and educate your readers and reach your marketing goals at the same time.

Contact us to find out how your business could benefit from:

- Year-round access to our network of decision-makers and industry leaders
- Lead generation campaigns that fit your priorities
- In-depth research on current fast-moving issues and future trends
- Promoting your organization as an authority in your industry

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