New Frontiers in Fixed Income Liquidity: The Evolution of the Ecosystem and the Opportunities for the Buy-side

FLOW TRADERS

Contents

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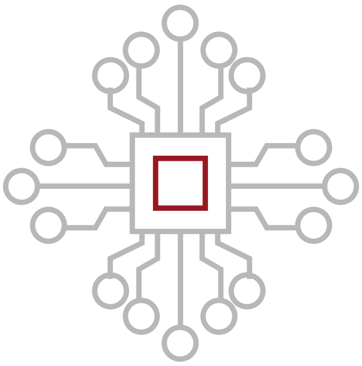
Introduction

The aim of this insights paper is to explore the evolution and changes happening within fixed income markets and to explore the different trends influencing trading.

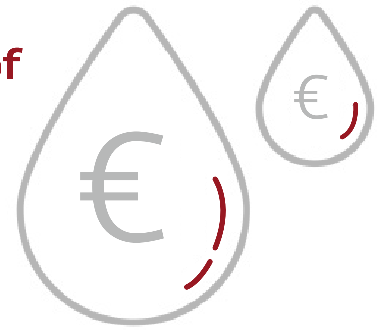
Electronification is an overarching trend that continues to change credit in Europe, especially within the smaller Euro Investment Grade (IG) ticket sizes where volumes have noticeably increased over the past few years. Other developments detailed in this paper are the new drivers of liquidity, with a focus on algorithmic trading (Algo) and the impact of the Exchange Traded Fund (ETF) ecosystem on the bond market. These developments have contributed to the emergence of new buy-side trading strategies, with a specific focus on low-touch versus high-touch trading styles, a trend which is further explored in this paper. Transparency also remains an important topic in fixed income markets, especially relating to the potential introduction of a Consolidated Tape (CT) in Europe.

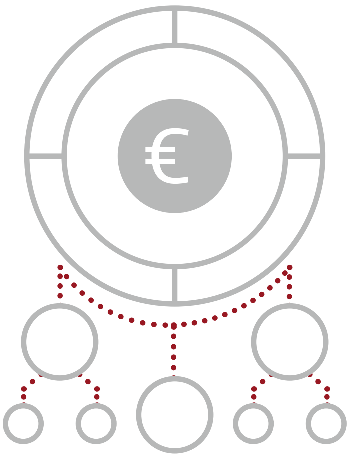
Fixed income trading and market structure continues to advance, driven by these key trends:



1 Electronification

2 New Drivers of Liquidity





3 Changes in Euro IG Credit Market Structure

4 Rise of Low-Touch and High-Touch Trading Styles

5 Increased Focus on Transparency

Q&A with Flow Traders Contributors

What are the dynamics driving European Credit Trading in 2023?

Unprecedented market circumstances driven by central bank policies, geopolitical unrest, inflation, the banking sector crisis, to name a few, have led to an increase in market volatility in fixed income markets. Despite these market movements we believe that fundamental changes with respect to market structure continue to shape credit trading. Especially electronic trading in smaller size tickets continues to increase due to the increase of algos and the continued development of the ETF ecosystem.

How will the global ETF ecosystem continue to impact the bond market and vice versa?

Adoption of fixed income ETFs has accelerated in recent years, with Blackrock iShares forecasting that global fixed income ETF Assets Under Management (AUM) will reach $5 trillion by 2030.[1] Despite fixed income ETF AUM making up only a small part of the European bond market, ETFs are growing in importance as a trading instrument. They provide an additional source of liquidity to the bond market, benefiting the entire ecosystem. This is illustrated in the Blackrock iShares report which estimates secondary trading volumes in Euro IG and High-Yield (HY) ETFs in H1 2022, were equivalent to almost 8% of the underlying bond market volumes, up from 4% in 2018.[2]

Considering the increase in volumes, as well as the improving fundamental backdrop in 2023, it can be anticipated that an increasingly diverse range of investors will move into fixed income ETFs. This growth in turn allows alternative liquidity providers, like Flow Traders, to expand coverage and trade sizes, resulting in lowering overall execution costs for investors.

How are execution styles evolving within Euro IG?

Given the diversified range of execution tools now available to the buy-side, the execution styles in Euro IG have evolved. These execution tools, in combination with the improvements in data visibility, also support a more effective protocol selection. In addition, portfolio trading has also contributed to the development of evolving Euro IG execution styles. As the range of use cases for portfolio trading has developed, it has become a more stable and consistent part of an investors' trading strategy, but we do however expect greater price rationalization in 2023 versus 2022.

Auto-execution usage is also expected to further grow in Euro IG given the ticket size dynamics, as well as trading desks allocating resources to refining rules and monitoring efficiencies. Furthermore, the demand for enhanced visibility on dealer performance analytics is increasing and moving forward, historical performance is critical to promote better dealer selection and improved execution.

How do the execution styles within Euro IG vary according to ticket sizes?

Flow Traders estimates that there are now around 15 sell-side algos active in European credit, accounting for around 50% of the volumes in Euro IG, for sub 1 million ticket sizes. Tickets in this size range now account for 29% of the overall execution volumes in 2022, up from 27% in 2021 and 23% in 2018.[3]

An outcome of this increase is that the buy-side are diversifying their executions styles into a mix of low-touch and high-touch. Low-touch is better suited to the more liquid and smaller size tickets and increasingly executed in all-to-all environments or utilizing automated dealer selection tools. The efficiency of low-touch execution in turn allows trading desks to focus on more complex trades or high-touch styles, for example larger tickets and less liquid products.

Does the growth in algo trading have any traction in larger ticket sizes?

Even though there is a clear split between the execution of low-touch and high-touch styles, what we do see is that smaller tickets can be and are being used as a reference point for price discovery for the larger blocks, especially if the screen prices are firm or subject to limited slippage. Given the enhanced visibility of independent algo pre-trade price streams and axes, Flow Traders has also seen larger trades being split into smaller sizes to fill multiple axes.

How do you expect dealer performance metrics to evolve in 2023?

Electronic dealer trading performance metrics are typically analyzed on a volume ranked basis and the buy-side often rely on trading venues to provide this data on a periodic basis. Metrics such as quote rates and slippage are becoming increasingly important to have visibility on, especially in electronic trade tickets within Euro IG to transact efficiently. Flow Traders encourages real-time metrics, on a dealer to counterparty and ISIN specific basis being made available by all venues.

[1] iShares by Blackrock: ETF liquidity as markets enter a new regime, 2022
[2] iShares by Blackrock: ETF liquidity as markets enter a new regime, 2022
[3] MarketAxess, Trax Data 2022

What are the market developments in portfolio trading?

Portfolio trading has grown over the last few years, especially in Europe. Flow Traders estimates that this protocol now contributes to around 8% of the total traded credit volumes in Euro IG. We expect the demand for this protocol will remain strong however we do believe it has now entered a new phase, with more rational pricing as it becomes a more stable protocol and better established. Specifically in Emerging Markets (EM), Flow Traders has seen increased activity in EM portfolio trading on -and off-venues due to the all-or-nothing nature and certainty of execution. New protocol innovations such as benchmark trading, where the investor agrees on a spread versus a benchmark like BVAL or JP Morgan EMBI index, which can then be fixed at the end of the day, have further aided buy-side uptake.

The Central Securities Depositories Regulations (CSDR) has now partly been implemented. What has been the impact so far?

One aspect of CSDR is the introduction of penalties for late settlements, meaning that market makers have to consider a new factor within their position management and liquidity predictions. Additionally, for the buy-side the settlement discipline of their dealers has become a new metric in measuring dealer performance. This has now become a strong incentive for all market participants to improve post-trade processes, which should result in fewer settlement failures and increased matching performance. Even though CSDR further improves settlement reliability, the additional factors that market participants need take into consideration could deteriorate liquidity and increase execution costs. This makes sustained accessibility to the market even more important. At Flow Traders we believe investors need to have the ability to access as many dealers as possible and have the ability to compare clearly in order to achieve best execution.

What is your view on the possible introduction of a CT in Europe?

First and foremost, Flow Traders supports any regulation that aims to bring increased transparency and efficiencies to the market. We believe a CT in Europe will contribute to this positively as it will lead to better post-trade transparency and pre-trade information. Not only will it lead to increasing transparency, but it will also lead to more innovation, new players and ultimately lower costs for investors, as we have seen with TRACE in the U.S.

Trend One: Electronification

Trend One: **Electronification**

In the Flow Traders whitepaper: The Future of Credit Trading published in November 2021, the theme of electronification was first explored and in particular how it has transformed certain parts of global financial markets, especially fixed income. Electronification as a trend continues to accelerate as market participants embrace the benefits and as it continues to contribute to creating greater transparency and improved efficiencies.

Electronification: continued electronification of trading

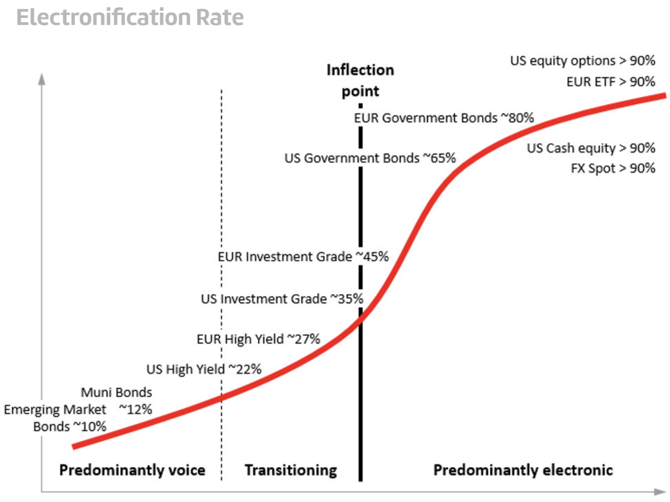
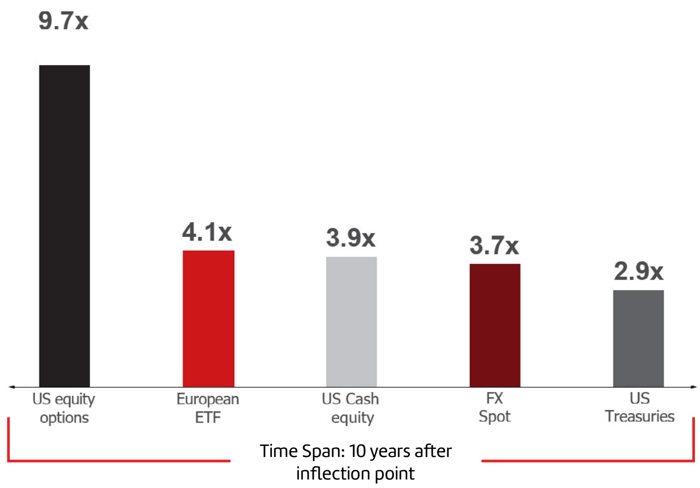


figure 1 *Source: Flow Traders Data 2023

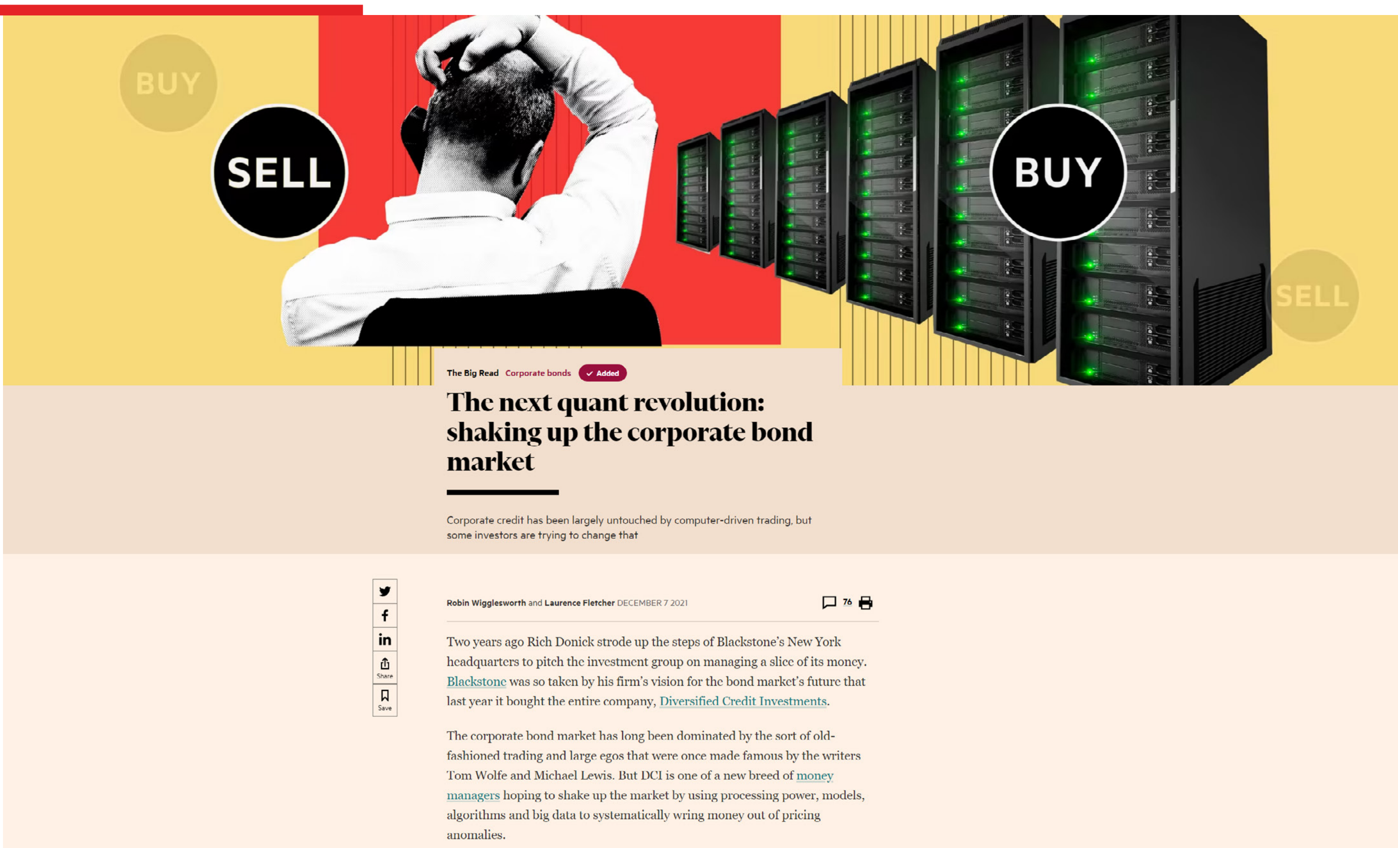
Volume increase from electronification



In this paper we explore the evolution of credit markets further. Euro IG in particular continues to transition towards predominantly electronic executions and this development supports the growth in volumes, as shared in more detail in the third chapter of this paper (page 14). Compared to other ticket sizes, Euro IG ticket sizes up to 1 million have grown with the highest velocity, in both tickets and volume terms. This growth has been fueled by the electronification development.

As Flow Traders is a fixed income liquidity provider in both bonds and ETFs, we see how the developments are interconnected and how the increased liquidity and pricing of the one benefits the other. This is despite the bond markets following ETF markets with a lag due to their more traditional and long-standing trading practices. Interestingly, within the ETF ecosystem a similar development occurred, where beyond the inflection point ETF volumes increased considerably (see figure 1). Since ETFs are a liquid instrument, adoption has increased, leading to higher volumes and making them even more efficient. Similar developments can be seen within credit, where an increased number of quantitative trading strategies are being deployed. This is further illustrated in the Financial Times article The Next Quant Revolution: Shaking Up The Corporate Bond Market.[4]

This article confirms, that with more executable prices and better automation, the implementation of quantitative strategies becomes easier to execute and improves the availability of reliable data. This in turn contributes to new drivers of liquidity which will be explored in the next section.



The Big Read Corporate bonds ✓ Added

The next quant revolution: shaking up the corporate bond market

Corporate credit has been largely untouched by computer-driven trading, but some investors are trying to change that

Robin Wigglesworth and Laurence Fletcher DECEMBER 7 2021 76

Two years ago Rich Donick strode up the steps of Blackstone's New York headquarters to pitch the investment group on managing a slice of its money. Blackstone was so taken by his firm's vision for the bond market's future that last year it bought the entire company, Diversified Credit Investments.

The corporate bond market has long been dominated by the sort of old-fashioned trading and large egos that were once made famous by the writers Tom Wolfe and Michael Lewis. But DCI is one of a new breed of money managers hoping to shake up the market by using processing power, models, algorithms and big data to systematically wring money out of pricing anomalies.

*Source: Financial Times

[4] The Financial Times: The Next Quant Revolution: Shaking Up The Corporate Bond Market, 2021 The Financial Times

Trend Two: New Drivers of Liquidity

Trend Two: **New Drivers of Liquidity**

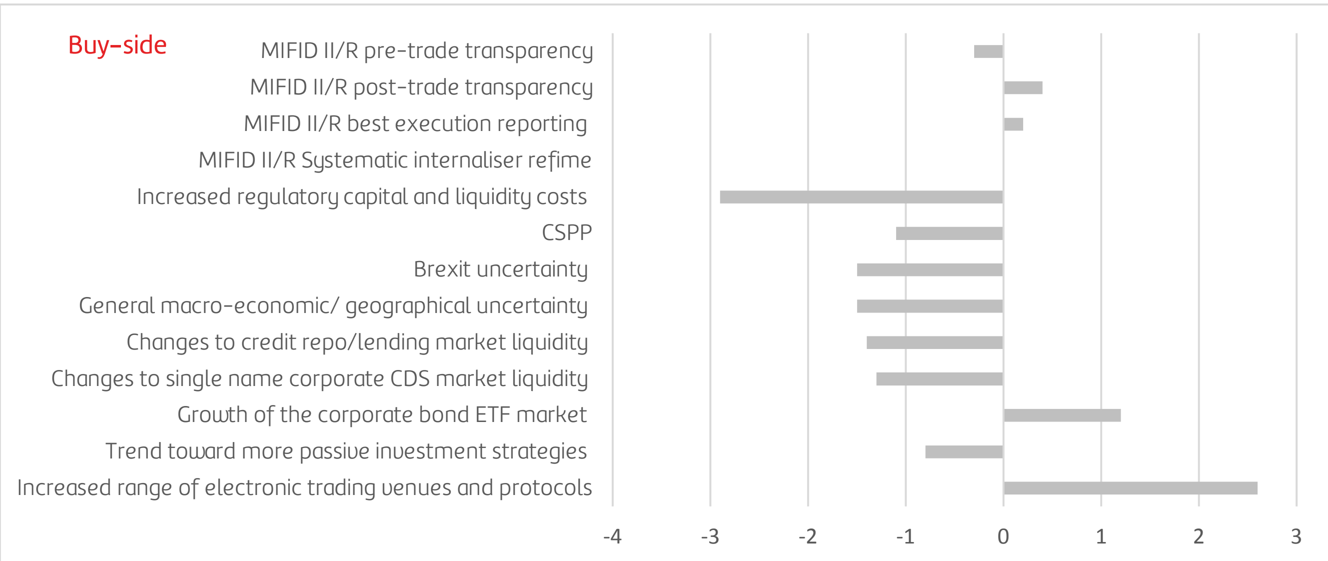
A survey conducted by The International Capital Market Association (ICMA)[5] in 2020, concluded that the ETF ecosystem and increase in algo trading has contributed to improving transparency and has also led to improved liquidity (see figure 2).

According to the buy-side participants of the survey the two key factors driving liquidity improvements are the growth of credit ETFs and the increased electronification of credit trading. These two factors are strongly correlated due to authorized participants (APs) dynamically managing the creation and redemption of ETFs in the primary market. In this process, ETF market makers continuously engage in trading of the underlying securities to manage their necessary inventory for the ETF creation and redemption process. ETF prices align with the value of the underlying constituents and with the increase in volumes and liquidity of the ETFs, the market of the bonds in scope of the ETF index also improves. Usually, the individual size of each constituent bond within an ETF basket is considerably lower compared to block trades, which explains the strong impact of ETF APs on credit trading in sizes up to 1 million, leading to a higher grade of electronification in exactly this ticket size bucket.

The sell-side participants of the ICMA study only confirm on the role of the ETF markets as a factor creating positive impact on liquidity, driven by algorithmic trading strategies resulting in continuous and efficient liquidity providing in ETFs. Due to the proximity of fixed income ETFs to their underlying credit markets, the same execution practices are being copied, resulting in the rise of algo trading for bonds in scope of the leading ETF indices.

The role of the alternative liquidity provider

Q: How do you as the buy-side and sell-side rate the impacts on liquidity of various factors (-5 very negative, +5 very positive, 0 neutral)



[5] International Capital Market Association European Repo Market Survey, November 2020, International Capital Market Association

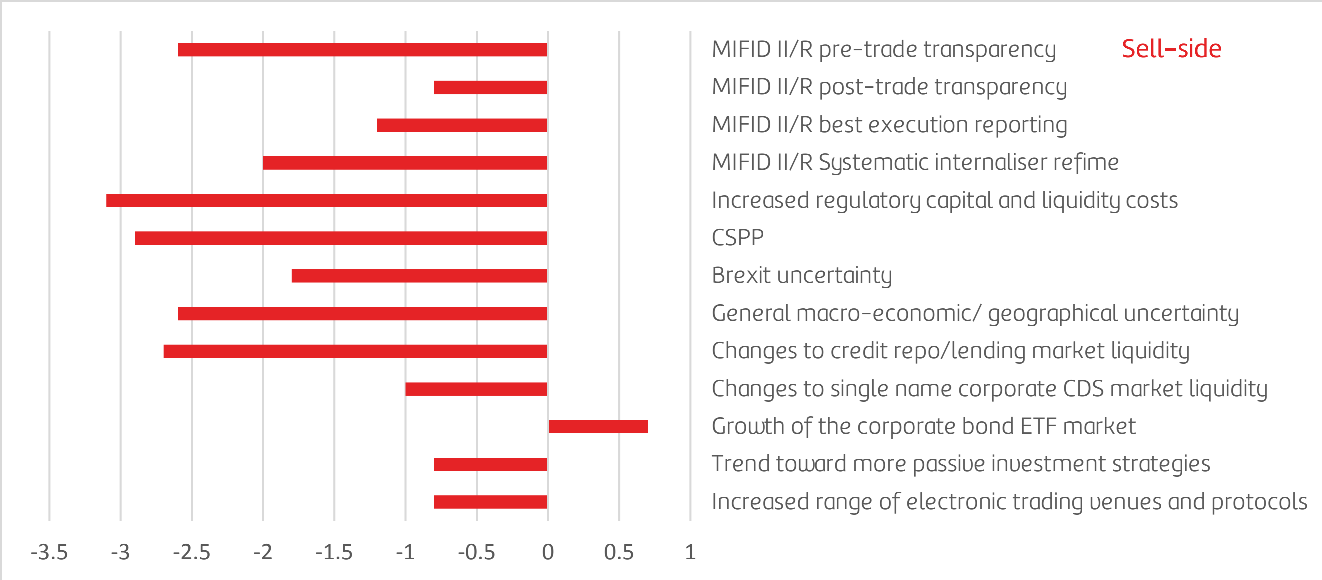


figure 2: *Source: Data from ICMA 2020

Flow Traders estimates that in the past two to three years, credit algos have made up around 50% of executed volumes in Euro credit, particularly in the sub 1 million ticket sizes (see figure 3). The activity within the smaller ticket sizes also has an impact on the overall Euro IG credit market structure, detailed in the next chapter.

Trends in financial markets: use of algos by buy- and sell-side

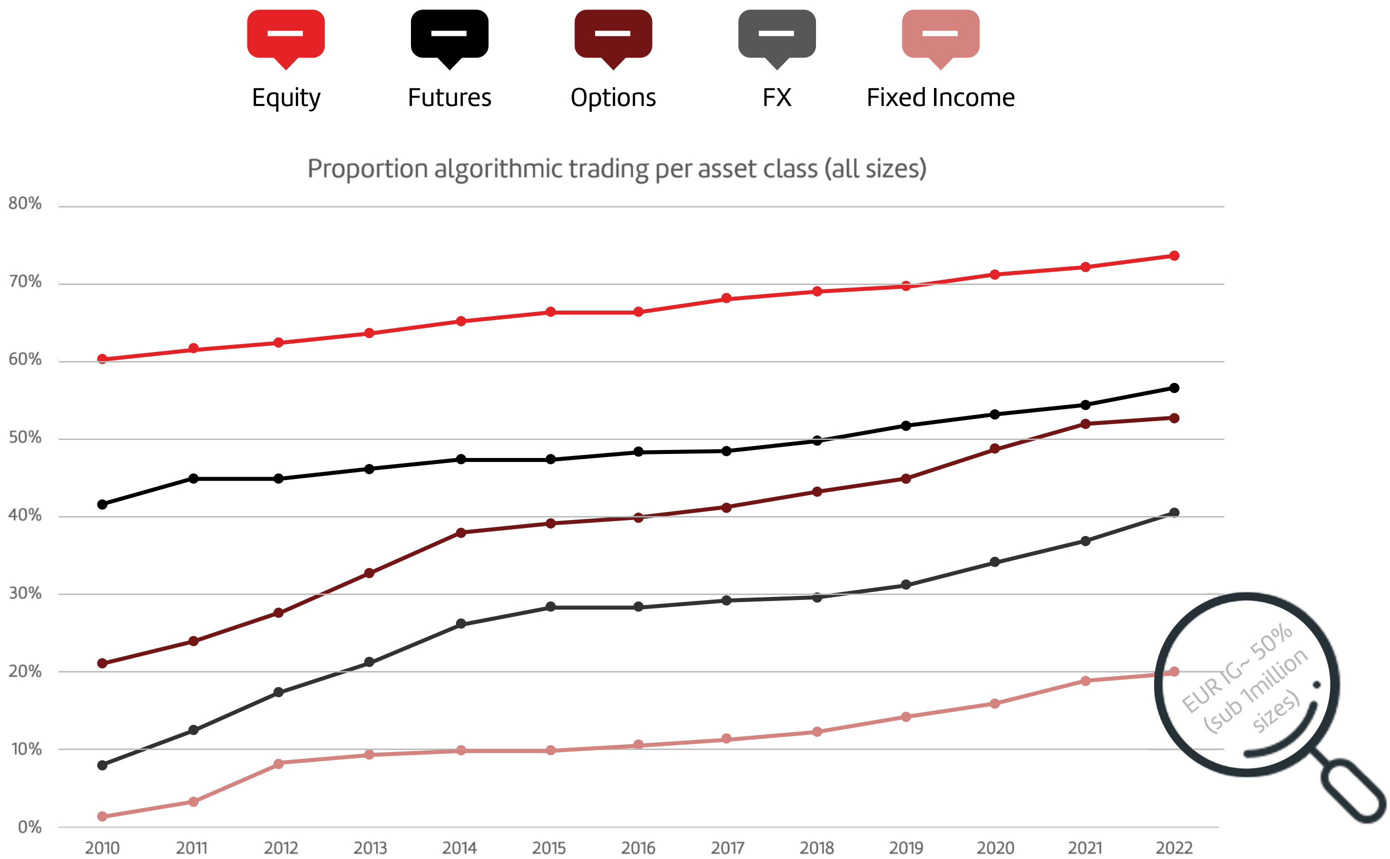


Figure 3: ***Source:** Flow Traders Data 2023

Equities, futures and options have been predominantly traded on exchanges with deep central limit order books for decades and this explains the majority of executed volumes being driven by algos. FX (especially spot) trading has also moved past its electronification inflection point in the last few years with market makers trading their volumes on Electronic Communication Networks (ECNs) via an algorithm. Even though fixed income is still a true over-the-counter product, the proportion of algo-traded volumes is increasing (see figure 3).

Flow Traders estimates that there are over 15 sell-side algos active in Euro credit today, with varying degrees of sophistication. Some of the more advanced algos can automatically price the full range of Euro IG (around 5K) ISINs as well as the larger sizes for the more liquid parts of the universe.

In Q4 of 2022 the top five average quoting times on Tradeweb for all sizes Euro Corporate bonds was under six seconds.[6] This proves the dominating position of algorithmic trading strategies in the current credit markets. In Europe, bond pricing sources are extremely fragmented and as there is no pricing consensus coming from a CT, bond traders face the challenge of the need to consolidate various pricing information sources in a quick and efficient manner. The use of algos allows them to collect, aggregate and interpret pricing determinants and translate them to a competitive pricing in a matter of seconds. ETF market makers are the main drivers of this development, they have been utilizing algorithmic strategies for ETF liquidity and have been adjusting these mechanisms to achieve the same efficiencies in the underlying bond markets.

Additionally, the development of the ETF ecosystem and adoption of ETFs is another driver of liquidity. Global fixed income ETFs have grown from $729 billion to $1.7 trillion over the past five years. Blackrock iShares forecasts global fixed income ETF AUM will reach $5 trillion by 2030, equivalent to 5% of the entire fixed income bond market (see figure 4).[7]

Fixed income ETFs continue to gain popularity amongst institutional investors who aim to gain exposure to the bond markets. ETF trading is characterized by easy liquidity access, immediacy and certainty of execution as well as tight tracking to the underlying bond markets. Central banks globally are tightening monetary policies resulting in positive interest rates for the first time in eight years. In this new interest rate regime investors are again looking to increase the fixed income allocation in their portfolio mix and ETFs prove to be an excellent vehicle to gain diversified and cost effective exposure. Next to their return generation benefits, ETFs are also widely used by investors to manage risks in their bond portfolios. Single-name credit default swaps (CDS) used to play that role before the implementation of the European market infrastructure regulation (EMIR) and the adverse change of their liquidity has impacted the fixed income markets negatively, as also confirmed by the ICMA study presented in the previous chapter. Fixed income ETFs prove to be reliable instruments for hedging credit risk.

All of these factors drive the growth of fixed income ETFs and we expect that this trend will persist in the coming period, due to this additional layer of liquidity and price transparency they add to the credit markets. This nurtures the natural growth of the underlying credit markets with ETF APs and market makers playing the catalyst role in this symbiosis.

Actual and projected growth of global bond ETF AUM ($B)

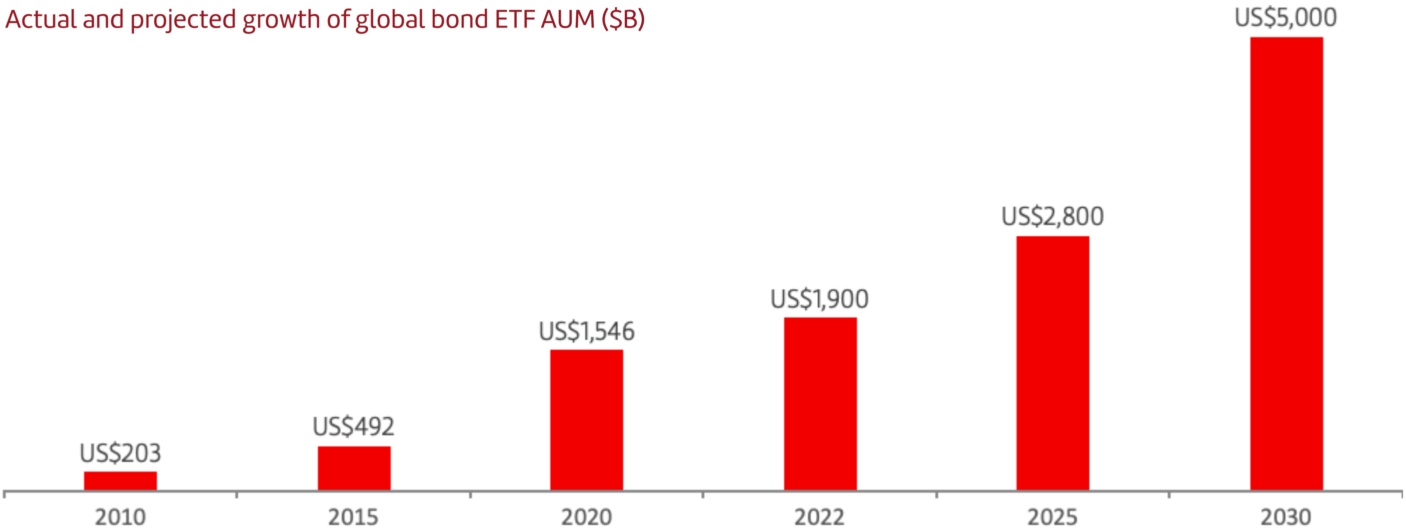


figure 4: *Source: BlackRock: Data as at May 2022
iShares Data: The 2025 and 2030 forecast

6 Q4 2022 TradeWeb data
7 iShares by Blackrock: ETF liquidity as markets enter a new regime, 2022

European listed fixed income UCITS ETF AUM has grown to $317 billion, a compound annual growth rate (CAGR) of 12% over the past five years (see figure 5). Also illustrated is the substantial growth in daily trading volumes in fixed income UCITS ETFs,[8] (see figure 6).

Growth of UCITS fixed income ETF AUM

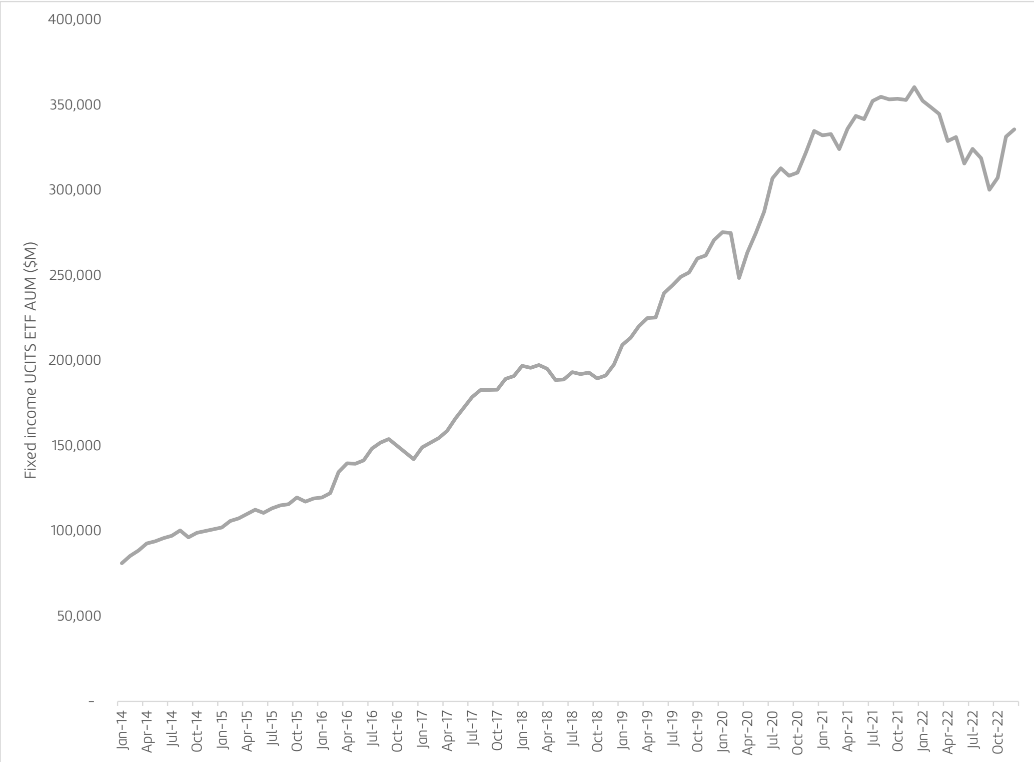


figure 5: *Source: Flow Traders data. All data in USD ($). Data as at 31/08/2022

A compound annual growth rate (CAGR) of 12% over the past five years

Whilst fixed income UCITS ETF AUM currently make up only a small part of the European fixed income market, ETFs are growing in importance. This is in part due to the additional layer of liquidity that these ETFs provide, on top of the underlying cash bond market. Blackrock iShares suggests that secondary trading volumes in Euro IG and HY ETFs during the first half of 2022 were equivalent to almost 8% of the underlying bond market volumes, up from 4% in 2018. Additionally, Euro credit ETF volumes increased by 25% in 2022, this trend is replicated globally. This is also more prominent in the U.S. market, where credit ETF trading volumes increased to 26% of the underlying bond market volumes, up from 11% in 2018 (see figure 7 and 8).[9]

Average daily trading volumes in fixed income UCITS ETFs

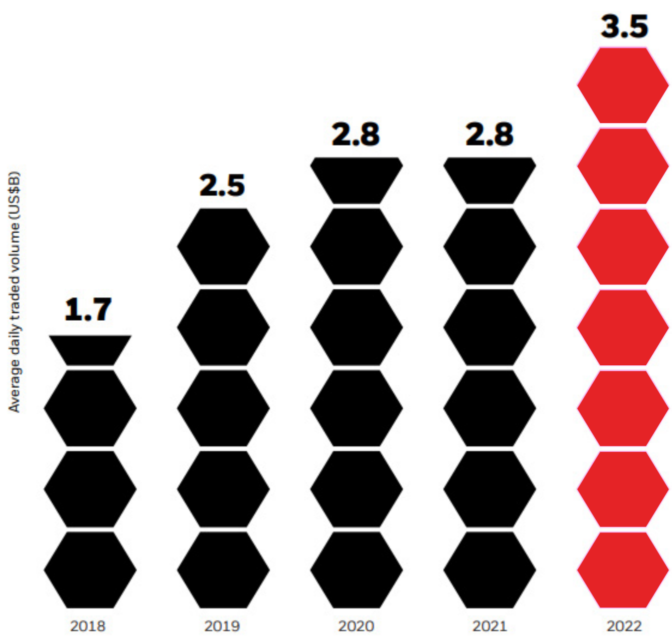


figure 6: *Source: Flow Traders data. All data in USD ($). Data per 31/08/2022

8 iShares by Blackrock: ETF liquidity as markets enter a new regime, 2022
9 iShares by Blackrock: ETF liquidity as markets enter a new regime, 2022

The involvement of APs allows for additional liquidity and overall lower transaction costs for the buy-side

Average daily volumes in U.S. credit ETFs relative to underlying bond market volumes

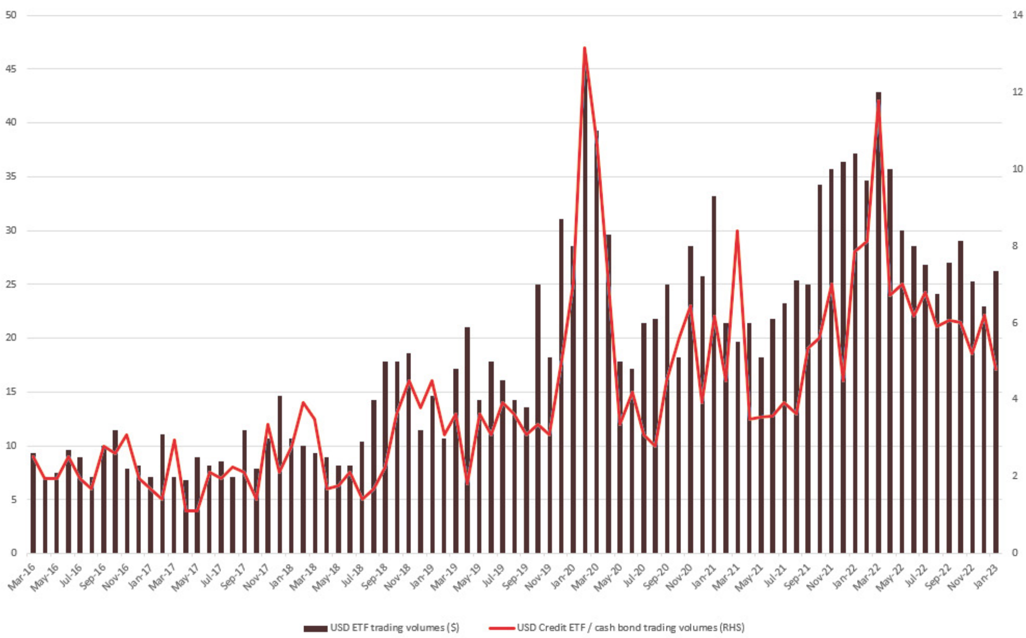


figure 7: *Source: Flow Traders and Coalition Greenwich

Trading volumes in EUR credit UCITS ETFs relative to underlying bond market values

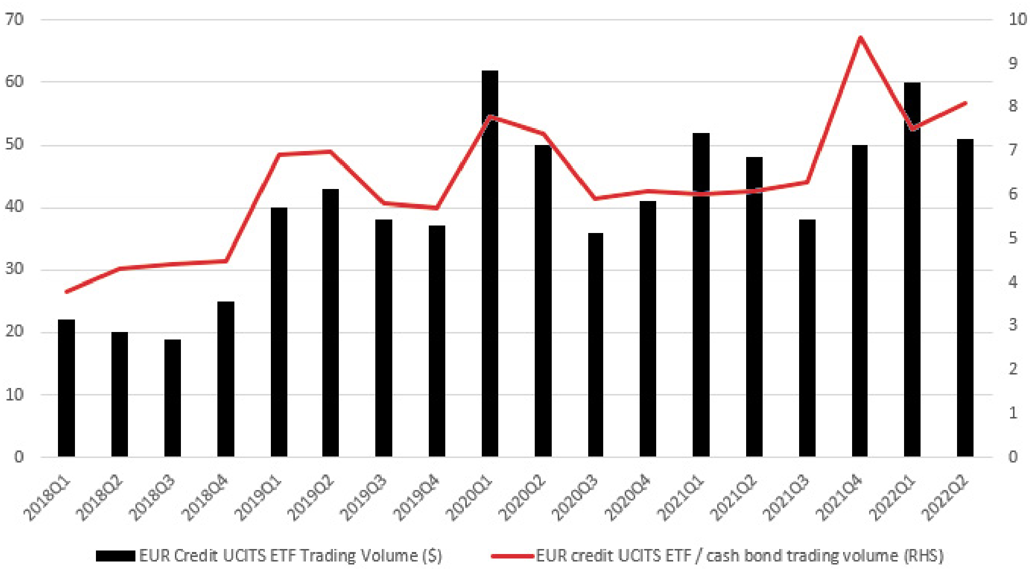


figure 8: *Source: Flow Traders and Coalition Greenwich

Another benefit of ETFs is that they are a cost-effective trading tool, often used to hedge bonds or a portfolio of bonds. These figures also demonstrate the difference in trading volumes for ETFs versus the bond market. An interesting observation is the noticeable difference in bid and offer spreads between these two markets (see figures 9 and 10). This further demonstrates the relatively low transaction cost for ETFs versus bonds. Additionally, the involvement of APs market making within Euro IG, such as Flow Traders, allows for additional liquidity and overall lower transaction costs for the buy-side.

Bid/ask spreads of Euro IG and HY corporate bonds versus IEAC and IHYG

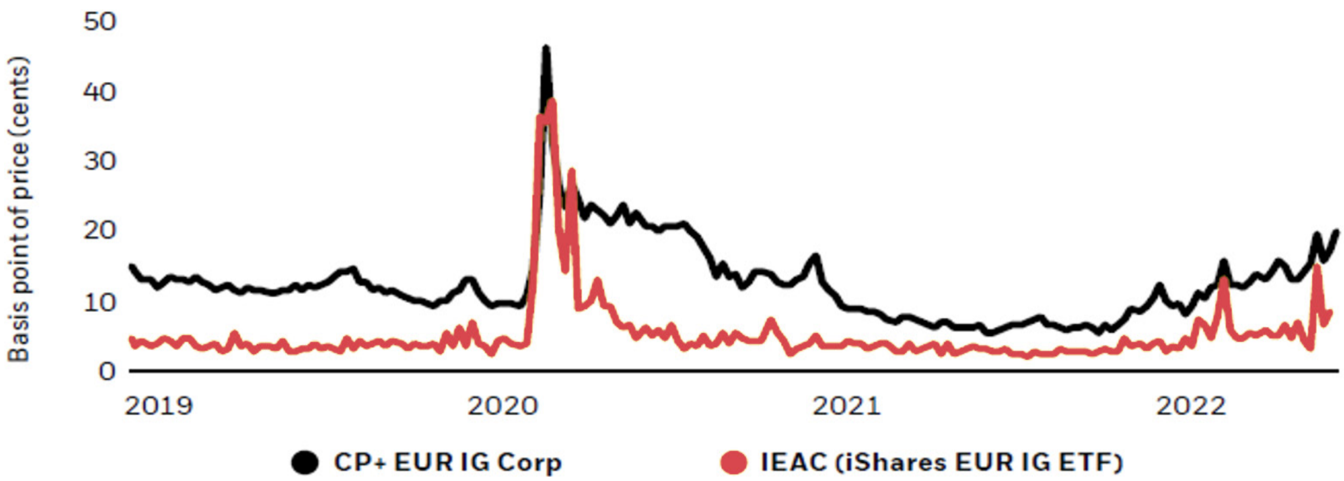


figure 9: *Source: BlackRock data and Market Axess

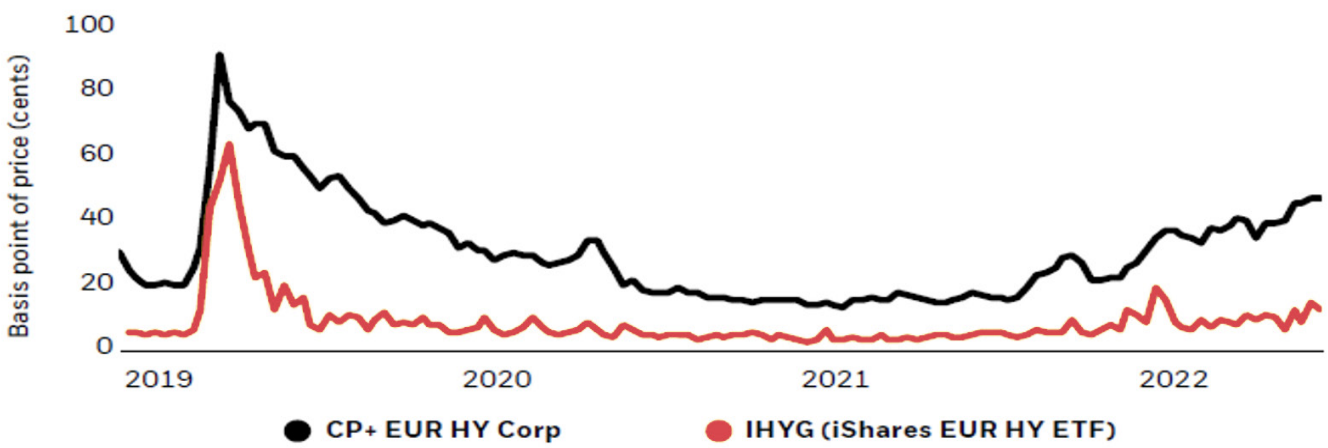


figure 10: *Source: BlackRock data and MarketAxess

The most liquid ETFs are more cost effective to trade in comparison to bonds and the increased interaction between these two markets has a positive impact on liquidity.

A trading style where the interaction between these two markets is most apparent has been portfolio trading, where the best hedge of a diversified portfolio trading very often is an ETF. The growth of the ETF market has driven the adoption of portfolio trading as a protocol and the result is that portfolio trading volumes have increased over the last few years, especially in Europe (see figure 11).

Focus on trading protocols – portfolio trading EMEA

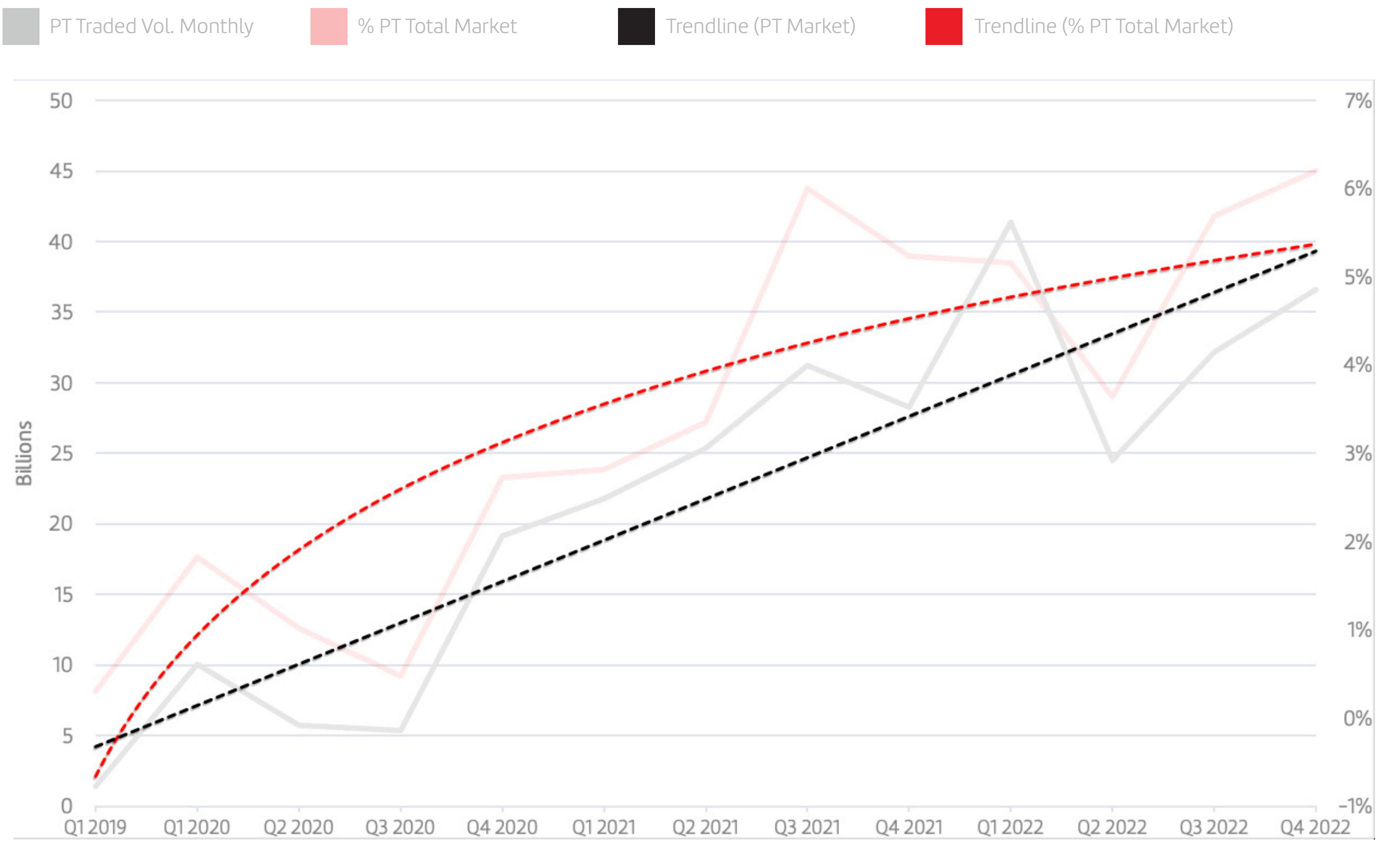


figure 11: *Source: Flow Traders Data 2022

The continued search for passive and low cost investing also supports the use of portfolio trading, as it allows ETF issuers and other asset managers to automate their rebalancing processes. In the same way that increased volumes in ETF primary and secondary markets fuel price transparency and market liquidity, as showcased in the previous chapters of this paper, portfolio trading improves pricing by allowing asset managers to trade an entire basket of bonds versus their pricing benchmark. The all-or-none execution style allows investors to search for a hedge for the entire risk profile of the basket, so that they get a better execution certainty and competitive price for less liquid bonds when combined with more liquid bonds.

Importantly, tracking error can be reduced by the ability to execute as close as possible to net asset value prices, a concept which mimics ETF characteristics to portfolio trading. Portfolio trading allows asset managers to build portfolios quickly, raise and change positioning swiftly whilst minimizing information leakage with the faster execution of portfolio trades. ETF market makers embrace this relatively new protocol, as it is very close to their core business of creating and redeeming baskets with issuers.

In this way, portfolio trading supports the interoperability and interaction within fixed income markets by bringing together traditional RFQ activity and ETF primary markets.

Trend Three: **Change in Euro IG Market Structure**

Over the last few years there has been a noticeable growth both in volumes and in number of tickets, of the sub 1 million trade sizes.

The percentage of trades within this ticket size increased to 29% in 2022, compared to 27% in 2021 and 23% in 2018 (see figure 12). The 1–2.5 million and 2.5–5 million ticket sizes were relatively unchanged in terms of volumes in 2022 versus 2021 (see figure 12). The 5–10 million and 10–50 million ticket sizes, however, continued to decrease (see figure 13).

Traded volume marketing share by Period and Size bucket

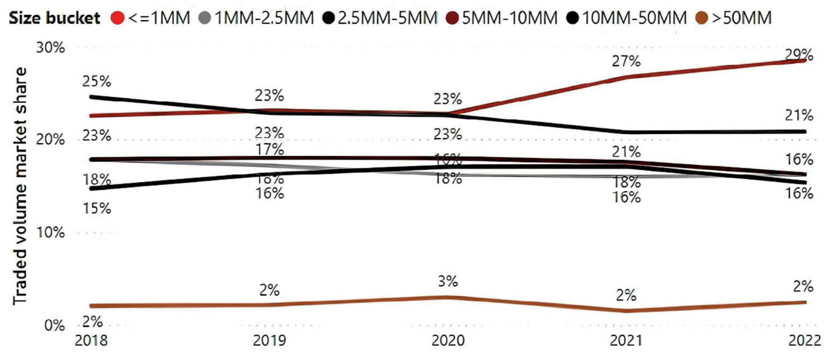


figure 12

Total count market share by Period and Size bucket

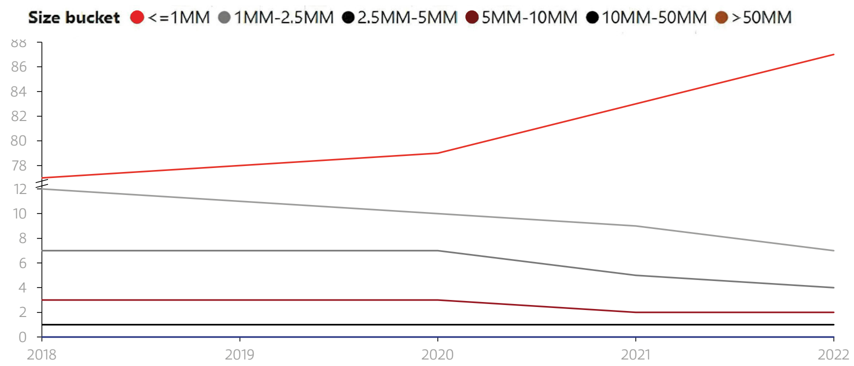


figure 13

***Source:** Flow Traders estimated data 2022

The sub 1 million ticket size buckets now contribute a significant majority of tickets, 87% of all tickets up from 83% in 2021 at the expense of almost every other bucket (see figure 13).

The combined effect of the previously discussed new drivers of liquidity, have all played a role in this increase in smaller ticket sizes. This dynamic and subsequent change in market structure has therefore impacted trading styles, which are now evolving to embrace low-touch and high-touch trading models.

Trend Four: Rise of Low-Touch and High-Touch Trading Styles

Trend Four: **Rise of Low-Touch and High-Touch Trading Styles**

Changes in the market structure and new drivers of liquidity are evolving buy-side trading styles. The increase in adoption of algos, as well as more automation tools becoming available, will further support this trend. Platform innovations, such as AiEX from Tradeweb, Bloomberg's Rules Builder and MarketAxess' Auto-X, provide additional efficiency and therefore benefit low-touch styles of execution. These tools also allow for systematic analysis of execution and performance, whilst executing only within the required rules-based ranges.

Flow Traders' previous whitepaper: The Future of Credit Trading, surveyed a range of buy-side firms, which further illustrated that automated trading or algos significantly improved the execution of odd lots and also benefited the larger blocks and dealer relationships (see figure 14).

How does your firm see the rise of algorithmic trading impacting the fixed income market?

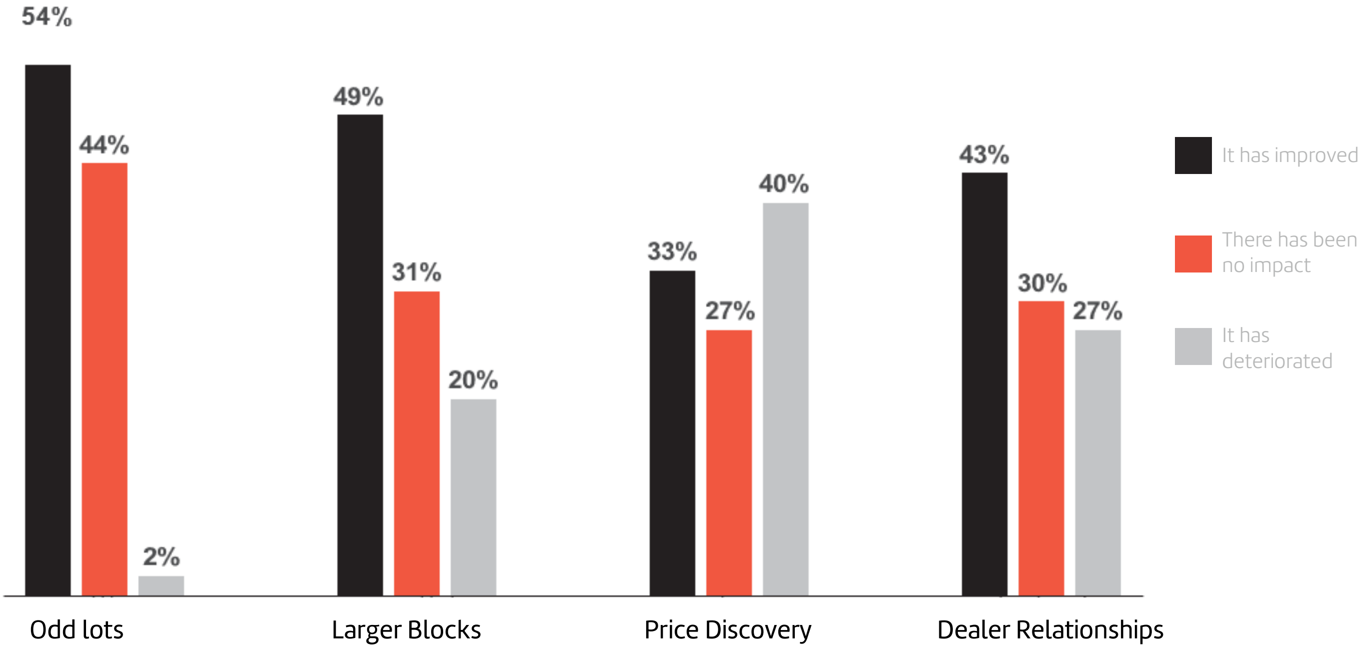


figure 14: *Source: Flow Traders Data 2022

As the relationship with the dealer becomes increasingly focused on the more complex trades, for example larger sizes or less liquid instruments, and less on the execution of the low-touch trades, there is a growing number of buy-side participants adopting a combination of low-touch and high-touch execution models.

Within the high-touch trading styles, the buy-side use enhanced pre-trade analytics to determine dealer selection. Flow Traders believes that historical dealer performance metrics could still be utilized in a better manner on a dealer-to-counterparty and ISIN-by-ISIN basis, with a more unified process being adopted across the venues.

For low-touch styles and protocols such as MarketAxess' Open Trading (OT), studies conducted outline that if more dealers are included in a request, it results in more responses. This is even with OT included and improves trade cost analysis (TCA).[10]

In European credit, we see a clear correlation between responses and pricing outcomes (a similar result to our U.S. IG analysis). The below (see figure 15) shows average TCA versus number of responses, with each additional response improving TCA by ~1.2 cents. TCA outcomes are strongly correlated with realized responses, as we see a linear correlation co-efficient (R-squared) >95%. In 2022, European credit RFQs that received ten or more responses outperformed Composite+™ bid/offer, while over ~44% of trades received at least ten responses and outperformed Composite+ side. TCA is defined relative to Composite+ and is calculated as the difference between the trade price and the Composite+ price on the corresponding side, at inquiry time. A positive value means the trade occurred inside (more competitive than) Composite+ bid or offer, while a negative value means the trade occurred outside (less competitive than) the Composite+ bid or offer.

Fixed income: execution styles & quality of electronic execution

Average TCA delta (vs CP+ side)

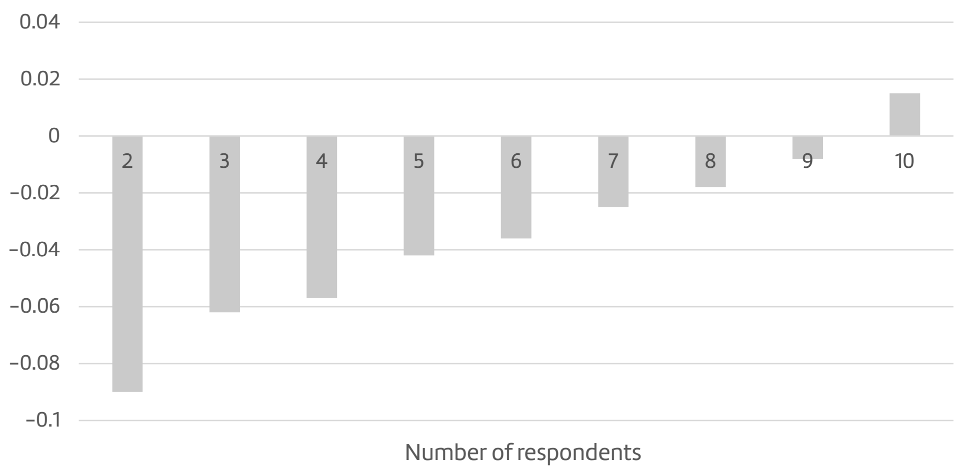


figure 15: *Source: MarketAxess 2021/2022 (AxessPoint: Understanding TCA Outcomes in European Credit Markets | MarketAxess

Number of disclosed dealers invited

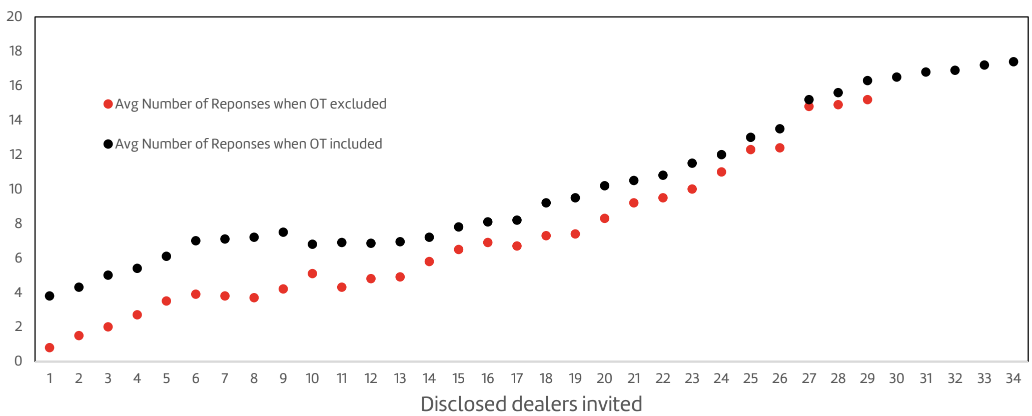


figure 16: *Source: MarketAxess 2021/2022 (AxessPoint: Understanding TCA Outcomes in European Credit Markets | MarketAxes

[10] MarketAxess, Trax Data 2022

There is a strong correlation between the number of dealers invited and responding. However traders should make sure to track dealer response rates closely (see figure 15).

As briefly outlined in chapter two, there is a strong link between ETFs and diversified portfolio trading, which is an efficient tool for executing on an all-or-nothing basis and as an alternative to low-touch trading styles (see figure 17). Although Flow Traders believes portfolio trading has entered a new phase that results in more rational pricing, we do not see this as an obstacle to growth. A central risk book, ETF franchise, automated trading as well as scale, continues to be critical for liquidity providers to be relevant. Platform innovations like ETF overlap tools, benchmark trading and new asset classes, particularly EM portfolio trading, are clear signs of this protocol maturing further.

Flow Traders has seen significant growth in EM portfolio trading on-and-off venues. One of the drivers of these keep this new innovation like NAV trading, where the investor agrees on a spread versus a benchmark (like BVAL or JP Morgan EMBI index), which is then fixed at the close of business. Flow Traders estimates that EM portfolio trading has grown by over 20% in 2022 versus 2021 and that the average size per portfolio trading has increased by a factor of five. Portfolio trading with volumes of 200-300 million are inquired on a regular basis with trade sizes of sometimes over 500 million.

Focus on trading protocols - portfolio trading and view from buy-side

What do you see as the benefits of portfolio trading (all-or-nothing)?

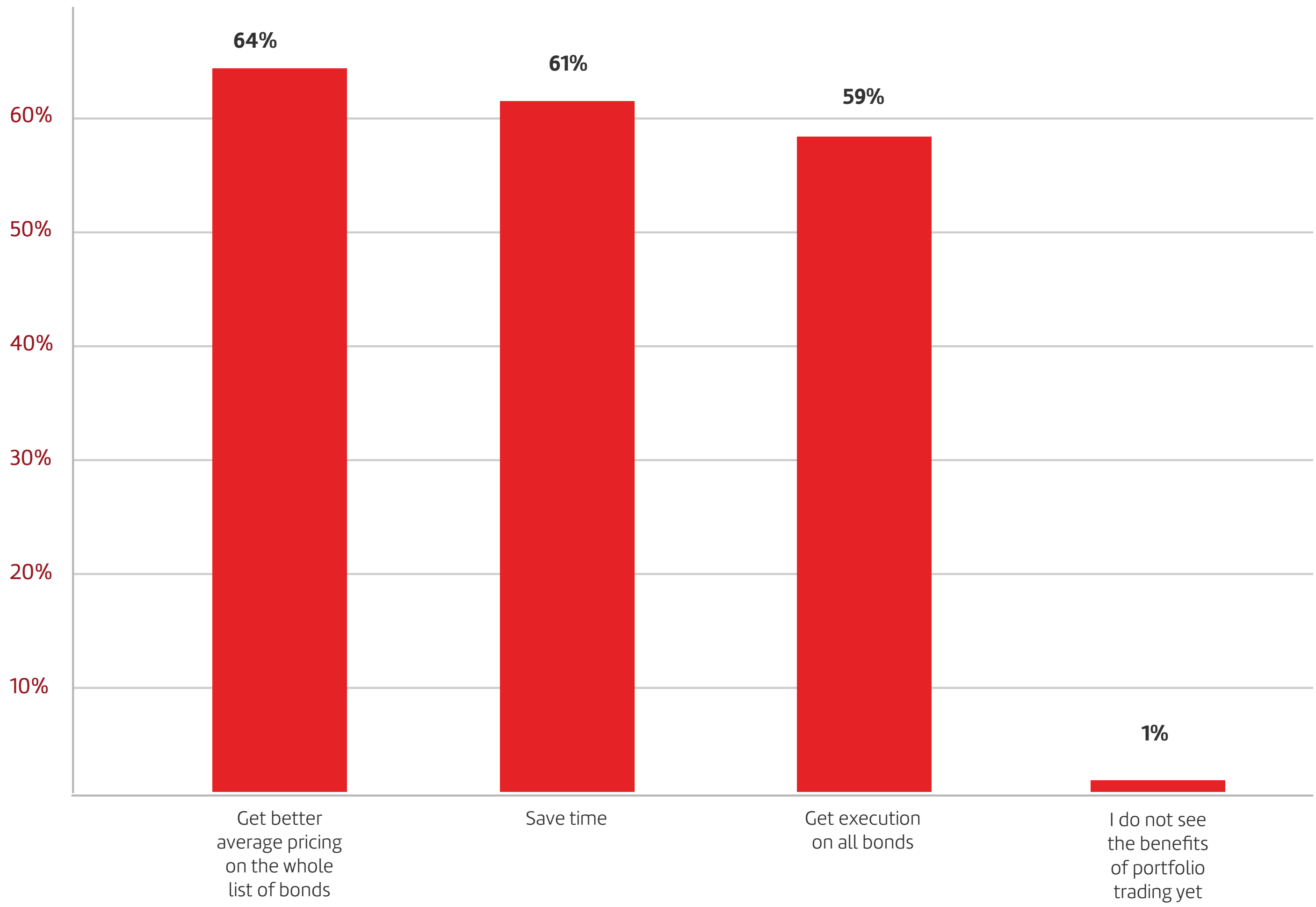


figure 17: *Source: Flow Traders Data 2021, WBR

Trend Five: **Increased Focus on Transparency**

All the factors and dynamics that have been illustrated in the paper so far, contribute to creating greater transparency in the fixed income markets. Furthermore, the ICMA study underpins the relevance of regulation to further contribute to transparency, leading to increased liquidity. Another factor highlighted in the ICMA study is better post-trade transparency, a direct result of the updates to the MIFID II bond transparency rules. There is a divergence in opinion between the buy -and sell-side on the benefits this set of updated rules brings and is linked to the debate around the introduction of a CT, with or without deferrals and size masking in Europe.

Historically the bond market has been a market where traditional sell-side dealers act on a principal basis and specifically in the case of block trades scenarios can emerge whereby sell-side dealers may need to hold risk for an extended period. The argument from the traditional sell-side dealers is that in the case of no deferrals or size masking they will have to provide wider spreads and therefore transaction costs will increase for investors. Flow Traders strongly believes that this argument of higher transaction cost is not accurate.

There are numerous academic studies that have highlighted the benefits to trading costs and liquidity from the introduction of TRACE in the U.S., where similar arguments were heard before it was introduced. These studies sight a transaction cost reduction of up to 50% whilst there was minimal impact on liquidity. Secondly, the market confidence is currently decreased due to information asymmetries whereby the information relating to a big block trade is only in the hands of one dealer. This dealer could subsequently start hedging with other dealers who do not have all the information and are therefore at a disadvantage. In Flow Traders' view the impact of this adverse selection fuels the lack of confidence in the market and does not promote transparency, leading to wider spreads overall. This is because market participants feel they cannot fairly evaluate the fair value of a transaction due to the information asymmetries.

In the U.S., TRACE has resulted in improved transaction efficiencies, resulting in lower search and negotiation costs. Additionally, the interaction between the ETF ecosystem and the bond market will increase with better transparency and allow for more diversified participants to enter the bond market. This diversification also facilitates more automated trading and quantitative strategies, leading to enhanced flows and liquidity. By creating a more competitive landscape competition should increase which will benefit investors by reducing transaction costs.

Taking this into account, Flow Traders strongly believes that the overall liquidity in the fixed income market will benefit from a CT, allowing real-time post-trade price transparency for all transactions with limited volume masking. Looking at the U.S. markets capping trades above 5 million and delaying to end of day looks like a good comprise between all stakeholders. Looking at figure 12 and figure 13 up to 5 million comprise almost 66 percent of the volumes and almost 99 percent of all the targets.

The ongoing debate for a CT and therefore transparency, appears to centre around achieving the right balance between the benefits of real-time transparency versus a perceived need to delay trade reporting to protect participants from market impact, when trading large or illiquid instruments. Flow Traders sees this argument as flawed and therefore urges policy makers to study the introduction of TRACE in the U.S. and the positive impact it has had on transaction cost and liquidity.

Summary: Potential End State of Credit Market Structure

The trends outlined in this insights paper have and will continue to shape fixed income markets and trading styles. The expected growth in the ETF ecosystem will have an even greater impact than it does today as it provides an additional layer of liquidity in related markets. Furthermore, the increase in automated trading strategies, combined with venue trading protocol innovations, will lead to more buy-side quantitative styles of execution. These elements combined will likely accelerate further in the coming years and contribute to the improved availability of data and post-trade transparency.

As outlined in this paper, electronification remains an impactful trend, specifically in relation to credit in Europe. Market participants welcome benefits of electronification and embrace its contribution to increased efficiency. Similar to developments within the ETF ecosystem, as Euro IG moves beyond the inflection point, an increased number of quantitative trading strategies are being deployed, due to the continuous evolution in electronification.

New drivers of liquidity have been explored throughout the paper. ICMA polled the buy-side in 2020, asking for their views on new drivers of liquidity. The three drivers that emerged from the survey are an increased range of electronic venues and protocols, which correlates to automated or algo trading. The second new driver of liquidity analyzed is the ETF ecosystem and how this is a major driver of new liquidity, especially in the smaller size tickets and through portfolio trading. The increased interaction between the two markets, ETF and bond, has a positive impact on liquidity. With the forecasted growth of AUM in ETF, the related trading volumes are expected to dramatically increase as already seen in the U.S. market. Portfolio trading is, and will remain, a supportive protocol for extrapolating significant value from these trends and this will further expand into other areas such as EM. Finally, greater transparency, especially post-trade was highlighted as a driver of liquidity by the buy-side, whilst the sell-side had a strong opposing view.

In this insights paper Flow Traders has investigated the changes in Euro IG credit market structure. It is fair to say that automated trading has accelerated in certain parts of fixed income, particularly in Euro IG, where Flow Traders estimates that 50% of the electronic flow is now traded by automated strategies. This has led to new liquidity dynamics and styles of trading, especially in smaller size tickets.

All these developments have led to new execution business models being adopted by the buy-side. Low-touch execution styles for the smaller tickets in Euro IG are often fully automated and there are clear TCA advantages in adding more dealers, or including Open Trading, A2A or Bridge. This is contrary to common belief that one should limit to only a few axed dealers due to information leakage issues. For the larger size tickets, or less liquid names a more high-touch approach is beneficial with increased focus on pre-trade analysis, such as looking at axes, dealer performance and relationships. For portfolio trading, new platform innovations like ETF overlap tools, benchmark trading, and new asset classes, particularly in EM portfolio trading are clear signs of the further maturing protocol. These innovations amongst others have led to more efficient dealer relationships and to growth in for example, EM portfolio trading on and off venues.

The final factor discussed was the increased post-trade transparency, an aspect which is very much related to the CT discussion in Europe. Policy makers are asked to look at the lessons learned from the introduction of the TRACE bond reporting system. Analysis of this reporting system has led to clear transaction cost reductions and better liquidity. As these efficiencies continue to develop, transparency with respect to data will increase and bring execution benefits to all market participants, further supporting the feedback loop to sustain these growing trends. Flow Traders believes that a CT in Europe will contribute positively to bringing more efficiency and greater transparency to the market, as well as better pre-trade and post-trade transparency.

> “At Flow Traders, we are excited to be part of the evolution of the ecosystem and believe 2023 will be a year in which the fixed income markets will experience significant developments and further growth. Electronification including automation and availability of data contribute as new drivers of liquidity. Other new drivers of liquidity include the impact of the ETF ecosystem and the increase of transparency, mainly post-trade. Further developments in the Euro IG credit market structure and the changes in trading styles, specifically the rise of low-touch and high-touch trading styles will impact the market structure and the ways in which trading occurs. Flow Traders, is very excited to see how these new trends will impact our trading strategies. We believe that a CT in Europe will impact the market positively by not only increasing transparency but also by leading to more innovation, new players and ultimately lower costs for investors.”
>
> **Ramon Baljé** | Head of Fixed Income EMEA

About Flow Traders

Flow Traders is a leading global technology-enabled liquidity provider in financial products. Founded in 2004, the organization initially specialized in Exchange Traded Products (ETPs) and has now applied its extensive expertise and data-driven infrastructure to expand into other asset classes. Flow Traders' footprint covers trading desks in Europe, the Americas and Asia and can provide liquidity across all major exchanges, globally, 24 hours a day.

To find out more visit: flowtraders.com

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