Liquidnet Market
Structure

Liquidity Landscape

Q3 2023 Liquidity Landscape: Moving on from MiFID

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Geopolitics looks set to deliver continued market instability for the foreseeable future. During Q3, markets began to confront the prospect of interest rates remaining "higher-for-longer" as central banks reiterated their commitment to controlling inflation. This occurred against a backdrop of conflicting economic signals, with rising oil prices and weakness in Europe contrasting with stronger indicators and a robust labour market in the United States.

Markets turned downward in August and September, indicating the previous quarter's Al-fuelled rally may have run out of steam. Yields across developed markets surged in September, approaching levels not seen since before the financial crisis nearly two decades ago, leading to growing concerns of a repeat credit-crunch. With dovish comments from Fed officials and conflict in the Middle East fuelling a flight to safety, volatility and uncertainty in rates markets are set to persist. Traders are betting the Fed's most aggressive tightening cycle since the 1980s may be over and top central bank officials have indicated that tighter conditions after the recent surge in yields may stand in for further rate hike. This uncertainty has translated into subdued volumes in European equity markets.

Regulators remain focussed on ensuring market stability but concerns are rising regarding the role of technology in the industry and its potential impact on financial infrastructures, particularly Artificial Intelligence (AI), and the possible threat to resiliency, stability, and confidence in the financial system.

Irrespective of regulatory concerns, the industry continues its march away from the traditional market set-up of buyers and sellers meeting on a primary exchange. Despite the introduction of MiFID II, European volumes on primary venues is now just 30%¹ of market activity, leading to further concerns around the volume of activity traded away from the lit. As more activity is forced to trade at market close to meet the rise in passive investing and need to benchmark performance, this adds to the reduction in continuous secondary market activity. Reduced overall continuous activity results in clear outcomes to protect end investors:

- a stronger reliance on technology to source and generate liquidity,
- · the need to trade in size in the dark.

Reliance on broker capital for certainty of execution is also becoming entrenched as SI volumes continue to rise, all of which leads to the resurgence of core regulatory concerns:

- · lack of continuous lit trading to support primary capital markets,
- perceived lack of transparency in secondary market activity and,
- · growing industry resilience on use of technology and third-party providers reliant on cloud.

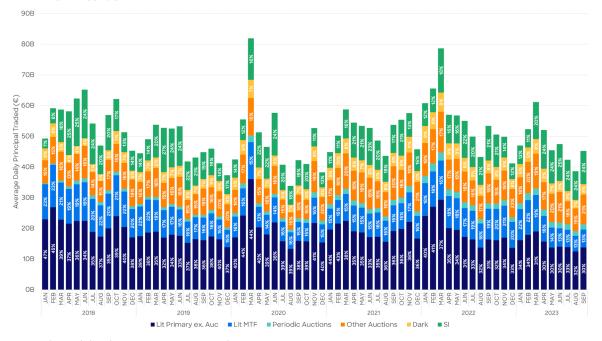
As asset managers continue to shift to multi asset class trading, high inflation fuels the need for diversification of investments. This means the need to connect with all providers of liquidity, not just to source liquidity and trade at the best price but to create liquidity across asset classes, will remain. In addition, as technology moves to incorporate AI, the industry is standing at a crossroads. We cannot turn our back on technology but the question of how trading can best embrace technology with minimal risk is one that requires further industry clarification and regulatory reassurance. These concerns are not limited to European markets but are global, affecting the whole ecosystem and emphasizing the scope of the regulatory changes to come: "As with any new technology, to the extent that AI affects that ecosystem, to that extent we will be involved. As we realise the potential of tech, we have to do all we can to avoid negative disruption, learned market abuse, misinformation, discrimination, and bias—whether intended or unintended."²

 $^{^1}$ September 2023 lit continuous primary market share, see Exhibit 2 2 ASIC Chair Joe Longo speech at the ISDA/AFMA Forum, 20 June 2023

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Exhibit 1

EMEA Flow Breakdown³



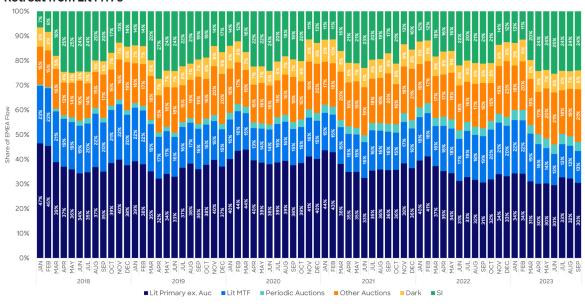
Source: Cboe and Bloomberg, January 2018 to September 2023

What this means for European markets

In the third quarter, European equity market averaged €42.1B in daily turnover, a decline of 13% from the second quarter's average of €48.3B. July, August, and September all saw their lowest average daily turnover since the Covid-era summer of 2020 as markets digested broad economic uncertainty.

The shift in volume away from lit markets appears increasingly persistent. Continuous lit primary activity ticked up slightly in July and August off the second quarter's lows, before settling back in September just above the record low of 30%. Markets across the continent remained muted throughout the quarter, with lower volumes matching the subdued price action.

Exhibit 2
Retreat from Lit MTFs

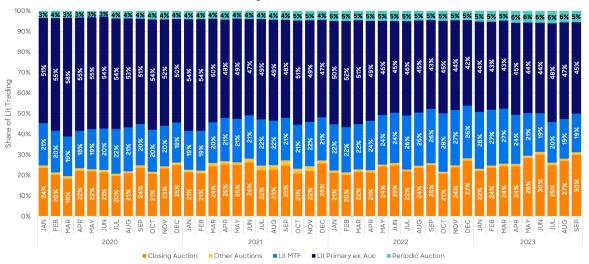


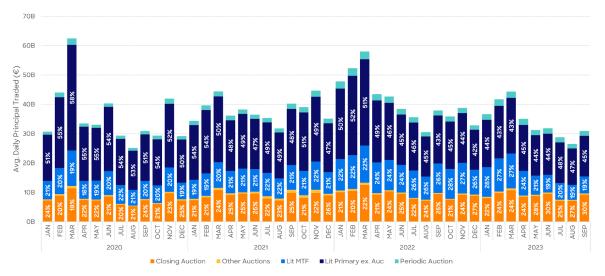
Source: Choe and Bloomberg, January 2018 to September 2023

³ All data in this report has been sourced from Liquidnet internal analysis and Cboe and Bloomberg market data

The share of flow in the continuous lit primary session increased slightly from the second quarter's average of 30% to a monthly average of 31.8%. In terms of overall continuous lit activity, this uptick was overshadowed by a notable decline in Lit MTF market share over the previous two quarters. Lit MTF volumes declined to 13.2% of overall flow in the third quarter, down moderately from their 14.3% share in second quarter, but down notably from the first quarter's average of 20.9%. Given the relative stability of the Dark, SI, and Periodic Auction share of volume during the quarter, the continued growth of the closing auction appears to be the key force at play.

Exhibits 3 + 4
Network effects of the close show their strength

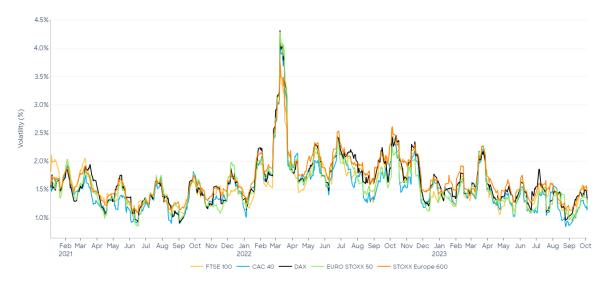


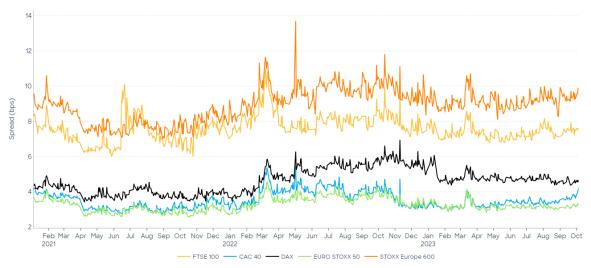


Source: Cboe and Bloomberg, January 2020 to September 2023

In the third quarter, closing auction activity consolidated around the new heights it achieved in the second, averaging 27.2% of overall lit market activity. The closing auction's growing relevance to price discovery is in itself an incentive for many to participate. However, as market share of the close grows, network effects around its liquidity will grow as well, further incentivising participation. Historically, the growth of the auction has appeared to crowd-out volumes from the continuous lit sessions, affecting both primary and lit MTF volumes alike. The past quarter represents a departure from this trend, as lit primary volumes held the floor established last quarter at the expense of volumes on lit MTFs. Considering the relationship between primary exchanges and the closing auctions, it is perhaps unsurprising the growth of the closing auction could have an uneven impact across the continuous lit market. We might be observing a small extension of the auction's network effects into the lit primary sessions as, for example, market participants follow the headline liquidity or as various close algorithms direct flow in the lead up to the auction.

Exhibits 5 + 6
Volatility hits multi-year lows while spreads stabilise

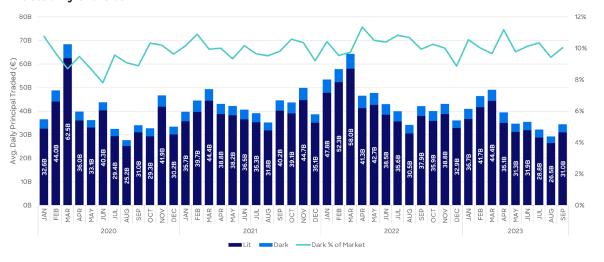




Source: Bloomberg, January 2021 to September 2023

Volatilities across the major indices continued their downward trajectory, reaching multi-year lows in late August not seen since the summer of 2021. Spreads remained stable and range-bound, inching up slightly as the market began to turn downwards and volatilities started to rise toward the back half of September. The CAC is an outlier in this regard, with French spreads widening beyond their 2023 range to above 4 bps by the end of September, back toward the more elevated levels of last year. Lower volatilities and more predictable spreads typically equate to lower trading costs. However, the fragmentation of European liquidity, together with lower trading volumes on both lit and dark markets means this relationship could be less straight forward than market participants might expect.

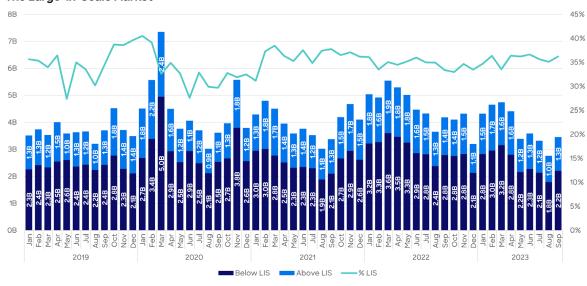
Exhibit 7
The stability of the dark



Source: Cboe and Bloomberg, January 2020 to September 2023

Dark market volumes remained stable during Q3, again oscillating within their historic range of 9-11% of overall market activity and continuing to reaffirm the long-term stability of dark market share, despite the historic and ongoing regulatory headwinds. As the liquidity in the continuous lit sessions remains depressed, the dark market will be valuable for the depth of liquidity it provides as well as its ability to cater to workflows suited toward the creative and innovative sourcing, and even the manufacture of liquidity.

Exhibit 8
The Large-in-Scale Market

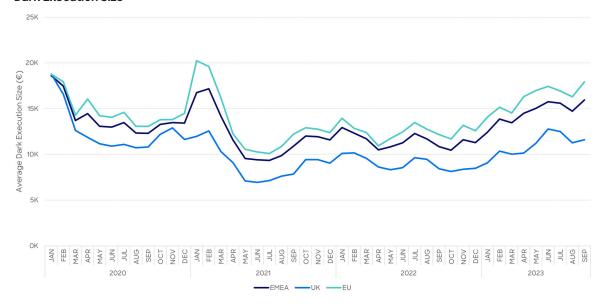


Source: Choe and Bloomberg, January 2019 to September 2023

The overall size of the dark market fell during the third quarter, in line with overall market volumes. Daily dark volumes averaged \$3.3B in July, \$2.8B in August, and \$3.5B in September, down year-over-year and generally in line the levels seen in 2021 and 2020. The Large-in-Scale (LIS) segment of the dark market saw its share remain consistent, at a monthly average of 35.6% of the overall dark market. Like the dark market overall, the LIS market has been consistent in its market share since 2021, suggesting the value and liquidity it delivers to market participants persists through the different market cycles that have occurred over the past three years.

Exhibit 9

Dark Execution Size

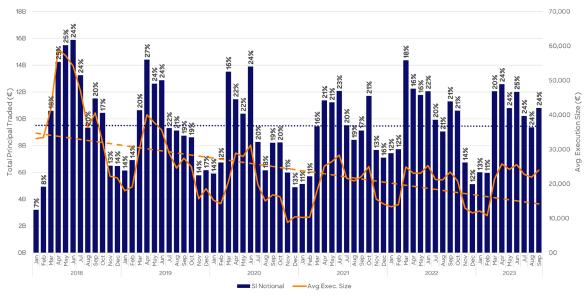


Source: Cboe and Bloomberg, January 2020 to September 2023

Similarly, average execution sizes in the dark remained elevated relative to the levels of the past two years. At play could be not just the stability of the LIS segment of the dark market but also an expansion of the long tail of large prints market participants are sourcing across the major EMEA block and conditional venues.

Exhibit 10



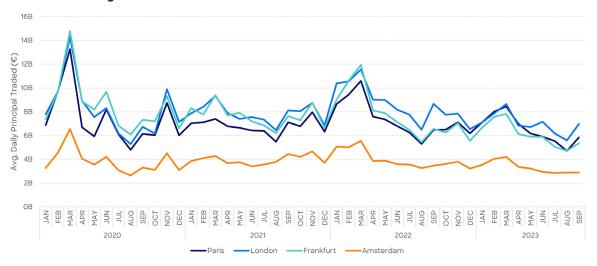


Source: Cboe and Bloomberg, January 2018 to September 2023

Systematic Internalisers (SI) volumes were elevated during the quarter, aligning with their expected seasonality. Year-over-year, SI volumes increased their market share to a monthly average of 24.1% in the third quarter, up from 20.7% in the third quarter of last year. As lit volumes continue to retrench, the certainty of execution offered by SIs, especially for smaller orders, could be prompting a rise in the popularity of SI's as a liquidity source.

Exhibit 11

The London Resurgence



Source: Choe and Bloomberg, January 2020 to September 2023

Following months of back and forth with Frankfurt and Paris, average daily turnover in London exceeded that in other major European market centres during each month of the quarter, bringing London's streak of leading the pack to five months.

The Regulatory Outlook: moving on from MiFID?

Despite various iterations of MiFID II refit, the industry still appears to be going round in regulatory circles to address existing challenges. With the Financial Services and Markets Act⁴ now underway in the UK, the European Parliament is still to vote on the proposed amendments to MiFID in December, possibly January, with entry into force planned for March 2024. The current Member State horse-trading is made even more complex due to forthcoming elections, the rise of the right and wider geopolitical issues. With levels of OTC/SI trading remaining high, transparency remains firmly on the agenda. To reach industry consensus, the final text is likely to include tweaks to the Single Volume Cap mechanism, such as excluding negotiated transactions and clarifications around what SI activity is permissible at midpoint, which will be debated upon up to the wire.

Back to the Tape

The hope for the Consolidated Tape both in Europe and the UK to deliver now hinges on agreements over revenue distribution schemes and the quality, timing and substance of both input and output data. The outcome of negotiations on potential latency lags, clock synchronization and reference price exclusions will all have an impact on not just delivery of data to the tape but potentially see a change in participant behaviour such as the possibility of greater pegging to pre-trade. With the UK determined to move ahead with the Bond Tape by next year, most market participants are resigned to a mere clean post-trade Book of Record in Europe, given the level of robust debate in negotiations currently. With the cost of data continuing to rise, questions are being asked as to just how open and fair markets will be post-MiFID II Refit.

Shoring up Primaries

Another of the areas for political focus is the need to shore up Capital Markets both in the UK and the EU through the support of primary listings. The current European Compromise text requests asking for issuers' explicit consent before the companies' shares can be traded on another venue to the venue where it is listed—rather than a proposal no-objection by the issuer. There are several arguments as to why this would not be beneficial for European markets, such as reducing visibility to global investors by restricting interactions between different pools of investors and trading members. By restraining the volume and variety of interests, company valuations are potentially limited and cost of liquidity increases. All of which reduces Europe's attractiveness for listings, counterintuitive to the main aim of the Capital Markets Union.⁵

⁴ https://bills.parliament.uk/bills/3326

⁵ https://finance.ec.europa.eu/capital-markets-union-and-financial-markets/capital-markets-union_en

Anything other than Equities

European and UK regulatory focus is shifting to bonds and derivatives, reframing the regulatory debate away from equities to broader questions regarding use of technology in the trade lifecycle across all asset classes, including crypto. Commissioner Gensler and the SEC are taking this one step further in focusing on "identifying and prosecuting any form of misconduct that might threaten investors, capital formation, or the markets more broadly" including regulation around mutual funds, asset custody, ESG and cybersecurity.7

The regulatory focus on technology comes at an interesting time for the industry. Continued pressure to further automate and optimize resources, and to increase multi-asset trading is hampered by the reality that clarity has not even yet been reached on use of technology under the Trading Venue Perimeter (TVP) guidance. Both the UK and Europe recently issued guidelines, yet where the industry once had clarity on the distinction between information streams "Where the trading interests are NOT the trading interest of the System Providers" bringing together of multiple buyers and sellers bilaterally or multilaterally, the latest outcome is a case-by-case regulatory review of how technology is being used in individual circumstances. This is compounded further in Europe given that this will be dependent on Member State (MS) interpretation under MiFIR, potentially leading to some existing systems needing MS authorization in one jurisdiction versus another, which leads to some interesting questions on Legal Entity challenges on EU branch transactions.

The area of most consternation now is the difference between information streams—a transmission of "interest to trade" versus what is "executable." As more assets are traded electronically, previously clear distinctions between on venue and OTC trading for equities are becoming blurred when taking into consideration fixed income and FX trading business practices. Although the ESMA review of Request for Quote as "insider information" under MAR resulted in no outright ban, ESMA did recognize the Conflict of Interest for firms and are waiting on a review by IOSCO in how dealers place hedges before executing trades.¹⁰ Another area of focus is automated Indication of Interests and whether it will be necessary to remove bilateral activity not formalized on a trading venue (SI). The question remains as to whether this is technological transmission of information to assist with trading, rather than bringing together buyers and sellers to execute.

Global Ramifications of US Move to T+1

At the time of increased fragmentation impacting sourcing of liquidity and with the industry making the move to reduced settlement cycles-with US implementation¹¹ in just over six months' time-ESMA has released its consultation paper on the topic, 12 specifically on whether any regulatory action is needed to smooth the impact of the move in the US for EU market participants.

The benefits of technology to bring together disparate systems to communicate across the trade lifecycle-along with use of AI-to achieve greater operational efficiencies appears obvious. Market participants are of the view that the reduction in settlement time will lead to more trading falling out of automated settlement cycles despite the introduction of initiatives such as DTCC Match to Instruct¹³ given the increased likelihood of missed cut off times due to time zone differences.

While the SEC may be focussed on US market participants, this will have an impact given that, according to the US Treasury, foreign investors now own 40% of US corporate equity, up substantially over the last few decades.¹⁴ In addition, foreign investors have no direct access to the primary clearing house, the NSCC.¹⁵ As such non-US participants continue to look at ways in which the industry can best respond-how to fund trades including FX. The assumption being that FX providers will move to offer extended hours FX trading in the US to reduce unnecessary risk in waiting for the UK market to open-for example, T0 delivery on Yen requires completion by 11:30pm Eastern time. Again, unintended consequences may result in more localised FX trading such as in APAC to assist in the relevant time zone, requiring both Front and Back-office changes which may lead to greater STP automation of Workflow Processes. Which is when the question of how to engage with technology reverts to the fore yet again.

https://www.sec.gov/news/statement/3-12#:":text=%22In%20times%20of%20increased%20volatility,or%20the%20markets%20more%20broadly.

⁶ https://www.sec.gov/news/statement/3-12#::text=%22ln%20times%20of%20increased%20volatility,or%20the%20markets%20more%20broadl
7 https://www.sec.gov/files/2023-exam-priorities.pdf
8 https://www.fca.org.uk/publication/policy/ps23-fl.pdf
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15 https://www.bis.org/cpmi/publ/d105_us.pdf

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The recent FCA speech on to what extent should the financial services industry embrace and adopt AI¹⁶ clearly outlines the challenges ahead. There are obvious benefits in incorporating AI within risk management and compliance testing, identifying greenwashing, or tracking bad actors. Regulators themselves now can web-scrape and monitor social media to detect, review and triage potential scam websites. Fuzzy matching and entity resolution helps identify key risk indicators or sanctioned individuals. Synthetic data is now used in money laundering detection efforts and is shared globally, not just with other regulators but also available for innovators to use in their AI anti-money laundering (AML) identification. But regulatory focus is now aimed on the impact of AI on price formation and market structure, particularly given the rising use of cross asset/cross market correlations creating potentially greater levels of systemic risk.

The regulatory focus on the broader impact of technology–specifically Al–on markets indicates the direction of travel we can anticipate:

- Understanding the risks to digital infrastructure, given the growing reliance on the cloud and thirdparty tech providers
- Safety and responsibility for operational resiliency—including any services that are outsourced to third-parties or Senior Managers and Certification Regime (SM&CR) and Consumer Duty—do not deploy systems you don't understand.
- The risks to consumers from deepfake technology, fishing scam calls, and biometric theft or the risks to firms from sophisticated Al-powered cyber-attacks
- The role of data in model risk management, and the risks that AI exacerbates with sample bias, model drift, and the black box effect. Responsible AI depends upon data quality, data management, data governance, data accountability and ownership structures, but also data protection.

Most in the industry are sceptical of widespread use of AI in algorithmic trading and believe that market resiliency is currently robust given usage of circuit breakers and strong compliance of electronic trading under RTS 6 and 7. Interestingly ESMA have noted that verification of algorithms requires firms to demonstrate understanding and control of AI in the same manner as any standard logic. The FCA have also stated that firms are accountable for products and services that they deliver whether that is outsourced to a third party or not.¹⁷

But with regulatory concern globally of the ability of markets to withstand misuse of AI to manipulate markets, what we can expect is far greater regulation over technology, data providers and users which not only brings greater compliance concerns but is likely to expand the list of who is regulated as well as how. This extends across all assets, all markets, and all participants, traditional as well as newcomers such as social media influencers currently under review by the EU Commission. This will lead to a whole new interpretation of extraterritoriality as third-party firms—often US-based—increasingly fall under European and UK regulators. The debate over technology in trading is just getting started.

