Liquidnet

Market Structure

Liquidity Landscape

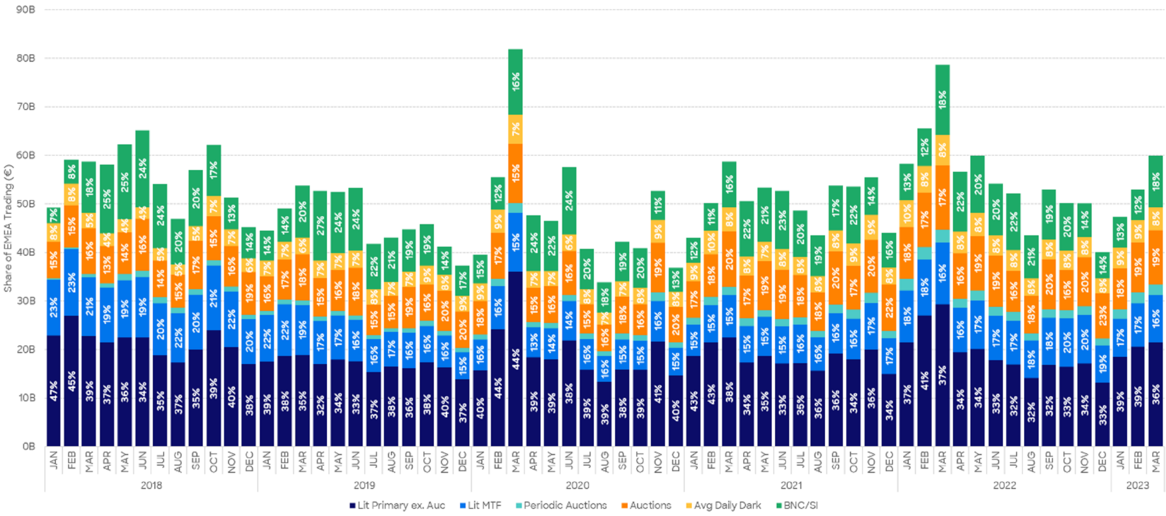
Q1 2023: GFC 08 Redux

Liquidnet

GFC 08 Redux

Rapid monetary tightening in an environment of rising inflation is leading to increased market volatility and wider investor concern. While governments and regulatory agencies seek to calm investors, the first quarter of 2023 saw a continuation of the challenging market conditions of 2022. Recent bank failures both in the US and Europe are leading the industry to question whether markets are heading for repeat of the Global Financial Crisis of 2008. Technically the conditions are not the same, given the increase in banking regulations post-Lehman. Yet, with the banking sector saddled with loans below current interest rates and investors able to move money by tapping an App on their mobile phone, this means historic responses are obsolete. Regulators are also increasingly concerned about the impact on investors. With banks slow to raise interest rates on savings and government bond yields declining, investors continue to look for more lucrative opportunities in areas like crypto, extending the regulatory remit at a time when regulators themselves have few new resources. The stakes continue to rise on what exactly global regulators can do next.

Exhibit 1
EMEA Flow Breakdown



Source: Cboe and Bloomberg, January 2018 to March 2023

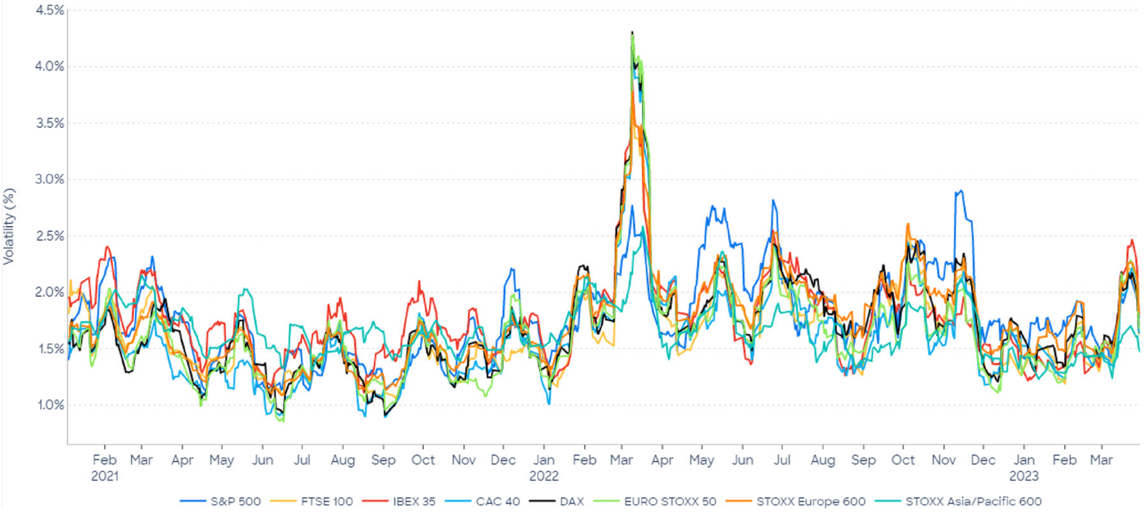
What this means for European Markets[1]

As central bank policy makers continue to aggressively tighten financial conditions as part of their efforts to combat inflation, cracks in the financial system are appearing. This has evidenced itself in lower levels of primary market activity and, as a result, liquidity increasingly needs to be sourced outside the continuous sessions. Market participants will find it more important than ever to have access to accurate information on where and how to trade. Overall, European equity markets averaged €53.4B in daily value transacted in the first quarter, down 3.3% over the 2022 average of €55.2B (see *Exhibit 1*). Volumes rose notably throughout the quarter, reaching nearly €60B in March. March was the fourth most active month since the onset of the Covid-19 pandemic in Q1 2020.

[1]Internal Liquidnet analysis using a 1x LIS trade size across all index constituents

Liquidnet

Exhibit 2
The Return of Volatility

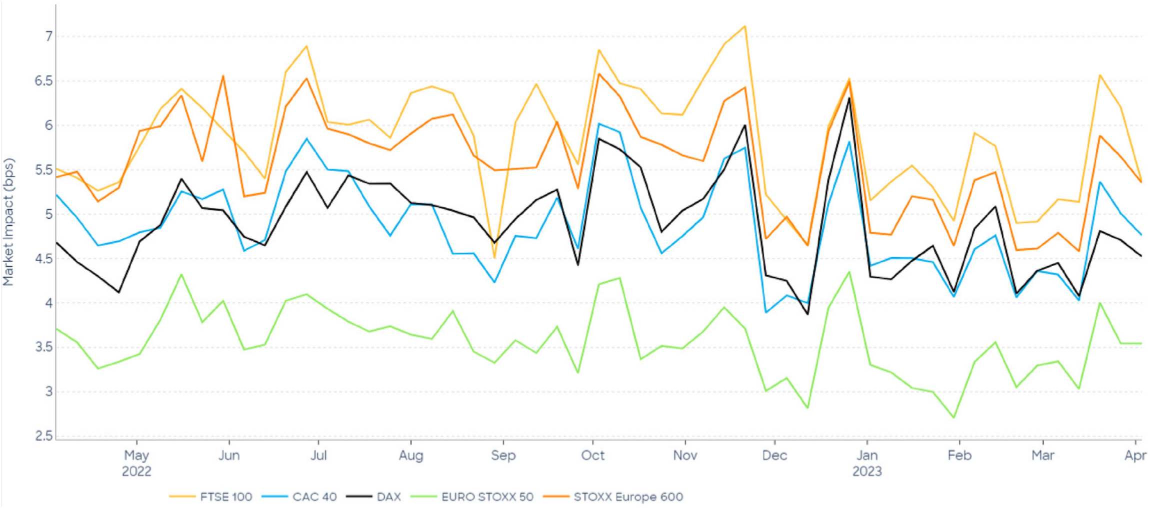


Source: Bloomberg, January 2021 to March 2023

Volatility returned to European equity markets in March after a muted January and February, as SVB and the distressed sale of Credit Suisse gripped markets. So far volatility has rebounded to only half of the highest levels seen during of the heat of last year's interest-rate driven sell-offs as the impact on the financial sector appeared not to spread to the broader market (see *Exhibit 2*).

This will remain an important factor to watch as higher volatility typically translates into higher trading costs. The estimated market impact[1] of transacting in major European indices rose notably from near annual lows in January and February to quarterly highs in March. The costs of trading in the Euro STOXX 50 rose 45% from lows at the end of January to a peak in late March. This mirrored cost increases over a similar period in the CAC40 (+35%), the DAX (+20%), and the FTSE (+33.5%) (see *Exhibit 3*).

Exhibit 3
Cost of Trading



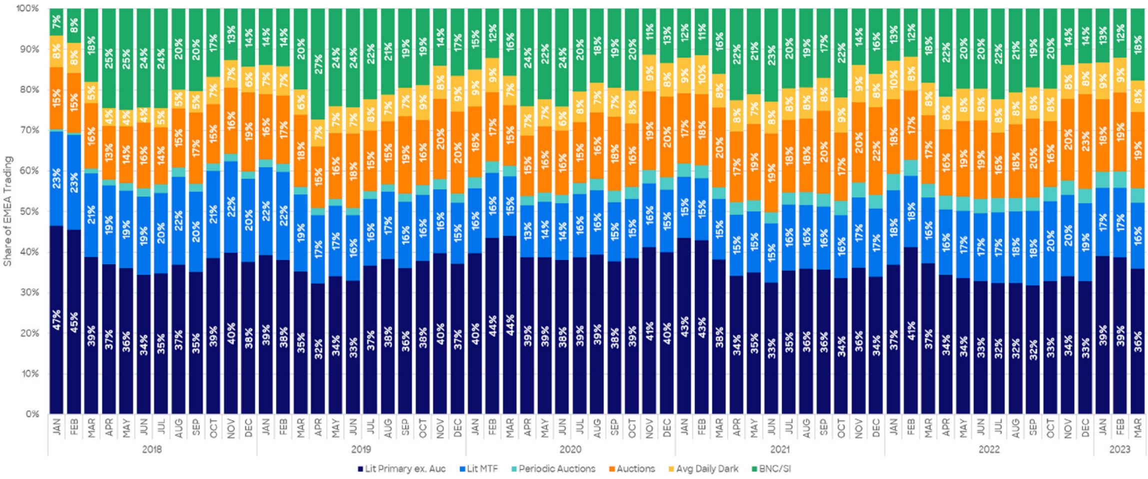
Source: Bloomberg, April 2022 to March 2023

[1] Internal Liquidnet analysis using a 1x LIS trade size across all index constituents

Liquidnet

Exhibit 4

The Shifting Make Up of Liquidity



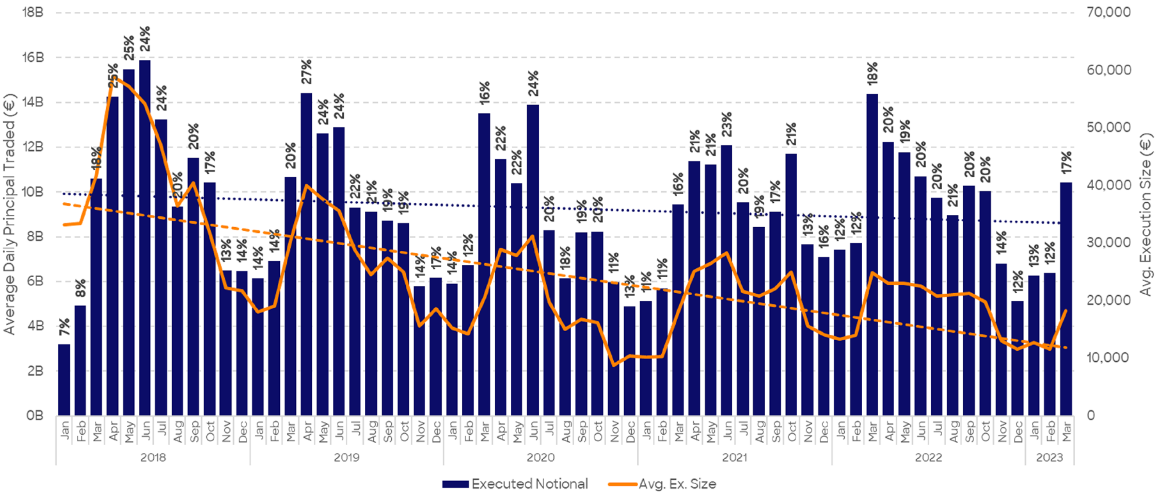
Source: Cboe and Bloomberg, January 2018 to March 2023

The challenge for market participants is that, despite regulatory efforts, continuous lit activity remains in overall decline—averaging 55% of total volume in Q1 versus 66% in Q1 2018.

Options on where to source liquidity from alternative venues continue to fluctuate. Systematic internalisers retained their usual seasonality, coming in at 17% of total European volume in March and matching year-over-year expectations. Relative to trailing levels from the back half of 2022, there was a small increase in primary lit for the quarter, which ticked up to an average of 38% (see *Exhibit 4*). It remains to be seen if the seasonal increase in primary lit activity over recent years may be temporarily due to major geopolitical and economic events, for example Covid-19 and the Russian invasion of Ukraine, having happened in the first quarters of 2020 and 2022, respectively.

Exhibit 5

Seasonal Systematic Internalisers



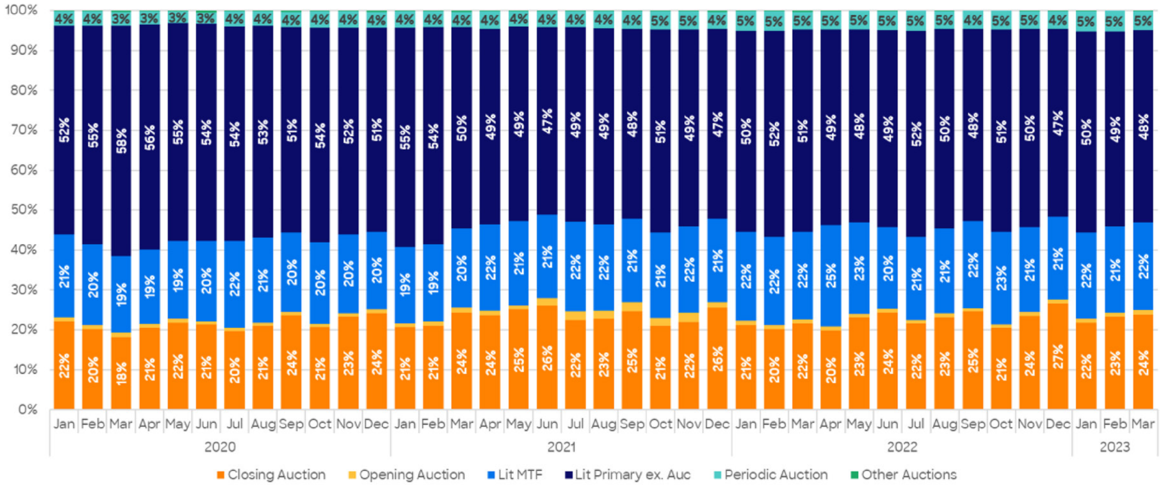
Source: Cboe and Bloomberg, January 2018 to March 2023

First quarter average execution sizes in SIs continued on a downward trajectory, averaging under €20K in March 2023 and down year-over-year relative to past Q1s. The cyclical nature of the provision of bank risk remained in place in March of this year (see *Exhibit 5*). It will be interesting to see whether this can continue given the anticipated curbs on bank risk-taking.

Liquidnet

Exhibit 6

Continued Growth of Closing Auctions

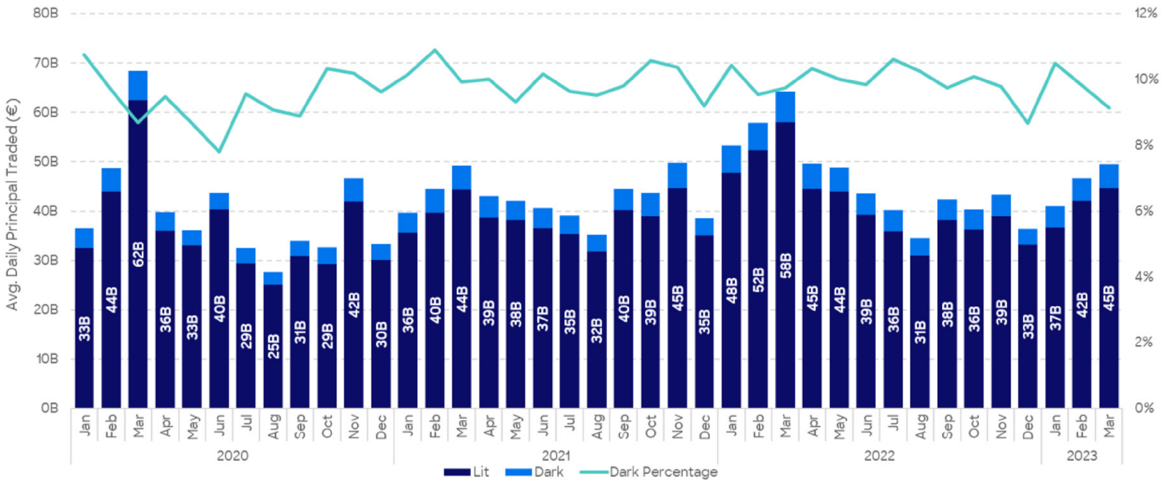


Source: Cboe and Bloomberg, January 2020 to March 2023

Average monthly closing auction volume continues its upward hike, reaching 23% of all combined lit and auction volume during the quarter, up from 21% over the previous three years (see *Exhibit 6*). Rising volume at the close will continue to suck volume from continuous intraday trading given that market participants need to participate in the close and as a result will continue to increase their levels of participation. Periodic auctions are also solidifying their place in the European market structure, consolidating at a consistent month-on-month market share.

Exhibit 7

The Relative Stability of the Dark[2]



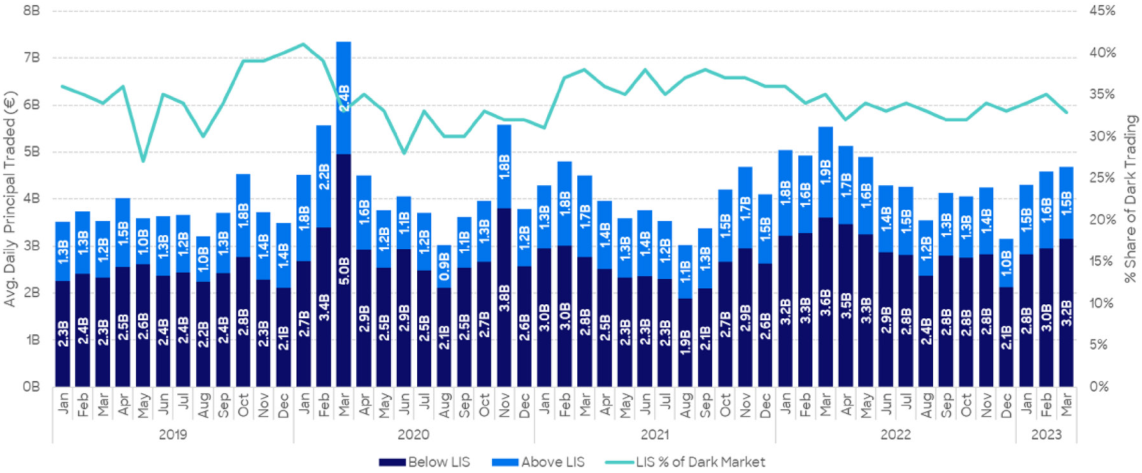
Source: Cboe and Bloomberg, January 2020 to March 2023

The European dark market remains relatively stable within its multi-year range of 9 - 11% of total volume. As market uncertainty and volatility grew in March, dark market share declined as market participants sought liquidity in lit markets in greater proportion, mirroring a similar dynamic that occurred during volatility events in Q1 2020 (see *Exhibit 7*).

[2] Lit Volumes include Periodic Auctions

Exhibit 8

The Large-in-Scale Market

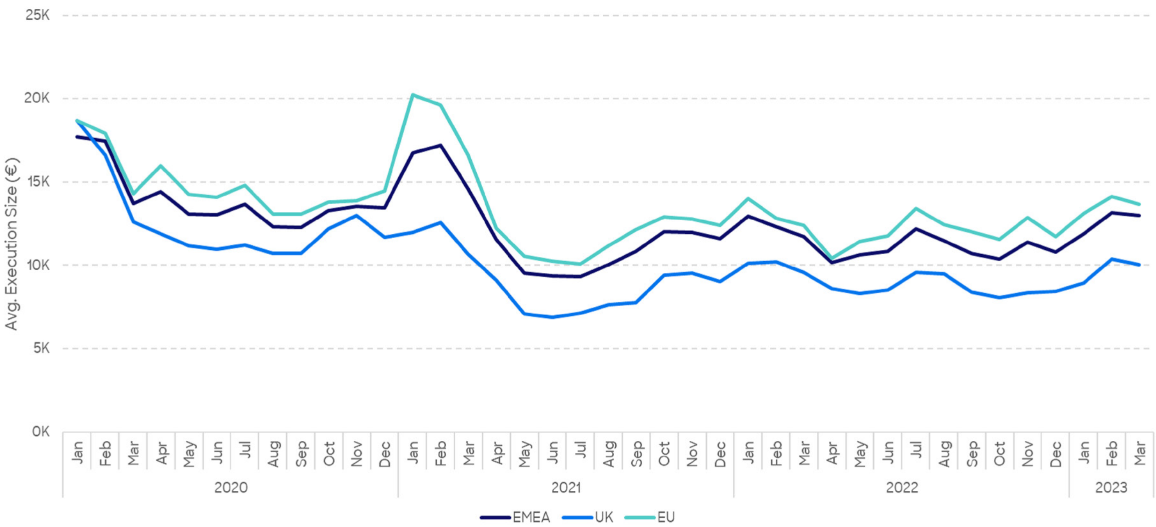


Source: Cboe and Bloomberg, January 2019 to March 2023

The large-in-scale segment averaged 34% of the overall dark market during the quarter. LIS volumes as a percentage of the dark market have trended down throughout 2022 and into Q1 2023 relative to their peak in 2021 and late 2019 (see *Exhibit 8*).

Exhibit 9

Reshaping the Dark



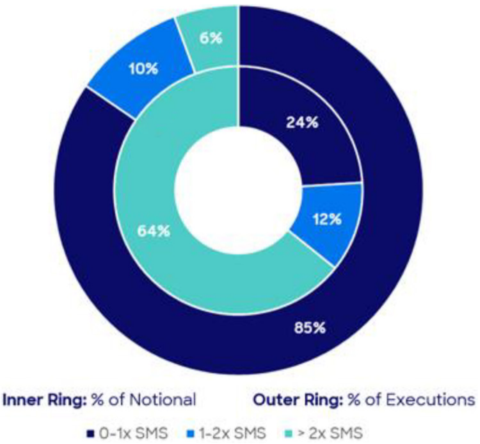
Source: Cboe and Bloomberg, January 2020 to March 2023

Alongside the decline in LIS volumes has been a similar decline in overall dark execution size over the same period. Dark execution sizes have increased slightly during the first quarter as volumes ticked up in February and March. Over the past few years, a gap has opened between the UK and other EU markets, with UK dark execution sizes settling 27% lower than those in the EU in March 2023 (see *Exhibit 9*). The divergence in regulatory regimes post-Brexit and the removal in the UK of the Double Volume Cap appears the likely culprit. The future exact calibrations of Reference Price Waiver reductions, tick size, and midpoint matching under the MiFID II Refit will also have an impact on how the dark market will be accessed going forward, potentially negatively impacting liquidity formation and execution performance as a result for Large-in-Scale activity in particular.

Exhibit 10

The Possible Impact of a RPW Change

Dark Market since April 2022



Source: Bloomberg, April 2022 to March 2023

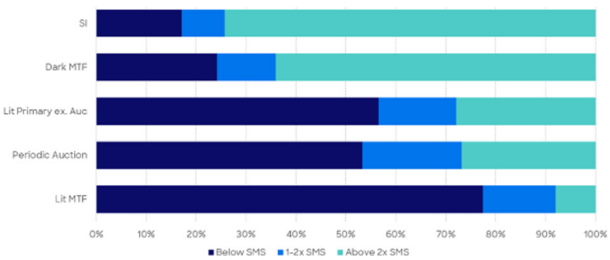
A key question is how European trading volumes may shift if changes are made to the Reference Price waiver. At present 85% of dark executions fall below 1x Standard Market Size (SMS), with only 6% exceeding 2x SMS (see *Exhibit 10*). However, due to the long tail of large prints, the 6% of prints above 2x SMS represents 64% of overall notional.

If calibrations to the RPW were to establish a higher price floor, anywhere from 20% to 35% of dark notional might shift to alternative venues (see *Exhibit 11*). Two criteria stand out when thinking about natural landing spots for these volumes. The first is robust existing <2x SMS activity. The second is a possible preference among market participants towards markets with certain similarities to the dark markets, in terms of their workflows, potential to limit market impact, and possibility for liquidity discovery. With this in mind, periodic auctions—particularly in the UK—could see further market share growth, mirroring the dynamics that followed the initiation of the double volume cap in 2018. However, there are a significant regional difference in the nature of flow across the major European market centres. In Italy, the primary exchange dominates. In Belgium, closing auctions are more active. In Norway, SI volume is lower than other European markets (see *Exhibit 12*). This means market participants must adjust their sourcing of liquidity not just on current market conditions and wider market structure trends but also on the individual geographical location. As continuous intraday liquidity on the primary exchange remains in decline, the more regional market structure differences in how trading occurs matters.

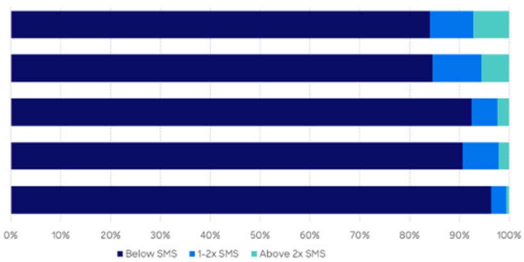
Exhibit 11

Execution size by factor of stock SMS

Notional Traded by SMS Segment



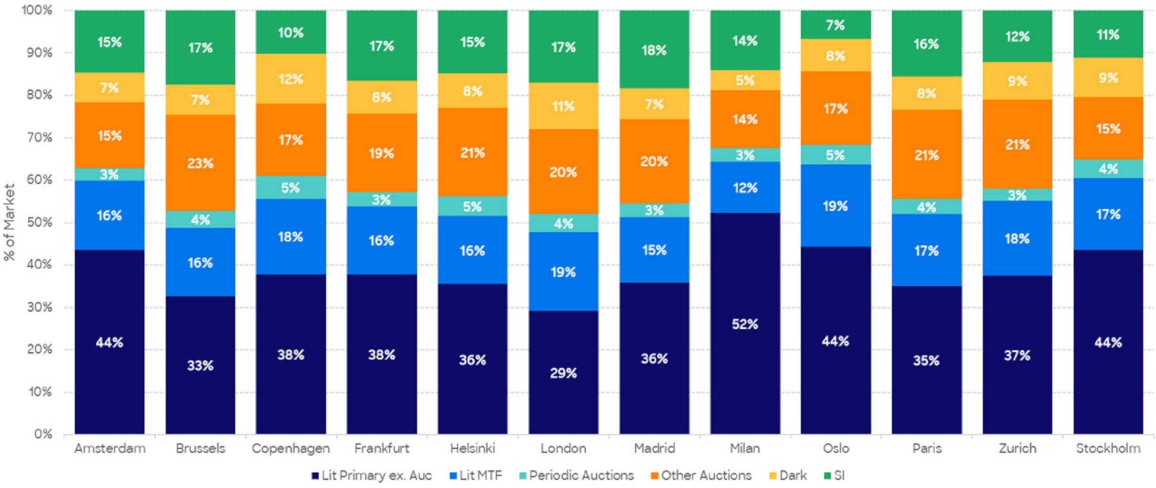
Number of Executions by SMS Segment



Source: Bloomberg, April 2022 to March 2023

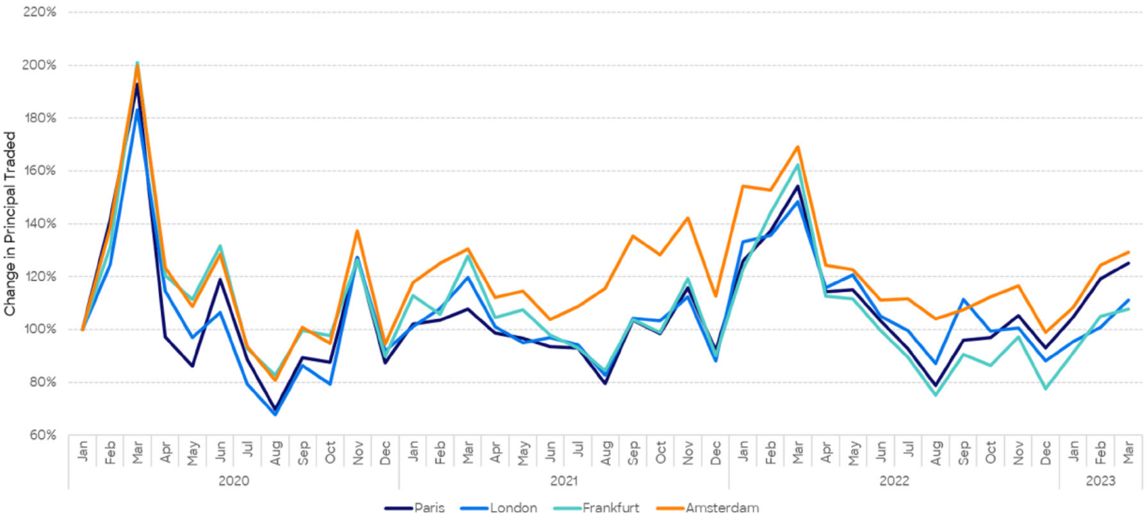
Liquidnet

Exhibit 12
Regional Trading Differences



Source: Bloomberg, October 2022 to March 2023

Exhibit 13
Evolving Geographic Trends



Source: Cboe and Bloomberg, January 2020 to March 2023

Post-Brexit the growth of market activity in Paris and Amsterdam has markedly outpaced that in London and Frankfurt relative to their January 2020 volumes (see *Exhibit 13*). This shift can likely be attributed to broader trends in institutional capital allocation and corporate listing preferences. However, any further fragmentation will continue to challenge market participants in managing the operational complexity of multiple regulatory and technological requirements needed to source liquidity.

Reform Rather than Regulatory Divergence

We are entering a new realm of financial services regulation. The market conditions facing regulators is very different to that of MiFID I or even II despite the ongoing refit. Electronic trading across the asset classes, the rising interest in crypto, ETFs, and ESG rather than vanilla equity and bonds, in a market facing growing cyber security concerns and operational resiliency risks, mean the way in which financial services are regulated will undoubtably have to change.

While the MIFID II Refit remains firmly on the radar, progress continues to elude under the current Swedish Presidency. Part of the reason for this is the increasing role of geopolitics—both from the Russian invasion of Ukraine but also the forthcoming European Parliamentary elections scheduled for 2024. Member states will be focusing on domestic campaigning for re-election from September 2023 rather than progressing MiFID II. This will be challenging for the industry as several key factors remain outstanding, for example the future calibrations for the Reference Price Waiver, tick size, and mid-point matching restrictions, all of which could have a significant impact on liquidity formation and execution quality.

Areas where progress is being made is the emergence of a consolidated tape. With regulators on both sides of the channel willing to work with industry on the provision of data access on a reasonable commercial basis, the delivery of a Consolidated Tape is now a question of when rather than if. However, for equities, it would appear now to be a moot point with most institutional players using their own convoluted version of the tape.The concern is the rising need for data and analytics—algo, venue, transaction costs to analyze overall performance not just of execution but of venue and algo selection—and whether all price feeds and all markets will now be required, increasing the volume of data to include even when this may be outlier information. While greater transparency is beneficial, greater access to data also requires more internal skill to leverage this fully—whether that is business, compliance, or technology.

Operational Resiliency

Other areas of regulatory focus we anticipate further guidance on include operational resiliency and unnecessary market disruption from exchange outages. The recent events at the London Metal Exchange followed by the cyber-attack on ION illustrate that not only were the immediate fallouts significant in terms of the risks involved, but just how the interconnectedness of global markets means that every market participant is only as robust as the weakest link. One failure or default creates a domino effect affecting many, potentially all. Understanding exactly where the operational bottlenecks now are, whether at the asset manager, broker, market maker, clearer, custodian, or exchange shows that irrespective of the asset traded, the role of the market participant in the trading and settlement process or where they are located—this is a global industry problem that requires a collaborative industry solution. Not all regulatory responses will be the same. The Australian regulator, ASIC, has outlined a hard-line approach on exchange outages with proposals on automatic roll-over from the primary exchange. The European Commission has yet to provide guidance but is also reviewing how exchanges can ensure greater protection, including improving communication on outages.

SEC Commissioner Crenshaw recently commented, "*Technology is no longer just fundamental to the operation of the markets—it **is** the markets, and managing it is vital for investor protection and fair, orderly, and efficient market operations*[3]," regulators continue to grapple with just how to incorporate greater use of technology in trading. On legislation regarding the Trading Venue Perimeter (TVP) ESMA has focused on the ownership of execution in their further guidance[4], whereas FCA discussions on role of technology is likely to focus on the creation of a marketplace. More to follow in May on this.

The industry's transition to the cloud is exposing legacy infrastructure failures and the urgent need to digitally decouple. There is no shortcut for the industry to modernize quickly and efficiently, but the need to mitigate risk and lower costs in the current economic environment requires a rethink of **how** to address the challenges. Loss of internal control, domain knowledge, and legal concerns over data ownership are leading firms to address how best to work with third parties who can add valuable additions to clearing workflow processes, what to own, what to outsource, and how to prioritize.

As financial services regulation becomes increasingly dependent on the wider geopolitical landscape, the industry needs to prepare itself for an increasing number of conflicting and confusing policy proposals which could impact European market structure further still. From tackling inflation to supporting the transition to a sustainable economy, governments are rapidly having to rethink policy.

[3] https://www.sec.gov/news/statement/crenshaw-statement-enhanced-cybersecurity-031523
[4] https://www.esma.europa.eu/press-news/esma-news/esma-issues-opinion-trading-venue-perimeter

Rebundling Research

The UK Govt's renewed focus on supporting the City and UK Financial Services has led to the Edinburgh Reforms and now the Review into research payments.Initially the suggestion was that company research supporting Fintech and Biotech industries would be given a reprieve from research unbundling.The latest announcements[5] appear to be a wider review on the role of research in investment decisions and whether current rules need to be readdressed to support growth in UK capital markets by increasing the attractiveness of the UK as a location for companies to raise capital. The theory being that the US SME industry continues to advance supported by a robust equity market versus that of the UK and EU and fledging industries need greater support from capital markets to support investment. However, this does not address the wider issues of the US equity markets benefiting from 401k domestic investment plans and the attractiveness of listing in the US versus the UK given the depth of liquidity in US secondary markets.The EU Commission are also looking at ways they can support SME research by raising the market capitalization threshold from €1B to €10B but for institutional investors neither the UK nor the EU proposals are likely to have any significant impact for two important reasons:

1. Secondary market liquidity remains weak for small- and mid-cap companies making it harder for asset managers to invest given the liquidity risk.

2. Operationally the process of managing bundled and unbundled research payments for different investment sectors would eliminate any potential financial benefit. Similarly, the increase in the European threshold to €10B for SME consideration is likely to have limited appeal.

As policy proposals fail, new ideas will emerge to plug the gap. The French are focusing on company sponsored research as a possible solution which while not foolproof in terms of perceived independence could improve a company's ability to provide access to research. However, a more effective solution to promote greater investment in SMEs would be to address the barrier to cross-border trading by improving CCP interoperability, and encourage greater retail investment through tax incentives, which, with greater European tax harmonization such a controversial topic today remains a long shot.

The T+1 Wild Card

The SEC have opted to move settlement to T+1 with the view that speeding up the matching and allocating of trades will speed up settlement. Pressures in the post trade arena will be exacerbated further still by the reduction of time to settle transactions being introduced by the SEC, not just for US assets, including those with non-US underlyings creating unique challenges for Europe to address:

1. Settling in different regimes will require necessitating the need to post collateral or establish credit lines, a cost rapidly rising in the current quantitative tightening. Asset managers may well need to revert to trading alternative asset classes such as futures to gain necessary performance exposure adding additional cost and complexity through multiple asset trading.

2. Secondly, US ETFs with Non-US underlings will also be required to settle T+1. Given the current fragmentation in the European ETF market with multiple share classes and listings, this will add to the burden on brokers to fund, given that use of fund overdrafts or holding cash positions can create regulatory breaches.

As SVB has illustrated, the current financial system works based on confidence in the system. Speeding up the process will not necessarily shore up confidence but will strain the mismatch between cash and market settlement cycles. US operates on a T+1 cycle in the main for both. Europe in comparison continues to operate funds on T3 or even T4. In an environment of rising interest rates, this is likely to have a significant impact on funding costs and strained balance sheets.

Options for European asset managers are limited. Greater use of extended settlement or custodian overdrafts are under greater economic as well as regulatory scrutiny. There are also rising concerns of regulatory breaches for UCITs and OIECs funds. Managing cash balances risk incurring performance drift, leaving asset managers dependent on brokers funding the cost of borrowing securities or financing to avoid settlement failure are likely to result in wider bid-ask spreads or providers electing not to offer these services to clients at all. The ability to offer best execution would mostly likely be challenged due to the requirement for non-standard settlement. Aside from potentially being viewed as an inducement to trade, use of non-standard settlement risks restricting the use of automation execution options which along with the rise in spending on data, trading infrastructure, analytics, and reporting, as well as back-office support function could yet see an increase in outsourced dealing desks. Regardless of whether inflationary pressures and rising interest rates, along with the prosecution of Donald Trump, will lead to a repeat of the Global Financial Crisis of 2008, 2023 looks set to become a watershed year for the industry—buckle up.

[5] https://www.gov.uk/government/publications/investment-research-review/call-for-evidence-uk-investment-research-review

Liquidnet

Liquidnet

4/23