acuiti management intelligence

Futureproofing Derivatives Post-trade: Building Operational Resilience Across the Market

IN ASSOCIATION WITH

OSTTRA

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Introduction

The volatility following the initial spread of Covid-19 in Spring 2020 resulted in unprecedented daily volumes in listed derivatives markets.

This surge of trading came while firms across the market were dealing with the abrupt transition to working from home. The result was severe strain on operations across the market.

Several major sell-side clearing firms saw their listed derivatives post-trade systems overwhelmed and trades took days to confirm in some instances, with vast backlogs building across the market.

Since then, various periods of extreme volatility have hit exchange traded derivatives (ETD) markets, contributing to a significant rise in volumes over the past five years. In 2023, the number of futures and options traded on exchanges worldwide hit a record level of 137 billion contracts, according to the Futures Industry Association (FIA). To put that into context, volumes were 64% higher than the previous year, and more than double those in 2021.

For banks, brokers, buy-side traders and asset managers, the growth of ETD markets is a double-edged sword. While volumes drive revenues, they also put pressure on operations. In the post-trade space, those pressures are manifested in manual errors, delays, and data failures, which are exacerbated during periods of extreme market stress such as after Russia's invasion of Ukraine, and the 2023 US banking crisis.

In the face of rising operational risk, many market participants are investing in post-trade capacity, systems and processes. Their aim is both to streamline workflows and protect market infrastructures during periods of volatility.

To understand how firms are approaching investment in listed derivatives post-trade, what progress has been made since 2020 and what challenges firms still face, Acuiti has partnered with global post-trade network OSTTRA to survey or interview senior market participants from 57 of the major sell-side firms and asset managers across the globe.

The study finds that firms across the buy-side and sell-side have taken significant steps to build post-trade capabilities, increase levels of automation and boost operational resilience. Investment in back-office technology is rising fast, and many firms are turning to outsourcing and vendor solutions to make the most of innovation opportunities, reduce the cost of investment and time to market.

However, many across the market believe there is more work to do in tackling pain points and reducing risk. Margins and collateral optimisation are key areas in which innovation can play a critical role. But automation still remains too low in these and other key areas and the senior executives that took part in this study believe that there is still risk in important functions in the listed derivatives.

This report argues that, as firms turn to next phase of optimisation of listed derivatives markets, there remain fundamentals that need to be addressed. Standardising data and fields for submitting trades, for example, will significantly increase efficiency across the market.

Indeed much of what needs to be done to reduce risk comes down to standardisation across the market, building on existing technology and workflows rather than seeking wholesale replacement.

The key findings are:

• Significant progress has been made to increase operational resilience in listed derivatives markets since March 2020, however 61% of respondents believe that major risks are still present

• Allocations and give-ups remain the main areas of risk in the system

• Industry initiatives to improve the timeliness of listed derivatives trades are a key element of increased resilience but data standardisation is also required

• The market overwhelmingly supports the creation of a mandatory, expanded data set for listed derivatives trades to achieve harmonisation across the market

• Investment in collateral optimisation is increasing as firms seek to reduce complex, manual processes and improve operational efficiency in the wake of higher rates and margins

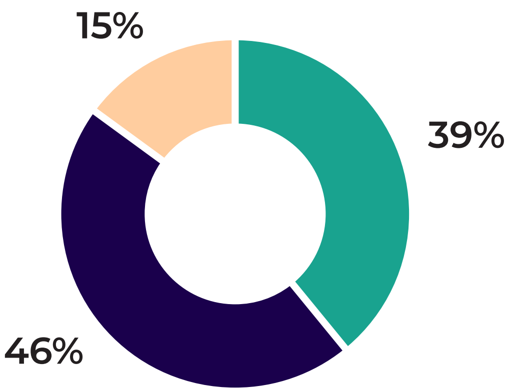
Part 1

Listed Derivatives Post-Trade: A Progress Report

Progress Since 2020

This study found differing views on the listed derivatives industry's progress since the operational disruptions that were seen around the initial outbreak of Covid-19 in Spring 2020. While only 15% claim "little progress" has been made over the past four years, 39% say there has been "a lot of progress but still small risks" remained, and 46% were of the view that there still major risks in the system. These mixed sentiments reflect the industry's proven resilience over recent stress periods but also a sense that there is much more to be done.

How much progress do you think that the derivatives industry has made to address the post-trade weaknesses in listed derivatives that were exposed by the volatility of February and March 2020?



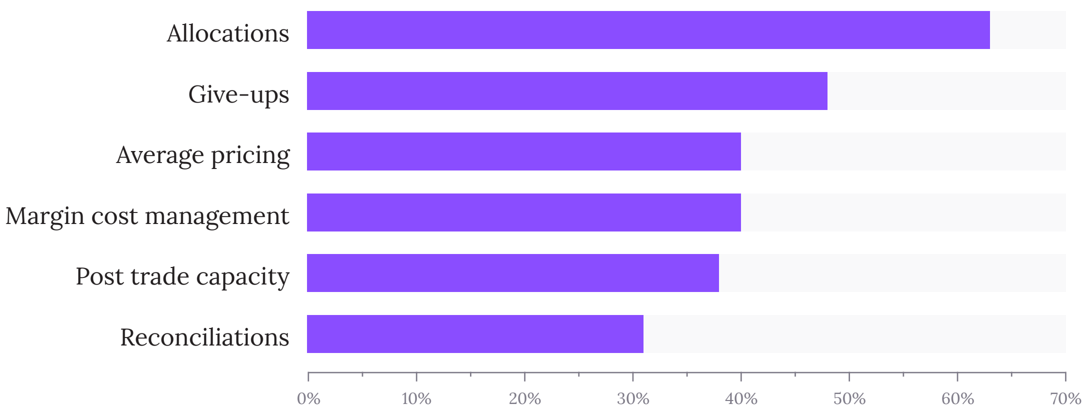
- All the issues have been solved (0%)
- A lot of progress has been made but there are still small risks
- Some progress has been made but there are still major risks
- Little progress has been made

On the plus side, there is evidence that market participants are better equipped to withstand bouts of volatility than they were four years ago. This was demonstrated during the US banking crisis in early 2023, when derivatives volumes were up to three times higher than in March 2020 in some markets. Despite that fact, firms handled the situation with no significant issues, highlighting the real progress made in boosting capacity, straight through processing and data management.

Notably, however, the group most cautious about the industry's progress is the sell-side. This shows that many of the major clearing firms believe there is more work required to build an efficient post-trade operating model, despite significant investment in automation and capacity since 2020.

There was a range of opinions on where there was remaining risk in the system. Allocations were cited by a majority of respondents while give-ups were also seen as an area that still required improvement. These were two of the major causes of the disruption in 2020. Despite many banks investing in platform scaling, 38% of respondents said that post-trade capacity remained a risk, a view particularly notable among the sell-side.

Where do you think that there is still work to be done and remaining risk in the system?



Top 3 remaining risks according to the buy-side

1. Give-ups
2. Reconciliations
3. Average pricing

Top 3 remaining risks according to the sell-side

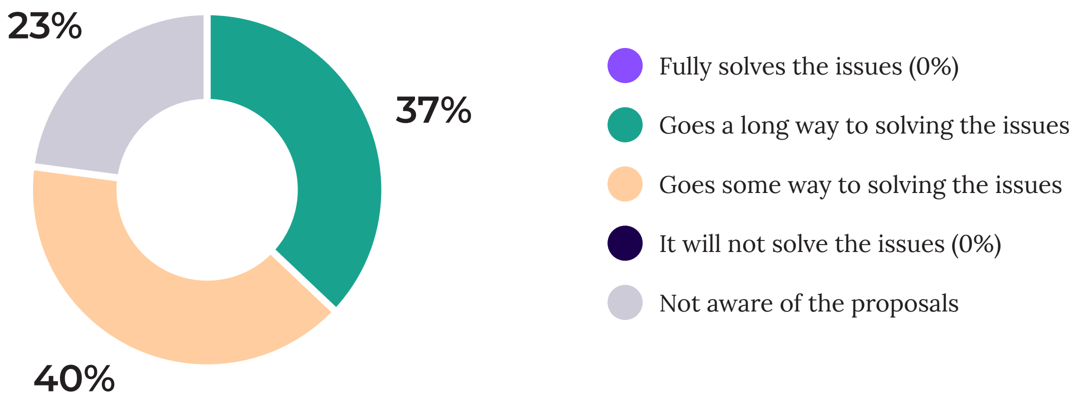
1. Allocations
2. Margin cost management
3. Post-trade capacity

Progress on Allocations and Give Ups

The Derivatives Market Institute for Standards (DMIST) was formed by the FIA in 2022 with the aim of fostering a more efficient, resilient and competitive exchange-traded derivatives market, as AFME and ISDA achieved post-2008 for many aspects of the over-the-counter market.

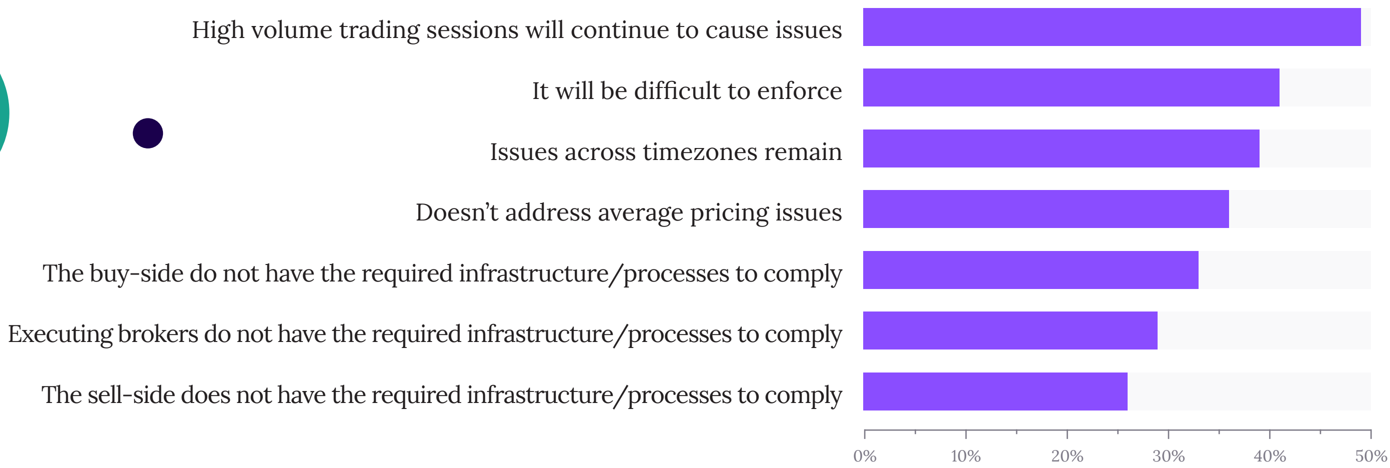
DMIST's first big project is focused on allocation and give-up processes. Under DMIST's 30/30/30 proposal, clients, executing brokers and clearing brokers need to submit and process allocation instructions within 30 minutes of the trade being confirmed or allocation instructions received.

How far do you think that the DMIST 30/30/30 proposed timeliness standard will go towards solving the issues around late give-ups and allocations?



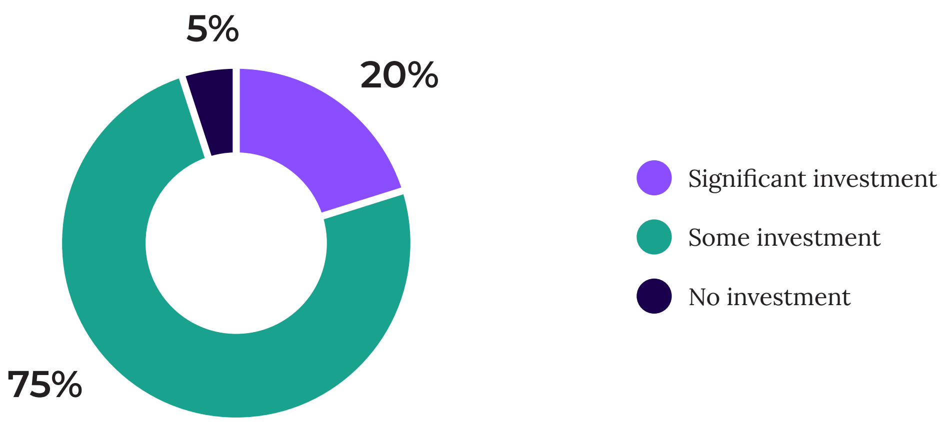
While most market participants are supportive of the DMIST's standard and the focus on timeliness is seen as a key initiative, many remain concerned over issues such as data quality, and the ability to enforce the standard. With these kinds of headwinds in mind, just 37% of respondents said that 30/30/30 goes "a long way" toward resolving issues, while 40% say it goes "some way". Reflecting the challenges in encouraging participation, 23% of respondents, mostly on the buy-side, said that they were not aware of the proposals. Overall, the sell-side were more positive on the 30/30/30 rules with over half saying it goes a long way to solving the issues compared with under a quarter of buy-side respondents. For the industry to achieve its ambitions in ensuring the timeliness of allocations and the subsequent reduction of risk, it is essential that the buy-side is fully engaged.

Where do you think DMIST's 30/30/30 proposals falls short?



Another concern on 30/30/30 relates to the potential impact of periods of extreme volatility. While most market participants are comfortable that they can comply in normal trading conditions, many are concerned that when pressure rises, the system will struggle to adhere to the standards. The concern is particularly strong for firms that operate across multiple time zones, which can be a challenge as teams in Asia and Europe close down for the day ahead of the US close. Given it is early days in terms of 30/30/30 implementation, it is unsurprising that firms are still investing to comply. Overall, 95% of respondents were planning to invest to meet the requirements, with a fifth planning significant investments.

How much investment would be required from your firm to meet the 30/30/30 timeliness requirements?



"Addressing the complexities of ETD allocations and give-ups is crucial. This survey reveals that 63% of respondents recognise allocations as the most significant remaining risk in the system. Additionally, just under 50% believe there is work needed on give-ups. Whilst the DMIST proposals provide a robust foundation to address this challenge, the survey indicates that there is more work to be done. OSTTRA remains committed to supporting the industry's collective efforts in addressing challenges such as data quality and fully traceable trade IDs. We encourage the collaborative adoption of comprehensive timeliness but also data accuracy standards across all participants."

Joanna Davies, Managing Director, OSTTRA

One of preconditions for timely give-ups and allocations is that market participants are able to obtain accurate average prices from venues and CCPs. With that in mind, the FIA in 2023 published a consultation paper on a requirement for all CCPs to adopt standardised average pricing methodologies, with the aim of boosting operational efficiency, cutting risk and lowering costs.

The FIA hopes this will help industry participants combat challenges such as rounding calculations, which are a common cause of minor breaks. Many market participants report that they are making efforts to refine approaches to achieving average prices, aiming to ensure that even when allocations are sent late in the day, they can comply with the timeliness standards.

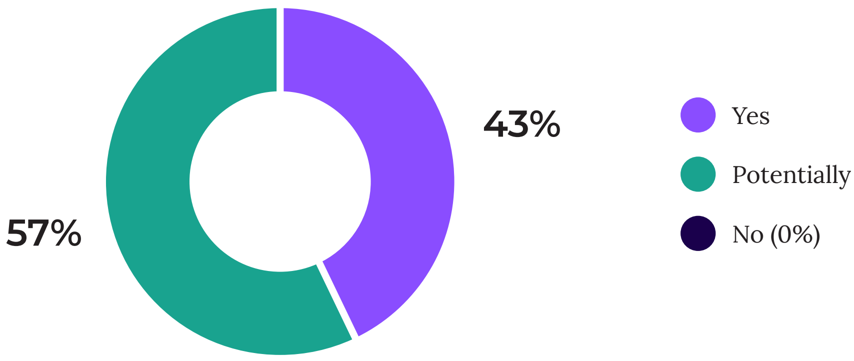
Raising the Bar on Data

However, while the initiatives to improve timeliness are a vital part of the puzzle to improve operational resilience, they must be supported by a reduction in data fragmentation and inconsistency.

Behind many of the challenges to efficiency in the post-trade space is poor quality, or fragmented or inaccessible, data. To combat data shortfalls, regulators and industry associations are pushing firms to raise the bar on standardisation. Many firms have invested in internal data harmonisation and have moved data resources to centralised locations such as data lakes to create single, golden sources of data.

Despite these efforts, participants in this study described data challenges as an "ongoing conversation", with progress being made "one step at a time," amid a wide range of systems and operational priorities, alongside trend shifts such as the ever-rising daily volumes.

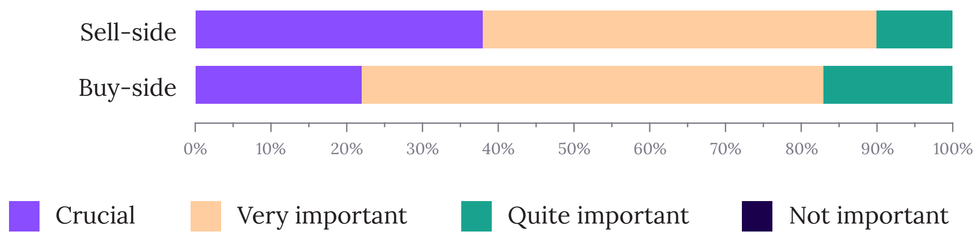
Do you believe that a data standard that would create a mandatory, expanded data set for each trade needs to be evolved and implemented?



To date, efforts have been focused on internal data standardisation. Attention is now turning to standardising data across the market.

The question then becomes how to achieve that, with the industry broadly in favour of a common mandatory data set.

How important would it be for your organisation to have a consolidated view of T0 and T+1 processes across the trade lifecycle (from trade execution to processing and trade lifecycle management)?

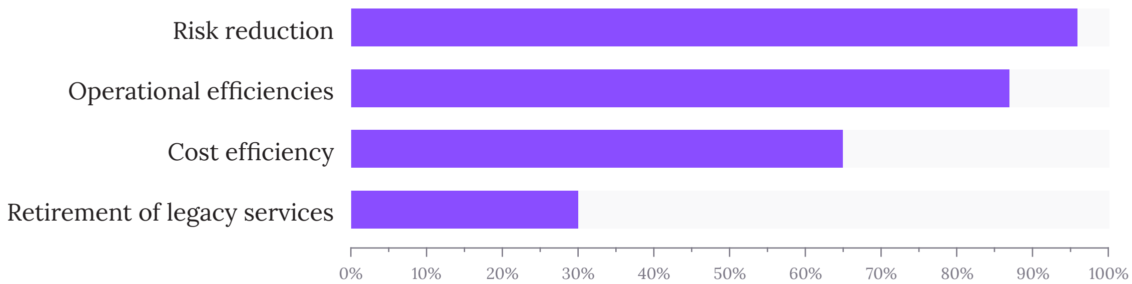


There remains work to be done on internal transparency as well. While data standardisation investment has reduced manual intervention and enabled automation, visibility across processes within many organisations remains fragmented.

Demand is strong for greater visibility and consolidation of data across the trade lifecycle. Overall, almost 90% of respondents said that it would be either crucially or very important to have a consolidated view of T0 and T+1 processes, a desire particularly evident among the sell-side.

The biggest benefits of such a view would be in risk reduction according to survey respondents, but there are also perceived upsides in operational efficiency and costs.

What would be the main benefits of such a consolidated view?



"The survey illuminates a growing industry need for post-trade transparency and a consolidated view of the full trade lifecycle across T0 and T+1 processes. We are seeing an industry-wide acceleration towards timeliness and transparency across asset classes, as evidenced by a number of industry associations such as ISDA, the FIA's work around standardisation and timeliness and the FIX Trading Community.

"All survey participants attach importance to having a consolidated view of T0 and T+1 processes, to help identify and resolve trade breaks, with growing demand for tools that provide greater visibility into operational breaks. The goal of achieving greater efficiencies is fuelling the need for the automation of operational processes, whilst mitigating the potential for increased operational risk.

"Understanding these challenges, OSTTRA has invested to put new tools in the hands of operations users, providing transparency into operational metrics and automating onboarding, connectivity and operations processes for OSTTRA platforms, using an intuitive user interface and API-based framework."

Joanna Davies, Managing Director, OSTTRA

Part 2

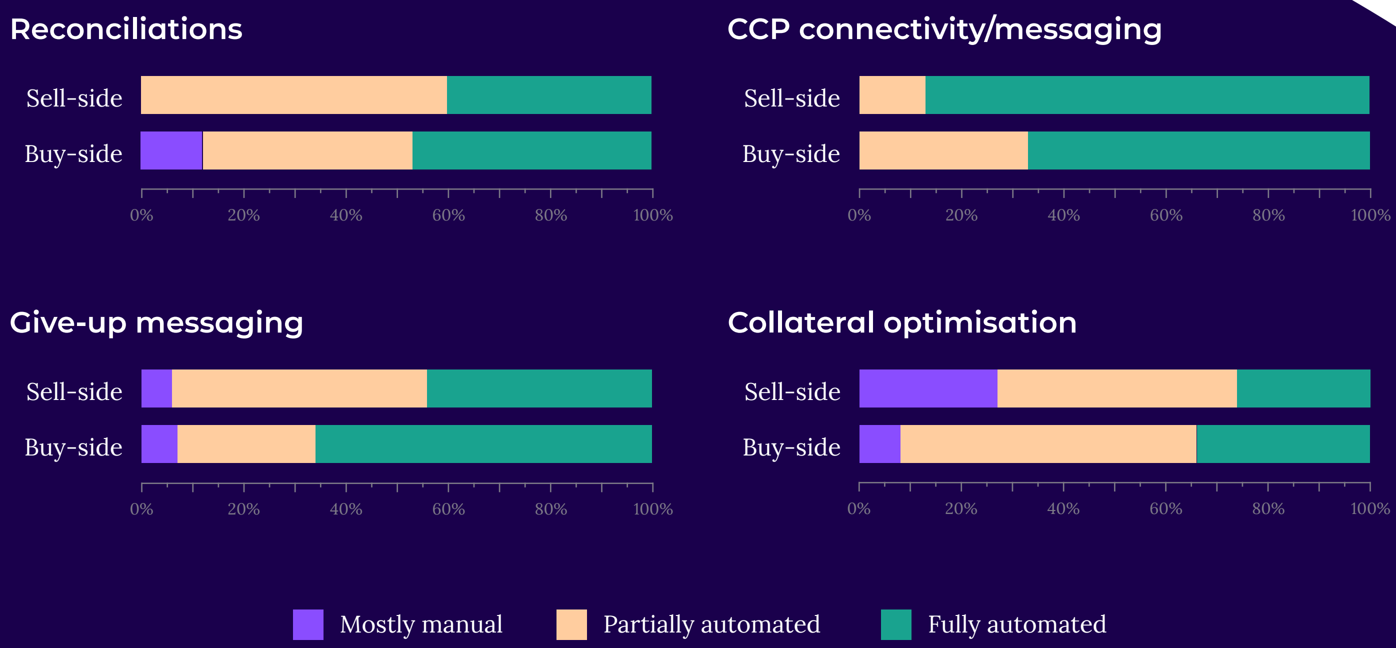
Investing for the Future

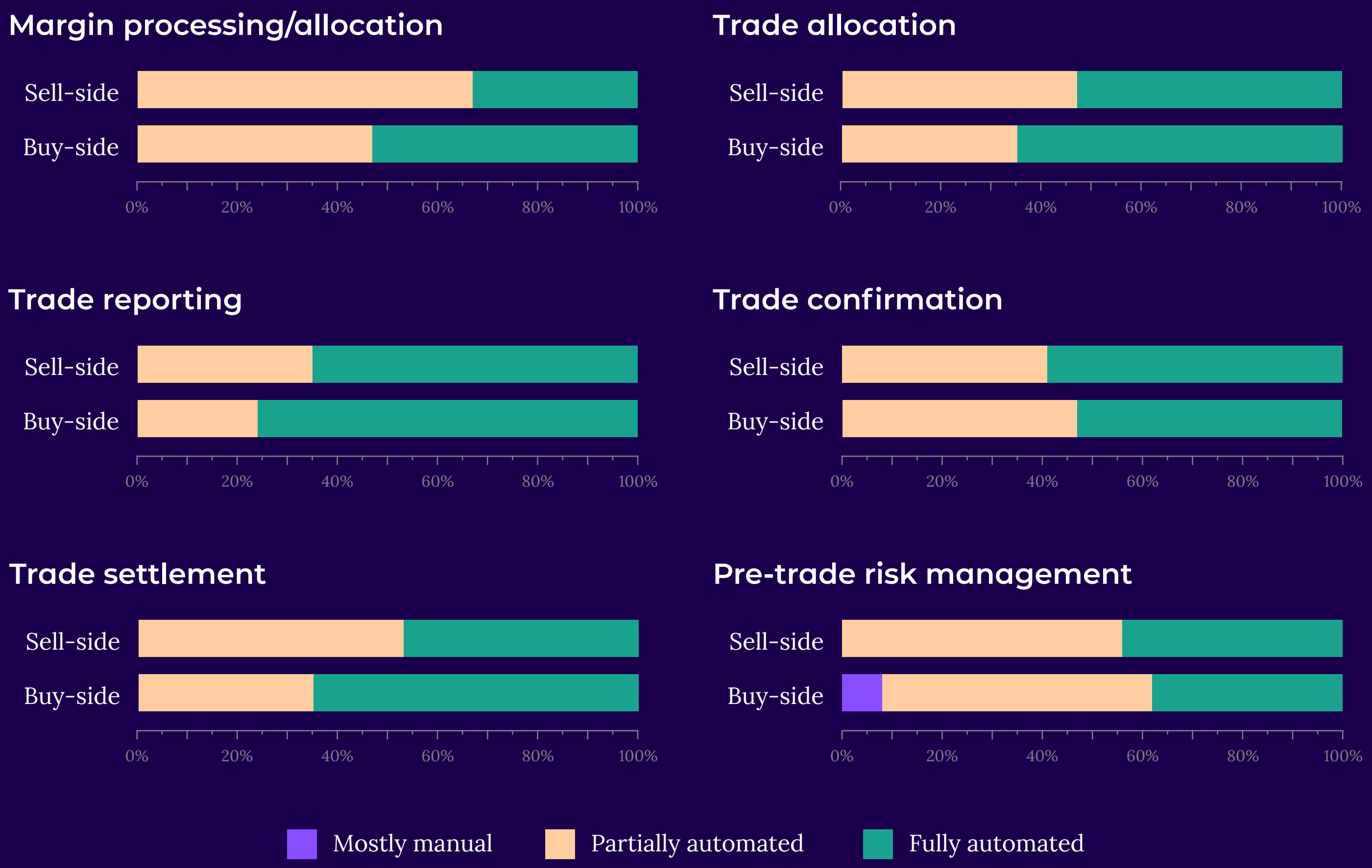
Navigating the Transition to Automation

The majority of market participants report that processes through the trade lifecycle are increasingly automated, but with a strong element of manual input for exceptions, breaks, and non-standard transactions.

The highest levels of full automation are in CCP connectivity and trade reporting, with the sell-side ahead on the former and the buy-side ahead on the latter. Among business areas with the biggest technology shortfalls are collateral optimisation and margin processing, with the buy-side considering their collateral management to be more automated.

Pre-trade risk is another area in which firms are targeting efficiency. As with collateral optimisation, the key to efficiency in pre-trade risk is the centralisation of data to achieve a full view of positions and make better trading decisions.





Notably, margin and collateral management and processing are also seen as the costliest activities. Sell-side interviewees reported that it was still common for counterparties to fail to meet margin calls on time, while shifting margining methodologies are a benefit to some but not others.

Looking across the following trade workflows, which if any would you say are overly costly or complex to maintain within your organisation?

Top 3 areas of complexity for the buy-side

1. Collateral optimisation
2. Margin Processing
3. Reconciliations

Top 3 areas of complexity for the sell-side

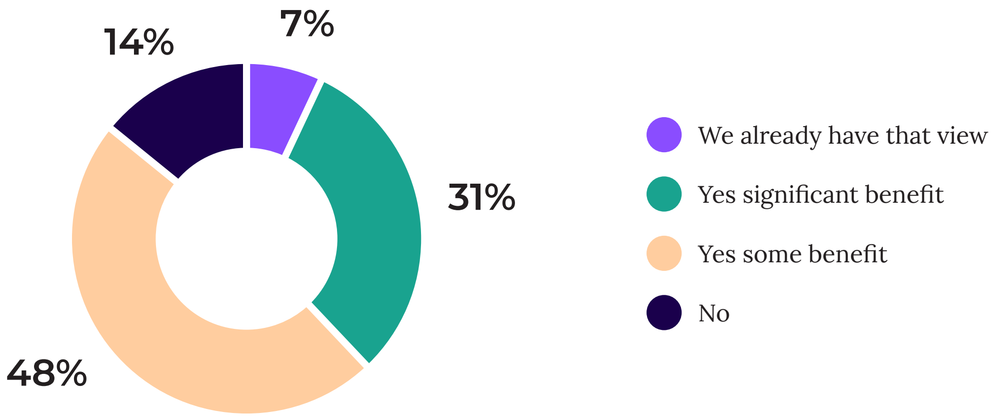
1. Pre-trade risk and margin
2. Collateral optimisation
3. Trade reporting

The steady move away from SPAN-based methodologies to more risk-sensitive VAR-based methodologies, for example, makes life more difficult for directional players, offsetting benefits to firms such as hedge funds that are running more balanced portfolios.

In parallel, erroneous margin calls are still relatively common, often inadvertently caused by efforts to streamline data according to participants in this study. And when the market is hit by volatility, exchange methodologies impose higher margins, creating additional workloads.

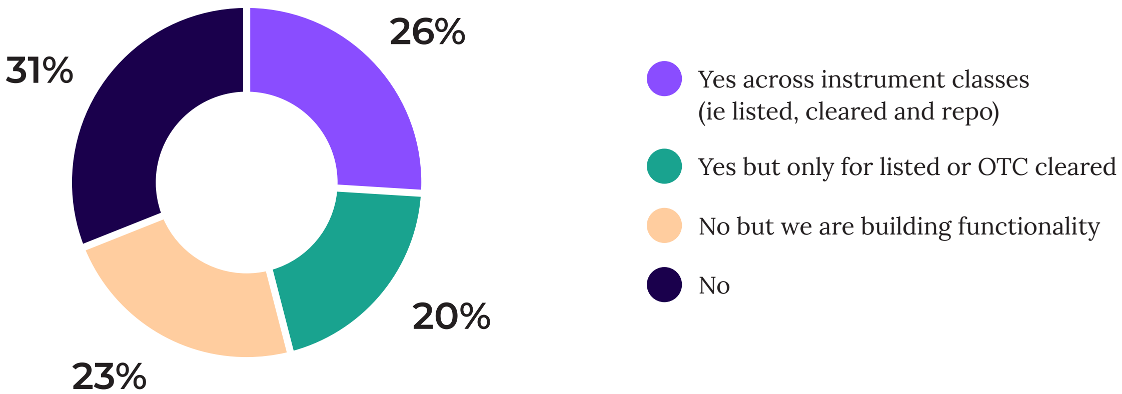
At the same time, rising interest rates and regulation has increased both capital and liquidity costs. As a result, market participants are increasingly focused on how they can better manage margin and collateral. Different firms are taking different approaches with some focused on minimising capital costs and others on reducing funding costs.

Would your organisation benefit from a front office tool that provides transparency into margin costs across bilateral, cleared and exchange traded positions pre-trade?



The increased focus on collateral optimisation is resulting in margin management increasingly moving to the front office, providing traders with pre-trade visibility on the costs of positions from a collateral and margin perspective. While progress has been made on collateral requirements across different asset-class desks, there is strong demand to move that visibility further into the front office.

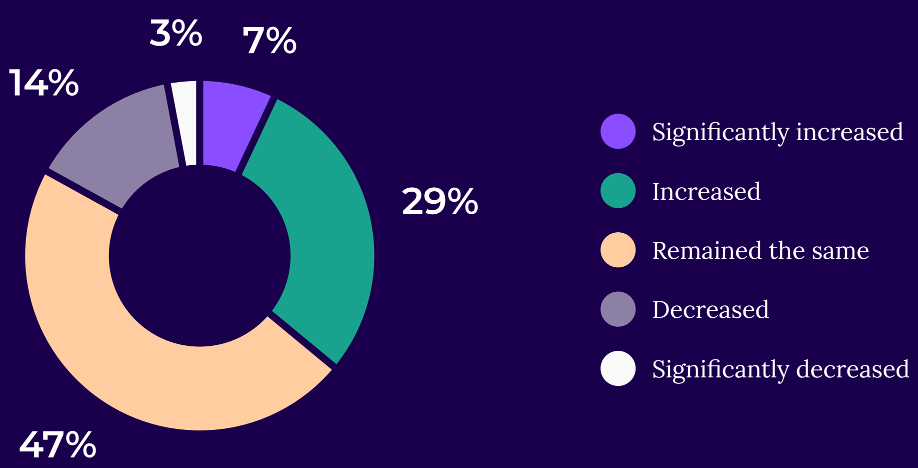
Do you have a view of collateral requirements and optimization potential across your derivatives trading book?



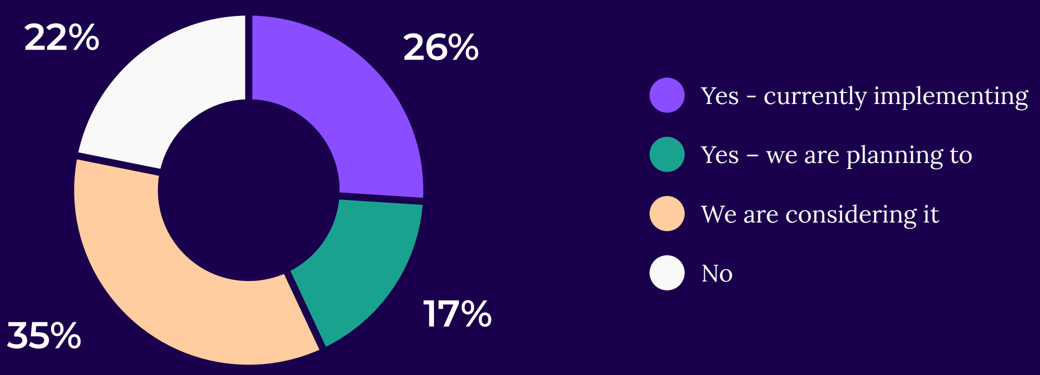
Vendor Relationships Under Scrutiny

As the derivatives market has grown over recent years, and levels of automation have risen, more and more market participants are working with external vendors. Some 36% of survey respondents say that the number of vendors they partner with has increased or significantly increased, while only 17% have cut vendor relationships. Just 2% of respondents built everything inhouse when it came to post-trade technology and the vast majority (85%) worked with between 2 and 5 different vendors across post-trade. However, the cost and complexity of maintaining vendor relationships is increasing with internal scrutiny growing on issues like cyber security and more general operational resilience and regulations, particularly DORA in the EU and UK, increasing the burden on both vendors and their clients. This is resulting in a growing appetite for vendor consolidation with 43% of firms either currently consolidating their relationships or planning on doing so. Another driver is that higher numbers of vendors can create data inconsistencies. A particular concern relates to reference data and the different symbologies that vendors use, for example for identifiers. With reduced vendor relationships, sell-side and buy-side firms will be looking for more from their existing vendors – gaining the benefits of outsourcing across workflows but with a single vendor agreement in place.

Over the past five years how has the number of vendors you work with in derivatives post-trade technology infrastructure changed?



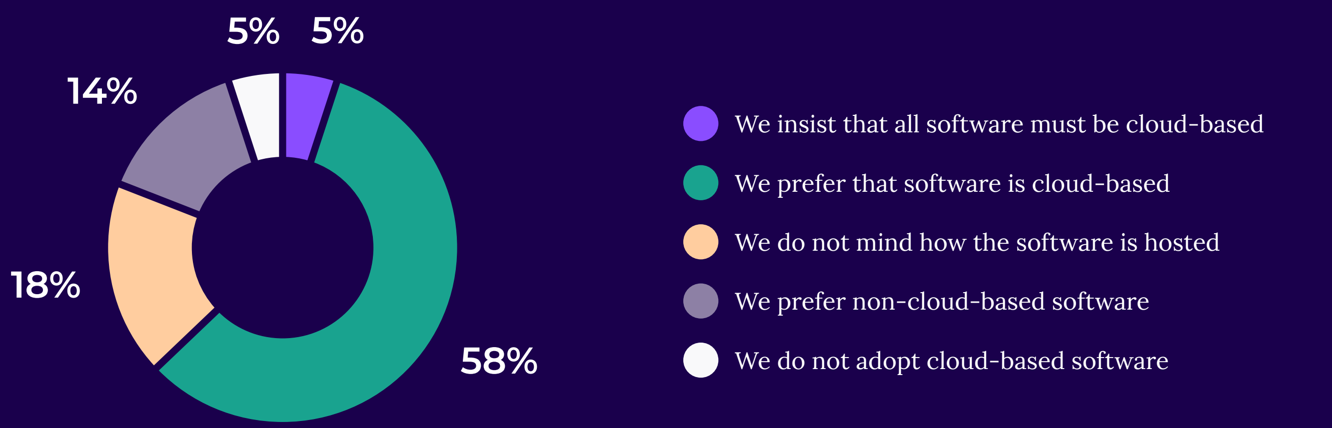
Are you looking to consolidate vendors across front, middle and back office?



Cloud adoption grows

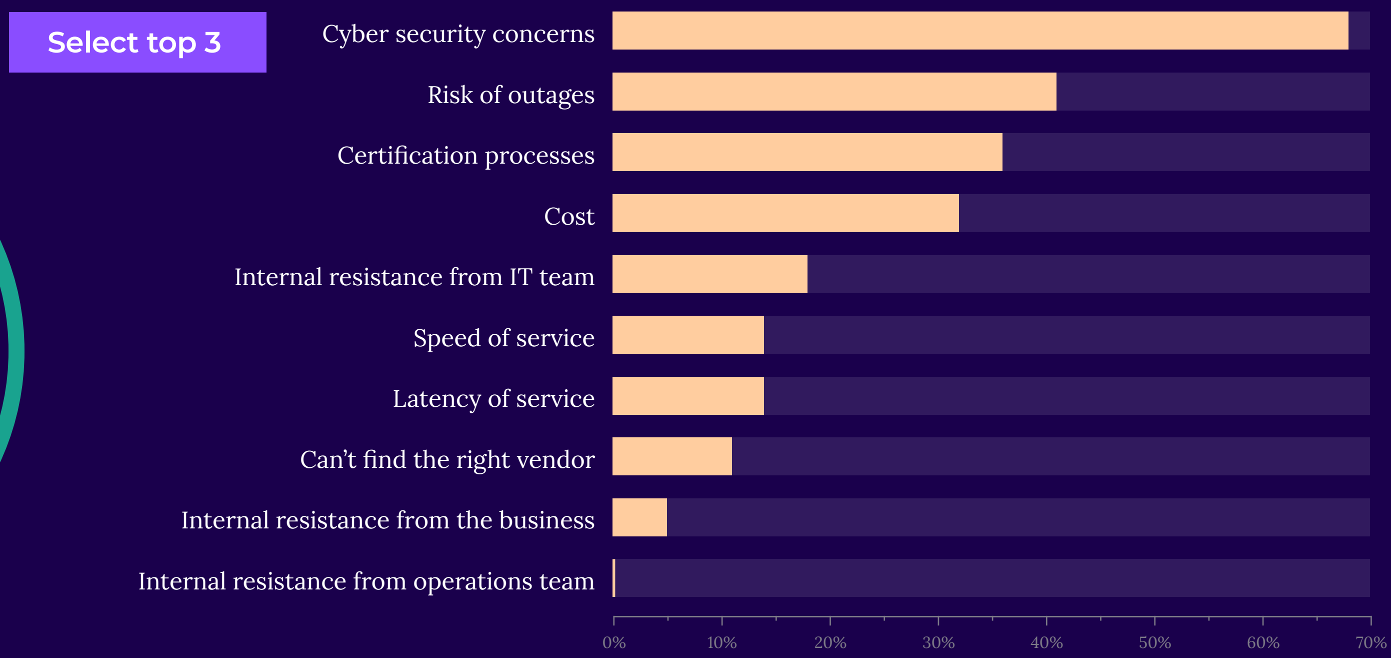
Alongside shifting vendor dynamics, a significant trend over the recent period has been the move to run more software on the cloud. This survey found that just 5% of respondents did not adopt cloud-based software. In addition, almost 90% of respondents said that they had become more open to the cloud over the past five years. However, barriers do remain. Respondents to this survey cited continuing concerns over security and a lack of control when there is an outage. Other market participants point to clunky certification processes and high costs. The initial set up costs for cloud-based delivery can be high. However, once in place the total cost of ownership on an ongoing basis is considerably lower. And, in many cases, any lingering concerns are offset by perceived advantages in data management, operational resilience and the ability to move a range of back-office operations off-premise.

What best describes your organisation's adoption of cloud-based software from third-party vendors?



How has your organisation's attitude to cloud-based software changed over the past five years?

What are the barriers to cloud adoption at your organisation?

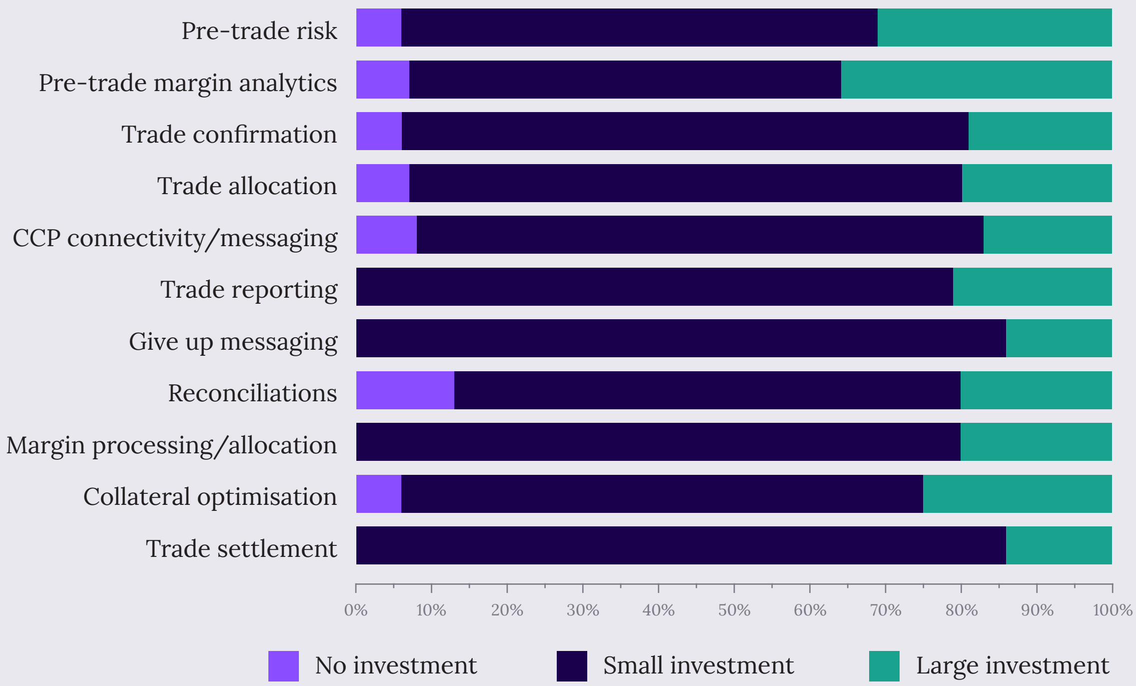


Conclusion

Investment set to continue but the foundations need to be secured

Derivatives markets have made significant progress on improving operational resilience since Spring 2020. But this study finds that there is still a long way to go towards futureproofing derivatives post-trade and building a more stable, resilient and efficient post-trade environment. In particular, risks remain in allocations and give-ups.

Where is your organization looking to invest over the next three years?



The good news for the derivatives industry is that efforts to embed stronger market infrastructures are now widespread, with sell-side and buy-side firms working with infrastructure providers and industry associations to better optimise the post-trade environment. Indeed, the senior executives that took part in this study reported a much greater willingness across geographies to collaborate with counterparts and find shared solutions.

Still, challenges remain. This study finds that there is almost no part of the post-trade environment that does not still require investment. While banks, clearing houses and others are now better placed to handle higher volumes, there are challenges around a lack of standardisation, time-zone effects, and the management of legacy risks in the system.

Firms planning investment across the trade workflow to address outstanding issues. But that investment will fall short unless it is built on firm foundations. There is no silver bullet when it comes to achieving greater cross-industry efficiency but data standardisation is a key element.

This study finds that the industry is highly supportive of a single, mandatory data set for each trade. This would make welcome industry efforts to increase the timeliness of trades significantly easier to implement. Data standardisation should be built leveraging existing technologies and processes or risk delaying and over-complicating the path to greater resilience.

The listed derivatives industry is on the right path and accelerating the pace of improvement. Collaboration is increasing to meet common challenges and to build a more sustainable and resilient market as volumes, and revenues, across the market continue to increase.

acuiti management intelligence

+44 (0)203 998 9190
acuiti.io
info@acuiti.io