acuiti management intelligence

SPECIAL REPORT

The growing need to invest in derivatives post-trade

Modernising post-trade infrastructure to meet the demands of the next crisis

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About this report

This report was written by Acuiti and sponsored by Broadridge. Patrick Tessier, managing director of Lincoln House Consulting was the consultant on the project. Survey data in this report is based on responses and interviews with 109 senior executives across the sell-side. Respondents were from various roles within the organisation and were invited to participate directly by Acuiti. Respondents were made up of Tier 1 & 2 banks (38%), regional and national banks (25%), non-bank FCMs (17%) and brokers (20%). Respondents were from Europe (42%), North America (31%) APAC (21%), ROW (6%).

Listening to the industry debriefs from the extraordinary surge in volumes and volatility from the H1 2020 covid crisis, you would be excused for thinking you had been transported back to the aftermath of the Russian crisis of 1998 or the 2007 financial crisis and the subsequent Lehman Brothers collapse in 2008.

Trusted workflows were submerged with unusually high volumes, clients were overwhelmed by their own volume of trading, communication issues abounded and overnight batches were willed over the line by concerned technology and operations executives.

Of course, each crisis is different and covid presented the unique challenge of also having to contend with a shift to working-from-home on a global scale. And after every crisis there are lessons learnt and associated improvements made in capacity and functionality.

This, however, has manifested more in a series of tactical software and hardware improvements and the introduction of self-developed workarounds circumventing the shortfalls of the incumbent solutions rather than one big breakthrough in productivity.

Only 10 years ago, exchanges and CCPs often experienced the same system woes as their members, but through the forces of market competition and the pressure from regulators, they have upped their game through many an annual mandatory system release.

Regulatory change since 2008 has forced clearing firms to prioritise their change budget on meeting regulatory deadlines and further forcing bank FCMs to hold more capital in reserve: all of which has depleted the funds available for innovation in derivatives clearing.

So, what changed since the aftermath of 2007?

We have seen a few well-documented back-office systems switches and reverse switches mostly between the two main providers. But in truth, most firms stayed put and renewed their existing software licences, focusing instead on tactical and peripheral, often self-built, enhancements.

However, the status quo is being challenged.

New business models have appeared such as fully managed back-office outsourcing, with the promise to take away from the FCMs the burden of managing their transition from older technology.

At the same time, niche vendors are moving faster to implement new technologies. While this alone may not solve the core capacity conundrum, they are helping remove the barriers to scaling up in ancillary functions such as client margining, payments, reconciliation or trade matching.

Finally, established post-trade vendors are modernising their technology while others are bringing their know-how in other asset classes to bear on cleared derivatives creating much needed competition, innovation and greater choice in the market.

Ultimately, the question is: has the latest crisis at last given the industry the motivation to stop treading water and embrace change with urgency?

Patrick Tessier, Lincoln House Consulting

The volatility experienced during the initial spread of covid-19 in March and April 2020 proved something the derivatives industry has known for some time: we need to talk about post-trade. While execution desks, CCPs and exchanges performed strongly under the strain of high volumes, the frailties of the back-office processing power at several sell-side firms were exposed. Now, as the industry learns the lessons from the crisis, investment in post-trade technology is set to soar.

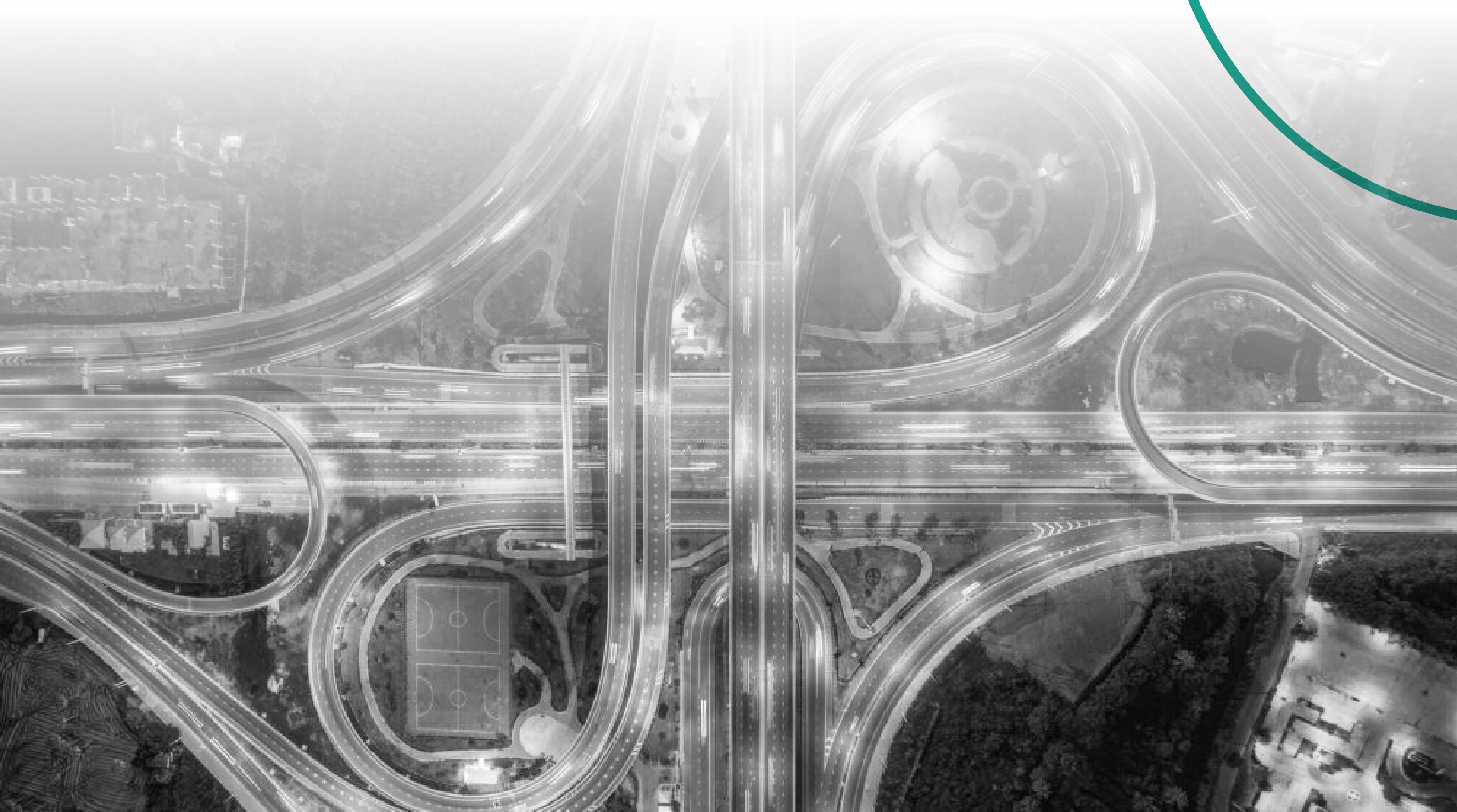
We need to talk about post-trade

Even before the spring 2020 volatility, the need to invest in post-trade infrastructure across the sell-side was becoming widely accepted. Investment in the back-office has lagged that of the front-office for decades. In some institutions, front-office systems capable of executing thousands of trades a second are sending those trades to back-office processing IT run on 20-year old platforms.

The reasons for the lack of investment in post-trade commonly stems from two major factors: the fact that the back-office is seen as a cost rather than a profit centre and that deficiencies in post-trade infrastructure have been tolerated and patched-up. Fixes, upgrades and enhancements have been frequently implemented, stitching new processes onto old processing systems and making do.

This has resulted in a status quo in which, while a large percentage of trades are processed on a STP basis both within sell-side institutions and across the market, exceptions to non-STP processing may not be easily identified on the same day and are manually addressed on a T+1 basis. This results in a labour intensive and frustrating process, which can equate to thousands of tasks being picked up by operational staff, but one that is embedded and widely accepted across the industry.

Covid-19 exposed the weakness and stressed the system to the extent that executives are now yearning for a better world. They are looking to take advantage of recent innovations in post-trade technology and build a post-trade infrastructure fit for the modern world of high-frequency trading and extreme volatility.



Increased investment

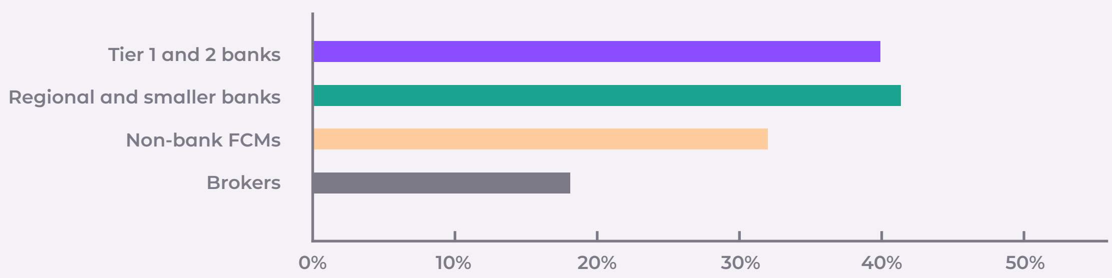
The outbreak of volatility during the early spread of covid-19 in the US and Europe led to unprecedented volumes on global derivatives markets. As the VIX hit a record high of 82.69 on March 16 2020, investors scrambled to exit positions and hedge against the expected worsening of the virus.

Volumes soared across the globe. CME's flagship Eurodollar contract traded 109m lots in March, Eurex's Euro Stoxx 50 future 78m and options volumes on Brent crude and short sterling more than tripled year-on-year. According to data from the FIA, total global exchange traded derivatives (ETD) volume increased by more than 60% in March compared with 2019 resulting in a record 4.5bn contracts changing hands.

This placed a significant strain on post-trade processing systems across the sell-side. An Acuiti snap survey conducted in the first week of April found that 58% of sell-side respondents experienced major issues with back-office processing and trade reconciliation during the March volatility.

The full history of exactly what happened during those frenzied days in March has not yet been written but what is clear is that several major FCMs temporarily stopped accepting trades, creating huge issues with broker give-ups and trades that were executed with one bank and cleared at another. The reasons behind the failure of certain FCMs to accept the trades are understood to lie in the back-office, which, at some institutions, was unable to deal with the volumes.

Percentage of respondents that will increase investment in post-trade as a result of the H1 2020 volatility



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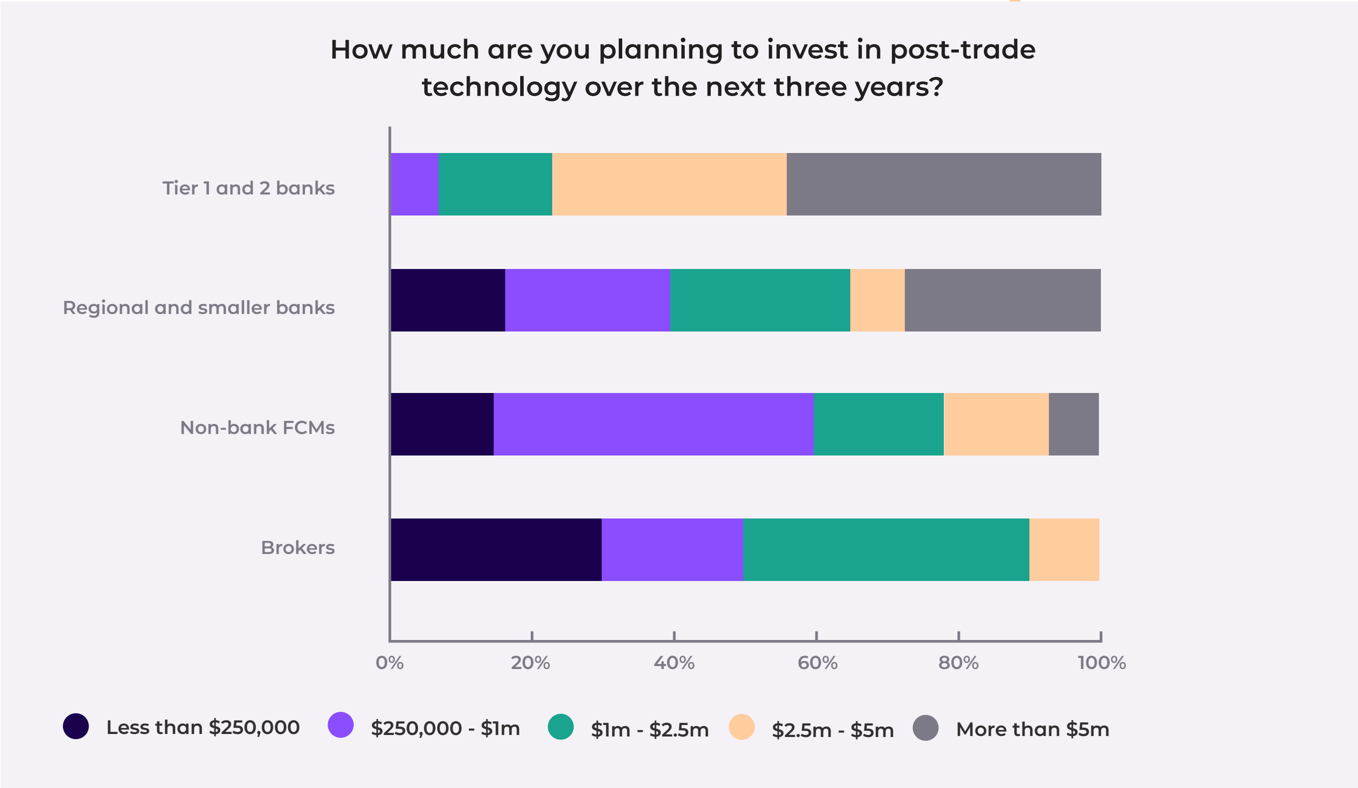


The experience of spring 2020 has cemented a trend towards greater investment in post-trade technology. The Acuiti survey for this report found that 40% of tier 1 and 2 banks are more likely to increase investment in post-trade as a result of their experience in the spring. Among those tier 1 and 2 banks whose investment plans had not changed, 37% were already planning to invest more.

95% of tier 1 and 2 banks plan to invest more than $1m in post-trade over the next three years with 45% planning to invest more than $5m, 35% between $2.5m and $5m and 5% more than $1m.

Tier 1 and 2 banks are the pace setters in what is a general trend towards greater investment in the back-office across the sell-side. Overall, more than half of respondents across smaller banks, brokers and non-bank FCMs said that they would invest more in post-trade technology over the next three years than in the last three with budgets typically set at between $1m - $2.5m.

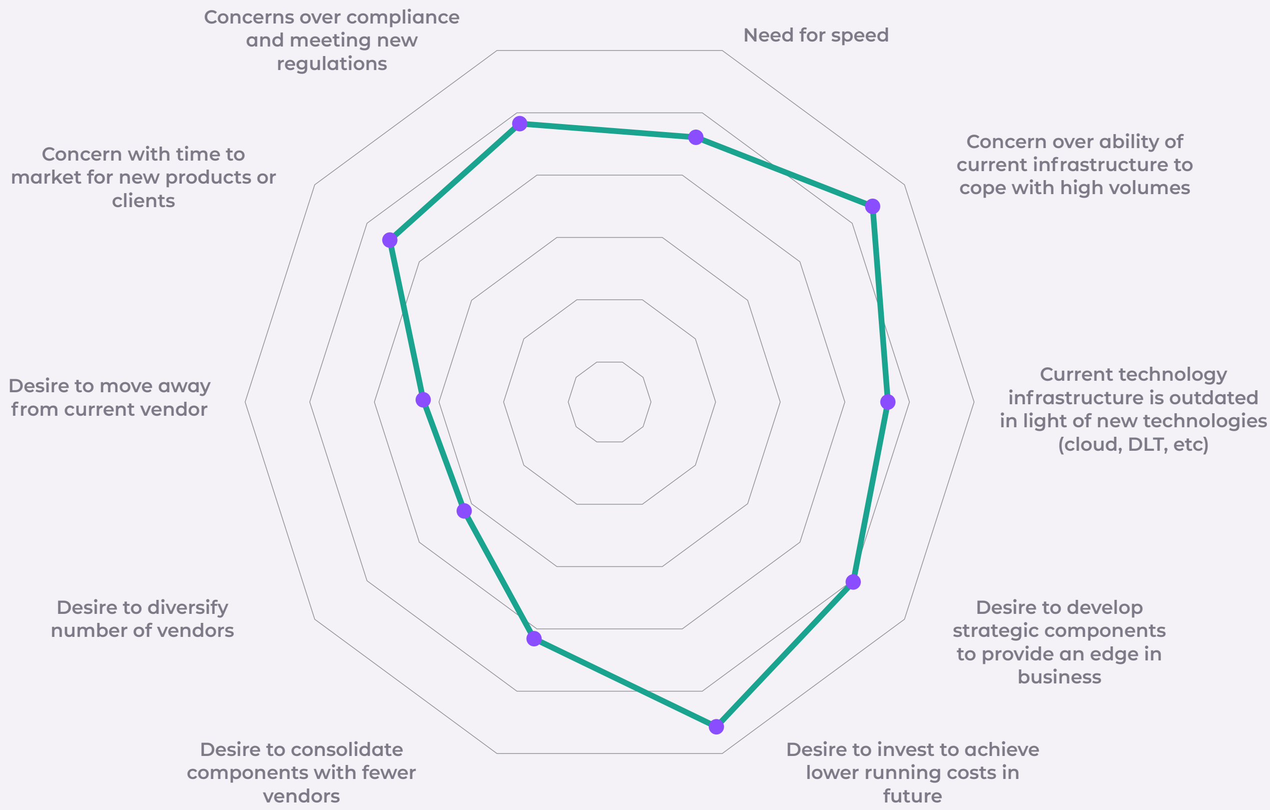
Drivers of investment

Acuiti asked respondents what factors were driving the desire to invest in post-trade technology. Overall, the desire to invest to achieve lower running costs was the dominant motivation. Unsurprisingly, for those firms whose attitudes to investment had changed as a result of the spring volatility, concern over the ability of current infrastructure to cope with high volumes was the major factor.

The third most common factor driving investment was the desire to create a competitive edge. This suggests that, as new more efficient technologies are developed, sell-side executives are increasingly viewing spend on post-trade as a business investment rather than an operational cost, and one that will create efficiencies and enable a better service to clients.

The Acuiti survey found that the drivers of investment vary across different functions within the sell-side. Respondents on the business side (both in terms of trading and FCM sales) tended to prioritise the ability to cope with higher volumes while operations and technology executives identified the need for greater speed and concerns over compliance and implementing new regulations as the major reasons behind the need to invest.

What factors are driving the desire to invest in post-trade operations?



Pinch points in the current infrastructures

In order to understand where the major pinch points were across the back-office infrastructure, Acuiti asked respondents to rate the efficiency of several of the major processes within the back-office. These ratings were then calculated as a percentage score with 0% being entirely defunct and 100% being seamless (see next page).

To paraphrase Leo Tolstoy, we found that all efficient back-office infrastructures are alike, but every inefficient back-office infrastructure is inefficient in its own way. This is, however, with the exception of brokerage payment and collection which is uniformly weak across the market, suggesting an urgent need for innovation in this area.

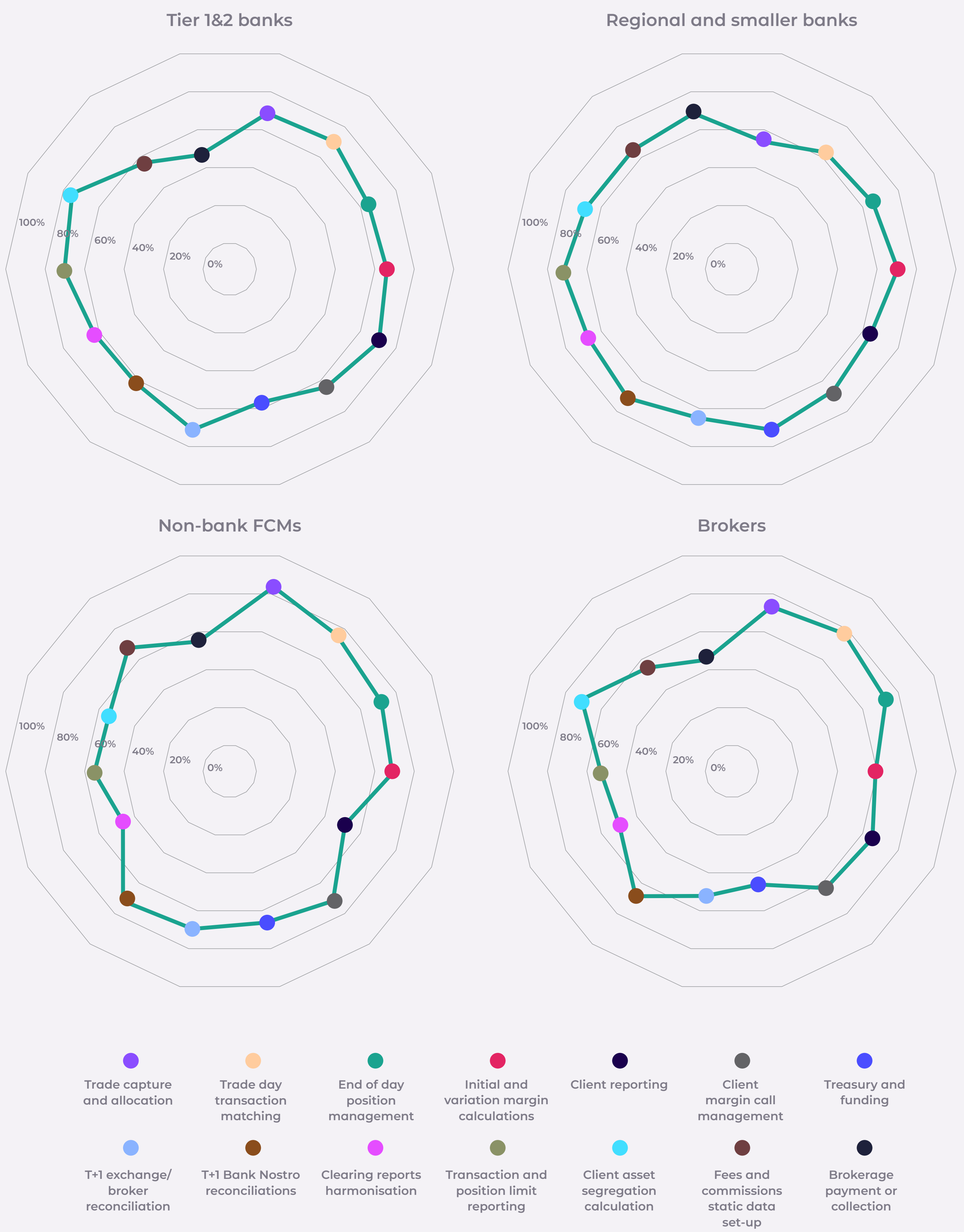
Tier 1 and 2 banks were the least satisfied with the efficiency of their overall post-trade operations with only client asset segregation receiving a score of more than 70%. The weakest areas were reported to be brokerage payment (46%), static data (57%) and treasury and funding (59%). Responses for trade allocations, transaction matching and end of day position management were polarised with some respondents scoring these at lower than 40% while average scores were in the mid-60s.

Non-bank FCMs were generally happy with trade capture and allocation (82%) and trade day transaction matching (74%) but reported challenges with client reporting (54%), transaction and position limit reporting (56%) and clearing reports harmonisation (46%).

Multinational tier 3 and 4 and regional banks scored their post-trade technology relatively poorly across almost all segments and reported particular challenges with trade capture and allocation (45%), end of day position management (54%) and static data (53%) while for brokers the pinch points were T+1 exchange reconciliations (53%), treasury and funding (48%) and brokerage collection (47%).

As one would expect, Acuiti found that respondents to the survey that were planning to invest similar or lower amounts are, on average, happier with the state of their main operational processes than their counterparts planning to spend slightly or significantly more. However, even for these firms, brokerage payment and collection scored poorly. Additionally the give-up process as a whole needs improvement – again a process that was exposed during the covid volatility.

How efficient is your post-trade infrastructure in the following areas (100% = seamless)?



The market for post-trade vendors

The market for core sell-side post-trade processing technology has historically been dominated by two big suppliers: Rolf & Nolan (now part of ION Markets) and GMI (now part of FIS). Over the past three to five years, however, several new firms have launched to build solutions for specific parts of the market such as in collateral management, reconciliations or reporting software. In addition, Broadridge has entered the market expanding from its strong base in other asset classes to compete with ION and FIS. This has significantly altered the competitive landscape for vendors operational in derivatives post-trade and is resulting in higher levels of satisfaction in the market for the overall choice. Overall, Acuiti found that 47% of respondents are now either quite satisfied (43%) or very satisfied (4%) with the choice for post-trade technology providers. Another reflection of the increased choice in the market and the evolution of the buy and build model, is the number of third-party vendors that the sell-side uses across their post-trade operations. The survey found that 47% of respondents worked with 2 to 5 vendors, 14% with between 6 and 10 and 5% worked with more than 10 firms.

Buy vs build (vs buy and build vs fully outsource)

Traditionally a firm would have had two options when it came to investing in post-trade technology: buy from a third-party vendor or build inhouse.

Inhouse builds had the advantage of giving the firm total control over their operations and the ability to upgrade or enhance components according to exact specifications. Buying the infrastructure from a third-party vendor shared the cost of R&D while also benefitting from the collective knowledge of the industry.

Owing to the scale of an inhouse build, only two tier 1 banks made the decision to internalise as much development and components as possible with the remainder licensing a third-party vendor's core processing platform and bolting-on components inhouse.

Over the past decade, the entry into the market by several new suppliers seeking to develop market leading products to address specific post-trade processes has fuelled the evolution of a hybrid model allowing firms to upgrade specific components while maintaining their incumbent core processing technology.

A fourth model that has recently emerged is the complete outsourcing of post-trade processes to a third-party provider operating a managed services model. This offering was pioneered on a significant scale by Sungard, now part of FIS, which has signed up a few FCMs to date.

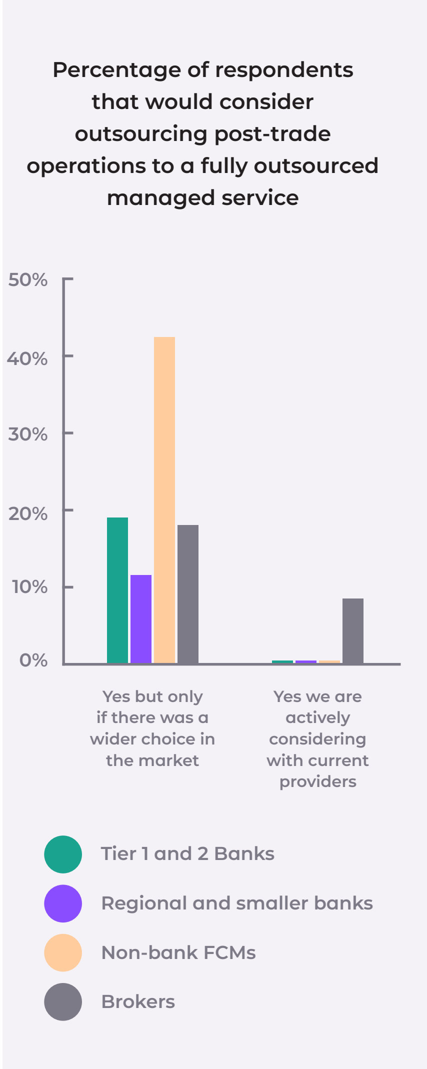
However, despite strong interest in the concept when it was launched, and the anticipated benefits of cost savings and efficiencies, the take-up of the fully outsourced model has been muted across the sell-side. The Acuiti survey found that 8% of respondents already outsourced their post-trade operations to a fully outsourced third-party managed service and 2% were actively considering doing so.

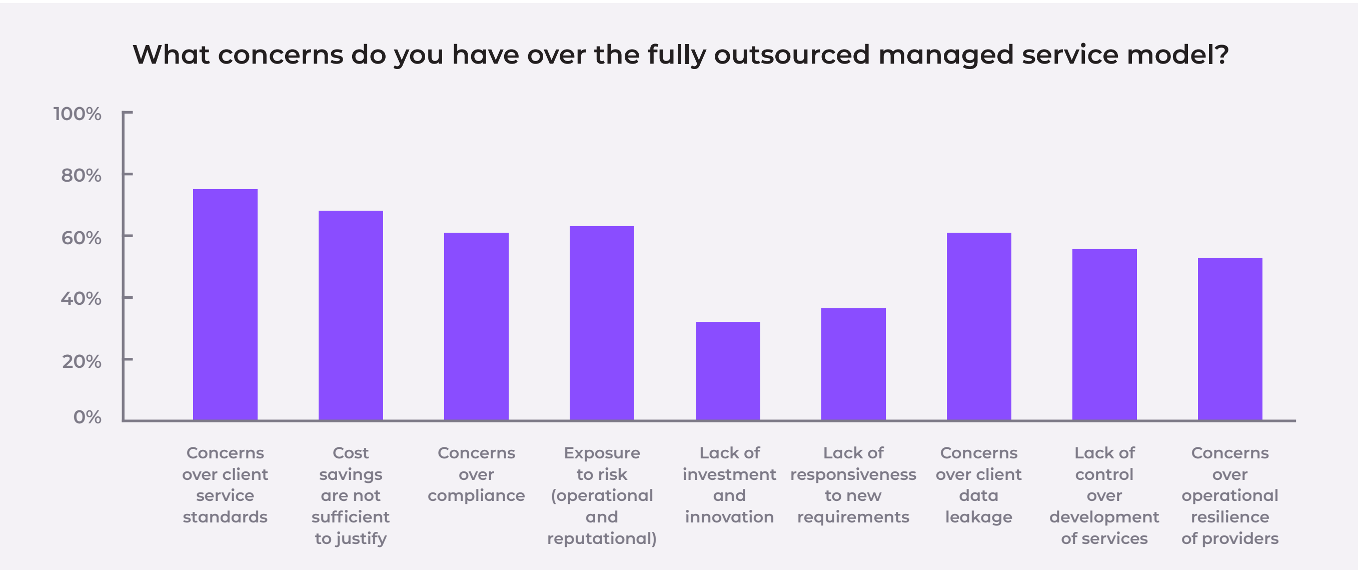
Significantly, the survey found that 22% of overall respondents would consider doing so if there was a wider choice in the market. Whether a respondent was considering the fully outsourced model was highly correlated to the type of company they worked for. The survey found that non-bank FCMs have the highest appetite to adopt the fully outsourced model with 40% of respondents saying they would consider it if there was a wider choice in the market compared with just 11% of regional and non-tier 1 or 2 multinational banks, 17% of brokers and 18% of tier 1 and 2 banks.

Concerns over client service standards and the belief that cost savings were not sufficient were cited as the top concerns with the fully outsourced model, according to 68% and 65% of respondents respectively that would not consider it. Following that were concerns over compliance and exposure to operational and reputational risk.

This trend was heightened among tier 1 and 2 banks with around 80% of respondents citing concerns over service standards and insufficient cost savings. Tier 1 and 2 banks were also more likely to voice concerns around lack of control over the development of services and the operational resilience of the providers. Additionally, the lack of a competitive advantage from a fully outsourced service is perceived as hampering adoption.

The biggest concerns for non-bank FCMs were exposure to operational risk, client service standards and worries over data leakage.



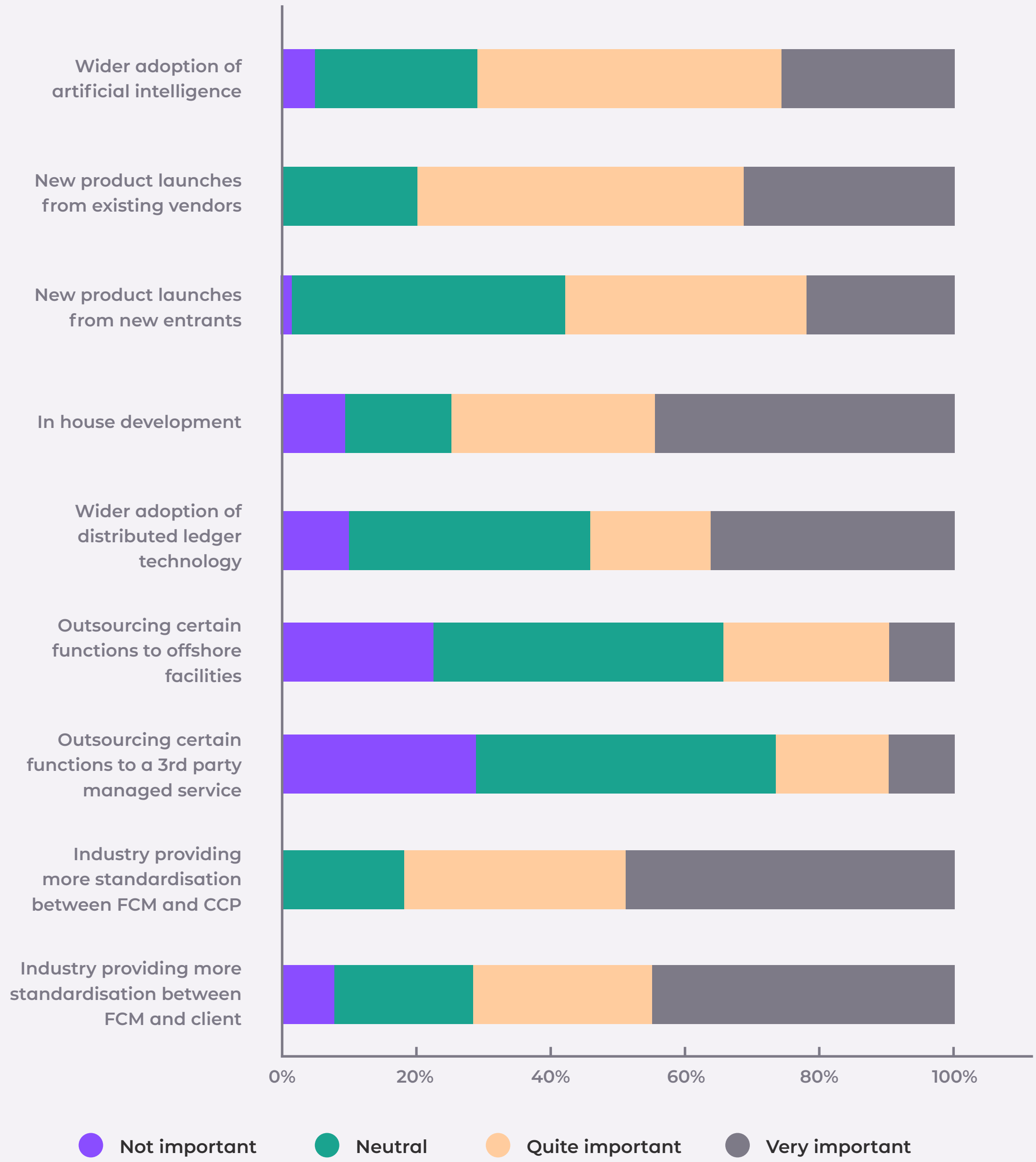


Drivers of future change

The next wave of investment will be able to leverage several innovations and emerging technologies. Acuiti asked respondents what factors were likely to drive improvements in productivity and efficiency in post-trade operations over the next three years.

In terms of new technologies, respondents saw artificial intelligence as the major driver of increased productivity over the next three years with 70% of respondents citing this as either quite important (44%) or very important (26%).

How important are the following factors in terms of improving productivity and efficiency in post-trade operations over the next three years?



The related technologies of robotic process automation, machine learning and artificial intelligence are rapidly increasing in usage across post-trade infrastructures. These technologies are perfectly suited to environments that involve large data sets and manual processes with a higher risk of human error.

Numerous vendors have launched machine learning-based products designed to address inefficiencies in processes including trade reconciliation, regulatory reporting and transaction billing. Inhouse builds across the sell-side are also increasingly leveraging AI, ML and RPA with significant gains in efficiencies being realised.

Another new technology promising to transform post-trade operations is distributed ledger technology, or the blockchain. The survey found respondents were somewhat cooler in their expectations for DLT with 53% citing this as important.

However, views on DLT were polarised with 37% saying it was very important, more than the 17% who believed it to be quite important. Notably, 48% of respondents from tier 1 and 2 banks said DLT was very important and 19% quite important, compared with just 8% and 9% respectively of non-bank FCM respondents.

To date, DLT has failed to live up to its hype. However, several exchanges have ongoing initiatives to develop processes on DLT and the technology has already been successfully trialled in functions such as proxy voting. While not a panacea for the industry's problems, DLT is likely to play a greater part in post-trade innovation across the sell-side over the decade and the attitudes of tier 1 and 2 banks indicates they will provide the petri dishes for innovation.

The Acuiti survey found that the market was looking to the incumbent vendors for innovation. 79% of respondents said that new product launched from existing vendors would drive productivity improvements over the next three years compared with just 57% of those who said innovation would come from new entrants.

Inhouse development remains important with 76% of total respondents and 93% of tier 1 and 2 respondents citing this as a major factor in driving change, suggesting that buy and build will remain a central philosophy of post-trade infrastructure for some time to come.

At the same time, the importance of outsourcing certain functions offshore, a key driver of cost reduction over the past decade has reduced significantly in importance with just 34% of respondents selecting this as a driver of efficiency over the next three years.

Increased standardisation

While new technologies, innovation from incumbent vendors and inhouse builds were seen as significant drivers of change, standardisation of data and processes was seen as more important.

Overall, 82% of respondents cited greater standardisation between FCM and the CCP and 72% greater standardisation between the FCM and the client as the greatest potential driver of productivity and efficiency in post-trade operations.

Exchange traded derivatives are an outlier in the capital markets in the mis-match of codes, symbology and reference data used across the industry. Different post-trade processing systems use different exchange and instrument identifiers, which often become the standard across the firm.

As a result, a client that clears through multiple FCMs often ends up being sent reports with entirely different instrument codes and other identification data. This creates complexity at a client level but also significant challenges between sell-side firms when trades are executed at one and cleared at another, or in give-ups.

The lack of standardisation of data also holds back change in post-trade infrastructures, and created the additional complexity in that implementing a new processing system will often require a complete rewrite of the "language" used in other systems across the back-office.

"Post-trade has been an overlooked segment of the derivatives industry, but advanced new solutions are available to solve issues that the industry is currently facing with incumbent technology.

"Broadridge's continual investment in its technology stack means that we are in a strong position to help firms across the industry drive transformational levels of efficiency, and adapt to the rapidly modernising post-trade landscape."

Justin Llewellyn-Jones
Head of Capital Markets (Equities, FX & Derivatives)
Broadridge

Conclusion

The covid-19 crisis brought home the fact that the weakness in the ETD industry's infrastructure is in post-trade. While there were reports of isolated issues elsewhere, such as risk management systems, post-trade presented by far the greatest challenges.

This whitepaper concludes that the volatility induced by the covid crisis is the final warning for many firms that have long known they would need to update their post-trade technology platform but had been putting off investment on account of giving higher priority to investment elsewhere. Regulators are taking an increased interest in post-trade operations across the sell-side adding further imperative to investment.

There is no quick fix to replacing core back-office technology. A non-bank FCM with an exclusive focus on futures could expect a lead time of six to nine months; for banks where the platform must integrate across multiple functions in multiple asset classes, the timeframe can be up to two years. But the result is more than just an ability to cope with extreme markets. Firms that have invested report a world in which over 99% of volume is seamlessly processed, with same day confirmations and allocations for all trades confirmed with the client.

For these firms, doing nothing is no longer an option in an increasingly competitive environment – the shift to the T+0 world is inexorable and critical to remain viable and relevant. Delivering real-time capability for functions previously run overnight removes risk from the business and significantly improves customer service. Benefits include instantaneous position updates, on-demand recalculation of initial margin, real-time P&L. At the same time, shorter batch processing runs and reconciliations mean margin calls can be issued and paid earlier and operations teams can go home each evening knowing everything is done for the day.

Furthermore, giving clients access to their data in real-time means they are more in control of their trading activity, are able to self-manage their own queries and see their trades immediately in the post-trade cycle without the intervention of sell-side operations teams. More informed clients and less operational overheads are desirable outcomes for every FCM.

Banks and FCMs should therefore resource the teams planning the evolution of their post-trade processing platform, engage with the market to view the alternatives offered and draw up realistic plans that will stand-up to the scrutiny of internal management and control stakeholders, as well as external regulators. In doing so, they might also surprise themselves that newer technology or service delivery models may achieve the holy grail of lower costs, added flexibility and future-proof capacity.

About Broadridge

Broadridge, a global Fintech leader with over $4.5 billion in revenues, helps clients get ahead of today's challenges to capitalise on what's next with communications, technology, data and intelligence solutions that help transform their businesses.

About Acuiti

Acuiti is a management intelligence platform designed to provide senior executives with unparalleled insight into business operations and industry-wide performance. Acuiti helps identify market trends, enhance decision-making and benchmark company performance. The platform anonymises and aggregates information from its exclusive network of senior industry figures to provide insightful in-depth analysis.

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