

# The countdown continues

While regulatory deadlines across the industry have been pushed back, firms must continue the momentum in terms of preparation and readiness

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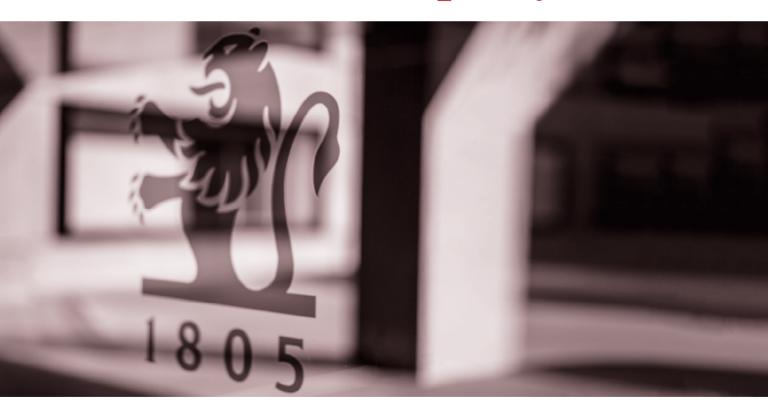
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### Deutsche Bank and HSBC set for further cost cuts amid COVID-19 challenges

Banking giants HSBC and Deutsche Bank are said to be looking to further reduce costs with pay cuts for staff amid COVID-19 challenges and major restructuring plans.

This comes amid reports from the Financial Times (FT) that Deutsche Bank's designated leaders have been asked if they want to take a voluntary pay cut.

In a statement, a Deutsche Bank spokesperson confirmed to AST: "As our restructuring plans progress, the management board and the group management committee have decided to lead by example and give a broader group of senior managers the opportunity to be part of this initiative. This is a voluntary measure in the entrepreneurial spirit and discipline with which we are running our company."

The plan at Deutsche Bank, as of July last year, is to exit the equities sales and trading business, while retaining a focused equity capital markets operation, as part of a radical transformation.

According to the bank, this move would significantly downsize its investment bank with the aim to cut total costs by a quarter by 2022, as well as a workforce reduction of approximately 18,000 full-time equivalent employees to around 74,000 employees by 2022.

The global pandemic has not put a halt on such plans as the CEO Christian Sewing confirmed that the bank is continuing to rigorously implement the transformation programme and will have to reduce costs even further and implement job reductions as planned.

In a statement from Deutsche Bank's annual general meeting, Sewing said: "The transformation will of course also impact on our senior managers. Their number will be also be reduced. We already have 13 percent fewer managing directors, the most senior level below the management board, than two years ago."

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Neil Murphy of triResolve discusses the one-year extension to the final

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implementation phases of the Uncleared Margin Rules

**Uncleared Margin Rules** 

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## SmartStream extends its public API for collateral management

SmartStream Technologies, the financial transaction management solutions provider, has extended its public application programming interface (API) for collateral management.

The approach has been taken to enable SmartStream clients with faster access technology to better serve their individual business needs. Clients will have direct access to SmartStream's Transaction Lifecycle Management (TLM) collateral management solution, which aims to lower the total cost of ownership, provides backward compatibility and future-proofs the solution for new operational requirements. The technology provides collateral movement and settlement views for the early indication of collateral fails including workflow automation and agreement uploads, according to SmartStream. The platform strives to provide functional extensions and integration with other applications as well as SmartStream clients' own internal systems.

Commenting on the need for more accessible technologies, program manager for TLM, Jason Ang, said: "Expectations have evolved, and our clients now want to find new ways to reduce cost and maintenance by offering their developers programming opportunities for richer integration into their business processes.

"I'm confident that we have a well-versioned public API which meets our clients' requirements, whilst mitigating the risk of the upgrade process on SmartStream's TLM collateral management platform."

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Sewing commented: "But it's precisely because the transformation is essential for the future of our bank and we bear responsibility for a sustainable business model that we will, unfortunately, have to resume these personal discussions. This is always painful, and it is especially painful at a time like this. However, it is especially in this environment that we have to stick to our cost reduction programmes. In doing so we will do everything we can to make the job cuts in as socially responsible a manner as possible."

Meanwhile, the FT has also reported that HSBC's board is set to ramp up its restructure after deciding that the COVID-19 crisis requires more drastic measures.

In April, HSBC indicated that its planned restructure – that could see a loss of 35,000 jobs by 2022 – would be delayed.

Speaking in April, HSBC's CEO Noel Quinn, said: "I take the well-being of our people extremely seriously. We have therefore paused the vast majority of redundancies related to the transformation we announced in February to reduce the uncertainty they are facing at this difficult time."

This followed the announcement in March when the bank said it would combine its global markets and securities services (excluding issuer services) divisions as part of its restructure. The restructure was announced shortly after HSBC's review of its 2019 financial performance results.

However, the FT reported that the board is now pressing executives to restart the restructuring and push for even bigger changes,



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## Koine partners with GCEX to provide segregated custody and settlement

Koine and GC Exchange (GCEX), have entered into a partnership to provide segregated custody and settlement to a global client base. The two firms are both regulated by the UK's Financial Conduct Authority (FCA). Koine provides segregated, institutional custody and settlement services for digital assets and fiat money, while GCEX is a digital broker.

GCEX will use Koine's custody and settlement services, enabling GCEX's client base to benefit from Koine's platform for both fiat and digital currencies.

Koine's proprietary technology will support GCEX, which allows for the deposit and extraction of value in a large number of digital assets and FX pairs, from majors to exotics.

Additionally, GCEX will use Koine's paying agency service, designed to reduce costs and dramatically improve security.

According to Koine, this service allows clients to send digital assets directly to the GCEX-labelled hub on the Koine platform.

In this way, the use of hot and cold wallets is minimised, reducing the number of transactions between the two platforms and making the movement of assets ultra-secure.

Koine customers gain access to a post-trade solution from a business licensed by the

UK's FCA, a service specifically designed for institutional investors to mitigate counterparty, insolvency and credit risks of trading on exchanges.

The automated service obviates the need for humans in post-trade processes, delivering massive operational scalability with near real-time egress of digital assets from custody where required.

Hugh Hughes, chair and CEO at Koine, said: "By working with fellow industry innovators, we know that, together, we will deliver the infrastructure and service our clients need to protect and fully leverage the potential of their digital assets. GCEX's proven experience and valuable insight into the digital asset exchange market, as well as their global appeal thanks to the wide range of currency off-ramps they offer, will be tremendously beneficial to Koine's development as we continue to go from strength to strength in 2020."

Lars Holst, CEO at GCEX, added: "It is exciting to be entering into a partnership with Koine at such a pivotal time in the digital assets space. In choosing Koine as the custody and settlement provider for our clients, we will be able to extend our reach into institutional capital, and further capitalize on our advantage of offering a range of currency off-ramps, further reinforcing our position in the global exchange ecosystem." including further cuts or even a possible sale of its US business alongside its retail network in France and operations in smaller nonstrategic countries.

Senior figures at HSBC told the FT that some of the more marginal businesses that were previously given the benefit of the doubt are being re-examined.

One person familiar with the discussions stated to the FT that although the board wants a new strategic plan "sooner rather than later", that it will be several months before the review is completed.

HSBC declined to comment.

### Bloomberg and J.P. Morgan partner to enhance post-trade efficiency

J.P. Morgan's Securities Services and Bloomberg have collaborated on a solution to transform post-trade workflow through direct front-toback process, product, and data integration.

The two firms have combined Bloomberg's investment and order management system, Bloomberg Asset and Investment Manager (AIM), with J.P. Morgan's back-office technology and operational expertise.

The offering is now live and in production with the first joint Bloomberg and J.P. Morgan's Securities Services client and is being made available to other buy-side clients.

According to J.P. Morgan, clients can achieve real-time post-trade workflows, enriched with custodian data, while operating within their existing Bloomberg AIM order management system.

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### FNZ gains blockchain admin deal for South African fund management sector

FNZ, the global platform-as-a-service provider, has signed a deal with FinSwitch to provide a new blockchain-enabled administration utility for the South African fund management industry. FinSwitch links market participants by providing a mechanism for data, such as trades, reconciliations and regulatory reporting, to flow between various product providers and investment managers. The partnership is set to enable trading, pricing, reconciliations, account opening, transfers, sharing of instrument data, regulatory reporting for FinSwitch clients.

It was noted that this will all be delivered via a leading-edge, cloud-based and blockchain-enabled application based on FNZ's ChainClear ecosystem.

ChainClear was launched in 2019 and leverages blockchain technology to replace the thousands of copies of transactions and holdings with a single, secure, verifiable source, universally accessible by all parties. FNZ explained that this vastly reduces cost, complexity and risk in back-office operations, that is ultimately borne by retail investors.

The features will become available for use by FinSwitch clients later this year and will provide additional functionality, resilience and performance to what FNZ said is already a highly functional and reliable solution for fund administration in the Southern Africa region.

Nick Baikoff, FinSwitch managing director, commented: "FNZ was selected after a comprehensive and competitive tender process. We look forward to working with them to implement this solution that will deliver significant value for our clients in the form of reduced cost, complexity and risk."

Hugh Evans, FNZ managing director, South Africa, added: "We are delighted that FinSwitch has chosen us to provide its blockchain technology solutions." By centralising and streamlining operational processes and data integration, this offering reduces manual touchpoints and provides increased transparency, thereby mitigating post-trade risks and costs.

This is the first of a series of ongoing front-toback integration points between Bloomberg and J.P. Morgan's Securities Services.

lan Peckett, Bloomberg's global head of buyside product, commented: "Optimising their operating model is a critical objective for our clients. Our priority remains to enable the entire investment process and we will continue to provide clients with connectivity to leading service providers like J.P. Morgan to help them reduce workflow fragmentation, manage complexity, and scale their businesses."

Naveen TV, managing director in Securities Services, J.P. Morgan, said: "One of the hardest challenges to solve in the streamlining of buyside processes is interoperability with Securities Services providers. This integration allows clients to reside within Bloomberg AIM and use J.P. Morgan as an extension of their operations through sharing of enriched transaction data sets and operational workflow."

TV added: "This true integration gives our buyside clients better management of transaction data, frictionless workflows and real-time lifecycle transparency, which provides significant value across the front and back office. This solution has the exciting potential to evolve the operating models for many buy-side clients as they harness new efficiencies."

Bloomberg AIM is Bloomberg's buy-side order management system, which is used by nearly 14,000 professionals in over 90 countries at over more than 850 client firm.



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### New Cayman Islands private funds law enhances opportunities for depositories

The Cayman Islands Private Funds Law 2020 is set to extend the oversight role played by depositories for many Cayman investment funds, according to INDOS Financial, the independent depositary and oversight group. The law commenced earlier this year on 7 February but will apply to all existing funds from 7 August.

INDOS Financial's CEO Bill Prew noted that these new requirements are based on similar rules within the European AIFMD (Alternative Investment Fund Managers Directive) where they are required to be performed by a fund depositary.

The new law requires closed-ended investment funds domiciled in the Cayman Islands to register with the Cayman Islands Monetary Authority (CIMA) and to comply with a number of new operating requirements.

INDOS Financial explained that the new requirements include the implementation of appropriate and consistent valuation procedures, arranging custody of custodial assets, and verification of ownership and title of all other assets.

Additionally, monitoring cash flows including the checking of cash accounts and receipt of investor contributions is also listed in the new requirements.

According to Prew, while the Cayman Islands Private Funds Law permits these functions to be carried out by managers, they should be carried out independently of the investment management process and conflicts of interest need to be properly identified, managed, monitored and disclosed to investors.

"We expect many managers will choose to outsource these obligations to third parties that have a track record in this area," Prew highlighted.

Prew added: "Many managers of Cayman funds that are marketed in Europe will be familiar with these requirements. INDOS already provides similar services for over 100 Cayman funds across a range of strategies and that are managed by European, US and Asian managers. We are therefore well placed to enable managers to meet these new requirements." Bloomberg noted that this includes some of the largest asset managers, hedge funds, insurance companies, pension funds and government agencies.

### NSD sees securities under custody growth for Q1

The National Settlement Depository (NSD), Russia's central securities depository (CSD), revealed that in Q1 2020, the value of securities under custody reached RUB 50.9 trillion (\$70 billion), marking a 10 percent increase compared with the same period of 2019.

The number of foreign securities issues serviced by NSD grew by 23 percent from 13.1 thousand to 16.1 thousand.

NSD noted that the value of the federal loan bond (OFZ) balances in foreign nominee accounts amounted to RUB 2.8 trillion; showing a 42 percent increase compared with Q1 2019 to RUB 2.0 trillion (\$28 billion).

The total number of securities issues serviced by NSD increased by 17 percent from 20.6 thousand in Q1 2019 to 24.0 thousand in Q1 2020.

The number of inventory operations in the CSD increased 48 percent year-over-year and reached 1.3 million operations in Q1 2020 compared with 865 thousand in Q1 2019.

This includes 971 thousand exchange-trade operations and 309.5 thousand over-the-counter trade operations.

The value of delivery versus payment over the counter trades grew 146 percent and amounted to RUB 4.3 trillion (\$61 billion), compared to RUB 1.8 trillion in the same period of 2019.

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## IHS Markit and OpenGamma join forces to help clients with UMR

IHS Markit and OpenGamma, a margin optimisation provider, have collaborated in a bid to help mutual clients reduce the cost of margin management under the Uncleared Margin Rules (UMR).

The offering will unite OpenGamma's pre-trade margin analytics with IHS Markit's post-trade derivatives calculation service, providing endto-end support for in-scope entities.

According to IHS Markit, when combined with OpenGamma's strength in margin analytics for cleared and bilateral derivatives, mutual clients can fully manage pre- and post-trade requirements through a single solution with flexible delivery options.

The collaboration comes after global regulators introduced a one-year delay to phases 5 and 6 of margin requirements for UMR.

The final two phases of UMR, scheduled for September 2021 and September 2022 respectively, will bring into scope numerous institutional asset managers, creating an increased demand for tools that help reduce the cost of posting margin.

Hiroshi Tanase, executive director at IHS Markit, said: "Together with OpenGamma, we are excited to help firms achieve regulatory compliance and a competitive edge through margin validation and optimisation."

Tanase continued: "Our forward-looking solution, powered by highly-accurate margin analytics and calculations, can effectively streamline margin workflows and over the counter derivatives trading to enable cost mitigation."

Peter Rippon, CEO of OpenGamma, added: "Asset managers are currently working out how to best use the time afforded to them by the UMR delay. Many firms are underestimating the complexity involved in pricing bilateral derivatives. IHS Markit is one of the very few firms that has the proven pedigree in this area. Together, our combined solution offers full coverage for both cleared and bilateral derivatives." The aggregate number of trades conducted with the use of the Linked transactions and Instruction prioritisation services grew significantly to 13.9 thousand compared with 996 trades in Q1 2019.

#### **Corporate actions**

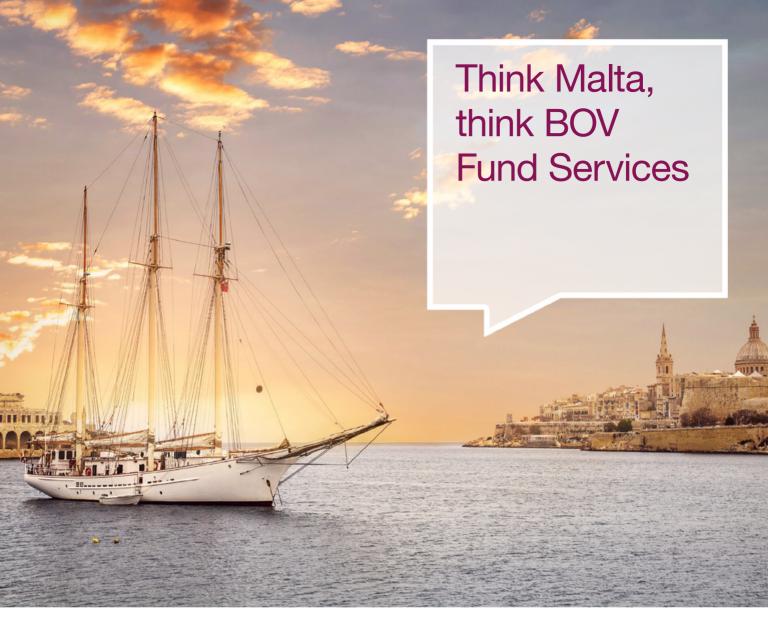
In Q1 2020, 668 meetings of securities holders were held using the e-voting technology. In total, 55 corporate actions to repurchase shares and one corporate action to exercise the pre-emptive right to purchase shares were also initiated. In Q1 2020, the total value of repurchased shares reached RUB 4.7 billion (\$66 million).

According to NSD, the e-voting service was provided to clients of Surgutinvestneft, Russia's largest regional registrar. Now, Surgutinvestneft's clients can offer their companies' shareholders to vote remotely at annual and extraordinary general meetings. Currently, the e-voting service has been used at the meetings of shareholders of NLMK, Alrosa, Rostelecom, IC RUSS-INVEST, Sberbank, Rushydro, Gazprom Neft, and the Moscow Exchange.

In total, 3,482 corporate actions involving Russian securities were conducted in Q1 2020. It was 7 percent more than in the same period of the previous year (3,254 corporate actions in Q1 2019).

NSD observed that in Q1 2020, the number of corporate actions involving foreign securities grew sharply due to the increase in the number of securities issues serviced by NSD, which marked a 39 percent increase.

The total value of payments on corporate actions which involved Russian securities 30



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### Deutsche Börse partners with Wind

Deutsche Börse has signed a memorandum of understanding (MoU) with data provider Wild, making it the first foreign exchange to partner with the financial data provider in China. The partnership aims to support Chinese investors who want to access the European capital market.

This initiative, driven by market demand, enables easier access to European markets for domestic institutional investors based on market data and services offered by Deutsche Börse and its derivatives exchange Eurex.

Additionally, the partnership also aims to explore further opportunities for collaboration. This includes joint training and educational measures to keep investors up to date.

The MoU establishes a connection between Deutsche Börse's wide-ranging data and services portfolio and Wind's network. Deutsche Börse executive board member and Eurex CEO Thomas Book, commented: "We look forward to leveraging Wind's professional distribution network to bring our Deutsche Börse and Eurex offerings closer to China-based investors."

Book added: "This partnership is a great contribution to our Asia strategy: having been active in the Asian markets for more than 12 years now, Deutsche Börse and Eurex have constantly been extending its investor network in the region."

Li Zhou, vice president of Wind, added: "This cooperation will bring more comprehensive data, higher added value and better services to our clients. In the future, we will jointly carry out various online and offline communication activities and conferences in various fields to enhance the recognition of Deutsche Börse and the whole European capital market in China." percent increased. Meanwhile, the number of payments on corporate actions involving foreign securities declined by 70 percent and reached the sum equivalent to RUB 85.2 billion (\$1.2 billion).

#### **Collateral management**

In Q1 2020, the value of Federal Treasury repos conducted via NSD's CMS amounted to RUB 3 trillion (\$42 billion), compared to RUB 5 trillion in Q1 2019 (\$70 billion); repo contracts were concluded for longer terms (the average repo maturity increased from seven to 23 days). In March, there was a sharp increase in the demand for liquidity due to high market volatility; the maturities of transactions were falling, and overnight trades prevailed.

In Q1 2020, the total volume of Bank of Russia repos reached RUB 779 billion (\$11 billion) showing an increase of 305 percent compared to Q1 2019. NSD said this was due in particular to the renewal of fine-tuning auctions in March 2020 to support the banking sector's increasing demand for liquidity. NSD began the preparation to launch repos with a one-month fixed rate and a one-year floating rate.

#### **Payment and settlement system**

In Q1 2020, the value of ruble transfers grew 13 percent and reached RUB 67.9 trillion (\$949 billion), compared to RUB 60.3 trillion in Q1 2019 (\$854 billion).

NSD identified a 10 percent increase in Q1 2020 in the amount of cash transfers, to RUB 11.8 trillion (167 billion USD).

The number of client transactions amounted to 334 thousand; this was 26 percent more than in Q1 2019 (264 thousand).



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Elsewhere, NSD noted that is the first and only company in Russia and the CIS countries that has received an accredited local operating unit(LOU) status. This is a permanent status, which replaced the temporary one (pre-LOU). It confirms NSD's compliance with Global Legal Entity Identifier Foundation (GLEIF) regulatory and technological requirements for an organisation which assigns and maintains legal entity identifiers (LEIS).

In Q1 2020, NSD assigned 19 new LEIs and verified 118 LEIs. LEIs assigned by NSD are recognised by regulators, market participants, and LOUs of other countries.

### Northern Trust partners with BlackRock as part of whole office strategy

Northern Trust has entered into a strategic alliance with BlackRock as part of its strategy to provide integrated products, services and technology across the entire investment lifecycle.

The partnership will enable both Northern Trust and BlackRock to deliver enhanced operations, data, and servicing capabilities to mutual clients.

These new capabilities will be delivered through Aladdin, BlackRock's investment management and operations platform.

Northern Trust noted that this will provide clients with increased efficiency, interoperability and transparency across the back, middle and front office.

The relationship with BlackRock currently supports mutual clients and is an extension of Northern Trust Whole Office, an approach that integrates Northern Trust's global asset servicing platform with innovative partners, facilitating client access to new technologies, services and solutions.

Through the integration, Northern Trust Whole Office facilitates client access to new technologies and capabilities across the spectrum of strategy and trading, operational, data and digital and analytics solutions.

The alliance with BlackRock builds on a series of Northern Trust partnerships and strategic investments to provide solutions that span the investment lifecycle, including outsourced trade execution for asset managers and owners, and a digital and service platform for global asset allocators.

It also includes currency management and foreign exchange algorithmic trading, integration with industry trading platforms, collateral optimisation, risk analytics and digital innovation for asset servicing.

Pete Cherecwich, president of corporate and institutional services at Northern Trust, said: "We are following a very clear strategic pathway. We will continue to enhance our capabilities and add future functionality through a combination of buy, build or partner with best-in-class providers to benefit our global asset manager and asset owner clients."

Cherecwich continued: "Whole office is about serving our clients' needs across the entire investment lifecycle. We are offering a best of all worlds proposition: we don't need to own every underlying technology or capability. We embrace the integration of partner technology solutions and services with Northern Trust's proprietary infrastructure to help our clients drive their businesses and ultimately optimise performance." Rob Goldstein, BlackRock's COO and head of BlackRock Solutions, commented: "The current climate has once again demonstrated the importance of data symmetry and streamlining communication across the investment lifecycle from the asset manager to the asset servicer."

Goldstein added: "BlackRock and Northern Trust are committed to providing increased transparency, accuracy and operating model flexibility for our mutual clients, leveraging our joint capabilities through Aladdin Provider."

### HSBC gains custody mandate for TIH in Singapore

HSBC Securities Services has secured and successfully on-boarded a mandate for TIH Investment Management in Singapore, which includes middle office, global custody and fund administration services.

HSBC Securities Services will be its primary service provider.

TIH recently launched a new Asian active engagement fund, which will be equity long-only with a Pan-Asian focus on small to midcap companies.

According to HSBC, with its strategic partnership with Argyle Street Management, TIH is among the most established private equity investment teams in Asia, investing in a broad variety of sectors.

Last month, HSBC Securities Services was appointed as sole global custody provider across the entire asset range for Admiral Group in London.

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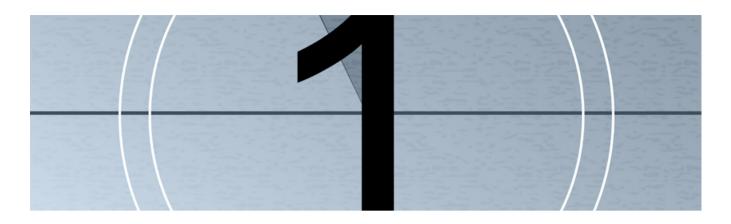
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## The countdown continues

### Maddie Saghir reports

While regulatory deadlines across the industry have been pushed back, firms must continue the momentum in terms of preparation and readiness

The COVID-19 pandemic has caused many events to be put on hold.

This is no different in the financial services industry with important implementation dates for regulations being pushed back to allow firms more time in light of the current situation.

There have been delays to regulations such as the Securities Financing Transactions Regulation (SFTR), which was set to be implemented in April, and the final phases of the Uncleared Margin Rules.

There have also been proposed delays to the second Shareholders Rights Directive (SRD II).

Asset managers, pension funds and insurance companies are scheduled to come in-scope of UMR based on their volume thresholds on the new deadlines of 1 September 2021 for phase 5 or 1 September 2022 for phase 6.

Although deadline extensions could cause a slowdown in production, financial institutions are using this extra time wisely, according to industry experts, as opposed to taking a back seat. Patric Foley-Brickley, managing director of Maitland Instutional Services, a global advisory and fund administration firm, affirms that the fund industry is definitely not using COVID-19 as an excuse to de-emphasise the focus on regulation.

"We constantly scan the regulatory horizon to make sure that we are going to be ready for any upcoming changes to the regulatory environment, irrespective of the demands of the current situation," Foley-Brickley says.

While the regulators have delayed the implementation date of some of the impending changes, Foley-Brickley highlights that there are the new rules relating to liquidity stress testing which are due to be implemented in September, for which no delay has been announced.

"As a result, we continue to evolve and implement enhanced solutions to ensure that we can meet the demands of new and existing regulation," he says.

Meanwhile, Joseph Spiro, director of product management at Hazeltree, observes that the regulatory delays have allowed buy-side firms to focus on immediately critical issues such as managing market turbulence (which has resulted in spiking margin call volumes), along with the logistical obstacles involved with managing remote teams during the pandemic.

Spiro says: "For these reasons, the buy-side firms we have spoken to have reacted to the regulatory delay with a sigh of relief. That being said, preparations continue, particularly for firms subject to phase 5 of UMR."

#### Using the time wisely

The extended deadlines to regulations have allowed firms more time to decide on the right partners and more time to implement the technology needed to comply. The complexity of regulations such as SFTR requires enhanced technology to deal with the abundance of data associated with it.

Spiro says: "The process of deciding on and implementing the best technology to create an efficient and compliant process, as well as determining the preferred custody arrangements, and signing all the necessary documentation, is a long road. Since the publication of our UMR guide 'Clearing up the uncleared margin rules', we've been receiving requests for information on all of these topics."

Additionally, Spiro cautions that the preparations are not something that can be done overnight. "Prior to the delay, many phase 5 firms found themselves scrambling to try to put something in place before the deadline. The delay provided a needed reprieve, but hopefully, those firms won't repeat the pattern and find themselves scrambling again this time next year," he says.

Meanwhile, Foley-Brickley affirms that adherence to regulation must be maintained irrespective of the conditions that you find yourself in.

"A concept highlighted in the Asset Management Market Study and a key focus of the Financial Conduct Authority (FCA) during 2020 is that of 'operational resilience'. Operational resilience takes contingency planning and business continuity to a higher level to the extent that regulated entities must be able to demonstrate that they are able to operate on a business as usual (BAU) basis no matter what situation or environment they find themselves in," Foley-Brickley comments.

He continues: "COVID -19 has been a real-life test of an organisation's ability to demonstrate Operational Resilience to a contingency event that almost nobody saw coming. The industry's reaction to COVID-19 and the speed

with which it was able to accommodate the radical changes to the working environment and still provide a high-quality service has demonstrated the flexibility and operational resilience of the industry across the board."

"Notwithstanding, any delays to the statutory implementation dates for new regulation will clearly help organisations. However, the hard work and planning that will have been done in anticipation will not be wasted as the new regulations come into effect, albeit at a later date," he adds.

As firms ready themselves for go-live dates, one of the challenges that has been identified includes transparency about the status of margin calls disputes.

Spiro says: "With margin call volumes spiking and disputes averaging about 30 percent of all calls historically, credit officers at buy-side firms will want real-time information about these margin call volumes, collateral payments, size of disputes, etc. It's important that collateral practitioners offer timely and accurate management and risk reporting to keep all parties in their organisation well informed."

Additionally, Spiro highlights the importance of providing access to a real-time reporting portal, which can provide this transparency efficiently, without using operational resources to produce manual reports.

Among other challenges in the regulatory space, Foley-Brickley highlights that it's about making sure you are keeping up to date with the required changes and will be on-time with the delivery of a working and robust solution. "Sitting on your hands and waiting until after the pandemic is over is not currently an option being offered by the regulators," he warns.

"Equally, it is important to recognise that the challenges of COVID-19 have affected regulators in the same way as the rest of the industry. Delays to regulation are driven as much by the regulators' ability to implement the necessary changes at their end and to ensure that they have the resource and systems so that new regulation can be properly overseen," Foley-Brickley says.

Elsewhere, Foley-Brickley stipulates that in the COVID-19 contingency environment one of the most difficult challenges has been keeping momentum in on-going BAU projects and if anything has been pushed back it is non-business critical project work.

### A juggling act

Discussing which regulations will be particularly challenging, Spiro believes that the move away from LIBOR is probably the most difficult because it has become so ingrained in everyone's processes.

"But UMR takes the prize for longest to implement, due to all the moving parts. Things like third party and/or triparty custody, calculating SIMM, collecting IM along with posting both IM and IA, are topics that many on the buy-side have never had to think about before. And between service providers, technology providers, lawyers and custodians, there are many factors to juggle at once," Spiro observes.

Meanwhile, Foley-Brickley notes that often the larger the financial institution, the larger the challenge becomes in implementing regulatory change.

"By example, for an organisation such as ourselves the implementation and operation of SM&CR required understanding, thought and planning - but as the number of people who came into scope was relatively small the challenge was very manageable. Conversely, larger organisations like banks and broker dealers had hundreds and even thousands of people who were required to take Senior Manager and Certificated roles. The sheer scale of the challenge required vast and dedicated project teams and considerable input from senior executives across multiple businesses and departments to ensure that SM&CR could be properly implemented and managed going forwards."

Further to this, Foley-Brickley observes that a key challenge for financial institutions is understanding how regulations aimed at one sector of the market will affect the compliance obligations of another.

"By example, non-Markets in Financial Instrument Directive (MiFID) firms such as ourselves are not directly impacted by the MiFID legislation. However, because the investment managers that we appoint and oversee are MiFID firms and the regulations that govern much of the investment process are MiFID driven, it is essential that we know and understand the MiFID regulations to ensure adherence as compliance," Foley-Brickley adds.

#### Post-pandemic effects

Many effects from the pandemic are similar to those felt by the economy after the financial crisis of 2007/2008. However, unlike the crisis, the UMR takes the prize for longest to implement, due to all the moving parts. Things like third party and/or triparty custody, calculating SIMM, collecting IM along with posting both IM and IA, are topics that many on the buy-side have never had to think about before

disruption has not been sparked by the finance sector, but it will still force firms to reassess their plans for operational resilience.

Foley-Brickley highlights: "There are only three certainties in life: death, taxes, and more stringent regulations over time! We absolutely will see an increase, and in my experience, regulations have never ever become less stringent."

Looking ahead, Foley-Brickley notes that once Brexit is completed and the UK is fully out of Europe it will be interesting to see how the approach of the regulator evolves.

He adds: "The FCA has stated in its business plan that regulation will continue to become increasingly outcome-focused and driven by ensuring the right outcome for the investor. Which is a concept that is difficult to argue with."

Meanwhile, Spiro predicts that any new regulations would impact the sellside rather than the buy-side.

Spiro concludes: "I imagine the banks will have to demonstrate on a regular basis that they can operate remotely and be fully functional. The requirements for bank stress tests have already begun to change in that manner."

# ΟΟΟΡΙΑΝ

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# Plan for the unexpected

Chantal Mantovani of Confluence says it is of utmost importance that the fund industry learns from the recent COVID-19 shock and begins promoting the modelling of the possible shift in market expectations and associated liquidity crunch

COVID-19 is having unprecedented effects on the global economy as millions of people worldwide practice social distancing to stop the spread of the virus. One result is that companies, not only within the financial industry, have started experiencing or anticipating potentially significant liquidity challenges. For this reason, multiple firms have started issuing guidance to help companies manage their global cash and liquidity positions during these times of high uncertainty. This is the time to test all cash flows, stress test the downsides, and model what-if analyses and worst-case scenarios.

Regulators globally are not new to liquidity assessments. The European Securities and Markets Authority's (ESMA) guidelines from September 2019 are among the latest issued that are aimed to introduce minimum standards for liquidity stress testing across alternative investment funds (AIFs) and UCITS. The EU Regulator also echoes the US Securities and Exchange Commission's initiative introduced a few months earlier, by going one step further compared to the original requirements introduced by the second Markets in Financial Instruments Directive (MiFID II) and Money Market Fund Regulation (MMF). In fact, regulators have now mandated a new set of rules aimed at quantifying liquidity risk in a more structured and standardised way across both assets and liabilities.

### A scenario-based approach

It is important to note how the behaviour of the markets around COVID-19 has been extraordinary. In just one month, the volatility of corporate bonds has more than doubled together with the credit spreads levels. Given the inevitable global economic slowdown caused by the virus, large amounts of US investment-grade corporate bonds are now facing a considerably higher risk of a downgrade.

This is a clear symptom of a deterioration in credit quality, in some cases explained by the increasing lack of liquidity in the bond market, amplified

by even more private-equity transactions. The greater the movement down to junk status, the higher the risk of a waterfall of funding dislocations that make everything worse, both financially and economically.

Bid/ask spreads usually capture such movements. Especially for fixed income securities, transaction costs are implicit in bid/ask spreads quoted by intermediaries and low liquidity in the fixed income markets usually implies wide bid/ask spreads.

When measuring market liquidity risk, the traditional problem is that the data needed for calibrating the models is only available for liquid instruments, trading on a regular basis and for which books of bid/ask and volumes are available.

For this reason, the current approaches to measuring liquidity risk fail to provide any indication for the most opaque and illiquid instruments, which is where the measurement of liquidity risk is needed most.

Back in 2010, we introduced an approach based on liquidity scenarios within our Revolution platform, which is universal because it covers potentially any financial asset, from equities to bonds, from complex certificates to OTC derivatives, all under a homogeneous and consistent approach.

Revolution offers three different liquidity scenarios:

**Normal scenario:** Reproduces the usual market conditions of liquidity, taking as a reference the variations in drivers registered in unstressed markets

**Stressed scenario:** Pictures stressed conditions of liquidity and uses as a reference the first six months of 2008

Highly stressed scenario: Depicts the highest moment of liquidity stress between September 2008 and March 2009

# Liquidity Stress Testing 26

Each scenario is divided into five different components. The most important component re-builds, with a quantitative approach based on observed market data (credit spreads, interest and inflation rates, foreign exchange rates, equities, etc.), the fair value bid and asks of all the financial instruments that can be priced via an arbitrage-free pricing function, providing a solid and consistent benchmark of liquidity risk. In other words, the engine replicates the algorithms used by market makers in creating prices and links the "cash" markets to the derivative markets, providing a unified and consistent framework for both worlds.

The fair bid/ask value takes into consideration many risk dimensions, including maturity, currency, exposure to different underlying risk drivers, etc. However, the cost of liquidation may also be driven by the asset class. Obvious examples are asset-backed securities: although their risk factors are similar to those of a plain bond, during the credit crisis these instruments had a significant liquidity risk premium. This does not apply

to payoffs with low complexity such as zero coupon or straight bonds, nor to futures or swaps characterised by the management of margins. In fact, when a swap is involved, the security in account acts as collateral against the credit exposure and the collateral at the counterparty institution has secured liquidity by definition.

Within the fixed income space, one additional essential measure of liquidity for a bond is the size of the bond nominal outstanding: a 50 million issue will certainly be less liquid than a five billion issue.

The charts below represent the increasing liquidity risk over the latest couple of years for a balanced model portfolio diversely invested in emerging equities, government- and high-yield corporate bonds. The cost of liquidation in highly stressed market conditions has moved upward from 0.50 percent to 1.50 percent, mostly driven by bid/ask and bond nominal outstanding.



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COVID-19 has stressed the need to simulate the impact on liquidity by looking at the different magnitude of shocks. The liquidity cost of bonds in previous crises was lower compared to today, as we were still in the presence of investment banks with decent desks and capital allocated to them. Now, this is not the case. Even the 2008/2009 crisis has not been as significant as in 2020 in terms of market drops.

For this reason, we recently introduced a new hybrid scenario-based approach to help solve this problem. This consists of an admixture of the above described liquidity risk figures and the results of selected shocks applied to the bid/ask component (either historical events or single/multi factor driven).

The below table summarises a number of historical events over the last two decades and highlights how COVID-19, shown in the last row in the red boxes, goes beyond any previous occurrence, almost doubling the costs registered in correspondence of Lehman Brothers Crash and Black October in 2008, represented in the orange box, not only for the sample balanced portfolio described above but across a number of asset classes, from equities to corporate bonds.

Historical Stress Test	Balanced EM Model Portfolio	"Global Equities All Caps"	"Global Equities Small Caps"	"EMU Govt Bonds"	"US Govt Bonds"	"Global Govt Bonds"	Global HY Corp Bonds
9/11 Terrorist Attack (Sep 10 2001 to Sep 21 2001)	9.47	0.73	1.31	0.35	0.24	0.15	0.67
Position Unwinding Crisis (May 11 2006 to May 22 2006)	6.34	0.46	1.13	0.39	0.12	0.12	0.29
Shanghai Drop (Feb 26 2007 to Mar 02 2007)	4.96	0.54	1.14	0.26	0.15	0.24	0.24
Subprime Crisis (Jul 20 2007 to Aug 17 2007)	7.71	0.42	1.06	0.19	0.23	0.25	0.40
Early 2008 Credit Crisis (Jan 02 2008 to Mar 17 2008)	2.73	0.43	0.99	0.41	0.36	0.59	0.46
Black October (Sep 08 2008 to Oct 13 2008)	7.82	0.73	1.40	0.25	0.53	0.46	4.17
Lehman Brothers Crash (Sep 08 2008 to Sep 18 2008)	8.06	0.43	0.97	0.03	0.71	0.69	1.53
Systemic Financial Risk (Oct 13 2008 to Mar 09 2009)	1.40	0.54	1.15	0.61	0.49	0.58	1.42
European Sovereign Debt Crisis: Early Start (Apr 16 2010 to May 07 2010)	0.85	0.48	1.08	0.05	0.30	0.22	1.38
Japanese Earthquake (Mar 09 2011 to Mar 14 2011)	1.77	0.42	1.10	0.77	0.27	0.30	0.24
European Sovereign Debt Crisis: Long Period (Apr 11 2011 to Oct 03 2011)	3.50	0.45	1.06	0.57	0.73	0.43	1.42
Global Decline (Aug 01 2011 to Aug 19 2011)	2.78	0.62	1.25	1.70	0.51	0.41	1.43
US Tapering Tantrum (Jun 18 2013 to Jun 24 2013)	7.79	0.54	1.13	1.00	0.72	0.89	1.34
EMBI Spike (Jan 15 2014 to Feb 03 2014)	3.38	0.39	0.98	0.49	0.32	0.23	0.24
China Equity Markets: Long Period (Jun 12 2015 to Aug 25 2015)	7.82	0.37	0.99	0.16	0.10	0.16	0.46
Brexit Referendum (Jun 23 2016 to Jun 24 2016)	1.30	0.80	1.41	0.60	0.49	0.02	1.91
Coronavirus Outbreak in China (Jan 10 2020 - Feb 21 2020)	3.03	0.30	0.88	0.44	0.24	0.07	0.19
Coronavirus Outbreak in Europe and US (Feb 21 2020 - Mar 18 2020)	15.64	1.05	1.85	0.96	0.45	0.06	6.36

# Liquidity Stress Testing 28

### It's always a matter of time

The different financial crises in recent times have demonstrated that under fairly unpredictable circumstances the liquidity of traded instruments can nearly vanish. The lack of liquidity combined with the nature of modern derivatives led to massive fund redemptions, which consequently increased the pressure to sell into thin markets. The result? A rapidly downward spiralling cycle of collapsing prices. Accordingly, regulators worldwide have developed new rules that require fund managers to measure and report on the actual liquidity of the instruments in their portfolios and the length of time it might take to sell them.

As traders know, selling a large position quickly can impact its price – the more of something one has to sell and the less interest there is in it, the more the price will have to move in order to trade (slippage in industry

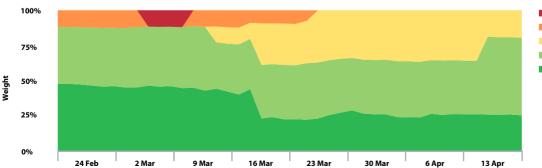
**Summary Statistics Table** 

Name	Portfolio
Market value end (gbp)	8,846,982.10
Normal liquidity risk total %	0.642%
Stressed liquidity risk total %	0.924%
Highly stressed liquidity risk total %	1.405%
Normal time to liquidate	1.859
Stressed time to liquidate	5.345
Highly stressed time to liquidate	25.594
Normal maximum time to liquidate	4.640
Stressed maximum time to liquidate	13.218
Highly stressed maximum time to liquidate	73.954

#### **Top 5 Highly Liquid Segments**

Time to liquidate historic trends

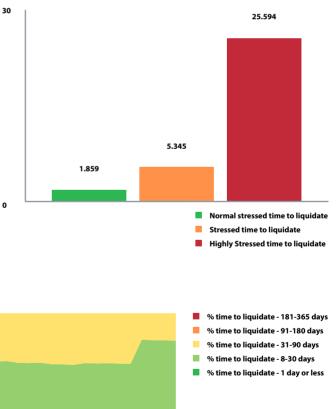




terms). There is always some liquidity: it's nearly always possible to get out of a position, it's more a question of how long it will take and/or how much it will cost. The relationship between volume and cost is certainly not linear: tripling the amount on offer does not triple the impact on the price.

Revolution allows different approaches in this space: from the use of volumes and open interests to the use of liquidity scores, from the application of liquidity risk mapping to the hierarchical application of any of these approaches in combination with custom overrides.

The monitoring of time to liquidate, over time, is also key. Below is a visual representation of the drying-up observed around COVID-19: the ability to easily exit a fixed-income position, slowly tightened in the first few weeks from the beginning of the virus, and eventually dropped in correspondence of the market slump towards mid-March.



#### Overview

The average liquidation time increases at the increase of the turbulence in the market: especially in the presence of large equity positions and/or small bond issuances, the capacity of the markets to absorb the sudden liquidation requests decreases.

Among the various features made available, Revolution allows the additional analysis of the role played by the size of the traded volumes from both traditional trading desks and electronic trading platforms, the market capitalisation, the outstanding bond amounts and the percentage owned. Typically, the higher the market cap, the lower the cost of liquidation; however, the higher the percentage owned of the same market cap, the higher the liquidity risk associated.

### Modelling shifts in expectations

In recent times, asset, risk, and compliance managers have faced more and more challenges in the monitoring of the width, the depth and the resiliency of investment funds. In fact, individual investors who sell shares of Apple or Microsoft, for example, are unlikely to impact the price. Conversely, institutional investors selling large blocks of shares of a small-cap company will probably cause the price to fall. As prices fall, the investment funds holdings these assets will face larger drops in their net asset values, finally pushing the investors to exit the investments. As investors hunt for decent returns following almost a decade of low-interest rates, portfolio managers are therefore called to look at the liquidity of the higher-yielding assets, but the increasing fear around the current market conditions is certainly raising concern around the possible redemptions, and the fast decreasing resilience of the funds.

What happens if the investors suddenly decide to redeem their amounts? If asset managers use their cash holdings as a buffer to meet investor redemptions, typically they can deal with the redemptions without selling the funds' underlying assets. However, if asset managers need to increase their cash holdings to face the investor redemptions, they are ultimately forced to sell more of the underlying assets.

Revolution offers its users solutions to monitor different liquidation strategies that can be put in place, while securing the liability ratio. Once the method is identified, users can define multiple different actions to be applied against single securities or groups of assets and observe the simulated impact on the portfolio in terms of risk, liquidity profile and stress tests exposure.

The table below shows different levels of NAV redemption. Intuitive traffic lights alert in presence of limited cash and/or highly liquid holdings, symptomatic of a limited coverage when called to face the potential redemption.

					Breakdown in % of NAV				Simulating	Redemptions	in % of NAV		
Portfolio	Currency		% Covered	% Cash	Highly Liquid	Liquid	Less Liquid	Illiquid	1%	2%	5%	10%	20%
PTF1	EUR		100.00	17.11	96.16	3.51	0.33	-	✓				1
PTF2	EUR		100.00	2.82	97.62	2.38	-	-	✓				1
PTF3	EUR		100.00	8.73	75.51	14.96	9.54	-	✓				1
PTF4	EUR	×	85.30	21.10	100.00	-	-	-	✓				✓
PTF5	EUR		100.00	5.27	56.49	43.51	-	-	✓				1
PTF6	EUR		100.00	5.74	80.67	18.74	0.57	0.02	✓				1
PTF7	USD		100.00	12.82	57.65	42.35	-	-	✓				1
PTF8	EUR	×	90.17	8.64	82.20	15.11	1.80	0.89	✓				1
PTF9	EUR		99.66	68.99	96.43	0.77	2.80	-	✓				✓
PTF10	EUR		100.00	0.18	100.00	-	-	-	1				1
PTF11	EUR		100.00	4.60	100.00	-	-	-	✓				1
PTF12	USD		100.00	100.00	100.00	-	-	-	✓				✓
PTF13	EUR		100.00	4.66	89.45	10.55	-	-	✓				1
PTF14	EUR		100.00	0.18	51.18	33.64	8.14	7.05	1				1
PTF15	EUR		100.00	0.18	39.17	39.16	13.72	7.95	1				1
PTF16	CHF		100.00	0.12	57.94	37.36	4.70	-	1				1
PTF17	JPY		100.00	0.02	92.16	7.84	-	-	1				1
PTF18	EUR		100.00	4.35	90.84	9.16	-	-	✓				1
PTF19	EUR		100.00	0.02	86.40	10.17	3.43	-	1				1
PTF20	EUR		100.00	1.13	1.13	98.87	-	-	✓	×	×	×	×
PTF21	USD		100.00	42.25	48.84	37.03	13.39	0.74	✓				✓
PTF22	EUR		100.00	37.32	89.32	6.32	4.34	0.02	✓				✓
PTF23	EUR		100.00	58.28	96.74	3.26	-	-	✓				✓
PTF24	EUR		100.00	17.45	59.13	21.86	10.4	8.96	✓				1
PTF25	EUR	✓	100.00	41.47	99.52	0.26	0.22	-	✓	✓	✓	✓	✓

# Liquidity Stress Testing 30

Ensuring the presence of highly liquid, liquid and illiquid investment assets should be accompanied by the ongoing monitoring of the distribution and concentration of the investors as well.

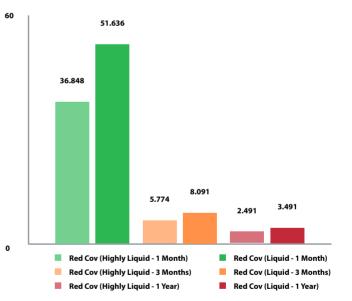
In a situation with neutral investor activity, i.e. without significant net inflows or outflows, funds usually value their assets using market midprices. However, in a situation where there is a significant amount of net subscriptions or redemptions, like the one we've been experiencing around COVID-19, switching valuation pricing to ask prices (with net inflows) or bid prices (with net outflows) would allow the incorporation into the NAV calculation of the effect of transaction costs, where the fund will be impacted when investing or disinvesting due to investor activity.

Such mismatch may constitute a serious risk to investors and the potential suspension of funds may further damage the confidence of the investors,

not only in the short term but mostly in the mid- to long-term. This is why it's important that your solution includes the monitoring of historical redemption coverage ratios and liquidity shortfall for the analysis of the resilience of the investment funds across different redemption periods.

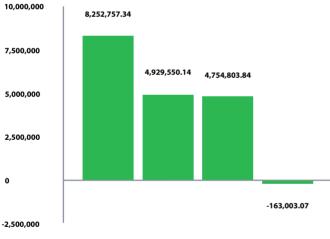
In the example below the chart shows thinner redemption coverage ratios for longer redemption periods. The net outflows cumulated over the period (163k) represents almost 2 percent of the NAV for this fund, an amount which exceeds more than twice the expected outflow that can be withstood with 99 percent of probability over one-day horizon. The expected shortfall indicates the potential buffer the fund still has prior to being severely challenged by further investors redemptions (213k). In fact, the fund still shows a redemption coverage ratio above the unit value, but this may decrease further over time, possibly under the regulatory limits.

#### **Redemption Coverage Ratios**



Name	Portfolio
1 Day or Less	31.613%
2 - 7 Days	12.688%
8-30 Days	55.699%
31-90 Days	0.000%
91-180 Days	0.000%
181-365	0.000%
More than 365 Days	0.000%
Unclassified	0.000%

#### **Cumulative Cash Flows Over Period**



Market Vale End Subscriptions Redemptions Net Cash Flow

Name	Portfolio
Market Value End (EUR)	8,252,757.34
Subscriptions (EUR)	4,929,550.14
Redemptions (EUR)	4,754,803.84
Net Cash Flows (EUR)	-163,003.07
Subscriptions Potential Gain	50,552.28
Subscriptions Expected Upside	111,732.61
Redemptions VaR	79,013.22
Redemptions Shotfall	223,139.66
Net Cash Flows VaR	76,089.65
Net Cash Flows Shortfall	213,814.54

The historical approach to redemptions has some limitations: not all funds have enough history and therefore may require proxies. Also, as it applies to fund performance, the historical outflows distribution might not reflect the future redemption risk. The forced liquidation due to investors' redemption would have sizeable impacts, yet under normal trading conditions, the market is supposedly able to absorb the sales without disruptions for most asset classes.

As we've seen in the above examples, the reverse stress testing of fund levels begins identifying the point at which the fund would no longer be liquid enough to match redemption requests, but should also continue in postulating events that might cause additional stresses such as the top investors leaving – possibly differentiating among investor classes – or larger drifts from swing pricing.

### It is of utmost importance that the fund industry starts learning from the recent COVID-19 shock and start promoting the modelling of the possible shift in market expectations and associated liquidity crunch

### Conclusion

Stressing fund liabilities to determine the effect of fund liquidity is essential, especially when additional investment restrictions apply. That is why the time for implementing the latest liquidity stress testing guidelines is now. It is of utmost importance that the fund industry starts learning from the recent COVID-19 shock and start promoting the modelling of the possible shift in market expectations and associated liquidity crunch. As ESMA chair Steven Maijoor said:"The stress simulation framework is a key element of ESMA's stress testing strategy, which also includes guidelines on liquidity stress testing and on money market fund stress testing.

The resilience of the fund sector is of growing importance as it accounts for an increasing part of the EU financial system. [...] This framework will be an important tool for supervisors to assess risks in the asset management industry, as the methodology developed by ESMA can be applied across the industry's different sectors."\*

This is the reason we have developed a cross-functional solution that is able to respond to the evolving liquidity regulatory frameworks globally, across both assets and liabilities. Our combination of quantitative and qualitative modelling, together with scalable technology and custom reporting, makes our solution unparalleled in today's market.

Download the revolution fact sheet to learn about a comprehensive solution for managing global liquidity risk, stress testing and reporting from a single platform.

# **Chantal Mantovani** Product manager for regtech and fixed income analytics Confluence



## KDPW

## KDPW SFTR REPORTING SERVICE

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- Various reporting models and options available to meet client needs
- Very competitive pricing model

### Reporting

- Maintaining test environments

   duplicate of current production environment and enriched environment before access to production mode
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# Put it to the test

### Maddie Saghir reports

Iosif Itkin, CEO of Exactpro, highlights the importance of software testing in the financial services space and how it can prevent grave impacts on the global economy

#### How important is software testing and what's involved?

Software testing is vital to the development of high-quality software, and the more crucial the system, the more important testing is. For example, transportation and medical devices are systems where the cost of error is extremely high, with human life at stake. These systems are always thoroughly tested, and should an error occur, the cause is investigated and documented to prevent future failures. In those instances, extensive testing and deep analysis of any failures are the only ways to ensure the safety of people using the technology. For the financial industry, software testing mitigates risk and prevents catastrophic financial losses and their grave impacts on the global economy.

In order to ensure the functionality of complex technology and manage risks, financial firms are increasingly focused on boosting resilience and software testing to provide necessary information on the resiliency of technology. For example, how the system reacts to different input data combinations or environment changes, and what exactly happens with the system when there's an outage are key pieces of information when building a resilience strategy. The more scenarios tested through a system, the more coverage - and hence information – the process reveals.

Efficient execution of software testing requires an experienced team, a set of test automation tools and the right mindset to orchestrate the testing. The latter is underpinned by a number of principles. For one, software testing is relentless learning - testing means continuous improvement and involves research and constant self-evaluation against existing approaches.

Testing activities should start early in the software development life cycle and be carried out in parallel with development. Another principle is the deliberate practice of software testing, which suggests that not only should testing go through many iterations, but each time, the process should be improved. What trends are you seeing from clients when testing software?

Various industries, including financial services, are increasingly adopting new technologies, causing a gradual conceptual shift in the perception of the inalienable characteristics of the existing highly complex technology platforms. For example, the application of artificial intelligence (AI) to financial technology indicated that existing technology systems also may demonstrate non-deterministic behaviour due to their extreme sophistication.

Similarly, with the introduction of distributed ledger technology (DLT) to the financial services industry, the systems became more decentralised, although distributed systems existed long before the blockchain era. In parallel, the adoption of cloud environments appears to have driven a better understanding of control over the test environments and the importance of data storage.

#### What are the biggest challenges in this space?

A key challenge is people underestimating the complexity of the technology that they operate, which often leads to underinvestment into test harnesses and monitoring solutions. We also frequently encounter challenges related to the box-ticking approach, when firms tend to run software testing only to satisfy compliance requirements, rather than to learn and improve systems.

#### What opportunities can software testing provide firms?

The core value of software testing activities is a comprehensive understanding of a system's readiness for live service, information that is crucial in critical disruption scenarios. Building resilient platforms requires extensive non-functional testing to assess the system's actual response to a major outage. Those test results determine whether additional protection layers are needed, or whether monitoring mechanisms are satisfactory. For some firms, exploratory testing and process mining provide insights about the system's expected behaviour.

When the specifications are absent for any reason, this description of the existing business flows is needed.

Looking to the next five years, how do you think software testing will advance?

We anticipate further progress of existing trends, particularly, the relationship between AI and testing. There are a couple of approaches that determine how testing and AI will continue to intersect.

First, there will be further exploration of the application of AI techniques to the process of software testing. AI methods are already being applied to intellectual system log analysis, failure prediction, process mining, defect classification and other areas. We expect both further advancements and increased adoption of AI into the practice of software testing.

The other approach uses AI as a target system for testing activities, an area where most breakthroughs are expected in the upcoming years.

To understand how these advancements might unfold, it's important to understand that there is a substantial difference between software testing and proof of concept (POC). POC aims to prove that something works, while software testing aims to prove that something doesn't work, to uncover the truth. Current Al-based solutions – for example, chatbots - are still at the POC stage and not production-ready.

We have spoken to some financial institutions who have integrated conversational assistants into their systems, and they report that chatbots are not ready – they are either biased, or their self-learning abilities are limited.

Even when AI systems seem to be ready, such as Microsoft's Tay Bot and Google's Meena, they have shut down due to bias-related concerns, rather than subjecting them to monitoring and deep research.

Chatbot challenges indicate how software testing of AI systems is crucial for the whole industry - it is better to test AI-based systems exhaustively rather than let those biases and bias-induced errors to be inherited by other, more critical AI systems, such as self-driving cars or medical devices. We have spoken to some financial institutions who have integrated conversational assistants into their systems, and they report that chatbots are not ready – they are either biased, or their self-learning abilities are limited

> **losif Itkin** CEO Exactpro



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## Make the most of the UMR extension

Neil Murphy, business manager of triResolve, discusses the one-year extension to the final implementation phases of the Uncleared Margin Rules

On 3 April, Basel Committee on Banking Supervision (BCBS) and the International Organization of Securities Commissions (IOSCO) announced a one-year extension to the final implementation phases of the Uncleared Margin Rules (UMR), citing the ongoing market disruption across the globe resulting from COVID-19.

While the proposed new timeline still requires formal regulatory approval from local regulators, many have been quick to act already. Indeed, the Monetary Authority of Singapore (MAS) acted within days to confirm they will update their timeline, noting firms 'would be hard pressed' to make the necessary operational adjustments required for implementation, which was promptly followed by confirmation of plans to follow suit by many other national regulators, including the European Supervisory Authorities (ESA), Japan Financial Services Agency (JFSA), Swiss Financial Market Supervisory Authority (FINMA), Canadian Office of the Superintendent of Financial Institutions (OSFI) and Australian Prudential Regulation Authority (APRA). Given the scale of market disruption, regulators have been pro-active and amenable in accommodating changes that allow markets to function smoothly at this time.



### The proposed new compliance timeline

\*Dates subject to US regulatory confirmation (otherwise June to August 2020/21 for firms subject to US rules) While in-scope firms breathe a collective sigh of relief, they are now faced with a dilemma – namely, continue with their analysis and planning as they were before the announcement or put their plans on hold. There is no simple answer and while some firms may feel they have invested too much to stop now, others may be facing a bigger impact arising from market disruption and instead prefer to divert resources to focus on maintenance of business as usual.

### TriOptima insight

Since the delay was announced, initial discussions with phase 5 clients indicate a general consensus to plough ahead with project planning, albeit while working towards the revised 2021 date. Given firms were just 6 months from the phase 5 compliance deadline before the announcement, many feel they have already invested too much time and resources to risk valuable loss of momentum and knowledge. Instead, they indicate a preference to continue the analysis of the changes required to deliver IM compliance: including the selection of IM model; analysis of custody models; review and selection of vendor offerings etc.

This approach recognises that stopping and re-starting a project may in itself be a costly option, and significantly, allows firms more time for testing of IM calculations with vendor partners. While the extended timeline gives phase 6 firms an even longer lead time, and perhaps more justification to put projects on hold, many also talk about concluding on-going analysis in order to make things easier when they pick these projects up in 2021.

With more than 2,000 firms in our client network, TriOptima is well positioned to observe at first hand the impact of ongoing market volatility and disruption. Over the past month, triResolve has seen record trade volumes submitted for reconciliation, while triResolve Margin has seen a near tripling of margin call volumes during Q1. That margin call volumes should spike during a period of market stress is, of course, no surprise - how firms react to the associated pressures is key.

#### What to do with the extra time?

While the industry may broadly welcome the deadline extension, allowing firms more time to consider plans for IM compliance, the immediate focus for firms is on using this time to maintain operational capacity during these unprecedented times. For forward-thinking firms, this focus should be not simply on getting by, but should also include a review of existing processes to ensure they are best suited to handle the 'new normal'. Hence firms should use this extra time to assess their processes – first for Variation Margin, but also recognising that market volatility reaffirms the importance of portfolio reconciliation – ensuring systems and processes for each are able to cope with increased volumes and a higher focus on dispute resolution. Improving current processes can ease immediate day to day pressures, but also help to lay a more solid foundation upon which to deliver IM compliance.

In order to both reduce risk and solve operational bottle-necks firms should consider prioritising the following steps:

- Improve automation within existing VM margin process - this should include:
  - Switching from the use of email for call exchange to use of industry-standard messaging protocols such as MarginSphere
  - ii. Adoption of a robust automated margin workflow
  - iii. Connectivity to SWIFT payments system to ensure straight-through processing
  - Ensure the ability to seamlessly identify, quantify and resolve disputes
  - Integration of the margin and portfolio reconciliation flows to help firms achieve transparency across both portfolio and valuation differences
  - Adoption of a dedicated dispute workflow to assist in the identification of root cause, dispute ageing and provide necessary management oversight

Adoption of the above can provide quick wins in the form of higher operational resilience and increased capacity. As recent market events have demonstrated, automation and the importance of moving away from manual processes are more critical than ever before.

### **Concluding thoughts**

Firms granted this one-year reprieve should use their time wisely. For those who are in an advanced stage of UMR planning, the revised timeline may provide them with an opportunity to conclude their projects as planned, allowing them to monitor IM from September 2020, thus gaining valuable insight into the likely impact of IM from September 2021 onwards. For others who are perhaps not at such an advanced stage, the extension provides greater opportunity for testing with, and due diligence of their vendor partners. For others still, the reprieve provides a much-needed opportunity to focus on other priorities outside of UMR.

Regardless of the approach firms take in relation to their UMR project – plough ahead or pause – all firms should use the additional time to improve their existing margin and portfolio reconciliation operations. Recent market volatility has placed legacy processes under unprecedented strain, firms should ensure they are best able to resist continuing market turmoil and future operational shocks.

To find out how TriOptima can help, click here.

Regardless of the approach firms take in relation to their UMR project – plough ahead or pause – all firms should use the additional time to improve their existing margin and portfolio reconciliation operations

> **Neil Murphy** Business manager triResolve



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### BNY Mellon has appointed Daron Pearce to a newly created global role as head of asset servicing strategic growth.

Pearce will focus on identifying and accelerating both inorganic and new market entry opportunities.

Most recently, Pearce served as head of asset servicing for Europe, the Middle East and Africa where he led a period of sustained growth in the region by improving revenue, profitability and client satisfaction.

He transitioned to the new role on 1 June, reporting to James Slater, global head of business solutions.

Pearce has been with BNY Mellon for almost 20 years and has served in a

number of roles including CEO of global financial institutions, and head of asset servicing in the UK Ireland and Sub-Saharan Africa, among other roles.

Roman Regelman, head of asset servicing and digital at BNY Mellon, said: "Daron Pearce is known, trusted and respected by our clients and the industry. That and his deep expertise make him ideally suited for this critical new role."

Regelman added: "He will focus on accelerating revenue growth on some of our key strategic initiatives and will support the development and application of our products and services into new markets globally."

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Citco has hired Connie Tirondola as executive vice president and head of real assets in North America at Citco Fund Services (US).

Reporting to Barbara Flusk, head of real assets, Citco Fund Services (US), Tirondola will focus on managing client relationships and supporting fund accounting services for Citco's North American real assets client base. Most recently, Tirondola worked as a managing director in the fund administration business of CBRE, an American commercial real estate services and investment firm.

At CBRE, she was responsible for business development. Prior to CBRE, she served as managing director and global head of real estate fund accounting at BlackRock.

During her career, Tirondola has also held senior positions with Sentinel Real Estate and Prudential prior to BlackRock. Additionally, she is a member of the Global Standards Steering Committee, a joint real estate industry group created by NCREIF/PREA, INREV and ANREV to further cooperation in global reporting standards.

Commenting on the appointment, Flusk said: "We're incredibly excited to bolster our team with such a highly respected industry leader such as Connie Tirondola. I have worked with her for over a decade on various industry initiatives and our clients will greatly benefit from her many years of institutional finance experience."

Tirondola commented: "Throughout my career, I have admired not only Citco, as a leading asset servicer, but also Barbara Flusk and her ability to build a strong real assets team and client base. As managers increasingly recognise the benefits of outsourced solutions, I look forward



### MUFG Securities Europe, Middle East and Africe (EMEA) has appointed Marshall Bailey as chair to its board, effective in September.

Bailey will replace William Fall, who will step down as chair in September after almost six years in the role. Currently, Bailey is a director with the board of National Commercial Bank, where he represents the shareholding of the KSA's public investment fund.

Bailey has also served on the boards of LCH Group as chair, as a non-executive director at the London Stock Exchange Group, and as chair of the Financial Services Compensation Scheme.

Over his 30-year career, Bailey has held a number of senior positions in the financial services sector including 18 years at RBC Capital Markets, culminating in his position as managing director and head of financial institutions EMEA and Asia.

In 2011, Bailey moved to State Street in 2011 where he held several roles including CEO of State Street global markets international.

After State Street, Bailey was appointed president and global head of ACI International – Financial Markets Association in 2014. Commenting on the new appointment, John Winter, CEO of MUFG Securities EMEA, said: "Marshall Bailey's impressive experience in the financial services sector will be a tremendous asset to MUFG from both a commercial and regulatory standpoint, particularly as we look to expand our financial institutions business globally."

Winter continued: "His leadership will ensure that the board continues to provide clear guidance and strong support as we navigate some unchartered territory following on from the recent pandemic."

Bailey added: "It's a delight to be joining MUFG at this important time. I truly believe that the bank is well-positioned in these markets, and will continue to be integral to our clients' success. I look forward to joining the board, and working with John Winter and his team."

Elsewhere, Bailey will also be taking up a post on the board of governors of the CFA Institute, a standard-setting and educational body with international reach.

## Industry Appointments

to further strengthening North American client relationships and supporting managers' evolving operational needs to create scalability by leveraging Citco's use of industry-leading technology and processes for real assets," Tirondola added.

The Bank for International Settlements (BIS) has promoted Tara Rice as head of secretariat for the committee on payments and market infrastructures (CPMI), the global standard setter for payment, clearing and settlement services.

Rice, who has been a member of the CPMI Secretariat since January 2019, will start her term in June for a period of three years. Previously, Rice served as deputy head of secretariat and led its support of the G7 working group on global stablecoins and has represented the committee in international working groups.

BIS said that Rice has extensive experience in financial markets and institutions both domestically and internationally and has worked in senior positions including at the Federal Reserve and the US Department of the Treasury.

She replaces Morten Bech, who has been appointed head of the BIS innovation hub Switzerland. Bech's three-year term started on 1 June.

The CPMI, currently chaired by Sir Jon Cunliffe, deputy governor of the Bank of England, is an international standard setter that promotes, monitors and makes recommendations about the safety and efficiency of payment, clearing, settlement and related arrangements, and supports financial stability and the wider economy.



BNY Mellon asset servicing has hired Ben Slavin as the new head of exchange-traded funds (ETFs).

In his new role, Slavin will enhance BNY Mellon's position as a leader in offering innovative new opportunities to its ETF clients. Reporting to James Slater, global head of business solutions BNY Mellon asset servicing, Slavin will work to ensure that the bank's end-to-end capabilities are among the best in the marketplace.

Before joining BNY Mellon, Slavin founded Original Six, an independent global consulting business focused on ETFs, digital assets, and innovative product structures.

Prior to this, Slavin was head of product and business development at WisdomTree Asset Management, where he established the ETF business and led product and business development for more than a decade.

According to BNY Mellon, Slavin is an "industry leader within the ETF space with a proven track record as an innovator, builder and thought leader".

Commenting on the appointment, Slater said: "We are extremely pleased to have Ben Slavin join the BNY Mellon team. His impressive track-record of accomplishments, and extensive leadership experience in the ETF space, will help us to further our leadership in the industry and continue to accelerate the development of our capabilities for one of the fastest-growing areas of our asset servicing business."