INTERVIEW
Amy Hong sets out her priorities as ISDA chair

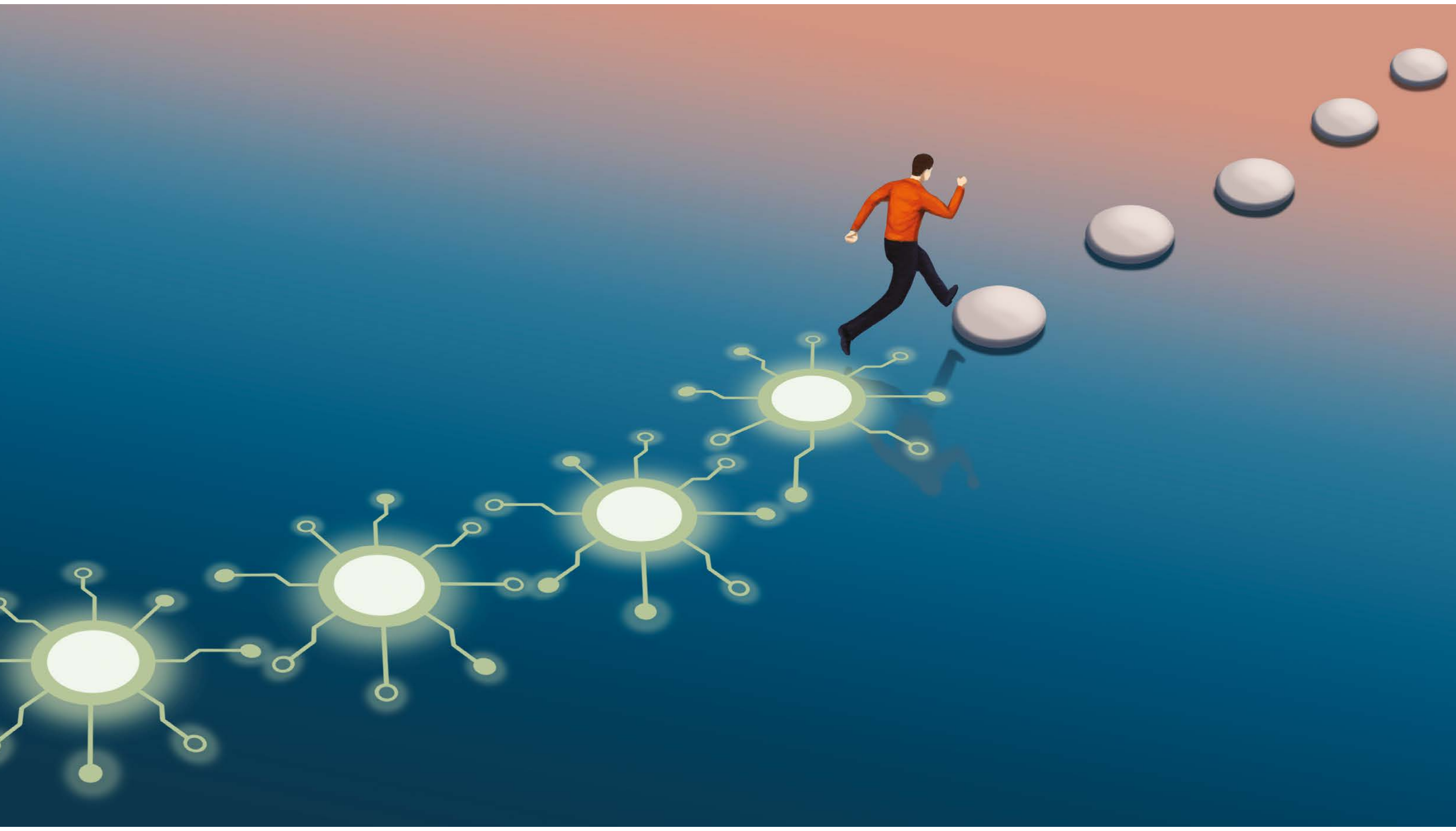
TECHNOLOGY
How tokenisation could improve collateral management

OPINION
Reflections on the key trends that will drive markets

IQ

ISDA® Quarterly

Vol 11, Issue 3: December 2025 | www.isda.org



* FUTURE PATH

In its fifth decade, ISDA will bring its deep experience in driving standardisation to support the further evolution of derivatives markets

ISDA® SwapsInfo

ISDA SwapsInfo brings greater transparency to the over-the-counter (OTC) derivatives markets. It transforms publicly available data on OTC derivatives trading volumes and exposures into information that is easy to chart, analyze and download. ISDA SwapsInfo covers interest rate derivatives (IRD) and credit derivatives markets.

Interest Rate Derivatives

Transaction Data

Daily, weekly and quarterly traded notional and trade count by product taxonomy.

Notional Outstanding

Notional of all IRD contracts outstanding on the reporting date.

Credit Derivatives

Transaction Data

Daily, weekly and quarterly traded notional and trade count by product taxonomy.

Market Risk Activity

Traded notional and trade count for single-name and index credit default swaps (CDS) that result in a change in market risk position.

Notional Outstanding

Gross and net notional outstanding and trade count for single-name and index CDS.

SwapsInfo.org

ISDA® Safe, Efficient Markets

40 Down, Many More to Come

As we come to the end of ISDA's 40th anniversary, we can look back on an incredibly memorable year. Any anniversary is a time for reflection, and we took the opportunity to speak with some of the pioneers of the swaps market about the circumstances that led to the formation of ISDA. Those early practitioners decided something needed to be done to address the growing problem of documentation backlogs – a decision that began ISDA's 40-year quest to foster greater standardisation and market efficiency. (If you missed it, you can read their story in the January edition of **IQ**, as well as listening to episode 48 of *The Swap* podcast.)

We also had the chance to celebrate the anniversary with closing bell ceremonies at the London Stock Exchange, the New York Stock Exchange and the Tokyo Stock Exchange, as well as a symbolic gong strike at Hong Kong Exchanges and Clearing (pages 34-35). We'd like to thank all four exchanges for helping us mark the occasion in such an unforgettable way.

But the 40th anniversary celebration has never been only about looking misty-eyed in the rearview mirror – we also wanted to think long and hard about what the future will bring. This includes the evolving regulatory framework – from the impact of the Fundamental Review of the Trading Book when finally implemented to regulatory efforts to simplify and modernise certain rules, such as reporting. It includes changes in the composition of the market and the growing participation of non-banks. And it includes the role of advanced technologies like artificial intelligence, tokenisation and digital assets. For this issue of **IQ**, we asked a selection of market participants and policymakers to contribute short essays exploring what the future may hold (pages 36-43).

We at ISDA would never be so bold as to make firm predictions about the future, but there's one thing we can say with complete confidence: whatever course the derivatives markets take, ISDA will reach its 50th anniversary having demonstrated the same commitment to standardisation and market efficiency as it always has.

Nick Sawyer
Global Head of Communications & Strategy
ISDA

ISDA Safe, Efficient Markets
International Swaps and Derivatives Association | www.isda.org
NEW YORK | WASHINGTON | LONDON | BRUSSELS | HONG KONG | SINGAPORE | TOKYO

Global Head of Communications & Strategy, **Nick Sawyer**, nsawyer@isda.org
Senior Director, Communications, **Joel Clark**, jclark@isda.org
Global Head of Public Policy, **Steven Kennedy**, skennedy@isda.org
Art Director, **Nick Palmer**, nick@sidelong.co.uk

ISDA® Safe, Efficient Markets
Celebrating 40 Years

CONTENTS

REGULARS

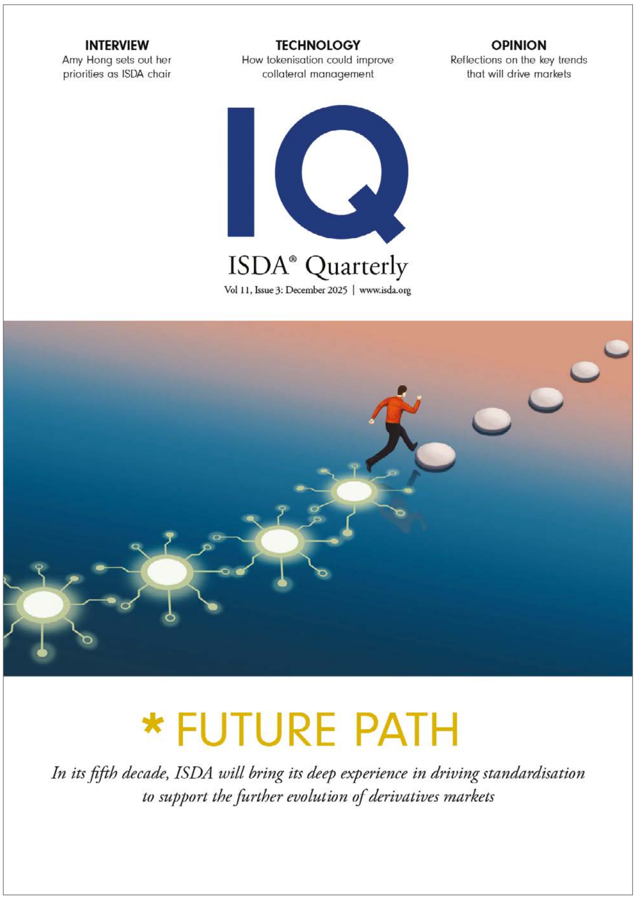
ALSO IN THIS ISSUE

PAGE 34

THE COVER PACKAGE

FUTURE PATH

Volume 11, Issue 3: December 2025



"We have a long track record of working with regulators to develop solutions to support major market and regulatory changes. We'll aim to continue that partnership with the objectives of reducing unnecessary regulatory burdens and costs, opening a path to greater innovation, and improving competition and efficiency"

Amy Hong, ISDA

Modernising Markets

*As ISDA looks beyond its 40th anniversary, collaboration with regulators will be crucial to ensure the market keeps pace with the modern world, writes **Scott O'Malia***

As our 40th anniversary year comes to an end, ISDA's focus is set firmly on the future. Driven by technological innovation, economic shifts and geopolitical risk, the pace of change in derivatives markets is accelerating. We need to make sure the market continues to meet the needs of its users and the real economy, and key industry processes and regulations are brought into the modern age.

During this milestone year, we've reflected on how ISDA has repeatedly helped the market to overcome challenges that sometimes seemed insurmountable. We developed contractual fallbacks that were critical in enabling LIBOR to be retired without disruption. We launched the ISDA Standard Initial Margin Model that was fundamental to the successful implementation of the initial margin rules for non-cleared derivatives. And we delivered the ISDA resolution stay protocols that allowed regulators to build robust bank resolution regimes.

In all three cases, success was underpinned by close collaboration with regulators. As we look to the future, there are several areas where that same spirit of collaboration will be crucial to the modernisation of the market and the regulatory framework.

> "Driven by technological innovation, economic shifts and geopolitical risk, the pace of change in derivatives markets is accelerating"

One is data reporting. It's been more than 15 years since the G-20 leaders mandated that derivatives should be reported to trade repositories, but we're still struggling with a reporting framework that has often been inconsistent, duplicative and costly to implement, leading to inaccuracies, repetition and omissions in reported data.

Policymakers have acknowledged these issues and want to address them. Earlier this year, the European Securities and Markets Authority sought industry feedback on the major cost drivers associated with reporting and how the burden could be simplified and reduced. We welcome this effort and believe a key part of any solution should be a holistic review of the EU's multiple reporting regimes.

As regulators work to improve the efficiency of their reporting rules, we are continuing to evolve ISDA's Digital Regulatory Reporting initiative, which enables more accurate and efficient implementation of reporting rules.

A second priority is Treasury clearing. Ahead of the clearing mandate coming into force from end-2026, clients must be able to realise the benefits of portfolio margining across cleared US Treasury securities and futures. Clearing houses are working to develop client portfolio margining solutions, and it's critical the Commodity Futures Trading Commission (CFTC) and the Securities and Exchange Commission (SEC) act to quickly approve them once they do. This isn't just a CFTC and SEC issue – US prudential regulators also need to adapt their rules to recognise the risk-reducing benefits of netting across products, including cleared repos and futures, under the standardised approach to counterparty credit risk. This is essential to ensure banks have the capacity to clear on behalf of clients.

Another issue is the completion of Basel III. We must never lose sight of the need for an appropriate, risk-sensitive capital framework that is as consistent as possible across borders. In early 2026, we expect US regulators to publish a revised version of the Basel III endgame package, and we will work closely with members to test the impact. To ensure we maintain deep and liquid markets, we must get this right.

A fourth priority is market liquidity and collateral infrastructure. According to the latest ISDA margin survey, initial margin and variation margin collected by leading derivatives market participants for their non-cleared derivatives exposures increased by 6.4% to $1.5 trillion at the end of 2024. While margin requirements have helped to provide protection against counterparty credit risk, we must recognise that the financial system has become more prone to liquidity crunches during periods of stress.

At a time when some markets are moving to 24/7 trading, we need 24/7 risk management. Tokenisation could alleviate some of the liquidity and workflow challenges by expanding the types of usable collateral to a wider range of assets, including money market funds. ISDA is approaching this from two angles: clarifying the legal and regulatory framework, and collaborating with industry participants to establish interoperability, supported by common data standards.

Modernisation has always been a central tenet of ISDA's work, as we've sought to make sure the derivatives market keeps pace with the world around it and the needs of users. As we move beyond our 40th year, you can count on ISDA to double down on the modernisation agenda to ensure the derivatives market is fit for the future.

Scott O'Malia
ISDA Chief Executive Officer

Derivatives Poised to Support Japan's Asset Management Strategy

Derivatives are expected to play a pivotal role in Japan's ambition to become a global leader in asset management, but some barriers need to be reduced to enable the country's asset managers to take full advantage of these instruments, according to a research report by ISDA and Crisil Coalition Greenwich.

The report, published on October 16 and based on discussions with 20 senior asset managers in Japan, shows that derivatives are viewed as essential tools for achieving investment strategies and objectives, with 80% of respondents highlighting their importance for both portfolio management and product development.

Following the end of the Bank of Japan's eight-year negative interest rate policy last year, firms are expected to increasingly look to the derivatives market to help manage the impact of interest rate changes. According to the report, 90% of asset managers see value in expanding their use of derivatives.

The report comes as the Japanese government seeks to enhance the competitiveness of its asset management sector in order to increase the flow of capital into investment products. In 2023, Japan's Financial Services Agency (FSA) set out a policy plan that envisioned a virtuous cycle of growth and distribution, in which household savings flow into productive investment and the benefits are returned to households, leading to further investment and consumption.

Over the past year, policymakers have continued to move the programme forward. For example, updates to the Financial Instruments and Exchange Act were introduced in May, allowing investment managers to delegate middle-office operations and investment management authority, thereby lowering barriers to entry. The FSA is now working on further steps, including corporate governance reforms and the strengthening of policies to support steady asset building by households.

"We welcome this progress and commend the FSA for its vision and commitment to boosting Japan's asset management sector. The strategy is unfolding at a time of profound change. Last year, the Bank of Japan ended its eight-year negative interest rate policy and rates were increased again at the start of this year. For Japanese firms, the change in monetary policy has underscored the importance of maintaining predictability and stability in earnings. This is best achieved by using derivatives," said ISDA chief executive Scott O'Malia, speaking at an ISDA event on the future of asset management in Japan, held in Tokyo on October 17.

The first impediment was addressed in September when the US Commodity Futures Trading Commission issued no-action relief, which means US asset managers in Japan can now clear yen swaps through JSCC under certain conditions.

Respondents also cited challenges with domestic accounting rules, which, in some cases, can make derivatives trading economically unviable, especially when they are used to hedge the risk associated with a cash instrument. This issue is present in multiple jurisdictions and is an important consideration for Japanese firms.

> "Last year, the Bank of Japan ended its eight-year negative interest rate policy and rates were increased again at the start of this year. For Japanese firms, the change in monetary policy has underscored the importance of maintaining predictability and stability in earnings. This is best achieved by using derivatives"
> **Scott O'Malia, ISDA**

In response to the ISDA survey, 89% of market participants said they believe further use of derivatives will directly or indirectly support Japan's asset management strategy. But respondents also highlighted several issues that sometimes constrain their use of derivatives, some of which are endemic to derivatives trading globally, while others are more pronounced in Japan. Dominant themes include an uneven ability to source liquidity across certain products, the need for more electronic execution and processing, a desire to clear more trades, regulatory considerations and a lack of local derivatives expertise.

While there has been significant progress in clearing in Japan, respondents identified three distinct challenges. First, at the time the interviews were conducted, the Japan Securities Clearing Corporation (JSCC) had not been recognised as a derivatives clearing organisation in the US, meaning US asset managers in Japan and elsewhere could not clear through JSCC. Second, JSCC and LCH clear different yen swaps activity, resulting in pricing discrepancies that can mean higher costs for market participants. Finally, as in other regions, asset managers would like to see more products, including cross-currency swaps, become eligible for clearing.

Meanwhile, the survey showed that the number of firms trading derivatives electronically in Japan remains low relative to other markets. Only 8% of Japan-based asset management firms traded interest rate derivatives electronically in 2024, just a small increase from 6% in 2021. By contrast, 75% of firms in the US and 71% of firms in Europe traded electronically in 2024.

"This research is very helpful in confirming the value of derivatives in supporting Japan's asset management strategy and identifying the steps that are needed to improve market access. For ISDA's part, we will use this research as the basis for future engagement with policymakers and market participants to ensure Japanese asset managers can use derivatives to improve portfolio management and enhance product development," said O'Malia. IQ

Read the report, *The Derivatives Market in Japan: Tapping into the Potential*: tinyurl.com/mrawzvba

ISDA Safe, Efficient Markets Celebrating 40 Years

Quest for Consistency and Efficiency Continues, Says O'Malia

A recognition of the need for greater consistency and efficiency brought dealers together to alleviate the documentation backlog in the derivatives market in the 1980s and it remains at the heart of ISDA's work today, chief executive Scott O'Malia told delegates at the Derivatives Trading Forum events in London, Tokyo and Sydney, which were held in September and October.

"Today, our membership comprises more than 1,000 entities across 78 countries. Our suite of documentation continues to underpin the derivatives market, creating certainty and stability. Our focus on consistency and efficiency extends to the global regulatory framework, and we advocate tirelessly for rules that are appropriate, risk-sensitive and aligned with global standards. It's also the basis of our digital transformation work, as we advance a set of mutualised solutions to bring greater automation to key processes," said O'Malia.

> "Our focus on consistency and efficiency extends to the global regulatory framework, and we advocate tirelessly for rules that are appropriate, risk-sensitive and aligned with global standards. It's also the basis of our digital transformation work, as we advance a set of mutualised solutions to bring greater automation to key processes"
>
> **Scott O'Malia, ISDA**

Speaking in London on September 16, O'Malia highlighted the need for diligent preparation for the transition to mandatory clearing in the US Treasury market, which he described as a "major policy change and a heavy operational lift". The Treasury market is the oil that keeps the gears of the global financial system turning and Treasuries are widely used in the exchange of collateral, which is critical to the smooth functioning of the derivatives market globally, he said.

ISDA has published a comparison of the various clearing models offered by central counterparties, as well as participating in an industry group to develop appropriate client documentation. Once finalised, dealers will need to execute the documents with thousands of counterparties. Netting opinions will also need to be obtained in the US and multiple other jurisdictions to ensure efficient capital treatment. ISDA has been in contact with netting counsel globally to support those efforts.

"ISDA has helped the industry navigate a series of big transitions over the years and we know that a laser focus on consistency and efficiency will pave the way towards successful implementation. We will continue to work closely with clearing houses, market participants and policymakers to maintain momentum," said O'Malia.

ISDA's focus on consistency and efficiency also applies to the global capital framework. When it comes to the implementation of the Basel III market risk capital rules – known as the Fundamental Review of the Trading Book (FRTB) – differences have emerged between key jurisdictions, both in the timing and content of the rules. In the US, regulators are revising the Basel III endgame proposal following industry feedback, with a new proposal expected in the coming months. In the EU and the UK, the FRTB is now due to be implemented at the start of 2027, but the UK Prudential Regulation Authority has proposed delaying the rollout of internal models until the following year.

In the EU, the European Commission launched a targeted consultation on November 6 on changes to the FRTB that would bring some short-term relief in key areas. These would include a set of temporary, targeted amendments to the standardised and internal models approaches, similar to those proposed in an earlier consultation, and the application of a multiplier that negatively affected banks could use to limit the increase in their market risk capital requirements for three years.

"We believe capital requirements must be appropriate and risk-sensitive to support deep and liquid markets. If capital requirements are set too high, this can lead to reduced access to funding, a lack of hedging solutions and increased vulnerability to external shocks. It's also important that the rules are as consistent as possible across borders. A lack of alignment creates added complexity for globally active banks, making it more difficult for them to effectively manage their risk and service their clients," said O'Malia.

O'Malia also set out how ISDA is bringing the commitment to consistency and efficiency to its digital solutions, including the Digital Regulatory Reporting (DRR) initiative and the ISDA Notices Hub. The ISDA DRR is now being used for eight sets of reporting rules around the world, converting an industry-agreed interpretation of the rules into machine-executable code, which dramatically reduces the risk and cost of inaccurate or incomplete reporting.

Meanwhile, the ISDA Notices Hub, which launched in July, enables the rapid online delivery and receipt of critical termination notices, reducing the risks and costs associated with failed or delayed delivery of notices. More than 145 buy- and sell-side entities have now adhered to the ISDA 2025 Notices Hub Protocol, which provides the legal framework to allow delivery of notices via the platform.

"Through our powerful set of mutualised solutions, ISDA is bringing clunky, manual processes into the digital age and driving the transformation of the derivatives market," said O'Malia. IQ

ISDA Looks to Fill DC Administrator Role

ISDA and the Credit Derivatives Governance Committee have issued an invitation to tender for an independent regulated entity to serve as the administrator for the Credit Derivatives Determinations Committees (DCs), which includes assuming the role of DC secretary.

The DC secretary is responsible for various administrative tasks, including distributing questions submitted by eligible market participants to the relevant DC members, convening DC meetings and publishing the results of DC votes. The DC secretary does not vote on whether credit events have occurred.

The invitation to tender, issued in November, is the latest in a series of measures to strengthen DC processes and follows publication by ISDA of the results of a consultation on proposed changes to the DCs last year. The consultation, conducted by Boston Consulting Group, was based on recommendations proposed by Linklaters as part of an independent review on the composition, functioning, governance and membership of the DCs.

"Having an independent regulated entity serve as DC administrator is another step forward in efforts to strengthen the DC process. The administrator will execute the agreed structural changes to the DCs, such as adding independent members and implementing increased transparency, and will have full responsibility to implement the reforms mandated by the Credit Derivatives Governance Committee to ensure the DCs continue to function as a trusted and essential derivatives market infrastructure," says Katherine Tew Darras, ISDA's general counsel.

The DCs were introduced in 2009 as a centralised decision-making body to enable a standardised auction settlement process and ensure central clearing could be implemented for credit derivatives. Although ISDA does not control the DC rules and is not involved in the decision-making process or administration of the committees, ISDA has an interest as a global trade association for derivatives in ensuring the DCs continue to function robustly.

"Having an independent regulated entity serve as DC administrator is another step forward in efforts to strengthen the DC process"

Katherine Tew Darras, ISDA

In May, ISDA published a proposal for a new governance committee for the DCs, which would have responsibility for taking market feedback and adopting rule changes affecting the structure and operations of the DCs to ensure their long-term viability and meet market expectations for efficiency and transparency in credit event determinations.

The governance committee comprises a minimum of 15 and a maximum of 20 senior business-focused market participants with significant experience in the credit default swap market – 10 from the sell side, five from the buy side, three central counterparty or index provider members and two additional infrastructure providers. The governance committee – which was established in July – is prevented from making rule changes that could impact live credit events to avoid the perception of conflicts of interest, and any proposed rule change would be open to market consultation before a vote by the governance committee.

The new DC administrator will have a range of responsibilities, including performing all DC secretary administrative duties, building, maintaining and operating a replacement DC website, building, maintaining and operating all infrastructure required to administer the DC process and working with the Credit Derivatives Governance Committee to continue improving the DC rules.

The deadline for applications for the DC administrator role is January 9, 2026, and the successful bid will be announced in the first quarter. IQ

ISDA Named Industry Association of the Year as DRR Scoops Two Awards

ISDA has been named Industry Association of the Year for the third consecutive year at the GlobalCapital Global Derivatives Awards, while ISDA's Digital Regulatory Reporting (DRR) initiative won Digital Solution of the Year in the same awards and Outstanding Contribution to Regulatory Reform at Regulation Asia's eighth annual Awards for Excellence.

"We're proud to receive these awards, which highlight ISDA's delivery of solutions that make derivatives markets safer and more effective. From digital transformation to regulatory advocacy and support for a consistent, risk-sensitive capital framework, ISDA continues to lead the way in addressing the industry's most pressing challenges," says Scott O'Malia, chief executive of ISDA.

The ISDA DRR helps market participants comply with regulatory reporting requirements by using the Common Domain Model – an open-source data standard for financial products, trades and lifecycle events – to transform an industry-agreed interpretation of each rule set into machine-executable code.

"ISDA has again demonstrated its unique ability to act as a bridge between industry innovation and regulatory necessity. The Digital Regulatory Reporting initiative is a landmark achievement in mutualised compliance. By creating a golden-source interpretation of complex rules and translating it into machine-executable code, ISDA has solved a major problem for the industry, drastically reducing the risk of misreporting and freeing up critical resources," said one judge on the Regulation Asia awards panel. IQ

ISDA Safe, Efficient Markets
Celebrating 40 Years

Collaboration Between Market and Regulators Needed to Fix Reporting Flaws, Says O'Malia

Market participants and regulators must work together to simplify and reduce the burden of regulatory reporting and embrace a fully automated, scalable reporting system that delivers the transparency regulators need, ISDA chief executive Scott O'Malia has said.

"From the retirement of LIBOR to the rollout of margin requirements for non-cleared derivatives, we've seen over the past decade how some of the thorniest challenges have been overcome through close collaboration between the industry and the public sector. We now have an opportunity to take a similar approach to fix the problems that have hindered trade reporting and prevented regulators from building a complete and accurate picture of derivatives trading activity," O'Malia wrote in a derivatiViews blog post on October 30.

Speaking at an event hosted by Bloomberg in London on November 4, O'Malia reiterated his view that the opportunity to fix regulatory reporting must be grasped, for the benefit of both market participants and regulators. "Data reporting is ultimately intended to provide regulators with accurate and timely information about derivatives market exposures. If it's not doing that, then it's not working," he told delegates.

Earlier this year, the European Securities and Markets Authority (ESMA) sought industry feedback on the major cost drivers associated with reporting and how the burden could be simplified and reduced. In its response, ISDA identified a clear consensus among market participants on the key issues that drive up the cost of reporting in the EU. These include the obligation for both parties to report the same trade, duplicative requirements under multiple regulations for the same derivatives instruments to be reported and frequent changes in regulatory requirements that lead to further inconsistencies and duplication.

"A key part of any solution would be to conduct a holistic review of the EU's multiple reporting regimes to clearly identify what information regulators need and to crystallise the reporting inefficiencies encountered by market participants. This would pave the way towards a single regime that optimises reporting and enhances its value for the public sector, while reducing the burden for the market," said O'Malia.

> "Data reporting is ultimately intended to provide regulators with accurate and timely information about derivatives market exposures. If it's not doing that, then it's not working"
>
> **Scott O'Malia, ISDA**

As it stands, EU market participants are often subject to duplicative requirements to report the same trade under the Markets in Financial Instruments Regulation (MIFIR), the European Market Infrastructure Regulation (EMIR) and the Securities Financing Transactions Regulation (SFTR). ISDA supports ESMA's proposal to clearly delineate reporting by instrument type, with exchange-traded derivatives reported under MIFIR, over-the-counter derivatives reported under EMIR and remaining securities reported under SFTR.

The industry response to ESMA, which was submitted in September, also expresses support for removal of the dual-sided reporting model to align with other jurisdictions and elimination of unnecessary or duplicative data fields. For example, market participants should not be required to report information that is already available to regulators through the entity- and transaction-level data embedded within legal entity identifiers and unique product identifiers, the industry argued.

"We urge ESMA to push through these changes, which would bring significant improvements to the data set available to EU regulators and ease the trade reporting burden for market participants," said O'Malia.

The need to improve the data reporting framework extends well beyond the EU. Over the past three years, regulators around the world have updated their reporting rules to incorporate globally agreed data standards and bring greater consistency to their reporting regimes. Starting with the US Commodity Futures Trading Commission in December 2022, updated reporting rules are now in place in eight jurisdictions around the world, with Hong Kong the latest to implement changes in September.

In 2022, ISDA launched its Digital Regulatory Reporting (DRR) initiative, which uses the Common Domain Model, an open-source data standard for financial products, trades and lifecycle events, to convert an industry-agreed interpretation of multiple reporting rule sets into machine-executable code. Users can take this code as the basis of their implementation or use it to validate their own interpretation of the rules. The ISDA DRR has enabled firms to report with greater accuracy and efficiency – an important consideration given that nearly $300 million has been paid in fines by US, UK and EU banks for misreported data.

"As policymakers work to improve their reporting regimes, we will make sure the ISDA DRR evolves to keep pace with those developments. As in the past, cooperation and coordination between the industry and the official sector will deliver the most effective results, creating a reporting framework that is fit for purpose and leads to real transparency. We must seize this opportunity and work with regulators to fix this problem once and for all," said O'Malia. IQ

For more on the ISDA DRR, see pages 32-33

THE COVER PACKAGE

Future Path

In its fifth decade, ISDA will bring its deep experience in driving standardisation to support the further evolution of derivatives markets

At the start of ISDA's 40th anniversary year, **IQ** convened the pioneers of the association to reflect on how a desperate need for standardisation in the early days of the derivatives market brought dealers together to develop a dictionary of common terms. Those industry veterans were clear that ISDA's enduring commitment to standardisation has enabled it to support the continuous evolution of the derivatives market over the past 40 years.

As a year of celebration and reflection draws to a close, it's time to look ahead to what the future might hold for the derivatives market, and how ISDA will help market participants navigate the challenges and opportunities that lie ahead. While it is never easy to predict the future with any certainty, it's clear that the coming years will see the growth of derivatives trading in emerging market and developing economies, continued regulatory scrutiny of the non-bank financial intermediation sector and the rapid development of advanced technologies (pages 12-16).

ISDA has been focused on the digital transformation of the derivatives market for several years, having assembled a powerful set of mutualised industry solutions to bring greater efficiency to key processes. These include the Digital Regulatory Reporting initiative and the ISDA Notices Hub, which launched in July (pages 32-33). Efforts to realise the benefits of tokenisation to bring greater choice and flexibility to collateral management are also now gathering momentum (pages 18-21).

This final anniversary edition of **IQ** brings the last instalment of ISDA's 40th anniversary timeline, covering the very busy decade since 2015 (pages 22-26). It also includes an interview with ISDA's chair, Amy Hong (pages 28-31), and a series of contributed articles from ISDA board members, policymakers and market participants on key trends that are expected to dominate derivatives markets in the coming years (pages 36-43).

One of the defining themes of ISDA's first four decades has been the relentless campaign for the enforceability of close-out netting, which is a fundamental step in the development of vibrant and resilient derivatives markets. It is fitting that in ISDA's 40th anniversary year, Saudi Arabia became the last of the G-20 nations to recognise netting in law, marking an important milestone in its own right (pages 44-45). IQ

"At a time when markets are evolving quickly, driven by technological change, the regulatory process needs to be simplified and coordinated to encourage innovation, competition and growth"

Amy Hong, ISDA

* Charting a Course

As ISDA's 40th anniversary year comes to an end, further industry transformation is coming, with increasing use of derivatives in emerging markets, continued efforts to address perceived vulnerabilities in NBFI and a growing drive to tap the benefits of advanced technologies

Conference panels often conclude with a question about the future – it's a natural way to round out a discussion of industry issues and leave the audience with some key takeaways. A landmark 40th anniversary panel at ISDA's Annual General Meeting (AGM) in Amsterdam in May 2025 was no exception, but the panellists, comprising former ISDA chairs and luminaries, brought a unique perspective. Asked what the next 40 years might bring, their answers were universally optimistic, with the digitisation of markets emerging as the common thread.

"I think the future for the next 40 years is incredibly bright for ISDA, and for the industry generally. It's all about change, it's all about innovation, it's all about growth," said Tom Jasper, who served as ISDA's first co-chair from 1985 until 1987.

Making accurate predictions about the future is notoriously difficult. For Jasper and the other dealers who first convened in the early 1980s to develop common standards and establish the foundations of ISDA, it would have been impossible to imagine the breadth and depth of today's derivatives market, or ISDA's wide-ranging role in the development of the market.

What began in 1985 with a dictionary of common terminology – the Code of Standard Wording, Assumptions and Provisions for Swaps – now encompasses a broad suite of documentation, including thousands of standard agreements, definitions, confirmation templates and protocols. ISDA's membership spans the globe, comprising more than 1,000 entities, and its focus extends well beyond documentation to public policy, market infrastructure, risk and capital and digital transformation.

Difficult as it might be to predict how the derivatives market will evolve in future decades, it is important to establish the general trends that are likely to drive the market forward, and to chart the role ISDA could play in the challenges and opportunities that lie ahead. Among the themes that seem likely to dominate are the growth of emerging markets, the increasing use of advanced technologies and the growing role of non-bank financial intermediation (NBFI).

"The history of ISDA and the derivatives market shows that, although the fundamental objectives of risk management and market efficiency remain constant, the market is always evolving to meet new challenges and opportunities. Just like the pioneers of ISDA back in 1985, we can't know what this market will look like 40 years from now. But mapping out the likely drivers of change and being ready to harness new opportunities is critical as we move into our fifth decade," says Scott O'Malia, chief executive of ISDA.

Geographical tilt

When ISDA was first established in 1985, its membership was constituted predominantly of New York-based dealers, but it didn't take long before other jurisdictions saw the need for greater standardisation. A group of London-based practitioners first convened in 1986, while ISDA's Japan Committee gathered momentum in the 1990s. Today, ISDA's membership spans 78 jurisdictions, with staff in seven locations, and the association is actively preparing

Illustration: James Fryer

for the growth of derivatives trading in emerging markets in the years ahead.

As it stands, the largest chunk of derivatives market turnover is still concentrated in a handful of major financial centres, led by London and New York. Just under half of global turnover in over-the-counter (OTC) interest rate derivatives – 49.6% – currently flows through UK sales desks, while US sales desks account for 23.8% of turnover, according to the Bank for International Settlements' (BIS) triennial survey in April 2025. In Asia Pacific, Singapore accounted for 2.4% of global turnover in April, Hong Kong accounted for 1.0% and Australia accounted for 2.9%.

There will inevitably be some fluctuation in the share of these centres in the years ahead – just as there has been over the course of previous surveys – but the more significant transition is likely to be driven by structural changes in the global economy as the growth in emerging markets accelerates.

China is now the second largest economy in the world behind the US, while India is expected to rise from the world's fifth to its third largest economy by 2030. Fuelled by →

"Just like the pioneers of ISDA back in 1985, we can't know what this market will look like 40 years from now. But mapping out the likely drivers of change and being ready to harness new opportunities is critical as we move into our fifth decade"

Scott O'Malia, ISDA

young populations, increased capital inflows and high-value economic output, emerging markets are set to drive around 65% of global economic growth by 2035, according to estimates by S&P Global. As well as China and India, S&P Global forecasts that seven other key emerging economies, including Indonesia, Brazil, Mexico and Saudi Arabia, will rank among the 20 largest economies by 2035.

Despite these economic shifts, derivatives trading in fast-growing emerging markets remains relatively limited in comparison with the established centres. China, for example, accounted for only 0.3% of global turnover in OTC interest rate derivatives in April, while India accounted for 0.1%, according to the BIS survey. While the market share of China and India has remained consistently low over recent surveys, average daily turnover has shown clear signs of growth, rising in China by 77%, from $13 billion in 2022 to $23 billion in 2025, and in India by 38%, from $8 billion in 2022 to $11 billion in 2025.

These indications of a growing derivatives market in China and India are not surprising. Derivatives are vital for healthy, competitive and liquid financial markets. By enabling firms to manage their risks and create greater certainty and stability in their businesses, derivatives can boost economic growth and contribute to capital markets liquidity. But the reality is that many fast-growing markets have historically lacked the fundamentals that are needed to support a derivatives market, such as recognition of close-out netting, clear and appropriate regulatory frameworks and robust benchmarks that can be used for price setting.

"Although some regulators in Africa – for example, in Nigeria and Kenya – have recently begun to relax restrictions, secondary market bond trading in the region has generally been next to impossible outside South Africa. Derivatives trading in these markets has, if anything, been even more difficult. The fundamentals simply aren't in place, which makes liquidity, pricing and risk management extremely challenging," says one senior market participant covering Africa's markets.

One of ISDA's strategic priorities is to make sure the necessary ingredients are in place in emerging market and developing economies to support the growth of derivatives trading. Over the past 40 years, ISDA has advocated tirelessly for the enforceability of close-out netting as the single most important foundation for safe and efficient derivatives markets. By allowing counterparties to compress their obligations to a single net payment due from one party to another in the event of a default, netting drastically reduces credit risk, which, in turn, increases liquidity and credit capacity.

ISDA has worked closely with policymakers around the world to make the case for the recognition of close-out netting and to develop the necessary legislation, with ISDA's Model Netting Act providing a template legal framework in those jurisdictions where it is needed. So far, ISDA has published netting opinions for 90 jurisdictions. Earlier this year, ISDA published opinions recognising close-out netting under regulations published by the Saudi Central Bank (SAMA) in February (see pages 44-45). More recently, those opinions were extended to cover rules published by the Capital Market Authority (CMA) in July. Both the CMA and SAMA regulations were based closely on ISDA's 2018 Model Netting Act.

Market participants are hopeful that the Saudi legislation will have a domino effect across other jurisdictions in the Middle East.

"Neighbouring countries in the Middle East and North Africa will hopefully look at the recent legal and regulatory developments in Saudi Arabia and see the clear advantages of providing more certainty and clarity for both the local and international financial community. Having an enhanced ability for market participants to manage risk, both systemically and on a counterpart-specific basis, allows for sustainable growth and investment opportunities," says Karl Rogers, global head of corporate and investment banking coverage, legal at Standard Chartered and chair of the ISDA Middle East Committee.

The publication of netting opinions for Saudi Arabia means the enforceability of close-out netting is now legally recognised in all G-20 jurisdictions, marking a significant milestone in ISDA's long-running law reform efforts.

"Without a netting opinion in place, derivatives markets simply cannot function properly, so this has been a big priority for ISDA over the years, and we will continue to advocate for netting in those jurisdictions where it is not yet recognised. Getting netting legislation over the line can be a slow process and often depends on the level of enthusiasm of local regulators, but we've shown that with a persistent and consistent approach, we can move the needle over time," says Peter Werner, senior counsel at ISDA.

The recognition of netting enforceability in China and India in recent years has removed a major obstacle in the development of robust, well-functioning derivatives markets. This opens the door to greater international participation in those derivatives markets, as economic growth continues to outpace most developed markets. By 2035, trade volumes in China are expected to reach $10.3 trillion, up from $6.3 trillion in 2024, and banking assets are set to grow by more than 50% to $65 trillion, according to analysis by Boston Consulting Group. India's trade volume is estimated to double to $2.5 trillion over the same period, with banking assets reaching $6 trillion.

With netting now in place in these two powerhouse economies, attention has turned to the additional measures that may be needed to support the further development of the OTC derivatives market. ISDA published a comprehensive whitepaper in March 2024 that makes a series of recommendations to fully unlock the potential of India's derivatives market. These include broadening product development, innovation and diversification, fostering adoption of similar market and risk principles across regulatory regimes, enhancing market access and

"Emerging markets will be a key focus for ISDA in the coming years. We are tremendously proud of our success in law reform, bringing the benefits of close-out netting to key jurisdictions around the world, but we've always known that the work does not finish when the netting opinions are published"

Scott O'Malia, ISDA

diversification of participants, ensuring growth in a safe and efficient manner, and encouraging greater alignment with international principles and practices.

An earlier ISDA paper in December 2021 focused on the specific steps needed to develop safe, robust and efficient derivatives markets in China, while a separate paper in 2022 set out the more general policy framework that is required for safe and efficient derivatives activity in emerging markets. Several standard issues must be addressed in any market, including clarifying official sector responsibility for market oversight, setting suitable parameters for market participants and products, and effectively transposing global rule sets in a proportionate way.

Building on the foundations of more than 90 clean netting jurisdictions and the work of recent years to look beyond netting, ISDA is now developing a comprehensive emerging markets strategy that will set the direction for further progress in a coherent and consistent way.

"Emerging markets will be a key focus for ISDA in the coming years. We are tremendously proud of our success in law reform, bringing the benefits of close-out netting to key jurisdictions around the world, but we've always known that the work does not finish when the netting opinions are published. As we continue to push for netting enforceability around the globe, we will also work with market participants and policymakers in clean netting jurisdictions to make sure the progress continues," says O'Malia.

NBFI

As the geographical distribution of the derivatives market shifts, the types of entities providing liquidity is also changing. This is clearly reflected in ISDA's membership, which originally comprised only dealers. Today, dealers make up 22% of the association's members, while 47% are end users and 31% are service providers. Changes in the structure and regulation of the market have led to increased participation from the NBFI sector, which includes a wide range of entities, from large pension funds and investment firms to small hedge funds.

In 2023, the size of the NBFI sector increased by 8.3%, which was more than double the pace of banking sector growth, raising the NBFI share of global financial assets to 49.1%, according to the Financial Stability Board (FSB). With NBFI entities now playing a critical role in financing the real economy and providing investment pathways for a whole host of client types, policymakers have been exploring perceived vulnerabilities in the sector from a variety of angles, including margin practices, transparency and leverage.

ISDA has responded to various consultations on these topics that have been published by global bodies including the FSB and the International Organization of Securities Commissions. Last year, the FSB set out policy recommendations to enhance the liquidity preparedness of non-banks for margin calls, in which it called for improved liquidity risk management practices, liquidity stress testing, resilient operational processes and the maintenance of sufficient levels of cash and readily available assets to meet margin calls. Many of these recommendations may seem sensible, but, as the FSB has recognised, the NBFI sector is not a single, homogenous group, which makes it more difficult to advance one-size-fits-all policy measures.

"The diversity of NBFI entities makes it very challenging to apply consistent policy changes to the whole sector – this group includes a wide range of firms, and any policy response needs to be proportionate to the size, business model and risk profile of the various market participants. Large- or small-scale interventions must be carefully thought through before they are implemented, as they could have a significant impact on liquidity and risk," says Steven Kennedy, global head of public policy at ISDA.

“If some kind of unusual event comes along, like a downgrade of a major entity or the introduction of sanctions, then a firm that has extracted structured data from its documentation will be much more able to assess the overall impact of that event. Our research highlights how a combination of AI and CDM can help meet that challenge”

Mark New, ISDA

Policymakers are continuing to explore what measures might be appropriate and beneficial, drawing on the experience of recent market shocks like the dash for cash in March 2020 and the UK gilt market crisis in 2022 to determine how perceived vulnerabilities in the NBFI sector can best be addressed. While some regulators have suggested additional data disclosures may be needed to properly monitor NBFI positions, a large volume of data is already reported to trade repositories.

“The reality is that much of the information required to see and identify the build-up of exposures and risks is available in the trade repository data that is reported to regulators. But it may well be hidden in plain sight – and it may need to be curated to make it more easily understood and functional. We would encourage policymakers to invest in the people and technology resources that will make data that is currently collected more useful before introducing new disclosure requirements,” says Kennedy.

Digital future

There is little doubt that the leveraging of advanced technologies will be a defining theme of the derivatives market in the years to come, with the promise of further efficiency gains and cost savings. The use of tokenisation to bring improvements to collateral management has gained momentum in recent months (see pages 18-21). There is also widespread focus on how artificial intelligence (AI) could be used to automate decision-making and eliminate the need for human intervention in certain standard processes (see page 43).

Using large language models (LLMs) to scan and act on the vast troves of contractual and trading data in the derivatives market is one area where AI could quickly be put to work. Earlier this year, ISDA published a whitepaper demonstrating how AI can be used to accurately and reliably extract and interpret key legal clauses from ISDA’s credit support annexes (CSAs) and then digitise them into Common Domain Model (CDM) representations.

Several of the eight LLMs used in the exercise achieved accuracy levels of more than 90% when prompted with CSA-specific information, with simpler clauses sometimes seeing accuracy levels of 100%. However, more nuanced clauses remain challenging due to the linguistic subtlety and variety often inherent in these sorts of legal documents.

Combining AI with digital standards offers a compelling way to unlock the potential of this powerful technology. The CDM was designed to standardise the profusion of descriptors and representations that individual firms have generated for each step in the lifecycle of a trade, which has historically made reconciliation between counterparties more challenging. When that standardisation is combined with AI, it could enable firms to digitise thousands of contracts, reducing costs and the risk of contractual error. It could also give them a much better grasp of how their positions would change under specific market conditions.

“The basic challenge confronting counterparties is that they’ve got thousands or even hundreds of thousands of privately negotiated CSAs. If some kind of unusual event comes along, like a downgrade of a major entity or the introduction of sanctions, then a firm that has extracted structured data from its documentation will be much more able to assess the overall impact of that event. Our research highlights how a combination of AI and CDM can help meet that challenge,” says Mark New, co-head of digital transformation and senior counsel at ISDA.

* Testing Tokenisation

Following recent periods of market stress that affected liquidity and resilience, firms are looking to reduce their reliance on cash to meet collateral requirements. Tokenisation could allow alternative assets like money market funds to be posted as collateral

When ISDA was established in 1985, the priority was to address a mounting backlog of documentation, caused by a lack of standardisation. So acute was the problem that some dealers were coming into work on weekends to wade through mounting piles of documents. Fast forward 40 years and such challenges have long passed, thanks to standard documentation. But there are still inefficiencies and bottlenecks in today's market that constrain key operational processes. Advanced technologies like tokenisation could play a part in resolving them.

Tokenisation is now gaining momentum as market participants recognise the potential benefits of representing the ownership and value of assets as tokens on a shared digital ledger. The total value of tokenised assets could surpass $20 trillion by 2033, a huge leap from the estimated value of $0.6 trillion this year, according to a report from Boston Consulting Group. Across financial markets, several use cases for this powerful technology are being explored. In the management of collateral that is exchanged in the derivatives market, tokenisation could allow a broader range of assets like money market funds (MMFs) to be posted, opening the door to greater flexibility and choice for market participants.

"Tokenisation could help to alleviate some of the workflow challenges that have prevented MMFs and other assets from being used as collateral, which, in turn, will help to safeguard market liquidity during periods of stress. This is an exciting opportunity that promises to bring significant improvements to the timeliness and efficiency of collateral management. ISDA is now channelling its expertise to support industry efforts to bring this to fruition," says Scott O'Malia, chief executive of ISDA.

Liquidity drain

Over the past five years, a particular chain of events has occurred multiple times, which has caused concern among both policymakers and market participants – an external shock causes heightened volatility in financial markets, leading to a spike in margin calls on derivatives trades. In response, market participants have suddenly had to source large volumes of cash to meet their variation margin (VM) requirements, destabilising markets as liquidity drains away.

At least three separate instances of this pattern of events have been observed – during the dash for cash at the start of the pandemic in 2020, following Russia's invasion of Ukraine in 2022 and during the UK gilt market crisis later that year. The dash for cash led to large-scale central bank interventions around the world to calm markets, while the Bank of England intervened again during the gilt turmoil in September 2022 to restore market stability by purchasing long-dated government bonds. Reflecting on the lessons learned from the dash for cash, Jon Cunliffe, former deputy governor of the Bank of England, said in a speech in early 2022 that "there was no one other than central banks able and willing to step in to catch the falling knife".

Driven by the need to maintain market stability and reduce the reliance on central bank intervention, policymakers have analysed these episodes and responded with proposals to improve liquidity preparedness for future margin calls. Market participants have also been reflecting on recent experiences of volatility and exploring ways to prevent external shocks from draining liquidity out of the market. As the volume of collateral in the system continues to rise, some firms have been looking to diversify the range of assets that can be posted as collateral.

"The transition to mandatory clearing and margin requirements for non-cleared derivatives has increased demand for high-quality liquid assets, including cash, government bonds and other very high-grade corporate securities. Rising VM demands have put pressure on the smooth functioning of markets, particularly during periods of heightened market volatility, so a reduced reliance on cash would certainly help to alleviate this pressure," says

Amy Caruso, head of collateral initiatives at ISDA.

At the end of 2024, leading derivatives market participants subject to the non-cleared margin rules had collected $1.5 trillion of initial and variation margin – a 6.4% rise from the previous year, according to the latest ISDA margin survey. Of this, $1 trillion was VM, which must be sourced and posted in very tight time frames as the value of a trade or portfolio changes. In 2020, cash represented 80.0% of total VM received, but this dropped to 68.3% in 2024. The proportion of government securities rose from 12.7% to 17.8% and other securities climbed from 7.4% to 13.8% over the same period.

These changes in the composition of VM illustrate the growing appetite to reduce the reliance on cash and diversify the range of eligible collateral. However, existing processes for the management and exchange of collateral, coupled with certain economic, capital and operational constraints, have made it difficult for some counterparties to move beyond cash and government securities.

MMFs offer a potentially stable source of collateral, with trillions of dollars of assets held globally, low net-asset-value volatility and relatively small haircuts under the margin rules. But the current workflow means they cannot simply be posted from one party to another. Instead, the adjusted collateral value of the MMF must be posted as cash and then transformed by the custodian, which is a complex, resource-intensive process that can lead to increased liquidity and operational risks.

Tokenisation could alleviate some of these workflow challenges and unlock the potential for MMFs to be used as collateral. Once an MMF is tokenised, shares of the fund could be directly posted to the counterparty and returned, without any need for MMF liquidation within the collateral management workflow. Counterparties would still have the option to liquidate MMFs to raise cash when needed.

Tokenisation could also enable other high-quality assets to be posted as collateral. Gold, for example, is typically not used because of the challenges associated with physical delivery. Once represented as a tokenised asset on a shared ledger, which can be verified by all parties, it could be posted instantaneously to a counterparty without having to transport physical bars of gold.

Ultimately, the expansion of assets that can be used as collateral should lower the costs and risks that are associated with collateral management. In a recent survey of more than 200 buy- and sell-side firms by the ValueExchange, ISDA and other entities found that around 25% of collateral posted is either in excess of what is required or not remunerated overnight. Assuming a 2-basis-point overnight funding rate, each of these firms is missing out on an average of $2.8 billion per year in earnings.

Alongside cost, there is a speed benefit too. For any asset that is used as collateral – from MMFs to gold – tokenisation offers a means to achieve instantaneous settlement, reducing the risks that arise from settlement on a T+1 or T+2 basis.

"If you have a tail risk event or some other big market disruption that coincides with an error or dispute in the exchange of collateral with a counterparty, you're effectively two days behind before you can spot or solve it, at a time of severe stress across your organisation. That's not a great situation to be in," says Thomas Sullivan, managing director of Depository Trust & Clearing Corporation (DTCC) Digital Assets.

Industry progress

Industry work has been undertaken to demonstrate the potential of tokenisation to eliminate settlement delays. Under the umbrella of Project Guardian – an initiative led by the Monetary Authority of Singapore to enhance liquidity and financial market efficiency through tokenisation – ISDA and digital payments provider Ant International published a report in July that showed tokenised bank liabilities and shared ledgers can result in faster, more secure and more efficient cross-border payments, with settlement times measured in →

"Rising VM demands have put pressure on the smooth functioning of markets, particularly during periods of heightened market volatility, so a reduced reliance on cash would certainly help to alleviate this pressure"

Amy Caruso, ISDA

"Distributed ledger systems have already proven their resilience in the real world. Having instant, reliable settlement for collateral calls would be a huge step forward for cost and risk control"

Thomas Sullivan, DTCC

minutes or even seconds rather than days. The adoption of a universally accepted industry framework for cross-border payments could reduce transaction costs by 12.5%, saving businesses more than $50 billion by 2030, the report found.

A subsequent report published in August by eight industry associations, including ISDA, provided a comprehensive analysis of the practical applications, opportunities and challenges posed by distributed ledger technology and tokenisation in global capital markets. The report explored several industry use cases, including the opportunity to use tokenisation to mobilise assets such as MMFs as collateral.

"Anything that compresses or eliminates the settlement gap for collateral would be a truly compelling innovation. Distributed ledger systems have already proven their resilience in the real world. Having instant, reliable settlement for collateral calls would be a huge step forward for cost and risk control," says Sullivan.

One of the difficulties for market participants in the past has been the need to transfer collateral very quickly when margin calls spike. Having to liquidate assets or move them between jurisdictions can result in operational challenges and delays. Holding a buffer of assets that can be readily accessed as collateral is one option, but this may have knock-on implications for an entity's capital requirements and revenue.

Tokenisation could alleviate this challenge, although firms would still need to consider the capital impact of holding assets on a ledger. As it stands, the Basel Committee on Banking Supervision's prudential standard for crypto-asset exposures is scheduled to be implemented from January 1, 2026, but industry analysis indicates it would impose excessively conservative capital requirements that do not accurately reflect the risks of crypto assets – effectively making tokenisation non-viable from a cost perspective. As a result, ISDA and other trade associations called for a pause and recalibration of the standard earlier this year. In November, the Basel Committee announced it would review targeted elements of the standard.

Tokenisation would also simplify the complex information flows that have to be established and managed throughout the trade lifecycle between counterparties, custodians and other entities. Collateral calls must be transmitted through the networks that link the parties, which are often complicated by varying data standards and a host of manual processes, increasing the potential for error. Managing these information flows can be costly and resource intensive, adding further pressure on back-office teams and making it more difficult to add different types of assets into the collateral mix. With distributed ledger technology, there is an opportunity to streamline and automate these information flows, which can then be easily monitored by all participants.

Testing of the collateral management use case has already begun. In April, DTCC hosted the 'Great Collateral Experiment', which included a live demonstration of the real-time, automated exchange of tokenised collateral on a digital platform connected to all key participants in pre- and post-trade processes, including buy- and sell-side counterparties, broker-dealers and triparty providers.

The demonstration mapped out the collateral activity of a fictional bank over a 24-hour period, tracking it across time zones and through different, simulated stress events. In this hypothetical scenario, the tokenised collateral ranged from cash and Treasuries to equities, stablecoins and crypto, maintained on a ledger and managed through a single portal accessible to any designated market participant.

Path to reality

With benefits that are now widely recognised, the concept of tokenised collateral is rapidly gaining momentum and stakeholders are working together to identify and overcome the challenges to bring this to fruition. As DTCC noted during its Great Collateral Experiment, the technology is proven and ready to operationalise – the main hurdles are now regulatory and legal.

In the industry report that was published in August, trade associations set out six recommendations to facilitate adoption across capital markets: accelerate market development in high-potential asset classes; clarify legal foundations and align regulatory treatment; establish interoperability to prevent market fragmentation; address technical and operational integration gaps; enable scalable settlement with tokenised money and stable payment instruments; and foster coordination between the public and private sectors.

ISDA is focusing its efforts on two of these recommendations – the clarification of legal foundations and alignment of regulatory treatment, and the quest for interoperability to prevent market fragmentation.

Clear and consistent legal and regulatory frameworks will be vital to bring certainty, enable cross-border adoption, improve market confidence and accelerate institutional deployment. This will include making sure derivatives transactions on tokenised assets are underpinned by robust documentation and legal opinions so market participants can use these assets with the same safety and efficiency as traditional instruments. Firms will also need regulatory certainty that tokenised assets will be permitted as collateral under the margin rules for non-cleared derivatives.

"A key first step towards achieving legal certainty is identifying what exactly is the legal structure used to tokenise the asset. This market is developing rapidly and different structures have been developed to link or 'staple' real-world assets to their on-chain representation," says Mark New, co-head of digital transformation and senior counsel at ISDA.

In 2023, as part of an effort to establish the same level of legal certainty for tokenised assets as their real-world counterparts, ISDA published tokenised collateral model provisions for inclusion in the 2016 credit support annexes (CSAs) for VM to update the transfer mechanisms in the CSA to cover the posting of tokenised collateral. This was followed in 2024 with a guidance note to inform how firms may approach a legal opinion on the enforceability of collateral arrangements using ISDA documentation and tokenised collateral.

This year, ISDA has contributed to a Global Digital Finance (GDF) working group comprising more than 70 banks, fund managers and other market participants to explore appropriate legal and regulatory structures and operational workflows for tokenised MMF collateral. The group's report found that Ireland and Luxembourg host more than 80% of the MMFs and cross-border funds in Europe, governed under English law through CSAs.

The paper identified seven different methods for creating a tokenised MMF, which facilitated further legal analysis of the structures. A proper understanding of the structure is essential to identify the relevant credit exposures and carry out the necessary conflicts-of-law analysis to determine which jurisdiction's law is likely to govern on key questions like legal ownership of the collateral.

There is already relative legal certainty for derivatives counterparties transferring tokenised MMFs between the EU and the UK, but the picture is more complex for transfers in and out of the US. US firms are not able to post MMFs as collateral when facing EU counterparties due to domestic restrictions on cross-border asset transfers. This would severely restrict the use of MMFs as collateral, even in a fully tokenised environment. The US Commodity Futures Trading Commission (CFTC) Global Markets Advisory Committee's Digital Assets Market Subcommittee has recommended this restriction be removed, and the CFTC itself published a consultation in September on the use of tokenised assets as eligible collateral. ISDA will contribute to further analysis of these issues through the GDF working group, with a focus on the US in 2026.

When it comes to legal frameworks, the established rights and obligations developed over many decades for traditional assets may not be appropriate for digital assets. Work is underway to resolve outstanding issues on property rights for digital asset owners, for example. The industry report highlighted the need to fill gaps in legal and regulatory frameworks on a 'same risk, same regulation, same regulatory outcome' basis, calling on regulators to set out a clear roadmap for reform, in coordination with industry efforts.

ISDA is also bringing its expertise to the development of common standards and interoperability, underpinned by common data models, smart contract standards and messaging protocols – something that will be critical to the successful, system-wide adoption of tokenised collateral. A sudden profusion of ledgers with no common standards that cannot interact with each other will limit the potential impact and benefits of the technology. The Common Domain Model (CDM), an open-source data standard for financial products, trades and lifecycle events, has a vital role to play in establishing the common standards needed to avoid technological fragmentation.

"The CDM offers a path towards data interoperability across platforms, counterparties and jurisdictions. With the increasing need to connect digital and traditional ecosystems, the adoption of CDM-driven workflows enables process streamlining that can be seamlessly and incrementally included in existing environments. With the emergence of artificial-intelligence-powered solutions and new blockchain rails, the CDM is the perfect complement to leverage technology innovation and prepare for the collateral management landscape of the future," says Sophie Marnier-Foy, vice president and head of client solutions strategy in the financial technology division at Nasdaq.

Getting this right will require ongoing collaboration between the industry and regulators, Caruso adds. "Our goal is to create significant, system-wide benefits through tokenised collateral. The only way to do that is to work together to advocate for legal and regulatory clarity and build common standards and processes that can bring the best out of this technology and integrate it with our current systems and workflows for traditional collateral. I'd encourage all market participants to engage with the industry projects, share their expertise and contribute to the relevant working groups led by ISDA and other stakeholders." IQ

Read the industry report, *The Impact of Distributed Ledger Technology in Capital Markets: Ready for Adoption, Time to Act*: tinyurl.com/5yksbyv8

* Market Transformation

The third and final part of a timeline of ISDA's history picks up the story in 2015, with the continuing implementation of the post-crisis regulatory reforms, the digital transformation of markets and increasing geopolitical instability

2015

ISDA FACTS AND MILESTONES

- ISDA launches the 2015 Universal Resolution Stay Protocol, which extends stay provisions to securities financing transactions, with 21 global banks adhering at launch.
- IQ: ISDA Quarterly, the new official ISDA magazine, is launched to coincide with the 30th Annual General Meeting in Montreal.

ISDA Chair: Eric Litvack **ISDA CEO:** Scott O'Malia
Member Count: 875 **Member Countries:** 68
ISDA AGM: Montreal, Fairmont The Queen Elizabeth

FINANCIAL MARKET DEVELOPMENTS

- The EU Bank Recovery and Resolution Directive comes into force.
- Mandatory clearing begins in the EU for certain interest rate derivatives under the European Market Infrastructure Regulation.
- Greece faces a renewed crisis, nearly exiting the eurozone after missing the deadline for a payment to the International Monetary Fund.

2016

ISDA FACTS AND MILESTONES

- The ISDA Standard Initial Margin Model (ISDA SIMM) is launched, providing an industry-standard methodology for the calculation of initial margin (IM) for non-cleared derivatives trades.
- ISDA launches the Resolution Stay Jurisdictional Modular Protocol, which enables market participants to comply with new regulations aimed at ensuring the cross-border enforceability of stays on contractual termination rights.
- The ISDA board expands from 26 to 30 directors, with new appointments from a supranational, a central counterparty and a futures commission merchant to reflect the diversity of ISDA's membership.

ISDA Chair: Eric Litvack **ISDA CEO:** Scott O'Malia
Member Count: 890 **Member Countries:** 67
ISDA AGM: Tokyo, ANA InterContinental

FINANCIAL MARKET DEVELOPMENTS

- Implementation of IM requirements for non-cleared derivatives begins with the largest derivatives dealers in the first phase and a larger pool set to fall into scope in four subsequent phases over the coming years.
- The UK votes to leave the EU, prompting a sudden fall in the value of sterling and uncertainty over the City of London's future relationship with the bloc.

2017

ISDA FACTS AND MILESTONES

- ISDA publishes a conceptual version of the Common Domain Model (CDM) to provide a single digital representation of data, processes and events that occur during the lifecycle of a derivatives trade.

ISDA Chair: Eric Litvack **ISDA CEO:** Scott O'Malia **Member Count:** 918
Member Countries: 68 **ISDA AGM:** Lisbon, EPIC SANA Lisboa Hotel

FINANCIAL MARKET DEVELOPMENTS

- Variation margin requirements for non-cleared derivatives are introduced in most major jurisdictions, with all in-scope counterparties required to comply at once.
- Andrew Bailey, chief executive of the Financial Conduct Authority (FCA), announces that the regulator will no longer persuade or compel banks to submit to LIBOR after the end of 2021, firing the starting gun on the transition to alternative reference rates.

2018

ISDA FACTS AND MILESTONES

- ISDA and other trade associations launch a roadmap highlighting key challenges in transitioning financial market contracts and practices from interbank offered rates (IBORs) to alternative risk-free rates.
- ISDA publishes French and Irish law versions of the ISDA Master Agreement for members that wish to continue trading under the law of an EU member state with EU court jurisdiction clauses after the UK leaves the EU.
- The ISDA 2018 US Resolution Stay Protocol is published, helping market participants to comply with stay regulations issued by US agencies.
- DC Administration Services is appointed as secretary to the Credit Derivatives Determinations Committees (DCs).
- ISDA publishes an update of its Model Netting Act, which provides a template for legislation to ensure the enforceability of close-out netting.

ISDA Chair: Eric Litvack **ISDA CEO:** Scott O'Malia
Member Count: 930 **Member Countries:** 68
ISDA AGM: Miami, JW Marriott Marquis

FINANCIAL MARKET DEVELOPMENTS

- The second iteration of the EU's Markets in Financial Instruments Directive comes into effect, with more stringent reporting and disclosure rules for the derivatives market.

2019

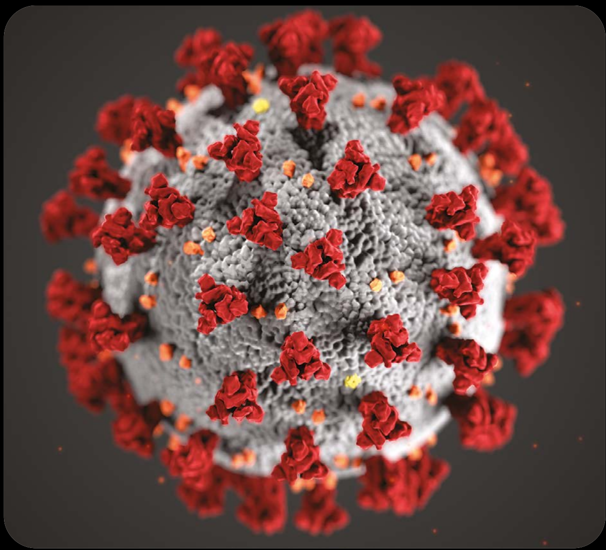
ISDA FACTS AND MILESTONES

- The ISDA Create platform is launched, enabling the online negotiation of derivatives contracts.
- ISDA launches two consultations on benchmark fallbacks as it works to develop technical adjustments to risk-free rates that would be needed if an IBOR ceases publication or becomes non-representative.

ISDA Chair: Eric Litvack **ISDA CEO:** Scott O'Malia **Member Count:** 952
Member Countries: 71 **ISDA AGM:** Hong Kong, Grand Hyatt

FINANCIAL MARKET DEVELOPMENTS

- The Federal Reserve Bank of New York intervenes with emergency repo operations after overnight repo rates in the US Treasury market spike unexpectedly.
- A year of upheaval in British politics and financial markets ends with a general election win for Boris Johnson's Conservative Party. Shortly after, Brexit negotiations are finally concluded, paving the way for the UK to leave the EU in January 2020.



2020

ISDA FACTS AND MILESTONES

- ISDA launches the IBOR Fallbacks Supplement and IBOR Fallbacks Protocol, marking a major step in reducing the systemic impact of a key IBOR ceasing publication or becoming non-representative while market participants still have exposure to that rate.
- The ISDA Clause Library is launched, enabling market participants to set out standard drafting options for frequently negotiated provisions within the ISDA Master Agreement.
- Eight technology vendors license the ISDA Standardized Approach Benchmarking unit tests to promote consistent implementation of the standardised approach for calculating capital requirements.

ISDA Chair: Eric Litvack **ISDA CEO:** Scott O'Malia
Member Count: 963 **Member Countries:** 75 **AGM:** Cancelled

FINANCIAL MARKET DEVELOPMENTS

- The COVID-19 pandemic brings huge disruption in financial markets, global supply chains and working patterns. Governments and central banks introduce unprecedented fiscal and monetary measures to stabilise markets and support the economy.
- In recognition of the disruption, the Basel Committee on Banking Supervision and the International Organization of Securities Commissions announce a one-year delay to implementation of the final two phases of IM requirements for non-cleared derivatives.
- India introduces legislation that recognises the enforceability of close-out netting, closely based on the ISDA Model Netting Act.

2021

ISDA FACTS AND MILESTONES

- New fallbacks for derivatives linked to key IBORs come into effect, ensuring a viable safety net is in place in the event an IBOR ceases publication or becomes non-representative.
- ISDA and Linklaters make the ISDA Master Agreement digitally available for the first time via ISDA Create. The ISDA Clause Library is also added to the platform.
- ISDA launches the MyLibrary digital documentation platform, enabling users to efficiently access and navigate ISDA documents.
- The 2021 ISDA Interest Rate Derivatives Definitions are the first to be published as a natively digital definitional booklet, available via MyLibrary.
- ISDA, the International Capital Market Association (ICMA) and the International Securities Lending Association (ISLA) sign a memorandum of understanding to strengthen collaboration on the future development of the CDM.
- ISDA Future Leaders in Derivatives, a professional development programme for emerging leaders in the derivatives market, is launched with an initial cohort of nearly 50 professionals.

2022

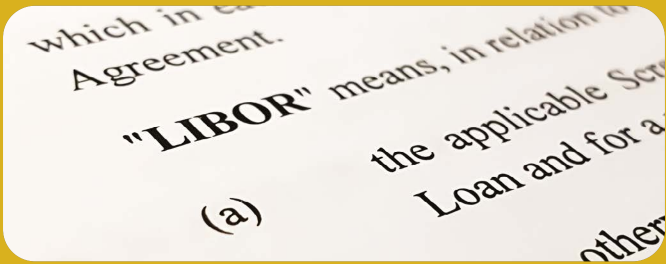
ISDA FACTS AND MILESTONES

- ISDA publishes a legal opinion that recognises the enforceability of close-out netting under Chinese law, coinciding with the entry into force of the Futures and Derivatives Law, which establishes a statutory framework for the trading of futures and derivatives.
- ISDA launches the full open-source version of its Digital Regulatory Reporting (DRR) initiative, opening access to ISDA members and non-members to support compliance with the US Commodity Futures Trading Commission's amended swap data reporting rules.
- The 2022 ISDA Verified Carbon Credit Transactions Definitions are published.
- ISDA, ICMA and ISLA announce the appointment of FINOS to provide a repository for the open-source CDM.
- ISDA's membership exceeds 1,000 firms for the first time, spanning 78 countries and comprising a diverse range of entities.
- The ISDA Standardized Approach Benchmarking initiative wins the Innovation in Technology category at the Risk Awards.

ISDA Chair: Eric Litvack **ISDA CEO:** Scott O'Malia **Member Count:** 1,013
Member Countries: 79 **ISDA AGM:** Madrid, Hotel RIU Plaza España

FINANCIAL MARKET DEVELOPMENTS

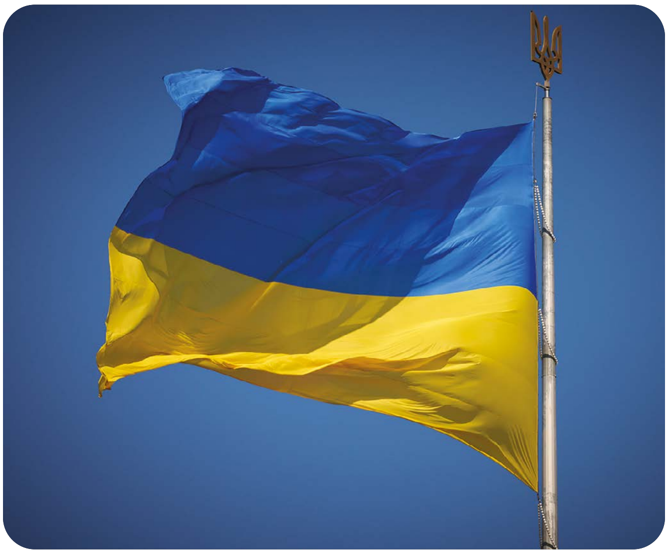
- Russia launches a full-scale invasion of Ukraine, bringing heightened volatility to commodity markets and producing a sudden spike in global natural gas prices.



ISDA Chair: Eric Litvack **ISDA CEO:** Scott O'Malia
Member Count: 977 **Member Countries:** 78 **ISDA AGM:** Virtual

FINANCIAL MARKET DEVELOPMENTS

- The FCA announces the future cessation and loss of representativeness of 35 LIBOR settings, with only five US dollar LIBOR settings to continue publication beyond the end of 2021 until mid-2023.
- Family office Archegos Capital Management collapses after defaulting on its margin calls.
- As COVID-19 containment measures ease, economic activity begins to recover. In the US, there is a rush of initial public offerings, almost twice the number seen in 2020.



- The sixth and final phase of IM rules for non-cleared derivatives is implemented, bringing a large number of smaller firms into scope.
- A UK government 'mini-budget' triggers a gilt market crisis, testing liquidity in financial markets and prompting the Bank of England to intervene with purchases of long-dated government bonds.
- Inflation begins to rise across developed and emerging economies as economic growth rises in the aftermath of the COVID-19 pandemic. This prompts the Federal Reserve and other central banks to begin raising interest rates.

2023

ISDA FACTS AND MILESTONES

- The ISDA Digital Asset Derivatives Definitions are published, alongside a whitepaper that addresses legal issues raised by bankruptcies of major crypto exchanges and market participants.
- ISDA publishes a conceptual framework for climate scenario analysis in the trading book, marking a major step forward in efforts to understand and manage the impact of climate-related events on traded assets.
- ISDA Create is integrated with S&P Global Market Intelligence's Counterparty Manager, enabling the end-to-end negotiation of derivatives contracts on one platform.
- ISDA announces that the ISDA SIMM will move to semiannual calibration from 2025 to ensure it remains risk-appropriate and is updated in a predictable and efficient manner.
- ISDA is named Industry Association of the Year at the GlobalCapital Global Derivatives Awards and the Regulation Asia Awards for Excellence.
- ISDA launches a review of the structure and governance of the credit derivatives DCs, appointing Linklaters to conduct an independent assessment and recommend any changes to maintain the integrity of the DCs in changing economic and market conditions.

ISDA Chair: Eric Litvack **ISDA CEO:** Scott O'Malia
Member Count: 1,011 **Member Countries:** 77
ISDA AGM: Chicago, Swissotel

FINANCIAL MARKET DEVELOPMENTS

- Several US banks, including Silicon Valley Bank and Signature Bank, collapse, while Credit Suisse is acquired by UBS. Regulators act quickly to provide emergency liquidity and maintain stability.
- The last five LIBOR settings are published on a representative basis for the final time.
- US prudential regulators publish a notice of proposed rulemaking to implement the final parts of the Basel III framework.
- The US Securities and Exchange Commission (SEC) finalises reforms to reduce systemic risk in the US Treasury market, including clearing of certain cash and repo transactions.

ISDA Safe, Efficient Markets
Celebrating 40 Years

2024

ISDA FACTS AND MILESTONES

- ISDA and the Securities Industry and Financial Markets Association submit a response to the US Basel III 'endgame' proposed rules, warning that the resulting increases in capital for bank trading activities do not reflect underlying risks and could impact liquidity.
- A fully digital edition of the 2002 ISDA Equity Derivatives Definitions is published on the ISDA MyLibrary platform.
- The ISDA DRR initiative is extended to additional jurisdictions, including Australia, the EU, Japan, Singapore and the UK.
- ISDA begins the development of an industry-wide notices hub to allow instantaneous delivery and receipt of critical termination-related notices.
- ISDA is named Industry Association of the Year at the GlobalCapital Global Derivatives Awards and the Regulation Asia Awards for Excellence for the second consecutive year.
- Eric Litvack, ISDA's longest serving chairman, steps down after a decade in the role.

ISDA Chair: Eric Litvack **ISDA CEO:** Scott O'Malia
Member Count: 1,005 **Member Countries:** 76
ISDA AGM: Tokyo, Grand Hyatt

FINANCIAL MARKET DEVELOPMENTS

- The Bank of Japan implements its first interest rate hike in 17 years in response to rising inflation and wage growth.
- The Basel Committee publishes final guidelines for counterparty credit risk management, aimed at tackling long-term industry weaknesses through greater due diligence, more sophisticated exposure management and improved governance frameworks.
- At COP29 in Azerbaijan, agreement is finally reached on a rulebook to operationalise international carbon markets under Article 6 of the 2015 Paris Agreement.

2025

ISDA FACTS AND MILESTONES

- To mark its 40th anniversary, ISDA publishes a report exploring how and why different types of firms use derivatives, the value these instruments bring to their business and the benefits to the broader economy.
- ISDA leads bell ringing ceremonies at the New York Stock Exchange, the London Stock Exchange, the Tokyo Stock Exchange and Hong Kong Exchanges and Clearing to celebrate its 40th anniversary.
- The ISDA DRR initiative is extended to support reporting rule updates in Canada and Hong Kong.
- The ISDA Notices Hub and the ISDA 2025 Notices Hub Protocol are launched, giving users a faster and more efficient way to deliver and receive critical termination notices.
- ISDA publishes legal opinions that recognise the enforceability of close-out netting in Saudi Arabia, following legislation passed by the Saudi Central Bank and the Capital Market Authority.
- ISDA publishes a proposal for a new governance committee for the DCs, the first in a series of amendments to improve the structure of the committees and maintain their integrity. An invitation to tender is issued for a DC administrator.
- ISDA is named Industry Association of the Year by Global Capital for the third successive year, while the ISDA DRR wins Global Capital's Digital Solution of the Year award and Regulation Asia's Outstanding Contribution to Regulatory Reform.
- ISDA publishes a whitepaper showing how generative artificial intelligence can be used to accurately and reliably extract, interpret and digitise key legal clauses from ISDA's credit support annexes.

ISDA Chair: Jeroen Krens, Amy Hong
ISDA CEO: Scott O'Malia
Member Count: 1,002
Member Countries: 78
ISDA AGM: Amsterdam, Mövenpick Hotel

FINANCIAL MARKET DEVELOPMENTS

- The SEC extends the deadline for implementation of US Treasury clearing rules by one year, to December 31, 2026 for eligible cash transactions and June 30, 2027 for eligible repo market transactions.
- In the US, the Trump administration introduces higher tariffs on its trading partners, leading to heightened market volatility and trade tensions.

ISDA® Safe, Efficient Markets
Celebrating 40 Years

ISDA Safe, Efficient Markets
Celebrating 40 Years

* A Modernisation Agenda

*ISDA's new chair, **Amy Hong**, head of strategy, investments and partnerships, global banking & markets, at Goldman Sachs, talks about the priorities for 2026 and beyond*

IQ: What are your priorities as chair? What does success look like for you?

Amy Hong (AH): During my first 100 days as ISDA chair, I've had the extraordinary opportunity to connect with ISDA members and staff worldwide. Additionally, I've had the honour of participating in closing bell and symbolic gong ceremonies at various exchanges, commemorating ISDA's 40th anniversary. Taking the helm in such a landmark year has been truly special, as we celebrate ISDA's remarkable achievements since 1985.

ISDA's mission is to foster safe and efficient markets, and that will remain front and centre. We'll continue to work with our members to bring greater standardisation to the market, and we'll continue to advocate for an appropriate, risk-sensitive regulatory framework to facilitate deep and liquid derivatives markets. For example, finalisation of the Basel III trading book rules remains a big priority, with the EU and UK delaying implementation of their rules and the US expected to issue a revised Basel III endgame proposal in the coming months.

But I also want to focus on modernising derivatives markets. On the one hand, that means encouraging and facilitating the use of technologies like artificial intelligence (AI) and tokenisation to bring greater automation and efficiency to derivatives markets. We also need to ensure global regulations are fit for purpose. At a time when markets are evolving quickly, driven by technological change, the regulatory process needs to be simplified and coordinated to encourage innovation, competition and growth.

We have a long track record of working with regulators to develop solutions to support major market and regulatory changes – for example, the transition from LIBOR and the implementation of margin rules for non-cleared derivatives. We'll aim to continue that partnership with the objectives of reducing unnecessary regulatory burdens and costs, opening a path to greater innovation, and improving competition and efficiency.

In terms of what success looks like, it really comes down to whether we make further progress in automating and modernising derivatives markets, focusing on the issues that matter most to the ISDA membership.

IQ: How do you see the role of ISDA evolving as the derivatives market continues to digitise and embrace new technologies?

AH: ISDA has already been doing a lot in this space. Ever since it was established 40 years ago, ISDA has focused on creating standards, ensuring legal and regulatory certainty and developing solutions to common industry problems to drive efficiency. That focus has extended to making sure the foundations are in place for digitisation, as well as developing a suite of digital solutions to bring greater efficiency to manually intensive processes.

For example, the ISDA Digital Regulatory Reporting (DRR) initiative is a valuable free-to-use tool that improves the accuracy of reported data, cutting costs and reducing the risk of misreported data. Underpinning the DRR is the Common Domain Model (CDM), an open-source data standard for financial products, trades and lifecycle events.

Using the CDM allows an industry-agreed interpretation of each set of reporting rules to be converted into machine-readable code that firms can use as the basis of their implementation or to check their own interpretation of the rules.

We've also made great strides in digitising the documentation process. The ISDA MyLibrary platform now hosts over 160 derivatives documents and document versions in digital form, giving users the ability to access and navigate commonly used agreements in one place. Combined with ISDA Create – which is a digital platform for the negotiation and execution of derivatives contracts that captures and stores the resulting legal data – firms can access the specific details of their negotiated trades with a few clicks of a mouse, giving them a comprehensive view of their exposures.

Our latest offering – the ISDA Notices Hub – addresses the challenges relating to the physical delivery of critical termination notices. This is an essential part of the risk management process when a counterparty fails to pay or enters into default. The ISDA Notices Hub enables rapid delivery and receipt of these termination notices, mitigating risk exposures and potential losses that can result from delays.

The Notices Hub has garnered good industry support – over 145 entities have now adhered to a protocol that provides the legal framework to allow delivery of notices via the platform.

There's strong board backing for ISDA to continue to evolve as new developments and technologies like tokenisation and AI come to the fore, but with the same focus on establishing standards, ensuring legal and regulatory certainty and developing solutions.

IQ: We're increasingly shifting to 24/7 trading, and it's critical that this is accompanied by 24/7 risk management. However, some parts of the derivatives market – for example, the exchange of collateral – remain beset by inefficient, manually intensive processes, which can lead to bottlenecks during periods of stress. Tokenisation has been highlighted as a way of resolving some of the operational and workflow challenges associated with collateral exchange. How is the ISDA board thinking about this? What are the opportunities and challenges for tokenisation in derivatives markets?

AH: The ISDA board is increasingly focused on the use of tokenisation in derivatives markets because it potentially solves some of those challenges. By the end of last year, leading derivatives market participants subject to the non-cleared margin rules had collected $1.5 trillion of initial margin and variation margin (VM), up 6.4% from the previous year, according to ISDA's latest margin survey. As the quantum of margin has increased, the use of cash as collateral for VM has fallen over time as firms look to extend the range of collateral exchanged.

But some counterparties are reluctant to accept anything other than cash and government securities for a variety of reasons, including operational complexity and capital impact. As an example, money market funds (MMFs) could be a good option, but, as it currently stands, MMF holdings must be liquidated and posted as cash, with that cash then potentially reinvested back into an MMF by the collateral receiver. That takes time, adds costs, creates operational challenges and can exacerbate selling pressure during periods of market stress.

> "At a time when markets are evolving quickly, driven by technological change, the regulatory process needs to be simplified and coordinated to encourage innovation, competition and growth"

Tokenisation could help to solve these issues by enabling holdings in an MMF to be posted almost immediately, without any need to liquidate the position – that's a big efficiency.

ISDA is approaching this from two angles. First, clarifying the legal and regulatory framework – so, making sure derivatives transactions on tokenised assets are underpinned by robust documentation and legal opinions, for example. The second is working with other industry participants to establish interoperability, backed by common data standards. This will be a focus for us in 2026. We think this is an important opportunity to bring much-needed improvements to the timeliness and efficiency of collateral management, and to deliver greater choice and flexibility for market participants.

ISDA Safe, Efficient Markets
Celebrating 40 Years

IQ: Digital assets and stablecoins are very much in the spotlight currently, helped by legislative changes in the US. What do you think ISDA's role should be in this space?

AH: We're taking a similar role to what I outlined for tokenisation – focusing on legal certainty, standards and documentation. We published the ISDA Digital Asset Derivatives Definitions in 2023, which was an important step in bringing greater clarity to this asset class by creating an unambiguous contractual framework for digital asset derivatives. We've also published several whitepapers that explore key legal issues, which I think were very useful in clarifying the treatment of customer assets held by intermediaries following a default and setting out questions related to close-out netting and collateral arrangements.

On top of that, our work with other trade associations to highlight the punitive capital requirements for crypto-asset exposures has also been important. As a result of that initiative, we made several recommendations that would ensure capital requirements are better aligned with actual risk profiles.

The board is keen for us to continue working in this space, prioritising issues that matter most to ISDA members – legal standards, documentation and capital treatment.

IQ: It's impossible to have a conversation about technology without talking about artificial intelligence. To what extent do you think AI will transform derivatives markets? When it comes to issues in ISDA's wheelhouse, what impact do you expect AI to have on contract negotiation, risk analytics and regulatory compliance?

AH: AI will undoubtedly have a transformational impact on derivatives markets, and we're already starting to see that play out with financial institutions employing AI for manually intensive tasks like data analysis or know-your-customer checks. There's clearly a role for AI in certain legal tasks, like drafting initial versions of contracts or quickly identifying key provisions in legal agreements. I was really interested in the proof of concept ISDA completed recently, which showed that AI can be used to pull key provisions from ISDA credit support annexes with a high level of accuracy. You could imagine something similar could be done for the ISDA netting opinions.

I mentioned the DRR earlier, and ISDA's recent request for quote for an AI solution to pinpoint why and when certain DRR coding decisions were made and how they tie back to regulatory requirements is a great example of how AI could be applied in this space. It will allow users to obtain a full audit trail of the coding process and enable further validation of what is reported with much less human effort.

But it's not just about embedding AI into ISDA solutions and services. I'm also keen for ISDA to use AI in its day-to-day operations to improve efficiency and ensure the focus of ISDA staff is on high-value tasks and advocacy, rather than manual, time-intensive chores.

IQ: As you pointed out, modernisation of derivatives markets isn't only about technology – it's about making sure the regulatory framework is appropriate and fit for purpose as markets evolve. What does the board want to see in terms of engagement with policymakers?

AH: As I mentioned earlier, ISDA has a long history of cooperation on reforms that have delivered safer and more efficient markets. This includes the development of ISDA fallbacks to enable the smooth transition from LIBOR, the building of the ISDA Standard Initial Margin Model to help firms implement margin rules for non-cleared derivatives, and publication of the ISDA resolution stay protocols as part of global regulatory bank resolution efforts.

There are parts of the current regulatory framework where similar alignment and coordination are very much needed to improve the competition and efficiency of financial markets. Regulatory reporting is one example.

Since implementation, regulatory reporting rules have often been inconsistent and duplicative across jurisdictions, reducing the quality of data that is reported. The result is that plenty of information is available in trade repositories, but regulators are not always able to efficiently access it or use it to identify the build-up of derivatives exposures and risks.

There has been progress to resolve this. For example, regulators in multiple jurisdictions have amended their reporting rules to incorporate global data standards to improve consistency. The European Securities and Markets Authority (ESMA) also issued a call for evidence earlier this year, requesting industry input on how EU reporting rules could be simplified and made less costly to implement. This is a positive step and it will hopefully go some way to addressing issues that have driven up the cost of reporting in the EU – for example, the obligation for both parties to report the same trade, duplicative requirements under multiple regulations for the same derivatives instruments to be reported, and frequent changes in regulatory requirements that lead to further inconsistencies and duplication.

ISDA submitted a response to the call for evidence, and we'll continue to work with ESMA and others on how to optimise reporting for EU market participants and enhance the value of what is reported to regulators. Ultimately, the board wants ISDA to be advocating for a regulatory regime that is efficient, avoids unnecessary complexity and supports economic growth. I was recently in Hong Kong with the ISDA team and was struck by the positive engagement between the industry and regulators to amend the reporting rules with the aim of making the requirements more efficient. That's something we want to replicate elsewhere.

IQ: The finalisation and implementation of the Basel III trading book rules remain a major focus. What are the key priorities for the ISDA board here?

AH: The overarching priority is that capital requirements must be appropriate and risk-sensitive to support deep and liquid markets. If capital requirements are set too high, this can lead to reduced access to funding, a lack of hedging solutions and increased vulnerability to external shocks.

That means we really need to address those parts of the framework that are inappropriately calibrated and could result in increases in capital that are disproportionate to the underlying risks.

One example is the treatment of cross-product netting under US capital rules. As it stands, banks cannot recognise the benefits of cross-product netting under the standardised approach for counterparty credit risk (SA-CCR), which is potentially problematic given the introduction of mandatory US Treasury clearing at the end of next year.

Clearing houses will likely offer cross-margining programmes to clients covering US Treasury securities and interest rate futures to increase efficiency and reduce potential liquidity strains, but the US capital framework doesn't allow banks to recognise offsets in a portfolio of products for capital purposes. Without that recognition, banks would either need to ask a customer to post the full amount of margin or face a significant increase in capital requirements, reducing bank balance sheet capacity. ISDA has recommended that US prudential regulators adjust the SA-CCR rules to fix this and we're hopeful this will be addressed when the revised Basel III endgame proposals are published.

We also need to address any overlapping risk capture across the Basel III trading book rules and local stress-testing regimes, which can result in overall capital in excess of what a bank can actually lose. ISDA continues to engage with policymakers in the US, UK and EU on a variety of issues in order to achieve a capital framework that is as risk-appropriate, efficient and consistent as possible.

IQ: ISDA is a global organisation, and one of our long-time priorities has been to work with authorities around the world to develop legislation to ensure the enforceability of close-out netting – a critical tool in reducing credit risk between two counterparties. How do you expect this work to evolve?

AH: This continues to be a big priority for the ISDA board. We held a 10-year planning session earlier this year and the development of emerging markets was confirmed as a continuing important area of focus.

We've successfully worked with authorities in numerous countries to develop netting legislation, which is the foundation for robust, liquid derivatives markets. Following the introduction of netting legislation in countries including China and India in recent years, the latest example is Saudi Arabia, which became the final G-20 country to finalise netting legislation. As a result, ISDA was able to publish an opinion confirming the enforceability of netting under rules published by the Saudi Central Bank and Capital Market Authority (see pages 44-45).

This work will definitely continue, but we're also looking to extend it by supporting the next stage of market development. That might include helping to establish an effective and liquid local benchmark rate or highlighting best practices for an effective regulatory regime, as well as providing training on risk management. ISDA is a global association, and the board takes our responsibility to represent the global derivatives market very seriously.

> "The overarching priority is that capital requirements must be appropriate and risk-sensitive to support deep and liquid markets. If capital requirements are set too high, this can lead to reduced access to funding, a lack of hedging solutions and increased vulnerability to external shocks"

* New Priorities

As ISDA looks to the future, an enduring commitment to transformative solutions, including Digital Regulatory Reporting and the ISDA Notices Hub, will be a priority

It was written more than 40 years ago with an exclusive focus on interest rate swaps terminology, and yet the preface to the 1985 edition of the Code of Standard Wording, Assumptions and Provisions for Swaps – ISDA's very first document – seems as relevant today as it was at inception.

"Preparation of the Code was begun as a response to concern about the varied interpretations that might result if each market participant were independently to arrive at its own meanings for the principal terms used in rate swaps. By standardizing the principal terms of rate swaps, the Code enables parties to communicate quickly and on the same terms. It is hoped that the Code will facilitate rate swap transactions and lead to a more efficient market."

Forty years on, the quest for common terminology in the rates market has long since been achieved, with the latest iteration of ISDA's standard definitions for interest rate derivatives published in natively digital format in 2021. The focus on standard interpretations and the pursuit of greater efficiencies, which have remained central to the development of ISDA documentation, now also underpin its digital transformation solutions, which include the Digital Regulatory Reporting (DRR) initiative and the newly launched ISDA Notices Hub.

"ISDA's mutualised digital solutions have been designed with the objective of standardising, optimising and automating key parts of the derivatives process in a cost-effective and scalable way. They embrace advanced technologies while also remaining true to ISDA's core objectives of standardisation and efficiency that were established back in 1985. In ISDA's 40th anniversary year, we've seen encouraging adoption of our solutions across the industry and will continue to drive this effort in the years ahead," says Olivier Miart, co-head of digital transformation at ISDA.

DRR gains ground

Just as the Code of SWAPS responded to concerns that firms were taking their own unique approaches to defining key derivatives terms in 1985, the ISDA DRR addresses a similar challenge in 21st century regulatory reporting. Over the past three years, regulators around the world have rolled out a series of updates to their reporting rules to incorporate internationally agreed data standards. Although these updates are designed to improve the accuracy and consistency of the reporting framework, that will only be achieved if market participants implement the rules in a uniform way.

The ISDA DRR solves this issue by taking as its foundation a single golden-source interpretation of each rule set agreed by an ISDA working group. That industry-agreed interpretation is then converted into machine-executable code using the Common Domain Model (CDM), an open-source data standard for financial products, trades and lifecycle events. Market participants can use this code as the basis for their implementation or to validate that an independent interpretation is in line with the industry consensus, avoiding the need to deploy resources to interpret and implement each set of rules individually, and then repeating that work if the regulations change in future.

The ISDA DRR significantly reduces the time, resources and costs needed to implement reporting rules. It also mitigates the risk of regulatory penalties for misreported data, estimated at nearly $300 million in the US, UK and EU.

The free-to-use solution was launched in November 2022, just before amendments to the US Commodity Futures Trading Commission's swap data reporting rules came into effect. Since then, the DRR has been extended to support reporting rules in seven major jurisdictions – Australia, Canada, the EU, Hong Kong, Japan, Singapore and the UK. In total, ISDA has committed to supporting 12 core regulatory reporting regimes across nine jurisdictions.

Four firms are currently using the ISDA DRR – Banque Pictet, BNP Paribas, Japan Securities Clearing Corporation and JP Morgan – while 13 are running proof-of-concept initiatives for DRR adoption, including DBS, Depository Trust & Clearing Corporation and Goldman Sachs. As IQ went to press, Natixis Corporate & Investment Banking (CIB) was preparing to begin a DRR adoption programme.

"Complying with regulatory reporting rules in multiple jurisdictions is a huge undertaking that can quickly consume resources and costs. Natixis CIB was drawn to the ISDA DRR because it will allow us to implement the reporting rules much more efficiently, with confidence that we are using an interpretation of the rules that has been peer reviewed and agreed by the industry. We are pleased to have access to this initiative and have a comprehensive implementation programme planned for the coming year that will bring material improvements to the quality and efficiency of our reporting," says Nicolas Pessard, head of transaction regulatory reporting at Natixis CIB.

In November, ISDA published a paper in conjunction with Capgemini that gives industry perspectives on the benefits realised by users of the ISDA DRR. Interviewees reported improved data quality and high trade repository acknowledgement rates, with reported figures of 100% under Monetary Authority of Singapore rules and 98.2% for the European Securities and Markets Authority's European Market Infrastructure Regulation Refit. The paper also indicated streamlined operations and reduced ongoing costs of up to 50% due to using the DRR. Once firms have adopted the solution for one set of rules, they reported it being easier and quicker to implement other rule sets due to the reusability of the DRR code and reporting logic across jurisdictions, reducing duplication of effort and maintenance costs.

"The industry engagement that led to this paper with Capgemini showed that the ISDA DRR, powered by the CDM, is delivering real benefits for financial institutions across multiple areas of the regulatory reporting process. This solution has proved itself to be much more than a mere technical upgrade for reporting entities, but rather the strategic foundation for resilient, cost-effective and future-proofed regulatory reporting," says Miart.

ISDA Notices Hub

The development of the ISDA Notices Hub is another example of ISDA responding to a shared challenge with a mutualised digital solution.

Under the ISDA Master Agreement, critical termination-related notices must be delivered by certain prescribed methods, using the company address details listed in the agreement. Challenges and delays can arise when a counterparty moves offices without updating its documentation, leading to uncertainty over where the notice should be delivered to. Further issues arose during the pandemic, when offices were suddenly vacated, and following Russia's invasion of Ukraine, when it became difficult to deliver notices to offices located in a hostile environment.

ISDA's analysis has shown that even a small delay in the delivery of a termination notice – for example, from Friday afternoon to Monday morning – on a single medium-sized derivatives portfolio with $10 million of initial margin could result in an uncollateralised loss of $1 million. That's on top of the additional resource costs associated with conventional delivery methods, including paying a law firm to deliver the notice.

"The market has been struggling with the challenge of delivering termination notices for a very long time, with questions in particular over how to deliver and where to deliver. At the end of the entire process of serving notice, actually knowing where to deliver has proven to be much more difficult than it really should be. Effective delivery can raise certain logistical challenges and this is an area where the market needed to do some work," says Janet Wood, managing director and associate general counsel at Bank of America.

> "Complying with regulatory reporting rules in multiple jurisdictions is a huge undertaking that can quickly consume resources and costs. Natixis CIB was drawn to the ISDA DRR because it will allow us to implement the reporting rules much more efficiently"
>
> **Nicolas Pessard, Natixis CIB**

The ISDA Notices Hub, which was launched in July, is a secure online platform that enables the near-instantaneous delivery and receipt of notices from anywhere in the world, with automatic alerts sent to the receiving entity, reducing the risk of rising exposures and potential losses from delivery delays. The Notices Hub also requires users to maintain current physical address details across all their agreements, which can be done via a single entry, creating an up-to-date golden source.

The Notices Hub is available via S&P Global Market Intelligence's Counterparty Manager platform and is free for buy-side firms, while dealers benefit from a discounted rate for the first two years of operation. To provide legal certainty that the Notices Hub constitutes a viable means of serving notice, ISDA has published 21 jurisdictional opinions, with almost 50 more in the pipeline.

To coincide with the launch of the Notices Hub in July, ISDA also published the ISDA 2025 Notices Hub Protocol, which enables firms to efficiently update their documentation with other adhering parties to allow the platform to be used as a means of delivering and receiving notices. By mid-November, more than 145 entities had adhered to the protocol, including 65% of primary global dealers and a range of asset managers, pension funds and insurance companies.

"We've been very encouraged by the number of parties adhering to the protocol and those who have adopted the platform have noted how easy and intuitive it is to use. This is a solution that responds very effectively to a universal industry challenge, significantly reducing the uncertainty and risk of losses that might result from delivery misdirection or delays," says Rick Sandilands, senior counsel, Europe at ISDA. IQ

Read the report, *Industry Perspectives on the ISDA DRR: Unlocking Efficiency, Accuracy and Strategic Value*: shorturl.at/meq1C

* Ringing in the Future

ISDA celebrated its 40th anniversary with a series of special events around the world, including bell ringing ceremonies in New York, London and Tokyo, and a symbolic gong strike in Hong Kong

NEW YORK

On June 23, ISDA chief executive Scott O'Malia rang the closing bell at the New York Stock Exchange (NYSE), in a ceremony hosted by Tara Dziedzic, head of US listings at NYSE, and Joanne Rowe, ISDA board member and corporate risk officer at Intercontinental Exchange, and attended by ISDA board members and staff.

Photos courtesy of New York Stock Exchange, London Stock Exchange Group and Tokyo Stock Exchange

LONDON

On October 6, ISDA continued its 40th anniversary celebration with a market close ceremony at the London Stock Exchange (LSEG), attended by ISDA chief executive Scott O'Malia, ISDA chair Amy Hong, ISDA board members and staff, and hosted by Daniel Maguire, group head of LSEG Markets and chief executive of LCH Group, and Susi de Verdelon, ISDA board member and chief executive of LCH Ltd.

TOKYO

On October 16, ISDA rang the closing bell at the Tokyo Stock Exchange, hosted by Yasuyuki Konuma, president and chief executive of Japan Securities Clearing Corporation, with ISDA chief executive Scott O'Malia, ISDA board members Yoji Imafuku and Koichiro Funayama, former board member Shigeru Nonomura, and Tomoko Morita, senior director and head of the Tokyo Office at ISDA.

HONG KONG

On November 19, ISDA participated in a symbolic gong strike at Hong Kong Exchanges and Clearing, led by ISDA chair Amy Hong, head of strategy, investments and partnerships for global banking and markets at Goldman Sachs, and ISDA board member Andrew Ng, group executive and group head of global financial markets at DBS Bank.

* Looking Ahead

From the wide-ranging policy agenda and the growing focus on emerging markets to the opportunities of artificial intelligence and tokenisation, the derivatives market is set for transformational change over the coming years. In a series of contributed articles to mark ISDA's 40th anniversary, industry leaders and policymakers reflect on the future of the derivatives market

ISDA at 40 and Beyond

by Eric Litvack

Since its inception in the mid-1980s, the swaps market has evolved from a fragmented, manual trading environment into a highly structured, global financial ecosystem. As the market transformed and expanded, ISDA transitioned from a small group of dealers into a global industry utility that addresses critical issues such as counterparty credit risk, enforceability of close-out netting, documentation and risk management.

> As we steer the derivatives industry forward over the next 40 years, new challenges will emerge, but the core objectives of strengthening legal frameworks, promoting regulatory consistency, enhancing transparency and embracing innovation will endure

As highlighted earlier this year in ISDA's report on the value of over-the-counter (OTC) derivatives (see opposite), these instruments play a vital role in the global financial system, offering a robust framework for risk management, price discovery and capital efficiency. Their primary value lies in their ability to help businesses and financial institutions hedge a wide range of risks – interest rate fluctuations, currency movements, commodity price volatility and credit exposures. By enabling firms to stabilise cashflows and protect balance sheets, derivatives contribute to broader economic stability.

Derivatives also facilitate price discovery and market efficiency: interest rate swaps help to reveal expectations about future monetary policy, while credit default swaps provide insights into perceptions of credit risk. These instruments support capital efficiency, allowing firms to manage exposures without holding excessive capital buffers, thereby freeing up resources for investment and growth.

In times of market stress, derivatives have proven their value. During the COVID-19 pandemic and other periods of volatility, derivatives markets remained resilient, helping participants to manage their risk and maintain broader market liquidity. This underscores their systemic importance and the need for robust infrastructure and regulation.

Over the course of ISDA's 40 years, regulatory engagement and education have become central to its mission, helping to shape policy and broaden market participation. Today, with more than 1,000 member firms across 78 countries, ISDA continues to drive innovation and resilience in the derivatives market and has positioned itself as a key architect of financial stability and efficiency.

As we steer the derivatives industry forward over the next 40 years, new challenges will emerge, but the core objectives of strengthening legal frameworks, promoting regulatory consistency, enhancing transparency and embracing innovation will endure.

Legal certainty and standardisation

ISDA's foundational contribution to the derivatives market is the ISDA Master Agreement, a standardised legal contract that is used globally. This document provides a consistent framework for the trading of derivatives, reducing legal risk and facilitating enforceability across jurisdictions. ISDA will continue to advocate for the legal recognition of close-out netting, a mechanism that allows counterparties to offset their obligations in the event of default. Netting significantly reduces credit exposure and systemic risk, making its enforceability a cornerstone of ISDA's legal advocacy.

Regulatory consistency and proportionality

The global OTC derivatives market supports global commerce, and the harmonisation of derivatives regulation across jurisdictions will remain among ISDA's top priorities. Fragmented rules can lead to market inefficiencies, increased compliance costs and reduced liquidity. The tide of multilateral cooperation may ebb and flow, but ISDA will continue to work with regulators globally to promote consistent implementation of standards, such as margin requirements, clearing mandates, reporting obligations and capital requirements. A common framework for risk-appropriate capital and liquidity requirements is the bedrock of safe, efficient markets, and ISDA will continue to be particularly attentive to the framework for market risk and counterparty credit risk.

ISDA also champions proportionality in regulation, particularly for non-financial counterparties and smaller market participants. Excessively burdensome rules can discourage legitimate risk management activities. By continuing to advocate for tailored regulatory approaches, ISDA seeks to preserve access to derivatives while maintaining financial stability.

Risk management and market infrastructure

Robust collateral and margining frameworks to mitigate counterparty risk have allowed the OTC derivatives market to develop and prosper. ISDA will maintain its central role in developing standards for initial and variation margin, ensuring that exposures are adequately covered, as well as promoting central clearing for standardised derivatives, which enhances transparency and reduces systemic risk.

Improved settlement and operational efficiency will increasingly be a core component of ISDA's work, advocating for best practices in trade execution, confirmation and reconciliation. These efforts contribute to a more resilient and efficient market infrastructure.

Transparency and reporting

ISDA will continue to support trade reporting regimes, which enhance market transparency, while carefully balancing transparency rules with a need for both operational simplicity and market liquidity formation. Streamlined reporting helps regulators monitor systemic risk without imposing unnecessary burdens on market participants.

Innovation and digitisation

Recognising the transformative potential of technology, ISDA has actively embraced the exploration of digital documentation and smart contracts. Platforms such as ISDA Create allow for automated negotiation and execution of derivatives documentation, improving speed and reducing errors. ISDA has actively engaged with the possible uses and challenges of distributed ledger technology to enhance post-trade processes and reduce operational risk.

Embracing innovation will continue to be at the heart of ISDA's mission to future-proof the derivatives market, making it more agile and accessible while maintaining robust risk controls.

Improved settlement and operational efficiency will increasingly be a core component of ISDA's work, advocating for best practices in trade execution, confirmation and reconciliation

Conclusion

OTC derivatives are an indispensable tool for managing financial risk, supporting economic stability and fostering market efficiency. During its first 40 years, ISDA's advocacy priorities – legal certainty, regulatory coherence, risk management, transparency and innovation – have been essential to sustaining the health and resilience of these markets. As we look forward with confidence to what the next 40 years will throw our way, these will continue to be priorities for ISDA's leadership and collaboration with global stakeholders to shape a safer and more efficient financial landscape. IQ

Eric Litvack is managing director and group director of public affairs at Société Générale, and an ISDA board member. He was chairman of the ISDA board between 2014 and 2024

The Shadow of Shadow Banking

by Martin Moloney

Once upon a time, long, long ago, an analyst produced an interesting note on what he called 'shadow banking'. The idea was to shine a light on how banks were generating assets and then moving them off balance sheet. At the time, to many observers, it just seemed like a clever way for banks to maximise business while complying with capital rules. But, then again, that was a time when regulatory arbitrage did not have negative connotations. I even recall a regulatory arbitrage training course you could go on. His warnings were not well heeded.

Then 2008 hit. It became clear that the off-balance-sheet investment vehicles he had written about had often ended up in the hands of investors who were ill-prepared for the actual risk involved. Supposedly low-risk tranches proved far riskier than they had seemed. The products became suddenly illiquid, and the banks sometimes retained significant residual exposures. It was a key part of a massive market crisis that did substantial damage to the real economy.

At one level, the lessons to be learned were like those previously drawn from Black Monday in 1987 and from the fears engendered by the Long-Term Capital Management events in 1998. Those events showed how the financial sector can suddenly freeze and fall into severe crisis when liquidity temporarily dries up due to some shock or other.

When the Financial Stability Board (FSB) began to deal with the problem, it also became clear that focusing only on the linkage to banks wasn't going to tackle the fundamental issue. A wider focus was needed. Different people had different views on what that fundamental issue was. One useful way to think about it might be as an example of what Albert O. Hirschman talked about in his once famous 1970s book, *Exit, Voice and Loyalty*. The problem is that liquidity providers have become increasingly prone to exit in the face of stress.

The structure of market liquidity has clearly been changing. More liquidity providers are inclined to leave markets early in periods of stress rather than seek profit opportunities from those stress events. The reasons are complex, but the impact is clear. The exit of liquidity providers increasingly amplifies the initial shock, threatens the real economy itself and necessitates large-scale intervention by public authorities to supplement market liquidity.

The dynamics underlying this change in market liquidity are complex, but they are linked to the long-term trend of non-bank participants playing an increasing role in financial markets. When banks had been able to underprice risk, one beneficial result was that it was cheap for them to continue to provide liquidity well after a market stress had begun. Paradoxically, better bank regulation had the negative side effect that they were less willing to do that. At the same time, corporate and public debt markets have grown hugely, meaning the impact of market stress has become much greater.

One thing was clear early on: the name had to change. Shadow banking as a term was replaced by the far less elegant 'non-bank financial intermediation'. Inelegant, but comprehensive.

For some 15 years, the FSB has been breaking the problem down into its elements and finding ways to shore up market liquidity and market resilience. It has been a complex process of looking at derivatives, clearing, margining, fund liquidity management, money market fund liquidity management and more.

There is no one-size-fits-all solution. Each sector and each market deserves careful consideration to avoid unintended consequences. Debates have often been intense. Progress has been slow and success is uneven.

It has long been understood that when stress hits a market, those most prone to exit are those servicing leverage. This is our latest focus. We don't want to regulate leverage everywhere in markets. We want to focus only on the most important markets and the potentially most impactful, leveraged market participants. Not only that, if there is a way to help the market function better, we want to promote that rather than regulating leverage.

What if the lenders to the large leveraged traders had better information to make better underwriting decisions? Would that reduce the need for additional regulation? If that isn't enough, would clearing of key instruments such as critical repo markets create sufficient resilience?

Being resilient in the face of black swan events is costly. It is tempting not to take on the cost. Public authorities have a role to encourage or require that cost to be taken on. How we exercise that role matters because there are clever and better ways to achieve it, if only we can find them. With the help of the industry, we can. But the industry often gives the impression that it thinks its primary role is to fight over-regulation rather than nurture smart regulation. Important opportunities can be missed.

At the moment, our focus is on the impact of leveraged trading on Treasury markets and the lack of transparency in the sometimes-complex structures of private credit. In each case, the link to banks is re-emerging as a concern. In each case, progress could be made without additional regulation. But the sector would need to work with us. It's a fascinating moment, testing the potential working relationship between the public and private sectors. IQ

Martin Moloney is deputy secretary general of the Financial Stability Board

Modernising Basel III and the FRTB

by Jacques Vigner

Basel III and the Fundamental Review of the Trading Book (FRTB) were launched in response to the 2008 financial crisis to improve the resilience of banks to future market shocks. Unfortunately, what was originally designed as a 'fundamental' review, revisiting the first principles of market risk management, quickly turned into a more 'fundamentalist' review, with the addition of multiple layers of conservatism and complexity. After more than 15 years of gestation, the end result raises serious concerns, with the impact on risk-weighted assets disproportionate to the actual risk – for example, increases of 100%-200% for global systemically important banks (G-SIBs) – many cliff edge effects and difficult operational challenges.

The fate of the FRTB internal models approach (IMA) is particularly concerning. Only a handful of banks now envisage adopting the IMA in Europe, including the UK. The overwhelming majority of banks have chosen the simpler standardised approach (SA), in contrast to the situation prevailing under the current Basel 2.5 framework, where many banks are using internal models.

This should be a serious concern for policymakers and regulators, and for the management of global banks, as internal models allow the alignment of day-to-day risk management and trading decisions with capital measurement. By contrast, standardised models provide limited information on the trading book, especially for global banks with large, complex portfolios, leading to only partial visibility for banks and supervisors. This may lead to biases in trading decisions and present additional challenges for effective risk management. The FRTB-SA takes us back to the Stone Age of risk management – we need to go back to the future.

The main roadblocks constraining IMA adoption are well identified. First, the profit-and-loss attribution test (PLAT), which a desk must pass to qualify for the IMA. This requires the daily monitoring of hundreds of metrics and is very unstable, with a cliff-edge effect on capital requirements if a desk suddenly moves from the IMA to SA. We may end up with more capital than under the SA if a few desks fail the PLAT, as the bank will lose the diversification effect from the IMA and consume more capital under the SA.

A second obstacle is the non-modellable risk factors (NMRFs) requirement – those risk factors for which there are not enough observable prices to include in the expected shortfall (ES) calculation, the main risk engine of the FRTB. NMRFs are instead capitalised with a stress test. This creates a double penalty: these stress tests are punitive, and removing NMRFs from the ES will generate numerous broken hedges, further inflating the ES. As of today, with no vendors offering data pooling as there are too few IMA banks to buy their data, there might be thousands of NMRFs in a global trading book, with a capitalisation that exceeds the ES.

There are several other outstanding issues to be addressed in the IMA, including additional constraints in the diversification for ES, maturity capping in ES, which impacts futures that hedge bonds or equities, and the way mutual fund exposures are treated.

> It is high time we return to a more sensible approach to make our capital rules more risk-appropriate, more operationally manageable and less impactful

In the EU, we have added another layer of complexity. More than 100 regulatory technical standards (RTS) are expected from the European Banking Authority (EBA) to implement the third Capital Requirements Regulation and the sixth Capital Requirements Directive, representing thousands of pages of regulations. As an example, NMRFs take up around four pages in Basel III but require a 120-page RTS. Meanwhile, the European Central Bank is also adding its own interpretations.

There are many examples of conservatism across Basel III, including the FRTB default risk charge, the credit valuation adjustment charge, the standardised approach for counterparty credit risk and SA credit ratings. We should also remember that this comes on top of many other capital and liquidity measures: the leverage ratio, securitisation rules, the liquidity coverage ratio, the net stable funding ratio, the G-SIB surcharge, the EBA and Comprehensive Capital Analysis and Review stress tests, and multiple level-two regulations. The cumulative effect and monitoring of all these rules is daunting.

It is high time we return to a more sensible approach to make our capital rules more risk-appropriate, more operationally manageable and less impactful. As mentioned in the Draghi report on EU competitiveness, this overhaul is essential if we want financial markets and banks that can support the economy and facilitate the investments needed to face the challenges of today: technology, supply chain autonomy, climate and defence. The EU, the UK and the US should take the initiative by amending their rules accordingly. ISDA has proposed solutions to improve the adoption of internal models and the overall risk sensitivity of the market risk rules. We should act on those recommendations to deliver a robust market risk framework. IQ

Jacques Vigner is chief strategic oversight officer for global markets at BNP Paribas, and an ISDA board member

ISDA Safe, Efficient Markets
Celebrating 40 Years

Transforming the US Treasury Market

by Nate Wuerffel

As the first US Secretary of the Treasury between 1789 and 1795, Alexander Hamilton insisted that government debt could be a national blessing if it was both safe and liquid. These two attributes have since become the foundational characteristics of the modern US Treasury market, propelling it to become the deepest, most liquid government bond market in the world at over $30 trillion today.

The SEC's mandate for central clearing is one of the most consequential changes in the history of the Treasury market. It could require some $4 trillion of daily transactions to be centrally cleared, and it is set to reassemble the structure of the Treasury market

But, over the past decade, the market has experienced several episodes of dysfunction, including in 2014, 2019 and at the start of the COVID-19 pandemic in 2020. These episodes have prompted the public and private sectors to seek ways to bolster the underlying safety and liquidity of the Treasury market – particularly its capacity to absorb and rebound from shocks. One of the most significant of these steps was taken when the US Securities and Exchange Commission (SEC) introduced a mandate for central clearing of Treasury trades in December 2023, with implementation now set to begin at the end of 2026.

The SEC's mandate for central clearing is one of the most consequential changes in the history of the Treasury market. It could require some $4 trillion of daily transactions to be centrally cleared, and it is set to reassemble the structure of the Treasury market. The rule will interpose a central counterparty (CCP) between the parties to every eligible transaction, making the CCP the buyer to every seller and the seller to every buyer.

Because CCP risk management includes margin, liquidity and default management processes, counterparty credit risk in the Treasury market should be reduced. This should enhance financial stability by improving the willingness of market participants to continue trading in the Treasury market, even in times of stress when they might otherwise back away from their counterparties for fear of increased settlement risk. Central clearing should also offer improved intermediation by providing some balance sheet relief through netting of offsetting transactions.

However, the rule will require participants in the Treasury market to change the way they interact, including having to make significant process, systems, legal and operational changes to centrally clear their transactions. CCPs also require their members to post margin and make contingent liquidity commitments, which could increase the cost of transacting in the market relative to current conditions and increase demand for liquidity to support margin, both in normal times and during periods of stress.

Implementation of the rule will take place in two phases, with Treasury CCP members being required to clear their cash and repo trades from the end of December 2026 and the end of June 2027, respectively. These dates were originally targeted for 12 months earlier, but the SEC extended the implementation dates to provide additional time to resolve several key implementation and scoping issues.

The extended deadlines will allow for the launch of new access models and solutions that will help market participants better adapt to the clearing mandate. These include several enhancements from the Fixed Income Clearing Corporation, including the Sponsored General Collateral 'Collateral-in-Lieu' service, the Agent Clearing Triparty Service and 'done-away' clearing by third-party agents. These should all become available on BNY's Global Collateral, or triparty, platform in December 2025, pending SEC approval.

These new solutions should allow market participants to more effectively scale their centrally cleared activity and provide them with margin, capital and operational efficiencies. CME Group and Intercontinental Exchange, both new potential CCPs in the Treasury market, are also planning to offer new clearing models that will be supported by BNY.

The introduction of central clearing is an important step in making the Treasury market more resilient, but additional steps should also be taken. Adjustments to the leverage ratio for cash reserves and US Treasuries should be made to improve capacity for Treasury market functioning. Liquidity could also be strengthened by improving the ability to convert Treasury securities into cash – for example, by expanding readiness and lowering the stigma to use the discount window and standing repo facility, modernising the operations that underpin these key liquidity facilities and encouraging further adoption of flexible financing tools, including early morning and intraday repo.

By taking steps now to bolster the safety and liquidity of the market, we can help to ensure the Treasury market remains a national blessing and the foundation of the US's finances and capital markets around the world. IQ

Nate Wuerffel is global head of market structure and product lead for Global Collateral at BNY

Building Capacity in Emerging Derivatives Markets

by Axel van Nederveen

Over the next decade, 65% of global growth is expected to come from emerging markets. The young demographics in emerging markets compared to mature countries is a major driver of this growth differential. As emerging economies grow, the need for finance will increase even faster. This, in turn, will fuel the need for financial intermediaries and the real economy to better manage risks associated with the overall growth of these economies.

A developed derivatives market is a must. Derivatives provide the most efficient and cost-effective hedging capabilities for all parties.

Over the past 40 years, ISDA has worked on the legal reforms that were needed to facilitate derivatives trading in developed markets. More than this, ISDA worked hard to ensure that close-out netting opinions are now in place in more than 90 jurisdictions around the world. But well-functioning derivatives markets exist only in a minority of these 90-plus jurisdictions, because legal opinions on their own don't make a market.

To really get a derivatives market off the ground, more is needed than a clear and favourable legal environment. Regulatory regimes, risk management frameworks, capacity building and market infrastructure in the widest sense are just some of the ingredients that need to be in place for a derivatives market to flourish.

In the period following the global financial crisis, much of ISDA's work has focused on the regulatory agenda, which has evolved rapidly since 2008. ISDA has made major contributions that solved some industry-wide problems, such as the development of the ISDA Standard Initial Margin Model to enable implementation of the non-cleared margin rules. Its role in the LIBOR transition was also crucial in ensuring the removal of the benchmark went as smoothly as it did.

90+

netting opinions published by ISDA, with the recent addition of Saudi Arabia, the last of the G-20 jurisdictions to implement netting legislation

As ISDA celebrates its 40th anniversary, now is the right time to look ahead to the future growth of the industry. This change in focus will not just benefit members – it will also make a positive contribution to the improvement of emerging market economies. The increased availability of FX and interest rate hedging tools will greatly improve the ability of local market participants to manage the return profile of cross-border investments in their desired currency. It will also improve the capacity of the local financial system to manage these flows and currency transformations without jeopardising financial stability.

ISDA's role in this process could be transformational for the markets concerned and will involve extending beyond the traditional areas of legal, regulatory, capital and market infrastructure. One of the main areas of focus will be the relationship with the regulatory and market-based community, as well as capacity building. This will require more frequent engagement at all levels of the financial services industry, analysis of local regulatory frameworks across all segments of the industry and a greater emphasis on capacity building across all elements of being a safe and sound market participant. The focus will need to expand beyond product knowledge to also cover accounting and risk management frameworks.

> As emerging economies grow, the need for finance will increase even faster. This, in turn, will fuel the need for financial intermediaries and the real economy to better manage risks associated with the overall growth of these economies

This sounds like a gigantic undertaking – which it is – but there are different ways to tackle the ask. First and foremost, countries will need to be identified and prioritised. Second, reform requires an official sector that sees the need and is willing to look at how the functioning of the financial system can be improved. And finally, there are many partners, including the development banks, that can and want to help with this process.

ISDA is putting in place a comprehensive emerging market strategy, and this will be a focus for the association in the years ahead. IQ

Axel van Nederveen is managing director and treasurer at the European Bank for Reconstruction and Development, and vice chairman of ISDA

Moving Liquidity at Digital Speed with Tokenised MMFs

by Kim Hochfeld

When I joined the world of money market funds (MMFs) two decades ago, I feared cash might be dull – steady, vanilla and predictable. How wrong I was. From the global financial crisis to the 2020 dash for cash and the gilt market turmoil in 2022, the humble cash market has sat at the eye of just about every market storm. Each episode exposed how critical well-functioning short-term funding markets are, and just how easily operational frictions can amplify systemic stress.

At State Street Investment Management, cash and liquidity form a core part of our $5 trillion of assets under management (as of June 30, 2025) and our teams see firsthand how operational resilience and technological innovation are reshaping short-term markets.

Today, we believe tokenisation offers the next great leap forward for liquidity management. At its simplest, tokenisation is the process of representing a financial asset – like a share in a regulated MMF – on a distributed ledger. It's the same product and the same underlying assets – the difference lies in how ownership is recorded and transferred. And that difference could transform how collateral moves through the derivatives market.

From dash for cash to digital collateral

During the 2020 liquidity squeeze, sterling-denominated MMFs saw redemptions of roughly £25 billion – around 11% of total assets – as investors rushed to raise cash for margin calls. The 2022 liability-driven investment episode replayed the same movie: forced redemptions from MMFs, collateral bottlenecks and central bank intervention. These were failures of plumbing rather than product design.

In today's model, an investor needing to post margin where its cash is invested in an MMF must first redeem MMF units, wait for the cash proceeds to settle, move the cash to the collateral receiver, which then might re-invest those proceeds back into an MMF. Tokenisation can dramatically short circuit this process. At State Street, we've long focused on improving the plumbing of markets – from custody to collateral mobility – and tokenisation represents a natural extension of that mission: replacing manual, slow, multi-step processes with near-instantaneous transfer of ownership.

A tokenised MMF unit can be transferred nearly instantaneously – and 24/7 – and, critically, without redeeming the fund or liquidating its underlying portfolio. The result: increased collateral velocity and the potential for more efficient inventory utilisation while freeing the market from the constraints imposed by needing to liquidate underlying MMF portfolios and sell assets into a distressed market, exacerbating downward pressure on prices and reinforcing the negative spiral. Regulators around the world are rightly intrigued. The UK Financial Conduct Authority's recent consultation on fund tokenisation explicitly highlights this potential.

The Investment Association's recent paper, *Money Market Funds and Tokenisation: Collateral Opportunities*, sets out the broader benefits of tokenising MMFs. Instant settlement reduces counterparty and operational risk, smart contract automation trims costs and digitised onboarding streamlines anti-money laundering and know-your-customer checks. For fund managers and investors, this means fewer intermediaries, lower fees and a vastly improved ability to pledge or repo assets in real-time.

At a systemic level, tokenised MMFs could function as high-quality liquid assets within the collateral ecosystem, helping to make the financial system more elastic under stress.

In State Street's recent study of digital assets and emerging technology, most institutional respondents cited liquidity access and collateral efficiency as key motivations for exploring on-chain investment infrastructure. That alignment of incentives between the native crypto and institutional worlds may prove pivotal for adoption.

Of course, none of this is entirely risk-free. Cyber security, wallet management and regulatory harmonisation rightly remain front of mind. But, as with any technological shift, comprehension breeds confidence. Once supervisors and policymakers appreciate that tokenisation is a new wrapper for a well-known, low-risk asset, the path to mainstream use will become clearer.

Culturally, too, the industry is ready. What began as proof-of-concepts are now genuine products with assets under management and real-world users. Every launch broadens understanding and accelerates regulatory comfort.

Tokenisation won't ever eliminate all market stress, but it can help to contain it. By enabling liquidity to move at digital speed without needing to redeem from the underlying portfolios, which exacerbates market pressure, tokenised MMFs can become the connective tissue between cash, collateral and derivatives markets.

For us, tokenisation is not a mere technology experiment. It's a continuation of our long-standing aim of strengthening market infrastructure. The next evolution of liquidity management will be digital, but grounded in the same principles of transparency, safety and trust that define our industry today.

Far from being a theoretical exercise, this is a tangible step towards a more resilient financial system, in which the next dash for cash might just be met with efficient, instantaneous transfers of digital collateral. IQ

Kim Hochfeld is global head of digital and cash at State Street Investment Management

Turning Data into Dollars with AI

by Paul Hands

This is a very exciting time to be working at the intersection of financial markets and technology. The advent of large language models (LLMs) as a form of natural language artificial intelligence (AI) has opened up a plethora of very exciting and interesting opportunities for streamlining, optimising and turbo-charging existing functionality across companies, from tier-one banks to single-person investment companies. But, as with all opportunities, new risks also appear and should be carefully considered before diving in.

The immediate question firms are asking, internally and externally, is: what can AI do for us? The answer is inherently tied to the level of risk firms are willing to take. LLMs are particularly adept at super creative tasks. For example: write me a poem extolling the positive virtues of a complicated eligible collateral schedule. Or a more mundane task: does this opinion confirm that close-out netting is applicable within this jurisdiction?

But financial market participants are naturally risk averse. This is reflected in contract negotiations being driven by painstakingly constructed playbooks, agreements that rarely deviate and clauses that are standardised. This environment is one that will actively avoid the creative elements of AI, which leaves mundane tasks as the most obvious and easy place to use AI to optimise workflows.

One of the clearest and most immediate use cases for AI is in querying and analysing the data contained within legal agreements – essentially, turning words on a page into actionable information with greater accuracy (and orders of magnitude more quickly) than humans can perform the task, to answer complicated portfolio-wide questions.

Firms are quickly coming to the realisation that a large portfolio of existing documents can react to external market influences, such as ratings changes, events of default and fluctuations in interest rates. Being able to react to those changes more quickly than competitors is of paramount importance. Moving quickly is only possible if the data is readily available. Previously, extracting the data contained within large portfolios of contracts has been an extensive, manual, time-consuming and costly process, to the point where firms have sometimes decided that the effort is not worth the reward.

In a similar vein, to comply with their obligations under regulations such as the EU's Capital Requirements Regulations and the European Market Infrastructure Regulation, firms must analyse the enforceability of close-out netting and the robustness of collateral structures in a time-efficient and cost-effective manner. This requires combining legal opinion data with contractual information to determine whether close-out netting is applicable on a given trade. None of this is very difficult, but without the requisite data at hand, processes can be long, arduous and costly.

However, with the advances of AI and the technical implications that come with it, that may no longer be the case.

Utilising an LLM to interrogate data as a first pass massively reduces the time taken – and hence the cost – to extract and consider the information required, whether for the purposes of regulatory compliance, risk management or commercial opportunity.

An AI-centric approach isn't without its risks, of course. While AI works exponentially faster than a human, it is fallible and it does make mistakes. In reality, AI makes fewer mistakes than a human. Nevertheless, the most sensible solution is to continue to include human intervention, not dissimilar to a four-eyes check on a document.

> The advent of large language models as a form of natural language AI has opened up a plethora of very exciting and interesting opportunities for streamlining, optimising and turbocharging existing functionality across companies

Agentic AI, where an AI is tasked with completing an objective rather than simply performing a task, is a hot topic. Inherently, this approach carries more risk and danger of hallucinations. In the risk-averse field of finance, opting for agentic AI and essentially removing humans from more process steps is something that will not be ready for production for a few years, if ever.

The optimisation possibilities of AI come from the ability to streamline and speed up existing processes, rather than replacing them entirely. In a similar vein to how computers replaced typewriters, AI should be considered an upgrade of tooling rather than a complete change in dynamic. Processes may change and operations may shift, but the firms that will succeed are those that have clear areas to optimise, with a clear vision of how AI can help, rather than firms wanting to use AI without a clear directive on where they want to apply it. IQ

Paul Hands is chief technology officer of Document Risk Solutions and Parallel 51, owners of Ark 51, a document digitisation and opinion summarisation tool that uses large language models to accelerate data extraction and analysis

ISDA Safe, Efficient Markets
Celebrating 40 Years

* Netting Success

*ISDA published new legal opinions in June that recognise the enforceability of close-out netting in Saudi Arabia under regulations published by the Saudi Central Bank earlier this year. **Yazeed Alnafjan**, the central bank's deputy governor for financial innovation, discusses the significance of netting enforceability in the Kingdom*

IQ: The Saudi Central Bank (SAMA) published netting regulations in February, which confirm that netting is enforceable under Saudi law. How important is this development?

Yazeed Alnafjan (YA): It is really important – this development is significant for Saudi Arabia's financial markets and broader economic development. The regulations and subsequent ISDA netting opinions offer both domestic and international firms greater certainty and confidence to trade derivatives with Saudi counterparties regulated by SAMA. And importantly, these regulations provide a clear legal framework, meaning that institutional risk management strategies will be legally protected.

Close-out netting regulations offer significant risk reduction and financial stability benefits. They allow financial institutions to offset mutual obligations with counterparties, leaving only the net exposures at risk. For example, consider that the gross market value of derivatives globally stood at nearly $17.6 trillion at the end of 2024, whereas the gross credit exposure, after adjusting for legally enforceable, bilateral netting agreements, stood at just $3 trillion. The result is a deepened onshore derivatives market and an enhanced financial system, which is more resilient to shocks.

IQ: Can you briefly describe the main features of the netting regulation and which entities it applies to?

YA: The key features of the netting regulations are that they provide a comprehensive legal framework for enforcement, as well as protection during bankruptcy proceedings. They cover a wide range of financial instruments, including derivatives, repos and Islamic finance instruments, protect collateral arrangements and are based on ISDA's Model Netting Act.

SAMA's netting regulations apply to all qualified financial contracts (QFCs), as long as at least one party to the contract is supervised by SAMA. Effectively, the benefit of netting is available to banks and non-banks, including finance companies and payment service providers.

In addition, the Capital Market Authority's (CMA) regulatory initiatives further broaden the scope of netting benefits to encompass QFCs where at least one party to the contract is supervised by the CMA. This helps increase the qualifying participants to include CMA-supervised entities.

IQ: Why was this a priority for SAMA? In what way do you think netting enforceability will help the development of Saudi Arabia's capital and derivatives markets?

YA: One of the main incentives for us to develop a netting framework was to enhance financial stability and resilience, especially in times of market stress or counterparty default. By allowing the netting of bilateral exposures and collateral, the framework will reduce the credit, liquidity and operational risks faced by market participants, as well as the systemic risk posed by large and interconnected derivatives positions.

The netting framework will also support the development and diversification of the domestic derivatives market by enabling more efficient pricing, hedging and risk management of financial transactions.

Having seen other G-20 jurisdictions develop their frameworks gave us an advantage in that we could benefit from their experience. In coordination with ISDA, we were able to develop a framework that is aligned with best practices and hopefully achieves the objectives we set out to accomplish, building on the momentum we have witnessed in our financial sector over the past few years.

"The regulations and subsequent ISDA netting opinions offer both domestic and international firms greater certainty and confidence to trade derivatives with Saudi counterparties regulated by SAMA"

IQ: Implementation of netting regulations aligns Saudi Arabia with international best practices in terms of credit risk management. To what extent will international alignment be a driver for further developments in the Kingdom?

YA: There are numerous initiatives underway in the Kingdom to develop our markets and the wider economy and we strive to incorporate international best practices where relevant and as expected of a G-20 member nation.

Our focus is on aligning internationally to preserve financial stability and the robustness of our financial services, especially in light of the interconnectedness of global financial systems and the important roles of institutions like the Bank for International Settlements and the Financial Stability Board. While international alignment alone will not drive all of the Kingdom's market-related initiatives, we prioritise adherence to the highest standards and adopting frameworks that are globally recognised in order to allow seamless integration between domestic and international activities.

IQ: What do you see as being the primary benefit of a robust and liquid domestic derivatives market?

YA: An efficient and robust derivatives market allows investors and institutions to manage and transfer risk effectively. It allows you to hedge against risks that could threaten viability and focus on your core activities. In this context, a liquid derivatives market is one that allows enhanced price discovery; where a market can aggregate a large amount of information from a vast number of participants and their transactions to provide valuable signals about market expectations – for example, through forward pricing and implied volatilities. Participants can make better, more efficient decisions in a liquid market.

It is also important to recognise that a deep and liquid derivatives market contributes to financial stability and innovation in risk management practices. As investor and business confidence in their ability to hedge risks grows, they are more willing to invest and expand with enhanced capital optimisation. And the more participants, efficiency and activity in your derivatives markets, the more opportunities to innovate sophisticated products and strategies in a cost-effective manner.

IQ: How important is the participation of foreign institutions in Saudi Arabia's capital markets?

YA: If we consider the Kingdom's national objective for economic diversification, then you can think of foreign institutional participation in terms of the diversified sources of funding and investment they introduce. In addition to diversity, they also bring a larger pool of global capital, which domestic markets alone cannot supply. Longer-term, committed foreign capital can even help preserve financial stability as it supports economic growth.

These same capital pools help increase market liquidity, give rise to more sophisticated transactions and support the growth of institutional investment products.

Foreign participation in domestic capital markets also helps enhance knowledge and best practices and harmonises global governance standards and risk management practices as they evolve in line with the dynamic nature of international financial markets.

Finally, increased foreign participation generally leads to a more diverse investor base in the capital markets, and, in turn, supports domestic investor confidence and participation – it is a virtuous cycle that helps with continued financial market growth and development. IQ

MISSION STATEMENT

ISDA fosters safe and efficient derivatives markets to facilitate effective risk management for all users of derivative products

STRATEGY STATEMENT

ISDA achieves its mission by representing all market participants globally, promoting high standards of commercial conduct that enhance market integrity, and leading industry action on derivatives issues.

THE PREEMINENT VOICE OF THE GLOBAL DERIVATIVES MARKETPLACE

Representing the industry through public policy engagement, education and communication

AN ADVOCATE FOR EFFECTIVE RISK AND CAPITAL MANAGEMENT

Enhancing counterparty and market risk practices and ensuring a prudent and consistent regulatory capital and margin framework

THE SOURCE FOR GLOBAL INDUSTRY STANDARDS IN DOCUMENTATION

Developing standardized documentation globally to promote legal certainty and maximize risk reduction

A STRONG PROPONENT FOR A SAFE, EFFICIENT MARKET INFRASTRUCTURE FOR DERIVATIVES TRADING, CLEARING AND REPORTING

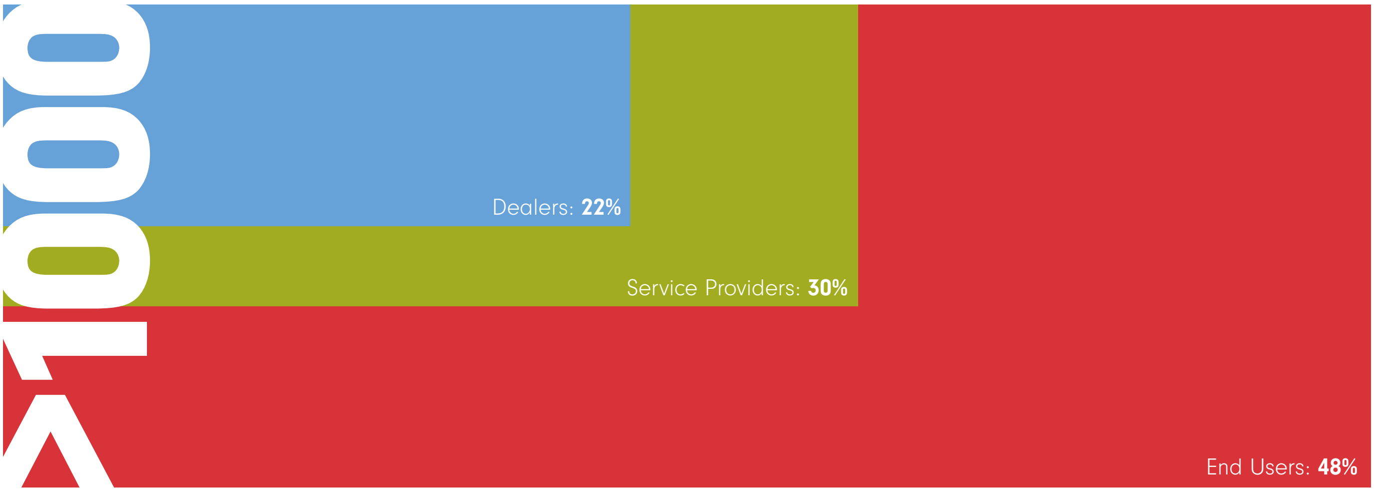
Advancing practices related to trading, clearing, reporting and processing of transactions in order to enhance the safety, liquidity and transparency of global derivatives markets

www.isda.org

MEMBERSHIP INFORMATION

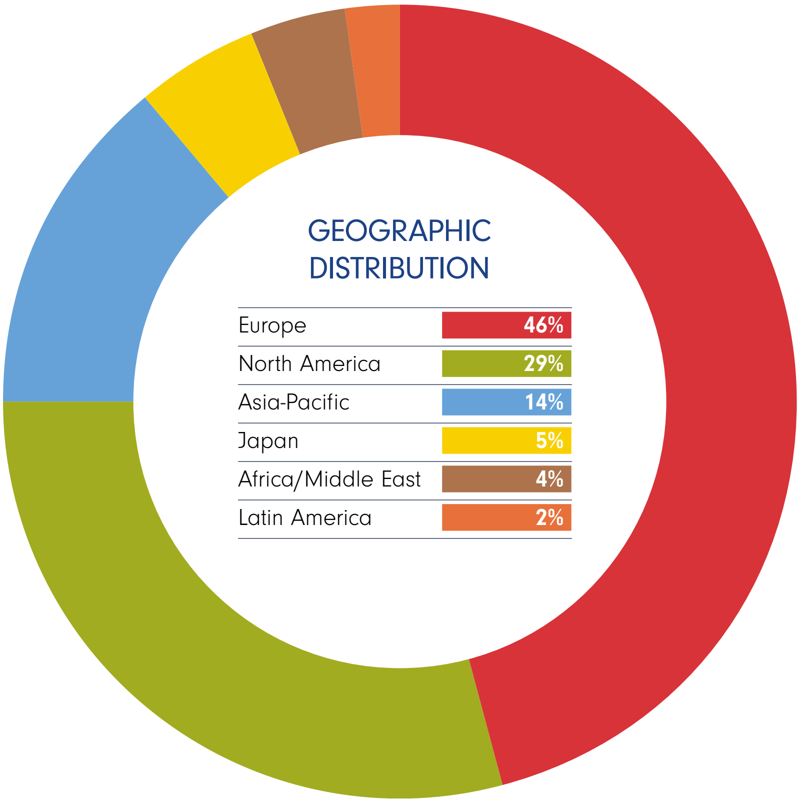
ISDA has over 1,000 members from 78 countries. These members comprise a broad range of derivatives market participants, including corporations, investment managers, government and supranational entities, insurance companies, energy and commodities firms, and international and regional banks. In addition to market participants, members also include key components of the derivatives market infrastructure, such as exchanges, intermediaries, clearing houses and repositories, as well as law firms, accounting firms and other service providers.

MEMBERSHIP BREAKDOWN



TYPES OF MEMBERS

Banks	31%
Law Firms	21%
Asset Managers	9%
Government Entities	13%
Energy/Commodities Firms	8%
Diversified Financials	6%
Technology/Solutions Providers	4%
Other	8%



GEOGRAPHIC DISTRIBUTION

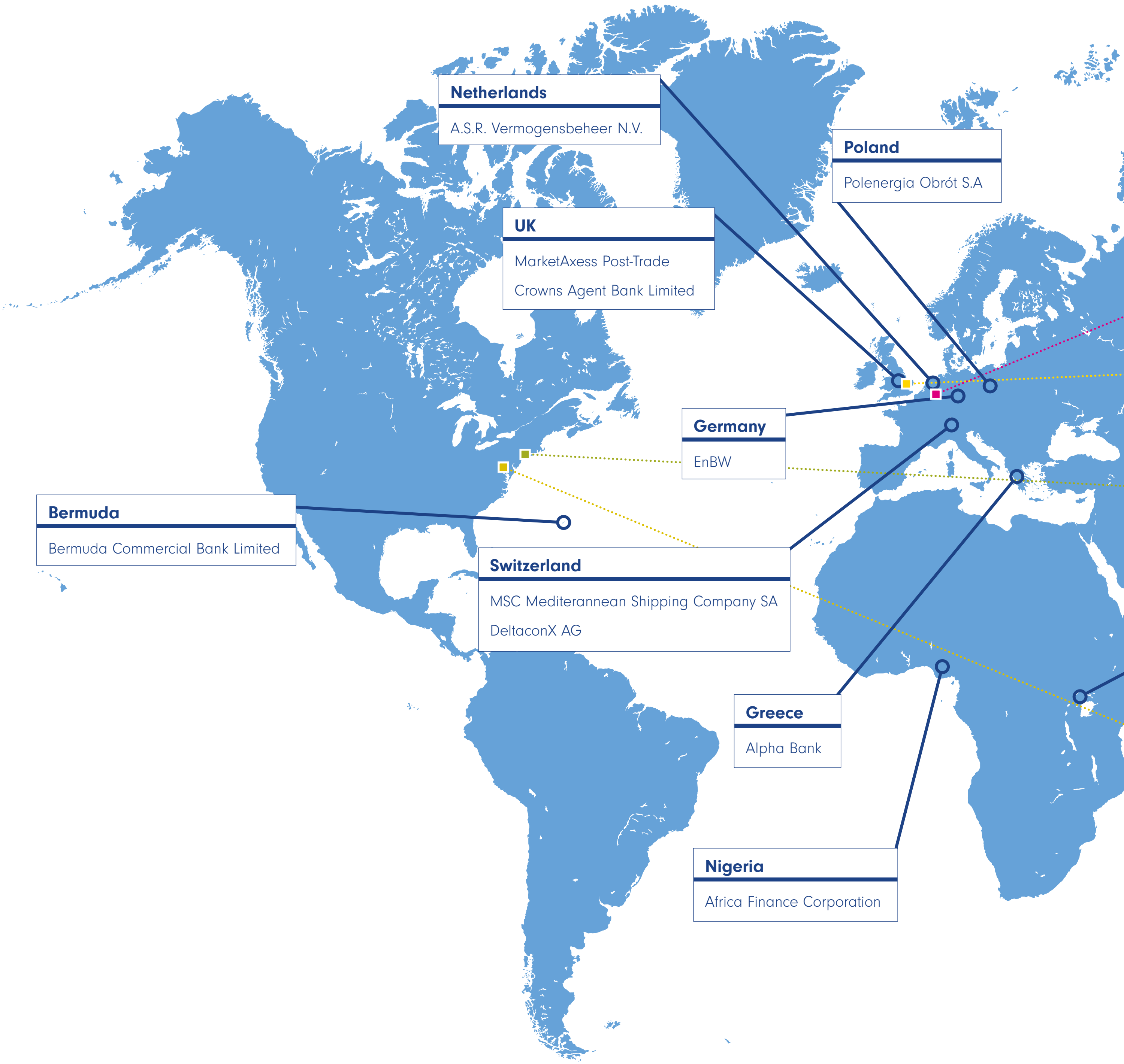
Europe	46%
North America	29%
Asia-Pacific	14%
Japan	5%
Africa/Middle East	4%
Latin America	2%

Additional information regarding ISDA's member types and benefits, as well as a complete ISDA membership list, is available on the ISDA Membership Portal: https://membership.isda.org/

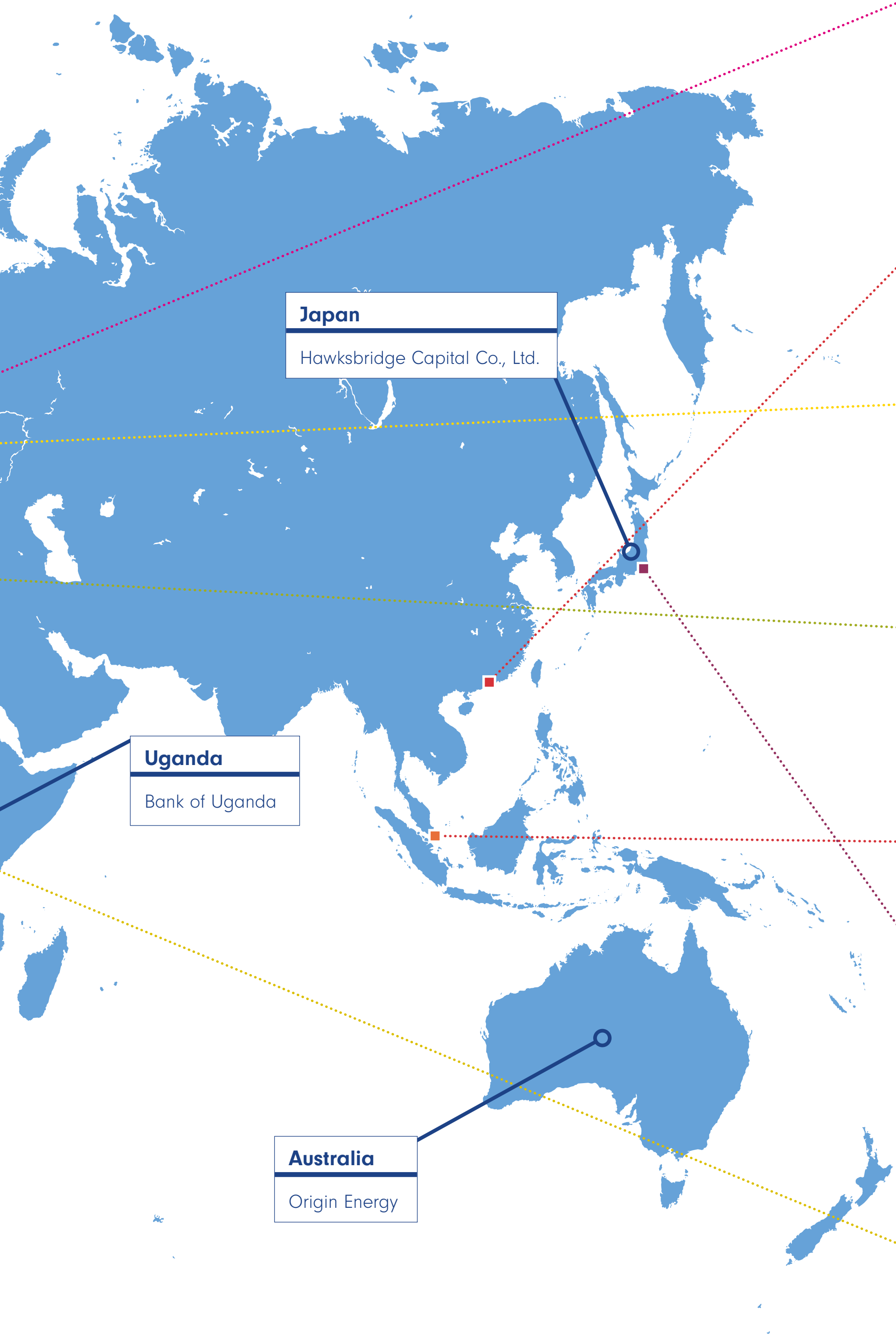
ISDA Safe, Efficient Markets
Celebrating 40 Years

NEW ISDA MEMBERS

A big welcome to all new members that have recently joined ISDA. We look forward to working with you in the future



For additional information on joining ISDA, please visit the ISDA Membership



Portal at **https://membership.isda.org/**

OFFICE LOCATIONS

BRUSSELS

2nd floor, Square de Meeûs 5/6
1000 Brussels
Belgium
Phone: 32 (0) 2 808 8013
isdaeurope@isda.org

HONG KONG

Suite 1602, 16th Floor, China Building
29 Queen's Road Central
Central, Hong Kong
Phone: 852 2200 5900
Fax: 852 2840 0105
isdaap@isda.org

LONDON

25 Copthall Avenue, 3rd Floor
London EC2R 7BP
United Kingdon
Phone: 44 (0) 20 3808 9700
Fax: 44 (0) 20 3808 9755
isdaeurope@isda.org

NEW YORK

10 East 53rd Street, 9th Floor
New York, NY 10022
Phone: 1 212 901 6000
Fax: 1 212 901 6001
isda@isda.org

SINGAPORE

One Raffles Quay
North Tower, #49-51A
Singapore 048583
Phone: 65 6653 4170
isdaap@isda.org

TOKYO

Taisei Otemachi Building, 21st Floor
2-1-1 Otemachi
Chiyoda-ku, Tokyo 100-0004
Phone: 813 5200 3301
Fax: 813 5200 3302
isdajp@isda.org

WASHINGTON

600 13th Street, NW, Suite 300
Washington, DC 20005
Phone: 1 202 683 9330
Fax: 1 202 683 9329
isda@isda.org

ISDA. Safe, Efficient Markets
Celebrating 40 Years

BOARD OF DIRECTORS

OFFICERS

Amy Hong, Chairman
Head of Strategy, Investments and Partnerships, Global Banking & Markets
Goldman Sachs & Co. LLC

Axel van Nederveen, Vice Chairman
Managing Director, Treasurer
European Bank for Reconstruction and Development (EBRD)

Jack Hattem, Secretary
Managing Director, Global Fixed Income
BlackRock

Darcy Bradbury, Treasurer
Managing Director
D. E. Shaw & Co., L.P.

DIRECTORS

Harleen Bains
Managing Director and Head of Global Markets Sales, Canada
RBC Capital Markets

Tim Brown
Managing Director, Head of Financial and Enterprise Risk – Markets & Securities Services (MSS)
HSBC Bank Plc

Sebastian 'Benny' Crapanzano II
Managing Director and Global Head of Fixed Income Business Unit Risk Management
Morgan Stanley

Koichiro Funayama
Managing Director, Head of Derivatives Business Strategy
Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.

Matthias Graulich
Chief Commercial Officer and Global Head of Products & Markets at Eurex Group
Eurex Clearing AG

Kieran Higgins
Head of Fixed Income Financing, Senior Manager G10 Rates, LM Rates and Markets Treasury
Citigroup

Yoji Imafuku
Chief Strategy Officer of Mizuho EMEA, Deputy President and Board Member of Mizuho International plc
Mizuho EMEA

Gesa Johannsen
Executive Platform Owner, Global Collateral Platform
BNY

Eric Litvack
Managing Director, Group Director of Public Affairs
Société Générale

ISDA EXECUTIVES

LEADERSHIP TEAM

Scott O'Malia
Chief Executive Officer

Katherine Tew Darras
General Counsel

Huzefa Deesawala
Chief Financial Officer

Mark Gheerbrant
Global Head of Risk and Capital

Steven Kennedy
Global Head of Public Policy

Tara Kruse
Global Head, Derivative Products & Infrastructure

Nick Sawyer
Global Head of Communications & Strategy

Lorraine Sneddon
Global Head of Human Resources

SENIOR EXECUTIVES

Clive Ansell
Head of Derivative Products & Infrastructure

Ann Battle
Senior Counsel, Market Transitions

Amy Caruso
Head of Collateral Initiatives

Monica Chiu
Senior Counsel, Asia Pacific

Roger Cogan
Head of European Public Policy

Antonio Corbi
Head of Accounting & Tax Services

Panayiotis Dionysopoulos
Head of Capital

Lisa Galletta
Head of US Prudential Risk

Benoît Gourisse
Head of Public Policy, Asia Pacific

Jing Gu
Head of Asia, Legal

Sarah McDowell
CFO BP Energy Company & VP Finance and Risk, Gas & Power Trading Americas
BP

Andrew Ng
Group Executive & Group Head of Global Financial Markets
DBS Bank

Jared Noering
Global Head of Fixed Income Trading
NatWest Markets

Scott O'Malia
Chief Executive Officer
ISDA

Emmanuel Ramambason
Global Head of Resource Management and Optimization (RMO), Financial Markets at Standard Chartered Bank and Financial Markets Head of Standard Chartered Bank AG
Standard Chartered Bank

Duncan Rodgers
Head of ALM Strategy and Regional Treasury UK & FFT
UBS AG

Joanne Rowe
Corporate Risk Officer
Intercontinental Exchange, Inc.

Marc Seidner
Managing Director, Chief Investment Officer
PIMCO

Michael Stanley
Chief Investment Officer
Bank of America

Brad Tully
Managing Director and Global Head of Corporate and Private Side Sales and Head of Americas Sales
JP Morgan

Esra Turk
Global Head of Sustainable Finance
Deutsche Bank AG, London

Jan Mark van Mill
Managing Director of Multi Asset
APG Asset Management

Susi de Verdelon
Chief Executive Officer, LCH Ltd, Markets Division, LSEG

Jacques Vigner
Chief Strategic Oversight Officer for Global Markets
BNP Paribas

Perrine Herrenschmidt
Head of Brussels Office, European Public Policy

Seslee Howell
Head of Conference Operations & Technology

Marisa Irurre Bauer
Head of Conferences

Igor Kaplun
Head of Cyber Security

Ulrich Karl
Head of Clearing Services

Shafqat Malhi
Senior Controller

Jonathan Martin
Head of Derivative Products Management

Olivier Miart
Co-Head of Digital Transformation

Dillon Miller
Chief Technology Officer

Tomoko Morita
Senior Director and Head of Tokyo Office

Mark New
Co-Head of Digital Transformation and Senior Counsel

Nnamdi Okaeme
Head of SIMM

Fred Quenzer
Senior Counsel, Americas

Paola Rensi
Head of Capital Models Benchmarking

Olga Roman
Head of Research

Rick Sandilands
Senior Counsel, Europe

Fiona Taylor
Head of UK Public Policy

Peter Werner
Senior Counsel (Legal Infrastructure and Law Reform)

Chris Young
Head of US Public Policy

Liz Zazzera
Head of Membership

*

"I think the future for the next 40 years is incredibly bright for ISDA, and for the industry generally. It's all about change, it's all about innovation, it's all about growth"

Tom Jasper, ISDA co-chair, 1985-1987