**INTERVIEW**
The AMF's Robert Ophèle on CCP Supervision

**BREXIT**
The Need for Contract Continuity

**TECHNOLOGY**
Next Steps for the ISDA Common Domain Model

# IQ

## ISDA® Quarterly

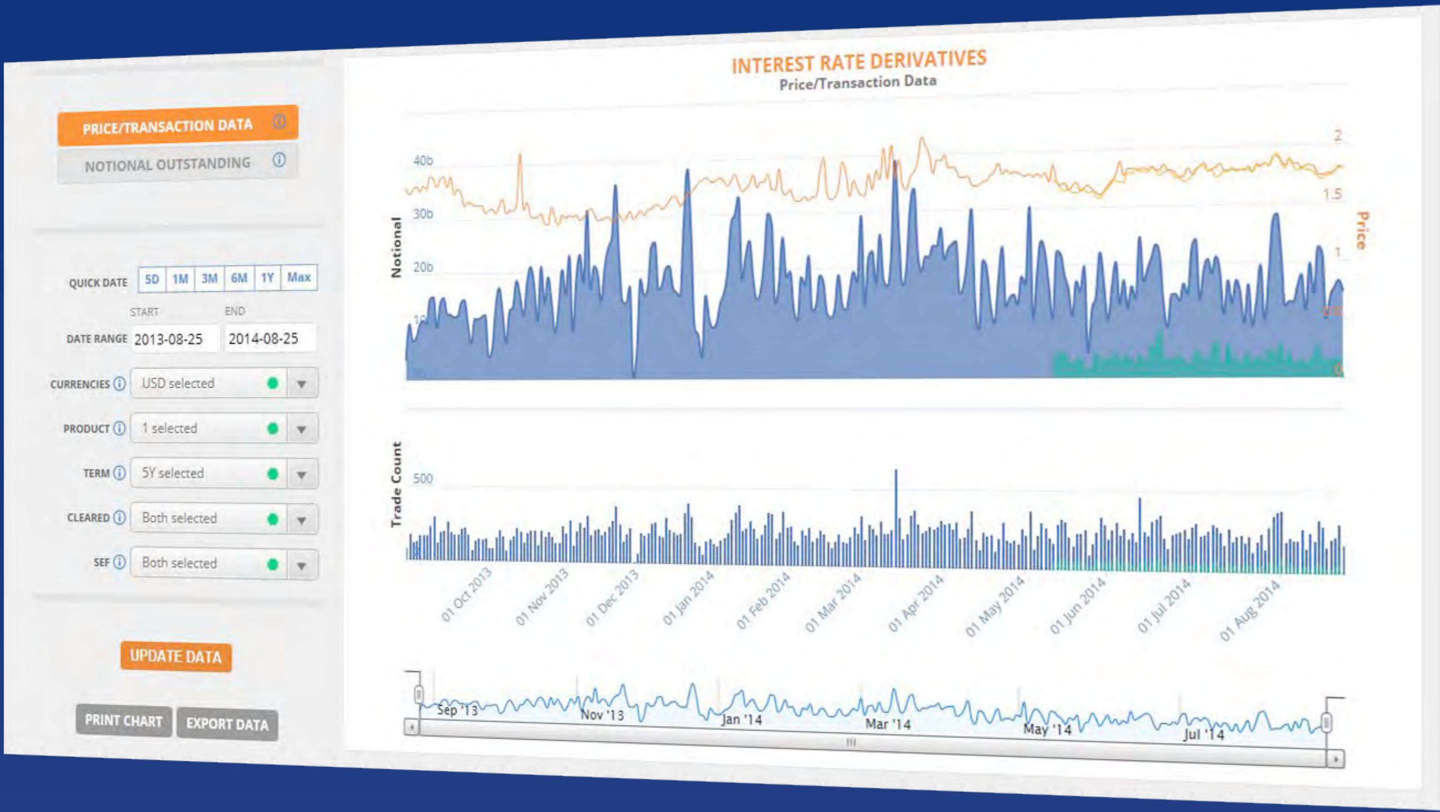
Vol 4, Issue 2: August 2018 | www.isda.org

# * BENCHMARK TRANSFORMATION

*With the long-term viability of LIBOR and other IBORs in doubt, the reform of interest rate benchmarks has become a priority for the industry*

# ISDA SwapsInfo

ISDA SwapsInfo brings greater transparency to 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 the interest rate derivatives and credit default swaps markets.

## Interest Rate Derivatives

### Price/Transaction Data

Daily IRD prices and trading volumes, measured by notionals and trade count.

### Notional Outstanding

Notional outstanding, and trade count, for a range of IRD products.

## Credit Default Swaps

### Price/Transaction Data

Daily CDS prices and trading volumes, measured by notionals and trade count.

### Market Risk Activity

CDS trading volume for single name and indices that results in a change in market risk position.

### Notional Outstanding

Gross and net notional outstanding, and trade count, for single names and indices.

SwapsInfo.org

ISDA Safe, Efficient Markets

# Summer Homework

**What did you read this summer?** The months of June, July and August are for many a chance to relax on vacation and catch up on the latest thriller, roman a clef, biography or graphic novel.

In the global derivatives markets, there certainly was no shortage of literature – from ISDA and policy-makers around the world – for those who prefer their text on the drier side.

We began the summer with two important papers published in June: an 83-page document on revisions to the minimum capital requirements for market risk, and the IBOR Global Benchmark Transition Report.

Publishing volumes ramped up further in July. We issued a research paper that looked at actual cleared volumes versus mandated cleared volumes in the US rates market; this was part of our work on clearing incentives. We published an in-depth paper that examined the issue of derivatives contract continuity in the event of Brexit, as well as Irish and French law Master Agreements.

But wait, there's more.

At the end of the month, ISDA launched its 2018 US Resolution Stay Protocol, which is intended to help market participants comply with stay regulations issued in the US by prudential regulators. We also published a market-wide consultation on technical issues related to new benchmark fallbacks. And we issued a paper that highlights the significant challenges market participants will encounter during the final phase of initial margin implementation, and identifies the key tasks and resulting hurdles that must be overcome.

August is a month about which has been written: "Silence again. The glorious symphony hath need of pause and interval of peace." We're not sure that's actually the case this year. The Financial Stability Board (FSB) issued its study on incentives to clear, and the 100+ plus page tome is a must read. September 4 is the deadline for firms to complete a questionnaire issued by the FSB if they wish to be designated as a unique product identifier service provider. There are also a number of regulatory issues (Volcker Rule, the European supervisory authority review, the European Market Infrastructure Regulation Refit) under way in key jurisdictions.

So that's what the summer looked like. We are looking forward to September.

*Steven Kennedy*
Global Head of Public Policy
ISDA

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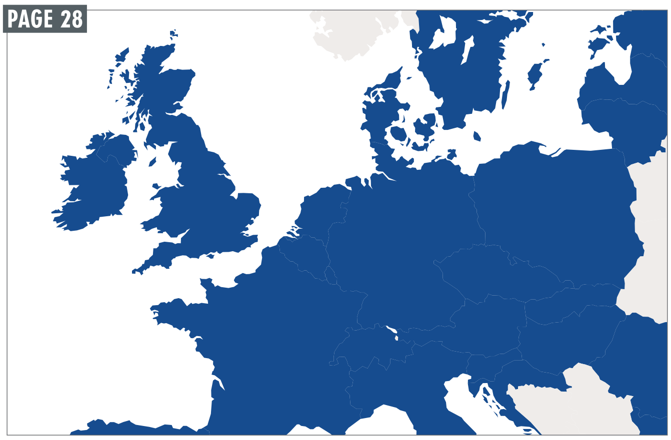

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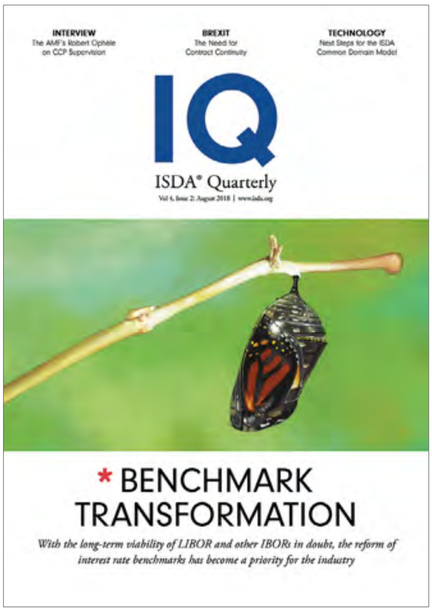
# BENCHMARK TRANSFORMATION



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"As long as there is not a true cliff-edge effect, a progressive transfer of contracts within financial groups in order to have both parties located in the EU 27 is the appropriate solution"

**Robert Ophèle, Autorité des Marchés Financiers**

# 2020 Vision

*The year 2020 seems a long way off, but several big issues will be coming to a head, each of which will require major industry initiatives, writes* ***Scott O'Malia***

**Think about what 2020 means for** the derivatives industry. The final phase of the initial margin requirements is scheduled for rollout. The transition period for the European Union Benchmarks Regulation (BMR) is due to have expired, and efforts to adopt risk-free rates (RFRs) as an alternative to interbank offered rates (IBORs) will be in full swing. And then there's Brexit – which either would have occurred, or will be about to occur following the end of a transition period.

That's a daunting list. Separately, each of those issues would, in normal times, totally consume market participants as they prepare for implementation. Together, they will put an enormous strain on the ability of firms to comply. Early preparation will be critical, as will industry cooperation and coordination – and ISDA has been working to develop solutions to help.

One of the big challenges is the extensive reach of these changes. For example, the margin rules for non-cleared derivatives have been in place since 2016, but September 2020 will see the threshold for compliance with initial margin requirements plunge from €750 billion to $8 billion – a change that is estimated to capture more than 1,000 additional smaller banks and buy-side firms.

Those institutions will have to make major changes to their systems and processes, and will have to negotiate new documents with all their counterparties – all at a time when everyone else is doing the same thing. The pressure on resources across the industry will be severe, potentially leading to disruption in the non-cleared derivatives market.

The impact of benchmark reforms will reach even further. From derivatives, to loans, to mortgages, to deposits – the IBORs saturate financial markets, with total exposure estimated at more than $370 trillion. A shift to alternative RFRs will therefore be felt by virtually everyone.

Work to prepare for these reforms has been under way for some time, led by various public-/private-sector working groups, but the market is acting under a tight schedule. In the case of LIBOR, the UK Financial Conduct Authority has stated very clearly that it won't compel or persuade banks to make submissions after the end of 2021. Given the complexity and scale of the task, this is not something that can be left to the last moment. 2020 will therefore be a crunch year – even more so, because the transition period for BMR compliance is due to expire at the end of 2019. Given EONIA is not expected to meet the requirements, the market could be adapting to a new, as yet unknown, RFR for the euro.

At least the implications of these two changes are largely understood. With Brexit, it's not yet clear what the rules will be, nor if there will be a transitional period.

It's easy to have 20/20 vision after the fact, but we can't wait for perfect clarity – it will be too late. Consequently, ISDA is already hard at work to prepare for the future.

"It's easy to have 20/20 vision after the fact, but we can't wait for perfect clarity – it will be too late"

For margin, we've published guidance on the steps in-scope firms will need to take to comply. We're also working to automate the process of negotiating collateral documents, and our ISDA Create – IM service will be available from the start of next year.

Of course, much of the potential bottleneck problems would be solved if the $8 billion threshold is raised, and we're conducting analysis to determine the impact of a higher threshold on in-scope parties and margin. The aim is to determine whether a higher threshold would exclude smaller, non-systemically important entities without significantly affecting the amount of margin posted.

For benchmarks, we're aiming to complement the work of the public-/private-sector working groups by raising awareness of the issue. We're also working to implement robust fallbacks for derivatives contracts referencing certain IBORs, which would apply if an IBOR permanently ceases to exist.

When it comes to Brexit, efforts are focused more on preparing for possible outcomes, particularly with regards to continuity of contracts and third-country central counterparty supervision.

There is no doubt that 2020 will be a pivotal year for derivatives markets. Early action, industry coordination and mutualised solutions will be critical to avoid disruption.

*Scott O'Malia*
ISDA Chief Executive Officer

# ISDA Publishes French and Irish Law Master Agreements

**ISDA has published new French and** Irish law versions of the ISDA Master Agreement, adding to the existing suite of English, New York and Japanese law choices.

The new Master Agreements are intended to provide options for those institutions that would prefer to continue trading under a European Union (EU) member-state law with EU court jurisdiction clauses once the UK leaves the EU.

English law may become a third-country law after the UK withdraws from the EU, which means English court decisions would no longer be automatically recognised and enforced across the EU and European Economic Area (EEA). Any English court judgement would therefore need to be recognised by a local EU court before it could be enforced in that country.

That doesn't mean EU/EEA counterparties won't be able to continue to use English law Master Agreements, but it does potentially mean more expense, more uncertainty and more red tape. That wouldn't be the case for French or Irish law court judgements under the new Master Agreements, reducing the steps involved in settling a contractual dispute with an EU/EEA counterparty.

## Protections

By trading under a French or Irish law Master Agreement, counterparties will also retain certain protections that only apply to agreements governed by an EU/EEA member-state law. For example, some EU national insolvency laws require contracts to be subject to EU/EEA law in order to qualify for safe harbour protections following a bankruptcy. That means firms using an English law ISDA Master Agreement after Brexit may be unable to benefit from netting protection under English law if a counterparty enters into insolvency in that jurisdiction.

Article 55 of the EU Bank Recovery and Resolution Directive (BRRD) is another factor. This requires EU credit institutions to insert contractual recognition of bail-in into third-country law governed contracts. Without some type of deal, this would include English law governed ISDA Master Agreements after Brexit.

Scott O'Malia, ISDA CEO, Judith Lawless, partner, McCann FitzGerald, David Stanton and Katherine Tew Darras, general counsel, ISDA

"An English law Master Agreement won't become any less valid in the EU post-Brexit, irrespective of the outcome of the Brexit negotiations. There will be good reasons for EU/EEA counterparties to continue using the English law Master Agreement, and there will be good reasons for them to start using the French and Irish law versions. This is all about providing choice to the market and allowing counterparties to choose the option that best suits their needs," says Katherine Tew Darras, ISDA's general counsel.

## Launch

The French law Master Agreement was officially unveiled at an event held by law firm Jones Day in Paris on June 28, followed by the launch of the Irish law Master Agreement at an event hosted by law firm McCann FitzGerald in Dublin on July 3. Speaking at the Dublin event, David Stanton, Irish minister of state, department of justice and equality, said the launch of the Irish agreement would "stimulate an increased acceptance by the international finance and business community of Irish law as a governing law of choice for cross-border transactions and legal dispute resolution".

French and Irish law were selected in order to represent both civil law and common law systems. Both legal frameworks also support the feasibility of ISDA protocols, which allow multiple agreements between adhering parties to be modified in an efficient and scalable way. Alongside publication of the new Master Agreements, ISDA has also updated the relevant netting opinions. IQ

The French and Irish law Master Agreements are available here: https://www.isda.org/books/

## What is the ISDA Master Agreement?

The ISDA Master Agreement is an industry standard template that enables counterparties to set out the terms of their trading relationship across asset classes. It does not include the economic terms of specific transactions. The ISDA Master Agreement is now available under English, French, Irish, Japanese and New York law.

# ISDA Launches Digital CDM

**ISDA has published an initial digital** representation of the Common Domain Model (CDM), opening the way for all ISDA members to access and test the model on various new technologies.

> "The launch of the first digital version of the ISDA CDM is a major step forward in efforts to reduce complexity and create greater efficiency in the derivatives market"
>
> **Scott O'Malia, ISDA**

The ISDA CDM 1.0 provides a standard digital representation of events and actions that occur during the life of a derivatives trade, expressed in a machine-readable format. Using this common standard will enhance consistency and facilitate interoperability across firms and platforms, irrespective of the programming language ultimately used for each technology.

"The launch of the first digital version of the ISDA CDM is a major step forward in efforts to reduce complexity and create greater efficiency in the derivatives market. Each firm has historically used its own unique representations of events and processes, which has severely curtailed the potential for technologies to interoperate. By applying the standard representations within the CDM, firms will essentially be following the same blueprint," says Scott O'Malia, ISDA's chief executive.

The ISDA CDM 1.0 covers interest rate and credit derivatives products, along with an initial set of core business events, including 'new transaction', 'rate reset', 'partial termination', 'allocation', 'novation' and 'compression'. The release includes a reference implementation of the model using the Java programming language, and illustrative representations in JavaScript Object Notation (JSON).

The CDM is available on the ISDA member section of the ISDA website. ISDA members can download the various CDM materials to test and validate, and ISDA will look to collect feedback during the testing process to refine and fine-tune the model. As a next step, ISDA will also work on proofs of concept that demonstrate various applications of the CDM.

The ISDA CDM is intended to establish an industry standard blueprint for how derivatives are traded and managed across the lifecycle, and how each step in the process can be represented in an efficient, standardised fashion.

By developing a common set of data and process standards, the aim is to create a common foundation for new technologies like distributed ledger, cloud and smart contracts. Adoption of common standards will also reduce the need for continual reconciliations to address mismatches caused by variations in how each firm records trade lifecycle events, and enable consistency in regulatory compliance and reporting. IQ

| See pages 33-35

# ISDA 2018 US Resolution Protocol Published

**ISDA has published the ISDA 2018** US Resolution Stay Protocol, intended to help market participants comply with stay regulations issued in the US. The regulations require global systemically important banks (G-SIBs) to include contractual stays on early termination rights within qualified financial contracts (QFCs).

The US Resolution Stay Protocol enables entities subject to the US stay regulations to amend the terms of their covered agreements to ensure that in-scope QFCs are subject to existing limits on the exercise of default rights by counterparties under the Orderly Liquidation Authority provisions of Title II of the Dodd-Frank Act and the Federal Deposit Insurance Act. As required by the US stay regulations, the amendments made by the protocol also limit the ability of counterparties to exercise default rights related, directly or indirectly, to an affiliate of covered entities entering into insolvency proceedings. The first compliance date for the US stay regulations is January 1, 2019.

The US Resolution Stay Protocol was developed by an ISDA working group comprising G-SIB and non-G-SIB banking groups, asset managers, institutional investors, funds and end users. The working group developed the protocol based on the requirements of a safe-harboured 'US protocol' under the US stay regulations, published by the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation and the Office of the Comptroller of the Currency.

Publication of the US Resolution Stay Protocol follows the launch of the ISDA 2015 Universal Resolution Stay Protocol, which was initially adopted by 21 large global banks on a voluntary basis, and the ISDA Resolution Stay Jurisdictional Modular Protocol. In accordance with the safe harbour requirements under US stay regulations, the US Resolution Stay Protocol is based on the ISDA 2015 Universal Resolution Stay Protocol but, like the ISDA Resolution Stay Jurisdictional Modular Protocol, the US Resolution Stay Protocol is intended to help the broader market comply with the US stay regulations. IQ

The protocol is open to ISDA members and non-members, and is available here: https://www.isda.org/protocols/

# ISDA and Linklaters Prepare Test Version of ISDA Create – IM

**ISDA and Linklaters are preparing to** roll out a test version of a new online tool that will allow firms to electronically negotiate and execute initial margin (IM) documentation. The IM module is the first step in a broader push to make ISDA documentation available online through ISDA Create, ISDA's new digital documentation platform.

ISDA Create – IM will enable users to produce, deliver, negotiate and execute IM documents with multiple counterparties simultaneously. It will also allow firms to digitally capture, process and store the resulting data, which can be used for commercial, risk management and resource management purposes. The online functionality will make the negotiation process more efficient and less time-consuming, at a time when a wider universe of buy- and sell-side firms is scheduled to come into scope of new IM requirements.

"Negotiating IM documentation typically takes significant time and resource, and has to be repeated over and over again with each counterparty. ISDA Create – IM will drastically improve the efficiency of this process, enabling parties to deliver a document to multiple parties at the same time, and then to negotiate changes on a bilateral basis using the platform. ISDA has a 30-year track record of developing industry standards and documentation, and we'll look to extend this service to other ISDA documents over time, based on member requirements," says Katherine Tew Darras, ISDA's general counsel.

> "Negotiating IM documentation typically takes significant time and resource, and has to be repeated over and over again with each counterparty. ISDA Create – IM will drastically improve the efficiency of this process"
>
> **Katherine Tew Darras, ISDA**

"The development and launch of ISDA Create – IM is a critical step for our industry as we all look to leverage efficiencies enabled by technology. As an ISDA platform, ISDA Create – IM has benefitted from an unprecedented amount of industry input from the most active sell-side and buy-side participants in the market. As a result, we are confident that the ISDA Create foundation being built for ISDA Create – IM can be used for myriad future documentation-focused technology initiatives led by ISDA," says Doug Donahue, partner at Linklaters.

The beta version of ISDA Create – IM will be launched in September, followed by full rollout early in 2019. The development of the IM tool will run in parallel with the drafting of next-generation ISDA IM documentation for phases four and five of the IM regulation phase-in, scheduled for September 2019 and September 2020, respectively. The new IM documentation and the existing phase-one documents will be supported on ISDA Create – IM.

The regulatory IM requirements began phasing in from September 2016, initially for the largest dealers only. Each September, the threshold for compliance – based on an aggregate average notional amount (AANA) of non-cleared derivatives – is reset at a lower level, capturing a broader spectrum of firms. Under the global framework established by the Basel Committee on Banking Supervision and the International Organization of Securities Commissions, the AANA will fall to €750 billion in September 2019 and €8 billion in September 2020. IQ

## BENEFITS OF ISDA CREATE – IM

- Users will be able to automate the creation and delivery of IM documentation, and negotiate and execute with multiple counterparties simultaneously. This is performed online, but with the flexibility to take one or more of the steps offline if required.
- The system allows firms to make standard elections, as well as to customise on a party-by-party basis. There are no restrictions on what parties may agree on a bilateral basis on the platform.
- The system automatically reconciles both standard elections and bespoke provisions exchanged, and flags the differences in an efficient and easy-to-read way.
- ISDA Create – IM enables parties to embed their standard workflow by allowing approvals of deviations from preferred elections to be requested and recorded through the platform, providing an audit trail.
- The data on the platform is stored digitally, and can be pulled into a firm's internal systems for storage and/or further use.
- The platform will: i) make the negotiation process more efficient and less time consuming from start to finish; ii) provide powerful commercial, risk management and resource management functions, data and analytics; and iii) remove the need for the post-execution transfer of data from negotiated documentation into internal systems and the chance for error during such a data transfer.
- The platform is being built with the ability to evolve over time as market needs change.
- Other ISDA documents may be added in the future as required by users.

# IRD Market Continues to Grow in 1H 2018

**The interest rate derivatives (IRD) market** continued to grow in the first half of 2018, with traded notional reaching $125.8 trillion in the first six months of the year, an increase of 23.2% versus the first half of 2017, according to ISDA SwapsInfo. That follows a 16.1% increase in IRD traded notional over the whole of 2017 versus 2016.

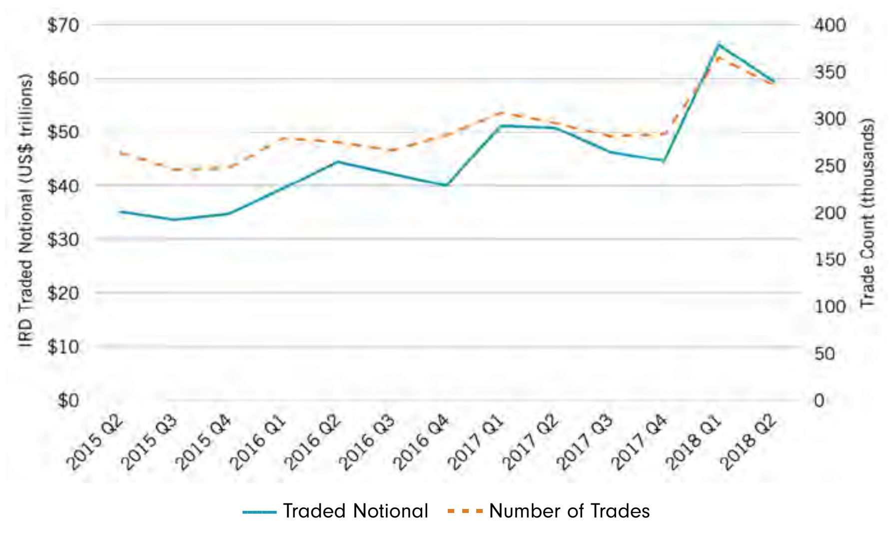
The analysis, based on data reported to two US swap data repositories (the Depository Trust & Clearing Corporation and Bloomberg), also shows an increase in the number of IRD transactions. Trade count rose by 16.4% over the period, from 602,468 in the first half of 2017 to 701,189 in the first six months of this year. IRD trade count grew by 5.7% over the whole of 2017 compared with 2016.

The proportion of cleared IRD trades remains high, but is little changed from 2017. Cleared IRD transactions represented 88.1% of total traded notional, compared to 88% in the first half of 2017. Cleared IRD traded notional reached $110.8 trillion in the first half of 2018, compared with $90 trillion over the same period in 2017. About 90,000 more trades were cleared in the first half of 2018 compared with the first half of 2017 – 571,932 versus 481,827.

The overall increase in IRD trading volumes was also mirrored in non-cleared traded notional, which rose from $12.2 trillion in the first half of 2017 to $15 trillion this year.

A slightly higher proportion of the IRD market was executed on swap execution facilities (SEFs) over the period – 56.2% of traded notional in the first half of 2018 compared with 55.3% in the first six months of 2017. SEF-traded notional reached $70.7 trillion over the six-month period, a rise of 25.3% versus 2017. That was slightly higher than the 20.6% increase in off-SEF IRD traded notional to reach $55.1 trillion.

**IRD TRADED NOTIONAL AND TRADE COUNT**




**Source:** DTCC and Bloomberg SDRs

In terms of products, single currency fixed-for-floating interest rate swaps accounted for 64.9% of total IRD trades, but represented only 30.2% of IRD traded notional. Forward rate agreements and overnight indexed swaps represented 33.8% and 22.3% of traded notional and 15.1% and 5.2% of total trade count, respectively.

US dollar was the most actively traded currency, comprising 67.3% of IRD traded notional and 53.1% of trade count, reflecting the fact that the data represents trades that are required to be disclosed under US regulatory guidelines. In comparison, euro-denominated transactions – the next biggest currency block – accounted for 13.8% of traded notional and 15.5% of trade count.

## Credit derivatives

The credit derivatives market also grew in the first half of 2018, with trading in credit default swap indices seeing a sharp uptick. Credit derivatives traded notional reached $4.9 trillion in the first half of 2018, a 43.1% increase from $3.4 trillion in the first half of 2017. More than 20,000 additional trades were executed in the most recent period: 126,347 versus 102,736 in the first half of 2017, a rise of 23%. This follows a 6% fall in traded notional and a 17.5% decline in trade count over the whole of 2017 versus 2016.

The majority of the market continues to be cleared, but the proportion of cleared transactions increased over the first six months of the year. Cleared transactions represented 83.5% of total traded notional in the first half of 2018, compared with 78.8% in the first six months of 2017. Cleared credit derivatives traded notional reached $4.1 trillion versus $2.7 trillion in 2017, an increase of 51.5%. In comparison, non-cleared derivatives traded notional increased by 11.7% to $0.8 trillion in the first half of this year.

The proportion of credit derivatives traded on SEFs also increased over the period. SEF-traded credit derivatives represented 79.4% of total traded notional in the first half of 2018, compared with 74.1% in the first half of 2017. The volume traded on SEFs reached $3.9 trillion, a rise of 53.4% versus the $2.5 trillion traded on SEFs in the first six months of 2017. In comparison, notional traded off-SEF totalled $1 trillion in the first half of 2018, a rise of 13.6% compared with 2017.

The CDX HY and CDX IG indices represented 16% and 33.7% of traded notional and 27.4% and 22.5% of total trade count, respectively. iTraxx Europe accounted for 30.9% of total credit derivatives traded notional and 28.8% of total trade count.

Credit derivatives contracts denominated in US dollars remained the most actively traded instruments and represented 64.7% of traded notional and 68.2% of trade count. Euro-denominated transactions accounted for 35.1% and 31.4% of traded notional and trade count, respectively. IQ

Read the full research report at: http://isda.link/swapsinfo1h2018

THE COVER PACKAGE

# Benchmark Transformation

*Concerns about the viability of LIBOR and other interbank offered rates means the adoption of alternative risk-free rates is a priority for the industry*

**Consider the following scenario**. Enough banks stop making LIBOR submissions to mean publication of LIBOR is no longer viable. An announcement is made that LIBOR cannot be published. Firms scramble to mobilise enough lawyers to sift through each of their thousands of derivatives, loan, bond and mortgage contracts to work out what rate should be used instead. The contractual language either isn't clear, or requires the calculation agent for each trade to call dealers to provide an estimate – not realistic over the long term, even supposing dealers are willing to do it. The result: trillions of dollars worth of contracts referenced to LIBOR effectively grind to a halt.

This isn't entirely farfetched. The unsecured bank funding market – the basis for LIBOR and other interbank offered rates (IBORs) – has all but dried up. Actual transactions are few are far between, and panel banks are uncomfortable about providing submissions based on judgement. The lack of an active underlying market has led to real doubts about whether the IBORs are sustainable in the long term.

Concern about the systemic implications of an IBOR ceasing to exist has prompted a global effort to reform interest rate benchmarks. This has been catalysed by a declaration from the UK Financial Conduct Authority that it will not compel or persuade banks to make LIBOR submissions after the end of 2021.

A key strand of this work is adoption of alternative risk-free rates recommended by various public-/private-sector working groups (see pages 12-17). The other critical component is to implement fallback language within contracts that reference an IBOR to ensure a robust alternative is clearly specified in the event an IBOR ceases to be published (see pages 18-21).

Significant progress has been made so far – in the US, for instance, the industry and official sector are working through a paced transition plan for adoption of the Secured Overnight Financing Rate (see pages 22-24). But it's crucial that all parts of the market engage with the process and start preparing. That means establishing a formal IBOR transition programme, allocating budget and staff, and quantifying exposure to the IBORs and the anticipated roll off. The scale of the task means this is not something that can be left to the last moment. IQ

"LIBOR is so widely used across a range of markets that if it were to suddenly cease publication, we could see extensive market disruptions"

**Joshua Frost, senior vice-president, Federal Reserve Bank of New York**

# * Time to Transition

*A new survey published by ISDA and other trade associations shows that awareness of the reforms to interest rate benchmarks is rising, but progress to adopt alternative risk-free rates is still at an early stage. What steps do market participants need to take to help achieve an orderly transition to these rates?*

**When it comes to the reform** of interest rate benchmarks, it might look like the financial industry has time on its side. The UK's Financial Conduct Authority (FCA) has declared that it will not compel or persuade banks to make LIBOR submissions after the end of 2021, giving market participants more than three years to adopt alternative risk-free rates (RFRs) before the survival of LIBOR falls into doubt.

That doesn't mean market participants can afford to sit back and wait, though. The sheer scale of exposure to LIBOR and other interbank offered rates (IBORs) – estimated at more than $370 trillion across derivatives, bonds, loans and other instruments – means the industry needs to start work now to reduce the overwhelming reliance on these reference rates.

"The transition away from LIBOR is going to happen one way or another, but it is up to the industry to ensure a clear and smooth transition. If we wait until the last moment when bandwidth is limited and deadlines are looming, it could be extremely painful, so we need to start early and address the issues sooner rather than later," says Francois Jourdain of Barclays, who serves as chair of the Sterling Risk-Free Rate Working Group.

This is not a new issue. Reform of interest rate benchmarks has been under way for some time, driven by a sharp decline in activity in the underlying unsecured bank funding markets that underpin the IBORs. Given the limited number of actual transactions, and with banks reluctant to provide submissions based on judgement,

"The transition away from LIBOR is going to happen one way or another, but it is up to the industry to ensure a clear and smooth transition. If we wait until the last moment when bandwidth is limited and deadlines are looming, it could be extremely painful"

**Francois Jourdain, Barclays**

Illustration: James Fryer

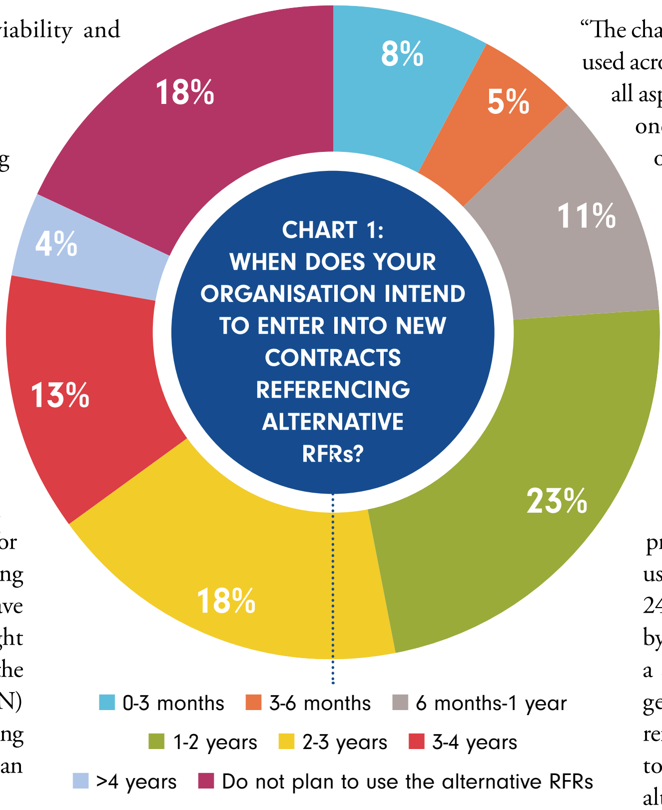
there is doubt about the future viability and sustainability of certain IBORs.

## RFRs

Public-/private-sector working groups in multiple jurisdictions have conducted extensive work to identify RFRs that can be used as an alternative to the IBORs and to plan for a transition to those rates as appropriate.

For sterling contracts, the recommended RFR is the Sterling Overnight Index Average (SONIA), while the Secured Overnight Financing Rate (SOFR) has been identified as the preferred alternative for US dollar contracts. Separate working groups in Japan and Switzerland have recommended the Tokyo Overnight Average Rate (TONA) for yen and the Swiss Average Rate Overnight (SARON) for Swiss franc, while a European working group is in the process of identifying an alternative rate for euro.

Switching from one reference rate to another is not a simple exercise, however. The RFRs are intrinsically different to the IBORs, so the transition involves rethinking an infrastructure that has developed over time to support the massive volume of cash and derivatives contracts that reference IBORs. This complexity, and the systemic importance of these benchmarks, makes it all the more important that preparations begin as soon as possible.




"The challenge with the IBORs is that they are used across multiple asset classes and permeate all aspects of real-world financing, so when one begins to operationalise the process of transitioning to a new reference rate, there are all sorts of details that need to be addressed to ensure a smooth transition. Mapping out a clear strategy is critical to doing this successfully," says Eric Litvack, chairman of ISDA.

## Awareness

Critical as mapping out a strategy might be, evidence suggests many practitioners are at an early stage of this process. In a survey of 150 banks, end users, infrastructures and law firms in 24 countries, conducted earlier this year by ISDA and other trade associations, a significant gap was revealed between general awareness of benchmark reform and concrete steps being taken to transition from the IBORs to alternative RFRs.

On the one hand, awareness of benchmark transition issues was relatively high, with 87% of respondents concerned about their exposure to the IBORs. Most survey participants also expect to adopt RFRs, with 78% stating they intend to trade them within the next four years (see Chart 1).

However, preparations are at an early stage. While more than half of respondents (53%) had commenced →

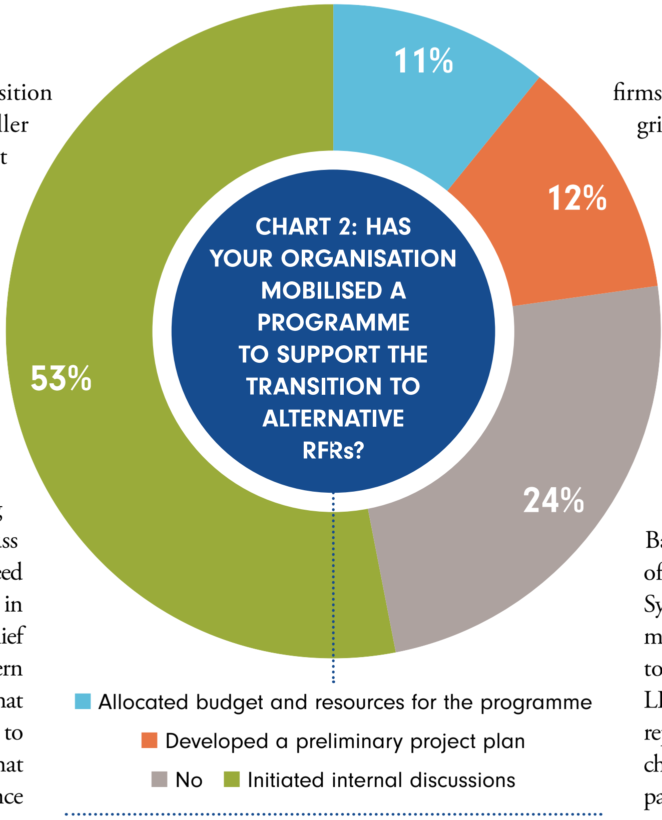
→ internal discussions on the transition to alternative RFRs, a much smaller proportion had allocated budget (11%) or developed a preliminary project plan (12%). Nearly a quarter of survey participants had not initiated a programme to support transition (see Chart 2).

Increasing the level of engagement is now a top priority for both the industry and regulators. In early July, senior officials from the FCA, the US Federal Reserve and the US Commodity Futures Trading Commission (CFTC) met to discuss benchmark reform and agreed on the need to push the process forward. In a speech in London on July 12, Andrew Bailey, chief executive of the FCA, expressed concern that the volume of LIBOR contracts that will mature after 2021 is continuing to grow, warning market participants that they must urgently reduce their reliance on the benchmark.

"The absence of ways to remedy the current underlying weakness in LIBOR – the lack of transactions, the unattractive prospect of LIBOR limping on with fewer panel banks, and the significant problems associated with a synthetic LIBOR – all lead to the same conclusion. The best option is actively to transition to alternative benchmarks. The most effective way to avoid LIBOR-related risk is not to write LIBOR-referencing business," said Bailey.

In a speech on the same day in Washington, DC, CFTC chairman J. Christopher Giancarlo endorsed Bailey's comments, adding that the discontinuation of LIBOR is now a real possibility. "We must anticipate it, we must accommodate it and we must adapt to it. The transition from LIBOR to SOFR and other risk-free rates requires thoughtfulness and preparation in order to support and not jeopardise financial stability," he said.

This depends, in part, on a comprehensive education process to make sure everyone understands the risks posed by an over-reliance on the IBORs and is familiar with the milestones for adoption of the alternative RFRs. The public-/private-sector RFR working groups and industry associations have so far played a major role in this (see Chart 3), but it is also up to individual firms to engage in the process and get to grips with the key issues.




"Market participants must take responsibility for their individual transition plans, but we and other authorities will be ready to assist and support efforts to co-ordinate that work," said the FCA's Bailey in a July 2017 speech.

## Liquidity

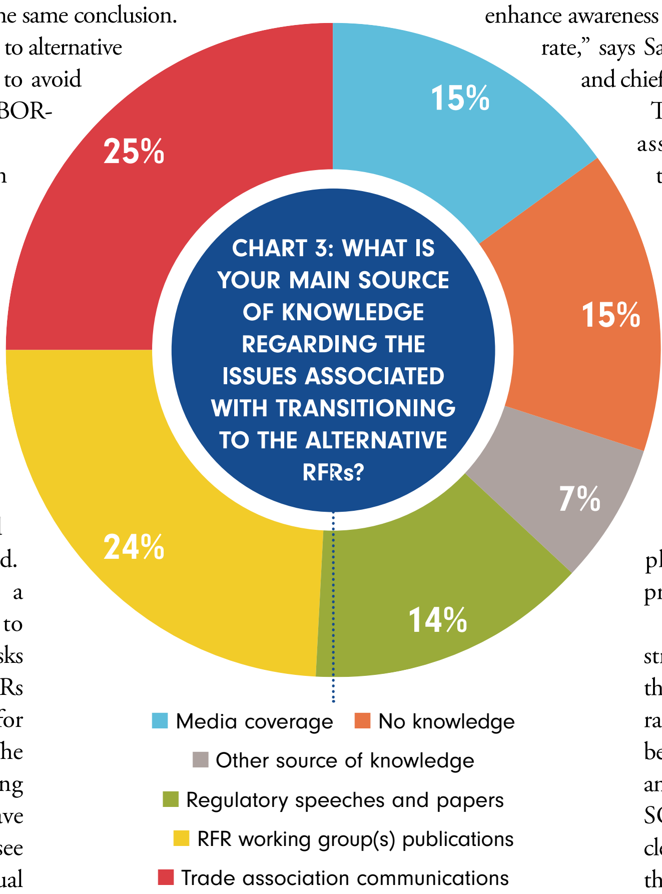
The US Alternative Reference Rates Committee (ARRC), which was convened by the Federal Reserve Bank of New York and the Board of Governors of the Federal Reserve System, reconstituted and expanded its membership earlier this year in order to support the transition from US dollar LIBOR to SOFR. The ARRC's second report, published in March, explained the choice of SOFR and set out details of its paced transition plan.

"We have more education to do with end users dealing in cash products referencing LIBOR to ensure they can understand and address the risks of discontinuation. As liquidity improves in the SOFR market and new products are launched, this should enhance awareness and create greater familiarity with the rate," says Sandra O'Connor, chair of the ARRC and chief regulatory affairs officer at JP Morgan.

This is backed up by the trade association survey. When asked to identify the key elements for achieving a successful transition, 72% of respondents cited widescale adoption of alternative RFRs, and 64% identified the need to develop liquidity in over-the-counter derivatives and futures referencing the RFRs (see Chart 4).

While the growth of liquidity will be a virtuous circle that depends on everyone taking the plunge, the launch of RFR-based products should help this process.

In the US, there has been a steady stream of product developments since the ARRC identified SOFR as its chosen rate in June 2017. The New York Fed began publishing SOFR in April 2018, and CME Group subsequently launched SOFR futures in May, while LCH cleared the first SOFR swaps in July with the support of major dealers including



Credit Suisse, Goldman Sachs and JP Morgan. This growing momentum should give all participants greater confidence to enter into new contracts referencing SOFR, say participants.

"Now that we have chosen a new rate and we have tradable products launched, including SOFR futures and cleared swaps, we have the tools that are needed to bridge to the new regime, which was not the case six months ago. We now have a chance to begin the transition to SOFR voluntarily, before it becomes an urgent necessity," says Thomas Wipf, vice chairman of institutional securities at Morgan Stanley.

The ARRC has not been alone in seeking to facilitate the adoption of RFRs. Since recommending SONIA as the alternative rate for sterling contracts in April 2017, the Sterling Risk-Free Rate Working Group has evolved its mandate to focus on adoption, and recently published a provisional timeline for the next three years to ensure the industry is ready for a possible cessation of LIBOR after 2021.

As with the US, there have been recent product developments in the UK and elsewhere. The Bank of England implemented its SONIA reforms in April 2018, and interest rate derivatives platform CurveGlobal subsequently introduced a three-month SONIA futures contract. LCH also unveiled clearing of SONIA futures in April 2018.

## Cash

There have been other developments in the cash market. In July, Fannie Mae issued the first ever SOFR debt transaction, worth $6 billion. That was hot on the heels of a £1 billion SONIA-linked floating rate note launched by the European Investment Bank (EIB) in June – the first since the sterling benchmark reform efforts began.

Despite these developments, however, there is recognition that the widescale adoption of an overnight RFR for certain bond, loan and securitisation markets may be complicated.

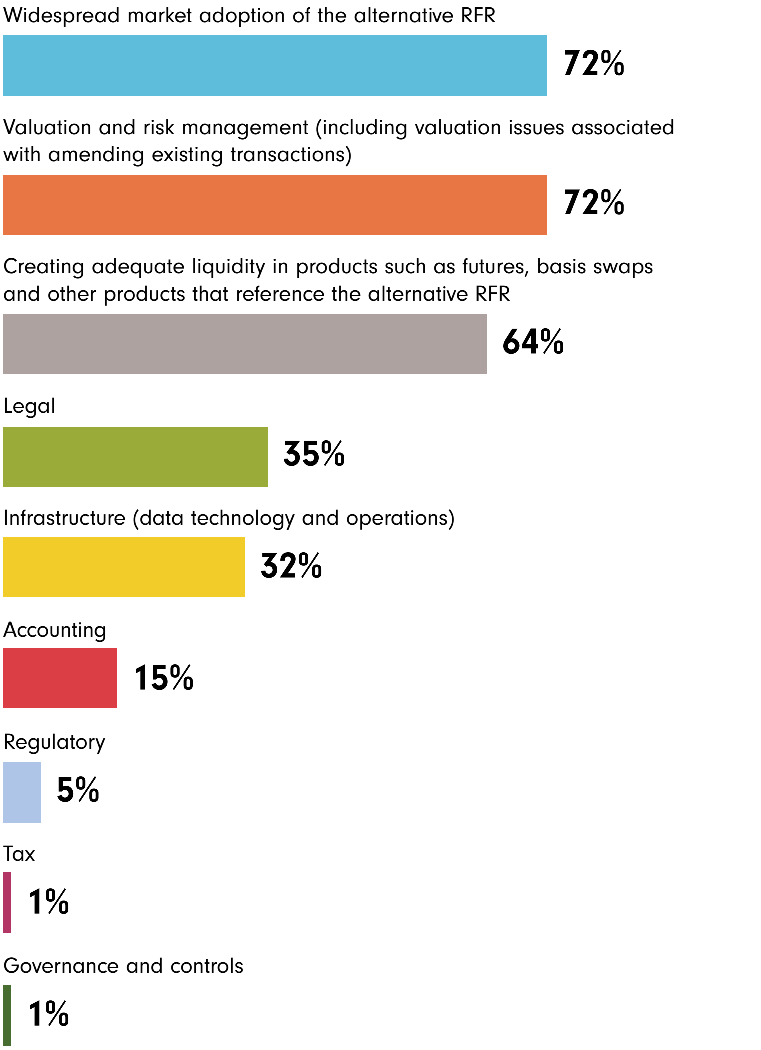
"Cash markets are still at a very early stage in transition. While the EIB's SONIA-referencing bond issue has shown the feasibility of issuing a floating rate note referencing SONIA, we understand that some firms require system changes to manage bonds and loans where interest payments are calculated at the end of the reference period," said the FCA's Bailey in his July 12 remarks.

The issue centres the absence of forward-looking term fixings. While the IBORs are available in multiple tenors – for example, one, three, six and 12 months – the RFRs are only available on an overnight basis. Term structures are considered particularly important for certain types of products like floating rate notes, which are traded on the basis of known interest payments at the next interest payment date.

According to the industry survey, 86% of participants believe a forward-looking term structure is required, with corporate and financial end users having the strongest views on the subject.

In recognition of this issue, the Sterling Risk-Free Rate Working Group launched a consultation on term SONIA reference rates in July to support a broad-based transition from sterling LIBOR to SONIA. As part of its paced transition plan, the ARRC in the US has also committed to creating a forward-looking term rate based on derivatives linked to SOFR. Other public-/private-sector RFR working groups are looking at this issue too.

**CHART 4: WHICH OF THE FOLLOWING CHALLENGES HAVE THE GREATEST IMPACT TO YOUR ORGANISATION?**




## Basis risk

Market participants are keen to avoid a situation in which adoption of the RFRs advances significantly more quickly in derivatives than in cash markets.

"The swap market has already increased its use of reformed SONIA, and liquidity is beginning to catch up with LIBOR swaps. But the securities side, including bonds and loans, is much more challenging. We need to decrease the flow of new issues of LIBOR contracts that might have to be amended in future, while also improving liquidity in SONIA across products," says Jourdain.

→ Any amendment of contractual terms on legacy transactions would pose a significant operational exercise. While an ISDA protocol could be deployed in the derivatives market to enable firms to adapt contracts with multiple counterparties, no such mechanism exists in other markets.

"Transitioning bonds to a new reference rate is more challenging than for derivatives because it requires the agreement of bondholders, but most institutions will want to avoid a situation in which different asset classes are exposed to different rates, increasing basis risk," says Litvack.

A scenario in which different currencies adopt alternative rates at varying speeds also has the potential to introduce basis risk for global players. For example, while attention has shifted to adoption of the alternative rates in several currencies, the Working Group on Euro Risk-free Rates has yet to select an alternative rate for euro.

Meanwhile, differences in the rates selected for various currencies will result in some cross-currency basis, regardless of the timing for adoption of the alternative rates.

"Jurisdictional differences in benchmark transition change the basis considerations that need to be incorporated into risk management. All of the new RFRs are overnight rates, but some are secured and some are unsecured, so traders will need to understand the implications of those differentials and manage them accordingly," says JP Morgan's O'Connor.

## Take the plunge

Recent surveys, events and speeches have helped to raise the profile of benchmark reform, but momentum needs to continue to ensure a smooth transition with minimum disruption to contracts and liquidity.

"Everyone should understand this is a real risk issue for

**TABLE 1: INDIVIDUAL MARKET PARTICIPANT PRACTICAL IMPLEMENTATION CHECKLIST**

| | |
|---|---|
| **Have you mobilised a formal IBOR transition programme?** | |
| ✓ | Appoint a senior executive to own and manage a multi-year interbank offered rate (IBOR) transition programme for your organisation. This individual should be responsible for overseeing implementation of all IBOR transition activities within the organisation and coordinating engagement and communication with clients, regulators, rating agencies and other relevant external parties. |
| ✓ | Establish a robust programme governance structure to oversee the successful transition to alternative risk-free rates (RFRs), inclusive of a programme management office and implementation leads across core business lines, enterprise functions and support functions. A steering committee of senior executives should oversee the implementation efforts and provide regular updates to appropriate board and management committees. |
| ✓ | Allocate budget and confirm staffing needs to execute implementation activities. Initial staffing should comprise a small core team to oversee planning and conduct an impact assessment, with heightened staffing expected throughout implementation. The required staffing is expected to significantly vary by organisation and market segment. |
| ✓ | Establish programme workstreams/project charters with clear objectives, tangible milestones and work products and predefined success criteria. Programme workstreams may comprise core business lines or specific functional areas. It is expected that the majority of large organisations will employ a federated rather than centralised execution approach. |
| ✓ | Initiate internal stakeholder outreach and education. Leverage RFR working group publications, the IBOR Global Benchmark Transition Roadmap and other publicly available resources to achieve a consistent level of awareness and education across your organisation. |
| **Have you assessed your exposure to IBORs?** | |
| ✓ | Develop an inventory of products, financial instruments and contracts linked to the IBORs. Institutions should develop a strategy to centrally manage the inventory throughout the transition period, considering the digitisation of contract terms and other document management best practices. |
| ✓ | Quantify the exposure to IBORs across core business lines and products. Institutions should develop the capability to assess the gross and net exposure across all on-and off-balance-sheet products on an ongoing basis, including reference rate, spread, contractual and residual maturity, counterparty type and optionality. In addition, firms should be able to report their IBOR exposure based on robust data to internal and external stakeholders on an ongoing basis. |
| ✓ | Calculate financial exposure anticipated to roll off prior to the end of 2019, 2020 and 2021. Institutions should forecast their exposure to the IBORs throughout the transition horizon based on contract maturity date and a set of underlying assumptions on business profile/growth, economic conditions and transition approaches. |
| ✓ | Evaluate operational exposure to IBORs by assessing impacts to processes, data and technology. A standard taxonomy and assessment criteria should be leveraged to evaluate processes across the organisation. Transition activities should be prioritised based on the level of effort and criticality of the process, with consideration of required data and technology build. |
| ✓ | Implement reporting to monitor exposure to the IBORs throughout the transition period. A common product hierarchy and reporting structure should be utilised across the organisation to facilitate management and monitoring of financial exposure and transition efforts. |

the industry and we need to be doing everything possible to reduce the risk by using the new rates, putting enhanced fallbacks in place and actively preparing for the termination of LIBOR. To do otherwise would be irresponsible from a risk management perspective," says Morgan Stanley's Wipf.

As a starting point, firms need to mobilise a formal transition programme, assign budget and set up workstreams with clear objectives. Another important step is for each organisation to assess its exposure to IBORs and determine the expected roll-off of those positions (see Table 1).

"Institutions need to understand the granular detail and roll-off profile of their exposure to the IBORs. Understanding this and making an early move to adopt alternative RFRs for new trades could substantially reduce the size of the legacy IBOR book by the end of 2021," says Rick Sandilands, senior counsel for Europe at ISDA.

By shrinking the size of the legacy book, combined with an ISDA initiative to implement robust contractual fallbacks for derivatives referencing certain IBORs (see pages 18-21), the systemic risk posed by the discontinuation of an IBOR should be significantly reduced. But the industry effort needs to start immediately, participants say.

"If we don't do enough to exit LIBOR, then it could pose big problems. But if we move as much business as possible onto RFRs so that LIBOR no longer presents systemic risks, I am confident the market will find a way to avoid disruption to the rump of legacy contracts that will not have re-benchmarked to RFRs," says Jourdain. IQ

**Read the ISDA/AFME/ICMA/SIFMA/SIFMA AMG IBOR Global Benchmark Transition Report here:** http://isda.link/ibortransitionreport


| | |
|---|---|
| **How would a permanent cessation of IBORs impact you and your clients?** | |
| ✓ | Review existing contracts and assess current fallback provisions by product and contract type. Financial exposure metrics and estimated roll off by product can be leveraged to prioritise and size this effort. |
| ✓ | Determine required re-papering and client outreach. Institutions should assess longer-dated contracts and isolate the population where current fallback provisions are inadequate in the event of an IBOR cessation. Firms should consider client outreach and the amendment of provisions where necessary. |
| ✓ | Collaborate with market participants and industry working groups to define enhanced fallback provisions and contract disclosures. |
| ✓ | Mobilise efforts to implement required contract amendments. Institutions should engage with trade associations and other market participants to consider guidelines, best practices and potential protocols to amend legacy contracts. |
| **What is your external communication strategy?** | |
| ✓ | Define a communication strategy to educate clients on benchmark reform efforts. Institutions should initiate client outreach and education on benchmark reform to provide increased transparency and reduce future contract amendment timelines. |
| ✓ | Identify other external dependencies (eg, technology vendors) that will need to be involved in transition planning. |
| ✓ | Develop an advocacy plan to share the organisation's viewpoints and perspective with regulators, RFR working groups and trade associations. |
| **Have you defined a transition route map?** | |
| ✓ | Review Financial Stability Board (FSB) Official Sector Steering Group (OSSG) and RFR working group publications, the IBOR Global Benchmark Transition Roadmap and other publications. FSB OSSG and RFR working group publications and other available information can be leveraged as the foundation for a route map, which should then be appropriately tailored to produce a transition plan that is specific for the organisation and limits any market disruption. The transition route map should set out key assumptions, internal and external milestones, and other dependencies. |
| ✓ | Apply to participate in relevant RFR working groups. |
| ✓ | Contribute to the demand for, design of, and trading in new products that reference alternative RFRs. |
| ✓ | Determine the required infrastructure and process changes to support transition to alternative RFRs, and prioritise enhancements. Project charters should be developed to support planning and provide a structure for delivery efforts, inclusive of a clearly defined scope, timing and ownership. |
| ✓ | Develop an implementation route map inclusive of key projects, milestones and ownership. A holistic transition route map should be developed to guide transition efforts and promote coordinated delivery across an organisation and with external parties. |

# * Strengthening the Safety Net

*The implementation of robust contractual fallbacks will mitigate market disruption in the event of a permanent discontinuation of an interest rate benchmark, but adjustments are needed to account for the difference between existing rates and the fallback rates*

**OCTOBER 12, 2018**

**Final date for responses on ISDA fallbacks consultation**

**In the course of daily life**, people tend to give little thought to the back-up plans they have in place, relying on their first choice working out. Then, when there's a genuine chance their plan A will fail, they will naturally look more carefully at their contingencies and strengthen them if necessary to ensure they aren't left in the lurch.

A similar scenario is playing out in interest rate benchmark reform. LIBOR and other interbank offered rates (IBORs) are ingrained in the fabric of financial markets, with more than $370 trillion in estimated total exposure to IBORs globally. With so many transactions referencing the IBORs, most market participants have never seriously contemplated their demise.

That is now about to change. Following extensive public- and private-sector work to address deficiencies in benchmarks, most major jurisdictions are well advanced on the path to identifying risk-free rates (RFRs) as alternatives to the IBORs. While everyone is working towards adoption of these RFRs, the possibility that an IBOR might cease publication, leaving contracts that continue to reference that rate in turmoil, is now more real than ever before.

"If LIBOR were to cease to exist today, with current contract language in place, the consequences could be very serious. There are so many contracts referencing LIBOR that its cessation without having safer fallback arrangements in place would pose major risks to financial stability," warns David Bowman, senior adviser at the US Federal Reserve.

## Fallbacks

Fallback provisions are distinct from ongoing industry efforts to prepare for the adoption of RFRs as alternatives to IBORs. While the transition to alternative RFRs is a complex piece of work that will take place gradually over several years, fallbacks need to be in place much more quickly to protect the derivatives market in the event an IBOR is permanently discontinued.

Regulators acknowledge that the sudden and

"There are so many contracts referencing LIBOR that its cessation without having safer fallback arrangements in place would pose major risks to financial stability"

**David Bowman, US Federal Reserve**

unexpected discontinuation of an IBOR should be avoided to prevent market disruption. When it comes to LIBOR, the UK Financial Conduct Authority (FCA) has obtained voluntary agreement from LIBOR panel banks to continue submitting until the end of 2021. But in a July 2017 speech, FCA chief executive Andrew Bailey stressed that the regulator will no longer persuade or compel banks to submit to LIBOR after that point. The future of LIBOR post-2021 is therefore uncertain.

While the industry is working to ensure a smooth and orderly transition to the RFRs, they must also be prepared for the possibility – more likely now than in the past – that an IBOR might permanently cease to exist. Robust fallbacks therefore need to be in place for those contracts that haven't transitioned to the RFRs.

"To the extent that market participants continue trading derivatives that reference LIBOR, there is a need to incorporate a more robust LIBOR fallback than the current one, given we know that LIBOR might cease to exist after the end of 2021. We also need a mechanism to transition the legacy book of LIBOR transactions away from the current LIBOR fallback to something that is workable in the event of a permanent LIBOR cessation situation," says Emilio Jimenez, managing director and associate general counsel in the corporate and investment bank at JP Morgan.

**$370 trillion**

Estimated notional exposure to the IBORs across financial markets

## Dealer poll

Existing fallback arrangements for derivatives were not designed for a permanent cessation of an IBOR, but rather those occasions when a benchmark administrator might fail to publish a reference rate, perhaps due to a technical glitch.

The fallback would typically involve polling multiple dealers to construct a substitute rate. But even if only used rarely, this requires substantial administration and relies on dealers voluntarily responding to the poll. It clearly wouldn't be feasible in the event of a permanent discontinuation, with large volumes of contracts suddenly having to be re-referenced for their remaining terms. Adding to the complexity, there's also a lack of consistency between the current fallback arrangements for non-derivatives financial instruments and their derivatives hedges.

"Existing fallbacks were created at a time when no one ever anticipated LIBOR would actually stop being published, so they are not consistent across markets and in some cases they may produce results that don't make sense. Given the interconnectedness of asset classes and the reliance on LIBOR, a much better framework is needed to avoid market disruption," says Maria Douvas-Orme, managing director in the legal and compliance division at Morgan Stanley.

To address these issues, the Financial Stability Board (FSB) has called for more robust fallbacks as a safety net to support the contracts that might continue to reference LIBOR and the other IBORs – and ISDA is taking the lead on developing fallbacks for derivatives.

"For many products, the existing fallback provisions would be cumbersome to apply and could generate significant market disruption. For instance, some existing fallbacks involve calling reference banks and asking them to quote a rate. To address this risk, the FSB has encouraged ISDA to work with market participants to develop a more suitable fallback methodology, using the risk-free rates that have been identified," said Guy Debelle, deputy governor of the Reserve Bank of Australia, speaking at an ISDA forum in Hong Kong on May 15.

## New fallbacks

The ISDA work on fallbacks is now well advanced and has elements of both simplicity and complexity. Its simplicity lies in the fact that the chosen fallback rates are the RFRs identified by the various public-/private-sector RFR working groups as alternatives to IBORs – SONIA for sterling, TONA for yen, SOFR for US dollar and SARON for Swiss franc (see Table 1). Efforts to find an alternative rate for the eurozone are ongoing.

The complexity of the process lies not in the fallback rate itself, but rather in preparing for the sudden switch to an RFR for contracts that reference an IBOR if a fallback is triggered. For one thing, it is necessary to craft clear triggers for when a fallback would apply.

As part of the ISDA initiative, fallbacks for derivatives would be triggered by a permanent discontinuation of the IBOR that is publicly announced. The discontinuation might be pre-announced for a future date, in which case the fallback would apply at that date.

## Contractual adjustments

The more complex challenge is the adjustments needed to the RFRs to ensure legacy derivatives contracts referenced to an IBOR continue to function as close as possible to what was intended once a fallback takes effect. Given the differences between the two reference rates, one cannot simply be substituted for the other without an impact.

"Conceptually, the RFRs are nothing like the existing IBORs, so suddenly replacing one with the other is not straightforward because it is not a like-for-like transition. Adding a spread to an RFR seems particularly difficult but unavoidable for IBOR contracts that are currently →

> "To the extent that market participants continue trading derivatives that reference LIBOR, there is a need to incorporate a more robust LIBOR fallback than the current one, given we know that LIBOR might cease to exist after the end of 2021"

**Emilio Jimenez, JP Morgan**

→ priced from a risk-inclusive rate," says Eric Litvack, chairman of ISDA.

Following extensive industry discussions, ISDA is now consulting with market participants on how this should be done.

"When you have a contract that is built around an IBOR and you consider that it needs to reference an RFR when the fallback takes effect, that is very different from building the contract around the RFR from the beginning," says Ann Battle, assistant general counsel at ISDA.

The adjustments reflect the fact that the IBORs are currently available in multiple tenors – one, three, six and 12 months – but the RFRs are only available on an overnight basis. The IBORs also incorporate a bank credit risk premium and other factors, while overnight RFRs do not.

"We need a mechanism to adjust the RFR and add a spread so that it fits within these contracts that were built to reference the IBORs. There is no perfect solution to this, but we have developed a number of potential approaches," says Battle.

ISDA launched a market-wide consultation on the approaches in July. The consultation sets out four options to account for the move from a term rate to an overnight rate, and three possible approaches to reflect differences in the bank credit risk premium and other factors.

The four options for adjusting the RFR include a spot overnight rate, a convexity adjusted overnight rate, a compounded setting-in-arrears rate and a compounded setting-in-advance rate. The consultation sets out the details of each approach so that market participants can assess which one would work best in practice.

The three methods for adding a spread include a forward approach, which takes the difference between the forward curve for the IBOR and the forward curve for the RFR; a historical mean approach that takes the historical difference between the IBOR and RFR over a long period; and a simple spot spread approach that would take the difference between the two rates at the time the fallback is triggered.

## ISDA FALLBACKS CONSULTATION AT A GLANCE

- ISDA is amending its standard documentation to implement fallbacks for certain key interbank offered rates (IBORs).
- The fallbacks will apply if the relevant IBOR is permanently discontinued, based on defined triggers.
- The fallbacks will be the alternative risk-free rates (RFRs) that have been identified for the relevant IBORs as part of recent global benchmark reform work.
- The consultation seeks input on the approach for addressing certain technical issues associated with adjustments that will apply to the RFRs if fallbacks are triggered. These adjustments are necessary because of the differences between the IBORs and the RFRs.
- The consultation covers sterling LIBOR, Swiss franc LIBOR, yen LIBOR, TIBOR, euroyen TIBOR and the Australian Bank Bill Swap Rate. ISDA will launch supplemental consultations covering US dollar LIBOR, euro LIBOR and EURIBOR.
- Based on responses to the consultation, ISDA will determine the style of approach to implement. ISDA will then work with an independent third-party vendor (selected following a formal request-for-proposal process) to build out and finalise the approach. Before implementing any changes to its standard documentation, ISDA will publish the final approach for a further public review and comment period.
- The fallbacks will be included in the ISDA definitions for interest rate derivatives and will apply to new IBOR trades. ISDA also expects to publish a protocol to allow participants to amend fallbacks within legacy IBOR contracts, if they choose to.

## Consultation

The consultation will run for three months and is open to all market participants. The responses to the consultation will determine the selected approach, and ISDA will then work with an independent third-party vendor to build and finalise the adjustments. ISDA will conduct a further public review and comment period on the final approach before any changes are made to its standard documentation.

Both practitioners and regulators agree on the importance of the consultation in ensuring a robust fallback framework.

"The industry needs to reach a consensus on appropriate spread and term adjustments, so the consultation will be critical to achieving this," says the Fed's Bowman. "Market participants have to engage now if they want to be sure they have a market structure that protects and works for them – it is imperative that everyone informs themselves about the options so they can make a well thought-out choice."

As well as raising awareness of the issues, a key aim of the consultation is to achieve a market consensus on which approach to take.

"There are several ways of addressing the spread and term adjustments, each of which could produce different results. That is why it is important for the market to try to reach a consensus if possible. The alternative could fragment the market and lead to a greater risk of disputes in future," says JP Morgan's Jimenez.

Work on benchmark transition is moving quickly, with several public-/private-sector working groups now focusing on raising awareness and planning for transition. Nonetheless, the work to develop robust fallbacks as a safety net remains critical, regulators say.

"The industry and official sector are trying to make it as easy as possible to close out LIBOR positions by developing liquid alternatives, but market participants are still using LIBOR, and the longer securities are issued without strong fallback language, the more risk is being spilled into the system. We need stronger and safer language on fallbacks in new trades so that the whole market is better prepared for the possible termination of LIBOR," says Bowman. IQ

| Table 1: Relevant IBOR and Corresponding Floating Rate Options in 2006 ISDA Definitions | | Fallback Rate |
|---|---|---|
| GBP LIBOR | GBP-LIBOR-BBA<br>GBP-LIBOR-BBA-Bloomberg | SONIA |
| CHF LIBOR | CHF-LIBOR-BBA<br>CHF-LIBOR-BBA-Bloomberg | SARON |
| JPY LIBOR | JPY-LIBOR-FRASETT<br>JPY-LIBOR-BBA<br>JPY-LIBOR-BBA-Bloomberg | TONA |
| TIBOR | JPY-TIBOR-TIBM<br>JPY-TIBOR-17096<br>JPY-TIBOR-17097<br>JPY-TIBOR-TIBM (All Banks)-Bloomberg | TONA |
| Euroyen TIBOR | JPY-TIBOR-ZTIBOR | TONA |
| BBSW | AUD-BBR-AUBBSW<br>AUD-BBR-BBSW<br>AUD-BBR-BBSW-Bloomberg | RBA Cash Rate |
| USD LIBOR* | USD-LIBOR-BBA<br>USD-LIBOR-BBA-Bloomberg<br>USD-LIBOR-LIBO | SOFR |
| EUR LIBOR* | EUR-LIBOR-BBA<br>EUR-LIBOR-BBA-Bloomberg | [TBD] |
| EURIBOR* | EUR-EURIBOR-Reuters<br>EUR-EURIBOR-Act/365 | [TBD] |

*To be covered by subsequent supplemental consultations.

The ISDA fallbacks consultation is available at: http://isda.link/iborfallbacks

> "Existing fallbacks were created at a time when no one ever anticipated LIBOR would actually stop being published, so they are not consistent across markets and in some cases they may produce results that don't make sense"

**Maria Douvas-Orme, Morgan Stanley**

# * Shifting to SOFR

*The US Alternative Reference Rates Committee identified the Secured Overnight Financing Rate as an alternative to US dollar LIBOR last year, and the market is now working through a paced transition plan.* ***Joshua Frost****, a senior vice-president at the Federal Reserve Bank of New York, explains why an alternative risk-free rate was needed, and outlines the progress made so far to adopt SOFR*

**IQ:** Why is the adoption of risk-free rates (RFRs) important?

**Joshua Frost (JF):** LIBOR is so widely used across a range of markets that if it were to suddenly cease publication, we could see extensive market disruptions. Yet LIBOR may indeed stop at some point after 2021. US dollar LIBOR is linked to trillions of dollars of derivatives, floating rate notes, business loans, securitisations and consumer loans. As such, we need to have a robust alternative rate in the event of a cessation of LIBOR. In addition, people should question whether they are really best served by using a rate like LIBOR that has so few transactions under it and relies primarily on expert judgement. The RFRs identified by the various currency groups represent much more active markets.

**IQ:** The Alternative Reference Rates Committee (ARRC) selected the Secured Overnight Financing Rate (SOFR) as the preferred alternative RFR for US dollars in June 2017. Can you describe how SOFR meets the criteria established by the ARRC for an alternative RFR?

**JF:** The ARRC, which was convened in 2014 by the New York Fed and the Federal Reserve Board and is composed of a broad representation of the financial industry, considered a comprehensive list of potential alternative rates before narrowing its finalists to the Overnight Bank Funding Rate (OBFR) and SOFR. The ARRC discussed the merits of and sought feedback on both rates before selecting SOFR, which is a broad measure of the cost of borrowing cash overnight collateralised by Treasury securities. Among the factors behind the ARRC's selection of SOFR are that it is compliant with the International Organization of Securities Commissions' Principles for Financial Benchmarks, is fully transaction-based, encompasses a robust underlying repo market with roughly $750 billion in daily transactions, correlates closely with other money market rates, and covers multiple repo market segments allowing for future market evolution. The Treasury repo market has proven to be resilient, and is an active source of funding for a wide range of market participants.

**IQ:** The ARRC has published a paced transition plan that sets out specific steps and timelines for building liquidity in derivatives referencing SOFR. What has been achieved, and what are the current priorities?

**JF:** Following the initial publication of SOFR on April 3, the industry has taken a number of steps to build liquidity, in line with the ARRC's paced transition plan.

"LIBOR is so widely used across a range of markets that if it were to suddenly cease publication, we could see extensive market disruptions"

These include the successful launch of SOFR futures by CME Group in May, the launch of clearing of SOFR overnight indexed swaps (OIS) and basis swaps by LCH in July, and the announcement that CME Group expects to begin clearing SOFR OIS and basis swaps using SOFR price alignment interest and discounting by the end of 2018. We also saw the first issuance of a SOFR-linked bond in late July. Current priorities include finalising recommended fallback language for derivatives and cash products and building liquidity in SOFR-linked derivatives.

**IQ:** Clearing in SOFR derivatives is earmarked for the first quarter of 2019 in the paced transition plan, but the market is moving ahead of that timeline. What could this mean for other milestones in the paced transition plan?

**JF:** I am glad to see that the first milestones in the paced transition plan have been reached ahead of schedule, and am optimistic that the industry can continue to make steady progress towards achieving the steps outlined in the plan. The timeline outlined in the plan represents ARRC member firms' best initial estimate of how long each step will take, but if market participants keep building SOFR liquidity at the current pace, then I am hopeful we can continue to reach these milestones earlier.

**IQ:** What should market participants be doing now to facilitate the successful and orderly adoption of SOFR?

**JF:** Market participants should identify the risks they face across various products if LIBOR goes away, and determine how to best manage that risk and their exposure. Market participants can look at fallback language for all contracts that contain references to LIBOR, with particular emphasis on contracts maturing after 2021. Those who are not willing to continue trading LIBOR contracts and face the risks that entails, or would simply prefer a more robust RFR, should consider what activities they could move to SOFR. It is also important that market participants stay engaged with the ARRC, industry associations, peers, customers and regulators as the transition continues to progress.

**IQ:** The ARRC was reconstituted earlier this year to include additional market participants and market sectors. Has this been helpful in implementing the paced transition plan and promoting adoption of SOFR?

**JF:** The reconstituted ARRC has certainly assisted the transition as the expanded membership has helped the ARRC better serve as a forum to coordinate and track planning across cash and derivatives products. Many of the new ARRC members participated earlier as members of the ARRC's advisory groups. There are a number of trade associations that have joined as well. All of the members are helping to shape the ARRC's plans and make sure it is reaching out to and being informed by the really diverse set of market participants that use LIBOR and should be considering SOFR.

**IQ:** The creation of a forward-looking term reference rate based on SOFR derivatives has been identified as a final step in the paced transition plan, scheduled for end-2021. How might such a rate be constructed? Could this emerge earlier than end-2021?

**JF:** The ARRC has considered several ways that a forward-looking term reference rate could be constructed based on SOFR derivatives. These include constructing a constant maturity term rate using the prices of SOFR futures or OIS contracts. The term rate could emerge earlier, although the timing will depend on the development of sufficient liquidity in SOFR derivatives markets and the identification of an administrator for the rate, among other factors.

**IQ:** How do you anticipate forward-looking term reference rates being used once developed?

**JF:** I think a lot of end users will find they can readily adapt to referencing SOFR, but that will be more →

# "Market participants should identify the risks they face across various products if LIBOR goes away, and determine how to best manage that risk and their exposure"

difficult for some. Syndicated and bilateral business loans have systems that are built on using a term rate, and it seems likely the forward-looking term rate will be used for that type of lending, although over time some of those corporate borrowers may find they can use SOFR.

**IQ:** In its second report, published in March, the ARRC points out that the bulk of derivatives transactions would need to be based on the overnight SOFR rate in order to have enough underlying transactions to construct a term rate. Do you foresee any challenges with dealers hedging non-derivatives products based on a term SOFR with derivatives based on the overnight SOFR? If so, how should market participants address them?

**JF:** While there could be some basis between term- and overnight-based SOFR products, it should be fairly small since the term rate will itself be based on overnight SOFR futures or OIS markets. Dealers should be able to model, price and help their clients manage any basis risk.

**MARCH 2018**

**ARRC publishes second report, with details of its paced transition plan: www.newyorkfed.org/arrc**

**IQ:** To what extent is the work of the ARRC globally coordinated with the work of other public-/private-sector RFR working groups?

**JF:** The Financial Stability Board (FSB) established an Official Sector Steering Group (OSSG) to focus the FSB's work on the interest rate benchmarks that are considered to play the most fundamental role in the global financial system, and the OSSG has since provided a forum for coordinating global efforts on reference rate reform. The Federal Reserve Board and Commodity Futures Trading Commission are the US members – in fact, Fed chairman Jerome Powell co-chairs the group with the UK Financial Conduct Authority's chief executive, Andrew Bailey. OSSG members coordinate with the ARRC and the other currency groups, and the currency groups coordinate directly among themselves as well: Sandie O'Connor, chair of the ARRC, talks fairly frequently with the chairs of the other currency groups.

**IQ:** Does it matter if different markets, currencies and sectors adopt alternative RFRs at different times? How might market participants address implications for cross-currency swaps, for example?

**JF:** Since these transitions are on a voluntary basis, different market participants are likely to begin using the RFRs at different times. That's something that can't be avoided. The ARRC is working with members of the other currency groups to think about how RFR-based cross-currency basis swaps can be best constructed. They're aware that we'll need those markets to develop, just as we need basis swaps between the RFRs and the IBORs. As long as those markets develop, and I expect they will, then end users will have the tools they need to hedge their risks, whether they choose to transition earlier or at a later stage.

**IQ:** ISDA is leading work to implement fallbacks for derivatives linked to US dollar LIBOR and other IBORs. How does this initiative fit in with the work of the ARRC and the other RFR working groups?

**JF:** ISDA's efforts to seek input on fallback language for derivatives are a crucial component of the overall reforms. That work isn't specific to a given currency area or IBOR, and the FSB recognised that we needed ISDA's leadership to accomplish it. Broad market participation in the ISDA consultation should facilitate the development of a consensus for ISDA's IBOR fallback protocol. Because hedging with derivatives is common practice, what ISDA selects as fallback language for the derivatives markets will likely be important as the cash and lending markets develop their own fallback language in coordination with the ARRC. IQ

Joshua Frost is a senior vice-president at the Federal Reserve Bank of New York. The views presented here are his alone and do not necessarily reflect those of the New York Fed or the Federal Reserve System.

# MIAMI MEMORIES

**ISDA held its 33rd annual general meeting** (AGM) in Miami on April 14-16, 2018, attracting more than 800 derivatives professionals and regulators. This year's AGM focused on the future of derivatives markets, including the impact of new technologies, changes related to benchmark reform, the implications of Brexit on outstanding contracts, and the consequences of capital and margin regulations.

Keynote speakers included Bill Coen, secretary general of the Basel Committee on Banking Supervision, and Craig S. Phillips, counsellor to the secretary at the US Treasury. The event also featured a fireside chat with J. Christopher Giancarlo, chairman of the US Commodity Futures Trading Commission.

ISDA would like to thank all our sponsors, exhibitors and delegates for their support, and we look forward to seeing you at **ISDA's 34th AGM** in **Hong Kong** at the Grand Hyatt on **April 9-11, 2019**.




ISDA 34th AGM
April 9 - 11, 2019

HONG KONG

# All Change

*With Brexit edging ever closer, **Robert Ophèle**, chairman of France's Autorité des Marchés Financiers, talks about Europe's proposed location policy for third-country central counterparties and concerns about contract continuity*

**IQ:** What element of the post-crisis financial reforms has been most important in your opinion? And what do you think regulators could have done differently with hindsight?

**Robert Ophèle (RO):** The dramatic increase in capital requirements for banks, especially global systemically important banks, in parallel with the emergence of clear resolution strategies and the development of central clearing, have profoundly changed the financial landscape and enhanced its robustness. But the emphasis on the quality of the governance structure, conduct rules, the management of conflicts of interests and, more generally, compliance issues has been equally decisive, as it has changed the culture of financial market participants.

If I had to express one regret, it would be the delay in implementing the banking union in the eurozone and treating the non-performing loan issue appropriately.

**IQ:** The review of the European Market Infrastructure Regulation (EMIR) continues to be a big focus. What are the priorities? What aspects of EMIR most need to be reviewed?

**RO:** Six years after its implementation, there was an obvious need to revisit EMIR. Central clearing has developed extensively and this process is still ongoing, with the scope of the clearing obligation increasing. In a landscape that is highly concentrated by nature, central counterparties (CCPs) are becoming more and more systemic. On top of some technical adjustments covered under the Regulatory Fitness and Performance (Refit) programme, such as introducing more proportionality in the requirements and simplifying reporting, there is a need to improve the convergence of national supervisory approaches, which remain very heterogeneous inside the European Union (EU). This is the first priority of the EMIR review in my view – to provide the appropriate tools to foster supervisory convergence.

From the perspective of the UK's withdrawal from the EU, the EMIR review is also an opportunity to rethink Europe's equivalence regime with regards to third-country CCPs. Explicitly introducing a proportionate approach with a tiered categorisation and reinforcing the role of the European Securities and Markets Authority (ESMA) in the recognition mechanism is the appropriate supervisory stance and fully takes financial stability concerns into account.

**IQ:** The European Commission (EC) has proposed a location policy for systemically significant third-country CCPs as a last resort. What are the advantages and disadvantages of such a policy in your opinion? Are there alternatives?

> "When it comes to euro-denominated financial products, and if you assume access to central bank liquidity could be necessary in the event of a crisis at a systemically important third-country CCP, then there is a strong case for a location policy, despite the fragmentation of liquidity it will trigger"

**RO:** I have mentioned financial stability concerns. Some of these concerns could be alleviated by a degree of shared supervision. But when it comes to euro-denominated financial products, and if you assume access to central bank liquidity could be necessary in the event of a crisis at a systemically important third-country CCP, then there is a strong case for a location policy, despite the fragmentation of liquidity it will trigger. However, I think the emergence of fully fledged European supervision of EU CCPs is a prerequisite to a location policy.

**IQ:** The EC has proposed a review of the European supervisory authorities (ESAs), particularly the new governance, funding structure and supervisory role of ESMA. What is the AMF's view on this?

**RO:** The EC rightly wishes to strengthen both ESMA's direct and indirect powers of supervision. The EU Capital Markets Union is even more necessary after Brexit, and it should be anchored in strong supervisory convergence within the EU 27. This means we should provide ESMA with the tools and governance that correspond to that objective – for example, tighter and more independent governance. Without increased convergence in our supervisory practices to ensure market integrity, efficiency and investor confidence, the current passporting mechanism will be questioned.

Regarding third countries, there is a clear and I believe undisputed need to position ESMA in the centre of the revised mechanisms.

**IQ:** The ESA review proposal does not include a regulatory forbearance mechanism (such as no-action letters). Would such a mechanism help the AMF in its supervisory and enforcement role?

**RO:** It is clearly a mechanism we are advocating for. There have been many situations where there was either a need for international coordination in the implementation of internationally agreed standards – for example, the implementation of variation margin rules – or where the implementation of certain provisions had to be delayed pending an obviously needed revision of the regulation. European authorities need to be equipped with such a tool in order to provide legal certainty to market participants.

For example, EMIR provided an exemption from clearing for pension schemes, and that exemption will last until August 16 this year. The EMIR Refit will extend this exemption for two or three more years once the new regulation is force, but what do we do in the meantime if the EMIR Refit comes into force after August 16? This is clearly an example of a situation where a no-action letter would be the appropriate tool.

Since not enforcing a regulation is a very delicate issue, we have advocated for a no-action mechanism that could be decided by the EC following a proposal by an ESA and for a limited period.

**IQ:** There are concerns that existing derivatives contracts between UK and EU parties could face challenges post-Brexit. Specifically, certain activities that take place during the life of a trade – such as novation or compression – may not be possible without an equivalence determination, legislative action or some form of language in the withdrawal agreement that allows these existing trades to continue. Are you concerned about this issue? What approach would best mitigate the risk?

**RO:** Contract continuity is an issue that needs to be thoughtfully considered. There seems to be a convergence towards the view that, legally speaking, the UK's withdrawal from the EU will not trigger the frustration of pre-existing non-centrally cleared derivatives contracts. ISDA has made an outstanding review of this issue.

That being said, concerns have emerged that certain lifecycle events – not all of them, but some very useful ones – would no longer be allowed. As long as there is not a true cliff-edge effect, a progressive transfer of contracts within financial groups in order to have both parties located in the EU 27 is the appropriate solution. In order to facilitate this repapering, I would advocate for a transition period that allows contracts to be transferred while keeping their original supervisory treatment, with regards to the clearing obligation and initial margin, for example.

# Contract Continuity Challenges

*Brexit will not threaten the legal validity of outstanding derivatives contracts between European Union and UK firms, but it will make it difficult to perform important lifecycle events. Transferring these contracts to overseas affiliates is one option, but that comes with a host of problems*

**Brexit will not make it illegal** for European Union (EU) and UK firms to perform contractual obligations under existing contracts in most (if not all) member states, meaning the legal validity of these transactions shouldn't be affected. There could be an issue with some important lifecycle events, however – for example, novations, portfolio compression, the rolling of open positions and material amendments.

These lifecycle events are important for risk management purposes and are encouraged by regulators. In fact, the European Market Infrastructure Regulation requires market participants to seek to engage in portfolio compression exercises. If performance of lifecycle events on existing contracts between UK and EU 27 market participants is not legally permissible following Brexit, this is likely to impair the ability of UK and EU 27 counterparties to manage their exposures and risks on existing contracts.

## Legacy contracts

After Brexit, UK and EU 27 regulated firms will no longer benefit from the single market passport that currently allows them to engage in regulated activities in the EU 27 and the UK, respectively, without the need for an additional local licence. This creates issues for certain longer-dated derivatives contracts that were entered into before Brexit, when the entity could utilise the passport. In these cases, some lifecycle events that arise during the life of the contract may be classified as 'regulated activities' in the jurisdiction where the client or counterparty is located, therefore triggering local licensing requirements if the firm retains those contracts after Brexit.

ISDA has previously commissioned legal analysis of the likely post-Brexit regulatory treatment of certain lifecycle events covering six jurisdictions – France, Germany, Italy, the Netherlands, Spain and the UK. The analysis focuses on typical lifecycle events, including the performance of obligations, exercise of options, rolling of open positions, transfers of collateral, increases or decreases in notional amount and other amendments, novations, unwinds and portfolio compression.

While there are variations between the jurisdictions, the analysis found that some common lifecycle events may constitute regulated activities in EU 27 member states.

In order to engage in these activities post-Brexit, a UK firm[1] may therefore need to obtain a local licence or exemption, but this may not be available to it as a third-country firm. Another option is to register with the European Securities and Markets Authority under the third-country regime included in the Markets in Financial Instruments

If performance of lifecycle events on existing contracts between UK and EU 27 market participants is not legally permissible following Brexit, this is likely to impair the ability of UK and EU 27 counterparties to manage their exposures and risks

Regulation, but this depends on the European Commission adopting an equivalence decision with respect to the UK. Alternatively, the UK firm may be able to respond to EU 27 client or counterparty requests under 'reverse solicitation' exemptions, but there are inherent uncertainties and limitations with those exemptions.

This creates uncertainty as to how UK firms that have contracted with EU 27 counterparties and clients could retain and run off their legacy cross-border contracts post-Brexit. If a UK firm is unable to comply with licensing rules in the EU after Brexit, it would be unable to continue to meet all the requirements of EU 27 clients and counterparties with respect to those legacy contracts. It may therefore need to transfer those contracts to an EU 27 affiliate, bring the contracts to an end or, where this is consistent with local law, retain and run off the contracts without engaging in lifecycle events that would trigger licensing requirements.

### Statutory transfer mechanisms

The contingency plans for some UK firms may involve the transfer of their EU-27-related business to an affiliate in the EU 27 using one of the statutory mechanisms available under UK law. These statutory mechanisms facilitate the transfer of legacy contracts because they allow the transfer of existing contracts with third parties without needing individual consent of the third party.

However, these mechanisms are complex and involve court processes that present significant execution and timing challenges for firms. An entity intending to use one of these mechanisms would need to be well advanced with its plans to complete the transfer by Brexit.

### Part VII scheme

Part VII of the Financial Services and Markets Act 2000 allows the UK courts to approve a scheme under which a bank transfers all or part of a business that includes a significant volume of deposit-taking activity to a transferee bank, including a transferee bank in another member state. A scheme can transfer the bank's rights and obligations under its contracts with third parties without the need for the individual consent of third parties, and can amend the terms of contracts to facilitate the transfer (eg, to reflect that the transferee is incorporated and tax resident in a different jurisdiction). →

[1] In principle, similar risks may arise with respect to EU 27 firms' legacy cross-border contracts with UK clients and counterparties. However, there are existing UK exemptions from licensing requirements (in particular, the 'overseas persons' exemption) that would mitigate the risks in many cases. In addition, the UK government has already announced that, if necessary, it will address the issues for market participants through a temporary permissions and recognition regime

→ Schemes are subject to a specific regulatory scrutiny process, two court hearings, the right for interested parties to object and final approval by the high court. The court will not grant the order until it is satisfied that clients will not be detrimentally affected. The transferee may require new licences or changes to its licences in order to carry on the transferred business.

This mechanism is not currently available to or appropriate for all UK firms conducting cross-border derivatives business with EU 27 clients or counterparties, because they may not be deposit-taking banks or may not be transferring businesses that include a sufficient deposit-taking element.

### Cross-border merger

The Companies (Cross-Border Mergers) Regulations 2007 allow a UK company to merge into an entity incorporated in another member state. The merger results in the transfer to the surviving company of all the merging company's assets and liabilities by operation of law, including the contracts of the merging company, without the need for individual consent of third parties.

The merger is subject to the approval of the UK courts and the scrutiny of the court or other authority in the member state concerned, and interested parties can object. In addition, the surviving company must be appropriately licensed to carry on the merging company's business, which may require new licences or changes to its existing licences (and it may need to seek a licence in the UK if it retains a UK branch post-Brexit).

A merger cannot be used to transfer part of the business of a UK company to a transferee. In addition, a cross-border merger does not in itself relocate the business activities that the UK company carries out in the UK. Additional steps may be needed to move staff, assets and business activities within the merged company from the UK to the merged company's EU 27 offices.

This mechanism is not available to or appropriate for all UK firms conducting cross-border derivatives business with EU 27 clients or counterparties. In particular, there may be structural or supervisory issues if the merged entity conducts a relatively small volume of EU 27 business from its offices in the EU and a very large volume of UK and other non-EU business from a branch in the UK. The UK firm may first have to transfer some non-EU business to another UK company. This would require the consent of third parties whose contracts are affected, removing one of the key potential advantages of using this mechanism.

## There are significant execution and timing challenges to a large-scale novation of derivatives contracts

### European company statute

The EU regulation on the statute for a European company allows a UK company to convert itself into a societas europaea (SE) and subsequently move its head office to another member state. The company must first become a public limited company and must have had a subsidiary in another member state for at least two years.

The process requires compliance with specific rules on employee participation as part of the conversion process. The SE will need to obtain a new licence to conduct business in the member state in which it will be headquartered, and may need to seek a licence in the UK if it retains a UK branch post-Brexit.

The conversion of a UK company to an SE would result in the SE carrying on all the business of the UK company. The relocation of the SE's head office to the EU 27 does not in itself relocate the business activities that the SE carries on in the UK. Additional steps may be needed to move staff, assets and business activities within the SE from the UK to the SE's EU 27 offices.

This mechanism is not available to or appropriate for all UK firms conducting cross-border derivatives business with EU 27 clients or counterparties. In particular, there may be structural or supervisory issues if the SE conducts a relatively small volume of EU 27 business from its offices in the EU, and a very large volume of UK and other non-EU business from a branch in the UK. The UK firm may first have to transfer some non-EU business to another UK company. This would require the consent of third parties whose contracts are affected.

### Scheme of arrangement

Part 26 of the Companies Act allows the UK courts to approve a scheme of arrangement, which can transfer the contracts of a company to a transferee or merge a company into another company. However, the court can only approve a scheme affecting the rights of creditors if it is approved by resolutions passed by a majority in number and 75% in value of each class of affected creditors at class meetings convened for the purpose. This makes this route unattractive for most purposes.

Even where a firm can make use of one of the statutory mechanisms, it may still be necessary to obtain the consent of clients or counterparties to give effect to the transfer of some legacy contracts, or to reflect the changes to the firm's business. For example, parties to a cross-border merger or a company converting to an SE and relocating to the EU 27 may need to obtain the consent of clients or counterparties to change the designation of a UK 'office' under an ISDA Master Agreement to an office in the EU 27, or to change other UK-specific provisions in their contracts.

### Novation

Many UK firms may therefore decide to transfer legacy derivatives contracts to their EU 27 affiliates before Brexit, and will need to seek the individual consent of the relevant clients and counterparties (a mechanism known as 'novation'). However, this is not a silver bullet, and there are significant execution and timing challenges to a large-scale novation of derivatives contracts.

As with the statutory mechanisms, the transferee entity will need to be appropriately licensed in its member state, which may require new licences or changes to existing licences. It may not be possible to start the formal novation process until these have been granted.

The transferee will also need to address whether the transferred portfolio meets its own risk requirements and consider how it will manage the operational and other risks of the portfolio, particularly as this process is likely to lead to a rapid scaling up of its operations. The transferee would need to implement a capital plan that reflects the impact of the novations on its regulatory capital requirements, and put in place a new clearing, payments and custody network duplicating that of the transferor.

The transferor and transferee would need to conduct extensive due diligence on the portfolio. They would need to identify the individual contracts to be transferred and the contractual and operational changes necessary, and prepare the communications and documentation appropriate for each client or counterparty.

Firms have already carried out significant preparatory work and, in many cases, have begun their outreach to clients and counterparties. However, their progress in completing novation projects is affected by extrinsic factors outside their control, including possible regulatory actions.

### Regulatory actions

There is currently no consistent view across member states on which lifecycle events are classed as regulated activities that would trigger licensing requirements. The outcome depends on the position in individual member states, and the law is unclear in many cases. Firms must, therefore, prepare for and execute their novation projects based on assumptions about how these activities will be treated under local licensing.

Regulatory changes or new regulatory guidance could adversely affect these assumptions and change the scope of the contract continuity issue, meaning firms require more flexibility and time to complete their projects.

### Clients

Progress with novation also depends on client and counterparty cooperation and agreement. Lack of cooperation or refusal of consent may have a significant impact on firms' projects.

Under the ISDA Master Agreement, outside the context of a merger or similar business reorganisation, a party cannot transfer its rights and obligations to a third party, even if it is an affiliate, without the prior written consent of the other party to the agreement.

Any changes to the agreement to reflect the status of the transferee must also be in writing and executed by both parties (or the electronic equivalent). In some cases, the transfer would take place by the transferee agreeing a new ISDA Master Agreement and related margin, reporting, clearing, general terms of business and other arrangements with the client or counterparty. The transferor, transferee and client or counterparty would then agree in writing to the transfer of the transactions from the old ISDA Master Agreement to the new.

The transfer will need to be synchronised with operational and other changes that need to be agreed with the client or counterparty – for example, moving existing collateral held by the parties or with a third-party custodian. In many cases, the derivatives contracts will be linked to other transactions (eg, prime brokerage or other arrangements), so agreement would be needed on the transfer of all transactions as a package.

The scale and complexity of the process is significant, and preparing and carrying out the novation process with clients and counterparties will take time. Large market participants have many thousands of relationships within their derivatives business, but the underlying number of clients and counterparties will be much larger. Many of those relationships are with asset managers acting on behalf of multiple underlying funds or segregated accounts, or with large corporate groups with multiple counterparties.

Clients and counterparties will also have relationships with multiple firms, and are likely to have multiple contracts in place with each entity. They will therefore need to manage complex parallel discussions with limited resources.

There are a number of other reasons why clients and counterparties may delay or even refuse their consent to a novation of legacy contracts (see box).

### Solutions

While firms are working through these challenges to ensure they can continue to service client requirements in a prudent manner, policy-makers and regulators should minimise the risks and provide →

The EU and the UK could seek to give firms and their clients and counterparties the highest level of legal certainty by including provisions in the Withdrawal Agreement that allow firms to continue servicing these existing contracts

→ certainty to the market by permitting continued maintenance, risk management, performance, termination or disposal of existing contracts after Brexit.

There are a range of solutions that policy-makers and regulators could consider.

The EU and the UK could seek to give firms and their clients and counterparties the highest level of legal certainty by including provisions in the Withdrawal Agreement that allow firms to continue servicing these existing contracts after the end of the transition period and until their final maturity, disposal or completion[2]. This would ensure that where clients or counterparties do not or cannot agree to a novation or (where necessary) the termination of a legacy contract, firms can continue to service their requirements until the contract runs off.

A less optimal solution would be to place a time limit on the ability to service legacy contracts after the end of the transition period. This would at least give firms more time to run off, terminate or transfer these contracts. There are challenges to this approach, as it may be difficult to identify an appropriate timeframe and there may still be longer-term legacy contracts that are difficult to terminate or novate.

Measures should be taken that would facilitate transfers and novations in this case. For example, the UK authorities could consider extending Part VII of the Financial Services and Markets Act 2000 beyond deposit-taking banks to all entities managing a legacy derivatives book with EU 27 clients. While it may not be possible to complete such a legislative change in time for Brexit, such an amendment could – if in place early enough – be helpful for the purpose of transferring some contractual relationships from a UK to an EU entity.

There would also need to be an effective backstop arrangement against the risk that the EU and the UK do not conclude a Withdrawal Agreement including a transition period. The UK plans to put in place a temporary permissions and recognition regime in advance of Brexit. EU and EU 27 legislators and policy-makers should implement a comparable solution – at least to the extent that such transfers or novations cannot be completed within an appropriate amount of time – to protect EU 27 clients and counterparties from disruption to their business and to ensure financial stability. IQ

This article is an edited version of a paper published by ISDA and AFME. Read the full paper here: http://isda.link/contractualcontinuity

## POSSIBLE HURDLES TO NOVATION

- **Due diligence:** The client or counterparty may wish to carry out its own due diligence on the credit standing and status of the transferee before it agrees to the novation.
- **Exposure limits:** The client or counterparty may have country or other concentration or exposure limits that restrict its ability to deal with the transferee.
- **New legal opinions:** The client or counterparty may need to obtain new legal opinions on netting or collateral with respect to the transferee or the new documentation before it agrees to the novation.
- **New clearing and margin requirements:** Clients and counterparties may not be willing to agree to a novation when it would trigger clearing or margining requirements for transactions that currently benefit from the grandfathering arrangements under the European Market Infrastructure Regulation.
- **Uncertainty over EU clearing rules:** EU 27 clients and counterparties may delay decisions on cleared derivatives because of uncertainty about whether EU rules will allow them to continue to clear legacy transactions on UK central counterparties (CCPs), or about the risk weighting of exposures to those CCPs. There are also significant operational and pricing issues involved in moving cleared contracts from one CCP to another.
- **Tax impact:** The novation may lead to an acceleration of losses or profit on derivatives for tax purposes.
- **Structural restrictions:** There may be structural reasons that make it difficult to transfer contracts, such as for securitisation swaps where the documentation prevents the swap counterparty transferring the swap to an affiliate with credit ratings below the original credit rating of the transferor at the time the swap was created.
- **Scope of regulatory restrictions:** Clients and counterparties may have differing views on how the regulatory restrictions on lifecycle events affect their relationship with the firm. Some may not agree to novation at all, or may wish to novate fewer legacy contracts. Others may wish to novate their entire portfolio of contracts to preserve netting efficiencies.
- **Agreement of new documentation:** There will be inevitable changes to the documentation that the client or counterparty may wish to discuss, such as new wording for agreements governed by English law on the recognition of bail-in or resolution stays. This would be in response to the expectation that English law will become a third-country law for the purposes of Article 55 of the Bank Recovery and Resolution Directive or national rules.
- **Commercial negotiation:** Clients and counterparties may wish to use the opportunity to renegotiate the commercial and other terms of their relationship with the firm.
- **Multiple parallel negotiations:** Clients and counterparties will likely receive proposals from various UK firms. These may be different and require individual attention. Each proposal will require separate operational implementation. This will place significant burdens on the business, legal and operational resources of clients and counterparties, which may lead to bottlenecks and delays.

[2] The Withdrawal Agreement should also provide common solutions on the recognition of existing UK and EU 27 central counterparties and the treatment of outstanding exposures for capital purposes to mitigate the 'cliff edge' effects of the UK becoming a third country at the end of the transition period

# From Concept to Reality

*The publication of the first digital iteration of the ISDA Common Domain Model marks a big step towards creating greater efficiency in the derivatives market by establishing a common set of representations for events and processes for the first time. What are the next steps?*

**Without realising it, derivatives market participants** made life extremely difficult for themselves. As the market developed, each firm and even each trading desk established its own systems and its own unique set of representations for events and actions that occur during the life of a typical derivatives trade. This not only means counterparties have to continually reconcile their trades to make sure they have the same information – a big drain on resources and a source of higher costs – it also curtails the potential for greater automation.

"The cost and risk that we as an industry carry due to the amount of places where we map between different data definitions is significant and growing. There are data definitions that describe the same thing, data definitions that are internal and external, data definitions that are supported and unsupported. Without a credible, open standard, this cost and risk will only increase as our ecosystem continues to evolve," says Ayaz Haji, managing director and head of enterprise reference data at Goldman Sachs.

ISDA recently took an important step to reduce this complexity and to create greater efficiency in the derivatives market with the launch of an initial digital representation of the ISDA Common Domain Model (CDM) in June.

## Blueprint

The ISDA CDM is essentially a digital blueprint for how derivatives are traded and managed across their lifecycle (see box). The current situation is a bit like having a box of Lego but without the instructions. It's clear what's supposed to be built, all the pieces are there, but it's unlikely everyone will put those pieces together in exactly the same order. The results may be optically similar, but they probably won't be identical.

In contrast, if everyone follows the same set of instructions, they'll get exactly the same outcome every time. It doesn't matter whether those instructions are published in English, French or German – so long as the blueprint is followed, the result will be the same.

In the same way, using a common blueprint for derivatives events and processes within the CDM will enhance consistency and facilitate interoperability across firms and platforms, irrespective of the programming language that is ultimately used for each technology that applies the CDM – the end result will be the same. That will create greater transparency and alignment between market participants, increasing efficiency and reducing costs.

## Digital CDM

The first digital iteration of the CDM covers a core set of key events in the credit and interest rate markets – for instance, 'partial termination', 'novation' and 'compression'. The release includes a testable implementation of the model using the Java programming language and illustrative trade and event representations using JavaScript Object Notation.

Any ISDA member can download the initial version and begin testing. An important part of this process is to try the CDM out in real-life applications, and ISDA is working with a number of financial institutions, technology vendors and others to develop proofs of concept.

"With the first digital version of the CDM now released, we can get started on the really exciting work. We are working with a broad range of market participants on proof-of-concept applications of the CDM – essentially, a detailed look at how it can be used to make improvements across specific areas of the industry," says Clive Ansell, ISDA's head of market infrastructure and technology.

As part of this, ISDA is collaborating with Barclays, Thomson Reuters and Deloitte to sponsor a so-called hackathon. The event, scheduled for September, is designed to bring together participants from the technology world to showcase solutions that increase the efficiency of derivatives processing. Contributors will be asked to apply the CDM using emerging technologies to develop solutions for representative use cases in post-trade processing. A panel of judges from the industry, academia and the public sector will judge the feasibility and effectiveness of the proposed solutions.

## Applications

In the longer term, it is hoped the CDM will eventually become the common standard for data and processes across the entire derivatives market, paving the way for the widescale adoption and interoperability of new and emerging technologies, such →

## WHAT THEY SAY

"Efforts on process standardisation through the CDM definition have been in the works for some time. 2017 has been about making the business case to the market. Why do we need it? What is the benefit? Can we do it? There has been a pretty steady increase in traction on those three topics. We now have active engagement across the industry, and people realise how important this is."

**Sunil Challa, director, business architecture at Barclays**

"Industry standard blueprints, such as ISDA's CDM, play an important role in accelerating industry adoption of innovative technologies. CLS is currently working on a proof of concept for a distributed ledger technology platform – LedgerConnect. Aimed at the financial services industry, the platform is designed to enable users and software vendors to deploy, share and consume services hosted on a shared distributed ledger network. We believe ensuring standardisation of the processes and technology used will create enhanced efficiencies and economies of scale for the industry."

**Ram Komarraju, head of innovation and solution delivery, managing director, CLS Group**

"It is important that distributed ledger technology does not replicate today's siloed data architectures but instead achieves its intent in streamlining, improving and providing access to accurate data in real-time. The CDM provides universal data standards so we can reap the benefits of using DLT across a variety of use cases, from collateral management to regulatory reporting, without having to reinvent the wheel."

**Blythe Masters, chief executive officer, Digital Asset**

"Standardisation is one of the key drivers of efficiency for the derivatives market. Having a consistent model, with widespread support from market participants, would help to streamline and simplify many of the processes involved in derivatives clearing."

**Cameron Goh, global head of rates product, LCH**

"It has become clear that the success of a number of industry initiatives would be greatly accelerated with the availability of an industry domain model. This is regardless of whether they operate on a data-at-rest or a data-in-motion architecture. We believe the availability of a useful CDM could be the difference between success and failure for these initiatives. In order to maximise the benefits the industry can gain from technology, we need to have this foundational layer to foster innovation."

**Ayaz Haji, managing director and head of enterprise reference data, technology division, Goldman Sachs**

→ as distributed ledger, cloud and smart contracts. The initial focus, however, is likely to centre on core areas where standardisation is most needed – regulatory reporting, rates clearing, collateral management, credit derivatives processing and equity swaps.

"The use cases we are focused on are driven by the urgency to make sure the model intersects with practical front-burner problems in the industry and provide solutions to them. It's crucial that we don't miss this opportunity to make a difference to our market," says Sunil Challa, director, business architecture at Barclays.

Regulatory reporting, for example, could be significantly improved by having a common industry representation of products and processes. As it stands, each firm needs to interpret what data regulators want reported, and then submit each required data field using the representations in its own systems. This may differ firm to firm, creating a lack of consistency in what is reported to regulators.

In contrast, because the CDM breaks down processes that occur through the lifecycle of a trade into standardised collections of economic features and trade events, regulators would be able to point at specific components they want to be reported. Each reporting firm would be able to pull the exact data from their systems in exactly the same way, increasing consistency and data integrity.

"We're going back to the primitive layer, defining the basic information you need to describe a trade or a product. We believe this will facilitate more efficient reporting for all concerned and ensure the regulatory community receives the required information based on how market participants see the transactions," says Ansell.

The CDM could also prove useful when regulators introduce or adapt reporting rules. In theory, a regulator could identify a specific data point or process they would like to be modified, and those changes could then be applied directly and consistently by market participants without the need for costly compliance projects.

"If regulators adopt the CDM in a format for rule writing, then they can push out any alterations to market, and every firm that uses the CDM can change its internal systems to reflect that," says Ansell.

## Clearing

Rates clearing is another priority. As a first step, certain key events defined in the CDM – for instance, execution and novation – could be embedded in the clearing workflow, cutting down on mismatches between participants and the clearing house. With about 75% of interest rate derivatives notional outstanding now cleared, central counterparties have become central nodes in the system. Once the central infrastructures have adapted the CDM, spreading its use to the whole derivatives market ecosystem should become a lot simpler.

"The idea is that if everyone is doing exactly the same thing for their cleared trades, you'd expect there to be zero breaks. In time, people will begin to ask 'Why am I still shelling out the cost of reconciling all this? I never have a break,'" explains Ansell.

In other areas, the CDM could be employed in existing initiatives. In credit derivatives processing, for example, the Depository Trust & Clearing Corporation's (DTCC) Trade Information Warehouse (TIW) has an existing set of confirmation and settlement standards for credit default swaps. It is currently working on an initiative to move TIW to a cloud-based system that employs distributed ledger technology, with the objective of streamlining and automating derivatives processing and reducing costs.

"This is where we believe the CDM can really come to life. With our Trade Information Warehouse, the foundation is already there. The industry has already created confirmation and settlement standards that all firms using the service adhere to. That will make integrating the CDM much simpler. Market participants have been extremely focused on reducing back-office costs, but have struggled to make significant inroads. The CDM allows us to start thinking not just about cost reduction, but about cost eradication," says Val Wotton, managing director of product development and strategy, derivatives and collateral management at DTCC.

> "The CDM allows us to start thinking not just about cost reduction, but about cost eradication"
>
> **Val Wotton, DTCC**

## Overhaul

This overhaul of derivatives infrastructure will not happen overnight. These types of projects and proofs of concepts will provide invaluable input on the CDM, and the knowledge gained from the process will help inform the development of ISDA CDM 2.0. The model will also be expanded to include additional asset classes and events, and a governance framework will eventually be established to oversee development of the standards.

"These are the early steps in a long journey to overhaul the entire fabric of the derivatives market. It will take time to make the necessary changes to internal systems, but the current situation isn't viable over the long term. Without a common set of data and process standards, we won't be able to fully realise the efficiencies that new technologies like distributed ledger, smart contracts and artificial intelligence offer," says Ansell. IQ

### WHAT IS THE ISDA CDM?

#### Concept

The ISDA CDM is a common, robust, digital blueprint for the complete derivatives lifecycle.

- A common, standardised data and process hierarchical model that builds upon the minimal object definitions contained originally within Financial products Markup Language to express transactions as collections of economic features and trade events.
- A proven technique utilised in many internal risk management systems to mitigate the accepted practices of bilateral information exchanges between market participants.
- A non-differentiated unifying standard to facilitate the development of new technologies, including distributed ledgers and smart contracts.

#### Benefits

Provides a building block for industry transformation.

- Enables consistent hierarchical representation across trades, portfolios and events, providing enhanced risk management and trade processing capabilities.
- Defines the requisite foundations now for long-term process transformation in concert with emerging technologies (cloud, artificial intelligence, distributed ledger, robotic process automation, etc).
- Promotes transparency and alignment between market participants and regulators.
- Enables market participants to comply with regulatory requirements in a cost-effective manner without fear of redundant effort.

# 10 Questions with...

# Darcy Bradbury

*Darcy Bradbury, an ISDA board member and managing director at the D. E. Shaw group, talks about the changes that have occurred to the derivatives market, the impact of initial margin requirements and the importance of an appropriately calibrated rule set*

**IQ:** Can you tell us about your role at the D. E. Shaw group?

**Darcy Bradbury (DB):** I joined the firm 11 years ago, and my role has evolved over that time, but it has always focused on public policy issues. Today, I split my time between regulatory policy, both analysing policies and advocating through trade associations like ISDA, and government policies that might impact our investment portfolios, which involves analysing issues with our investment strategists. Public policy today is in a period of great debate and change around the world and across many issues, so it can have a bigger-than-usual impact on our firm and our investors' portfolios.

**IQ:** How and why does the D. E. Shaw group use derivatives for its clients?

**DB:** Our firm uses derivatives both to invest and to hedge risks in our funds. Derivatives can be an efficient way to implement many investment ideas given their low transaction costs and ease of customisation. In addition, derivatives are a key risk management tool for those of our strategies that endeavour to hedge general market risks that aren't central to our investment theses.

**IQ:** What do you see as the current main priorities for derivatives market participants?

**DB:** All firms that use swaps have been coping with an unusual level of change over the past six years, so I think many of us would like a breather – some time to reflect on what's working well and what needs to be refined. There have been changes in regulations, technology and margin requirements, all of which have required time and effort to analyse and implement.

We have worked to create new contractual relationships with clearing houses, swap execution facilities (SEFs) and new dealers, but have benefited from access to central clearing, which has reduced our bilateral counterparty risks. We've seen the universe of clearing brokers shrink, likely due to new capital rules, but we've also been able to find new trading counterparties thanks to electronic trading on SEFs. We've had to make changes to our trading and compliance systems to enable us to trade effectively and carry out compliance and reporting obligations in these new regimes. Overall, the swaps market functions as well or better in many aspects than it did before all the changes, but I'm optimistic that policy-makers are now willing to recalibrate certain rules in light of our collective experience and better data about the derivatives markets.

**IQ:** Initial margin (IM) requirements for non-cleared derivatives transactions are set to be extended to a much broader range of derivatives users in 2019 and 2020. What are the implications of this?

**DB:** There are different implications, depending on whether a firm already posts IM for swaps it can't clear. Many buy-side firms have not had to post IM, so this change means not only significant operational changes, but also a direct increase in costs. Our funds have been posting IM for decades, so while there are operational hurdles, our main concern is how the new IM levels will be set.

When the margin rules were drawn up more than five years ago, regulators seem to have assumed that all non-cleared swaps were riskier than cleared swaps and they needed to push firms into central clearing, so margin was based on a standard 10-day liquidation period versus five days for cleared swaps. While most of our non-cleared swaps are customised or otherwise not eligible for clearing, the reference assets are often quite liquid – for example, equities, rates or commodities – so if there were ever a problem, our counterparties would presumably be able to hedge their risk or liquidate readily. Dealers currently require us to post IM based on more sophisticated analyses of the underlying reference assets and our credit risk – an approach we think has protected them and the financial system as a whole quite effectively over the years.

**IQ:** Will the derivatives market look different in three years' time? In what way?

**DB:** In some respects, no. There will continue to be a need for derivatives from a wide variety of firms to hedge their risk or optimise their investment profiles. Having said that, there are some big changes on the horizon; benchmark reform is one. Regulators globally have directed the markets to find alternative reference rates to LIBOR and the other IBORs. Given the extensive use of these benchmarks in contracts across financial markets, this will require unprecedented industry effort and resources over the next three years. It's not something any of us can ignore.

Margin is another. Beginning September 2020, regulations will require a much larger universe of small banks and financial end users to post IM and use a standardised calculation method. This will change how these firms trade derivatives – both from a systems perspective and also in terms of cost. Those changes will be extremely burdensome for many.

**IQ:** Will technology fundamentally change derivatives markets?

**DB:** Our firm was built 30 years ago at the intersection of technology and finance, so we fully believe in the value of using the power of technology to make better investment decisions and reduce inefficiencies. ISDA's work to develop a set of digital standards for events and processes through the Common Domain Model is an important step to realising the full potential of new technologies like distributed ledger, which could improve operations and reduce errors.

**IQ:** How do you view ISDA's role in the market?

**DB:** ISDA is a wonderful convener of constructive conversations and a builder of effective solutions. The derivatives market is complex and global and includes participants with different business goals and models. From its roots as a dealer-centric organisation, ISDA has evolved into a diverse, member-driven entity where we can share ideas, build common solutions and advocate for sound policy based on data.

**IQ:** What ISDA initiatives are most important from your perspective?

**DB:** ISDA has been a long-time advocate for cross-border harmonisation, which is critical for the efficient functioning of the derivatives market. The markets need to increase the degree of harmonisation across borders and among national regulators to reduce duplicative compliance costs and promote global liquidity. ISDA's focus on margin for non-cleared derivatives has also been important, including the development of the ISDA Standard Initial Margin Model. In addition, ISDA is playing an extremely important role in raising awareness of benchmark reform in order to help ensure a smooth and orderly transition from the IBORs to alternative risk-free rates.

**IQ:** What are your hobbies?

**DB:** I'm deeply involved with two organisations that work to reduce poverty, improve reproductive health and increase educational opportunities, with a particular focus on women, girls and immigrants. To recharge, I spend as much time in my garden as possible. Pruning roses is a great way to free the mind.

**IQ:** If you could live and work in any financial centre other than New York, what would it be – and why?

**DB:** Not going to happen. I love to travel, but there's no place like New York City for art, food, music and finance. IQ

# The Case for Cooperation

*As part of the European Commission's proposed changes to the supervision of central counterparties, third-country CCPs deemed to pose significant systemic risk could be required to relocate to the EU as a last resort. ISDA believes a better outcome would be to rely on supervisory cooperation*

**It is more than a year** since the European Commission (EC) published its proposal to overhaul how third-country central counterparties (CCPs) are supervised. The technicalities have been widely debated in the months since, but one key aspect of the proposal continues to prompt particular industry concern – that third-country CCPs deemed to be of significant systemic importance to the European Union (EU) could be required to locate to the EU as a last resort.

Concerns have focused on the risks presented by a location policy – a fragmentation of markets, reduced liquidity, increased systemic risk and higher costs. It could also distort competition and reduce efficiency of markets. Ultimately, it could affect the structure and functioning of EU capital markets, which could have a knock on impact on the ability of EU end users to raise funding.

The proposal itself – part of a revision to the European Market Infrastructure Regulation known as EMIR 2.2 – sets out a two-tier approach for classifying third-country CCPs. Under the first tier, non-systemically important CCPs will largely be able to continue operating under the existing equivalence framework. Those third-country CCPs considered to be systemically important will fall under the second tier and will be subject to stricter requirements. These include compliance with the relevant EU prudential and central bank requirements, providing the European Securities and Markets Authority (ESMA) with all applicable information, and enabling onsite inspections.

However, ESMA and the relevant EU central bank would also be able to recommend to the EC that any third-country CCP considered to be of substantial systemic importance to the EU financial system should be established in the EU as a last resort.

ISDA believes a better outcome would be to develop a model of supervisory cooperation that enables EU supervisors to exercise appropriate and proportionate oversight of CCPs that provide clearing services in the EU.

## Supervisory focus

In response to the EC proposal, ISDA has set out a series of recommendations. Importantly, direct supervision of third-country CCPs and supervisory cooperation with local authorities should be proportionate and efficient. The interests of supervisors should also be aligned through rules agreed ex-ante and based on global standards. Supervisors have a role to play in ensuring CCP margin and haircut models are robust, but should not change model outcomes on an ad hoc basis.

In coming up with a framework, the direct supervision of LCH's SwapClear service provides an effective precedent. While being based in the UK, the service is supervised by the US Commodity Futures Trading

Direct supervision of third-country CCPs and supervisory cooperation with local authorities should be proportionate and efficient

Commission (CFTC), in cooperation with it's primary regulator, the Bank of England (BoE).

## Business as usual

Proportionate and efficient direct supervision must be developed through business-as-usual cooperation, based on agreements made in advance between the relevant authorities.

This is in line with the Principles for Financial Market Infrastructures (PFMIs), published by the Committee on Payments and Market Infrastructures and the International Organization of Securities Commissions, which calls for central banks, market regulators and other relevant authorities to cooperate with each other both domestically and internationally in promoting the safety and efficiency of financial market infrastructures.

Topics that should be agreed between regulators include provision of mutual support, areas where supervisors defer to each other, when host supervisors should rely on home-country supervision, including inspections by the home-country supervisor, and procedures for an efficient review of a CCP's risk management framework. Supervisors should also agree procedures, decision-making processes and governance in the event a large clearing member is in resolution or defaults, and procedures and a governance structure for crisis situations.

> Proportionate and efficient direct supervision must be developed through business-as-usual cooperation, based on agreements made in advance between the relevant authorities

## Cooperation

Supervisors should defer to each other's rules and supervisory activities as far as it is appropriate and proportionate to do so, with a view to avoid conflicting or duplicative requirements. This in line with the PFMIs, which encourage authorities to cooperate with each other to reduce the probability of gaps in regulation, supervision and oversight that could occur if there was no coordination. The PFMIs also call for authorities to minimise duplication of effort and the burden on financial market infrastructures or cooperating authorities.

For efficiency, the host country should focus its direct supervision on segments of the CCP that are systemically important for the host country, rather than the whole CCP. This would be in line with the practice of other regulators around the globe (for instance, Canada, Australia and the US).

A CCP could seek both home and host regulator approval of risk management or rule book changes that impact services in both jurisdictions, provided a streamlined and efficient procedure is in place to ensure changes can be implemented in a reasonable time. If there are differences of opinion between supervisors, then there is enough time in a typical business-as-usual situation to discuss these and agree on compromises consistent with global guidelines. A CCP subject to the risk management rules of several jurisdictions would likely apply the most conservative approach to all of its activities, ensuring strong risk management.

In addition to direct supervisory powers, supervisors should build information sharing into their agreements. The home supervisor should share the outcomes of supervisory actions with host supervisors, including inspections, stress tests and other significant interactions with the CCP. If the host performs its own inspection, then the results should be shared with the home supervisor.

Supervisors and central banks should also establish an extensive secondment programme. Seconding staff will promote cooperation and understanding of each other's approaches to supervision, and will build knowledge about each other's processes. Secondments would also build trust between supervisors and central banks that would be helpful in a crisis.

## Coordination

To avoid duplication and improve collaboration, home- and host-country supervisors should inform each other of their planned supervisory activities and work together to carry them out. Supervisors should also coordinate their requirements on inspections and supervisory activities and respect existing practices of international comity.

Information sharing is already in place between some supervisors. For instance, the CFTC has made information-sharing agreements public on its website. The European Central Bank and the BoE also have enhanced arrangements for information exchange and cooperation for UK CCPs with significant euro-denominated business.

These types of arrangements – deference to overseas rules and supervision where appropriate, cooperative arrangements, information sharing, agreement on risk management or rule book changes and coordination on supervisory activities – would reduce the potential for duplication and disruption arising from multiple and potentially conflicting supervisory regimes.

## Access to liquidity

CCP access to central bank money makes clearing more efficient and reduces risk to end users and the broader financial system. Access should include the ability to use central bank money for payments, central bank accounts for the safe-keeping of participant cash, and access to central bank liquidity (at least in emergency situations). Access to emergency liquidity can also be implemented via swap lines between involved central banks. →

# Supervisors should defer to each other's rules and supervisory activities as far as it is appropriate and proportionate to do so, with a view to avoid conflicting or duplicative requirements

→ Access to the Security Settlement System in cooperating jurisdictions would bring benefits in terms of reducing settlement risk and increasing efficiency. It would also ensure that local authorities have full visibility on all flows denominated in local currency. If the central banks of cooperating jurisdictions would provide these services to each other's CCPs, potentially via the home central bank, then these CCPs would become safer.

Close business-as-usual cooperation and support encourage practical day-to-day cooperation and reliance on each other. This will build trust and create strong incentives to include the other jurisdiction in crisis planning and crisis management should a stress event occur.

## Default management

For global markets to operate reliably and without undue systemic risk, supervisors should liaise regularly on a wide range of topics and agree mutually acceptable solutions to problems and challenges as they arise. A global economy and a global approach to markets bring significant benefits to society. Realisation of these benefits requires cooperation among home and host supervisors that seek to exercise authority over regulated entities.

Crisis management is most effectively addressed by rules agreed ex-ante. To illustrate the value of this approach to supervisory cooperation, consider the example of a distressed large EU 27 clearing member at a UK CCP. The European resolution authority (expected to be the Single Resolution Board) would likely place the clearing member into resolution.

An orderly resolution process, and the potential avoidance of a default by the clearing member, significantly benefits the CCP, its members and their end-user clients. The default management process (DMP) at a CCP is both onerous and risky, so there is absolutely no incentive on the part of a CCP or its members to engage in default management unless it is absolutely necessary. It is therefore clear that the interests of the CCP, its supervisor and the resolution authority are well aligned, and the process will work best if the relevant authorities and interested parties (in this case, the CCP) communicate, cooperate and support each other.

Cooperation should be based on detailed ex-ante clarifications of roles and responsibilities. This should ensure that the supervisor and resolution authority for the distressed clearing member have comfort that the third-country CCP will not commence the DMP so long as the resolved bank satisfies the requirements of the CCP rule book. It should also ensure that the CCP's home supervisor can rely on the bank in resolution meeting margin calls and other rule-book requirements.

Availability of liquidity arrangements supported by central bank access in all relevant currencies, including the currency of the host jurisdiction, would facilitate this and would likely be critical in tackling the market stress that could occur in such an event.

The procedures for crisis management should be rehearsed on a regular basis to make sure all participants are comfortable the agreement will protect their interests.

## Recovery and resolution

Most defaults at CCPs will likely be covered through the CCP's DMP using pre-funded resources, and can be seen as business as usual. However, recovery or resolution of a CCP are extreme stress events, and decisions by a local supervisor can have an impact on other jurisdictions – for instance, through use of recovery tools like variation margin gains haircutting that could affect all clearing participants independent of location. As with other aspects of supervisory cooperation, the approach to these situations needs to be agreed ex-ante, as time can be of the essence – long discussion with a wide range of stakeholders may not be possible.

Recovery and resolution plans can be reviewed by a wide range of stakeholders, including the host supervisor(s). This will be even more important if those jurisdictions provide the tools for the smooth operation of the CCP (for example, central bank settlement, accounts and liquidity). In these situations, authorities in the host jurisdiction will be important stakeholders in the preparation and execution of the plans.

Depending on the level of cooperation and reliance on authorities in different jurisdictions, resolution plans should set out what decisions require agreement, and which role each authority will play. Host authorities should also know the scope of possible actions in recovery and resolution so they can plan accordingly.

All these points are relevant not only between cooperating supervisors in the EU 27 and third counties, but also in situations where all parties are established within the EU.

### Aligned interests

The home supervisor acts in the name of the jurisdiction that bears the ultimate financial risk, and therefore needs to have the lead and the last word in a crisis. However, this does not mean the home supervisor should consider its own markets exclusively when dealing with a CCP crisis. Given the tight integration of markets, it will be very difficult to solve a local crisis without cooperation with other jurisdictions.

Recovery and resolution tools apply to all creditors alike. International guidance and European regulation already stipulate that creditors cannot be treated differently because of their country of incorporation. It is therefore unlikely that recovery and resolution tools would be applied to the detriment of a certain jurisdiction.

With close cooperation and provision of services (such as the ability to use central bank money for payments, central bank accounts for the safe-keeping of participant cash, and access to central bank liquidity, at least in emergency situations), authorities in host jurisdictions should support the home supervisor or resolution authority. This will provide incentives for that authority to solve the crisis in a way that will not negatively affect the host jurisdictions. This is particularly valid if a large part of the collateral is kept in the host jurisdiction's central bank accounts.

### Conclusion

No economy can entirely ring-fence its market infrastructures from outside risks in an integrated financial market. Supervisors have to work together to deliver robust international markets.

By accepting the interdependencies in CCP supervision and deferring to one another where appropriate, relevant jurisdictions can build a cooperative supervisory framework. If these jurisdictions also provide central bank payment facilities, accounts or liquidity to each other's CCPs, these clearing houses will become safer and there will be a foundation for robust cooperation during a crisis. IQ

This is an edited version of an ISDA whitepaper, The Case for CCP Supervisory Cooperation. The full version of the whitepaper is available here: http://isda.link/ccpsupervisory

# Beyond Mandates

*Regulators in multiple jurisdictions have implemented clearing mandates for certain standardised derivatives, but analysis shows market participants are clearing more than they are required to*

**Encouraging the clearing of standardised derivatives** has been a major priority for policy-makers. Regulators in the US, European Union, Japan and elsewhere have introduced mandates to clear certain derivatives, while capital and margin rules for non-cleared derivatives have been calibrated to further promote clearing activity.

The question is whether that goal of encouraging clearing has been achieved. Analysis of trading volumes reported to US swap data repositories (see methodology box) shows the majority of interest rate derivatives (IRD) traded notional is now cleared. In fact, market participants are clearing more transactions than required under the US Commodity Futures Trading Commission's (CFTC) clearing mandates (see box).

By novating trades from multiple counterparties to clearing houses, firms are able to realise economic and other benefits of multilateral netting, which is driving participants to clear more than the rules mandate – both in terms of products not subject to the clearing mandate and trades with counterparties that are exempt from clearing.

From 2014 to 2017, the percentage of IRD traded notional that was subject to US clearing mandates implemented by the CFTC[1] rose from 73% (2014 and 2015) to 77% and 85% (2016 and 2017, respectively)[2]. During the same four-year period, the percentage of IRD traded notional that was actually cleared increased from 77% (2014) to 78% (2015), 84% (2016) and 88% (2017).

## Interest rate derivatives

IRD traded notional has been consistently growing since 2015, and reached $193.1 trillion for the full year 2017 compared with $143.8 trillion for the full year 2014. The amount of cleared transactions has also been steadily increasing over the same period. In 2014, cleared notional totalled $111.1 trillion, accounting for 77% of total IRD traded notional. In 2017, cleared notional reached $169.3 trillion, representing 88% of total traded notional.

**TABLE 1: PERCENTAGE OF US CLEARED AND MANDATED TO BE CLEARED IRD TRADED NOTIONAL**

| | Total US IRD Trading Volume (US$ trillions) | Cleared (%) | Mandated to be Cleared (%) |
|---|---|---|---|
| 2014 | 143.8 | 77 | 73 |
| 2015 | 142.2 | 78 | 73 |
| 2016 | 166.3 | 84 | 77 |
| 2017 | 193.1 | 88 | 85 |

This is more than what is required under the CFTC's clearing mandates (see Chart 1). In 2014, $105.2 trillion was subject to the clearing mandate compared to $111.1 trillion that was actually cleared. In 2015, $111.6 trillion was cleared, versus $104.4 trillion that was subject to the clearing mandate. In 2016, $139.7 trillion was cleared, out of which $127.7 trillion was required to clear.

Following an expansion of the clearing mandate by the CFTC in late 2016 to include additional classes of IRD, the difference between cleared notional and the amount subject to a clearing mandate shrank. In 2017, $164.7 trillion was subject to the clearing mandate while $169.3 trillion was cleared[3].

## Non-cleared notional

There is little evidence to suggest that firms are seeking to evade the clearing requirements by structuring their transactions to render them non-clearable or by migrating to products that are not subject to the CFTC's clearing mandate. On an absolute basis, the notional amount of US non-cleared IRD declined from $32.7 trillion in 2014 to $23.9 trillion in 2017.

Much of this decline resulted from increased clearing of fixed-for-floating interest rate swaps. Non-cleared fixed-for-floating swaps most likely include products with specifications not covered by the clearing mandate or transactions with counterparties that are exempt. In 2014, non-cleared fixed-for-floating transactions

[1] Compliance dates for the CFTC's clearing requirements were phased by type of market participant. Category 1 entities were required to clear from March 11, 2013; Category 2 entities were required to clear from June 10, 2013; and Category 3 entities were required to clear from September 9, 2013

[2] Since ISDA does not have data to determine whether transactions were executed by counterparties exempt from the clearing requirement, it is assumed that all transactions in products subject to the CFTC's clearing mandate were executed by counterparties that are required to clear. As the result of this assumption, the percentage of the notional mandated to clear is likely to be overestimated

[3] While compliance dates in the CFTC expanded clearing determination vary for different products, it is assumed that all products included in the mandate were subject to clearing requirements at the beginning of 2017 for the purposes of this analysis

totalled $10.2 trillion and accounted for 31% of all non-cleared IRD volume. This had declined to $3 trillion in 2017, equating to 13% of all non-cleared IRD volume.

On a relative basis, the percentage of IRD trading volume in product types not subject to the CFTC's clearing mandate (such as cross-currency swaps, swaptions, caps and floors, inflation swaps and exotic products) has remained at approximately 10% throughout the four-year period from 2014 to 2017.

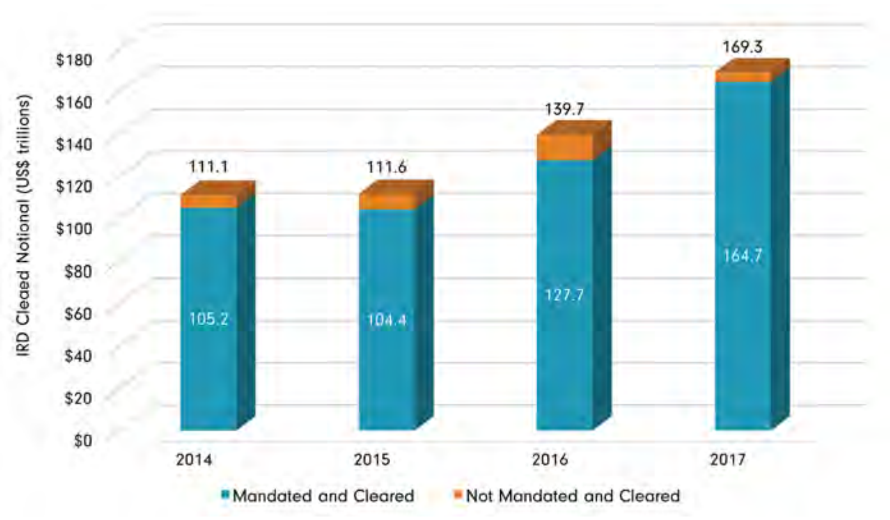
In 2014, $15 trillion of these products were traded, equal to 10.5% of all IRD trading volume. In 2017, volumes climbed to approximately $19.3 trillion – about 10% of total IRD traded notional.

Despite not being subject to the CFTC's clearing mandate, about $0.7 trillion of these products was cleared in 2017. Inflation swaps accounted for the majority of cleared products. Cleared notional amount of inflation swaps jumped from $30 billion in 2015 to $0.7 trillion in 2017. Overall, about 80% of inflation swaps total traded notional was cleared in 2017.

### Credit derivatives

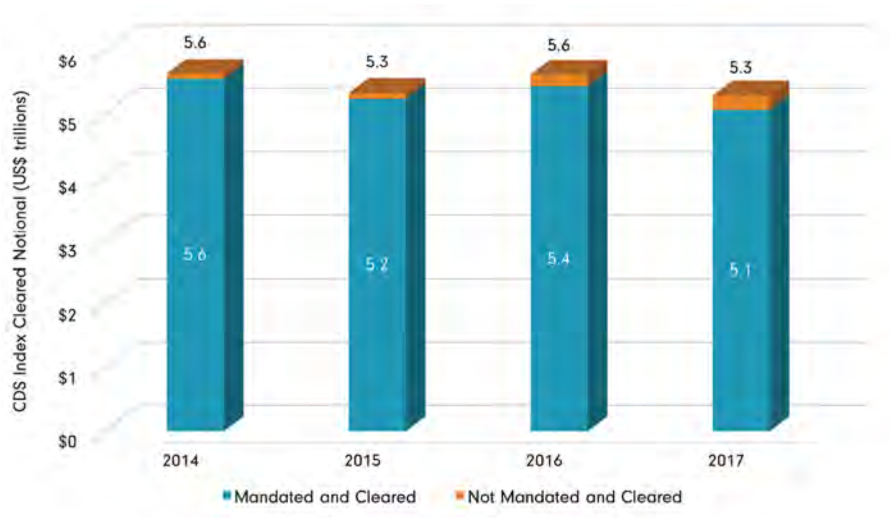
IRD is by far the largest derivatives asset class, accounting for about 80% of total global notional amount outstanding at the end of the second half of 2017, according to the Bank for International Settlements. Of the other four derivatives asset classes – credit, FX, equities and commodities – only credit has a clearing mandate. This covers several credit default swap (CDS) index products, but there is no clearing mandate for single-name CDS. →

**CHART 1: IRD CLEARED NOTIONAL**




Source: ISDA analysis based on DTCC and Bloomberg SDRs data

**CHART 2: CDS INDEX CLEARED NOTIONAL**




Source: ISDA analysis based on DTCC and Bloomberg SDRs data

By novating trades from multiple counterparties to clearing houses, firms are able to realise economic and other benefits of multilateral netting, which is driving participants to clear more than the rules mandate

# The amount of cleared transactions has been consistently growing in the US since 2014, and market participants clear more contracts than required under the CFTC's clearing mandate

→ CDS index traded notional has been declining since 2015, but the share of cleared transactions has been rising. CDS index traded notional totalled $6.9 trillion for the full year 2014 compared with $5.7 billion for the full year 2017. In 2014, cleared notional equalled $5.6 trillion, accounting for 82% of total traded notional. In 2017, cleared notional totalled $5.3 trillion, representing 92% of total traded notional.

As with IRD, market participants are clearing more CDS index trades than is required under the CFTC's clearing mandate. In 2017, $5.1 trillion was subject to the clearing mandate compared to the $5.3 trillion that was actually cleared.

In the US, ICE Clear Credit and CDSClear (LCH's CDS clearing service) offer index and single-name CDS clearing. Even though no clearing mandate for single-name CDS exists, the cleared notional amount of single-name CDS trading has been growing. Total volume of cleared single-name CDS reached $1.1 trillion in 2017 compared with $0.9 trillion in 2014. While the amount of cleared corporate single-name CDS has been mostly steady over the past four years, the volume of cleared sovereign CDS has increased. This reflects the expansion of available cleared sovereign CDS reference entities, as well as capital and margin requirements for non-cleared CDS.

## OVERVIEW OF THE CLEARING MANDATE

In 2012, the US Commodity Futures Trading Commission (CFTC) issued the final rule to implement the clearing requirement determination under section 723 of the Dodd-Frank Wall Street Reform and Consumer Protection Act. The final rule required four classes of interest rate derivatives (IRD) (fixed-for-floating swaps, basis swaps, forward rate agreements and overnight indexed swaps) in the top four currencies (US dollar, euro, sterling and yen) to be cleared by derivatives clearing organisations registered with the CFTC[4].

The rule also required mandatory clearing of two classes of credit default swaps (CDS), including North American untranched CDS indices and European untranched CDS indices.

In 2016, the CFTC expanded the clearing requirement to apply to additional classes of IRD.

The rules include an end-user exception that exempts non-financial entities that use swaps to hedge or mitigate commercial risk from the clearing requirement. The rule also provides an exemption for cooperatives and swaps between affiliates that meet certain requirements. Additionally, the rule exempts small banks, savings associations, farm credit institutions and credit unions with total assets of $10 billion or less from the definition of 'financial entity'. This means they are not subject to the mandatory clearing requirement with respect to swaps they use to hedge or mitigate commercial risk.

[4] OIS denominated in yen were not included in the clearing mandate

## METHODOLOGY

ISDA analysed IRD traded notional from the Depository Trust & Clearing Corporation (DTCC) and Bloomberg swap data repositories from 2014 to 2017, which covers transactions subject to US reporting requirements. Analysis was conducted on IRD traded and cleared notional amounts.

Cleared volumes for credit default swap (CDS) indices and single-name CDS were also analysed. Although there is no regulatory mandate requiring clearing of single-name CDS in the US, volumes have been increasing.

## Conclusion

ISDA's analysis shows that the amount of cleared transactions has been consistently growing in the US since 2014, and market participants clear more contracts than required under the CFTC's clearing mandate. By novating trades from multiple counterparties to central counterparties, firms are able to realise economic and other benefits of multilateral netting, which serve as a powerful incentive to clear.

This is driving firms to clear more than the rules mandate. There is also a desire to mitigate credit risk and, in the case of banks, reduce the capital held against these trades. The introduction of new margin requirements for non-cleared derivatives has also resulted in increased clearing volumes. IQ

Read the full version of the ISDA research at: http://isda.link/actualclearedmandatedcleared

# 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.

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Representing the industry through public policy engagement, education and communication

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

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

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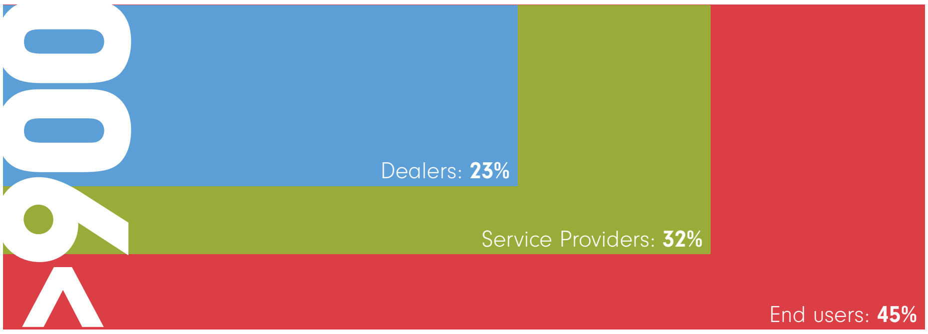


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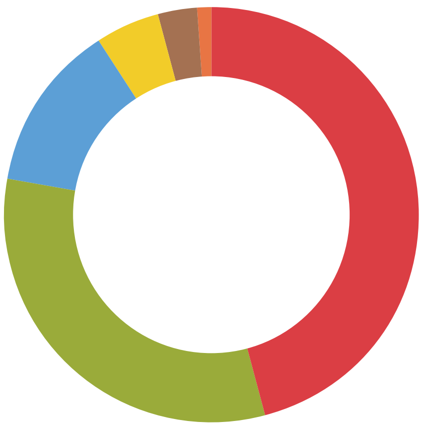
| Banks | 31% |
| Law Firms | 22% |
| Asset Managers | 10% |
| Government Entities | 12% |
| Energy/Commodities Firms | 7% |
| Diversified Financials | 6% |
| Other | 12% |

## GEOGRAPHIC COLLATERALISATION

| | |
|---|---|
| Europe | 46% |
| North America | 32% |
| Asia-Pacific | 13% |
| Japan | 5% |
| Africa/Middle East | 3% |
| Latin America | 1% |



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"LIBOR is so widely used across a range of markets that if it were to suddenly cease publication, we could see extensive market disruptions"

**Joshua Frost, senior vice-president, Federal Reserve Bank of New York**