ISDA response to Bank of England Discussion Paper on Transforming data collection from the UK financial sector

The International Swaps and Derivatives Association ("ISDA") welcome the opportunity to respond to the Bank of England's discussion paper on transforming data collection from the UK financial sector.

This response builds on our October 2019 response to HM Treasury's Financial Services Future Regulatory Framework Review on Regulatory Coordination and our response to the European Commission's Supervisory Reporting Requirements 'Fitness Check' of March 14, 2018. We have sought to cover a wealth of topics in this response: from sharing our own experiences in data collection through the SIMM case study, to describing our own digitalisation projects in the ISDA Clause Library, EMIR Best practices and of course the CDM.

Our 2019 response to HM Treasury set out our four-point plan to not only increase the efficiency of reporting, but also to reduce the instance of duplicative reporting:

Policymakers could work to increase the efficiency of reporting in the following ways:

1) Increase engagement between domestic and international regulators to seek alignment of reporting rules across jurisdictions – including continued advocacy for single sided reporting globally.

2) Support the work which the CPMI, IOSCO, and the FSB are conducting for the global harmonization of the Unique Transaction Identifier (UTI), Unique Product Identifier (UPI), and the Critical Data Elements (CDE) of OTC derivatives reported to Trade Repositories.

3) Reduce duplicative reporting, in particular align UK EMIR reporting with similar regimes globally. UK EMIR should establish a market-wide principle that derivative transactions, which have been matched via confirmation and reconciliation processes, should only be reported once to supervisors, by one party, not twice.

4) In the longer term, utilize the appropriate standards or new technology to build a 'report once/permission to data once' regime: firms would produce a single dataset which the relevant regulators could 'cut' to suit their particular regulatory objectives.

We very much welcome this discussion paper from the Bank of England and their interim and long-term solutions broadly concur with our fourth point above – that, by developing common data inputs, modernising how the Bank writes reporting instructions and supporting different architecture solutions, a report once/permission to data once regime would be achieved.

Overall

QA: Which of the solutions identified (or combination of solutions) do you see as most attractive to explore further as a long-term goal, and why? Are there other promising options we have not considered?

In its Discussion Paper, the Bank of England ('Bank') consider initiatives in the UK and around the world that offer a range of possible solutions and group these possible solutions into three blocks, with a range of options in each. These blocks are (1) common data inputs (2) modernising reporting instructions and (3) changes to the reporting architecture.

As the Bank acknowledges, developing common data inputs forms the basis of a move to modernise how the Bank writes reporting instructions and could also support different architecture solutions such as a 'pull' model of data collection.

ISDA propose that the long-term goal, which would deliver real cost savings for firms, is a combination of options 1 and 2 in the common data inputs bucket. That is, to establish a central service provider to which reporting entities submit data. A 'pull model' on the central service provider would allow the Bank to be able to query certain data held within firms and generate reports on demand – crucially, from the central service provider and not directly from the banks themselves. It may also be possible for the Bank to pull data directly from market participants themselves, essentially removing the need for market participants to report at all. The data would need to be made available within a 'staging area / system' (as opposed to booking or risk management systems) which the Bank would require access to, but the same scope of data would be made available.

However, there are a number of considerations to be addressed with a central service provider such as a lack of competition, the costs to market participants with only one provider, and a potential lack of flexibility. Some of these concerns could be addressed if

there were a 'mesh network' of centralised service providers, or perhaps the focus should be on a central data model (in line with the common data inputs) that can be serviced by multiple providers.

QB: What do you see as the most useful actions to take as interim steps towards such a goal?

The interim step towards achieving the longer term goals around overhauling data reporting governance and architecture is to develop common data inputs. The way that ISDA have done this, through the ISDA CDM, is in the development of industry data standards. We would caution against deriving common data inputs from reporting needs – good reporting should be reflective of industry standards at the outset. It should also be reflective of industry data standards that are already used practically for performing financial tasks (such as the settlement of a trade). Such practical standards will generally be understood by the financial industry and give the relevant level of granularity needed to regulators.

This work would help to facilitate the representation of reporting instructions as code.

Identify and utilise existing standards

Projects are already underway within the financial industry to establish a data model to fully represent specific financial markets, (with some models having the potential to represent multiple financial markets), and present the data as machine readable and machine executable. The Bank should consider leveraging these existing data models (such as the ISDA CDM, see the answer to Question G for details) where possible, potentially with the option of participating in the further development and endorsement of the models. This should allow such data models to be ready for use in the more immediate future and gain greater traction from market participants. The next stage would be to find where standards uses may intersect, or where there is need for interoperability to enable communication between parties, or to aggregate information, such as for regulatory reporting or risk management.

Cross industry participation

Early engagement with the industry and the involvement of firms with any changes to data collection processes will help to ensure all the relevant data for a given regulation or financial section will be made available to the Bank. Direct engagement between regulators and market participants in the development of standards and data models will help to avoid any potential gaps that may otherwise be created, and pave the way for regulatory endorsement of the resulting standards / data model.

QC: Which sectors/reports should be prioritised, or excluded, in relation to the long-term goal and interim steps?

Priorities

The Bank could leverage the work ISDA has been doing to develop EMIR trade reporting best practices. The next step is to digitalise these best practices within the ISDA CDM – this project is currently underway within ISDA. This means that there can be no misinterpretation of the best practices because they are expressed as code.

Prudential Data

Some of the most expensive and important data reporting firms carry out is for prudential data, so this area of data collection / reporting could deliver some of biggest benefits. However, it is also potentially one of the hardest to tackle.

New data and reporting requirements

For the initial pilot(s), the Bank may want to consider new reporting requirements rather than existing regimes that would require redefining already well-established data standards. Two potential pilots for data input standardisation, both of which do not currently have established standards are:

ESG reporting

ISDA members identified ESG reporting as an area currently in its infancy. In the context of the ongoing consultation on the review of the non-financial reporting directive review (NFRD), the European Commission is exploring the development of a common reporting standard with international reach to measure companies' contribution to sustainable economic and social growth – similar to the role of the IFRS in financial reporting. Such a common reporting standard could facilitate the publication of non-financial information through a digital format, which could in turn allow for the creation of a single access point for corporate information like the European Single Electronic Format. In this light, the Commission has also asked the High level forum on CMU to examine the possible creation of a single access point in the coming months.

The Commission has called on the European Financial Advisory Group (EFRAG) to aid in the development of such a standard and have cited a plethora of existing international standards and guiding principles they could draw on.

QD: In what respects do you consider it most important that the Bank coordinates reforms to data collection with other UK or international authorities?

Any new or revised standards should, wherever possible, cross-reference to (and have interoperability with) existing standards and terms which are in use within other regulation(s) / legislation(s), and recognise current industry practices. As the financial markets are global,

data standards should also be adopted globally to deliver the maximum effect. Fragmentation of reporting requirements between jurisdictions increases the cost and complexity for market participants, and even where reporting processes are to be streamlined for the benefit of both firms and the Bank, to the extent that this becomes a UK only project, the benefits will be limited. However, while improvements to data reporting and collection would ideally be solved at a global level, it is perhaps unrealistic to expect coordinated changes to be agreed and applied simultaneously across jurisdictions. Therefore, a more realistic approach may be for the Bank to start locally and encourage other jurisdictions and regulators to follow suite. It is also helpful to avoid (at least initially) any extra-territoriality impacts, as well as avoiding the adoption or alignment with regimes that may impose restrictions on choice, competition, transparency, or undue cost (unintentionally or otherwise).

One area where the Bank could consider which may have more impact in the creation of a globally uniform approach, is in the field of ESG reporting (detailed in QC above).

QE: What do you see as the most significant wider benefits to firms or to the financial system from improvements to data collection, beyond cost reduction?

Quality of data and improved accuracy of reporting. Improved data models and enhanced data collection processes will result in more meaningful and useful data being submitted to regulators, and for that data to be more useful to the reporting firms themselves.
Less prone to errors. As well as improved accuracy of data, firms are less likely to send missing or irrelevant data if data requirements are standardised and expressed in a machine readable version.
Relevant data. Involving the industry when establishing new or revised data collection requirements and standards will help ensure that the data set reported by firms will contain <u>all</u> the relevant data and <u>only</u> the relevant data require for a given regulation.

CASE STUDY where ISDA have improved data collection

The SIMM (Standard Initial Margin Model) is a good example of a standard model owned by ISDA and accepted by regulators.

Firstly, bilateral non-disclosure agreements (NDAs) are put in place between ISDA and each of the participating firms. These NDAs govern the submission of data by the firms and the usage, purpose and sharing of results analysis (anonymised information) by ISDA.

SIMM data collection:

For each of the SIMM Risk Classes, a set of SIMM parameters such as risk weights and correlations is calibrated based on a set of representative instruments. The method of determining representative instruments for all Risk Classes can be summarised as follows:

Identify widely traded market instrument types to be used for calibration for each Risk Class
Select appropriate representative instruments for individual risk buckets within each Risk Class.

The historical time series data selected for calibration are either obtained through publicly available sources or provided by ISDA participating members. The time series of the same underlying instruments obtained from multiple sources are consolidated into one series by taking the median of values in the time series.

Based on representative risk factors for each Risk Class, a one-year contiguous time period that represents the most volatile time window is chosen as the stress period, which is determined by sliding a one-year volatility (of the 10-day overlapping return) window from January 2, 2008 through December 31 of the last available full calendar year at the time of the calibration. The time period for calibration is constructed by combining the one-year stress period and the most recent contiguous three-year period, and is called the "1+3", or "relevant" time period. When the one-year stress period overlaps with the most recent contiguous three years, the most recent contiguous for years are selected for the "1+3" period.

For the SIMM Backtesting and Benchmarking exercise, ISDA collects data from firms reflecting the historical profit-and-loss (PnL) times series for their SIMM portfolios, as well as Basel traffic light test statistics (Red/Amber/Green) for each of these portfolios, and CCP margin amounts for a range of test portfolios (computed by each firm using their access to CCP margin models) that firms send to ISDA.

SIMM Data collection from firms generally includes the following steps:

A list of representative instruments is agreed upon among the members of the SIMM Governance Forum (SGF). Separate lists are created for each risk class/type balancing the needs for representativeness and continuity. Working groups may be organised as deemed necessary by the SGF whose aim is to provide a forum for subject matter experts (SMEs) to give input into the list creation process. Firm Surveys (e.g. Crowdsourcing) or public data (e.g. from DTCC and BIS) are used to aid in establishing the most liquid/representative instruments per risk class/type. For Risk Classes/Types where firm data is required, data request surveys are designed based on the lists of representative instruments and distributed to the firms. The firms fill out the surveys and submit them to the Calibration Agent. This process can be extensive and have multiple interactions in cases where firms provide an insufficient amount of data or the data is deemed to be of a subpar quality or in incorrect format. Data received is then organised.

Data sourced from public exchanges and data providers is sourced for the relevant representative instruments. Where possible, automated tools are used to download large quantities of data. Data is then organised.

FRTB-SA Implementation and Benchmarking Project

ISDA collects data to perform a review of firms' implementation of FRTB-SA as well as perform a benchmarking exercise for these firms using a series of hypothetical portfolios (from the EBA). Firms need to send ISDA data reflecting their capital results, their portfolio input details (where CRIF is important – see section QH), and some information on bucketing choices.

Costs

QF: What are the most significant areas of avoidable cost and challenge associated with the current reporting process, and what is the relative burden associated with different steps and types of report, as set out in the discussion paper?

Overlap between regulations and duplicative reporting

Different regulations will have various aims and purposes, such as to detect market abuse or to identify systemic risk. Despite the differing aims, the same basic data may be required by multiple regulations, and only the format or representation of the data may vary.

This is seen with the trade data reported under the EMIR and MiFIR regulations. When the same trade is in scope for both regimes, many of the same data points within a trade booking are to be reported. However, the way in which EMIR and MiFIR require that data to be represented within their reports can differ, resulting in firms implementing two ways of representing and reporting the same set of trade data. For example, under the MiFIR definitions, 'Price' can be reported as a monetary value, percentage, yield or as basis points. Under EMIR rules, basis points is not a permitted value for Price. As such, separate logic is required in order to report Price for the same trade, and potentially with a different value submitted for EMIR than is submitted for MiFIR.

Were a definition of Price to be standardised within a single data model, the same value could be reported to both EMIR and MiFIR without either regime losing any visibility to the overall trade data.

Therefore, where there are overlapping requirements within regulations, there is an opportunity to reduce costs by aligning the definitions of those requirements by use of a standard data model. In the case of EMIR and MiFIR, if a data model were to represent the same trade in a consistent way, firms may only need to report the trade once in order to fulfil the requirements of both regimes. This should reduce data reporting operating costs further.

There are also significant costs incurred during the implementation of new or updated regulatory requirements. This requires a coordinated effort between multiple divisions within

a firm including (but not limited to) legal, compliance, government relations, business specialists, technology and trade associations. Translating regulations into data requirements and reporting logic creates a high demand on the resources of firms in terms of cost, time and personnel. Currently, every market participant implements its own solutions, but greater efficiency can be gained through a mutualised industry effort to create standardised rules and reporting output that can be applied consistently between regulations.

QG: What non-regulatory developments might have a significant effect on reporting costs and challenges over the next decade (e.g. systems redesigns, use of cloud, AI, market developments}?

Common data inputs – the ISDA CDM

ISDA have developed, and continue to enhance, a solution to the problem of inconsistencies in the ways of representing and processing derivative transactions via the ISDA Common Domain Model (CDM). The ISDA CDM establishes a common set of representations for derivative products and their components, events and processes – a common language – designed to solve the problem of fragmentation in the interpretation and implementation of various processes, such as meeting regulatory reporting requirements. Therefore, firms using the CDM would be able to represent data in the same standard format which could then be cut in different ways to meet different regulatory reporting requirements. For example, trade data could be reported once in ISDA CDM format to a single pool of data, and this single set of data can be used to meet the requirements of EMIR, MiFID II/R and other global jurisdictions with similar trade reporting requirements. This in turn would allow for much more meaningful aggregation of data at an international level, with regulatory authorities in a position to look at this data in the knowledge that what they were seeing was consistent across the firms who supplied it. Such an approach to representing data would align with a move to a 'pull' model for data collection.

Although the initiation development of the ISDA CDM has been focused on OTC derivative products, the scope of the model is much broader. ISDA are working with partners and other trade associations to expand the range of financial products the CDM supports, such as incorporating exchange traded derivatives and securities products into the model. This would enable a single model to have a greater reach across the financial industry and regulatory regimes.

The FCA and the Bank of England have been examining how technology can make the current system of regulatory reporting more accurate, efficient and consistent – through their joint work over the past few years on their Digital Regulatory Reporting (DRR) pilot. With the phase 2 pilot exploring how it could apply to different product groups – one of which is derivatives.

ISDAs report on 'Regulatory Driven Market Fragmentation' identifies reporting as one of the key examples where firms are forced to develop and implement different systems and solutions in different jurisdictions because of varying regulatory requirements – even though those requirements are being implemented to meet a global standard[1]:

'*Data and reporting is an obvious example [where firms are forced to develop and implement different systems and solutions in different jurisdictions]. If all jurisdictions require market participants to report generally the same information to trade repositories, but each requires different data forms and formats in which such information should be reported as part of its rule set, then firms will incur significant expense in complying with myriad rules. Discrepancies such as those related to data standards will also impact the ability of regulators to monitor risk on a global basis*'.

Additionally, the Expert Group on Regulatory Obstacles to Financial Innovation (ROFIEG) paper '30 Recommendations On Regulation, Innovation And Finance'[2] puts forward several proposals that lend themselves to the aims of ISDA CDM and for common data inputs. For example, Recommendation 9 – 'RegTech and SupTech' – refers to machine readable legislation, and Recommendations 10 and 11 promote the of standardised legal terminology and producing legal and regulatory language that is both human and machine readable.

The challenge of different jurisdictions implementing data and reporting requirements in various different ways, is compounded by market participants each needing to implement the reporting requirements separately and potentially arriving at differing ways to represent various trading scenarios. Essentially, if every industry participant describes trade events in different ways, it will not be possible for dealers and vendors to speak to each other in a standard manner. By adopting the ISDA CDM however, there will only ever be one single way in which to define and manage trade events.

In the area of regulatory compliance and reporting, the CDM will have a transformative impact. Using this open source model, market participants and regulators can come together to tackle new regulatory requirements and build prototype solutions as code through open industry initiatives. These solutions can be tested in the open with regulators involved, and if they so wish, regulators can be given the opportunity to view the test results and offer their guidance for changes that should be made to prototypes, the final implementation code will be then made available to the whole market for consistent implementation of the regulatory requirements, without risk of thousands of different interpretations of rules being implemented across the market as happens today.

[1] https://www.isda.org/a/wpgME/Regulatory-Driven-Market-Fragmentation-January-2019-1.pdf
[2] https://ec.europa.eu/info/publications/191113-report-expert-group-regulatory-obstacles-financial-innovation_en

Using technology to make the development of new regulation more efficient

A well developed model for common data inputs that can be applied across financial products will lead to faster and more efficient industry implementation of new regulatory requirements. This is where a data set can be used to demonstrate implementation of regulatory requirements which, in the pre-publication/consultation phase of the legislative process, can be built transparently with market participants and regulators involved. This allows the results of different approaches and draft requirements to be analysed by all parties, to hone the implementation, in an iterative way, so that eventually a specification can be reached that fully achieves the regulators' goals.
And moreover, this specification can and should be made available to market participants as open source code for them to implement consistently in their own systems or with their service providers on different technology platforms as necessary.

QH: What are your views on the benefits and challenges from seeking to define a common set of data points as the basis for reporting?

Prudential data

ISDA collects data from member firms to assist with its prudential advocacy work, such as Basel reform. When carrying out such data collection exercises, ISDA have encountered many of the same issues experienced by the Bank of England, such as data being submitted in an incorrect or inconsistent format, data sent late, or data not being sent at all. The absence of a non-standard format for submitting this data means that ISDA need to organised the data before it can be used. This is both costly and time consuming to ISDA. Alternatively, ISDA can push back to the submitting firm(s) for the data to be re-sent in the correct format, which is costly and time consuming to the firms.

As an example of how ISDA have addressed some of these challenges, the "Common Risk Interchange Format" (CRIF) was developed, which is the ISDA standard format for risk sensitivities and trade details, and hence standardises the inputs to margin calculations. This format ensures that firms exchange trade information in a standardized way and reduces the need for interpretation, manual intervention, and minimises room for error.
ISDA also found that using FpML to describe trades and portfolios helps firms consistently book these trades and portfolios, ensuring consistency of the exercises.

Based on these experiences, establishing standardised templates and formats that are accepted industry wide results in data collection being performed at a fraction of the cost and with minimal human interaction.

More broadly, any move to a common data model will require market participants to implement changes to how they represent and manage their data. The impact will vary for each market participant depending on the scale of change, but while there will be additional costs in the near term, it will lead to more efficient data reporting and cost savings in the longer term.

QI: What additional benefits and challenges would arise from seeking to use industry data standards as the basis for defining reporting requirements? What should the role of regulators be in the development and adoption of such standards?

Point 6.12 in the DP states that some products contain bespoke features specific to a particular customer, or jurisdiction, which complicates standardisation – even the definition of commonly used terms such as "default" may differ from contract to contract. The DP suggests it might be possible to use a reference contract that may be the basis of a data standard.

ISDA are currently working on their Clause Library project, so this is a timely meeting of minds and we look forward to working with the Bank.

ISDA Clause Library[3]

The primary objective of the ISDA Clause Library Project is to introduce greater standardization into the way in firms negotiate and agree terms in their contracts. This will ultimately allow for more efficient and cost-effective contract negotiation, more effective use of technology in capturing and analyzing legal agreement data and better management of large exposures of legacy contracts signed over the past decades.

The ISDA Clause Library has been developed through analysis of approximately thousands of contracts in order to develop a common taxonomy for the most commonly used clauses. This scheme of classification provides firms with an industry-standard framework for identifying, understanding and categorizing important contractual terms, providing valuable context to large-scale legal agreement data analysis of the kind often required for regulatory reporting or repapering and allowing contractual terms to be more easily linked to the relevant business and operational processes.

The standard-form drafting options within the ISDA Clause Library can then be used by both parties to allow for the orderly creation of new contracts and ensure ongoing conformity with prevailing industry standards.

[3] A factsheet of 'What is the ISDA Clause Library?' is available at https://www.isda.org/2020/04/20/what-is-the-isda-clause-library/

CCP

Much CCP data is embedded in the usual EMIR trade reporting.

ISDA will look in a future project to propose standardised reporting (especially margin reports) from CCPs. This should be in a format which is easily machine readable.

There are several occasions where the CCP might need to transmit portfolio data:

Default management / fire drills: In a default, the CCP provides the portfolio of the defaulter to other clearing members, who then bid on these portfolios. Loading these portfolios into their trading system to value them would be much quicker and less prone to errors if the portfolio data was in a standardised format.

Porting: In a default situation, the CCP would provide portfolios of the defaulter's clients to surviving clearing members who might accept these clients. This should be in the same format as above.

Margin simulation: Under EMIR Refit, CCPs have to provide a margin calculator. Firms provide portfolios and the CCP returns margin requirements. There would be considerable synergies if the same file formats would be used across CCPs, and if these formats are the same as for default management.

Stress testing: CCPs in Europe are given conditions to apply to their members' portfolios, whereas in the US, CCPs provide data files and the regulator applies the stress tests themselves. If the process and data formats were to be standardised and made machine readable, manual data formatting would be considerably reduced and stress testing would be more efficient.

Standard data model – the ISDA CDM

See the answer to question G where the ISDA CDM can be utilised as a standard data model for financial products.

Global standards

Across a number of regulations, attempts have been made to increase reporting standardisation, for example though the use of ISO 20022 reporting formats for MiFID II/MiFIR. Whilst cross-regime standardisation is welcome, it would be beneficial for the Bank to take a wider look at current international standards (such as ISO, CPMI-IOSCO standards and others), and consider if and how they might be best utilised. Many such standardisation tools include identifiers and financial messaging standards which are open and free to use, and are available today. It is important to create a basis for an interoperable ecosystem and not a single format, standard, or solution.

Modernising reporting instructions

QJ: What are your views on the benefits and challenges of the possible improvements to reporting instructions set out in the paper?

Global adoption. The ultimate benefits will be realised if data standards are followed globally. To fully achieve this may prove challenging, even over a 10 year timeframe, but if the initial pilots are successful it may well lead to more international engagement. While the Bank may need to lead the way to start with, the initiative could soon gain cross-jurisdictional support.

CCP data

The list of authorised CCPs in Europe is published as a PDF on ESMA's website. It would be better if the list was machine readable, or a machine readable version was provided in parallel so the data can be consumed directly without manual intervention.

QK: What are your views on the benefits and challenges of the possible changes to architecture and governance set out in the paper – in particular moving to a "pull" model for certain types of data, or moving some functions to a central service provider?

Pull model

In order for the Bank to collect data using a "pull" model, the data itself must first be represented and managed across the industry using a standard data model. Furthermore, regulations would need to be written in line with this same data model in order to be compatible. Provided such a data model is in place and regulatory rules are written to be consistent with the model, it should be possible for market participants to submit a pre-determined set of data to a central repository on a regular basis, or even from regulators to extract the data directly from market participants, thereby adhering to several of their regulatory requirements at once, without the need to submit similar and overlapping sets of data to multiple repositories / locations.

The pull model provides regulators with the potential to modify the data they collect for a given regulation, provided that data is already available within the central repository. However, even if such changes do not impact the data a market participant reports, any changes to data used for a regulation should still be communicated to the industry.

It should be noted though that the pull model may not work for all types of reporting, (for example it may not be appropriate for capital reporting), and consideration must be given to issues around transparency and a firms control over the data they make available.

Central service provider

In order to adhere to various financial regulations, firms are required to report similar, or even the same, data to a number of data repositories and service providers. Establishing a single central service provider will reduce the burden on market participants to submit the same data to multiple locations. Additionally, regulators will have access to a greater range of data in a single location which would otherwise be disseminated amongst multiple regulations. This would provide regulators with faster and easier access to data which they may require now or at a future date.

The ideal central service provider model would span multiple regulators. However, before implementation, either globally or within the UK only, the scope, role and use cases for a central service provider needs carefully consideration to ensure the needs are fulfilled sufficiently. For example, the full scope of the role; whether it will be multi-jurisdictional or can be expanded to be multi-jurisdictions over time; whether there be a single provider or multiple providers; and if there is to be a single provider, who would operate it. A single monopoly provider, even one that is well governed and regulated, may result in a 'common denominator' service and struggle to provide for specific needs. Outsourcing to a third parties can add an additional layer to the process with potentially increased complication, service level considerations and possible increased cost for the process. Therefore, while a reporting model that utilises a central service provider has many benefits and would be welcomed as a means of reducing the reporting burden to both regulators and market participants alike, such a model needs to be fully considered prior to being implemented.

About ISDA

Since 1985, ISDA has worked to make the global derivatives markets safer and more efficient. Today, ISDA has more than 900 member institutions from 73 countries. These members comprise a broad range of derivatives market participants, including corporations, investment managers, government and supranational entities, insurance companies, energy and commodities firms, and international and regional banks. In addition to market participants, members also include key components of the derivatives market infrastructure, such as exchanges, intermediaries, clearing houses and repositories, as well as law firms, accounting firms and other service providers. Information about ISDA and its activities is available on the Association's website: www.isda.org. Follow us on Twitter @ISDA.