ISDA Response to the FSB DAT report
Incentives to centrally clear over-the-counter (OTC) derivatives
A post-implementation evaluation of the effects of the G20 financial regulatory reforms
(the DAT Report)

Management Summary

ISDA welcomes the opportunity to respond to the consultative Report and supports the work of the FSB Derivative Assessment Team (DAT) in evaluating of the effects of G20 financial regulatory reforms on incentives to clear OTC derivatives. We appreciate that the FSB is evaluating not only the regulatory reforms individually, but also importantly, how they intersect. We also welcome an analytical framework that supports post-crisis regulatory objectives while rationalizing the regulatory framework where appropriate.

ISDA members support clearing which is an effective means to reduce counterparty risk and increase the resilience of the financial system. The clearing market infrastructure operates well, and the global approach to clearing has achieved significant reductions across many facets of systemic risk. Clearing brings a number of inherent benefits, including: multilateral netting; reduction in credit risk; operational efficiency; and a robust default management process. Many firms clear voluntarily due to these inherent benefits.

Further incentives to clear are created through the regulatory framework. Regulations such as the non-cleared derivatives margin rule, and certain capital requirements, apply across a broad range of products and counterparties, regardless of whether such products are suitable for clearing, or whether such counterparties pose systemic risk. As a result, such regulatory incentives may not always be appropriate. We appreciate that the DAT report seeks to identify where this may be the case.

Our key recommendations fall into the following broad subject areas:

- Recalibration of the capital framework;
- Flexibility in the clearing mandate;
- Need to increase clearing capacity; and
- Fostering harmonization where sensible.

The purpose of this response is to assist the analysis of the impact of regulation on incentives and impediments to clearing. ISDA's responses and referenced studies will consider these topics from an industry-wide perspective, and will not discuss specific firms, positions or plans. The quantitative analysis will incorporate aggregated and anonymized data from a range of market participants.

ISDA also advocates for making uncleared margin requirements more risk appropriate. These proposals will be the subject of a separate paper.

Recalibration of the capital framework

While the risk based capital framework mostly incentivises clearing, the leverage framework in its current calibration actively disincentivises clearing. There are several aspects to this issue that the DAT report highlights.

Currently, the leverage ratio framework does not allow for the recognition of initial margin posted by clients and this causes the provision of client clearing services to be artificially more expensive. The inflated capital requirements unnecessarily constrain client clearing service providers' (CCSP) capacity, confidence in porting and the number of CCSPs in the market. We urge global policymakers to allow the recognition of initial margin when calculating the leverage ratio exposure.

These effects are then exacerbated by the overly conservative calibration of the BCBS' Standardised Approach for Counterparty Credit Risk (SA-CCR).

The shortcomings in the current leverage exposure framework feed into the G-SIB calculation via the "size" indicator, which compounds the lack of recognition of initial margin issue referenced above. Additionally the G-SIB framework does not take the complexity reducing effects of clearing into account and also treats the principal and the agency models of client clearing differently, which is not reflective of the risks involved.

Flexibility in the clearing mandate

Clearing mandates were instrumental in bringing a large part of the market into clearing; on top of the commitments by large dealers after the financial crisis to clear clearable transactions before clearing mandates came into force. However, clearing mandates are not sufficiently flexible, for instance when they hamper the use of risk reducing tools like multilateral compression of uncleared portfolios.

Reviewing clearing mandates and making them more flexible would make the markets overall more resilient. We believe that increasing the flexibility of the clearing mandate would not significantly alter the existing cleared status of core products as most firms would continue to clear standardised products even if clearing was no longer legally mandated. The inherent benefits of clearing, for instance multilateral netting and operational efficiency, are sufficient incentives for continued clearing of standardised products. Regulatory objectives to reduce systemic risk would still be met, albeit with flexibility where it is most needed. We believe that further analysis is warranted.

Need for increased clearing capacity

We welcome the DAT report examination of access to clearing for firms who are not able, or for whom it is not affordable, to become direct clearing members. The clearing member-to-client relationship is critical for client clearing to be successful. Particularly, there must be adequate capacity and appetite from banks to meet the demand from clients desiring to clear.

Clearing capacity is already an area of concern and demand is likely to increase further as more clients are mandated to clear. For example, when European pension funds start clearing in large volumes, requirements for clearing capacity will increase significantly. A study by Pensions Europe and ISDA estimates an increase in initial margin of ca. EUR85bn (or a full range of ca. EUR 58bn to ca EUR111bn depending on varying assumptions) would be required over a number of years when European pension funds start clearing in large volumes. This is significant when compared with ca. EUR 77bn of client IM held by the three major CCPs for interest swaps.

The capital rules and the level of clearing assumed by client clearing service providers (CCSP) do not incentivise these firms to clear for clients. This becomes evident in the high concentration of CCSP for OTC derivatives.

However we believe that improving capacity to clear should be the focus. This is because increasing capacity to clear is the most direct way to address current risks in the existing framework, such as the availability of porting or the ability for the industry to handle member or client defaults. In such instances the ability and flexibility to absorb large market positions at short notice is critical to financial stability. Increasing member's capacity to take on such positions, and reducing barriers to capacity should therefore be a significant policy objective.

In addition, expanding clearing capacity may naturally result in other benefits, such as increased competition among clearing service providers.

Fostering Harmonization

Differences in clearing mandates across jurisdictions result in fragmentation and inconsistent global incentives. Differences arise in terms of entity and product scope. ISDA recommends a review of product scope of clearing mandates with the goal of jurisdictional harmonization where the differences are not driven by structural differences between markets.

To provide further transparency, we recommend greater standardisation, alignment and comparability of CCP rulebooks with particular focus on the default management process and porting of client accounts.

ISDA Key Recommendations

ISDA Key Recommendations
Allow recognition of initial margin in the calculation of LRE for cleared client transactions
Prioritize a holistic review of SA-CCR at the BCBS level to ensure that the framework is fit for purpose.
Review the G-SIB framework • Recognise that clearing – regardless of the clearing model at issue (principal vs. agency) – reduces complexity and interconnectedness • Recognise initial margin in the G-SIB framework
The client leg of cleared transactions is exempt from the CVA capital charge in the EU, but not in the US. To not restrict clearing member capacity further, the client leg of cleared transactions should be exempted globally. This would also ensure that accounting and regulatory capital for CVA are more closely aligned for cleared client transactions.
Review the scope of clearing mandates across jurisdictions for harmonization opportunities and global standardization, where the differences are not driven by structural differences between markets.
Where there are transition periods for the introduction of SA-CCR for (binding) LR purposes, clearing members of ETD market makers should have the choice of using SA-CCR in the meantime.[1]
Review exemptions from clearing mandates for small firms, as proposed in EMIR REFIT and CFTC Swaps 2.0
Greater standardisation, alignment and comparability of CCP rulebooks where possible – in particular in respect of default management process and porting to provide transparency and confidence, as well as reduce the legal resource required for participants to assess the impact of those rules on their business.

[1] Note that in the EU (binding) LR may also apply to the ETD market makers themselves.

ISDA's complementary work to the FSB DAT analysis

Over recent months ISDA has worked on a study on Incentives to Clear to complement the FSB Derivatives Assessment Team (DAT) study. We worked on the following topics:

- Incentives and impediments to clear for clients
- Architecture of clearing – number of CCPs in the clearing market
- Who should clear (review of the scope of clearing mandates)
- Clearing in small or closed jurisdictions
- Incentives to clear

More detail can be found in the appendix.

Responses to consultation questions

Question 1. Do you agree or disagree with the finding that, in general, there are strong incentives for dealers and larger (in terms of level of derivatives activity) clients to centrally clear OTC derivatives? Do you agree or disagree with the finding that some categories of clients have less strong incentives to use central clearing?

The data presented in the DAT's report confirmed our members' expectations that there are strong regulatory incentives for dealers and some, but not all larger clients to clear, for instance:

- Capital rules (excluding the leverage ratio);
- CVA capital charge; and
- Margin requirements.

These incentives have been calibrated individually, without regard to other incentives to clear that are inherent in clearing, for instance:

- Benefits of multilateral netting;
- Reduction in credit risk;
- Increased possibilities for compressions which in turn reduce the number of outstanding transactions and gross notional exposures; and
- Operational efficiency, for instance through consolidated daily settlement, standardised valuations and margin requirements, and transparent end-of-day pricing of cleared positions.
- Robust risk management and default management practices of the CCP.

Multilateral netting creates a particularly strong incentive to clear. To illustrate the effect of multilateral netting, ISDA has conducted a quantitative analysis illustrating the potential benefit of multilateral netting, demonstrating that holding all other factors constant, the initial margin reduction by multilateral netting alone provides a strong incentive to clear transactions that are not currently cleared: Using uncleared portfolios of 19 Members, currently subject to bilateral margin requirements and representing the majority of uncleared bilateral IM, we estimated savings by netting transactions between counterparties within four product sets determined by asset class. Using the ISDA SIMM model and holding other factors constant (for example the initial margin model), the exercise demonstrated that on average firms would see a 62% reduction of risk as reflected in initial margin[2].

We recognise that in reality this benefit could not be crystallised fully, mainly as many of the products in these portfolios are not suitable for clearing. However, the results highlight that, holding all other factors constant, the risk reducing effects of multilateral clearing provide a strong incentive to clear transactions that are not currently cleared.

[2] This has been done with the same portfolios as used by the ISDA SIMM backtesting 2018.

Taking all the inherent benefits of clearing and the fact that not all products are suitable for clearing into account, we encourage a flexible approach to clearing mandates and incentives to clear.

The combination of incentives to clear and clearing mandates have driven the large majority of standardised transactions into clearing. Numbers quoted in the DAT report (section C 2) support this development by showing the increase in clearing rates[3].

Research conducted by ISDA on clearing rates in the US shows that firms have consistently cleared more activity than mandated:

	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

In summary we believe that there are strong incentives to clear. We are therefore very supportive in the DAT report's proposals to conduct further analysis in many of these areas.

We agree that, where not mandated to do so, some categories of clients have less strong incentives to centrally clear. These are:

- Small firms who do not trade often enough to cover for the high fixed cost of clearing access (both for them and their clearing members);
- Firms with large directional portfolios;
- European pension funds, both due to their large directional portfolios and their issues with cash VM (see question 4 for more detail) that lead them to be exempt from mandatory clearing for the time being; and
- Clients who do not have enough confidence that porting is reliable or cannot otherwise bear the legal and regulatory risks posed by a CCP, especially in Europe.

For more detail please see the responses to questions 11 to 14.

ISDA Recommendations
ISDA supports re-calibration of incentives, with consideration for the existing inherent benefits of clearing such as multilateral netting.

[3] It should be noted that clearing rates as measured by outstanding notional does not take compression into account and therefore even underestimates the actual risk cleared.

Question 2. Do you agree or disagree with the finding that relevant post-crisis reforms have, overall, contributed to the incentives to centrally clear? Is the consultative report's characterisation of distinctions in how the reforms have affected incentives for different types of clients consistent or inconsistent with your experience?

Please see above under the response to question 1.

Question 3. Do the margin requirements for uncleared derivatives give a sufficient incentive to clear? How do these requirements interact with mandatory clearing obligations to incentivise clearing? Are there particular instruments, and specific types of entities where the incentive to clear is not adequate? In such cases, are there specific aspects of the requirements that diminish incentives to clear?

Based on the DAT report, on a weighted basis, regulatory capital costs, counterparty risk management considerations and netting rank as the three most important incentives for clearing among dealers. The fourth most important incentive is the opportunity to compress cleared portfolios. Margin requirements for non-cleared trades ranks fifth.

For derivatives clients, or end-users, IM for non-cleared ranks on a weighted basis as the 7th most important factor, after counterparty risk management considerations, differences in bid-offer spreads between cleared and non-cleared products, regulatory capital costs, access to a larger set of counterparties, a centralized default management process and netting opportunities.

Based on these observations, we would note that uncleared margin requirements should not be considered a primary policy tool to incentivise clearing, at least for firms with many counterparty relationships where the benefits of multilateral netting can be realised, and/or with balanced portfolios.

To the extent that margining rules for uncleared trades could actively influence market behaviour, it could be argued that such incentives are too strong and encourage clearing in respect of products which are not suited for it, or in respect of counterparties who are not significant enough from a systemic risk perspective. We therefore recommend that uncleared margin requirements be recalibrated to take this into account.

Clearing incentives should be tailored so that they do not lead CCPs to add products that are not suitable for clearing. We note that clearing of swaptions has not been taken up by the market so far. If incentives are not calibrated properly, products may be cleared despite important concerns regarding suitability.

There are several reasons why a product might not be suitable for clearing:

- A product is not sufficiently standardised, or level of liquidity in the underlying product/asset is not sufficient;

- Attributes of the products, for instance significant settlement risk due to physical settlement of the notional amounts, difficulties to price in a crisis, path dependencies; and
- No critical mass of clearing members trading the underlying instruments and being able to participate in the default management process.

In general, incentives to clear do not work if a product is not suitable for clearing, and only serve to make tailored OTC derivatives more expensive.

ISDA is advocating for risk appropriate recalibration of margin requirements. More details to our proposals will be the subject of a separate paper.

A forthcoming ISDA quantitative study is expected to show that a relatively small number of counterparties account for a large majority of the total initial margin that will be required to be posted in future phases under the current ruleset. This data is expected to suggest that the rules could be re-calibrated to further achieve the goal of systemic risk reduction without imposing significant costs and expenses on the large number of firms with non-systemic exposures.

We also believe inter-affiliate transactions should neither be mandated to clear nor to require the exchange of bilateral initial margin, as is the case in the US. Being required to do so unnecessarily segregates large pools of collateral for transactions that have minimal impact on market or financial stability. Firms would still continue to collect variation margin for inter-affiliate transactions, as is the case currently.

Question 4. The consultative report seeks to identify the most important regulatory and non-regulatory factors which affect incentives to centrally clear OTC derivatives for dealers, other financial intermediaries, large clients and small clients. Please identify any significant missing factors and comment on the relative strength of regulatory and non-regulatory factors discussed in the consultative report.

We believe that the DAT report is generally comprehensive in identifying incentives to clear, including cases where these incentives are not strong, or should not be there.

Below we would like to highlight a few additional topics.

Porting and clearing member capacity

The DAT report mentions porting, albeit only briefly. We believe that the reduction of clearing capacity driven by the capital framework and the reduced confidence in porting stemming from this reduced capacity to be a key issue.

Porting is necessary for continuity of clearing during a member default and is instrumental to building confidence in a cleared model.

While the choice of CCP account structures have increased over the last few years to offer greater asset protection and segregation, a necessary condition to ensure the feasibility of porting, porting itself is still not guaranteed. Clearing member default is likely to coincide with stressed market conditions. In such a scenario other clearing members are less likely to want to increase risk and exposure which increases the risk of porting failure.

One way of minimising the risk of porting failure is to increase clearing member capacity. Increased capacity can be achieved by revising capital treatment for the risks associated with carrying client accounts. Please see below (response to question 8) for further discussion of cost and incentives for banks to provide client clearing services. Porting failure can also be avoided by temporarily waiving capital requirements for ported portfolios in stressed market conditions.

In previous FCM defaults in the US, CCPs ported the whole client book to another FCM in accordance with the legal structure in the US which encourages this approach[4]. This is a pragmatic way to port many clients in a short time, assuming a replacement FCM can be found. However, this can cause issues with know-your-customer, anti-money-laundering, and documentation requirements.

In Europe, the legal framework is different and each client must find a replacement clearing member to port its positions within a tight time frame (usually 2 business days). As banks do not typically provide guaranteed porting services to clients, it would be a considerably difficult task for clients to find a bank willing to increase its exposure and step in as an alternate CM, especially during times of stress. Furthermore, the process of OTC porting has not yet been tested and there is no precedent for porting of OTC client positions.

As identified in the DAT report, the risk of porting failing is further exacerbated by the fact that several banks have left the client clearing business[5]. This, combined with the high fixed cost of client clearing and considerable lead times in setting up clearing operations have resulted in clearing being concentrated in a small number of clearing members, with potentially low capacity to take on any ported positions which could make porting less likely to work when needed. For instance, at the end of 2017 SwapClear's largest five clearing members cleared 77.52% and the 10 largest clearing members 93.9% of the client clearing exposures[6]. These percentages have been roughly the same albeit slightly declining over the last years.

For our recommendations to improve porting please refer to the response to question 11.

Complexity of CCP rulebooks

The DAT paper notes that one-off costs such as membership fees and operational costs, including significant investments in infrastructure, can be a barrier for many clients. We

[4] To date there haven't been any defaults involving porting of OTC derivatives clients.

wish to add that legal resources required to review CCP rulebooks and regulatory frameworks should also be included as a significant cost. We appreciate existing regulatory and CCP efforts towards enhancing transparency and encouraging CCP disclosures. However more work is needed in this regard, and specifically in addressing the complexity of rulebooks themselves on key topics such as default management, porting and recovery and resolution. This would enable clients to better on-board with more CCPs and make the process less cumbersome.

ISDA Recommendations
Greater standardisation, alignment and comparability of CCP rulebooks where possible – in particular in respect of default management process and porting to provide transparency and confidence, as well as reduce the legal resource required for participants to assess the impact of those rules on their business.

Variation Margin (VM) issue for EU pension funds

CCPs' operational models only permit VM to be posted in cash, while non-cleared derivatives transactions traditionally allow high-quality government bonds as collateral. Pension funds, in particular, are asset rich and often hold minimal cash. Holding cash buffers can reduce returns and exposes pension funds to non-sovereign credit risk as cash must be invested in bank deposits or other financial instruments. Having to post cash instead will have significant implications for pension funds' investment portfolios, and therefore for European pensioners.

For these reasons, policymakers provided a transitional provision within EMIR, giving European pension funds a temporary exemption from the requirement to centrally clear derivatives to find an alternative solution. The European Commission has set up a stakeholder group which brings together pension funds, CCPs, banks and central banks, in order to work on a solution for the cash variation margin issue. Unless a robust solution can be found that can be relied upon in all market conditions including stressed market conditions, those entities will not be incentivised to clear.

CCP access to central bank accounts and liquidity backstops

Clearing has an embedded reliance on the repo market. Many clearing participants will not have cash readily available to satisfy VM calls, and many participants will also require some form of collateral transformation to obtain assets that can be used for initial margin.

On the other hand, CCPs have large amounts of cash that they need to invest securely. Since the credit crisis, the number of firms with sufficient credit quality to satisfy CCPs' investment policies has decreased. As a result, it has become more difficult for CCPs to invest cash resources on a secured basis.

The issue could be mitigated by CCPs obtaining access to central bank accounts and/or liquidity. We also encourage further collaboration between central banks to ensure the continued smooth functioning of CCPs operating on a global basis across multiple currencies.

ISDA Recommendations
Provide investment diversity and reduce exposure by allowing CCPs access to central bank accounts and central bank liquidity.

Capital requirements for securities financing transactions (SFT)

There are also concerns with the revised standardised approach for credit risk for SFTs which include repos. Specifically, the revised SA for Credit Risk assigns the same risk weight to different maturities of SFTs.

SFTs are a key tool that clearing participants use in order to manage CCP margin requirements not only for their derivatives but for their clients as well. High cost through higher risk weights would make the use of SFTs more capital-intensive, thus disincentivising the provision of clearing service to clients who may not have other options to access the CCP. This will make the market for clearing services more concentrated.

ISDA Recommendations
Review calibration of SFT capital rules.

Clearing in small jurisdictions

Mandatory clearing requirements might not be an appropriate tool in jurisdictions with a small derivatives market or exchange controls, as such markets might not have the degree of standardisation across derivative contracts or sufficient market depth, or legal netting basis to establish a well-managed, cost efficient CCP.[7]

We recommend that such markets focus on implementation of a clean netting regime prior to establishing any clearing mandate. Reliable netting will enable the development of more liquid and standardised derivatives markets. The FSB's criteria for mandatory clearing should be applied carefully: it might well be the case that no local derivatives contracts meet these criteria, but local firms already clear derivatives in globally systemically important

[7] Please note that the majority of comments are focussed on jurisdictions with closed economies. However many of the points made are also valid for small jurisdictions in general unless these jurisdictions have easy access to global CCPs.

currencies, as their counterparties may be under a clearing mandate, or because bilateral margin requirements create sufficient incentives, and therefore demonstrate a level of voluntary clearing sufficient to mitigate systemic risk.

ISDA Recommendations
We urge that countries with small, closed or developing derivatives markets are given time to develop their markets in an organic and orderly way. Before clearing mandates and exchange of bilateral initial margin are considered, certain conditions need to be satisfied: 1. Netting is a true risk reducing tool and indispensable for the development of safe and efficient financial markets. The first step therefore is to implement a clean netting regime. 2. Review legal frameworks: other than a clean netting regime, the legal framework should be generally supporting of clearing, for instance by providing settlement finality and collateral rights. 3. Development of a derivatives markets with a sufficient amount of standardised products whose markets are liquid enough to enable safe clearing. While the market grows, there also should be no mandatory exchange of bilateral initial margin, as this tool will likely make transactions costly and could stifle the market. 4. As well as development of a derivatives market with liquid products there should also be a liquid and efficient collateral market, without undue restrictions. 5. Should there already be a CCP in this jurisdiction, or access to a CCP in another jurisdiction, the compliance of this CCP with the Principles for Financial Market Infrastructures[8] need to be considered. 6. Supervisors need to have sufficient insight into and data about trading activity.

Differences in clearing requirements between jurisdictions

Differences in clearing obligations between jurisdictions will provide slightly different incentives between those jurisdictions. Jurisdictional differences in scope for entity (pension funds are exempt from clearing in the EU but not in the US) or in product can exist. Some of these differences have a legitimate reason as they are driven by different market structures, as for instance in the example of pension funds. We recommend global harmonisation in instances where there are no structural reasons for the market to deviate.

[8] https://www.bis.org/cpmi/publ/d101a.pdf

ISDA Recommendations
Review the scope of clearing mandates across jurisdictions for harmonization opportunities and global standardization, where the differences are not driven by structural differences between markets.

Question 5. Is the consultative report's characterisation of the shift of activity and trading liquidity towards centrally cleared products, and the consequent impact on uncleared products, consistent or inconsistent with your experience?

ISDA has not done a survey on this topic and does not have views on the report's conclusion.

Question 6. There are various industry efforts underway to reduce the cost of clearing, including portfolio compression and direct clearing membership models. Based on your experience are these proposals, or other forthcoming changes to clearing infrastructure and models, likely to affect incentives to provide or use clearing services?

Compression

Compression does not reduce the cost of clearing, it mitigates some of the regulation that would make clearing otherwise more expensive.

Whilst the difference might seem philosophical, we would classify compression not as a tool to reduce the cost of clearing, but as a tool to mitigate some of the disincentives to clear stemming from risk insensitive capital requirements and the equally risk insensitive leverage ratio.

Direct clearing membership models (hybrid models)

Many CCPs are now offering, or working on, hybrid models as alternatives to are client clearing relationships. Firms that participate in a hybrid model (Hybrid Client) usually access the CCP themselves, with some features being similar to a classic clearing member. This includes meeting access criteria such as minimum capital and credit quality, posting and receiving collateral directly and transacting directly with the CCP. As many of these hybrid clients would be unable to participate in the default management process, the hybrid clients will nominate a clearing member (agent) that posts default fund contributions and would bid in an auction on behalf of the hybrid client. In some, but not all of those models the nominated clearing member (agent) will also guarantee the performance of the hybrid client to the CCP.

Hybrid access models could mitigate some of the impediments to client clearing such as:

- *Capital* – In some models the agent would not have to guarantee transactions of the hybrid client, and posted collateral of the hybrid client could not affect the agent's balance sheet, therefore in principal these models should reduce capital requirements for both the client and the clearing member. Each model needs capital opinions to support individual capital impact analysis.
- *Porting* – Should the clearing member or agent that provides the default fund contribution for the hybrid client default or terminate its services, the hybrid client would still have to find a new alternate clearing member or agent. As the hybrid client can continue paying margin and other liabilities to the CCP, there might be more flexibility, but technically the windows for finding a new clearing member or agent that are currently available are not greater than porting windows under a traditional client clearing model. Therefore these models do not address the porting risk upon default or termination of CM services. It is hoped that future evolutions of these models would allow for a longer windows to ease some of the risk of having to find a new clearing member or agent.

However, challenges remain in realizing the benefits of the hybrid clearing model. In some models, as the hybrid client is accessing the CCP directly, the clearing member will not insulate the CCP and other clearing members from the risk of default of the hybrid client. In that case, should a hybrid client default and if its posted margin is insufficient to cover the loss, the remaining loss will have to be mutualised by all clearing members. The CCP will apply the same requirements to minimum capital, operational capabilities and credit quality as for clearing members. This means that hybrid models will only be suitable for larger clients with higher credit quality and might therefore be of limited utility for providing clearing access to the wider market.

Overall, most of these models are either in their infancy or still being developed and do not have significant volumes yet. The true cost of the operational complexity and technology costs are not fully known so the cost of opting into these models is not clear.

In the US, only a subset of FCMs is prepared to step in the role of an agent for the client under new hybrid clearing models.

Therefore, while the model can provide some improvements for certain clients, it is not a proven model yet and will prove its worth only in the future.

Question 7. Do you agree or disagree with the report's characterisation of the effects of the following reforms on incentives to centrally clear?

- a. *central clearing mandates (both in terms of product scope and entity scope);*
- b. *minimum standards for margin requirements for uncleared derivatives;*
- c. *capital requirements for credit valuation adjustment (CVA) risk;*
- d. *capital requirements for jump-to-default risk (including where applicable the Standardised approach for counterparty credit risk (SA-CCR) and the Current exposure method (CEM));*
- e. *G-SIB requirements; and*
- f. *The leverage ratio.*

We broadly agree with the report's characterisation of the effects of the reforms listed above.

Central clearing mandates

We believe that clearing mandates were instrumental in pushing the market to embrace clearing, but that clearing mandates are no longer as crucial. Firms are now incentivised to clear standardised products due to critical mass having been achieved and the increased multilateral netting benefits. We comment further on the scope of clearing mandates in our response to question 14.

The DAT report mentions that several firms indicated a willingness to clear more without a mandate. The report states that since all other regulations would remain unchanged, a strong incentive to clear would still exist. We believe the use of portfolio risk reducing tools, currently hampered by restrictions on uncleared vanilla derivatives, also incentivize clearing, as these tools move risk of uncleared portfolios into clearing.

We believe that firms do clear voluntarily. The report quotes that "80% of respondents who undertake voluntary clearing did so for less than 20% of their activity as measured by OTC derivatives gross notional outstanding". We note that "…less than 20% of their activity…" sounds like not much. One explanation for this low percentage is that the clearing mandates already cover a large part of the liquid and standardised set of produces in IRS and Credit (see the table of clearing rates in response to question 1). Additionally, these voluntary transactions become eligible for compression as soon as they are cleared and therefore the gross notional of these transactions will reduce compared to the non-cleared portfolio where compression is more difficult.

As mentioned in the response to question 3, based on data on voluntary clearing there is no indication – either in the volume of non-cleared products or in the increasing percentage of overall volume that is cleared, that counterparties are switching to non-cleared products to evade the clearing requirements and should alleviate any concerns policymakers may have had regarding avoidance of mandates.

Minimum standards for margin requirements for uncleared derivatives

Please see the response to question 3 more detail on ISDA's position.

We have some comments to the research paper "*Cleared and Uncleared Margin Comparison for Interest Rate Swaps*" that is extensively quoted in the DAT report. This research compares cleared and bilateral margin models in relation to cleared exposures that points toward bilateral margin not always being as high compared to cleared margin as the different MPOR suggests. We do not dispute the results of this analysis but would like to note three key concerns with this comparison:

- The study compares two margin models applied to cleared portfolios, for which the CCP margin models are tailor-made. SIMM in comparison is more standardised. However the comparison does not take into account that the cleared portfolio benefits from multilateral netting. For a typical balanced portfolio, the actual margin that firms would have to call and post in a bilateral context would be much higher as netting would only apply by counterparty.
- In the cleared context CCP margin models will apply additional margin components like add-on margin for illiquidity or concentration. This is particular important for concentrated and centralised cleared portfolios. In the bilateral context these large portfolios are likely split between many counterparties, therefore reducing the need for concentration add-ons.
- This comparison focusses solely on the margin requirements, without taking into account other differences between cleared and uncleared portfolios, for instance more flexible hedging in the bilateral context. A bank can close out the risk of a bilateral derivatives portfolio with a wider range of products, including physical assets or exchange traded derivatives. If the portfolio contains exotic products, these are usually hedged with vanilla derivatives which can be closed out more quickly. A bank also has a larger capital cushion than the CCP has, all reasons why margin at a CCP has to be more conservatively calibrated. Firms also have loss absorbance, whereas CCPs don't.

CVA and CVA Capital charge

We agree with the results regarding the CVA and the CVA capital charge, especially the comparable disadvantage this may pose for smaller counterparties.

The DAT report suggests that "*…there may be a case to consider whether a different treatment of CVA risk for non-financial counterparties who are exempt from the clearing mandate and the uncleared margin requirements is warranted*." We understand this as a proposal for global regulators to review whether it is warranted to extend the exemption of exposures to corporate and pension funds customers that is currently in place in EU legislation to global regulation.

We welcome the opportunity to perform further analysis in this area as capital requirements for clients that are exempt from clearing should be carefully considered to ensure non-cleared markets remain workable and those clients continue to use derivatives to manage risk that is not part of their core business.

As a matter of fact ISDA is already working on a response to the CVA revised framework and will conduct quantitative impact studies to provide further data to inform the discussion. On the basis of this data and analysis we will identify the position of market participants. As usual, ISDA and its members offer any support to regulators in their analysis.

ISDA Recommendations
As a related issue, the client leg of cleared transactions is exempt from the CVA capital charge in the EU, but not in the US. To not restrict clearing member capacity further, the client leg of cleared transactions should be exempted globally. This would also ensure that accounting and regulatory capital for CVA are more closely aligned for cleared client transactions.

Capital requirements for jump-to-default risk (including where applicable the Standardised approach for counterparty credit risk (SA-CCR) and the Current exposure method (CEM))

We broadly agree with the DAT's characterisation of the effects of SA-CCR and CEM on incentives to clear. We agree with the identified findings in relation to the calibration of SA-CCR, but suggest that the calibration should be reviewed holistically, including whether the alpha factor is appropriate.

Firstly, the alpha factor is set at 1.4 – the original value set by the Basel Committee for IMM in 2005. This calibration is based on studies dating back to 2003, and does not reflect the current market environment, in particular the shift towards increased clearing and collateralization and the larger portfolio diversification effects. In addition, the alpha factor of 1.4 was not originally designed to apply to a standardized methodology, but rather to account for model risk (including assumptions implicit in the IRB framework)[9] and severe market moves that could affect the use of an internal model to calculate exposures.

Consequently, market participants strongly believe that the usage and calibration of the alpha factor should be revisited to better reflect current market and regulatory environments and considering the overall conservative calibration of the framework. In particular in the leverage ratio, application of alpha to RC should be removed completely given the on-balance sheet component should align with accounting values.

[9] See BCBS publication (https://www.bis.org/publ/bcbs116.pdf)

Secondly, addressing the following points[10] would be required to improve the risk sensitivity of SA-CCR and align it to regulatory developments since its design:

1. Multiple credit support annexes (CSAs) under one qualifying master netting agreement are penalised, as SA-CCR requires banks to divide a netting set into sub-sets to align with the CSAs, thereby undermining the legal agreement, which allows net settlement in the event of default and reducing netting. This will become a bigger issue as more counterparties are phased into the uncleared margin requirements (UMR), where a UMR compliant CSA is added to the netting agreement. Simple modifications would make the treatment of multiple CSAs applied to a single netting set more consistent with the market practices. This also poses an issue in the client cleared context given a client could have trades that settled-to-market (STM), e.g. equity futures, and trades that are collateralized-to-market (CTM), e.g. listed equity options.
2. Under SA-CCR, IM is recognized through the PFE multiplier formula, which allows a bank to reduce the aggregate add-on. This formula results in a far more conservative recognition of IM than CEM, where a dollar-for-dollar offset of PFE after haircut adjustments is allowed. Given the expected future increase in IM requirements with the phase-in of more counterparties under the uncleared margin requirements (UMR) and replacement of legacy trades with new trades, this impact is expected to grow and therefore, a more risk-sensitive recognition of IM is needed. This results in an even more conservative calibration considering that collateral recognition is already penalized through haircuts and MPOR. Moreover, the modified SA-CCR implemented for leverage ratio purposes fully omits the offset to potential future exposure provided by initial margin, including when margin is posted in a custodial account and thus cannot be leveraged by the pledge beneficiary.
3. SA-CCR does not allow recognition of diversification across IR hedging sets and FX hedging sets leading to overstate counterparty credit risk. In order to increase the consistency with the actual risk to which banks are exposed and to being better aligned with market practices, SA-CCR should allow for diversification across IR hedging sets and FX hedging sets.
4. Finally, collateral volatility is currently reflected through collateral haircuts where no diversification benefits are reflected across different collateral securities or collateral and derivatives. To increase risk sensitivity, in particular in an environment where IM is increasingly exchanged (majority is in the form of securities rather than cash) we recommend that banks should have the option to reflect the volatility of collateral together with derivatives in the add-on calculation rather than separately as a haircut. Thus, we suggest allowing banks to remove collateral haircuts and instead incorporate the volatility estimate into the add-on calculation together with all derivatives.

[10] Please refer to https://www.isda.org/a/hTiDE/isda-sa-ccr-briefing-paper-final1.pdf for further details on the impacts deriving from a study conducted on the Basel Committee's own hypothetical portfolios.

The need to replace CEM and SM with a more up-to-date, risk-sensitive methodology is clear, and we fully support the Basel Committee's objectives in developing SA-CCR. However, the results of the Industry QIS clearly confirm that implementing the framework as currently calibrated is likely to have far-reaching negative consequences.

Results of the impact analysis have been shared with BCBS in June and can be made available to FSB DAT if required.

ISDA Recommendations
Prioritize a holistic review of SA-CCR at the BCBS level to ensure that the framework is fit for purpose.

G-SIB requirements

We fully agree with the issues identified with G-SIB calculations, especially the significant impact of different clearing models (principal vs. agency), which is not evident in any other capital regulation.

Since cleared exposures are included in the leverage ratio exposures, these also feed into the GSIB calculation under the size indicator. Therefore, lack of recognition of margin within the leverage ratio calculation also feed into the GSIB calculation. Additionally, under the complexity indicator, specifically for OTC client cleared transactions, notional is included on both CCP facing and client facing legs of the client cleared transactions, where these are cleared under the principal model. Particularly in the context of porting, this creates a significant disincentive to facilitate, due to potential for abrupt increase in two times gross notional associated with the client portfolios to be ported, which in turn could have impact on the overall GSIB score.

Amending GSIB to recognise that OTC clearing reduces complexity and interconnectedness, under both principal and agency models, along with amending leverage ratio to recognise exposure reducing effect of initial margin, will aid in reducing the capital impediment for client clearing providers and therefore increase likelihood of porting being possible and further capacity being available.

ISDA Recommendations
Review the G-SIB framework • Recognise that clearing – regardless of the clearing model at issue (principal vs. agency) – reduces complexity and interconnectedness • Recognise initial margin in the G-SIB framework

The leverage ratio

The report rightly states that the LR was the most-often cited driver for the disincentivisation of provision of client clearing services, which is in line with expectation of our members.

Please refer to the response to question 8 for ISDA's analysis of the impact that non-recognition of IM on the leverage ratio exposure for cleared exposures has.

Question 8. Do you agree or disagree with the consultative report's characterisation of the impact of these reforms on the incentives to provide client clearing services?

Clearing members do not usually provide guaranteed back up clearing service because of the significant cost and risk this introduces to clearing providers. Usually clients would have agreements with more than one clearing member in normal market circumstances so, if one clearing member defaults or terminates its services, then there are usually systems and connectivity established with an alternate clearing member which can be used to port positions. However whether such porting actually occurs is dependent on whether the alternate clearing member agrees to accept additional risk and positions on behalf of clients.

The result of DAT's analysis, that many clients have only one CM is therefore a surprise. However this is also an indication of the difficulties for many clients to find enough firms who have the capacity to provide back-up clearing services. Alternatively, the data may not have recognized that many large asset managers with very large numbers of underlying accounts have access to multiple clearers but may only have opened specific individual accounts at the CCP through one of those clearers. These accounts would appear only to have a single provider whereas in reality they may have backup clearing provisions in place.

Overall, while we agree with the characterisation of the impact of the reforms on client clearing service providers, section E4 of the DAT report should further clarify that the concerns noted therein in relation to clients not being able to have alternative clearing members is not necessarily the result of a concentration of clearing service providers, but the result of limited clearing capacity of those service providers to take on additional risk or facilitate porting. This distinction is not just academic but will have significant policy considerations as any policy tool to remedy the lack of backup arrangements will need to look at increasing clearing capacity and reducing constraints on capacity.

Many of the reforms listed in question 7 will also affect CCSPs.

While clearing mandates will increase demand for client clearing services, the leverage ratio and the G-SIB framework affect CCSPs and CCSP clearing capacity in a particularly negative way.

Leverage ratio

We agree with the DAT report's description of the impact of the leverage ratio on CCSPs. Firms not being able to recognise IM posted by clients for cleared transactions make the leverage ratio the most significant constraint on client clearing capacity. The DAT report's recognition that the leverage ratio can be a binding constraint for client clearing businesses, even if it isn't one for the overall firm's capital position, is particularly important, as this will drive capital allocations to specific business lines.

To understand the impact better, ISDA has analysed the contributions of large firms to the Basel monitoring QIS as related to client clearing. This QIS focusses on the impact of new measures, like the Standardised Approach for Counterparty Credit Risk (SA-CCR) and the leverage ratio.

The most notable data point from the Basel monitoring QIS is that the leverage ratio exposure (LRE) for client cleared OTC derivatives increases significantly if initial margin cannot be recognised.

Based on the feedback from 10 banks who shared their response in the Basel monitoring QIS, the LRE, for client clearing exposures only, and calculated under SA-CCR, increases by 109% if the exposure reducing effect of initial margin cannot be recognised, vs. the same exposure calculated under SA-CCR with recognition of the exposure reducing effect of initial margin, allowing IM to offset PFE as in the risk weighted SA-CCR (i.e. using the multiplier function). For some counterparty types like asset managers and pension funds the impact was even higher (up to 169%).

More detail to the analysis can be found in the appendix.

We also note that the recognition of initial margin in SA-CCR is not efficient and SA-CCR is very conservatively calibrated. Please refer to the response to question 7 for more details.

ISDA Recommendations
Allow recognition of initial margin in the calculation of LRE for cleared client transactions

Regulation could also benefit from more clarity in terms of initial margin on a CCSP's balance sheet[11]. ISDA explored this issue with the following example: Assuming a CCSP collect 100 units as cash VM and passes on 90 of those units to the CCP. A small survey of some members highlighted that not all members arrived at the same conclusion regarding how to treat the situation for LR. Some firms said LRE in this case would be 10 units, others suggested 100 units.

[11] This would mainly be cash

ISDA Recommendations
Regulation should provide more clarity as to the treatment of cash IM on the lance sheet of a CCSP for LR purposes.

G-SIB requirements

Please refer to the response to question 7 for our position to the G-SIB framework, also in relation to provision of client clearing services.

Question 9. Are there any areas where potential policy adjustments should be considered which would enhance the incentives for or access to central clearing of OTC derivatives, or the incentives to provide client clearing services?

Client clearing is a low margin business with high fixed cost. These factors are unlikely to change materially in the short-to-medium term.

As a result, policy adjustments are a key lever to enhancing incentives for and access to clearing. Removing unnecessary constraints on clearing member capacity (especially the LR, but also CEM in some cases) would reduce balance sheet pressures and allow firms who already have a platform to extend their services. This could also incentivise firms who have discontinued client clearing to return to the business. ISDA does not have a view on if changes to measures like the leverage ratio or the G-SIB framework would incentivise new firms to enter the market of providing client clearing services. However as we have noted earlier in our response, increasing capacity to clear should be a primary policy objective.

The current regulations may negatively affect the incentives of potential clearing providers to enter the market or current clearing providers to alter or change the scope of their offering; ISDA supports additional regulatory adjustments because they could potentially mitigate the concern that these regulations are negatively affecting the entry of new clearing providers or the scope of present offerings

Question 10. Do you agree or disagree with the report's characterisation of the difficulties some clients, especially clients with smaller or more directional derivatives activity, face in:

- *a. accessing clearing arrangements; and*
- *b. conducting trading and/or hedging activity given the restrictions imposed by their client clearing service providers?*

Access to clearing

We agree with the finding that low turnover clients and clients with directional portfolios are most affected by restrictions on their clearing. These clients often do not generate high clearing fees for the service provider while potentially driving large LRE, especially in the context of clients with large, directional portfolios. This is effect is even more exacerbated for clients with one-directional portfolios that are long-dated and intended to be held to maturity as this increases the LRE consumption.

We agree that the counterparty scope of clearing mandates should be reviewed. We therefore support exemptions from clearing for small firms that are not systemically important, as is currently envisaged in EMIR REFIT and CFTC Swaps 2.0[12].

ISDA Recommendations
Review exemptions from clearing mandates for small firms, as proposed in EMIR REFIT and CFTC Swaps 2.0

The DAT report clearly illustrate that there is a long tail of clients with small exposures who add only immaterial risk to the system. We believe that similar effects are observable for uncleared margin requirements.

Trading restrictions

We agree with the characterisation of CEM in the DAT report, especially in the context of centrally cleared ETD trading. Typically, ETD market maker portfolios are well-hedged but large in terms of (non-delta-adjusted) gross notional amounts, also in relation to margin requirements. Analysis how these limitations of CEM affect ETD market makers have been highlighted to BCBS at their industry outreach meeting in June. A timely move to SA-CCR is important for such firms and their clearing members given that the shortcomings of SA-CCR (see question 7) are more than offset by the improvements for these types of portfolios, in particular delta notional weighting for options and netting / offsetting instead of the gross-up of non-delta adjusted notionals under CEM.

[12] https://eur-lex.europa.eu/legal-content/EN/TXT/DOC/?uri=CELEX:52017PC0208&from=EN and https://www.cftc.gov/sites/default/files/2018-04/oce_chairman_swapregversion2whitepaper_042618.pdf

ISDA Recommendations
Where there are transition periods for the introduction of SA-CCR for (binding) LR purposes, clearing members of ETD market makers should have the choice of using SA-CCR in the meantime.[13]

Question 11. Do you agree or disagree with the finding that the provision of client clearing services is concentrated in a relatively small number of banks? Does the current level of concentration raise any concerns about incentives to centrally clear, or risks to the continuity of provision of critical economic functions, including during periods of stress?

FSB DAT has better access to concentration numbers than the public, including our members. We are however not surprised by the quoted number of "five firms, all bank-affiliated, account for over 80% of total client margin for cleared OTC derivatives in the United States, United Kingdom and Japan". This is in line with the publicly disclosed numbers by CCPs.

Should one of these five CCSPs default, *each* of the other four would have to increase capacity by 25%[14] on average to absorb the clients between them by accepting porting requests from clients of the defaulted CCSP. Accepting these additional client exposures will challenge the risk appetite of these firms and increase their capital requirements. As these large CCSPs are also large banks, or are affiliated to large banks, these will also be clearing members who are expected to bid in the auction for any residual house portfolio of the defaulted CCSP. The current leverage ratio requirement can make this very difficult especially considering that porting would be occurring during a period of market stress.

ISDA Recommendations

Improve porting by:

- Permit the new clearing member to rely initially on the previous due diligence conducted by the previous clearing member, due to the fact that they are a regulated entity[15]. A realistic timeline for subsequently conducting "know your customer" (KYC) by the accepting clearing member could be set through regulation.
- Temporarily waive minimum capital requirements for the exposures of the ported clients.

[13] Note that in the EU (binding) LR may also apply to the ETD market makers themselves.

[14] This assumes that five CCSPs with 80% of concentration is split equally between them with each CCSP having 16% market-share. If the four non-defaulting CCSP were to absorb the 16% capacity of defaulting CCSP equally, then their concentration would each need to increase by 4%, going from 16% to 20% market-share. This is equivalent to a 25% increase in their market-share.

[15] Firms must of course remain permitted to apply their own KYC policies over and above any regulatory requirements.

ISDA Recommendations
• Improve the operational processes around porting to ensure there are no bottlenecks outside of the decision to take on a client that wishes to be ported. • Implement an implied consent of all clients in an omnibus account to port positions from the defaulted clearing member.

Question 12. Do you agree or disagree with the report's characterisation of the incentive effects created by up-front and ongoing fixed costs of:

a. using clearing services?
b. providing client clearing services?

See responses to questions 1 and 9.

Question 13. In light of the finding in this report that economic factors generally incentivise central clearing for certain market participants but perhaps not for others, please describe your views regarding the costs and benefits of the scope of the clearing mandates, both in terms of the products and entities covered.

ISDA members believe that the product scope of the clearing mandate is appropriate. As discussed in the response to question 4, the product scope of clearing mandates might be aligned globally, keeping in mind that some of these differences are driven by differences in local derivative markets.

Question 14. Should regulation seek to create incentives to centrally clear OTC derivatives for all financial firms, including the smallest and least active? If so, what would that imply for the costs of uncleared trades? If not, for which types of firm and product is it most important to have incentives for central clearing? Conversely for which types of firm and product would it be acceptable not to have incentives for central clearing? Please elaborate.

As stated in the response to question 10, we support exemptions from clearing for small firms and private individuals that are not systemically important, as is currently envisaged in EMIR REFIT and CFTC Swaps 2.0. Similar discussions are being had about whether transactions resulting from trade optimisation services should be similarly exempted.

Appendix 1: Responses to consultation questions

<table>
<tr><th>ISDA Recommendations</th></tr>
<tr><td>Greater standardisation, alignment and comparability of CCP rulebooks where possible – in particular in respect of default management process and porting to provide transparency and confidence, as well as reduce the legal resource required for participants to assess the impact of those rules on their business.</td></tr>
<tr><td>Provide investment diversity and reduce exposure by allowing CCPs access to central bank accounts and central bank liquidity.</td></tr>
<tr><td>Review calibration of SFT capital rules.</td></tr>
<tr><td>We urge that countries with small, closed or developing derivatives markets are given time to develop their markets in an organic and orderly way. Before clearing mandates and exchange of bilateral initial margin are considered, certain conditions need to be satisfied:
1. Netting is a true risk reducing tool and indispensable for the development of safe and efficient financial markets. The first step therefore is to implement a clean netting regime.
2. Review legal frameworks: other than a clean netting regime, the legal framework should be generally supporting of clearing, for instance by providing settlement finality and collateral rights.
3. Development of a derivatives markets with a sufficient amount of standardised products whose markets are liquid enough to enable safe clearing. While the market grows, there also should be no mandatory exchange of bilateral initial margin, as this tool will likely make transactions costly and could stifle the market.
4. As well as development of a derivatives market with liquid products there should also be a liquid and efficient collateral market, without undue restrictions.
5. Should there already be a CCP in this jurisdiction, or access to a CCP in another jurisdiction, the compliance of this CCP with the Principles for Financial Market Infrastructures need to be considered.
6. Supervisors need to have sufficient insight into and data about trading activity.</td></tr>
<tr><td>Review the scope of clearing mandates across jurisdictions for harmonization opportunities and global standardization, where the differences are not driven by structural differences between markets.</td></tr>
<tr><td>The client leg of cleared transactions is exempt from the CVA capital charge in the EU, but not in the US. To not restrict clearing member capacity further, the client leg of cleared transactions should be exempted globally. This would also ensure that accounting and regulatory capital for CVA are more closely aligned for cleared client transactions.</td></tr>
<tr><td>Prioritize a holistic review of SA-CCR at the BCBS level to ensure that the framework is fit for purpose.</td></tr>
<tr><td>Review the G-SIB framework
• Recognise that clearing – regardless of the clearing model at issue (principal vs. agency) – reduces complexity and interconnectedness</td></tr>
</table>

ISDA Recommendations
• Recognise initial margin in the G-SIB framework
Allow recognition of initial margin in the calculation of LRE for cleared client transactions
Regulation should provide more clarity as to the treatment of cash IM on the lance sheet of a CCSP for LR purposes.
Review exemptions from clearing mandates for small firms, as proposed in EMIR REFIT and CFTC Swaps 2.0
Where there are transition periods for the introduction of SA-CCR for (binding) LR purposes, clearing members of ETD market makers should have the choice of using SA-CCR in the meantime.
Improve porting by: • Permit the new clearing member to rely initially on the previous due diligence conducted by the previous clearing member, due to the fact that they are a regulated entity. A realistic timeline for subsequently conducting “know your customer” (KYC) by the accepting clearing member could be set through regulation. • Temporarily waive minimum capital requirements for the exposures of the ported clients. • Improve the operational processes around porting to ensure there are no bottlenecks outside of the decision to take on a client that wishes to be ported. • Implement an implied consent of all clients in an omnibus account to port positions from the defaulted clearing member.

Appendix 2: ISDA's complementary work to the FSB DAT analysis

Over the last months ISDA has worked on a study on incentives to clear to complement the FSB Derivatives Assessment Team (DAT) study. We focused on the following macro-themes:

- CCP proliferation and fragmentation
- Clearing architecture and access to clearing
- Incentives to clear in existing regulation

Within these macro-themes, we have produced papers on the following topics, and have shared some of those with the DAT:

- Incentives and impediments to clear for clients
    - Many clients have started to clear voluntarily. Clients however require confidence in continuity of transactions. Some clients especially in Europe are not confident that porting is reliable. We compare models for access to CCPs for clients and recommend changes to improve porting, to improve clearing member capacity by reviewing capital requirements and other burden on clearing members, for instance in CCP recovery & resolution.
- Architecture of clearing
    - Globally integrated markets are most efficient in promoting growth in the real economy by providing the ability to borrow, invest and hedge in deep and liquid markets at the fairest possible prices. Arbitrary and mandated fragmentation of these markets, or the infrastructure that supports them, may lead to market distortions and inefficiencies which, in turn, can burden economies with additional costs. In this paper, we will look at the role clearing and the architecture of the global clearing market play in supporting globally integrated markets.
- Who should clear
    - The current scope of the clearing mandate captures both systemic and non-systemic counterparties. This paper will consider alternatives to the current scope of clearing mandates that could reduce the burden on participants while preserving systemic stability.
- Clearing in small or closed jurisdictions
    - This paper explores clearing in jurisdictions with relatively smaller or closed derivatives markets In particular, it finds that the foundations of a clean netting regime and development for a liquid derivatives market are fundamental for a CCP to be established successfully. In addition it finds that local clearing mandates may not be required in these markets.
- Incentives to clear

- This paper will include ISDA's proposals for a more risk appropriate framework, including proposals for risk appropriate changes to the margin framework for uncleared transactions.

We will publish these papers formally in due course, and have based parts of or response on this work.

Appendix 3: Details of ISDA's Leverage Ratio Quantitative Impact Analysis

GARP and ISDA analyzed data submitted by 18 G-SIBs and internationally active banks (the Participating Banks) that conform to a worksheet created by ISDA which was based on the Basel Committee on Banking Supervision's (BCBS) current Basel III monitoring exercise template, using data as reported end-December 2017.

The BCBS conducts its monitoring exercise semi-annually to assess the "*Impact of Basel III: A global regulatory framework for more resilient banks and banking systems ("the Basel III standards"), the Basel III leverage ratio framework and disclosure requirements ("the Basel III leverage ratio framework") and Basel III: The Net Stable Funding Ratio ("Basel III NSFR standards") on Participating Banks*."[16]

The ISDA and GARP QIS utilizes the data from each Participating Bank to calculate a number of ratios, which estimate the impact of SA-CCR on Potential Future Exposure (PFE), Replacement Cost (RC), Leverage Ratio Exposure (LRE), and Risk-Weighted Assets (RWAs). For the purposes of providing impact of the leverage ratio on client cleared over-the-counter derivatives transactions to the Financial Stability Board's Derivatives Assessment Team, the study focused on assessing leverage ratio exposures calculating using SA-CCR with and without the risk-reducing benefits of initial margin.

Based on the feedback from 10 banks who shared their response in the Basel monitoring QIS, the LRE, for client clearing exposures only, and calculated under SA-CCR, increases by 109% if the exposure reducing effect of initial margin cannot be recognised, vs. the same exposure calculated under SA-CCR with recognition of the exposure reducing effect of initial margin, allowing IM to offset PFE as in the risk weighted SA-CCR (i.e. using the multiplier function).

- LRE1 (Cell J309[17] in the April 2018 Basel Monitoring's "Leverage Ratio" tab) is the current leverage ratio exposure for client cleared trades calculated under SA-CCR without recognition of the exposure reducing effect of IM
- LRE2 (Cell K309 in the April 2018 Basel Monitoring's "Leverage Ratio" tab) is the current leverage ratio exposure for client cleared trades calculated under SA-CCR with recognition of the exposure reducing effect of IM
- LRE1 = 2.09x LRE2

We also looked at the ratio of the LRE for client clearing exposures only, and calculated under SA-CCR if the exposure reducing effect of initial margin cannot be recognised, vs. the same exposure calculated under SA-CCR with recognition of the exposure reducing effect of

[16] For more information on the Basel III monitoring exercise, including instructions to Participating Banks and the associated data template, see https://www.bis.org/bcbs/qis/

[17] Note that the cells referenced here contain different row numbers than the cells referenced in the GARP QIS report. This is due to some template differences—the panel used for the DAT exercise (panel 'M' of the Basel III monitoring template's 'Leverage Ratio' tab) is identical to the same panel in the ISDA SA-CCR QIS template's 'Leverage Ratio' tab, but has moved position in the spreadsheet as other elements of the ISDA SA-CCR QIS template were not.

initial margin, allowing IM to offset PFE as in the risk weighted SA-CCR as before, but looked at the part of the template where these numbers are broken down by counterparty type.

We did not have sufficient responses to provide the impact on the following specific categories:

- Banks
- Corporates
- Insurance
- Retail
- Sovereign

We however got data for the following three counterparty types, with the same overall calculation as the overall LRE increase of 109%:

Counterparty Type	Cell reference	Increase
Investment funds	J259 and K259	101.1%
Asset managers	J266 and K266	169.6%
Pension funds	J294and K294	140.4%

Given the headline impact of 109% increase in LRE if IM cannot be recognised under SA-CCR, we assume the other categories where we don't have data for will have a lower impact to make the overall impact of 109%. We believe this shows that clients with large, directional portfolios seem to be particularly hit by the non-recognition of the exposure reducing effect of IM when applying SA-CCR to calculate LRE. Note that the above counterparty-type numbers are a mean average based on bank responses, while the overall number is a weighted average. This is due to the number of submissions being below GARP's required threshold for being able to provide a weighted average on an aggregated and anonymized basis. We don't expect that these numbers should differ significantly from those which would have been obtained through a weighted average (for example, the difference in weighted average and mean ratios for the overall impact is 10%).

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 68 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.