RESPONSE TO CONSULTATION PAPER

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Consultation topic:	Consultation Paper on Draft Regulations for Mandatory Trading of Derivatives Contracts
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Confidentiality	
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General comments:

Citadel[1] appreciates the opportunity to provide comments to the Monetary Authority of Singapore ("MAS") on its Consultation Paper on Draft Regulations for Mandatory Trading of Derivatives Contracts.

Citadel is a firm supporter of the G20 reforms to the OTC derivatives markets, including the clearing, trading, and reporting requirements. The ongoing implementation of these reforms has already begun, and will continue, to reduce systemic risk, improve pre- and post-trade transparency, and foster an open, level, and competitive playing field. The mandatory trading of derivatives on regulated platforms is a central component of the G20 reforms,[2] and is critical to achieving the policy goals of promoting market stability and integrity and improving conditions for investors through increased transparency, more competition, and better pricing. Market experience with the implementation of the trading obligation in other jurisdictions has demonstrated the tangible benefits to investors that result from open and competitive execution, including better liquidity and lower transaction costs. Specifically, the Bank of England has found that market participants transacting USD interest rate swaps ("IRS") are already saving as much as $20 million - $40 million per day, of which $7 million - $13 million is being saved by market end-users alone per day, due to lower transaction costs resulting from the implementation of the trading obligation in the US.[3] Furthermore, transitioning trading in standardised, liquid OTC derivatives onto regulated platforms enhances market stability and integrity by ensuring this activity is subject to appropriate monitoring and surveillance.

An affirmative trading obligation is necessary to facilitate the industry's transition to trading on regulated trading venues. It is therefore critical that the scope of the trading obligation be appropriately calibrated to (i) include all OTC derivatives that are sufficiently standardised and liquid, and (ii) encompass a broad range of market participants operating in the market. Below, we provide our feedback on the MAS proposal.

[1] Citadel is a global financial firm built around world-class talent, sound risk management, and innovative market-leading technology. For more than a quarter of a century, Citadel's hedge funds and capital markets platforms have delivered meaningful and measurable results to top-tier investors and clients around the world. Citadel operates in all major asset classes and financial markets, with offices in the world's leading financial centers, including Chicago, New York, San Francisco, Boston, London, Dublin, Hong Kong, and Shanghai.

[2] See "G20 Leaders Statement: The Pittsburgh Summit," Sept. 25, 2009, available at: http://www.g20.utoronto.ca/2009/2009communique0925.html ("All standardized OTC derivative contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties by end-2012 at the latest").

[3] See Staff Working Paper No. 580 "Centralized trading, transparency and interest rate swap market liquidity: evidence from the implementation of the Dodd-Frank Act", Bank of England (January 2016), available at: http://www.bankofengland.co.uk/research/Documents/workingpapers/2016/swp580.pdf.

Question 1: MAS seeks views on the proposal to subject IRS denominated in USD, EUR and GBP, with the contract specifications set out in Table 1, to trading obligations.

We agree that all of the IRS proposed in the Consultation Paper are suitable for the trading obligation pursuant to the criteria set forth in section 129N(2) of the Securities and Futures Act ("SFA"), including the level of standardisation and liquidity and whether the instruments are subject to a trading obligation in other jurisdictions.

However, we believe the scope of the trading obligation should be expanded in two important ways:

1. **Additional benchmark tenors in USD, EUR, and GBP IRS meet the criteria set forth in section 129N(2) of the SFA**

   An analysis of market liquidity demonstrates that material trading volumes are occurring in other benchmark tenors, in particular:

   USD IRS: 4, 6, 12, 15, 20, and 30 year
   EUR IRS: 4, 6, 15, 20, and 30 year
   GBP IRS: 4, 6, 15, 20, and 30 year

   USD, EUR, and GBP-denominated IRS are traded in global liquidity pools that are not defined by geographical boundaries. A holistic assessment of the liquidity available to a market participant in Singapore, taking into account factors such as the number of liquidity providers regularly offering quotes, average daily volume, average size of trades, and number and type of active market participants, would show that additional benchmark tenors in USD, EUR, and GBP IRS are sufficiently liquid to be subject to a trading obligation.

   Expanding the scope of the trading obligation to include additional benchmark tenors would also be consistent with approaches taken in other jurisdictions. The US and EU have applied the trading obligation to a nearly identical set of OTC derivatives, including the benchmark tenors listed above.[4] As highlighted by MAS in the Consultation Paper, a significant level of OTC derivatives trading activity in Singapore involves US and EU counterparties that are already subject to these trading obligations. Therefore, expanding the proposed scope of the trading obligation to increase harmonisation with the US and EU and more accurately reflect market liquidity dynamics should not create significant implementation burdens for the industry. In addition, greater harmonisation may assist in efforts to achieve equivalence determinations with other jurisdictions.

[4] See list of instruments subject to the US trading obligation at http://www.cftc.gov/idc/groups/public/@otherif/documents/file/swapsmadeavailablechart.pdf and list of instruments subject to the EU trading obligation at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R2417&from=EN.

2. Standardised and liquid packages should not be granted an exemption from the trading obligation

Over 50% of benchmark USD IRS are executed as part of package transactions.[5] It is therefore critical that standardised and liquid packages are not exempted from the trading obligation, as otherwise a very significant portion of the market will not transition onto regulated trading platforms, undermining the G20 reforms.

Both the US and EU have successfully applied the clearing obligation and the trading obligation to packages:

- Clearing Obligation. In both the US and EU, an OTC derivative subject to a clearing obligation must be cleared even if a market participant executes it as part of a package transaction along with other instruments. Note that this does not mean that all components of the package must be cleared, only that the components of the package that are independently subject to the clearing obligation must be cleared. There are no package transaction related exemptions from the clearing obligation in either jurisdiction.

- Trading Obligation. In both the US and EU, similar to the clearing obligation, the general rule is that an OTC derivative subject to a trading obligation must be executed on a regulated platform even if a market participant executes it as part of a package transaction along with other instruments.

  In both jurisdictions, certain targeted exemptions have been provided from the trading obligation for specific types of packages.[6] However, it is important to note that exemptions have not been provided to the most liquid and standardised packages traded by market participants. These include (a) packages with one component subject to the trading obligation and the other components subject to the clearing obligation and (b) packages comprised of a USD IRS component subject to the trading obligation and a US Treasury.

To the extent exemptions are considered for packages under the SFA, it is important that, similar to the US and EU, they are appropriately tailored given the significant amount of trading activity in certain standard, liquid packages. Packages with one component subject to the trading obligation and the other components subject to the clearing obligation include (i) interest rate curves (2 interest rate swaps of different maturities), (ii) interest rate butterflies (3 interest rate swaps of different maturities),

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[5] See "Spreadovers: US Treasury Spreads in the Swaps Data," Clarus Financial Technology (March 23, 2105), available at: https://www.clarusft.com/spreadovers-us-treasury-spreads-in-the-swaps-data/.

[6] US: CFTC Letter No. 17-55 (Oct. 31, 2017), available at: http://www.cftc.gov/idc/groups/public/@lrlettergeneral/documents/letter/17-55.pdf.

EU: ESMA Opinion on the treatment of packages under the trading obligation for derivatives (March 21, 2018), available at: https://www.esma.europa.eu/sites/default/files/library/esma70-156-322_opinion_packages_and_to.pdf.

(iii) IMM rolls (trading out of an existing IMM swap and replacing it with the next longest maturity), and (iv) CCP basis swaps (two or more interest rate swaps that are cleared at different CCPs). Market data shows that interest rate curves and butterflies alone typically constitute approximately 1/3 of the total risk transfer in USD IRS and one analysis found that up to 45% of vanilla, spot starting USD IRS were traded as part of a curve or butterfly.[7] These types of packages are also extremely common for EUR and GBP IRS.

In turn, packages comprised of a USD IRS component subject to the trading obligation and a US Treasury ("spread over packages") appear to be the single largest category of package transactions involving USD IRS in terms of overall risk transfer and constitute up to 20% of overall trade count.[8]

All of the package types highlighted above already trade successfully on both US SEFs and EU MTFs and OTFs, indicating than an exemption for these types of packages from the trading obligation is not necessary. Under the SFA, trading venues in Singapore will have the flexibility to design trading protocols for package transactions and we would expect them to innovate and compete to attract this trading activity. As a result, we respectfully request MAS to reconsider any blanket exemption to the application of the trading obligation to packages.

Finally, we agree with the proposal to not include a specific exemption from the trading obligation for large block trades. Under the SFA, trading venues will have the flexibility to offer trading protocols that allow for private negotiation of large trades in order to address concerns about information leakage. Similar flexibility for EU trading venues led ESMA to conclude that an exemption from the trading obligation was not necessary for block trades.[9] In contrast, US rules limit the permitted trading protocols that can be offered by SEFs for instruments subject to the trading obligation. As a result, additional flexibility was required for block trades, whereby they are exempted from the requirement to be executed via either an RFQ-to-3 or Order Book trading protocol but are still required to be executed pursuant to the rules of a SEF.[10]

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[7] See "September 2016 Swaps Review," Clarus Financial Technology (Oct. 12, 2016) at Table 2, available at: https://www.clarusft.com/september-2016-swaps-review/; and "USD Swaps: Spreads and Butterflies Part II," Clarus Finan-cial Technology (Sept. 30, 2014), available at: https://www.clarusft.com/usd-swaps-spreads-and-butterflies-part-ii/.

[8] See "September 2016 Swaps Review," Clarus Financial Technology (Oct. 12, 2016) at Table 2, available at: https://www.clarusft.com/september-2016-swaps-review/; and "Spreadovers: US Treasury Spreads in the Swaps Data," Clarus Financial Technology (March 23, 2105), available at: https://www.clarusft.com/spreadovers-us-treasury-spreads-in-the-swaps-data/.

[9] See ESMA Final Report: Draft RTS on the trading obligation for derivatives under MiFIR (Sept. 28, 2017) at page 8, available at: https://www.esma.europa.eu/sites/default/files/library/esma70-156-227_final_report_trading_obligation_derivatives.pdf.

[10] Core Principles and Other Requirements for Swap Execution Facilities (June 4, 2013), available at: http://www.cftc.gov/idc/groups/public/@lrfederalregister/documents/file/2013-12242a.pdf.

Question 2: MAS seeks views on the proposal to impose trading obligations on banks that exceed a threshold of S$20 billion gross notional outstanding of OTC derivatives contracts booked in Singapore for each of the last four quarters.

We appreciate the logic behind the proposed phase-in of the clearing obligation and trading obligation, starting with the most active banks. However, in our view, it is critically important that both of these reforms are fully phased-in to apply to all of the financial institutions covered by section 129I of the SFA, and therefore, we respectfully request MAS to provide a full implementation timeline.

Fully implementing the clearing obligation and trading obligation for all financial institutions is important for several reasons. First, efforts to mitigate systemic risk are undermined to the extent there are material trading volumes that are not covered by these critical G20 reforms. Recent data suggests that "other financial institutions" now account for over 50% of trading activity in interest rate derivatives in Singapore, with volumes more than tripling since 2013.[11] As a result, we recommend that MAS analyse the percentage of daily IRS trading volumes that would not be covered by the proposed initial implementation of the clearing and trading obligations.

Second, efforts to mitigate systemic risk and improve market integrity are undermined when and where significant numbers of market participants are not covered by the clearing and trading obligations. While the trading activity and exposures of any given smaller financial institution may not present systemic risk concerns in isolation, the sheer number of bilateral counterparty credit exposures that persist outside of central clearing perpetuates systemic risk in aggregate, acting as a risk transmission channel in the event of a significant counterparty default. In addition, this trading activity will likely continue to occur on an over-the-counter bilateral basis, away from the monitoring and surveillance performed by regulated platforms. This can undermine one of the main benefits of the trading obligation, which is to enhance market stability and integrity by transitioning trading activity onto well-regulated and operationally robust trading venues.[12]

Third, applying the clearing and trading obligations only to large banks deprives other market participants, including the buy-side, of the benefits of these reforms, such as increased transparency, more competition, and better pricing. MAS Staff Paper No. 54 accurately finds that "*we consider the main beneficiaries of a trading mandate to likely be buy-side participants (e.g. fund managers and insurers), who are generally price-takers in OTCD markets. Increased pre-trade transparency for buy-side participants improves their price discovery process and reduces information asymmetry.*"[13] Similarly, Bank of

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[11] ISDA Asia-Pacific OTC Derivatives Study (November 2017) at pages 23-24, available at: https://www.isda.org/a/jRTEE/Asia-Pacific-Derivatives-Study-November-2017.pdf.

[12] See MAS Staff Paper No. 54, Liquidity and policy analyses for platform trading of OTC derivatives: A perspective of smaller markets (December 2016), available at: http://www.mas.gov.sg/~/media/resource/news_room/Staff%20Papers/MAS%20Staff%20Paper%20No54%20%20Liquidity%20and%20Policy%20Analyses%20for%20Platform%20Trading%20of%20OTC%20Derivatives.pdf.

[13] *Id.* at page 8.

England research has found that the fully implemented US trading obligation has meaningfully benefited end investors, reducing transaction costs by $20 million - $40 million per day, of which $7 million - $13 million is being saved by market end-users alone per day.[14] However, the clearing and trading obligations must be generally applied to all types of market participants in order to realize these benefits. In the absence of the full implementation of clearing and trading obligations, from the perspective of a buy-side market participant, the OTC derivatives market may appear largely unchanged, with the price discovery process opaque and fragmented and liquidity providers continuing to focus on providing liquidity bilaterally in uncleared instruments.

For these reasons, both the US and EU have applied the clearing and trading obligations to a broad range of financial counterparties. In the US, the clearing obligation was phased-in over a 9-month period in 2013 and applied to all financial counterparties, with a narrow exemption for credit institutions with less than $10 billion in assets. The trading obligation was then applied in early 2014 to all counterparties subject to the clearing obligation. In the EU, the clearing obligation was phased-in for larger financial counterparties beginning in 2016 and will be applied to smaller financial counterparties in 2019. The trading obligation was then applied in early 2018 to all counterparties subject to the clearing obligation.

The clearing and trading obligations are central pillars of the G20 reforms and their successful implementation is critical to achieving the policy goals of mitigating systemic risk, promoting market stability and integrity, and improving conditions for investors through increased transparency, more competition, and better pricing. These goals will not be fully achieved by applying the reforms only to the inter-bank portion of the OTC derivatives market. Therefore, we respectfully request that MAS provide further detail regarding the proposed timeline for fully implementing the clearing and trading obligations.

Question 3: MAS seeks views on the proposal to exempt public bodies from trading obligations.

No comment.

Question 4: MAS seeks views on imposing trading obligations to products that are traded in Singapore by both counterparties that exceed the proposed threshold of S$20 billion gross notional outstanding of OTC derivatives contracts booked in Singapore.

No comment.

Question 5: MAS seeks views on the proposal to exempt intra-group transactions from trading obligations.

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[14] *Supra* note 3.

No comment.

Question 6: MAS seeks views on the proposed timing for the commencement of trading obligations in conjunction with the commencement of the SF(A) Act.

No comment.

Question 7: MAS seeks feedback on the trading facilities which market participants may access, or intend to access, for the trading of USD, EUR and GBP IRS.

Given the proposal to initially apply the trading obligation only to transactions between the largest banks, the relevant trading platforms will include those operated by inter-dealer brokers ("IDBs"). For this reason, it is important that the definition of an "organised market" in the Securities and Futures (Markets) Regulations is broad enough to include these IDB platforms, which typically offer both voice and electronic trading protocols. We note that IDB platforms are already registered as SEFs in the US and MTFs and OTFs in the EU.

In addition, we agree with MAS that it is important that other market participants have the ability to access these liquidity pools where OTC derivatives subject to the trading obligation will be executed. Unfortunately, IDB platforms have historically denied access to other market participants, such as the entire buy-side as well as potential new entrants on the sell-side. This denial of access achieves two objectives. First, it prevents end investors from directly accessing the competitive pricing and liquidity found on the dealer-only trading venues. Second, it makes it extremely difficult for new liquidity providers to compete with the incumbent dealers on any trading venue, as potential new entrants are blocked from accessing necessary pools of liquidity for pricing and hedging purposes.

Typical access barriers used by these IDB platforms include (a) requiring direct clearing membership at a CCP in order to join the trading platform, and (b) providing mechanisms that allow platform participants to selectively "turn-off", or otherwise restrict trading with, certain other participants (i.e. "enablement" or "credit control" mechanisms). These access barriers have been specifically prohibited in both the US and EU for cleared OTC derivatives traded on SEFs and MTFs/OTFs in order to ensure that market participants are provided with impartial and non-discriminatory access to these new regulated trading platforms.[15]

We respectfully request that MAS, as part of implementing the trading obligation, ensure that approved exchanges ("AEs") and recognised market operators ("RMOs") provide

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[15] EU: ESMA Q&A on MiFID II and MiFIR market structure topics, Section 5.1, Question 3, available at: https://www.esma.europa.eu/sites/default/files/library/esma70-872942901-38_qas_markets_structures_issues.pdf.

US: "Staff Guidance on Swap Execution Facilities Impartial Access" (Nov. 14, 2013), available at: http://www.cftc.gov/idc/groups/public/@newsroom/documents/file/dmostaffguidance111413.pdf and "Core Principles and Other Requirements for Swap Execution Facilities", (June 4, 2013) at page 33508, available at: http://www.cftc.gov/idc/groups/public/@lrfederalregister/documents/file/2013-12242a.pdf.

impartial and non-discriminatory access to market participants. In this regard, it may be useful to specifically require AEs and RMOs to operate in a "non-discriminatory" manner in the Securities and Futures (Markets) Regulations (in addition to fair, orderly, and transparent). This will maximise harmonisation with the US and EU regulatory frameworks and ensure the prohibition of arbitrary and discriminatory practices that could prevent market participants in Singapore from accessing certain liquidity pools.

Question 8: MAS seeks feedback on any other considerations and timing concerns that may affect market participants' ability to access trading facilities for the trading of USD, EUR and GBP IRS.

As part of implementing a trading obligation in Singapore, it will be important to establish equivalence arrangements with other jurisdictions that also have a trading obligation. In assessing the regulatory frameworks applied to regulated platforms in these other jurisdictions, we highlight two areas for MAS' consideration.

1. Ensuring non-discriminatory access to regulated platforms

As detailed in Question 7 above, both the US and EU require regulated platforms trading OTC derivatives to provide market participants with impartial and non-discriminatory access. This core principle has been further clarified by both the CFTC and ESMA to prohibit specific practices that have historically been used by trading venues to deny access to certain market participants.[16]

It is therefore important that MAS ensure AEs and RMOs are subject to similar standards and are not permitted to deny market participants in Singapore access to key liquidity pools.

2. Ensuring a robust execution-to-clearing workflow

The clearing obligation and the trading obligation are designed to mitigate systemic risk and improve market stability and integrity by transitioning trading activity in OTC derivatives to a safer and more transparent regime, where market participants trade on a well-regulated platform subject to monitoring and surveillance and then immediately face a CCP without having to worry about the bilateral counterparty credit risk of their original executing counterparty.

In order to maximise these benefits, both the US and EU have successfully implemented straight-through-processing ("STP") requirements in connection with the clearing and trading obligations.[17] These requirements reduce market risk, credit risk, and operational

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[16] *Id.*

[17] US: "Staff Guidance on Swaps Straight-Through Processing" (Sept. 26, 2013), available at: http://www.cftc.gov/idc/groups/public/@newsroom/documents/file/stpguidance.pdf; and CFTC Letter No. 15-67 (Dec. 21, 2015), available at: http://www.cftc.gov/idc/groups/public/@lrlettergeneral/documents/letter/15-67.pdf.

EU: Commission Delegated Regulation (EU) 2017/582, available at: http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R0582&from=EN

risk by creating a robust execution-to-clearing workflow for market participants trading on a regulated platform. The main STP requirements include:

(a) **Submission timeframes.** Each step in the operational workflow from execution to clearing must occur within a certain amount of time in order to prevent transactions from being left in an uncertain, pending-clearing state during which the client is unsure whether its exposure is to the CCP or to its original executing counterparty.

1) Submission to the CCP after execution. Both US and EU rules require that a transaction executed on a trading platform be submitted to the CCP no later than 10 minutes after execution.[18]

2) Acceptance or rejection by the CCP. Both US and EU rules require that a CCP accept or reject a transaction submitted for clearing within 10 seconds of receipt.[19]

(b) **Pre-execution credit checks**. Both US and EU rules require pre-execution credit checks by a client's clearing member in order to ensure that both executing counterparties are able to successfully clear a transaction executed on a trading platform.[20]

(c) **Providing certainty in the event a trade is rejected from clearing**. Both US and EU rules address the rare circumstance of a trade being rejected from clearing after being executed on a trading platform, including voiding the trade in order to prevent the reintroduction of bilateral counterparty credit risk.[21]

These STP requirements have been critical in reducing systemic risk and are standard market practice in other jurisdictions that have implemented a trading obligation. Therefore, we respectfully request MAS to apply similar standards to AEs and RMOs in order to increase global harmonisation and to ensure market participants in Singapore benefit from the same operational efficiencies that are available when trading on regulated platforms in other jurisdictions.

Question 9: MAS seeks comments on the draft SF(TDC)R in Annex B.

No comment.

Question 10: MAS seeks views on the proposal to subject IRS denominated in EUR and GBP, with the contract specifications set out in Table 2, to clearing obligations.

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[18] *See* CFTC Letter No. 15-67 and Article 3 of Commission Delegated Regulation (EU) 2017/582.

[19] *See* CFTC "Staff Guidance on Swaps Straight-Through Processing" and Articles 3 and 4 of Commission Delegated Regulation (EU) 2017/582.

[20] *See* CFTC "Staff Guidance on Swaps Straight-Through Processing" and Article 2 of Commission Delegated Regulation (EU) 2017/582.

[21] *See* CFTC "Staff Guidance on Swaps Straight-Through Processing" and Article 5 of Commission Delegated Regulation (EU) 2017/582.

We agree that instruments subject to a trading obligation should also be covered by a clearing obligation. Therefore, we support applying the clearing obligation to both EUR and GBP IRS, in addition to USD and SGD IRS.

However, in our view, the range of maturities covered by the clearing obligation should be 28 days to 50 years. This is consistent with the criteria set forth in section 129G(2) of the SFA, given market liquidity in these instruments as well as available clearing offerings and the scope of clearing obligations already implemented in other jurisdictions.

In addition, we request that MAS clarify the application of the clearing obligation to packages. As detailed in Question 1 above, package transactions account for a significant amount of trading activity in fixed-to-float IRS and therefore broad exemptions for packages could undermine efforts to mitigate systemic risk through central clearing. Following the implementation of a clearing obligation, market participants are still able to execute both cleared and uncleared instruments together as a package, with the intended-to-be-cleared instrument then submitted to a CCP post-execution in accordance with the regulatory requirement. This approach is consistent with how both the US and EU have implemented the clearing obligation, where no exemptions were specifically provided for packages.

Finally, as discussed in Question 2 above, we respectfully request MAS to provide a full implementation timeline for applying the clearing obligation to additional market participants. A clearing obligation that only covers inter-bank activity leaves far too much trading activity and bilateral counterparty credit exposure outside of central clearing. In addition to the risk mitigation and customer protection benefits of central clearing, market research has shown that clearing also improves overall market transparency and liquidity.[22] In order for all market participants to fully realize these benefits, central clearing must be implemented in both the dealer-to-dealer and dealer-to-customer segments of the OTC derivatives market.

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[22] *See* Loon, Y. C., Zhong, Z. K. Does Dodd-Frank affect OTC transaction costs and liquidity? Evidence from real-time CDS trade reports. Journal of Financial Economics, 119 (3), 645–672 (2016) at page 4, available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2443654 ("the reduced counterparty risk and increased post-trade transparency associated with central clearing have beneficial effects on liquidity").