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Hong Kong

Supervision of Markets Division
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Re: Joint consultation paper on enhancements to the OTC derivatives regime for Hong Kong to– (1) mandate the use of Legal Entity Identifiers for the reporting obligation, (2) expand the clearing obligation and (3) adopt a trading determination process for introducing a platform trading obligation

Citadel[1] appreciates the opportunity to provide input to the Hong Kong Monetary Authority (the "HKMA") and the Securities and Futures Commission (the "SFC") on the continued implementation of the G20 reforms to the OTC derivatives markets.[2] Citadel is a firm supporter of these reforms, including the clearing, trading, and reporting requirements. The ongoing implementation of the G20 reforms has already begun to, and will continue to, reduce systemic risk, improve market transparency, and foster an open, level, and competitive playing field for market participants.

Below we provide our feedback on specific questions in the consultation.

Q4. Do you have any comments or concerns about our proposal not to introduce new products for Phase 2 Clearing other than IRS denominated in AUD? If so, please provide specific details.

We recommend that the HKMA and the SFC consider expanding the clearing obligation to (i) additional tenors in fixed-to-floating IRS denominated in the G4 currencies and to (ii) certain FX non-deliverable forwards ("NDFs").

First, with respect to fixed-to-floating IRS denominated in G4 currencies, we believe that the covered tenors should be extended to include swaps with a duration of up to 50 years (or 30 years

[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* http://www.hkma.gov.hk/media/eng/doc/key-information/press-release/2018/20180327e5a1.pdf.

for JPY).[3] While longer-dated swaps may trade less frequently than other tenors, they represent a material segment of the market when considered from a risk perspective (including risk-sensitive metrics such as DV01). Given that central clearing is designed to mitigate systemic risk, it is important that longer-dated swaps are brought into clearing in order to address counterparty credit risk over the life of the swap. Increasing the scope of covered tenors will also further harmonise the Hong Kong clearing obligation with those already successfully implemented in other jurisdictions, such as the US, the EU, and Australia. All of the relevant factors under the clearing obligation process are met for these instruments.

Second, we recommend that the HKMA and the SFC coordinate with global regulators to consider whether certain FX non-deliverable forwards ("NDFs") are now suitable for a clearing mandate. NDFs constitute an important segment of the global foreign exchange market and data shows that NDFs account for more than $130 billion in average daily trading volumes.[4] Importantly, since the recent introduction of uncleared initial margin requirements, voluntary clearing of NDFs has significantly increased. Data shows that clearing rates have increased across all of the most common currency pairs and that approximately 30% of the market is now centrally cleared.[5] In light of this significant growth in voluntary clearing, it may be timely for global regulators to reconsider whether a clearing mandate for FX NDFs is appropriate.

Q5. Do you have any comments or concerns about our proposal to maintain the current scope of Prescribed Person? If you do, please provide specific details.

We have several concerns with maintaining the current definition of a "Prescribed Person," which effectively limits the application of the clearing obligation to dealer-to-dealer activity. The clearing obligation is a central pillar of the G20 reforms and its 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.

First, efforts to mitigate systemic risk are undermined to the extent there are material trading volumes that are not covered by the clearing obligation. Recent data suggests that "other financial institutions" (i.e. non-dealers) account for approximately 36% of trading activity in interest rate derivatives in Hong Kong, with the daily volumes of these entities increasing by more than four times from 2013 to 2016.[6] Similarly, a recent analysis of data from the Hong Kong Trade Repository ("HKTR") found that, following the implementation of Phase 1 clearing in July 2017, still only approximately 40% of new fixed-to-floating IRS trades reported to the HKTR are intended-to-be-cleared.[7] In contrast, approximately 95% of new fixed-to-floating IRS trades

[3] We note that both the US and Australian clearing mandates also cover AUD IRS up to 30 years in tenor.

[4] "NDF Clearing February 2018", Clarus Financial Technology (March 14, 2018), available at: https://www.clarusft.com/ndf-clearing-february-2018/.

[5] *Id.*

[6] ISDA Asia-Pacific OTC Derivatives Study (November 2017) at pages 16-17, available at: https://www.isda.org/a/jRTEE/Asia-Pacific-Derivatives-Study-November-2017.pdf.

[7] "Overview of the Hong Kong Trade Repository", Clarus Financial Technology (March 6, 2018), available at: https://www.clarusft.com/overview-of-the-hong-kong-trade-repository/.

reported to US swap data repositories are intended-to-be-cleared.[8] This data suggests that too many liquid and standardised OTC derivatives transactions entered into in Hong Kong remain outside of the clearing obligation.

Second, efforts to mitigate systemic risk and improve market integrity are undermined when a significant number of market participants are not covered by the clearing obligation. 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 trading platforms.

Third, applying the clearing obligation only to large banks deprives other market participants, including the buy-side, of the potential benefits of the G20 reforms, such as increased transparency, more competition, and better pricing. The ongoing counterparty credit exposure inherent in uncleared derivatives transactions necessitates bilateral trading and credit support documentation between each and every pair of trading counterparties. The cost and complexity of entering into these agreements limits access to, and choice of, counterparties. Central clearing eliminates the need for such documentation, as counterparties to cleared derivatives transactions do not have ongoing counterparty credit exposure to each other, and instead face a CCP via a clearing member. As a result:

- Customers can access cleared markets more easily and enjoy a greater choice of trading counterparties.
- Competition is enhanced as a key barrier to entry – negotiating complex documentation with each and every potential trading counterparty in the market – is removed.
- New and innovative trading protocols and trading venues can emerge to facilitate price discovery and risk transfer among a more diverse set of counterparties.
- Collectively, these developments deliver better pricing, deeper liquidity, and greater transparency.

Central clearing has delivered these benefits in jurisdictions where the clearing obligation has been fully implemented. Academic research has concluded that "the reduced counterparty risk and increased post-trade transparency associated with central clearing have beneficial effects on liquidity."[9] In addition, Bank of England research has found that US clearing and trading reforms led to a significant improvement in liquidity and a material reduction in execution costs, with end-

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[8] *Id.*

[9] *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.

users saving as much as $7 million - $13 million *per day*.[10] However, the clearing obligation must be generally applied to all types of market participants in order to realise these benefits. In the absence of the full implementation of clearing obligations, the OTC derivatives market may appear largely unchanged from the perspective of a buy-side market participant, 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 obligation 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. 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.

We note that we appreciate the logic behind phasing-in new regulatory requirements, such as the clearing obligation, starting with the most active banks. However, given that Phase 1 clearing has now been implemented successfully, we believe that it is important to continue to expand the scope of financial institutions subject to the clearing obligation, consistent with how the clearing obligation is applied in other jurisdictions such as the US and the EU. Therefore, we respectfully request that the HKMA and the SFC provide further detail regarding the proposed timeline for fully implementing the clearing obligation and reconsider the definition of a "Prescribed Person."

Q9. Do you have any comments or concerns regarding our proposal to maintain the Clearing Threshold and the calculation method of outstanding positions to be measured against the threshold? If you do, please provide specific details.

As further detailed in our response to Question 5 above, applying the clearing obligation to a broader array of market participants is critical to realizing the G20 reform objectives of mitigating systemic risk, promoting market stability and integrity, and improving conditions for investors through increased transparency, more competition, and better pricing. In connection with applying the clearing obligation to a broader set of financial institutions, the current "Clearing Threshold" will need to be either lowered or eliminated. At a minimum, the "Clearing Threshold" should be aligned with the $8 billion threshold employed for purposes of applying the uncleared initial margin requirements to financial institutions.

Q12. Do you have any comments or concerns regarding our proposed trading determination process and criteria? If you do, please provide specific details.

We agree with the proposed criteria to be used in connection with implementing a trading obligation for the Hong Kong market. As stated in the consultation, these criteria are consistent with those used in other jurisdictions, such as the US and the EU. Below, we highlight additional topics that merit consideration when designing a trading obligation for OTC derivatives.

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[10] *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 (July 2016), available at: http://www.bankofengland.co.uk/research/Documents/workingpapers/2016/swp580.pdf.

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1. Scope of Covered Market Participants

As discussed in our responses to Question 5 and Question 9 above, the G20 reforms should be applied to both the dealer-to-dealer and dealer-to-customer segments of the market in order to fully realise the benefits of these reforms. This is particularly true for the trading obligation, which is designed specifically to benefit end investors through the transparency, competition, and better pricing that results from transitioning trading in liquid and standardised OTC derivatives onto regulated trading venues.

Market experience with the implementation of the trading obligation in other jurisdictions has demonstrated the tangible benefits to end investors that result from open and competitive execution on regulated trading venues. For example, the Bank of England found that end-users transacting USD IRS are already saving as much as $7 million - $13 million *per day*, due to lower transaction costs resulting from the implementation of the clearing and trading obligations in the US. In addition, a staff paper from the Monetary Authority of Singapore concluded that, even in smaller markets, *"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."*[11]

For these reasons, both the US and EU have applied the trading obligation to a broad range of financial counterparties. In the US, the trading obligation applies to all financial counterparties, with a narrow exemption for credit institutions with less than $10 billion in assets. In the EU, the trading obligation was applied to larger financial counterparties in January 2018 and will be applied to smaller financial counterparties in 2019.

Applying the trading obligation only to the inter-bank portion of the OTC derivatives market deprives other market participants of these important benefits and leaves the market structure largely unchanged from a trading perspective compared to prior to the financial crisis.

2. Scope of Covered Instruments - Outrights

We believe that market experience with trading obligations in other jurisdictions should be considering when determining the scope of OTC derivatives to be covered by a trading obligation. This experience has demonstrated that, at a minimum, most benchmark tenors in USD, EUR, and GBP fixed-to-floating IRS are suitable for a trading obligation given their standardisation and global liquidity, 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. The US and EU have applied the trading obligation to a nearly identical set of OTC derivatives,[12] and a significant amount of OTC derivatives trading activity in Hong Kong

[11] MAS Staff Paper No. 54, Liquidity and policy analyses for platform trading of OTC derivatives: A perspective of smaller markets (December 2016) at page 8, 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.

[12] 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

involves US and EU counterparties that are already subject to these trading obligations. In addition, maximising harmonisation in terms of instrument scope may assist in efforts to achieve equivalence determinations with other jurisdictions.

3. Scope of Covered Instruments – Package Transactions

Ensuring that the trading obligation applies to standardised and liquid packages transactions will also be important when determining the scope of OTC derivatives covered by a trading obligation. Over 50% of benchmark USD IRS are executed as part of a package transaction[13] and therefore it is critical that standardised and liquid packages are not exempted from the trading obligation. In both the US and EU, 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. Certain targeted exemptions have been provided from the trading obligation for specific types of packages in both jurisdictions.[14] However, it is important to note that no exemptions have 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.

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), (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.[15] 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

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subject to the EU trading obligation at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R2417&from=EN.

[13] *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/.

[14] 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.

[15] *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/.

transactions involving USD IRS in terms of overall risk transfer and constitute up to 20% of overall trade count.[16]

All of the package types highlighted above already trade successfully on both US SEFs and EU MTFs and OTFs, further indicating than an exemption for these types of packages from the trading obligation is not necessary.

4. Pre-Trade and Post-Trade Transparency

Pre-trade and post-trade transparency requirements typically apply to OTC derivatives that are subject to a trading obligation. In the US, pre-trade transparency is achieved by requiring instruments subject to the trading obligation to be transacted by RFQ-to-3 or on an Order Book, which is designed to ensure that market participants are provided with competing quotes or bids/offers that are visible prior to execution. In contrast, the EU provides greater flexibility with respect to methods of execution but has separate pre-trade transparency requirements that require the disclosure of quoted prices to the wider market. Pre-trade transparency is important to unlocking the potential benefits of a trading obligation, as it empowers investors to demand better pricing from their liquidity providers, increasing competition and reducing transaction costs.

In both jurisdictions, real-time post-trade public reporting requirements apply to OTC derivatives subject to the trading obligation (as well as to other OTC derivatives), with time delays for large block transactions. Post-trade transparency removes information asymmetries and enables investors to more accurately assess execution quality. Importantly, research suggests that increased post-trade transparency has contributed to improvements in liquidity.[17]

5. Non-Discriminatory Access to Regulated Trading Venues

As part of implementing a trading obligation, it is important to ensure that all market participants have the ability to access the regulated platforms where OTC derivatives subject to the trading obligation will be executed. Unfortunately, inter-dealer broker ("IDB") platforms have historically denied access to other market participants, including 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.

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[16] *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/.

[17] *See, e.g.*, Loon, Y. C., Zhong, Z. K., 2014. The impact of central clearing on counterparty risk, liquidity, and trading: Evidence from the credit default swap market. Journal of Financial Economics 112 (1), 91-115; Loon, Y. C., Zhong, Z. K., 2015. Does Dodd-Frank affect OTC transaction costs and liquidity? Evidence from real-time CDS trade reports. forthcoming, Journal of Financial Economics.

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.[18]

We respectfully request that the HKMA and the SFC, as part of implementing a trading obligation, require that Hong Kong trading platforms provide impartial and non-discriminatory access to market participants. 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 Hong Kong from accessing certain liquidity pools.

6. Straight-Through-Processing Standards

The trading obligation is also intended 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 a trading obligation.[19] These requirements reduce market risk, credit risk, and operational 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.

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[18] 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.

[19] 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

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.[20]

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.[21]

(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.[22]

(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.[23]

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 that the HKMA and the SFC apply similar standards to Hong Kong trading platforms in order to increase global harmonisation and to ensure market participants in Hong Kong benefit from the same operational efficiencies that are available when trading on regulated platforms in other jurisdictions.

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We appreciate the opportunity to provide our perspective to the HKMA and the SFC. Please feel free to call the undersigned at with any questions regarding these comments.

Respectfully,

Managing Director, Government & Regulatory Policy

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

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

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

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