Regulation of Over-the-Counter Derivatives: A Comparative Study of Proposals in Singapore and Hong Kong

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Regulation of Over-the-Counter Derivatives: A Comparative Study of Proposals in Singapore and Hong Kong

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Abstract

This article identifies some of the potential legal and policy issues involved in the future regulation of over-the-counter (OTC) derivatives. First, regulators must be cautious in the regulation and solvency of some mammoth clearing-houses. Second, Singapore and Hong Kong both face challenges in the areas of global regulatory cooperation and extra-territorial regulatory effects. Third, the exact scope of a clearing obligation determines whether there is any regulatory competition or room for regulatory arbitrage in the future. Fourth, there are legal definition problems with the term ‘derivative’ and its sub-categories that must be addressed. Fifth, there are potential privacy and civil liability issues in relation to trade reporting. We will continue to monitor these legal and market issues as they develop.
I. Introduction

This paper discusses certain unresolved legal issues regarding the clearing and reporting of the over-the-counter (OTC) derivatives flowing from regulatory proposals in Singapore and Hong Kong. One of the lessons learned from the recent financial crisis has been the potential systemic risk in the collapse of a major derivatives dealer, because ‘applications of derivative instruments focus on using derivatives to transfer risk’.\(^1\) Therefore, derivatives allow market participants to transform one type of risk into credit risk for the contract’s counterparty,\(^2\) such that ‘[a]t the heart of the ongoing financial crisis lies one fundamental problem: credit’.\(^3\)

In an ideal world, risk would be redistributed to a wider range of market participants (much like insurance). In 2006, the International Monetary Fund observed that

> There is a growing recognition that the dispersion of credit risk by banks to a broader and more diverse group of investors, rather than warehousing such risk on their balance sheet, has helped make the banking and overall financial system more resilient.\(^4\)

Nonetheless, the collapse of Lehman Brothers has shown that risk has not been redistributed, but rather it has been concentrated in several major dealers. The solution provided by the G20 has been to reduce counterparty risk through the mandatory clearing of OTC derivatives (‘clearing obligation’) via a central counterparty (CCP) and to improve the transparency of the opaque derivatives market through compulsory trading reporting (‘reporting obligation’) to control counterparty and systemic risks and improve the overall transparency of the market. These are the two main strings of OTC derivatives regulation in the current round of regulatory reform.

As the Financial Services Authority in the UK recognises,

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“[t]he increased use of CCP clearing for an internationally defined set of ‘clearing eligible’ products is a key step in mitigating this risk. A CCP can impose consistent and robust risk management practices as well as act as a circuit breaker to the default of a member. In addition, greater use of CCP clearing can aid market liquidity and efficiency, be a motivating force behind contract standardisation, and reduce systemic risk.”\(^5\)

In the US, these regulations have been put forward by the Dodd-Frank Wall Street Reform and Consumer Protection Act.\(^6\) In Europe, a proposed regulation was published in 2010\(^7\) while regulators in Hong Kong and Singapore, two of the main financial hubs in East and Southeast Asia, picked up the pace towards the close of 2011. Respectively, consultation papers were published by the Hong Kong Securities and Futures Commission (HKSFC) and the Hong Kong Monetary Authority (HKMA) in October 2011\(^8\) and by the Monetary Authority of Singapore (MAS) in February 2012\(^9\) to seek public opinions on how the OTC derivatives market should be regulated in the two cities. In Singapore, a proposal of amendments to the Securities and Futures Act for OTC derivatives has been published in a consultation paper issued on 23 May 2012.\(^10\) These proposals in Asia have provided a backdrop for the comparison and consideration of future legal issues regarding OTC derivatives regulation.

How to evaluate the proposed global framework for regulations of OTC derivatives is beyond the scope of this article.\(^11\) Instead, we will focus on certain main issues raised in proposals in Hong Kong and Singapore. In the following sections, we first briefly introduce the regulatory proposals in Singapore and Hong Kong and explain how centralised clearing works in OTC

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\(^6\) Pub L 111-203, HR 4173.


\(^8\) See HKSFC, ‘Consultation paper on the proposed regulatory regime for the over-the-counter derivatives market in Hong Kong’ (Oct 2011) (‘HKSFC consultation paper’).

\(^9\) MAS Consultation Paper, ‘Proposed Regulation of OTC Derivatives’ (P003-2012, Feb 2012) (‘MAS consultation paper I’).

\(^10\) MAS Consultation Paper, ‘Consultation Paper I on Proposed Amendments to the Securities and Futures Act on Regulation of OTC Derivatives’ (P008-2012, May 2012)(‘MAS consultation paper II’)

transactions. In Part III, we discuss some of the legal issues involved in the clearing and reporting of OTC derivative transactions and Part IV presents our conclusions.

II. Regulatory Proposals in Singapore and Hong Kong

A. The Proposal in Singapore

The main issues involved in the regulation of the OTC derivatives market in Singapore are the ‘clearing’ and ‘reporting’ mandates. To bolster these two mandates, additional legal changes have been proposed in relation to the regulatory framework for market operators (i.e., exchanges), clearing facilities (i.e., CCPs), trade repositories, and capital market intermediaries (i.e., major dealers).

The clearing obligation can be broken down into three questions: (1) who must submit a trade to a CCP for clearing?; (2) to whom must a market participant submit a trade?; and (3) what must be submitted for clearing? Regarding the first question, the MAS proposes that all derivative contracts be required to seek clearance by a CCP if at least one leg is booked in Singapore and either ‘(a) both parties… are resident or have presence in Singapore; or (b) one party… is a resident or has presence in Singapore and the other would have been subject to the [clearing obligation] if it had been resident or had presence in Singapore’. 12 Thus, if none of the parties involved are residents or have a presence in Singapore, then the transaction need not be submitted for clearing pursuant to the proposed Singapore law. This forms the jurisdictional base of Singapore’s clearing obligation.

However, the MAS also proposes that financial and non-financial institutions are only subject to the clearing obligation when a firm has considerable exposure to derivatives above a certain threshold. 13 An exemption is extended to financial institutions that are ‘determined to have minimal exposure in derivative contracts’, taking into account the firm’s aggregate exposure and product class. 14 In addition, the MAS also plans to exclude the hedging transactions of non-

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12 MAS consultation paper I 3.2.1.
13 MAS consultation paper I 3.3.1.
14 MAS consultation paper I 3.3.3.
financial institutions from its calculation of derivative exposure and to exempt intra-group derivatives trading when certain conditions (e.g., specific collateralisation) are met.

Regarding the second question, the MAS proposes that a CCP does not have to be a local entity. Thus, a market participant can submit to a foreign CCP for clearing. To address the potential supervisory problems that might stem from a foreign country or entity managing the clearing, the MAS plans to rely on international regulatory cooperation and oversight.

One relevant question that has surfaced is when to submit a trade for clearing. There are two aspects of this issue. On the one hand, should transactions made before the enforcement date of the clearing obligation be subject to it? This is a problem of ‘backloading’. On the other hand, how soon a trade should be submitted to a CCP for clearing? The timeframe might create operational issues for market participants.

To address the backloading issue, the MAS proposes that all outstanding derivative contracts that are eligible for clearing obligation with more than one year of maturity should also be subject to mandatory centralised clearing to increase the potential netting benefits of counterparties (i.e., more transactions to be cleared at the same time) and reduce ‘counterparty risks for products which are systemically important’.

However, the MAS proposal is silent on how quickly a market participant must submit a trade for clearing. The Commodity Futures Trading Commission in the US has recently voted in favour of a ‘real time’ approach that requires swaps to be submitted for clearing within minutes. Clearly, there is a benefit to promoting ‘real time’ clearing. However, how quickly a trade must be submitted might have to be balanced along with costs and the time required for a credit check.

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15 MAS consultation paper I 3.3.5.
16 MAS consultation paper I 3.3.8.
17 MAS consultation paper I 3.4.3.
18 MAS consultation paper I 3.4.3.
19 MAS consultation paper I 3.5.
20 MAS consultation paper I 3.5.
Regarding the third question, it is apparent that not all derivative transactions are subject to a clearing obligation, even in the US and Europe. Similar to the EU’s proposal, the MAS proposes the adoption of both the top-down and bottom-up approaches to determine which products should be subject to the clearing obligation.\textsuperscript{22} This might allow market participants more flexibility to decide whether a product is suitable for clearing or should be traded in an exchange.\textsuperscript{23}

The MAS does not specify which products will be covered, but plans to ‘exempt foreign exchange forwards and swaps from the clearing obligation’\textsuperscript{24} The main risk associated with these derivatives is a settlement risk that is already subject to the international settlement process, which means that the danger of systemic risk is not high.\textsuperscript{25} However, other foreign exchange derivatives (eg, currency options, non-deliverable forwards (NDF), and currency swaps (CCS)) are not exempted.\textsuperscript{26}

We can now briefly introduce MAS’s proposal on trade obligation and other issues. First, the MAS proposes to follow the approach adopted by CPSS-IOSCO.\textsuperscript{27} Similar to the EU’s proposed regulation, the MAS proposes that all financial and non-financial institutions above a certain threshold be required to report their derivative transactions.\textsuperscript{28} The timing to report a trade is on a ‘T+1’ (i.e., next business day) basis.\textsuperscript{29} Market participants must also provide updates throughout the life of a transaction.\textsuperscript{30} The products that are subject to the reporting obligation will initially be interest rates, foreign exchanges, and oil derivatives, each of which reflects the nature of Singapore’s derivatives market.\textsuperscript{31} All transactions booked or traded in Singapore must be reported.\textsuperscript{32}

\textsuperscript{22} MAS consultation paper I 3.1.
\textsuperscript{23} Cadmus (n 3) 216-217.
\textsuperscript{24} MAS consultation paper I 3.1.10.
\textsuperscript{25} MAS consultation paper I 3.1.10.
\textsuperscript{26} MAS consultation paper I 3.1.10.
\textsuperscript{27} MAS consultation paper I 4.4.3.
\textsuperscript{28} MAS consultation paper I 4.3.1.
\textsuperscript{29} MAS consultation paper I 4.5.1.
\textsuperscript{30} MAS consultation paper I 4.4.4.
\textsuperscript{31} MAS consultation paper I 4.1.2.
\textsuperscript{32} MAS consultation paper I 4.2.3.
As a complement to the clearing and reporting obligation, the MAS proposes a definition of the ‘derivative market’ and grants more power to authorise and regulate the market regulator’s ability to regulate exchange operators, clearing-houses, and trade repositories. The MAS also plans to introduce a new type of licence called a ‘non-bank capital market services licence’ to complete the regulation of OTC derivatives dealers. However, end-users will not be regulated under the current proposal.

B. The Proposal in Hong Kong

Under the HKSFC’s proposal, a transaction is eligible and subject to the clearing obligation if: (1) a financial institution (including ‘authorised institutions’ (AIs) under the Banking Ordinance and ‘licensed corporations’ (LCs) under the Securities and Futures Ordinance) and a Hong Kong person is a counterparty or when a financial institution has originated or executed the transaction and (2) both counterparties have exceeded the threshold amount. However, an exemption is granted when both parties are overseas persons and the transaction is subject to mandatory clearing in another country (or is exempted by another country). Similar to Singapore, the HKSFC does not require that a transaction be cleared locally.

To avoid over-stretching Hong Kong law, the HKSFC seeks to limit the scope of the clearing obligation for overseas financial institutions to those transactions conducted via its Hong Kong branch. However, for local financial institutions, it does not matter whether a transaction is conducted locally or via a foreign branch. The HKSFC also further clarifies the meaning of ‘Hong Kong person’ and ‘overseas person’. A Hong Kong person includes those persons ‘who operate from Hong Kong, or who otherwise have a connection with Hong Kong’, including

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33 MAS consultation paper I 6.1.
34 MAS consultation paper I 6.2-6.3.
35 MAS consultation paper I chapter 7.
36 MAS consultation paper I chapter 8.
37 MAS consultation paper I 9.1.
38 MAS consultation paper I 9.2.
39 HKSFC consultation paper paragraph 110.
40 HKSFC consultation paper paragraph 110.
41 HKSFC consultation paper paragraph 147.
42 HKSFC consultation paper paragraph 113.
Hong Kong residents and business owners (eg, partnerships), companies, funds managed in Hong Kong, or any entity established or registered in Hong Kong.\textsuperscript{44}

Moreover, the HKSFC proposes that mandatory clearing be required even if a financial institution in Hong Kong merely executed a transaction for a client. The term ‘originated or executed’ means that a financial institution ‘has negotiated, arranged, confirmed or committed to a transaction on behalf of itself or any counterparty to the transaction’\textsuperscript{45} because most derivative transactions are not booked in Hong Kong and the Hong Kong arm of a financial institution is usually the sales or trading desk.\textsuperscript{46} Therefore, the HKSFC believes that the clearing obligation will not be effective if it is only imposed on a transaction’s counterparties.\textsuperscript{47}

Regarding the backloading issue, the HKSFC’s approach differs from Singapore’s. On the one hand, the HKSFC agrees that pre-dated outstanding transactions should be considered when calculating the clearing threshold.\textsuperscript{48} On the other hand, the HKSFC does not propose that these pre-dated transactions be required to be subject to the clearing obligation.\textsuperscript{49} Nonetheless, the HKSFC seems to expect market participants to submit a trade for clearing voluntarily so that they can recoup the netting benefits.\textsuperscript{50} However, the HKSFC does not specify how quickly a trader must submit a transaction for clearing.

Regarding products that are subject to the clearing obligation, the HKSFC also proposes the adoption of both the top-down and bottom-up approaches to determine which products should be subject to the clearing obligation.\textsuperscript{51} The HKSFC notes that the largest markets for OTC derivatives in Hong Kong are foreign exchanges (58%, excluding NDFs) and interest rates (18%).\textsuperscript{52} On this basis, the HKSFC proposes the initial limitation of ‘any mandatory reporting and clearing obligations to only [interest rate swaps (IRS)] and NDF’.\textsuperscript{53} Equity-linked

\textsuperscript{44} HKSFC consultation paper paragraphs 77-78.
\textsuperscript{45} HKSFC consultation paper paragraph 64.
\textsuperscript{46} HKSFC consultation paper paragraph 65.
\textsuperscript{47} HKSFC consultation paper paragraph 66.
\textsuperscript{48} HKSFC consultation paper paragraph 126.
\textsuperscript{49} HKSFC consultation paper paragraph 127.
\textsuperscript{50} HKSFC consultation paper paragraph 127.
\textsuperscript{51} HKSFC consultation paper paragraph 60.
\textsuperscript{52} HKSFC consultation paper paragraph 53.
\textsuperscript{53} HKSFC consultation paper paragraph 56.
derivatives are on the watch list.\footnote{ibid.} However, the HKSFC also indicates that not all IRSs and NDFs should be subject to the clearing obligation. Although the list has not been finalised, the HKSFC proposes that the degree of standardisation and the availability of CCP for clearing services be considered before making a final decision.\footnote{HKSFC consultation paper paragraphs 57 and 60.}

Regarding the reporting obligation, the HKSFC proposes that a market participant be required to report a trade exclusively to a local trade repository.\footnote{HKSFC consultation paper paragraph 47.} A transaction’s eligibility and the threshold of the reporting obligation are largely similar to that of the clearing obligation. To complement the imposition of the clearing and reporting obligations, the HKSFC also plans to amend the regulatory schemes for clearing houses and automated trading services operators\footnote{HKSFC consultation paper paragraphs 142-145.} in addition to OTC derivatives market players.\footnote{HKSFC consultation paper paragraphs 157-158.} For this purpose, a new type of regulatory activity related to OTC derivative intermediaries will be created.\footnote{HKSFC consultation paper paragraphs 159-163.}

\section*{III. Legal Issues from Early Proposals}

Although the details of regulatory wordings have not been fully published, some outstanding legal issues have been introduced by the current proposals.

\textbf{A. Centralised Clearing Not a Panacea}

It is inherently dangerous to believe that a CCP can comprehensively solve all issues. Even with a functional CCP in place, counterparty risk does not disappear with the existence of CCPs.\footnote{Pirrong (n 2) 5.} A CCP may facilitate risk management, clearing and settlements, and collateral arrangements.\footnote{C Chamorro-Courtland, ‘Counterparty Substitution in Central Counterparty (CCP) Systems’ (2011) 26 BFLR 517, 518.} However, centralised clearing actually results in a further concentration of risk within a few CCPs.\footnote{Kress (n 2) 72-73.} Thus, how to prevent a big CCP from becoming another Lehman Brothers is one of the
main challenges of future regulators. Ensuring the legal certainty of the entire clearing scheme is equally important and can be further examined in light of the fact that major exchanges and clearing houses are often owned by big banks and major market dealers, which produces further competition and accessibility concerns. The proposals in Singapore and Hong Kong also reflect this point because regulators in both countries plan to strengthen the licensing scheme and regulation of CCPs for OTC derivative transactions. For example, the MAS proposes to grant the regulator a power to intervene into the rule-making process of a CCP and require a CCP to have proper risk management mechanism in place. In addition, the MAS also proposes to have more control on the ownership of a CCP.

Traditionally, a CCP has been able to protect itself from the default or insolvency of a market participant through several means. First, only the clearing members of a CCP can ultimately directly submit a trade to a CCP. Thus, a CCP protects itself by imposing rules to ensure the insolvency of a clearing member and, in turn, the solvency of a clearing member’s customers. Meanwhile, credit risk can be reduced through a series of contracts.

Second, a CCP can settle a clearing member’s contradictory trading positions through netting, which leaves only the price differences to be settled. This allows a CCP (and a clearing member) to control the net exposure of counterparty risk. It may also promote market liquidity. However, netting opposite trading positions is not as simple as ‘setting off’ opposing monetary flows in common law. As in an exchange, it is the setting off of opposing ‘contracts’. The right to receive payment and the obligation to deliver the underlying assets (if required) are also discharged. Thus, it is essential that the CCP be insolvency-proof and that the netting process be protected from insolvency law when one clearing member is in trouble.

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63 Cadmus (n 3) 223.
64 See generally, Chamorro-Courtland (n 61) 520-521.
66 See MAS Consultation Paper II Annex I.
67 Ibid.
69 Sullivan (n 68) 1503.
Third, another distinct feature of the futures market is the ‘margin’ requirement. When conducting a transaction, a trader must pay a certain amount of cash or collateral into the account (the ‘initial margin’) to guarantee performance. By applying this ‘mark-to-market’ approach on a daily basis, the CCP adjusts the amount in the margin account to reflect a trading position’s daily profits or losses. If the money in the margin account drops below a certain level, the trader must inject more money (the ‘maintenance margin’) into the account; otherwise, the trader’s positions will be liquidated. In this way, clearing houses are able to protect themselves from default by forcing traders to liquidate their trading positions when the margin accounts are still capable of absorbing losses.

The fact that we rarely see the collapse of a CCP may provide proof that these regimes can work to reduce counterparty and systemic risks. Nonetheless, it would be foolish to claim that CCPs are safe from financial troubles. First, while the collapse of a CCP itself might be rare, a large portion of effort is devoted to CCPs’ immunity to the default or solvency of traders. Second, the effectiveness of margin and financial requirements also depend on their enforcement. Any lapse or human error might decrease the quality of the collateral received, such that the mismanagement of a CCP or even market manipulation could cost a CCP dearly. Compared to other regulated financial institutions (eg, banks and insurance companies), higher capital adequacy requirements and other internal control regimes certainly do not reduce the chance of insolvency to zero. Moreover, the ability to access a CCP may pose another problem, especially when CCPs are controlled by a few market dealers and other market participants do not have cheap access to the clearing system.

How far regulators are willing to go to ensure that a CCP is ‘bullet-proof’ should continue to be monitored in the future. The usual tools to this end are licensing, high capital requirements, and corporate governance. However, only time will prove the sufficiency of these measures. This issue is particularly significant for regulators outside the US and Europe because some trade might be cleared by more established CCPs in the Western world. In summary, centralised

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70 Pirrong (n 2) 7-9.
71 FSA (n 5) 4.14.
clearing is a good idea, but it is certainly not a panacea when addressing the problems created by OTC derivatives.

B. Extra-territorial Effect of OTC Derivatives Regulation

Singapore and Hong Kong must address the problems inherent in the fragmentation of the clearing market and in the extra-territorial effects of regulation. There are two aspects: (1) a local regulator to regulate transactions cleared by an overseas CCP and (2) the local clearing of overseas derivative transactions.

The clearing market has been dominated by US and European giants, particularly after several rounds of mergers and the consolidation of exchanges and clearing houses that have occurred in the past decade. Not only are these CCPs already well equipped to grab the clearing market, but also they might achieve an economic scale that newcomers cannot match. Apart from the solvency of a CCP and its members, liquidity also matters for the success of a CCP and a mandatory clearing scheme. Thus, a fragmented market is not necessarily better. 73 Having recognised this point, neither Singapore nor Hong Kong proposes to restrain market participants to the local clearance of OTC derivative transactions (subject to certain conditions).

However, if clearing through a foreign CCP is allowed, Singapore and Hong Kong face an additional problem: the extra-territorial effect of financial regulation in the US and Europe. It is difficult to evaluate the impact of extra-territorial effect because regulations are still being finalised, but it has the potential to raise legal uncertainties among Asian traders (eg, one trader might be subject to clearing obligations in two different markets). This might also serve as an opportunity, however, for Singapore and/or Hong Kong to compete with incumbents such as London, Chicago, or New York City for OTC derivatives trading.

The harmonisation of global rules for clearing and reporting obligations might reduce the chance of regulatory arbitrage and deter the ‘race to the bottom’ that would result. The Financial Stability Board, IOSCO, and some trans-national organisations are moving in this direction. However, the results will only be seen when the details of these rules are published in major financial markets before the end of 2012.

73 MAS consultation paper I 3.4.2.
Global regulatory cooperation might also help Singapore and Hong Kong tackle the problems produced by locally traded, foreign-cleared transactions. The standardisation of reporting formats and more transparency in trading and clearing data might reduce the uncertainties faced by local regulators. Nonetheless, it remains to be seen whether regulatory cooperation will sufficiently prevent traders from arbitrage differences and legal gaps in different countries.

Another issue stems from the rules of self-regulatory bodies (eg, clearing rules or guidelines for trade associations), particularly in relation to those CCPs with global reach. It could be argued that these rules might create a new form of *lex mercatoria*.74 The clearing rules of CCPs will eventually determine how centralised clearing will work given the regulatory framework of the CCP’s home country.

To date, the proposals in Singapore and Hong Kong have only considered transactions with some local elements. There is a higher level of concern regarding how far Singapore or Hong Kong will go to allow the clearing of an entirely foreign transaction by a local CCP. There are two sides to this argument. On the one hand, it can be argued that it is better to export risk to another country rather than importing such exposure. On the other hand, attracting foreign transactions for local clearing might increase market liquidity and help either city state fill the gap in this aspect of financial services in Asia. This offers another perspective in observing the drafting and implementation of mandatory clearing rules in Singapore and Hong Kong.

C. Scope of Clearing Obligation: Who

In both Singapore and Hong Kong, the clearing obligation will be imposed if at least one party is a resident or has presence in Singapore (assuming that the clearing threshold has been passed). It does not matter whether a party is a financial institution; the most special feature of the HKSFC’s proposal is that it requires mandatory clearing, even if a financial institution in Hong Kong merely executes a transaction for a client (i.e., the financial institution is not a party). This requires transactions to be subject to the clearing obligation even when they are not booked in Hong Kong (although it could still be cleared by an eligible overseas CCP).

Hong Kong’s proposal that the clearing obligation be extended to include transactions ‘originated or executed’ by a financial institution may lead to an interesting result. If a trade is

74 C Chamorro-Courtland, ‘Central Counterparties (CCP) and the New Transnational Lex Mercatoria’ (2011) Fla St U Bus Rev 57, 70.
not registered in a firm’s trading book, it might prompt the double clearing of the transaction if the customer (as principal) also submits a trade for clearing. This rule to extend the clearing obligation to a firm ‘originating or executing’ a transaction (other than being a counterparty) would be most beneficial in catching transactions conducted by foreigners via the trading units in Hong Kong. However, a one-size-fits-all approach, regardless of the underlying relationship between a financial institution and a client, could ultimately cause legal problems. In the worst case, financial firms would simply opt to relocate their derivatives trading business to other countries if trading does not have to be conducted in Hong Kong. We will see how the HKSFC carve out the technical details of this rule when a draft is submitted.

The clearing obligation may also have a residual effect on the issuers or sellers of structured investment products. Take Lehman minibonds as an example. The issuer entered into a swap with Lehman Brothers Special Financing Inc (a US company) for an issue of structured note.75 Because the issuer was structured as a local company, the swap would have been subject to the clearing obligation under current proposals in Hong Kong and Singapore. Precisely how centralised clearing might affect investors of structured investment products remains unclear. There is a certain degree of legal uncertainty in this regard, particularly for products sold or issued before the enforcement of the clearing obligation.

Ultimately, whether the law should exempt some groups from the clearing obligation is arguable.76 Such exemptions have been proposed in both Singapore and Hong Kong. On the one hand, if such exemptions proved too wide, they might undermine the effectiveness of the clearing obligation. On the other hand, if such exemptions proved too narrow, many market participants might refrain from entering into hedging transactions due to the higher transaction costs. As the worldwide regulatory rules are being finalised, they offer another angle of comparison to the rules in different financial markets.

D. Subject-matter: Products

Only a portion of OTC derivatives will be subject to the clearing obligation, even in the US and Europe. Regulators and market participants must consider factors such as the standardisation of

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terms, product complexity, and liquidity.\textsuperscript{77} Thus, some OTC derivatives will always remain ‘over-the-counter’, but there could be several policy and legal issues regarding product class that will be subject to the clearing obligation.

One of the types of derivatives envisaged is the credit default swap that dominates the discussion at the height of the global financial crisis. Interest rate swaps, which enjoyed the highest trading volume (in terms of notional amount), are also a reasonable target. However, to date, Singapore and Hong Kong seem to be content with only interest rate-linked or foreign exchange-linked derivatives. Interestingly, no commodity or credit derivatives are mentioned.\textsuperscript{78} While these products may still be covered in the future, it is clear that the current target is the foreign exchange and interest rate markets. On the one hand, this may simply reflect the reality of a market in which interest rates and foreign exchanges represent the lion’s share of the derivatives market in the two cities. On the other hand, this also represents an opportunity for regulatory competition. Because the main trading hubs for commodities derivatives and other financial derivatives are all outside Asia, excluding commodities derivatives (eg, oil or gold derivatives) from the clearing obligation might help Singapore and Hong Kong compete with the likes of London, Chicago, or New York while grabbing more of the Chinese market when market participants are given more liberty to trade these products. We will see if this is what happens in the future.

Another issue is whether all standardised products must be subject to centralised clearing. In September 2009, the G20 leaders agreed in Pittsburgh that ‘[a]ll standardised OTC derivative contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties by end-2012’.\textsuperscript{79} However, the EU has not endorsed this position.\textsuperscript{80}

Apparently, it is easier and more appropriate to clear derivatives when the contract terms and product specifications are largely standardised to maximise the netting effect. However, it has

\textsuperscript{77} Pirrong (n 2) 17-18.
\textsuperscript{78} Nonetheless, the MAS proposes that oil derivatives be subjected to the reporting obligation.
\textsuperscript{80} MS Barr, ‘The Financial Crisis and the Path of Reform’ (2012) 29 Yale J on Reg 91, 118.
been argued that standardisation is not necessarily a good thing. The meaning of ‘standardised’
may be uncertain enough in practice to cause more legal risk and room for arbitrage if the term is
used as a criteria for the clearing obligation.\textsuperscript{81} One may further question how standard
documentation is produced in the first place.\textsuperscript{82} Moreover, unstandardised contracts have, in fact,
been cleared by some CCPs.\textsuperscript{83} A more powerful attack is to argue that the decision to accept a
product for clearing should be made by CCPs (which are usually private entities) rather than by
generic legal wording to avoid making CCPs more vulnerable when accepting products that are
unsuitable for clearing.\textsuperscript{84} This offers a new way to perceive how the G20’s proposal will be
implemented in major financial markets.

Finally, one future issue is the effect of clearing and reporting obligations on the development of
markets for alternative risk management and derivatives that have not yet hit the mass market,
but have the potential to become useful tools for businesses and consumers.\textsuperscript{85} Weather and
longevity derivatives are good examples of such potential derivatives. Although there is
currently no urgent need to subject these new products to mandatory clearing and/or reporting,
how far the market for these products will develop might depend on the success and problems of
centralised clearing and trade reporting.

\textbf{E. Definitional Issues}

As long as there is a statutory requirement on clearing and reporting, legislators and regulators
must come up with ways to define a ‘derivative’. However, this task is not as simple as it appears
to be. Although widely traded by financial institutions, there is no comprehensive definition of a
‘derivative’ in Singapore or Hong Kong law for general purposes. Hong Kong’s Securities and
Futures Ordinance produced a definition of ‘derivative’ specifically regarding market
misconduct (i.e., insider dealings and market manipulations) and the disclosure of interests.\textsuperscript{86}

\textsuperscript{81} JP Braithwaite, ‘The Inherent Limits of "Legal Devices": Lessons for the Public Sector's
Central Counterparty Prescription for the OTC Derivatives Markets’ (2011) 12 European
\textsuperscript{82} Braithwaite (n 81) 107.
\textsuperscript{83} Braithwaite (n 81) 108.
\textsuperscript{84} Braithwaite (n 81) 108-109.
\textsuperscript{85} See generally, LC Ariail, ‘The Impact of Dodd-Frank on End-users Hedging Commercial Risk
in Over-the-counter Derivatives Markets’ (2011) 15 NC Banking Inst 175.
\textsuperscript{86} Eg Hong Kong Securities and Futures Ordinance ss 245, 285, and 308.
However, this definition must be adapted if it is to be successfully applied within a much wider context. 87

In general, a financial derivative is often defined as a ‘financial instrument whose values depend on (or derive from) the values of other, more basic underlying variables’. 88 The problem with a legal definition of this kind is that it is too descriptive and can be over-inclusive because the term ‘derivative’ can be applied to a broad range of transactions, each of which may also be defined using generic words, such as ‘a vague description of the mechanism by which something is priced or valued does not provide policy makers and regulators valuable insights about how that thing might be best regulated’. 89 If a definition is too narrowly worded, it provides loopholes that market participants can exploit. If a definition is too general, it may inadvertently cover unintended transactions. For example, an airline might enter into an agreement with an energy company to purchase a certain amount of petroleum in advance with the delivery scheduled in three months-time. Technically, such a transaction might be defined as a ‘forward contract’, but in effect it is a contract of the sale of goods for future delivery. This problem underlies a long list of US case laws.

Definition issues do not disappear even when regulators use more technical terms to define a ‘derivative’. While terms like ‘option’, ‘forward’ and ‘futures’ are more or less standardised and understandable, swaps provide the biggest challenge to lawmakers. There are so many ways to exchange cash flows. To use credit derivatives as an example, they can be structured as ‘total return swaps’ with a total return structure or with a default structure that makes them ‘credit default swaps’. Some interest rate swaps might also be linked to the same debt instrument underlying a credit derivative. They are all called swaps, but they are founded on different structures and different valuation models. Even worse, parties might enter into exotic swaps that are nothing like the abovementioned ‘plain vanilla’ variety. How to effectively ‘set off’ positions taken under different swaps will prove challenging to CCPs and regulators.

87 For example, the definition of ‘derivative’ in the context of market misconduct refers to ‘listed securities’. See Hong Kong Securities and Futures Ordinance s 245.
In Europe and the UK, some swaps might simply be defined as a ‘contract for differences’ to avoid definition problems. However, if a ‘contract for differences’ is defined as being too wide, virtually all betting contracts or an agreement to set off mutual payments between two parties could become a contract for differences. A contract for differences also cannot cover derivative transactions that allow physical delivery, as some credit default swaps or energy derivatives do. Thus, the possibility of regulatory over-shoot still exists.

It has been argued that a more precise definition of ‘derivatives’ will lead to better regulatory schemes. Nonetheless, how ‘precise’ a definition is precise enough may become a chicken-egg problem. It may be the author’s speculation that a functional definition of ‘derivative’ might cause problems in the future, similar to those we have seen regarding securities, futures, insurance, and even simple deposits. However, the legal uncertainty associated with an inappropriate definition is not unforeseeable. Because not all OTC derivatives will be subject to the clearing and reporting obligations, it is only a matter of time before financial innovation drives the boundary of financial regulation to its limit.

F. Gap in Documentation

The clearing of OTC derivatives requires additional contractual arrangements to make it work. Thus, the ‘legal device’ of contract law is instrumental in reaching the promised land of centralised clearing. For this purpose, the current regulatory proposals in Singapore and Hong Kong (and the US) seem to ignore the part about contracts when ascertaining the foundation of OTC derivatives clearing.

Unlike exchange trading, OTC derivatives transactions are not conducted pursuant to a series of mutual (eg, brokerage agreement) and multilateral (eg, exchange membership agreements and rules) agreements that, which provide the basic framework of exchange trading and clearing. OTC clearing is based on intervention of law rather than mutual agreements. One might argue that a certain degree of documentation standardisation has been achieved by the master agreement system provided by the International Swaps and Derivatives Association (ISDA). However, the purpose of the ISDA master agreement scheme is to provide a contractual platform that allows contractual parties to conduct futures trades within a bilateral framework, similar to a bilateral version of exchange rules, but only binding between the two contractual parties.

90 Lynch (n 89) 30.
Because it is bilateral in nature, the ISDA master agreement still allows contractual parties to negotiate different terms in the schedule or in confirmations.\(^91\) Furthermore, an ISDA master agreement between Banks A and B would not necessarily be identical to one between Banks A and C. Banks A and B might also sign ISDA master agreements with different terms in the schedules to govern different types of transactions. The ‘set off’ and novation processes are bound to be more complicated than exchange contracts. Even a minor difference in exclusion clauses or waivers could make a huge difference.

Another challenge is the concept of a ‘single contract’ cornering the ISDA master agreement system.\(^92\) The benefit of this approach is that it allows payment netting between A and B,\(^93\) early termination and determination of the close-out amount,\(^94\) and the calculation of collateral (similar to margin, subject to the Credit Support Annex). The novation of one transaction (specified by a confirmation and as part of a ‘single contract’ along with other transactions under the ISDA master agreement) would require careful contractual drafting to avoid interpretation problems in the future. For example, it is not hard to imagine that a non-defaulting party might attempt to claim a close-out amount by counting on a transaction that has been submitted to a CCP by the defaulting counterparty when the non-defaulting party was in the money. In another example, one must also consider the effect of trades that have been submitted to clearing and have been denied clearance by a clearing member. These problems must be solved on contractual grounds. Unfortunately, it is currently unclear how CCPs in Singapore and Hong Kong will cope with this documentation gap.

In June 2011, the ISDA published a *Cleared Derivatives Execution Agreement* (ISDA execution agreement) in cooperation with the Futures Industry Association to offer a contractual platform for the execution phase of OTC clearing.\(^95\) This execution agreement provided some fallback options for when a trade is not accepted for clearing but has not necessarily amounted to an event

\(^{91}\) The ISDA Master Agreement, no matter in 1992 or 2002 version, can be divided into four main parts: master agreement (which is standardised), schedule (subject to negotiation by parties), confirmation (details of each individual trade) and credit support annex (CSA, if signed).

\(^{92}\) ISDA master agreement s 1(c).

\(^{93}\) ISDA master agreement s 2(c).

\(^{94}\) ISDA master agreement s 6.

\(^{95}\) See <http://www2.isda.org> accessed 14 March 2012.
of default. It also provided additional fallback options for parties to explore (eg, treating a trade as a separate transaction not governed by the execution agreement or simply choosing to pay an early termination amount for a trade). This execution agreement was provided as a template for market participants and may be subject to change after the finalisation of OTC regulations in the US and Europe. Parties adopting this execution agreement might also attempt to bring their clearing members (if they agree) in as parties in this agreement.

Finally, governing laws and jurisdictions have become a source of concern. One lesson learned from the recent financial crisis is that even a small crack in the documentation of a financial transaction can result in lengthy legal proceedings in different countries. Because Singapore and Hong Kong’s proposals for clearing obligations will apply if the transaction has a local party, there is also a chance that the governing law of the underlying OTC transaction will be different from that of the clearing venue. Because Singapore and Hong Kong are both former British colonies, legal uncertainty regarding the local clearing of OTC transactions governed by British and/or New York law might be minimal. However, if a transaction were subject to a system outside the common law jurisdiction, it could be hard to say what might happen in the future.

**G. Moral Hazards**

Other possible results of mandatory clearing include potential moral hazards. If counterparty risk is reduced by centralised clearing, it might translate into market participants exercising even greater freedom in making even riskier trades. In fact, the clearing obligation does not seek to restrain purely speculative trading. In contrast, it might actually encourage it. Because market participants typically know the market of a specific instrument better than the CCP, there is also the problem of adverse selection. Some might argue that the costs of clearing (including the requirement to pay margins) might deter some risk-takers. Nonetheless, margins are similar to leverage trading, in which one pays little in advance while taking chances in the market. Thus, transaction costs are not a perfect deterrent for excessive risk-taking.

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96 ISDA execution agreement s 4.
98 See also Awrey (n 11) 177-178.
99 Pirrong (n 2) 14; Awrey (n 11) 175-177.
100 Pirrong (n 2) 11.
Insurance law offers a natural comparison. Under English insurance law, which is to a certain extent followed by both Singapore and Hong Kong, moral hazards are controlled in a number of ways. On the one hand, a duty of utmost good faith and a duty of disclosure are created to ensure the equity of information advantage. On the other hand, insurers can create so-called ‘warranties’ to regulate the conduct of the insured. A breach of such an insurance ‘warranty’ under English insurance law would comprehensively relieve an insurer of all future liabilities. Thus, insurers are often called ‘surrogate regulators’ because they are in the position of regulating the conduct of insurers via insurance policies.

No similar legal doctrines exist in the derivatives sector. On the one hand, the derivatives sector has long resisted the idea of treating derivatives as insurance. On the other hand, the ISDA master agreement system provides no standard terms to regulate a market participant’s conduct once a contract is made. It is then left to market participants to negotiate terms of this kind in the schedule of a master agreement if they want one. This dynamic could serve to deter the insurance law problem in which insured individuals are often placed in the disadvantaged position of having to bargain for warranties or exclusion clauses. However, this also lessens the possibility of derivatives dealers acting as ‘surrogate regulators’ because market dealers only care about the credit risk of clients and counterparties.

How best to tackle financial speculation using financial derivatives is a topic that is beyond the scope of this article, which focuses on the expectation that there are other problems that could result from the mandatory clearing of OTC derivatives. Moral hazards from excessive risk-taking are just one of these challenges, and there are several legal tools that can be applied to curtail this problem. Higher capital requirements for market dealers, position limits on derivatives trading, and the so-called ‘Volcker rule’ all have the potential to restrict excessive risk-taking. Nonetheless, this problem should not be ignored, particularly in the aftermath of the recent global financial crisis.

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102 Marine Insurance Act 1906 s 33.
H. Trade Reporting Issues

After examining some of the issues involved in mandatory clearing, we now turn to some of the potential issues regarding trade reporting in the future. Apart from efforts to standardise the format of trade reporting around the world, this article indicates two areas that might be fraught with legal problems in the future.

First, there are concerns regarding access to disclosed information. We wonder whether trading information will be made available to the general public, and if so, whether a market participant will be able to ask for such information. There could be potential privacy issues if the general public is allowed access to market participants’ trading positions. Whether an investor or non-party member of a transaction should enjoy the right to check the records of any other market participants’ trading positions will be an issue that regulators and trade repositories must consider.

Second, we question whether there will be any civil liability for misrepresentation or mistakes in the reported information. We have seen a considerable amount of case law with regard to the disclosure of material information in the securities market. In insurance law, insurance contract law also handles false information with different rules (eg, duty of disclosure, warranties, and condition precedents). Apart from penalties and/or administrative remedies, it remains unclear whether there will be any civil remedy available in Singapore and Hong Kong with regard to reporting false trade information. This is an area worth monitoring in the future.

IV. Conclusion

In summary, the final details of OTC derivatives regulation are taking shape in major financial markets in 2012. Hong Kong and Singapore have indicated how the derivatives market will be regulated in the future, but how effective the clearing and reporting obligations ultimately are will depend on how the relevant rules are drafted and enforced. While we are still waiting for a draft of final rules, this article indicates some of the potential legal and policy issues. First, centralised clearing is not a panacea. Instead, there are several multi-national ‘mammoth’ CCPs that, if they were to fail, would do so with devastating results. Second, Singapore and Hong Kong both face challenges in global regulatory cooperation and addressing extra-territorial

104 M Greenberger (n 65) 155-156.
regulatory effects. Third, the scope of the clearing obligations will determine whether there is any regulatory competition or room for regulatory arbitrage in the future. This also has further implications for alternative risk management. Fourth, there are legal definition problems with regard to the concept of ‘derivatives’ and its sub-categories that may provide grounds for future litigation. Although centralised clearing might create a sense of security in the short-term, there are bound to be potential problems that warrant the close monitoring of future legal and market developments.