FSB FINANCIAL STABILITY BOARD

Peer Review of Hong Kong

Review Report

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Foreword

Financial Stability Board (FSB) member jurisdictions have committed, under the FSB Charter and in the *FSB Framework for Strengthening Adherence to International Standards,*[1] to undergo periodic peer reviews. To fulfil this responsibility, the FSB has established a regular programme of country and thematic peer reviews of its member jurisdictions.

Country reviews focus on the implementation and effectiveness of regulatory, supervisory or other financial sector standards and policies agreed within the FSB, as well as their effectiveness in achieving desired outcomes. They examine the steps taken or planned by national authorities to address International Monetary Fund (IMF)–World Bank Financial Sector Assessment Program (FSAP) and Report on the Observance of Standards and Codes (ROSC) recommendations on financial regulation and supervision as well as on institutional and market infrastructure that are deemed most important and relevant to the FSB's core mandate of promoting financial stability. Country reviews can also focus on regulatory, supervisory or other financial sector policy issues not covered in the FSAP that are timely and topical for the jurisdiction itself and for the broader FSB membership. Unlike the FSAP, a peer review does not comprehensively analyse a jurisdiction's financial system structure or policies, or its compliance with international financial standards.

FSB jurisdictions have committed to undergo an FSAP assessment every five years; peer reviews taking place two-three years following an FSAP will complement that cycle. As part of this commitment, Hong Kong volunteered to undergo a peer review in 2017.

This report describes the findings and conclusions of the Hong Kong peer review, including the key elements of the discussion in the FSB's Standing Committee on Standards Implementation (SCSI) in December 2017. It is the twenty-fourth country peer review conducted by the FSB, and it is based on the objectives and guidelines for the conduct of peer reviews set forth in the March 2015 version of the *Handbook for FSB Peer Reviews.*[2]

The analysis and conclusions of this peer review are based on the responses to a questionnaire by financial authorities in Hong Kong and reflect information on the progress of relevant reforms as of September 2017. The review has also benefited from dialogue with the Hong Kong authorities as well as discussion in the FSB SCSI.

The draft report for discussion was prepared by a team chaired by Otávio Ribeiro Damaso (Deputy Governor, Central Bank of Brazil) and comprising Geoff Davies (Bank of England), Claire Guillaumot (Autorité des marchés financiers, France), Patrick Hess (European Central Bank) and Gregory Wach (US Federal Deposit Insurance Corporation). Sam Smith, Costas Stephanou and Laurence White (FSB Secretariat) provided support to the team and contributed to the preparation of the peer review report.

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[1] See http://www.fsb.org/2010/01/r_100109a/.

[2] See http://www.fsb.org/2015/03/handbook-for-fsb-peer-reviews/.

Abbreviations

AI	Authorized Institution
AMB	Approved Money Broker
Amendment Ordinance	Insurance Companies (Amendment) Ordinance 2015
AMLO	Anti-Money laundering and Counter-terrorist Financing (Financial Institutions) Ordinance (Chapter 615 of the Laws of Hong Kong)
AMV	Asset management vehicle
APAC	Asia-Pacific region
ATS	Automated trading services
ATS Guidelines	Guidelines for the Regulation of ATS
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
BO	Banking Ordinance (Chapter 155 of the Laws of Hong Kong)
CCP	Central counterparty
CFI	Cyber Fortification Initiative
CFR	Council of Financial Regulators
CHATS	Clearing House Automated Transfer System
Clearing Rules	Securities and Futures (OTC Derivative Transactions – Clearing and Record Keeping Obligations and Designation of Central Counterparties) Rules (Chapter 571AN of the Laws of Hong Kong)
CMG	Crisis management group
CMU	Central Moneymarkets Unit
CO	Companies Ordinance (Chapter 622 of the Laws of Hong Kong)
CoAG	Cross-border cooperation agreements
CPMI	Committee on Payments and Market Infrastructures
DOJ	Department of Justice
DPS	Deposit Protection Scheme
DPB	Hong Kong Deposit Protection Board
D-SIB	Domestic systemically important bank
EFO	Exchange Fund Ordinance (Chapter 66 of the Laws of Hong Kong)
ESMA	European Securities and Markets Authority
ETD	Exchange traded derivative
EU	European Union
FCP	Financial counterparty
FI	Financial institution
FIRO	Financial Institutions (Resolution) Ordinance (Chapter 628 of the Laws of Hong Kong)
FMI	Financial market infrastructure
FRC	Financial Reporting Council
FS	Financial Secretary
FSAP	Financial Sector Assessment Program
FSC	Financial Stability Committee
FSTB	Financial Services and the Treasury Bureau

FX	Foreign exchange
G-SIB	Global systemically important bank
G-SII	Global systemically important insurer
G-SIFI	Global systemically important financial institution
HKCC	HKFE Clearing Corporation Limited
HKD	Hong Kong Dollar
HKEX	Hong Kong Exchanges and Clearing Limited
HKFE	Hong Kong Futures Exchange Limited
HKICL	Hong Kong Interbank Clearing Limited
HKMA	Hong Kong Monetary Authority
HKSCC	Hong Kong Securities Clearing Company Limited
HKTR	Hong Kong Trade Repository
IA	Insurance Authority
IAIS	International Association of Insurance Supervisors
ICO	Insurance Companies Ordinance
IO	Insurance Ordinance (Chapter 41 of the Laws of Hong Kong)
IOSCO	International Organization of Securities Commissions
IM	Initial margin
IMF	International Monetary Fund
IRS	Interest rate swap
ISDA	International Swaps and Derivatives Association
JPY	Japanese Yen
KAs	FSB Key Attributes of Effective Resolution Regimes for Financial Institutions (Key Attributes)
LB	Licensed Bank
LC	Licensed Corporation
LegCo	Legislative Council
LEI	Legal Entity Identifier
LRA	Lead resolution authority
MA	Monetary Authority
MoU	Memorandum of Understanding
MPFA	Mandatory Provident Fund Schemes Authority
MPFSO	Mandatory Provident Fund Schemes Ordinance (Chapter 485 of the Laws of Hong Kong)
NBNI	Non-Bank Non-Insurer (G-SIFI)
NCCD	Non-centrally cleared derivative
NCWOL	No creditor worse off than in liquidation
NDF	Non-deliverable FX forward
OCI	Office of the Commissioner of Insurance
OTC	Over-the-counter
OTC Clear	OTC Clearing Hong Kong Limited
PFMI	Principles for Financial Market Infrastructures
PSSVFO	Payment Systems and Stored Value Facilities Ordinance (Chapter 584 of the Laws of Hong Kong)
RA	Resolution Authority

RCH	Recognised clearing house
RCT	Resolution Compensation Tribunal
REC	Recognised exchange company
Reporting Rules	Securities and Futures (OTC Derivative Transactions – Reporting and Record Keeping Obligations) Rules (Chapter 571AL of the Laws of Hong Kong)
RFA	Resolution funding account
RLB	Restricted licence bank
RMC	Risk Management Committee
RMS	Risk mitigation standards
RRT	Resolvability Review Tribunal
SEHK	The Stock Exchange of Hong Kong Limited
SEOCH	The SEHK Options Clearing House Limited.
SFC	Securities and Futures Commission
SFO	Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong)
SFST	Secretary for Financial Services and the Treasury
SNFCP	Significant non-financial counterparty
SPM	Supervisory policy manual
SRO	Self-Regulatory Organisation
TPO	Temporary public ownership
TR	Trade repository
UPI	Unique product identifier
USD	United States Dollar
UTI	Unique transaction identifier
VM	Variation margin

Executive summary

Background and objectives

The main purpose of this peer review is to examine two topics that are relevant for financial stability in Hong Kong: over-the-counter (OTC) derivatives market reforms; and the framework for resolution of financial institutions. The peer review focuses on the steps taken by the authorities to implement reforms in these areas, including by following up on FSAP recommendations and FSB commitments.

Main findings

Good progress has been made in recent years on both topics. In particular, a significant part of OTC derivatives market reforms has already been implemented, while a comprehensive cross-sectoral resolution regime was introduced in July 2017. This reflects Hong Kong's strong commitment to implementing international standards, driven by its status as an international financial centre. Notwithstanding this progress, there is room for further work to fully implement and operationalise the respective frameworks. On OTC derivatives market reforms, this involves adopting a platform trading framework; enhancing the transparency of transactions; actively promoting the use of the Legal Entity Identifier (LEI) for trade reporting; and completing the timely implementation of reforms for non-centrally cleared derivatives (NCCDs). On the resolution framework, this involves completing the remaining elements of the framework; advancing resolution strategies and planning and developing approaches to resolvability assessments; and operationalising resolution funding mechanisms.

OTC derivatives market reforms

Hong Kong has a well-developed and growing OTC derivatives market. It is the largest trading centre for interest rate derivatives in Asia and experienced rapid growth in recent years, in particular in OTC foreign exchange (FX) instruments and interest rate derivatives. The main growth drivers include more frequent trading of FX swaps for yield seeking and portfolio rebalancing; a growing demand for renminbi for trade and investment purposes, given Hong Kong's role as a financial gateway to mainland China; and the growing use of derivatives for risk management purposes amid increasing interest rate volatility. The market is predominantly cross-border in nature and largely concentrated in a relatively small number of dealers. The Hong Kong authorities estimate that, as of end-September 2017, around 43% of the total notional outstanding of OTC interest rate swaps was centrally cleared, while the corresponding ratio for non-deliverable FX forwards was 25%.

The Hong Kong authorities have put in place a well-defined legal and regulatory framework – in terms of scope, assignment of responsibilities and enforcement – to implement the G20 commitments to reform OTC derivatives markets. Considerable progress has been made in implementing some of the reform areas (trade reporting, central clearing, margin/capital for NCCDs), while work is underway to implement the remaining areas (platform trading) and measures. The authorities are also actively contributing to the further development and implementation of relevant international standards.

The framework was developed in close coordination between the authorities – the Financial Services and the Treasury Bureau (FSTB), Hong Kong Monetary Authority (HKMA) and

Securities and Futures Commission (SFC) – in order to promote a consistent approach for the different categories of market participants. To facilitate the implementation of the reporting, clearing and margining regimes, the HKMA and SFC have consulted widely with market participants during the design and the implementation of the reforms, and have published Frequently Asked Questions, guidelines and manuals. The rollout of the framework was also facilitated by coordination with other regulators in the region, taking into consideration developments in other major markets, even as each jurisdiction designed the reforms with its own nuances. In addition, there is close integration with foreign regulatory regimes for margining and central clearing, notably through the possibility of substituted compliance.

Initial evidence on the effectiveness of Hong Kong's OTC derivatives framework can be found in trade reporting, where the authorities make active use of trade repository (TR) data for market analysis and surveillance purposes, as well as in policy development. Significant resources have been invested to establish the Hong Kong Trade Repository (HKTR), with an emphasis on data quality. Setting up a single public TR is unusual for an advanced economy, but it seems to have resulted in an efficient reporting process with good management of data quality issues and high matching rates, including in comparison with some other double-sided reporting regimes. To address potential conflicts of interest and the cost implications of such a set-up for market participants, the authorities have separated the operation and supervision of the HKTR, and allowed for the possibility to use other TR operators as reporting agents.

Notwithstanding these achievements, as is the case in other countries, further steps can be taken to fully implement OTC derivatives reforms.

- ***Implementation of platform trading***: A mandatory trading framework remains to be defined and implemented in Hong Kong. As at end-June 2017, twelve FSB jurisdictions had comprehensive public standards or criteria for when to impose platform trading requirements, while six of them had imposed such requirements for some product types.

  The authorities note the need for further study, drawing on HKTR data, to see how best to implement the trading obligation; the limited availability of "home grown" trading venues in Hong Kong; and the importance of coordinating the introduction of a trading obligation with regional peers. Notwithstanding this, the authorities agree with the need to implement the platform trading requirement to fulfil the G20 commitment and promote equivalence with other jurisdictions. This necessitates adoption of a comprehensive framework for determining mandatory platform trading requirements (including criteria for specific products to be executed on exchanges or organised trading platforms) and the tailoring and implementation of a regulatory regime for venues offering trading (including mandatory trading where appropriate) in OTC derivatives. It also entails a regular assessment of derivatives transactions against these criteria and subjecting, where appropriate, classes of transactions to mandatory platform trading by formulating and implementing detailed requirements, as well as monitoring compliance with them.

- ***Transparency of OTC derivative transactions:*** The authorities already publish some information on the OTC derivatives market – both in terms of market data by the HKTR and ad-hoc analysis by HKMA based on such data. Further improving transparency, which is one of the G20 objectives of OTC derivatives reforms, can be achieved in two areas.

First, the disclosure of market data by the HKTR on its website is limited to monthly aggregates in relevant product types, published with a roughly two-week delay and not including any price information. Such disclosure appears rather limited when compared to practices in other jurisdictions as far as frequency and content are concerned. Expanding public disclosure of market data could be achieved through means such as: (i) the publication of additional HKTR data, by increasing the scope of products covered, enlarging the type of information published (including pricing), as well as increasing the frequency and reducing the delay applicable to the published data; and/or (ii) the implementation of platform trading with pre- and post-trade transparency requirements.

Second, under the reporting rules, "masking" of counterparty identifiers in Hong Kong is accommodated if the reportable transaction involves the submission of counterparty identity information which is prohibited by laws, or by an authority or regulatory organisation, in one of 18 jurisdictions in respect of which masking relief was granted in 2015 by the SFC. Remaining legal barriers in other jurisdictions continue to hinder reporting of complete transaction information to TRs, including in Hong Kong. No jurisdictions have been removed from the list of 18 jurisdictions to date. The authorities note that the percentage of trades for products reportable in Phase 1 with masked counterparties was low (1.5% by trade count and 0.6% in terms of gross notional as of September 2017), although the percentage of masked counterparties as a proportion of all the counterparties in the HKTR was much higher at around 20%. To meet the deadline for FSB members to discontinue masking by end-2018 once barriers to reporting are removed, the authorities should promote the timely unmasking of counterparties, including by engaging with the industry and with relevant jurisdictions, bilaterally or multilaterally, to identify remaining barriers and seek ways to address them.

- ***Use of the LEI:*** The use of the LEI provides tangible benefits to both authorities and market participants. Over 60 public authorities from more than 40 jurisdictions (including Hong Kong) have committed to support the introduction of the Global LEI System for official or international identification purposes. Several authorities have promulgated recordkeeping and regulatory reporting rules that require counterparties to be identified by LEIs.

  The current reporting regime in Hong Kong allows for the use of the LEI as a counterparty identifier to an OTC derivative transaction, but allows other forms of entity identifiers as well. The authorities note that the uptake is already high in terms of the percentage of outstanding trades reported with an LEI for both counterparties (93% as of September 2017), although only 68% of all HKTR members (and 59% of the Hong Kong-incorporated members) were registered with an LEI and 19% of all Hong Kong-incorporated entities that are counterparties of trades reported to the HKTR were using an LEI.

  Notwithstanding this, a more active promotion of the use of the LEI by the authorities would help further increase the rates of LEI usage in the TR dataset. This includes, for example, requiring that all HKTR members have an LEI in due course and encouraging the creation of a Local Operating Unit (LOU) in Hong Kong if necessary. Such steps, given Hong Kong's growing importance as a regional OTC derivatives centre, would also likely increase LEI registrations by regional market participants and would dovetail with the need by many of them to acquire an LEI for trading activities with European entities under MIFID II.

- ***Reforms for NCCDs:*** The authorities have begun to implement reforms with regard to NCCDs, but some gaps remain. First, in terms of margin requirements, a framework is already in place for authorized institutions (AIs) that are regulated by the HKMA, in respect of derivatives transactions entered into with covered entities. This framework should be expanded to licensed corporations (LCs) that are regulated by the SFC, as well as to certain types of derivatives not covered under the current rules. The authorities consider that LC derivatives counterparties are indirectly captured through their transactions with AIs and that OTC derivatives entered into by LCs do not give rise to a material contribution to the risk profile of LCs. Nevertheless, the SFC notes that it plans to consult publicly in 2018 about a potential margin requirement for LCs. Similarly, in terms of the IOSCO risk mitigation standards – covering trading relationship documentation, trade confirmation, valuation with counterparties, portfolio reconciliation, portfolio compression and dispute resolution – the current framework only applies to AIs. In order to promote robust standards and avoid regulatory arbitrage, the framework should also be extended to LCs. Finally, in terms of higher capital requirements for NCCDs, Hong Kong (along with most FSB jurisdictions) has adopted the interim higher capital requirements for NCCDs, but is late with respect to implementing the final Basel Committee standards. Both the HKMA and the SFC have consulted the industry about a revised regulatory capital regime (for AIs and LCs respectively) for NCCDs, and are considering the implementation timelines also in light of developments in other jurisdictions. The authorities should proceed to finalise these reforms in a timely manner, consistent with their G20 commitments and the importance of keeping the momentum in implementing these reforms.

Framework for resolution of financial institutions

Hong Kong has made considerable progress in developing its resolution regime since the FSAP. With the introduction of the resolution regime under the Financial Institutions (Resolution) Ordinance (FIRO) and associated regulations, Hong Kong now has legal powers and safeguards related to resolution that are consistent with those required under the FSB *Key Attributes of Effective Resolution Regimes for Financial Institutions* (*Key Attributes)*. The resolution regime applies to a wide range of financial institutions and includes sector-specific powers, for example to restructure insurance liabilities as well as to enforce central counterparty loss allocation arrangements. This makes Hong Kong one of the few FSB jurisdictions with a fully cross-sectoral resolution regime.

As the host authority of a large number of foreign financial institutions including many global systemically important banks (G-SIBs), the introduction of a statutory framework for the recognition of cross-border resolution actions and the extension of resolution powers to branches constitute an important step in enhancing cross-border cooperation. These steps, in conjunction with the HK authorities' active participation in crisis management groups (CMGs) for global systemically important financial institutions, enhance the credibility of resolution strategies for cross-border financial institutions with operations in Hong Kong.

Each of the HKMA, SFC and Insurance Authority (IA) is the resolution authority responsible for resolution planning and execution for entities for which it acts as regulator and supervisor. Work is underway to put in place institutional arrangements to facilitate coordination and information sharing between these authorities, including on the triggering and use of resolution tools. This work has led to the designation of the HKMA as the lead resolution authority for

the cross-sectoral G-SIB groups in Hong Kong that include both banking sector entities as well as securities and futures sector entities. The HKMA has created a dedicated Resolution Office with resources and expertise to support the resolution functions of the HKMA.

Notwithstanding this progress, as is the case in other countries, further work is needed to fully implement the regime and enhance the credibility and feasibility of resolution measures.

- ***Completing the resolution framework:*** The FIRO identifies rules and regulations to be made as subsidiary legislation and further guidance will need to be finalised and implemented in order to make the resolution powers fully effective and to clarify the approaches resolution authorities will take to the use of some of their powers. The authorities have already taken steps in this regard with the finalisation in July 2017 of a regulation on protected arrangements (e.g. on set-off rights and netting arrangements) and guidance on the HKMA's approach to resolution planning, as well as the publication of a consultation paper on loss-absorbing capacity requirements in January 2018. The authorities should continue these efforts and ensure the prompt completion of the remaining elements identified in the FIRO. These include in particular aspects relating to the resolvability of firms, such as the finalisation of rules on loss-absorbing capacity requirements, and temporary stays on early termination rights. Completing these measures should help to provide greater transparency to the market on the application of the regime and thereby enhance the credibility and feasibility of resolution actions.

  At an operational level, further work is necessary to finalise the procedural arrangements between resolution authorities to ensure appropriate governance and resources for their crisis management and resolution functions. This is particularly the case for the resolution of a cross-sectoral group, given that the resolution regime designates separate resolution authorities for each sector. The current arrangements for inter-agency crisis management coordination pre-date the introduction of the FIRO and the existence of resolution authorities. The authorities recognise the need to review these arrangements in light of the FIRO and, to this end, intend to develop resolution-specific coordination processes and frameworks, potentially through a crisis management MoU, during the course of 2018. This review should seek to clarify and formalise how the cross-sectoral coordination requirements set out in the FIRO will be discharged. Coordination and information sharing arrangements should extend not just to contingency planning in crisis but to general resolution planning in cross-sectoral groups to ensure that obstacles to resolvability in a group entity are identified and discussed between the relevant resolution authorities.

  A number of G-SIBs are subject to 'single point of entry' resolution strategies that anticipate the exercise of resolution tools at the level of the group parent rather than the Hong Kong subsidiary. For these groups, the most significant role played by the resolution authorities in Hong Kong may be to recognise or support the legal actions taken in another jurisdiction. It will therefore be important to ensure that the internal governance and cross-sectoral coordination arrangements put in place are also able to facilitate the prompt use of legal powers to recognise or support group resolution strategies.

- ***Capability to plan and execute resolutions and to assess resolvability:*** To be effective, each resolution authority in Hong Kong will need to ensure, as part of its general resolution planning responsibilities, that sufficient resources are devoted to the development and implementation of policy on resolution planning and resolvability. The scale of resources

will depend, in part, on the nature of the resolution strategies adopted and the approach the resolution authorities take to assessing resolvability and removing impediments for within-scope institutions. Progress has already been made in this regard, particularly by the HKMA, which has developed internal governance processes and early warning mechanisms to trigger contingency planning, and has commenced work to develop requirements on loss-absorbing capacity and on the suspension of early termination rights. As resolution planning progresses, other barriers to resolvability such as valuation capability and continuity of critical operations and of access to financial market infrastructures (FMIs) will also need to be addressed.

With respect to insurers and FMIs more broadly, resolution policy work is ongoing and remains at an earlier stage than for banks. In the case of the SFC, resolution resources will need to be devoted in particular to the Hong Kong central counterparty (CCP) that is considered as systemically important in more than one jurisdiction and for which a CMG should be established. Given the limited number of other FMIs and exchanges that are within the scope of the regime, the SFC has chosen at this point not to establish a dedicated resolution function but to instead allocate responsibility for resolution across supervision teams. Under such a structure, it will be necessary for those SFC staff who are responsible for resolution activities to be sufficiently familiar with resolution planning and execution to be able to undertake this role effectively in a crisis scenario, and to ensure that resolution objectives are not subordinated to supervisory objectives.

- ***Resolution funding framework:*** The FIRO establishes a framework for a resolution funding account that can be used in preparing for, initiating or carrying out the resolution of a financial institution. The account may be funded at the point of its use from public money or any other money under the control of the Government or a public officer, e.g. Hong Kong's Exchange Fund (which may be used for financial stability purposes), general revenues of the government etc. Costs incurred in a resolution not recouped from the assets of the failed institution (including any shortfall in repayment of any funds provided by the Government) may be recouped from the financial sector through an ex post levy, the details of which will be prescribed in regulations. The authorities note that they intend to issue further guidance on the operation of the resolution funding account in due course.

  The FIRO provides the authorities with a degree of discretion both on the timing of use of a resolution funding account (with certain conditions, including having regard to the level of losses imposed on private creditors and shareholders) and on the recovery of costs from the industry. This discretion, combined with the lack of detail in the FIRO on the ex post levy, may create uncertainty among market participants as to who would bear the costs of a firm's failure. The authorities should therefore prioritise the development of the framework for the ex post levy and guidance on the operation of resolution funding accounts, covering in particular liquidity facility design (e.g. terms of lending, access criteria, potential terms of collateral, eligible participants, timing, capacity), and set out their expectation regarding the imposition of an ex post levy on the industry. This would help underscore the authorities' intent to recoup public funds, and lend more credibility to the FIRO's stated objective to minimise the risk to public funds.

The authorities should also reach a shared understanding on the expected operation of the resolution funding account, including how each resolution authority would request funds and the information that might be needed to enable swift consideration of such requests.

Recommendations

In response to the aforementioned findings and issues, the peer review has identified the following recommendations to the Hong Kong authorities:

OTC derivative market reforms

1. The authorities should tailor and implement a regulatory regime for venues offering trading (including mandatory trading where appropriate) in OTC derivatives, and publish comprehensive standards/criteria for determining when products should be platform traded.
2. The authorities should enhance transparency of OTC derivatives transactions by: (a) expanding the scope and timeliness of public disclosure of market data (including volumes and positions); (b) improving transparency on price levels; and (c) accelerating unmasking of counterparties once barriers to reporting are removed, since masking prevents comprehensive reporting.
3. The authorities should actively promote the use of the LEI for trade reporting, for example by requiring all HKTR members to have an LEI in due course and by encouraging the creation of a Local Operating Unit in Hong Kong if necessary.
4. The authorities should complete the timely implementation of margin requirements, risk mitigation standards and higher capital requirements for NCCDs.

Framework for resolution of financial institutions

5. The authorities should complete the resolution framework by: (a) adopting necessary rules and regulations as subsidiary legislation and guidance; and (b) reviewing and enhancing internal governance and cross-sectoral coordination arrangements for crisis management and resolution in light of the FIRO.
6. The HKMA, SFC and IA should advance resolution strategies and planning, and develop their approaches to resolvability assessments, in particular by: (a) identifying strategies for CCPs and for banks other than G-SIBs; and (b) developing and maintaining sufficient internal capabilities.
7. The HKMA, SFC and IA should operationalise resolution funding arrangements provided for under the FIRO by: (a) establishing the levy framework to underscore the intent to recoup public funds used in resolution; and (b) planning options for the funding facility's design, including governance.

1. Introduction

Hong Kong underwent an assessment under the Financial Sector Assessment Program (FSAP) in 2013-14. The FSAP Update included assessments of the Basel Committee for Banking Supervision (BCBS) *Core Principles for Effective Banking Supervision,* International Association of Insurance Supervisors (IAIS) *Insurance Core Principles,* and International Organization of Securities Commissions (IOSCO) *Principles and Objective of Securities Regulation.*[3, 4]

The FSAP concluded that Hong Kong's financial system is one of the largest and most developed in the world. It found the system well-regulated, with the capacity to withstand a diversity of shocks, but that it faces major risks that puts a significant premium on effective liquidity management, macroprudential oversight and microprudential supervision. Stress tests showed a high degree of resilience of the banking sector, and the authorities actively deployed macroprudential policies to mitigate systemic risks.[5] The FSAP also found that the regulation and supervision framework is of a high calibre and displays a high level of compliance with international standards, but there is scope for further strengthening, particularly in the insurance sector. Finally, the FSAP stressed that the authorities need to establish the planned independent insurance authority and also, as a key priority, to push forward with plans to establish a comprehensive framework for resolution.

The most recent (2016) IMF Article IV report[6] concluded that the Hong Kong economy has been supported by low interest rates and mainland China's economic development over the past decade, but that the external outlook is more challenging; long-term issues such as aging and a housing supply shortage also loom. The report noted that strong policy frameworks and ample fiscal and financial system buffers are in place to weather a less favourable environment. It called for the three-pronged strategy to the property market (boosting supply, macroprudential policies to manage risks, and stamp duties to contain speculative activity and external demand) to remain in place. On the financial system, the report concluded that the robust regulatory and supervisory framework should help limit the build-up of systemic vulnerabilities; that exposures to mainland China and rapid growth of the asset management industry continue to merit close supervisory attention; and that enhancing stress testing and reviewing financial institutions' plans in response to stress events are crucial for maintaining financial stability.

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[3] See *People's Republic of China-Hong Kong Special Administrative Region: Financial System Stability Assessment* (May 2014, IMF Country Report No. 14/130, http://www.imf.org/external/pubs/ft/scr/2014/cr14130.pdf). The detailed assessments on the observance of standards and codes are available on the IMF website (http://www.imf.org/external/np/fsap/fsap.aspx).

[4] In March 2015, the BCBS published two reports assessing the consistency of the Basel III risk-based capital standards and liquidity coverage ratio in Hong Kong with the Basel framework. See http://www.bis.org/press/p150316.htm.

[5] In particular, the authorities introduced seven rounds of macroprudential measures since October 2009 to mitigate the risks of mortgage lending (e.g. limits on the maximum loan-to-value and debt servicing ratios).

[6] See Hong Kong's *2016 Article IV Consultation* (January 2017, IMF Country Report No. 17/11, http://www.imf.org/en/Publications/CR/Issues/2017/01/12/People-s-Republic-of-China-Hong-Kong-Special-Administrative-Region-2016-Article-IV-44527).

This peer review report has two main sections, corresponding to the two topics being reviewed. Section 2 focuses on over-the-counter (OTC) derivatives market reforms, while Section 3 covers the framework for resolution of financial institutions. In addition, Annex 1 provides background information on the structure of Hong Kong's financial system and regulatory framework; Annex 2 presents additional tables and charts on Hong Kong's derivatives reforms; and Annex 3 describes the functioning of the Hong Kong Trade Repository (HKTR) for OTC derivatives transactions. Annex 4 presents the follow-up actions reported by the authorities to other key FSAP recommendations; these actions have not been analysed as part of the FSB peer review and are presented solely for purposes of transparency and completeness.

2. OTC derivatives market reforms

Background

In response to the global financial crisis, which had exposed weaknesses in the structure of OTC derivatives markets, the G20 Leaders at the Pittsburgh Summit in September 2009 initiated a fundamental overhaul of these markets with the objectives of mitigating systemic risk, improving transparency, and protecting against market abuse. The weaknesses exposed by the crisis included the build-up of large counterparty exposures between market participants which were not appropriately risk-managed; contagion risk arising from the interconnectedness of market participants; and the limited transparency of overall counterparty credit risk exposures that precipitated a loss of confidence and market liquidity in time of stress.[7]

As part of their response to the crisis, the G20 Leaders agreed in 2009 that all OTC derivatives should be reported to trade repositories (TRs), that standardised OTC derivatives should be centrally cleared, and where appropriate, traded on exchanges or electronic trading platforms, and that non-centrally cleared derivatives should be subject to higher capital requirements and minimum standards for margin requirements.

The OTC derivatives market in Hong Kong has experienced rapid growth in recent years as detailed below. This section provides an overview of the market and analyses the progress made to date by the Hong Kong authorities in implementing these G20 commitments, associated implementation challenges and planned next steps. In particular, the section examines the legal and regulatory framework and institutional arrangements in relation to OTC derivatives; trade reporting requirements and the access to and uses of TR data; central clearing requirements and the process for determining products for mandatory clearing; as well as the plans for the implementation of platform trading and the adoption of margin requirements. Drawing on available information and guidance by the FSB and standard-setting bodies,[8] it highlights lessons learned and makes recommendations in response to identified issues.

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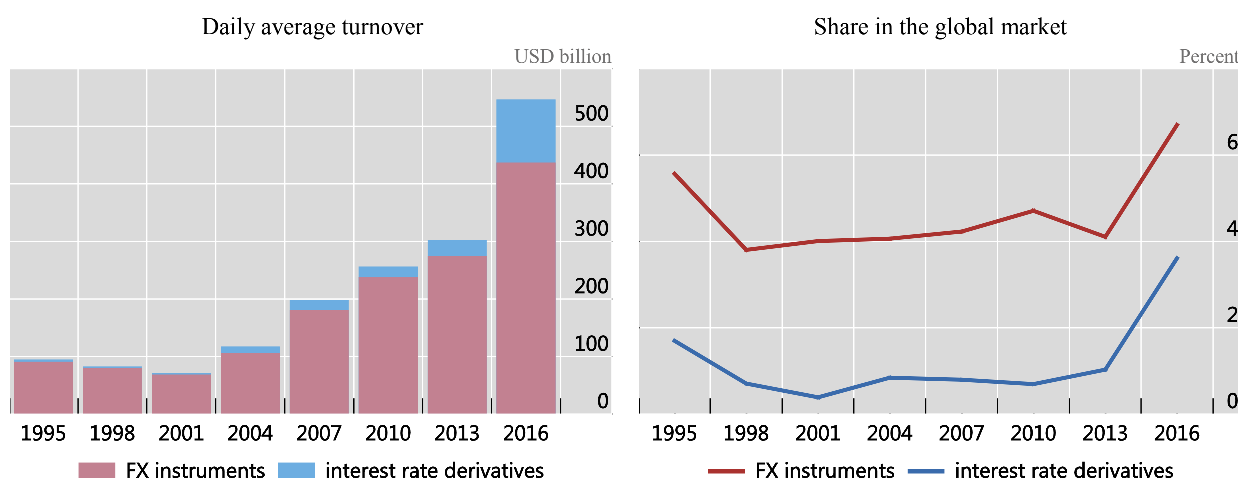
[7] See FSB *Review of OTC derivatives markets reforms: Effectiveness and broader effects of the reforms* (June 2017, available at http://www.fsb.org/2017/06/review-of-otc-derivatives-market-reform-effectiveness-and-broader-effects-of-the-reforms).

[8] This includes implementation monitoring by the FSB's OTC Derivatives Working Group (ODWG) and CPMI-IOSCO as well as ongoing policy work by CPMI-IOSCO, for example to promote data harmonisation through the use of unique product and transaction identifiers.

Market structure and dynamics

Growth of Hong Kong as a trading centre for OTC derivatives: Hong Kong has a well-developed and growing OTC derivatives market. It is the largest trading centre for interest rate derivatives in Asia, and it experienced rapid growth in daily average turnover over the period 2013-2016 in OTC foreign exchange (FX) instruments and interest rate derivatives (Chart 1). As a result, Hong Kong is now the fourth largest market in absolute terms for both OTC interest rate derivatives (behind the UK, US and France) and OTC FX instruments (behind the UK, US and Singapore).[9] Along with Singapore, Hong Kong is becoming an important regional booking centre for OTC derivatives, including for US and European banks (see Chart 1 in Annex 2).

Chart 1: Evolution of Hong Kong's OTC markets for selected asset classes



Source: Bank for International Settlements (BIS) Triennial OTC derivatives statistics.

Measured by notional amounts of outstanding derivatives positions booked by authorized institutions (AIs) in Hong Kong as of June 2017, OTC FX and interest rate derivatives are by far the dominant asset classes with 59% and 40% respectively, while equity, credit and commodity derivatives collectively make up less than 2% of the total market (see Table 1 in Annex 2).[10] The outstanding notional amount of OTC FX derivatives increased by 36% since June 2014, amounting to an estimated global market share of 9% at end-June 2017. The

[9] See the BIS Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity (September 2016), at http://www.bis.org/statistics/derstats3y.htm). This global survey includes FX spot transactions, which are not regarded as derivatives products in some jurisdictions (including Hong Kong). Global rankings without spot transactions are not available, but for Hong Kong the spot vs ex-spot turnover figure amounted to US dollar (USD) 92 vs 345 billion in April 2016. See *The foreign exchange and derivatives markets in Hong Kong* in the HKMA Quarterly Bulletin (December 2016, http://www.hkma.gov.hk/media/eng/publication-and-research/quarterly-bulletin/qb201312/fa2.pdf).

[10] If one also includes the OTC derivatives: 1) booked in Hong Kong by LCs and 2) traded in, but booked outside of, Hong Kong by both AIs and LCs, then the shares by notional amount of interest rate derivatives, FX derivatives and equity derivatives as of 31 August 2017 amount to 62%, 27% and 11% respectively (see Table 2 in Annex 2).

outstanding notional amount of OTC interest rate derivatives increased by 34% over the same time period, amounting to an estimated 1.1% of the global market.

Growth drivers: The main growth drivers according to the Hong Kong authorities and market participants include more frequent trading of USD-Japanese Yen (JPY) FX swaps for yield seeking and portfolio rebalancing; a growing demand for renminbi (RMB) for trade and investment purposes; and the growing use of interest rate derivatives for risk management purposes amid increasing volatility of interest rates. The significance of the RMB as a growth factor stems from Hong Kong's role as a financial gateway to China. Hong Kong is the world's leading offshore RMB centre: from April 2013 to April 2016, its average daily turnover of RMB-related OTC interest rate derivatives and FX transactions rose by 205% and 56% (or 40% without spot transactions) respectively.[11] In terms of market participants, the overall growth in this period appears to have been largely driven by increased activities of local as well as US and mainland Chinese banks. Going forward, the growth of the OTC derivatives market is expected to continue, both due to Hong Kong's role as a financial gateway to and from mainland China (in particular, its increasing importance as a hub for managing onshore China risks)[12] and due to a variety of regulatory and other factors at the international level that may encourage a more regional approach to the booking of OTC derivatives transactions.

Characteristics: The Hong Kong OTC derivatives market is predominantly cross-border: 98% of OTC interest rate derivatives and 88% of OTC FX instruments turnover in April 2016 was conducted with cross-border counterparties,[13] while only six out of 62 clearing members in the HKTR for interest rate swaps (IRS) and seven out of 51 for non-deliverable FX forwards (NDFs) were incorporated in Hong Kong (see Chart 2 in Annex 2).[14]

The market is concentrated in a relatively small number of dealers. According to HKMA calculations based on TR data, 10 reporting institutions were counterparty to 86% and 81% of the outstanding gross notional of IRS and NDFs respectively as at 1 September 2017.

Market infrastructure for derivatives: The share of exchange-traded derivatives (ETD) is low in the Hong Kong market: according to the authorities, 98% of the total outstanding position of derivatives booked by authorized institutions at end-2016 had been traded on an OTC basis.[15] Plans by Hong Kong Exchanges and Clearing Limited (HKEX) to launch new

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[11] See the article in the December 2016 HKMA Quarterly Bulletin (ibid).

[12] See the speech by Ashley Alder, *Hong Kong as an evolving international financial centre: The significance of regulation* (2 June 2016, http://www.sfc.hk/web/EN/files/ER/PDF/Speeches/Ashley_20160602.pdf).

[13] See the BIS Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity (ibid).

[14] Clearing members refers to both prescribed persons reaching the clearing threshold and designated financial service providers. The calculation here takes into account all HKTR participants that are clearing members. They include: a) clearing members with reporting obligation in Hong Kong; and b) clearing members without a reporting obligation but which are counterparty to trades subject to reporting requirements in Hong Kong.

[15] According to some market participants, this may be partly due to the existing position limits regime for ETD. See the paper by the Hong Kong Financial Services Development Council, *Hong Kong's position limits regime for exchange-traded derivatives – the need for revision*, FSDC Paper No. 20 (February 2016, http://www.fsdc.org.hk/sites/default/files/FSDC%20Paper%20no.20%28PLR%29.pdf).

exchange-traded derivatives on RMB and onshore interest rates,[16] as well as the pending introduction of a platform trading obligation in Hong Kong (see below), can be expected to facilitate the growth of this market segment.

OTC Clearing Hong Kong Limited (OTC Clear) is a central counterparty (CCP) established by HKEX for the purpose of providing clearing and settlement services for OTC derivative transactions. OTC Clear is a 75%-owned subsidiary of HKEX with 12 financial institutions holding the remaining 25% of the shares as founding shareholders.[17] Among other services, it clears OTC FX and interest rate derivatives. OTC Clear is authorised to operate in Hong Kong, Australia, the EU and US.[18] In addition to OTC Clear, HKEX operates three other CCPs,[19] of which HKFE Clearing Corporation Limited and SEHK Options Clearing House Limited play a role with regard to derivatives, by clearing ETD traded on the Hong Kong Futures Exchange (HKFE).[20]

The HKMA owns and operates the Hong Kong Trade Repository (HKTR), to which specific counterparties must report reportable OTC derivatives transactions with the relevant nexus to Hong Kong (see below). There is no system of authorised private sector TRs in Hong Kong.

Steps taken and actions planned

The key steps typically undertaken to implement the G20 OTC derivatives reform commitments include:

- establishment of a legislative framework or other authority granting regulatory authorities powers to impose mandatory requirements in relevant reform areas;
- adoption of public standards or requirements about when transactions should be reported to TRs and of public standards or criteria for determining when products should be centrally cleared or platform traded;
- imposition of mandatory minimum margin requirements and higher capital charges for non-centrally cleared derivatives (NCCDs); and
- where necessary, providing for the establishment and regulation of the necessary infrastructure through which the mandatory obligations must be fulfilled, i.e. TRs, CCPs and trading platforms.

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[16] See Hong Kong Exchanges and Clearing Limited, *HKEX Strategic Plan 2016-18* (January 2016, https://www.hkex.com.hk/eng/newsconsul/hkexnews/2016/Documents/1601213news.pdf), p. 2.

[17] See https://www.hkex.com.hk/eng/prod/clr/otcclrsett/otcdclr.htm.

[18] OTC Clear obtained exemption from registration as a derivatives clearing organisation from the CFTC. It is also recognised as a third country CCP by ESMA and as a prescribed facility for meeting mandatory clearing requirements in Australia.

[19] These are the Hong Kong Securities Clearing Company Limited, the HKFE Clearing Corporation Limited and the SEHK Options Clearing House Limited.

[20] OTC Clear currently only clears OTC interest rate and FX derivatives. Portfolio margining is allowed and actively used in OTC Clear. Participants are margined on a portfolio basis across all cleared products. There is no cross-margining between OTC Clear and other CCPs, in or outside of Hong Kong.

In some jurisdictions, authorities have also provided – as part of OTC derivatives reforms – for the regulation and oversight of OTC derivatives market participants as such.

Legal and regulatory framework

Hong Kong has taken a number of steps to date in order to implement the G20 reform commitments for the OTC derivatives market (see Table 3 in Annex 2 for a summary of implementation status by reform area).[21]

On 26 March 2014, the Securities and Futures (Amendment) Ordinance 2014 (SFO),[22] which serves as a broad legal framework for mandatory reporting, clearing, trading and record keeping obligations in respect of OTC derivative products, was enacted.[23] Key milestones are set out below, and are detailed later in this section.

Trade reporting: On 10 July 2015, the Reporting Rules[24] made under the SFO came into effect, setting out detailed reporting and related record-keeping requirements for OTC derivative products and requiring mandatory reporting in Hong Kong in respect of certain interest rate swaps and NDFs (phase 1), subject to a six-month grace period which ended on 9 January 2016. Phase 2 of the trade reporting came into force on 1 July 2017,[25] with all asset classes (including FX and interest rate product types and other asset classes not already covered by phase 1) now being reportable.

Mandatory clearing: On 1 September 2016, the Clearing Rules came into effect and the first phase of mandatory clearing of certain derivatives trades commenced on 1 July 2017.[26] The Clearing Rules cover transactions between major dealers and exclude transactions outstanding as at the commencement date.

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[21] See the FSB's *OTC Derivatives Market Reforms: Twelfth Progress Report on Implementation* (June 2017, http://www.fsb.org/2017/06/otc-derivatives-market-reforms-twelfth-progress-report-on-implementation/).

[22] See https://www.elegislation.gov.hk/hk/2014/6!en.

[23] In line with similar definitions in other jurisdictions, the SFO defines an "OTC derivative product" as a structured product, excluding spot contracts and securities and futures contracts that are traded on recognised stock or futures markets or traded on prescribed stock or futures markets and cleared through prescribed clearing houses. The Securities and Futures (Stock Markets, Futures Markets and Clearing Houses) Notice (Cap 571AM), which came into effect on 10 July 2015, further defines the term "OTC derivatives product" by prescribing a list of stock or futures markets and clearing houses so that products traded on such stock or futures markets and cleared through such clearing houses do not fall within the definition. Products that are excluded from the definition of "OTC derivatives product" are not subject to the obligations in respect of OTC derivatives under the SFO, such as the reporting and clearing obligation. The list includes inter alia all US and EU major exchanges and CCPs.

[24] See the Securities and Futures (OTC Derivative Transactions – Reporting and Record Keeping Obligations) Rules 2015 (Reporting Rules), available at http://www.sfc.hk/web/EN/files/SOM/OTC/OTC%20-%20Reporting%20(LN96%20of%202015)%20-%20EN.pdf.

[25] See the Securities and Futures (OTC Derivative Transactions – Reporting and Record Keeping Obligations) (Amendment) Rules 2016, available at http://www.gld.gov.hk/egazette/pdf/20162005/es22016200530.pdf.

[26] See the Securities and Futures (OTC Derivative Transactions – Clearing and Record Keeping Obligations and Designation of Central Counterparties) Rules (Clearing Rules), available at http://www.sfc.hk/web/EN/files/SOM/OTC/OTC%20-%20Clearing%20(LN28%20of%202016)%20-%20EN.pdf. These rules commenced in legal operation on 1 September 2016, with the effect of requiring central clearing from 1 July 2017.

Margin requirements for NCCDs: On 27 January 2017, the HKMA issued a statutory guideline under the Banking Ordinance (BO) to implement global margin and risk mitigation standards for AIs involved in NCCD transactions. Those requirements came into effect on 1 March 2017 for transactions within scope of the BCBS-IOSCO margin requirements, followed by a six-month grace period during which best efforts by firms to comply with the new requirements would be considered sufficient. As from 1 September 2017, the grace period lapsed, and all transactions between counterparty types within scope are now covered by variation margin requirements, while initial margin requirements continue to be phased-in until 2020.

Higher capital requirements for NCCDs: Higher capital requirements for NCCDs – comprising the standardised approach to counterparty credit risk (SA-CCR) and standards for bank exposures to CCPs – were developed by the BCBS as interim and final standards.[27] In Hong Kong, the interim standards took effect on time from 1 January 2013 as part of Basel III implementation.[28] By contrast, the final standards have not yet been implemented (as is the case with most BCBS jurisdictions).[29]

Platform trading: The platform trading requirement has not yet been implemented in Hong Kong. At present, comprehensive standards or criteria for determining when products should be platform traded had not been published.

Table 1 compares the implementation status of the five OTC derivatives reforms in Hong Kong with that in other FSB jurisdictions in the Asia-Pacific region. In implementation status terms, Hong Kong would need to publish comprehensive standards/criteria for determining when products should be platform traded in order to change its status for platform trading to be in line with some other advanced economy jurisdictions in the region.

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[27] The interim standard for bank exposures to CCPs was published in July 2012 (http://www.bis.org/publ/bcbs227.pdf), and was due to be implemented by 1 January 2013. In March 2014, the BCBS published the final standard on the standardised approach to counterparty credit risk (SA-CCR), with an associated implementation date of 1 January 2017 (http://www.bis.org/publ/bcbs279.pdf). The final standard for bank exposures to CCPs was published in April 2014, with an implementation date of 1 January 2017 (http://www.bis.org/publ/bcbs282.pdf).

[28] See the Banking (Capital)(Amendment) Rules 2012 and 2013, both made under s97C of the BO: http://www.hkma.gov.hk/media/eng/doc/key-functions/banking-stability/basel-3/banking_capital_amendment_rules_2012.pdf and http://www.hkma.gov.hk/media/eng/doc/key-functions/banking-stability/basel-3/Banking_Capital_Amendment_Rules_2013.pdf.

[29] See the BCBS *Thirteenth progress report on adoption of the Basel regulatory framework* (October 2017, available at http://www.bis.org/bcbs/publ/d418.pdf).

Table 1: Reforms to jurisdictional frameworks, as at end-June 2017, selected Asia-Pacific jurisdictions

		Trade Reporting	Central Clearing	Interim Capital	Margin	Platform Trading
Australia	AU	Blue	Blue	Blue	Blue$^+$	Blue
China	CN	Blue	Blue	Blue$^+$	Red	3
Hong Kong	**HK**	**3**[30]	**Blue$^+$**	**Blue**	**Blue$^+$**	**1**
India	IN	Blue	3	Blue	1$^-$	1
Indonesia	ID	Blue	3	Blue$^+$	1	3
Japan	JP	Blue	Blue	Blue	Blue$^+$	Blue
Republic of Korea	KR	Blue	Blue$^+$	Blue$^+$	3$^+$	1$^+$
Singapore	SG	Blue	Blue	Blue	Blue$^+$	Blue$^+$

Source: FSB, *OTC Derivatives Market Reforms: Twelfth Progress Report on Implementation* (June 2017). For legend, see Annex 2.

Institutional arrangements

Together with the government in its role as the coordinator of financial regulatory policy responsible for the introduction of legislation, the HKMA and the SFC design and implement the legal regime for OTC derivatives (see Annex 1 for a description of the regulatory framework in Hong Kong). They are also responsible for the joint administration of the regime, having regard to their responsibilities with regards to the different categories of financial entity they respectively supervise (see Box 1).

Rulemaking: A broad framework for the regulation of the OTC derivatives market is set out in primary legislation such as the SFO and the BO. Details are set out in subsidiary legislation (rules) made by the SFC (with the consent of the HKMA and after consultation with the Financial Secretary) under the SFO or by the HKMA under the BO. The SFC has the power under the SFO to make rules about mandatory clearing, trade reporting and platform trading binding on AIs and LCs. For margining and higher capital requirements, the HKMA makes rules or guidelines for AIs and the SFC makes rules or guidelines for LCs. Importantly, because of the definition of LC, there are no entities that are both AIs and LCs.

The Hong Kong authorities have attached great importance to public consultation throughout the design process of the reforms. The authorities note that they have exceeded statutory requirements for consulting the public on rules they have proposed under the SFO both on proposed non-statutory codes and guidelines as well as on amendments to them. During the consultation process, their practice has been to conduct various rounds of both formal and informal consultations with relevant stakeholders to seek their views on the proposals.

[30] On 1 July 2017, comprehensive trade reporting commenced in Hong Kong, so this cell would now be reportable as Blue.

Box 1: Classification of financial entities in Hong Kong and responsibility of authorities

There are three types of financial entity, which are important in terms of OTC derivatives. They are regulated and supervised either by the HKMA or the SFC according to type.

Authorized institutions (HKMA responsibility)

Authorized institutions (AIs) are institutions authorised under the BO to carry on the business of banking or business of taking deposits in Hong Kong. There are three types of AIs: licensed banks (LBs), restricted licence banks and deposit taking companies. Roughly 80% of all AIs are LBs, which are the only institutions permitted to carry on banking business. AIs must comply with the BO and are regulated and supervised by the HKMA.

Licensed corporations (SFC responsibility)

An entity that is not an AI or a person authorised under the Securities and Futures Ordinance (SFO) to provide automated trading services (ATS) under section 95 of the SFO, is required to be a licensed corporation (LC) if:

- it is a corporation carrying on a business in a regulated activity[31] in Hong Kong; or
- it actively markets, whether by itself or another person on its behalf and whether in Hong Kong or from a place outside Hong Kong, to the public any services that it provides, which would constitute a regulated activity if provided in Hong Kong.

LCs must comply with the SFO and are subject to licensing by, and regulation and supervision of, the SFC.

Approved money brokers (HKMA responsibility)

Approved money brokers (AMBs) are money brokers approved under the BO who, for reward, carry on a business in or from Hong Kong, or provide to persons in Hong Kong the service, of negotiating, arranging, or facilitating, whether by electronic means or otherwise, agreements between other persons:

(i) in respect of the making of deposits of any currency; the purchase or sale of any currency; or the purchase or sale of an instrument declared in a notice under section 2(14)(a) by the Monetary Authority;

(ii) one of which is an authorized institution; and

(iii) as agent for, or as the provider of a dealing service to not less than one of those persons.

The BO sets out the criteria for approval and supervision of AMBs by the HKMA.

[31] Any corporation that carries on business in a regulated activity in Hong Kong is required to be licensed as an LC, or in the case of an AI, registered as a registered institution under the SFO. There are currently 10 regulated activities. Two new regulated activities have been added and two existing regulated activities have been expanded to cover activities in OTC derivative products, but they have yet to take effect. The list of regulated activities is set out in Schedule 5 to the SFO, and principally includes: Type 1 (Dealing in securities); Type 2 (Dealing in futures contracts); Type 3 (Leveraged foreign exchange trading); Type 4 (Advising on securities); Type 5 (Advising on futures contracts); Type 6 (Advising on corporate finance); Type 7 (Providing automated trading services); Type 8 (Securities margin financing); Type 9 (Asset management); and Type 10 (Providing credit rating services). The two new regulated activities are Type 11 (dealing in OTC derivative products or advising on OTC derivative products) and Type 12 (providing client clearing services for OTC derivative transactions), while the scope of Type 7 and Type 9 will be expanded with respect to OTC derivatives. The SFC is working on rules, codes and guidelines to be issued or updated to support the new and expanded regulated activities.

Role of the government: The Hong Kong Government, acting through the Financial Services and the Treasury Bureau (FSTB), takes part in legislative initiatives (including on the OTC derivatives regulatory regime) by arranging for the drafting, via the Department of Justice, and vetting of the primary legislation and relevant subsidiary legislation. In particular, the FSTB checks whether the laws and rules related to OTC derivatives are necessary, and ensures that necessary consultations have been conducted and that the laws and rules are in line with drafting requirements for such legislation. In addition, the FSTB coordinates the work in relation to OTC derivatives reforms with the HKMA and the SFC and discusses the regulatory progress in two high-level standing bodies, which are the Council of Financial Regulators (CFR) and the Financial Stability Committee (FSC).[32]

Internal organisational structure on OTC derivatives in HKMA and SFC: A number of different departments within the HKMA and SFC are involved in OTC derivatives reform. Within the HKMA, an inter-departmental steering group has been set up to coordinate the implementation of the regulatory regime. The group is chaired by the Executive Director of the Monetary Management Department and composed of representatives from (main responsibility in brackets): Financial Stability Surveillance (rulemaking and market monitoring), Payment Systems Operation (development and operation of HKTR), Banking Policy (rulemaking for banks), Banking Supervision (oversight of compliance with margin requirements for NCCDs), Banking Conduct (oversight of HKTR and monitoring compliance of AIs) and Enforcement. Within the SFC, a cross-divisional working group has the responsibility for the development of OTC derivatives regulatory regime and the work is shared between: Supervision of Markets (rulemaking and coordination with other authorities), Licensing (rulemaking and licensing), Intermediaries Supervision (rule making and supervision of LCs) and Enforcement.

Cooperation and information sharing between authorities: The HKMA and SFC signed a revised Memorandum of Understanding (MoU) in 2004,[33] which elaborates on the legal framework and sets out the operational details relating to the respective roles and responsibilities of the two regulators regarding the securities- and futures-related activities of authorized institutions. A working group between the HKMA and the SFC meets on a bi-weekly basis to discuss and follow up on issues relating to the implementation of the OTC derivatives regulatory regime.

Enforcement: The SFO and BO provide investigation and disciplinary powers to the SFC and HKMA respectively with respect to relevant persons under their regulation. The disciplinary actions that the SFC and HKMA can take range from imposing disciplinary fines, prohibiting the carrying on of OTC derivatives business, to, in the most serious cases, revoking the licence of an LC, AI or AMB.

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[32] The composition and functions of the CFR and FSC are detailed in Annex 1 under the regulatory framework.

[33] See http://www.hkma.gov.hk/media/eng/doc/key-functions/banking-stability/banking-policy-and-supervision/HKMA-SFC_MoU_eng.pdf.

Trade reporting requirements

The Hong Kong regulatory authorities implemented the Reporting Rules in a progressive manner, by initially making only certain types of OTC derivative transactions reportable, and subsequently expanding the categories of transactions caught by the reporting rules (Table 2).

Table 2: Overview of reporting requirements

Requirements	Phase 1	Phase 2
Commencement	10 July 2015 [(1) (2) (3)]	1 July 2017 [(4)]
Reporting entities	The following "prescribed persons" are subject to the reporting obligation: AIs, AMBs, LCs and CCPs (both locally domiciled and overseas and, in the case of CCPs, if they are authorised to provide clearing services in Hong Kong). Trade reporting is double-sided, i.e. both counterparties to the transaction have to report it if they both have a reporting obligation.	Same as for Phase 1.
Reportable transactions	Product scope (OTC derivatives only): • Interest rate swaps: plain vanilla IRS, plain vanilla basis swaps in all currencies • NDFs in all currencies	Product scope expanded to cover all OTC derivatives in all five asset classes (interest rate, FX, credit, commodity, equity).
To whom should the reporting be done?	Only to the HKTR, which is a system established by the HKMA for collecting and maintaining trade information. No substituted compliance: if a reportable transaction is reported to a trade repository outside Hong Kong, it is still necessary to report the transaction to HKTR.	Same as for Phase 1.
What information should be reported?	Reportable information includes information about the product class, product type, counterparty particulars, trade identifiers and information about subsequent events.	Expanded transaction information for each reportable transaction, including valuation and other trade details.
Time limit for reporting	T+ 2 business days	Same as for Phase 1.

[(1)] A grace period of six months until 9 January 2016 was applicable for the reporting channel to be set up.
[(2)] A nine-month grace period until 9 April 2016 was applicable to the back-loading of reportable transactions that were outstanding as of 10 July 2015 and also for those entered into between 10 July 2015 and 9 January 2016.
[(3)] Before the legal framework took effect, interim reporting requirements, which came into effect on 5 August 2013, subjected Licensed Banks ("LBs") to report to the TR certain OTC derivatives transactions to which both counterparties were LBs.
[(4)] A three-month grace period until 30 September 2017 was applicable for backloading outstanding transactions as at 1 July 2017.

Nexus transactions: Prescribed persons that are incorporated in Hong Kong must report all OTC derivatives transactions that they carry out. This is the same for LCs incorporated outside Hong Kong. However, for AIs that are incorporated outside Hong Kong, they have to report only those transactions that they book in their Hong Kong branch. In addition, for prescribed persons (whether or not incorporated in Hong Kong), deals that are "conducted in Hong Kong" are reportable. This latter term refers to cases where:

- the transaction is either conducted by a prescribed person on behalf of its affiliate and booked to that affiliate, or is conducted by the Hong Kong branch of an overseas-incorporated AI on behalf of its head office or a branch outside Hong Kong and booked to that branch/head office (including in a global book); and
- one of the individuals who made the decision to enter into the transaction acted in his capacity as trader and was employed to perform his duties predominantly in Hong Kong.

This additional nexus criterion is a way to capture transactions that have a strong link to the Hong Kong market but which are not booked by entities incorporated in Hong Kong. Compared to some other jurisdictions where the reporting obligation is limited to domestic entities, the regime enlarges the scope of the reporting due to the substantial presence of foreign entities whose OTC derivatives activities are largely booked overseas but who have been predominantly using Hong Kong as a trading and sales centre.

Exemptions: A number of exceptions and exemptions apply with regard to the reporting obligation, in particular for government and public bodies, as well as certain AIs, AMBs and LCs that are not active participants in the OTC derivatives market[34] and do not conduct any OTC derivatives transactions on behalf of affiliates.

Unlike in some other jurisdictions, the reporting obligation does not apply to fund managers[35] and non-financial corporations (NFCs). The Hong Kong authorities consider that these entities generally face prescribed persons (which are subject to the reporting obligation) as counterparties to their trades, and that the double-sided reporting enables at least one side of these trades to be captured.

Masking of counterparties in trade reports: Under the reporting rules, "masking" of counterparty identifiers (i.e. redaction and/or replacement with a code that does not convey the counterparty identity to the recipient) is currently accommodated if the reportable transaction involves the submission of counterparty identity information which is prohibited by laws, or by an authority or regulatory organisation, in a jurisdiction which has been designated for this purpose by the SFC.[36] The rules provide that if the barrier has been removed in a designated jurisdiction, the masking relief can no longer be relied upon for new transaction.

Previously, there was masking relief for certain trades entered into prior to 10 January 2016, as a transitional measure to facilitate compliance in cases where ready customer consent was not available at the outset of the regulation.

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[34] The condition (under Phase 2) is that the sum of notional amounts of all outstanding OTC derivatives does not exceed USD 30 million.

[35] A fund manager which is an LC would be required to report transactions entered into on its own account, but these are very rare; almost all derivatives trades are done on behalf of underlying funds, which are not reporting entities.

[36] The 18 jurisdictions designated by the SFC for the purposes of the masking relief are the following: Algeria, Argentina, Austria, Bahrain, Belgium, China, France, Hungary, India, Indonesia, Israel, Luxembourg, Pakistan, Samoa, Singapore, South Korea, Switzerland and Taiwan. See http://www.sfc.hk/web/EN/files/SOM/OTC/Frequently%20Asked%20Questions150710.pdf.

Based on outstanding positions as of 15 September 2017, the percentage of trades for products reportable in Phase 1 with masked counterparties was 1.53% (trade count) or 0.58% (gross notional). The percentage of masked counterparties as a proportion of all the counterparties in the HKTR was around 20%.

To meet the committed deadline by FSB members to address legal barriers to full trade reporting, the Hong Kong authorities report that they plan to: (i) review regularly and remove jurisdictions from the list of jurisdictions for the purposes of the masking relief once changes in their domestic law which had prevented the disclosure of counterparty particulars are made; and (ii) discontinue the transitional masking relief by the agreed timeline, subject to completion of the necessary legislative procedure.[37]

Hong Kong Trade Repository: In December 2010, the HKMA announced its intention to set up the HKTR, which started operations in August 2013. The HKTR is owned by the HKMA and operated by a subsidiary on behalf of the HKMA, namely Hong Kong FMI Services Ltd (HKFMI) (see Annex 3 for details). The Hong Kong authorities consider that a unique and local TR benefits the industry by easing the regulatory burden of reporting entities and facilitating compliance with regulatory requirements; and that it also benefits regulators by helping them to effectively access trade data information, control the data quality and cope with future developments and evolving regulations.

Access to TR data: Under the regulatory regime, legal gateways have been established to share TR data with local and foreign authorities. The HKMA has direct legal and operational access to data in the HKTR as it is operated by the HKMA. The SFC is entitled by the SFO to have direct access to certain HKTR data, in order to fulfil its responsibility and mandate, namely that reported by LCs and transactions relating to equity derivatives and credit derivatives. Domestic authorities that need to access TR data under their mandates are entitled to submit requests to the HKMA, which may grant them access to the data after due process and procedure. SFC has requested, and has received, TR data from HKMA under this additional disclosure channel.

An MoU between the SFC and the European Securities and Markets Authority (ESMA) was signed in November 2015 for indirect mutual access and sharing of TR data. Pursuant to this MoU, the SFC has requested information from ESMA in relation to HKD-denominated IRS and equity derivatives with Hong Kong-listed underlying shares. The HKMA is in the process of discussion with authorities in the European Union (EU), and potentially other authorities, for mutual direct access to TR data. No request from foreign authorities to access data from the HKTR has been received to date.

Implementation challenges: The difficulties experienced by the authorities in the design and implementation of the reporting concern mainly the quality and completeness of the HKTR data, which have required the development of a number of processes and the adjustment of reporting practices. The HKMA places great emphasis on data quality and has implemented

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[37] See the *FSB members' plans to address legal barriers to reporting and accessing OTC derivatives trade data: Progress report* (June 2017, http://www.fsb.org/2017/06/fsb-members-plans-to-address-legal-barriers-to-reporting-and-accessing-otc-derivatives-trade-data-progress-report/). The response of the Hong Kong authorities on this issue can be accessed at http://www.fsb.org/wp-content/uploads/Hong-Kong-2017.pdf.

various procedures to clean the data (see Annex 3). In addition, the HKMA notes the absence of established practices at the international level on how to use the data.

Some of the main challenges cited by market participants in the implementation of reporting requirements were the need to build ad-hoc channels and to connect to a new infrastructure (HKTR); the identification of the transactions to be reported under the nexus criteria; obtaining consent from their clients to report, given the complexity of data sharing and privacy rules in the region; and the HKTR's emphasis on data quality, which generates a significant amount of exceptions and manual work for reporting entities. However, market participants acknowledge the open dialogue with the HKTR, as well as the guidance provided by the HKMA and the SFC through guidelines and instructions during the implementation process.

Trade reporting identifiers: When reporting the identity of the trade counterparties to an OTC derivative transaction, reporting entities are required to follow a "waterfall" for identifiers. The global Legal Entity Identifier (LEI)[38] is the first priority code allowed by HKTR system, which also supports five other identifiers to indicate the identity of the trade party.[39] According to the authorities, a growing number of participants with an LEI is registered with the HKTR.

The HKMA continues to participate in international working groups and forums (e.g. the Committee on Payments and Market Infrastructures (CPMI)-IOSCO Data Harmonisation Working Group) on reporting standards for TRs to keep abreast of relevant developments. The Hong Kong authorities have also confirmed their intention to follow CPMI-IOSCO technical guidance[40] regarding the use of the Unique Transaction Identifier (UTI) and the Unique Product Identifier (UPI), but no plan for introducing this requirement has been publicly announced yet. The HKMA is currently in discussions with other jurisdictions in the region (such as Australia and Singapore) on a coordinated approach to introducing these identifiers.

Uses of TR data: So far the HKMA has used TR data predominantly for market surveillance and financial stability analysis. The HKMA has a dedicated statistical unit that analyses TR data and circulates both regular and ad hoc reports to other parts of the HKMA, especially to the risk team that uses regular statistics for macroprudential analysis. In addition, ad hoc analysis on topical issues has been done, including: (a) interconnectedness of Hong Kong entities to key nodes in the market or to entities in certain jurisdictions; (b) market behaviour around certain events; (c) booking models and flow of derivatives between intragroup entities; and (d) checking whether certain entities might be under-reporting. The HKMA published an

[38] The LEI is a 20-character, alpha-numeric code, to uniquely identify legally distinct entities that engage in financial transactions globally. See https://www.leiroc.org/.

[39] These are: (1) TR member code; (2) SWIFT Business Identifier Code; (3) Number of the Certificate of Incorporation (for locally incorporated companies) or Certificate of Registration (for companies incorporated overseas); (4) Business Registration Number (BRN) issued by the Inland Revenue Department of Hong Kong; and (5) Internal Customer ID.

[40] Two reports were issued respectively in February and September 2017 by CPMI-IOSCO to provide guidance to authorities about the harmonisation of the UTI and the UPI and to enable them to set rules for using these two key identifiers. See http://www.bis.org/cpmi/publ/d158.pdf and http://www.bis.org/cpmi/publ/d169.pdf.

article in June 2015 in its Quarterly Bulletin on a *First analysis of derivatives data in the HKTR*,[41] while another article is under preparation for future publication.

For its part, the SFC uses TR data primarily for policy design purposes to date. For example, when designing the thresholds for the clearing rule, the SFC relied on TR data, including for all reporting entities (not just LCs) in a particular reference month. The SFC can also request data for all asset classes (and not just equity and credit derivatives) from the HKMA in order to assist with its supervision of investment funds.

Public disclosure of data: The HKTR publishes aggregated statistics on outstanding positions and turnover, with breakdowns by products, clearing intention, currencies and residual maturity.[42] The data is published monthly, with a delay of around two weeks to allow for data cleansing and calculations. At present, these reports were limited to Phase 1 reportable products, and no timetable had been established for broadening these reports to all OTC derivatives products. No pricing or price level information is disclosed.[43] In this regard, the authorities stated that they are looking into how best to provide transparency on pricing or price level information, including via requirements under the trading obligation (when it is implemented) or other suitable method.

Central clearing requirements

The mandatory clearing regime has been in place since September 2016 and relevant OTC derivatives transactions meeting the criteria were subject to mandatory clearing in accordance with the Clearing Rules from 1 July 2017 onwards.

Scope of products: This so-called "phase 1 clearing" regime requires the mandatory clearing of certain standardised OTC interest rate derivatives denominated in Hong Kong Dollar (HKD) or one of the G4 currencies (EUR, GBP, JPY or USD), and related record-keeping obligations, and designates certain CCPs for the purpose of mandatory clearing. The transactions specified in the Clearing Rules are certain basis swaps and fixed-to-floating swaps denominated in any of these five currencies, and certain overnight index swaps denominated in USD, EUR or GBP.

The Hong Kong authorities estimate that, as of end-September 2017, around 43% of the total notional outstanding of OTC interest rate swaps was centrally cleared, while the corresponding ratio for NDFs was 25%. In terms of the proportion of these products that was reported as intended to be cleared, the respective figures were 54% and 27% respectively (Chart 2).

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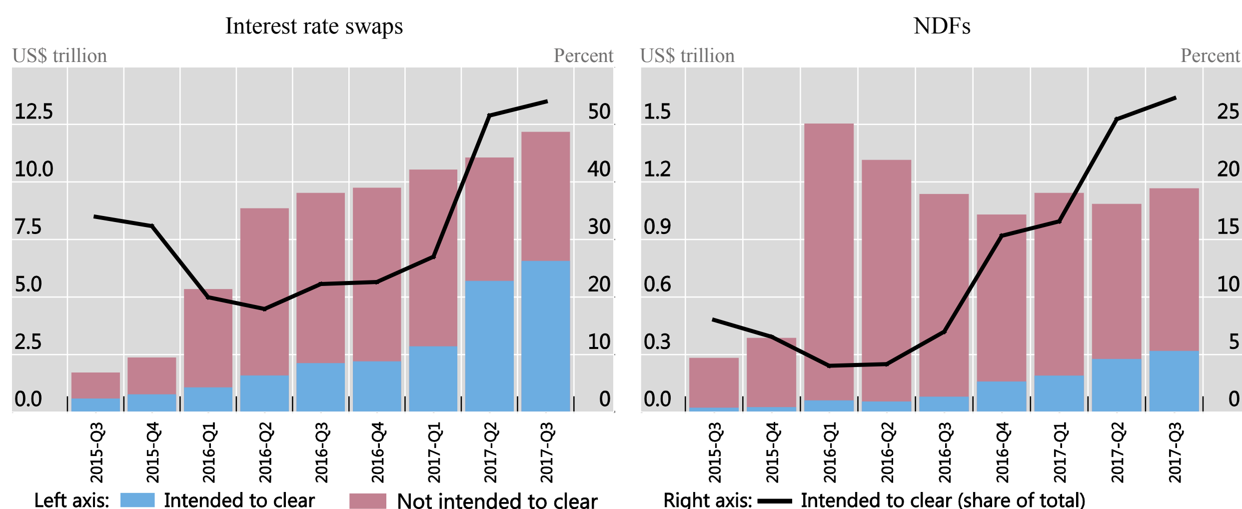
[41] See http://www.hkma.gov.hk/media/eng/publication-and-research/quarterly-bulletin/qb201506/fa.pdf.

[42] See https://hktr.hkma.gov.hk/ContentDetail.aspx?pageName=Data-Disclosure.

[43] Principle 24 (Disclosure of market data by trade repositories) of the CPMI-IOSCO *Principles for Financial Market Infrastructures* (PFMI) states that TRs should provide timely and accurate data to relevant authorities and the public in line with their respective needs. CPMI-IOSCO found that the HK requirements were consistent with this Principle – see page 111 of the *Implementation monitoring of PFMI: Level 2 assessment report for Hong Kong SAR* (May 2017, available at http://www.bis.org/cpmi/publ/d159.htm).

Chart 2: Notional outstanding by intention to clear



Source: HKMA, HKTR public data disclosures (see https://hktr.hkma.gov.hk/ContentDetail.aspx?pageName=Data-Disclosure).
Note: The term "intended to clear" flags the intention to clear a trade rather than the fact that the trade has indeed been cleared. The actual central clearing rates for the outstanding gross notional of IRS and NDF as of end-September 2017 were 43% and 25% respectively.

Scope of clearing entities: According to the Clearing Rules, the mandatory clearing requirement under phase 1 applies to: (a) transactions between prescribed persons who reach a certain threshold,[44] which can be AIs, AMBs or LCs; and (b) transactions between those prescribed persons and non-Hong Kong based dealers, which are referred to as "financial service providers" and designated by the regulators on the basis of their global systemically important bank (G-SIBs) status and participation in the largest CCPs clearing IRS in the US, Europe and Japan.[45] The objective of including the second type of transactions is to capture the risk posed to the financial system through transactions booked outside of Hong Kong by non-domestic counterparties. As a result of phase 1 rules, only interdealer transactions are subject to mandatory clearing requirements, and non-financial entities (end-users) are currently not covered as they are neither prescribed persons nor financial services providers.

According to the Hong Kong authorities, the list of financial service providers is currently being reviewed. The expected changes will mainly affect the CCP membership criterion, which was originally taken as a measure to avoid front-running the EU requirements and has arguably

[44] Prescribed persons become subject to the clearing obligation only if their average local (i.e. booked in Hong Kong) positions in OTC derivatives (excluding deliverable FX forwards and swaps) during a three-month calculation period exceeds the clearing threshold of USD 20 billion gross notional outstanding specified in Schedule 2 of the Clearing Rules. No threshold exists for financial service providers; however, in case of a transaction between a prescribed person and a financial service provider, the clearing obligation only rests with the prescribed person.

[45] The current list of financial services providers includes entities that are: (i) clearing members of the largest IRS CCPs in the US, Europe, Japan and Hong Kong as of 4 February 2016; and (ii) group companies of G-SIBs and/or dealer groups that undertook to the OTC Derivative Supervisors Group to work collaboratively with CCPs, infrastructure providers and global supervisors to continue to make structural improvements to the global OTC derivatives markets.

become obsolete, as the EU clearing regime now also includes other types of counterparties than CCP members.

Exemptions: There are a number of exceptions and exemptions from the clearing obligation. Exceptions include transactions with domestic and foreign central banks or governments, and international bodies such as the IMF and the BIS, as well as transactions with commercial end-users that use OTC derivatives for hedging purposes. Those transactions do not fall under the scope of phase 1 clearing.

In addition, three types of exemptions exist:

- First, intra-group transactions are exempted from the clearing obligation under certain conditions, as regulators look at transactions within a group as a transfer of risk to be internally managed.
- Second, an overseas jurisdiction, in which a prescribed person has a presence (i.e. transactions of a local person's overseas branches), can be exempted if the volume does not exceed 5%, (and together with other exempt jurisdictions, 10% of the total derivative position of the person), and is thus considered relatively insignificant.
- Third, transactions resulting from multilateral portfolio compression are exempted if the original transactions have not themselves been subject to the clearing obligation.[46]

Deference: The Hong Kong rules include a substituted compliance regime, so that any transaction cleared through a Hong Kong designated CCP[47] in accordance with the rules of a listed comparable jurisdiction[48] does not need to be cleared in accordance with the Hong Kong rules. However a "stricter rule" approach applies, which means that if a transaction is not subject to or exempted from mandatory clearing under the rules of that comparable jurisdiction, the substituted compliance will not be available and the transaction will have to be centrally cleared in accordance with the Hong Kong rules.

So far, the SFC has designated one local (OTC Clearing Hong Kong Limited)[49] and three foreign CCPs (CME Inc., Japan Securities Clearing Corporation and LCH Limited) for the purpose of mandatory clearing. The authorities have not received any applications for designation from other overseas CCPs, but they intend to assess the suitability of any such application in accordance with the designation rules.[50] With regard to foreign designated CCPs,

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[46] See also table L of the FSB *OTC Derivatives Market Reforms: Twelfth Progress Report on Implementation* (ibid).

[47] With the consent of the HKMA and after consultation with the Financial Secretary, the SFC can designate recognised clearing houses (and providers of automated trading services) as CCPs for the purpose of the clearing obligation.

[48] This includes currently Australia, Brazil, Canada, the EU, Japan, Singapore, Switzerland and the US.

[49] OTC Clearing Hong Kong Limited (OTC Clear) offers clearing of certain types of OTC FX and interest rate derivatives. It has clearing members in the EU, China, Hong Kong, Australia and the US. Besides being a designated CCP in Hong Kong, OTC Clear obtained exemption from registration as a derivatives clearing organisation from the US Commodities and Futures Trading Commission. It is also recognised as a third country CCP by ESMA and as a prescribed facility for meeting mandatory clearing requirements in Australia.

[50] For more details, see the designation rules under http://www.sfc.hk/web/EN/files/SOM/OTC/OTC%20-%20Clearing%20(LN28%20of%202016)%20-%20EN.pdf.

the SFC expects to have a cooperation agreement with the home regulator of the foreign CCP in place to facilitate cooperation and the exchange of information for oversight of those CCPs.

Possible phase 2 of mandatory clearing: In consultation with the market, the Hong Kong authorities decided to initially mandate central clearing only for interdealer transactions since, as previously noted, the major dealers dominate the OTC derivatives market and very often transact with each other. The authorities have not yet decided on the scope of subsequent phases of their mandatory clearing regime but plan to review it in terms of transactions and counterparties in early 2018, based on the results of phase 1 clearing, the incoming stream of phase 2 trade reporting data, and international developments with respect to the availability of client clearing service providers.

In terms of client clearing, the Hong Kong authorities cite some concern among market participants over the availability of client clearing service providers and the costs associated with offering these services. The authorities note, however, that they intend to observe developments in this area in order to decide the right timing for expanding the scope of counterparties in the direction of clients of clearing members and dealers.

In terms of product types, the authorities note that Hong Kong's clearing determination process takes into account the following factors:[51]

- whether the product is standardised enough for central clearing;
- whether there are fair, reliable and generally acceptable pricing sources for the product;
- the nature, depth and liquidity of the market for the product;
- the level of systemic risk posed by the product;
- the impact to the market and market participants of subjecting the product to central clearing;
- whether the product is subject to mandatory clearing in other jurisdictions; and
- whether any Hong Kong authorised CCP provides services for clearing the product.

If the review results indicate that there should be changes to the existing mandatory clearing regime, the Hong Kong authorities plan to consult the market in 2018 and, subject to completion of the legislative process, implement the new phase in late 2018 or early 2019.

Exchange and electronic platform trading

The SFO gives the SFC the power to impose mandatory trading requirements in respect of OTC derivatives transactions, and to designate trading platforms for the purpose of mandatory platform trading requirements, with the consent of the HKMA, and after consultation with the Financial Secretary.

[51] See the September 2015 consultation paper on introducing mandatory clearing and expanding mandatory reporting (http://www.sfc.hk/edistributionWeb/gateway/EN/consultation/doc?refNo=15CP4). The HKMA and SFC published a consultation conclusions and further consultation paper in February 2016 (http://www.sfc.hk/edistributionWeb/gateway/EN/consultation/conclusion?refNo=15CP4), which noted the broad support for the clearing determination process and the factors that it embodies. The paper concluded that the authorities would proceed with the process set out in the September 2015 consultation paper.

The timing of implementation of the mandatory platform trading obligation is subject to the results of further study by the authorities to see how best to implement the obligation. This includes analysis of factors such as the level of standardisation and liquidity as well as the availability of trading venues for a certain product. The Hong Kong authorities intend to use TR data in this exercise, in particular to assess the size and depth of liquidity in the local market, when a full set of high-quality data is available from the implementation of the phase 2 reporting regime. They also intend to work together with regulators in Singapore and Australia to coordinate with them on the timing and requirements of the introduction of mandatory trading to the extent possible.

The intention of the authorities is to consult the market in early 2018 on the trading determination. They expect not to be able to implement the trading mandate until after 2018 due to the need for legislative changes to expand the scope of trading platforms that can be designated for the purpose of the trading obligation.

The first focus is on plain vanilla IRS products that have been prescribed for the Hong Kong clearing obligation. Each IRS product (by currency and tenor) will be reviewed to study the depth and breadth of the market. This involves looking at several factors, such as:

- the daily average number of trades for each IRS product over a period of time;
- the daily average number of market participants for each IRS product;
- the types of market participants and whether there are concentration of market participants dominating the trades in that IRS product; and
- a comparison of the level of trading activity of each IRS product during Asian trading hours and outside of Asian trading hours.

Margin requirements for NCCDs

Hong Kong, Singapore and Australia coordinated to implement the final rules for both initial margin (IM) and variation margin (VM) for NCCDs from 1 March 2017 (i.e. with a 6-month delay compared to the BCBS-IOSCO phase 1 deadline), followed by a six-month transitional period, though there were differences in approach. Notably, trades that would otherwise be within scope and entered into during the 6-month transitional period were only required to be subjected to margin in Hong Kong on a best effort basis.

Scope of obligation: On 27 January 2017, the HKMA issued the margin framework[52] that applies to locally and foreign incorporated AIs in respect of derivatives transactions entered into with covered entities.[53] The Hong Kong authorities consider that LC derivatives counterparties (to the extent they are covered entities) are indirectly captured through their transactions with AIs and that OTC derivatives entered into by LCs do not give rise to a

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[52] See the supervisory policy manual (SPM) module CR-G-14 *Non-centrally Cleared OTC Derivatives Transactions – Margin and Other Risk Mitigation Standards* (http://www.hkma.gov.hk/media/eng/doc/key-functions/banking-stability/supervisory-policy-manual/CR-G-14.pdf).

[53] In certain circumstances, the HKMA may require a foreign subsidiary of a locally-incorporated AI to apply the margin requirements, if it transacts in non-centrally cleared derivatives of a significant amount relative to the AI as a whole; and it is not subject to "effective" margin standards in the jurisdiction where it is incorporated.

material contribution to the risk profile of LCs. Nevertheless, the SFC plans to consult publicly in 2018 about a potential margin requirement for LCs.

Covered entities are defined as financial counterparties (FCPs) or as significant non-financial counterparties (SNFCPs).[54] However, the exchange of margin between an AI and an SNFCP is not mandatory if the AI has obtained a declaration from the SNFCP that it predominantly uses NCCDs for hedging purposes.[55]

The margin requirements apply to a wide spectrum of NCCDs, but do not apply to physically-settled FX forwards and swaps or to physically-settled commodity forwards. Transactions based on NCCDs that are single-stock options, equity basket options and equity index options are also not subject to margin requirements until 29 February 2020.[56]

The obligation to exchange VM applies from 1 March 2017, subject to a six-month transitional period. The obligation to exchange IM[57] where both the AI and the covered entity have an average aggregate notional amount[58] of NCCDs exceeding the respective threshold will be phased-in as follows:

Period	Threshold
1 March 2017 to 31 August 2017	HKD 24 trillion
1 September 2017 to 31 August 2018	HKD 18 trillion
1 September 2018 to 31 August 2019	HKD 12 trillion
1 September 2019 to 31 August 2020	HKD 6 trillion
on a permanent basis from 1 September 2020 for each subsequent 12-month period	HKD 60 billion

[54] FCP refers to an entity (whether incorporated in or outside Hong Kong) that has an average aggregate notional amount of non-centrally cleared derivatives exceeding HKD 15 billion (at the group level) and include the following types of financial entities: AIs, money service operators, money lenders, corporations licensed by the SFC, pension schemes, insurance companies, special purpose vehicles, collective investment schemes and private equity funds. SNFCP refers to an entity other than a financial counterparty (whether incorporated in or outside Hong Kong) that has an average aggregate notional amount of non-centrally cleared derivatives exceeding HKD 60 billion (at the group level).

[55] The International Swaps and Derivatives Association (ISDA) Regulatory Margin Self-Disclosure Letter – Hong Kong Supplement, published in December 2016, can help market participants to determine if their trading relationship is subject to regulatory margin requirements in Hong Kong (http://www2.isda.org/functional-areas/wgmr-implementation/isda-regulatory-margin-self-disclosure-letter/).

[56] There is no exemption or delay for equity derivatives in the BCBS-IOSCO *Margin requirements for non-centrally cleared derivatives* (March 2015, http://www.bis.org/bcbs/publ/d317.pdf), although some other jurisdictions have introduced a delayed implementation of the margin requirement for single stock and equity options.

[57] The initial margin amount may be calculated by reference to either a standardised margin schedule ("standardised approach" defined by CR-G-14, which follows the BCBS-IOSCO standard) or a quantitative portfolio margin model ("internal model approach", which should meet the BCBS-IOSCO standard and requires HKMA approval in case it is not an industry-wide standard initial margin model).

[58] The average aggregate notional amount: (i) is calculated as the average of the total gross notional amount of month-end positions of all NCCDs for March, April and May of the respective year; (ii) is calculated on a group level by including all NCCDs of all entities within the group of companies; and (iii) includes all the NCCDs that entities within the group have entered into with each other, counting each of them once.

Transition period: The HKMA introduced a six-month transitional period with regards to the obligation to exchange VM as from 1 March 2017 in view of the level of industry preparedness, progress in the implementation schedules of other markets, and cross-border coordination issues. AIs were expected to use the transitional period to make the necessary preparatory work including legal documentation, ensuring they have the ability to post the required type of collateral and that they had sufficient liquidity for collateral. The HKMA decided to not apply the margin requirements retrospectively to transactions entered into during the transitional period, because of its view of the low benefit this would have brought compared to the legal and operational issues that it would have caused.

Implementation challenges: Similar to other jurisdictions, the main challenge highlighted by market participants in relation to the implementation of margin requirements in Hong Kong was market readiness, including the need to educate clients and to put in place the necessary legal documentation (e.g. Credit Support Annexes) and set up operational processes.

Non-netting jurisdictions: In Hong Kong, margin requirements are not applicable for transactions entered into with a covered entity where there is reasonable doubt as to the enforceability of the netting agreement upon insolvency or bankruptcy of the covered entity. IM is also not required when arrangements for the protection of posted collateral are questionable or not legally enforceable upon default of the covered entity.[59] This topic was discussed at length during the consultation process, and Hong Kong, consistent with the approach taken in Australia, Japan and Singapore, decided not to require the exchange of margin for transactions with non-netting jurisdictions provided certain conditions are met.[60]

It should be noted that several jurisdictions in the region are currently regarded as non-netting, including mainland China. The HKMA monitors derivatives positions of Hong Kong entities vis-à-vis mainland counterparties via various returns and surveys and is currently assessing the merits of introducing a reporting regime with regard to AIs' NCCDs exposure towards non-netting and non-enforceable collateral counterparties.

Risk mitigation standards: Starting from 1 March 2017 (subject to a six-month transitional period), risk mitigation standards apply to an AI with respect to all its outstanding NCCDs with a covered entity (including intragroup transactions), subject to a phase-in schedule (according

[59] The AI should undertake an assessment on the enforceability of the netting agreement supported by a legal opinion or should be able to demonstrate the relevant legal uncertainty associated with the exchange of margin. In absence of margins, the AI should manage and monitor its exposure to the concerned counterparties through regulatory capital requirements, internal risk limits and other appropriate risk mitigation techniques.

[60] The Margin Rules provide that the following conditions have to be met: (a) the AI should have undertaken an assessment on the enforceability of the netting agreement or collateral arrangements which should be supported by a legal opinion, taking into consideration relevant jurisdiction(s) and counterparty type; (b) the AI should be able to demonstrate the relevant legal uncertainty associated with the exchange/segregation of margin; and (c) the AI should put in place appropriate internal limits and risk management policies and procedures, commensurate to its risk appetite, as to monitor and control the risks of relevant exposures. This approach is unlike the one adopted in the EU, where non-netting trades are exempted from margin requirements only up to a threshold. Under EMIR, a counterparty is exempted from exchanging margin with a third-country counterparty on newly executed non-netting trades, but only up to 2.5% of the EU counterparty's existing portfolio with that third-country counterparty, measured in terms of notional.

to size of portfolio held by both the AI and the covered entity) ending on 31 August 2021.[61] These standards, which are based on the IOSCO risk mitigation standards for NCCDs,[62] cover trading relationship documentation, trade confirmation, valuation with counterparties, portfolio reconciliation, portfolio compression, and dispute resolution.

Higher capital requirements for NCCDs

Interim: The HKMA has issued the Banking (Capital) Rules under s97C of the BO that prescribe in detail how the capital adequacy of locally incorporated AIs should be calculated and incorporate Basel III technical guidance. As a consequence, all AIs incorporated in Hong Kong are subject to the BCBS interim higher capital requirements for NCCDs. The requirements are the same for all institutions regardless of the nature of their activities. LCs are subject to different financial resource requirements that depend on the nature of their activities.

Final: As noted above, however, Hong Kong (along with most FSB jurisdictions) is late with respect to implementing the final BCBS standards.[63] With respect to AIs, the HKMA consulted in October 2015 about the implementation of Basel standards relating to counterparty credit risk. Draft rules for the SA-CCR and bank exposures to CCPs are yet to be released. At this stage, the expected implementation date is January 2019: considering the delay in several main jurisdictions, the HKMA consider that it is not appropriate for Hong Kong to front-run and its timeline for implementing the final standard through amendment of the Banking (Capital) Rules will be in line with that of those other jurisdictions.

LCs: Regarding LCs, in July 2017 the SFC concluded the July 2015 consultation on the proposed regulatory capital regime for LCs engaged in OTC derivatives activities. Proposals have been made to subject LCs dealing only in centrally cleared derivatives to lower minimum capital requirements compared to those that deal in non-centrally cleared derivatives. After having consulted again in 2017 on further changes to the capital requirements, the SFC plans to issue draft rule changes for consultation in 2018.

Lessons learned and issues to be addressed

The Hong Kong authorities have put in place a well-defined legal and regulatory framework – in terms of scope, assignment of responsibilities and enforcement – to implement the G20 commitments to reform OTC derivatives markets. Considerable progress has been made in implementing some of the reform areas (trade reporting, central clearing, margin/capital for NCCDs), while work is underway to implement the remaining areas (platform trading) and measures (e.g. margin requirements for LCs). This is evidence of the authorities' strong commitment to international standards, also exemplified by the authorities' contribution to the development (e.g. by participating in international groups such as the Working Group for

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61 See paragraph 2.4.3 of the SPM.

62 See IOSCO's *Risk Mitigation Standards for Non-centrally Cleared OTC Derivatives* (January 2015, https://www.iosco.org/library/pubdocs/pdf/IOSCOPD469.pdf).

63 See the BCBS *Thirteenth progress report on adoption of the Basel regulatory framework* (ibid).

Margin Requirements and the CPMI-IOSCO Data Harmonisation Working Group) and implementation of relevant standards (e.g. the PFMI for CCPs and TRs).[64]

The framework was developed in close coordination between the authorities (FSTB, HKMA and SFC), both through working groups and through two standing bodies (the CFR and FSC), in order to promote a consistent approach for the different categories of market participants. To facilitate the implementation of the reporting, clearing and margining regimes, the HKMA and SFC have consulted widely with market participants during the design and the implementation of the reforms, and have published Frequently Asked Questions, guidelines and manuals.[65] The rollout of the framework was also facilitated by coordination with other regulators in the Asia-Pacific (APAC) region, taking into consideration developments in other major markets (such as the EU and US), even as each jurisdiction designed the reforms with its own nuances. In addition, there is close integration with foreign regulatory regimes for margining and central clearing, notably through the possibility of substituted compliance.

Initial evidence on the effectiveness of Hong Kong's OTC derivatives framework can be found in trade reporting, where the authorities make active use of TR data for market analysis and surveillance purposes, as well as in policy development. Significant resources have been invested to establish the HKTR in Hong Kong, with an emphasis on data quality. Setting up a single public TR is unusual for an advanced economy, but it seems to have resulted in an efficient reporting process with good management of data quality issues and high matching rates, including in comparison with some other double-sided reporting regimes. To address potential conflicts of interest and the cost implications of such a set-up for market participants, the authorities have separated the operation and supervision of the HKTR, and allowed for the possibility to use other TR operators as reporting agents (DTCC, for example, is used as a reporting agent by a number of important global dealers).

Notwithstanding these achievements, as is the case in other countries, further steps can be taken to fully implement OTC derivatives reforms.[66] In addition to continued enhancements in the authorities' resources and expertise, these include adopting a platform trading framework; enhancing the transparency of OTC derivatives transactions; promoting the use of the LEI for trade reporting; and completing the timely implementation of NCCDs reforms for LCs. The adoption of these steps will help bring Hong Kong's implementation of OTC derivatives reforms to par with that of other FSB jurisdictions with sizeable markets, including a few of its regional peers. This is particularly important given the rapid growth in Hong Kong's OTC derivatives market size in recent years – which is expected to continue, given its role as an international financial centre – and the consequent need for the authorities to be adequately prepared to manage this growth in a sound and sustainable manner.

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[64] See CPMI-IOSCO's *Implementation monitoring of PFMI: Level 2 assessment report for Hong Kong SAR* (ibid).

[65] See *Frequently Asked Questions, Guidelines and Manuals* on the SFC's OTC Derivatives Regulatory Regime webpage (http://www.sfc.hk/web/EN/rules-and-standards/otc-derivatives-regulatory-regime/).

[66] One important step already underway is the review of the criteria for financial service providers for mandatory clearing requirements. Given the marked recent increase of OTC derivatives activities by non-locally incorporated banks, including from mainland China, the expansion of that category through the deletion of the CCP membership criterion could help mitigate the risks posed to the financial system from these activities.

Implementation of platform trading: A mandatory trading framework remains to be defined and implemented in Hong Kong. As at end-June 2017, twelve FSB jurisdictions (Australia, EU,[67] Japan, Mexico, Singapore, Switzerland and the US) already had comprehensive[68] public standards or criteria in place for when to impose platform trading requirements and, in the case of six jurisdictions, had imposed such requirements for some product types.[69]

The authorities note the need for further study, drawing on HKTR data, to see how best to implement the trading obligation. They further note that the limited availability of "home grown" trading venues in Hong Kong (compared to, for example, the high number of swap execution facilities and multilateral trading facilities in Europe and the US) is a challenge. They also point to ongoing equivalence discussions with the EU for trading venues under MIFIR, and the need for coordinating the introduction of a trading obligation with regional peers.

Notwithstanding this, the authorities agree with the need to implement the platform trading requirement to fulfil the G20 commitment and promote equivalence with other jurisdictions. This necessitates adoption of a comprehensive framework for determining mandatory platform trading requirements (including criteria for specific products to be executed on exchanges or organised trading platforms) and the tailoring and implementation of a regulatory regime for venues offering trading (including mandatory trading where appropriate) in OTC derivatives. It also entails a regular assessment of OTC derivatives transactions against these criteria and subjecting, where appropriate, classes of transactions to mandatory platform trading by formulating and implementing detailed requirements, as well as monitoring compliance with them.

- ***Recommendation 1: The authorities should tailor and implement a regulatory regime for venues offering trading (including mandatory trading where appropriate) in OTC derivatives, and publish comprehensive standards/criteria for determining when products should be platform traded.***

Transparency of OTC derivatives transactions: The authorities already publish some information on the OTC derivatives market – both in terms of market data by the HKTR and ad hoc analysis by HKMA based on such data. Further improvements to transparency, which is one of the G20 objectives of OTC derivatives reforms, can be achieved in two areas.

First, the disclosure of market data by the HKTR on its website is currently limited to monthly aggregates in the IRS and NDF product types, published with a roughly two-week delay and not including any price information. Such disclosure appears rather limited when compared to

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[67] This refers to the six individual FSB jurisdictions that are member states of the EU – namely, France, Germany, Italy, the Netherlands, Spain, and the United Kingdom.

[68] In accordance with the FSB progress reports on OTC derivatives market reforms, "comprehensive" when applied to standards, criteria or requirements in force in a jurisdiction means that the standards, criteria or requirements apply to over 90% of OTC derivatives transactions as estimated by that jurisdiction, with the exception of with respect to margin requirements where "comprehensive" standards, criteria or requirements in force in a jurisdiction would have to apply to over 90% of transactions covered consistent with the respective BCBS-IOSCO Working Group on Margin Requirements (WGMR) phase in periods.

[69] See table L on page 32 of the FSB's *OTC Derivatives Market Reforms: Twelfth Progress Report on Implementation* (ibid). The EU is due to impose such requirements starting from January 2018 under the MiFID2/MiFIR legislation.

practices in other jurisdictions as far as frequency and content are concerned.[70] Expanding public disclosure of market data could be achieved through means such as: (i) the publication of additional HKTR data, by increasing the scope of products covered, enlarging the type of information published (including pricing, as well as increasing the frequency and reducing the delay applicable to the published data); and/or (ii) the implementation of platform trading with pre- and post-trade transparency requirements. In respect of information on pricing, the authorities note that they are looking at how best to provide transparency on pricing or price level information, including via requirements under the trading obligation when implemented.

Second, under the reporting rules, "masking" of counterparty identifiers in Hong Kong is accommodated if the reportable transaction involves the submission of counterparty identity information which is prohibited by laws, or by an authority or regulatory organisation. Remaining legal barriers in other jurisdictions continue to hinder reporting of complete transaction information to TRs, including in Hong Kong. No jurisdictions have been removed from the list of 18 jurisdictions in respect of which masking relief was granted in 2015 by the SFC. The Hong Kong authorities note that the percentage of trades for products reportable in phase 1 with masked counterparties was low (1.5% by trade count and 0.6% in terms of gross notional as of September 2017), although the percentage of masked counterparties as a proportion of all the counterparties in the HKTR was much higher at around 20%. To meet the deadline for FSB members to discontinue masking by end-2018 once barriers to reporting are removed,[71] the authorities should promote the timely unmasking of counterparties, including (as necessary) by engaging with the industry and with relevant jurisdictions, bilaterally or multilaterally, to identify remaining barriers and seek ways to address them. Where standing consent is sufficient to overcome a barrier to full reporting in a relevant foreign jurisdiction, the authorities should also consider withdrawing concessional treatment for new clients (who can be asked to consent to unmask trades during on-boarding), and for new and existing transactions of ongoing clients (who from time to time can be asked to agree to changed terms and conditions as a condition of continuing to do business).

- ***Recommendation 2**: The authorities should enhance transparency of OTC derivatives transactions by: (a) expanding the scope and timeliness of public disclosure of market data (including volumes and positions); (b) improving transparency on price levels; and (c) accelerating unmasking of counterparties once barriers to reporting are removed, since masking prevents comprehensive reporting.*

Use of the LEI: At the Cannes Summit in November 2011, the G20 Leaders supported the creation of the LEI and called on the FSB to take the lead in helping coordinate work among the regulatory community on the governance framework of the Global LEI System, whose high

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[70] See the post-trade transparency obligations summarised in Table M on page 33 of the FSB's *OTC Derivatives market reforms: Twelfth implementation progress report* (ibid).

[71] The FSB published a thematic peer review of OTC derivative trade reporting in November 2015 (http://www.fsb.org/2015/11/thematic-review-of-otc-derivatives-trade-reporting/), which identified a number of remaining legal barriers in FSB jurisdictions to reporting complete transaction information to TRs and impediments to authorities' access to TR-held data. FSB members have agreed that jurisdictions should address legal barriers to reporting by June 2018, that masking of counterparty-identifying data be discontinued by end-2018, and that by June 2018 at the latest all jurisdictions should have legal frameworks in place to permit access to data held in a domestic trade repository by relevant authorities (whether domestic or foreign).

level principles and recommendations were endorsed at the June 2012 Los Cabos Summit.[72] At that Summit, the G20 Leaders encouraged "global adoption of the LEI to support authorities and market participants in identifying and managing financial risks."[73]

The use of the LEI provides tangible benefits to both authorities and market participants. Over 60 public authorities from more than 40 jurisdictions (including Hong Kong) have committed to support the introduction of the Global LEI System for official or international identification purposes. Several authorities have promulgated recordkeeping and regulatory reporting rules that require counterparties to be identified by LEIs.[74]

At this stage, the reporting regime in Hong Kong allows for the use of the LEI as a counterparty identifier to an OTC derivative transaction, but allows other forms of entity identifiers as well. The authorities note that the uptake is already high in terms of the percentage of outstanding trades reported with an LEI for both counterparties (93% as of September 2017), although only 68% of all HKTR members (and 59% of the Hong Kong-incorporated members) were registered with an LEI and 19% of all Hong Kong-incorporated entities that are counterparties of trades reported to the HKTR were using an LEI.

Notwithstanding this, a more active promotion of LEI use by the Hong Kong authorities would help further increase the rates of LEI usage in the TR dataset. This includes, for example, requiring that all HKTR members have an LEI in due course[75] and encouraging the creation of a Local Operating Unit (LOU)[76] in Hong Kong if necessary. Such steps, given Hong Kong's growing importance as a regional OTC derivatives centre, would also likely increase LEI registrations by APAC region market participants and would dovetail with the need on the part of many of them to acquire an LEI for trading activities with European entities under MIFID II.

- ***Recommendation 3**: The authorities should actively promote the use of the LEI for trade reporting, for example by requiring all HKTR members to have an LEI in due course and by encouraging the creation of a Local Operating Unit in Hong Kong if necessary.*

Reforms for NCCDs: The authorities have begun to implement reforms with regard to NCCDs, but some gaps remain. First, in terms of margin requirements, a framework is already in place for AIs in respect of derivatives transactions entered into with covered entities. This framework should be expanded to LCs as well as to certain types of derivatives not covered under the current rules that are not exempted under the BCBS-IOSCO margin requirements (e.g. physically-settled commodity forwards). The authorities should also consider applying VM

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[72] See the FSB report on *A Global Legal Entity Identifier for Financial Markets* (June 2012, available at http://www.fsb.org/2012/06/fsb-report-global-legal-entity-identifier-for-financial-markets/).

[73] See the June 2012 Los Cabos G20 Summit Declaration (http://www.fsb.org/wp-content/uploads/g20_leaders_declaration_los_cabos_2012.pdf).

[74] See the latest update by the LEI ROC on its activities and on the Global LEI System (https://www.leiroc.org/).

[75] Some other regulators in the region (Singapore and India) have made the use of LEIs mandatory in derivatives trade reporting.

[76] LOUs of the Global LEI System provide the primary interface for entities wishing to register for an LEI; some serve a given country while others offer services to entities worldwide. See https://www.leiroc.org/lei/how.htm and https://www.gleif.org/en/about-lei/how-to-get-an-lei-find-lei-issuing-organizations.

requirements to physically-settled FX forwards and swaps.[77] The authorities consider that LC derivatives counterparties that are significantly active in OTC derivatives are indirectly captured through their transactions with AIs and that OTC derivatives entered into by LCs do not give rise to a material contribution to the risk profile of LCs. Nevertheless, the SFC notes that it plans to consult publicly in 2018 about a potential margin requirement for LCs.

Similarly, in terms of the IOSCO risk mitigation standards – covering trading relationship documentation, trade confirmation, valuation with counterparties, portfolio reconciliation, portfolio compression and dispute resolution – the current framework only applies to AIs. In order to promote robust standards and avoid regulatory arbitrage, the framework should also be extended to LCs. The SFC published a consultation paper on risk mitigation requirements in December 2017.[78]

Finally, in terms of higher capital requirements for NCCDs, Hong Kong (along with most FSB jurisdictions) has adopted the interim higher capital requirements for NCCDs, but is late with respect to implementing the final BCBS standards. Both the HKMA and the SFC have consulted with the industry about a revised regulatory capital regime (for AIs and LCs respectively) for NCCDs, and are considering the implementation timelines in light of developments in other jurisdictions. The authorities should proceed to finalise these reforms in a timely manner, consistent with their G20 commitments and the importance of maintaining the momentum in implementing these reforms.

- ***Recommendation 4*: The authorities should complete the timely implementation of margin requirements, risk mitigation standards and higher capital requirements for NCCDs.**

3. Framework for resolution of financial institutions

Background

The FSAP noted that the resolution regime in Hong Kong did not feature many of the powers in the FSB *Key Attributes of Effective Resolution Regimes for Financial Institutions* (*Key Attributes*, KAs)[79] and called on the authorities to continue efforts to develop a comprehensive resolution regime in line with emerging international good practices. It also recommended that recovery and resolution plans should be developed for each FMI in Hong Kong.

The FSAP also concluded that the deposit protection scheme in Hong Kong was transparent and trusted, but noted that the target size of the fund and the level of normal premiums was relatively limited. Accordingly, it recommended that the authorities review the scheme's modalities to assess whether the deposit protection fund has the appropriate resources to meet its objectives without undue reliance on the Exchange Fund.

[77] See requirement 1.1 of the BCBS-IOSCO *Margin requirements for non-centrally cleared derivatives* (ibid).

[78] See https://www.sfc.hk/edistributionWeb/gateway/EN/news-and-announcements/news/doc?refNo=17PR154.

[79] See http://www.fsb.org/2014/10/r_141015/.

Following public consultations, Hong Kong enacted legislation (the "Financial Institutions (Resolution) Ordinance", hereafter referred to as FIRO) in June 2016 to establish a resolution regime for systemic financial institutions.[80] The FIRO[81] came into force on 7 July 2017. This section examines the new resolution framework and its implementation in Hong Kong. In line with the cross-sectoral scope of the FIRO, this includes the application of the resolution regime to non-bank financial institutions, in particular insurance companies and FMIs. Drawing on the *Key Attributes* and supporting implementation guidance,[82] it examines the objectives, scope and functioning of the framework in order to identify any potential gaps and lessons of experience.

Steps taken and actions planned

Legal framework for resolution: Before the enactment of the FIRO, the HKMA had (and continues to have) certain supervisory powers to intervene in failing banks and other authorized institutions. These include powers to give directions and appoint a manager to operate the institution and manage and control its assets. However, as noted in the FSAP and in the FSB's 2016 resolution peer review,[83] such powers do not constitute a comprehensive resolution framework as set out in the *Key Attributes*. The FIRO and associated legislative measures establish a substantially more comprehensive resolution regime.

The *Key Attributes* require the scope of the resolution regime to cover any financial institution "that could be systemically important or critical if it fails." As set out in Box 2, the scope of the FIRO encompasses all financial institutions of a certain type (e.g. all banks and CCPs), whilst initially limiting the FIRO's coverage of other types of institutions (e.g. insurers, securities firms) to those that have been designated as globally systemic or that form part of a G-SIFI group.[84] This reflects the view of the authorities, based on past experiences and on the current profile of certain insurers and securities firms in Hong Kong, that the failure of such institutions is unlikely to pose a systemic risk to the domestic financial system. In addition, the framework permits Hong Kong's Financial Secretary (FS) to designate any financial institution as within scope of the regime on financial stability grounds, e.g. if its activities are such that it could be systemically important or critical in failure. This 'reserve' designation power aims to

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[80] See http://www.hkma.gov.hk/eng/key-functions/banking-stability/resolution.shtml.

[81] The main provisions of the FIRO commenced on 7 July 2017, while Part 8 (sections 144 to 148 relating to the clawback of remuneration) and section 192 (relating to the deferral of the presentation of a winding up petition) will commence on a later date once relevant rules have been made.

[82] The guidance falls into two categories: (i) general guidance on the implementation of the *Key Attributes*; and (ii) sector-specific guidance. The sector-specific guidance sets out how the *Key Attributes* should be understood in a sector-specific context. For a list of the relevant guidance, see http://www.fsb.org/what-we-do/policy-development/effective-resolution-regimes-and-policies/understanding-the-key-attributes/.

[83] See the FSB's *Second Thematic Review on Resolution Regimes* (March 2016, available at http://www.fsb.org/2016/03/second-thematic-review-on-resolution-regimes/).

[84] Failing financial institutions that are outside of the scope of the FIRO, or that are not resolved under the FIRO, would enter into ordinary insolvency proceedings and/or be subject to the application of supervisory powers (e.g. in the Banking Ordinance for banks, the Insurance Ordinance for insurers and the Securities and Futures Ordinance for securities firms, all of which have been retained following the introduction of the FIRO).

'future-proof' the FIRO to the extent possible and accommodate any sudden change in circumstances resulting from innovations in the financial system.

As required by the KAs, the resolution regime also extends to the holding companies and affiliated operational entities of financial institutions within scope of the FIRO, as well as to the domestic branches of foreign financial institutions.

Box 2: Scope and objectives of the Hong Kong resolution framework

HKMA is the resolution authority for:

- all deposit-takers authorised in Hong Kong (including branches of non-Hong Kong institutions);
- all designated clearing/settlement system operators and their settlement institutions, which are not owned and operated by the Government; and
- any financial institution designated by the FS as within scope on financial stability grounds for which the HKMA is identified as the resolution authority.

The SFC is the resolution authority for:

- non-bank, non-insurer securities firms licensed in Hong Kong that are global systemically important entities (NBNI G-SIFI) or are parts of a group that include a NBNI G-SIFI;
- securities firms that are a branch, subsidiary or sister company of a G-SIB or of a global systemically important insurer (G-SII);
- all recognised clearing houses;
- any recognised exchange company designated by the FS on financial stability grounds; and
- any financial institution designated by the FS as within scope on financial stability grounds for which the SFC is identified as the resolution authority.

The IA is the resolution authority for:

- insurers authorised in Hong Kong that are G-SIIs or are members of a group that includes a G-SII; and
- any financial institution designated by the FS as within scope on financial stability grounds for which the IA is identified as the resolution authority.

Each resolution authority must have regard to the following four resolution objectives in performing its resolution functions and must seek to act in a way that is most appropriate to meeting them:

(1) to promote, and seek to maintain, the stability and effective working of the financial system of Hong Kong, including the continued performance of critical financial functions;

(2) to seek to protect deposits or insurance policies of a within scope firm to no less an extent than they would be protected under certain specified protection schemes on a winding up (a "winding-up");

(3) to seek to protect client assets of a within scope firm to no less an extent than they would be protected on a winding-up; and

(4) subject to the objectives above, to seek to contain the costs of resolution and, in so doing, protect public money.

Institutional arrangements: Responsibilities for resolution are divided across sectors, with each of the HKMA, SFC and IA operating as resolution authority with responsibility for resolution planning and execution for the entities for which they act as regulator and supervisor (see Box 2 and Annex 1 respectively on the entities under the scope and the mandates of each authority). Responsibility for pay out of insured depositors in a bank insolvency is the responsibility of the Hong Kong Deposit Protection Board (DPB), which administers Hong Kong's Deposit Protection Scheme (DPS).

For financial groups that operate on a cross-sectoral basis, a lead resolution authority (LRA) may be designated by the FS to lead the planning for and execution of a resolution. Once designated, the LRA is responsible for leading resolution planning and resolution execution for all entities within the relevant cross-sectoral group, with support from the other resolution authorities as necessary. In July 2017, the FS designated the HKMA as the LRA for 25 cross-sectoral groups for which it is one of the resolution authorities for members of the group (all of these groups form part of a G-SIB and operate a securities entity or entities in Hong Kong, for which the SFC is the resolution authority).[85] Several other cross-sectoral groups that form part of a G-SII and which operate a securities entity or entities in Hong Kong have been identified; a designation of the LRA for these groups is expected in 2018. To date, no recognised clearing house or securities exchange within scope of the regime has been identified as forming part of a cross-sectoral group with more than one resolution authority.

As part of their work to operationalise the resolution regime and ensure sufficient operational independence, the resolution authority for each sector has set up, or is in the process of setting up, its resolution capability and supporting regulations, rules and codes of practice.

For the HKMA, this has involved the establishment of a Resolution Office within the HKMA and the appointment of a Commissioner responsible for this office who reports directly to the Chief Executive of the HKMA. The Resolution Office is operationally separate from banking supervision but has access under the information sharing gateways in the BO to requisite supervisory information and regulatory data, including on capital, liquidity and intra-group exposures. The Resolution Office is intended to grow to around 20 staff, split between resolution policy and execution functions.

The IA also plans to establish an independent resolution function separate from the supervisory function. Under the current plans, there will be a firewall between teams handling supervision and resolution, with these teams reporting to separate executive directors. The executive director heading the resolution team will make recommendations to the IA's Chief Executive and Board on whether to initiate resolution.

In the SFC, decisions on resolution are delegated by the Board to the Chief Executive Officer, though the Board retains the right to take them if it chooses and it is intended that the Chairman of the SFC will be consulted ahead of the decisions to be made by the Chief Executive Officer. An internal governance process is in place to ensure that decisions on the escalation of resolution matters are split between the supervision team responsible for the securities firm and a separate team (also within supervision) that will carry out the resolution once initiated. Recommendations on resolution matters would also be informed by an assessment of the effect

[85] See http://www.gld.gov.hk/egazette/pdf/20172127/egn201721274593.pdf.

of failure on the market by the SFC's supervision of markets division. The SFC is taking steps to develop firewalls that could be put in place between staff performing supervision and resolution roles in order to manage potential conflicts of interest. In the case of CCPs and exchanges, the SFC is considering structural arrangements within the supervision division to manage resolution actions and decisions, in particular to ensure that where the team responsible for supervision is involved in recommending resolution actions, there are governance arrangements in place to mitigate the risk of conflicts of interest.

In general, domestic coordination among the authorities has been facilitated through the CFR and the FSC (see Annex 1). The CFR acts primarily as a forum for coordination and information sharing among its members, with the objective of ensuring cross-sectoral collaboration on regulatory and supervisory issues. The FSC deliberates on events, issues and developments with cross-market and systemic implications, though there is no legal requirement for the resolution authorities to consult it prior to taking a resolution action or exercising any power under the FIRO. General crisis management coordination for the financial sector is conducted through the Financial Services Branch Coordination Centre, which is chaired by the FS and which meets on an as needed basis. It has also been used on a biennial basis to facilitate a contingency planning exercise among the relevant authorities.

Under the FIRO, resolution authorities have powers to share information with other resolution authorities, the FS, or Hong Kong's Secretary for Justice and others, provided that one of the information sharing gateways under the FIRO applies (e.g. that the sharing of information is not contrary to Hong Kong's resolution objectives or an orderly resolution). There are also mechanisms to facilitate the sharing of information between the supervisory and resolution authorities in each sector. The authorities state that they are in the process of determining new crisis management arrangements for the failure of a financial institution that are aligned with the responsibilities and requirements under the FIRO. This is likely to involve the development of resolution-specific procedures and processes, such as a crisis management MoU on coordination and information sharing between the relevant authorities during the course of 2018.

Entry into resolution: The process for entry into resolution under the FIRO requires the relevant resolution authority to determine that three conditions (hereafter, "Conditions 1, 2 and 3" respectively) have been met:

1. The financial institution has ceased, or is likely to cease, to be viable (i.e. it is a regulated entity for which removal of its authorisation is warranted due to e.g. contravention of an authorisation criterion, or is an unregulated entity unable to discharge the obligations which it must discharge to effectively carry on its business);
2. There is no reasonable prospect that private sector action (outside of resolution) would result in the financial institution again becoming viable within a reasonable period; and
3. The non-viability of the financial institution poses risks to the stability and effective working of the financial system of Hong Kong, including to the continued performance of 'critical financial functions' (i.e. functions whose discontinuation would disrupt services that are essential to the economy, undermine general confidence in the Hong Kong financial market, or give rise to contagion within the financial system of Hong Kong), and resolution under FIRO will avoid or mitigate those risks.

Entry into resolution of a financial holding company requires, in addition to the three conditions above being met in respect of the relevant subsidiary, an assessment that the resolution objectives can be more effectively achieved by resolving the holding company. If the holding company is not a financial holding company, the resolution authority must also be satisfied that resolution of that entity is necessary to meet the resolution objectives set out in the FIRO. The resolution of an operational entity can be initiated if: (i) Conditions 1, 2 and 3 have been met for the financial institution of which it is an affiliate; (ii) its services are essential to the continued performance of critical financial functions in Hong Kong; and (iii) orderly resolution cannot be achieved without resolving the operational entity.

In each case, the process for entry into resolution requires the resolution authority to consult the FS and liaise with, as appropriate, the relevant supervisor of the financial institution.[86] It must also, prior to initiation of resolution, serve a letter on the entity indicating mindedness to initiate resolution and allowing for representations to be made by the entity's directors. No timeline for this period of representation is specified in the FIRO, though the urgency with which the resolution authority may need to act is identified as a consideration. The authorities expect that the delivery of the letter and the period for representation could be achieved in a timeline that would not compromise the effective implementation of resolution measures, particularly since there would in any case likely be close coordination with the financial institution in the run-up to resolution. There is flexibility under the FIRO to impose confidentiality obligations regarding delivery of the letter, e.g. in relation to onward disclosure.

Where a lead resolution authority has been designated for a cross-sectoral group, it determines all the conditions for entry into resolution (even where the failure is caused by a group company for which another resolution authority is responsible). The lead resolution authority can direct another resolution authority to perform its resolution functions, or can act to perform any function of that resolution authority. The authorities have yet to finalise decision-making frameworks for assessing how such coordination should work for a cross-sectoral group and are considering the development of guidance or codes of practice to provide further detail.

The HKMA has developed internal arrangements on the application of Conditions 1, 2 and 3. The decision on whether to initiate resolution lies with the Chief Executive of the HKMA as the Monetary Authority and would be informed by a recommendation submitted by the Deputy Chief Executive of the HKMA responsible for banking supervision and policy in relation to Condition 1 and by recommendations from the Senior Executive Director of the HKMA responsible for monetary management, financial stability surveillance and financial infrastructure in respect of Conditions 2 and 3. The HKMA's Resolution Office owns the framework for recommending the initiation of resolution and is responsible for coordinating the preparation and distribution of these recommendations. Its support may also involve recommendations and analysis to the Chief Executive of the HKMA, but a direct recommendation from the Resolution Office on Conditions 1, 2 and 3 is not a requirement.

***Resolution tools*:** The FIRO provides the following five stabilization options that can be used individually, in combination, or sequentially:

[86] In the case of a multi-sector group, the resolution authority would in practice consult the other supervisory authorities of the entities within the group.

(1) transfer of securities or of assets, rights, and obligations to a purchaser;

(2) transfer of securities or assets, rights, and obligations to a bridge institution wholly or partially owned by the Government;

(3) transfer of assets, rights, and obligations to an asset management vehicle (AMV) wholly or partially owned by the Government;

(4) bail-in of liabilities (see Box 3 for details), having regard to the creditor hierarchy in a winding-up; and

(5) transfer of securities to a temporary public ownership (TPO) company wholly owned by the Government.

Box 3: Use of the bail-in tool and loss-absorbing capacity

Scope and application of bail-in: A bail-in takes effect through a legal instrument that can cancel or modify the form of any liability of the firm other than certain excluded liabilities. The mandatory set of excluded liabilities include:

(i) liabilities to the extent that they are secured;

(ii) liabilities arising from participation in designated clearing and settlement systems or in the services provided by recognised Hong Kong clearing houses (not foreign CCPs);

(iii) a range of preferred liabilities under insolvency law;

(iv) liabilities owed in relation to protected deposits and to claims under certain forms of mandatory insurance; and

(v) liabilities owed to a creditor arising from the provision of goods and services (other than financial services) that are critical to the daily functioning of the firm's operations.

Discretionary exclusions from bail-in may apply to any liabilities that it is not reasonably possible to bail-in within a reasonable time or the bail-in of which would increase the losses to other creditors or where exclusion is deemed to be necessary and proportionate to meet the resolution objectives.

When exercising this discretion to exclude liabilities from bail-in, the resolution authority must have regard to the general principle that the creditor hierarchy in a winding-up should be respected and that there should be equal (pari passu) treatment of creditors within the same class.

Regarding loss-absorbing capacity (LAC), the HKMA has noted that "for the bail-in power to be effective in practice, it is necessary to ensure a financial institution in resolution has a sufficient stock of liabilities that can be readily bailed in."[87] The FIRO explicitly provides for resolution authorities to make rules setting out LAC requirements for certain financial institutions or their group companies, and the HKMA published for consultation a policy proposal on LAC requirements for AIs in January 2018.[88] The consultation paper addresses the calibration of minimum LAC requirements, the eligibility of LAC instruments as well as the distribution of LAC within groups, including for G-SIBs with material subsidiaries in Hong Kong that are required to hold internal TLAC under the FSB's TLAC standard.[89]

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[87] See the HKMA's September 2017 Quarterly Bulletin (http://www.hkma.gov.hk/media/eng/publication-and-research/quarterly-bulletin/qb201709/fa2.pdf).

[88] See http://www.hkma.gov.hk/eng/key-information/press-releases/2018/20180117-4.shtml.

[89] See the FSB's *Total Loss-absorbing Capacity (TLAC) Principles and Term Sheet* (November 2015, http://www.fsb.org/2015/11/total-loss-absorbing-capacity-tlac-principles-and-term-sheet/).

All resolution tools can be exercised without creditor or shareholder consent. TPO is a 'last resort' tool that can be used only if having considered all other stabilization options, orderly resolution is most appropriately achieved by the TPO option and with the approval of the FS.

The FIRO includes a range of additional tools designed to maintain the continuity of financial and operational arrangements and thereby support the effective use of the above stabilization options. These include powers to:

- direct continued performance by a financial institution or affiliated operational entity of essential services on reasonable commercial terms for as long as is reasonably required;
- temporarily suspend payment and delivery obligations owed by a financial institution or its subsidiary (subject to certain exemptions including obligations between CCPs and their members). The suspension may last until the end of the first business day after the day that the instrument providing for the suspension is published;
- permanently override the ability of a counterparty to use entry into resolution as an event of default as long as the substantive obligations under the contract continue to be performed; and
- temporarily stay a termination right (other than in relation to a FMI) that has become exercisable. The stay may last until the end of the first business day after the day that the instrument providing for the stay is published.

The FIRO also includes specific resolution tools in relation to particular sectors. For banks, this includes the right to make a capital reduction instrument to write-down or convert additional tier 1 and tier 2 capital instruments to the extent not already done so under the point of non-viability provisions of the instrument. For insurers, consistent with the additional powers required under the *Key Attributes*,[90] the IA has powers under the FIRO and the Insurance Ordinance to:

- transfer insurance and reinsurance associated with insurance portfolios without policyholders consent;
- require an insurer not to write new contracts and to conduct a run off of existing insurance;
- bail-in or restructure insurance contracts (subject to exceptions for policyholders' claims covered by certain protection schemes); and
- suspend any right to withdraw or cancel an insurance contract or to terminate reinsurance after initiation of resolution.

These powers can be exercised without requirements for policyholder consent. In relation to FMIs, the SFC has powers to require the FMI to enforce existing contractual obligations and tear-up, close-out or port contracts. The resolution authority can also bail-in liabilities, but not those arising from participation in designated clearing and settlement systems. In the case of

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[90] See II-Annex 1 of the *Key Attributes* on the resolution of insurers.

clearing houses, this would exclude initial margin from bail-in but not variation margin gains, if the latter forms one of the recovery tools of the clearing house.

***Role of the court and safeguards*:** The FIRO contains a "no creditor worse off than in liquidation" (NCWOL) provision under which shareholders and creditors are entitled to compensation if their treatment under a resolution is worse than they would have received if the financial institution had instead been wound up under insolvency laws. The resolution authority may make payments from a resolution funding account (see below) for any necessary NCWOL compensation. The amount of any such compensation would be determined by a valuation conducted by an independent valuer chosen by a third party "appointing person" that is in turn appointed by the FS. The valuation is undertaken based on a set of assumptions and principles set out in the FIRO, as well as any regulation to be made in this connection. These include the need to disregard the effect of resolution tools or of existing or future public assistance, and to adhere to the same creditor hierarchy as in a winding-up.

The FIRO also provides for the establishment of a Resolution Compensation Tribunal (RCT) that may review a valuer's decision following a complaint by a creditor, shareholder, or resolution authority, but may only vary or set aside a decision if the RCT concludes the valuer's decision is fundamentally flawed or that the valuer did not reasonably and competently apply the required assumptions and principles. The RCT also may revoke a valuer's appointment on grounds of, inter alia, incapacity and serious misconduct. A party dissatisfied with a decision of the RCT may appeal to Hong Kong's Court of Appeal, provided it is regarding a matter of law.

More generally, affected parties are able to challenge the actions of a resolution authority by seeking judicial review. In such a case, the court would in broad terms consider whether the action was illegal (ultra vires), irrational (unreasonable/disproportionate) or subject to procedural impropriety, but would not, absent those factors, seek to substitute its judgement for that of the resolution authority.

***Deposit insurance and resolution funding*:** Hong Kong's DPS has a purely "paybox" mandate, and does not have additional responsibilities, e.g. in relation to resolution. The DPS's current target fund size is 0.25% of the total amount of covered deposits. As a back-up source of funding, the DPB, which administers the DPS, has a standby liquidity facility of HK$120 billion with the Hong Kong Exchange Fund to enable it to make timely payment of compensation to depositors affected by bank failure.[91]

The FSAP recommended that the Hong Kong authorities review the modalities (such as target fund size, normal premium level, and surcharge premiums for replenishment) for ensuring its deposit protection fund has the appropriate resources to meet its objectives without undue reliance on the Exchange Fund. To address this recommendation, the authorities engaged an external consultant to conduct a review of the DPS's modalities in 2014. The review, which compared the DPS to deposit insurance funds in other jurisdictions and reviewed key assumptions including the probability of default, level of protected deposits and the recovery rate and period, concluded that changes to the DPS were not necessary. In particular, the review

[91] The Exchange Fund is a discrete governmental fund; as noted in the FSAP, "while the primary purpose of the Exchange Fund is to maintain currency stability, it also has the legal mandate to provide both liquidity and capital to the banking system to maintain the stability and integrity of the financial system."

found that the potential shortfall loss to be absorbed by the DPS, if compensation payments could not be fully recovered from the liquidated assets of the failed bank, was consistent with the fund's existing size.

In order to fund resolution actions, the FIRO provides for the establishment of a resolution funding account to be used by a resolution authority in preparing for, initiating, or carrying out a resolution. The resolution funding account may be funded at the point of use from public money or any other money under the control of the Government or a public officer (e.g. Exchange Fund or general revenues of the government). The funding account may be used to provide the failed entity (or any bridge institution, asset management vehicle or TPO entity to which certain of its shares or assets have been transferred) with temporary liquidity via a loan, guarantees, or indemnities, or with capital either directly or by underwriting a provision of capital, among other uses. Before using the funds in the resolution funding account, the resolution authority must consider whether the entity's own resources can be utilised, including whether liabilities can be written off or converted, assets sold, or private sector funding obtained. The resolution funding account may also be used by the FS, to pay the fees and expenses of the independent valuer.

Any funds remaining in the account following the completion of the resolution must be re-paid into the public account(s) from which the funds originated. Any shortfall in repayment of any funds provided by the government together with interest payable in relation to the provision of funds may be recouped by an ex post levy on relevant industry sectors, if not recouped from the assets of the failed institution. The details of the ex post levy are to be prescribed in regulations and the authorities intend to issue further guidance on the operation of the resolution funding accounts in due course.

Cross-border cooperation and information sharing: Hong Kong hosts branches and subsidiaries of many global banks and insurers. As such, cooperation and information sharing with foreign authorities is a key aspect of the resolution regime. The FIRO permits the sharing of information with foreign authorities subject to certain safeguards, in particular the existence of adequate secrecy provisions and a determination by the resolution authority that the sharing of information is not contrary to Hong Kong's resolution objectives. The HKMA is currently in the process of developing MoUs with foreign resolution authorities and has begun by assessing the secrecy provisions of the home jurisdictions of G-SIBs for which the HKMA is a crisis management group (CMG) member, as well as the host jurisdictions of its own domestic systemically important banks (D-SIBs).[92]

The HKMA participates in CMGs for 12 G-SIBs and in regional CMGs for three G-SIBs (one of which is led by the HKMA). The HKMA has entered into firm-specific cross-border cooperation agreements (CoAGs) with CMG members for 10 of those G-SIBs; CoAGs with authorities for the remaining two CMGs and other regional fora are under development. The IA participates in the CMG for one G-SII (for which it is the Asian lead regulator) and is party to a CoAG that provides for information sharing between the CMG members. It is not a CMG

[92] Five D-SIBs, four of which are within G-SIB groups, have been identified: The Hongkong and Shanghai Banking Corporation Limited; Bank of China (Hong Kong) Limited; Hang Seng Bank Limited; Standard Chartered Bank (Hong Kong) Limited; and The Bank of East Asia, Limited. See the HKMA's press release on the *Designation of Domestic Systemically Important Authorized Institutions* (30 December 2016, http://www.hkma.gov.hk/eng/key-information/press-releases/2016/20161230-7.shtml).

member for other G-SIIs with operations in Hong Kong, given the small size of these operations relative to the wider group.

Under the FMI Annex of the *Key Attributes*, the establishment of a CMG is required for any clearing house that is determined to be systemically important in more than one jurisdiction. The HKFE Clearing Corporation (HKCC) is one of 12 clearing houses that has been identified by the relevant authorities as systemically important in more than one jurisdiction.[93] The SFC has contacted the relevant authorities regarding the establishment of a CMG or other appropriate arrangements that achieve an equivalent outcome for HKCC.

The FIRO also includes a framework to recognise or support the actions of a foreign resolution authority,[94] subject to safeguards consistent with those in the *Key Attributes*. In particular, a foreign resolution action must not be recognised unless an arrangement exists with the foreign authority under which the eligibility of Hong Kong creditors or shareholders to claim compensation is broadly consistent with their eligibility to claim NCWOL compensation under the FIRO. Recognition must also not be granted where it would adversely impact Hong Kong's financial stability, would not deliver outcomes consistent with Hong Kong's resolution objectives, or would disadvantage Hong Kong creditors or shareholders relative to other creditors or shareholders. Recognition of a foreign resolution action produces substantially the same legal effect in Hong Kong as if it had been made (and been authorised to be made) under domestic laws, and is not conditional on the entity meeting the conditions for resolution under the FIRO. On the other hand, the taking of supportive measures requires the resolution entity to be within scope of the FIRO and to meet the conditions for entry into resolution. Supportive measures could include the application of any powers (including the stabilization options) in the regime.

There is no specific role for the court in recognising or giving effect to foreign resolution actions. As noted above, Hong Kong courts have inherent jurisdiction to review administrative actions, including any decisions to recognise or support foreign resolution actions.

Recovery and resolution planning and resolvability requirements: Recovery planning is underway for domestically incorporated banks in Hong Kong but, as in other jurisdictions, less progress has been made regarding non-bank financial institutions. In recent years, the 19 largest domestically incorporated banks have submitted recovery plans to the HKMA for review under a supervisory framework established in 2014. That supervisory framework includes guidelines on the key elements of effective recovery planning (including plan contents and sets out an

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[93] See the BCBS, CPMI-IOSCO and FSB *Chairs' Report on the Implementation of the Joint Workplan for Strengthening the Resilience, Recovery and Resolvability of Central Counterparties* (July 2017, http://www.fsb.org/2017/07/chairs-report-on-the-implementation-of-the-joint-workplan-for-strengthening-the-resilience-recovery-and-resolvability-of-central-counterparties/) and the FSB *Guidance on Central Counterparty Resolution and Resolution Planning* (July 2017, http://www.fsb.org/2017/07/guidance-on-central-counterparty-resolution-and-resolution-planning-2/).

[94] As set out in the October 2016 FSB *Key Attributes Assessment Methodology for the Banking Sector* (http://www.fsb.org/2016/10/key-attributes-assessment-methodology-for-the-banking-sector/), recognition involves an authority accepting the commencement of a foreign resolution proceeding domestically and thereby empowering the relevant domestic authority to enforce the foreign resolution measure. Recognition is not dependent on the exercise of resolution powers in the local jurisdiction. Supportive measures involve the taking of resolution measures under the domestic law to produce the effect of the resolution measure taken by the foreign resolution authority.

expectation that the board of the bank reviews and approves the plans at least annually) and the HKMA's approach to, and expectation in, reviewing banks' recovery plans. Other AIs, including foreign bank branches and smaller domestic institutions, will also be required to prepare recovery plans by October 2018 at the latest. The HKMA is currently in the process of introducing legislative amendments to the Banking Ordinance to formalise recovery planning requirements, including to provide powers for HKMA to extend such requirements to domestically incorporated holding companies of AIs. The amendments were submitted to the Legislative Council in October 2017.

As regards resolution planning, the HKMA issued a code of practice chapter in July 2017 that sets out its approach to resolution planning and establishes information requirements under which banking sector entities (beginning initially in 2017 with D-SIBs) will be required to submit information to the HKMA at least every two years. The HKMA will use the information submitted by an AI to develop a resolution strategy and plan.

The SFC and the IA plan to develop internal guidance regarding their resolution planning approaches and issue codes of practice for CCPs and insurers respectively. The HKMA and IA already participate in the development of group resolution plans for the G-SIBs and G-SII respectively for which they act as a host authority member of the CMG.

The FSAP recommended that the authorities develop a recovery and resolution plan for each FMI in line with the resolution regime. The SFC's current priority is on recovery planning for CCPs, consistent with the requirements set out in the CPMI-IOSCO *Principles for Financial Market Infrastructures*.[95] To date, all four CCPs (all of which form part of HKEX Group) have submitted recovery plans, while three other FMIs under the purview of the HKMA have also developed recovery plans (see Annex 4). While the four CCPs are enhancing their recovery plans, they are also expected to be subject to resolution planning requirements under the FIRO. Recovery and resolution planning for designated exchanges will follow at a later stage.

Consistent with the *Key Attributes*, the FIRO provides a power for the resolution authority to direct a financial institution to remove or mitigate significant impediments to resolvability. In so doing, the resolution authority must first consider how difficult it would be to carry out an orderly resolution if the measures were not taken; the likely impact of complying with the direction; and if applicable, the advisability of taking measures to remove impediments in Hong Kong to facilitate an orderly resolution elsewhere. An entity subject to such a direction may appeal the decision to a Resolvability Review Tribunal (RRT), which can confirm or set aside the direction or remit the matter to the resolution authority with a direction that the RRT considers appropriate.

Planned reforms: The Hong Kong authorities intend to put forward additional rules and regulations to be made as subsidiary legislation and guidance as code of practice chapters to fully implement the FIRO and provide guidance on its application. Some of these planned actions, which are set out in Box 4 below, are specifically called for in the FIRO itself.

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[95] See http://www.bis.org/cpmi/publ/d101a.pdf. See also the August 2016 CPMI-IOSCO joint consultation report on *Resilience and recovery of CCPs: Further guidance on the Principles for Financial Market Infrastructures* (available at http://www.bis.org/cpmi/publ/d149.pdf).

Box 4: Actions planned by the authorities to further implement the resolution regime

The Hong Kong authorities plan additional rules and regulations as subsidiary legislation and guidance to further implement the new resolution regime. Among other things, these may address:

- loss-absorbing capacity requirements for entities within scope of resolution powers under FIRO;
- requirements to ensure contractual parties agree certain contractual liabilities are eligible for bail-in;
- ensuring contractual parties agree to be bound by suspensions of termination rights imposed under the FIRO;
- additional assumptions and principles for NCWOL valuations;
- rules by the Chief Justice regarding the practice and procedures of the RRT and RCT;
- rules by the Chief Justice in connection with an application to a court for an order to claw back remuneration paid or allocated to be paid to certain officers of a within-scope FI following initiation of resolution of that FI, and for the notice of intention to present a winding-up petition regarding a within scope entity;
- the implementation of resolution funding arrangements, including design of a funding in resolution liquidity facility with respect to operational and governance procedures; potential imposition of an ex post resolution levy; distribution of any surplus after public funds have been repaid; and auditing;
- the establishment of a Policyholders' Protection Scheme to protect policyholders in the event of an insurer's insolvency; approaches to resolution planning and execution;
- other standards for the removal of impediments to resolvability (operational continuity in resolution, resolution valuation capabilities etc.);
- a guide to increase public and market understanding of FIRO provisions, as appropriate; and
- potential guidelines regarding a client asset protection regime.

Lessons learned and issues to be addressed

Hong Kong has made considerable progress in developing its resolution regime since the FSAP. With the introduction of the FIRO and associated regulations, Hong Kong now has legal powers and safeguards related to resolution that are consistent with those required under the *Key Attributes*. The resolution regime applies to a wide range of financial institutions and includes sector-specific powers, for example to restructure insurance liabilities as well as to enforce CCP loss allocation arrangements. This makes Hong Kong one of the few FSB jurisdictions with a fully cross-sectoral resolution regime.

As the host authority of a large number of foreign financial institutions (including many G-SIBs), the introduction of a statutory framework for the recognition of cross-border resolution actions and the extension of resolution powers to branches constitute an important step in enhancing cross-border cooperation. These steps, in conjunction with the HK authorities' active participation in CMGs for G-SIFIs, enhance the credibility of resolution strategies for cross-border financial institutions with operations in Hong Kong.

In addition, work is underway to put in place institutional arrangements to facilitate coordination and information sharing between the resolution authorities for each sector, including on the triggering and use of resolution tools. This work has led to the designation of the HKMA as the lead resolution authority for the cross-sectoral G-SIB groups in Hong Kong that include both banking sector entities as well as securities and futures sector entities. The HKMA has implemented organisational changes – through the creation of a dedicated Resolution Office – to ensure that the resolution function is operationally independent, with resources and expertise to support the resolution functions of the HKMA.

Notwithstanding this progress, as is the case in other countries, further work is needed to fully implement the regime and enhance the credibility and feasibility of resolution measures. This includes the completion of the resolution framework; the advancement of resolution strategies and planning, including the development of approaches to resolvability assessments; and the operationalisation of the resolution funding mechanisms.

Completing the resolution framework: The FIRO establishes a legal framework for resolution, but further steps are necessary to complete the resolution framework and to ensure that it can be applied effectively and efficiently in practice. In particular, the FIRO identifies rules and regulations to be made as subsidiary legislation and further guidance will need to be finalised and implemented in order to make the resolution powers fully effective and to clarify the approaches resolution authorities will take to the use of some of their powers (see Box 4 above). The authorities have already taken steps in this regard with the finalisation in July 2017 of a regulation on protected arrangements (e.g. on set-off rights and netting arrangements) and guidance on the HKMA's approach to resolution planning, as well as the publication of a consultation paper on LAC requirements in January 2018. The authorities should continue these efforts and ensure the prompt completion of the remaining elements identified in the FIRO. These include in particular aspects relating to the resolvability of firms, such as the finalisation of rules on loss-absorbing capacity requirements, and temporary stays on early termination rights. Completing these measures should help to provide greater transparency to the market on the application of the regime and thereby enhance the credibility and feasibility of resolution actions.

At an operational level, further work is also necessary to finalise the procedural arrangements between resolution authorities to ensure appropriate governance and resources for their crisis management and resolution functions. At present, coordination among the authorities is facilitated by the CFR and the FSC. These standing bodies seek to ensure cooperation and exchange of information, in particular on cross-sectoral issues and developments. In addition, the Financial Services Branch Coordination Centre acts as the forum for coordination among the authorities in a general financial market crisis. However, these general arrangements have not been designed with resolution in mind and pre-date the introduction of the FIRO as well as the existence of resolution authorities in Hong Kong. The authorities recognise the need to review coordination arrangements in light of the FIRO. To this end, the authorities intend to develop resolution-specific procedures and processes for coordinating a crisis involving the failure of a financial institution, potentially through a crisis management MoU, during the course of 2018. This review should seek to clarify and formalise how the cross-sectoral coordination requirements set out in the FIRO will be discharged. Coordination and information sharing arrangements should extend not just to contingency planning in crisis but

to general resolution planning in cross-sectoral groups to ensure that obstacles to resolvability in a group entity are identified and discussed between the relevant resolution authorities.

Hong Kong is a host authority to a number of G-SIBs that are subject to 'single point of entry' group resolution plans that anticipate the exercise of resolution tools at the level of the group parent and not at the level of the Hong Kong subsidiary. For these groups, the most significant role played by the resolution authorities in Hong Kong may be to recognise or support the legal actions taken in another jurisdiction. It will therefore be important to ensure that the internal governance and cross-sectoral coordination arrangements put in place are also able to facilitate the prompt use of legal powers to recognise or support group resolution strategies.

- ***Recommendation 5*: The authorities should complete the resolution framework by: (a) adopting necessary rules and regulations as subsidiary legislation and guidance; and (b) reviewing and enhancing internal governance and cross-sectoral coordination arrangements for crisis management and resolution in light of the FIRO.**

Capability to plan and execute resolutions and to assess resolvability: The FIRO confers on resolution authorities rule-making powers to address issues relating to resolvability of within-scope firms. It also grants resolution authorities the power to require individual financial institutions to take steps to remove impediments to their resolvability. To be effective, it will be important for the resolution authorities to use these powers to ensure resolution strategies and plans are credible and that changes are made to the legal, financial or operational arrangements of financial institutions to address barriers to resolvability as they are identified.

Each resolution authority will need to ensure, as part of its general resolution planning responsibilities, that sufficient resources are devoted to the development and implementation of policy on resolution planning and resolvability. Progress has already been made in this regard, particularly by the HKMA, which has developed internal governance processes and early warning mechanisms to trigger contingency planning, and is in the process of developing policy measures and rules as described above. The scale of resources at the HKMA will depend upon the nature of resolution strategies adopted and the approach the Resolution Office decides to take to the assessment of resolvability and the removal of impediments to resolvability for within-scope institutions, including the extent of verification and assurance it plans to undertake in general resolution planning for these firms. Given that the FIRO extends to all banks that operate in Hong Kong, the scale of continuing resources will also depend on the extent to which the HKMA will consider letting smaller banks enter insolvency on failure, followed by a depositor pay out under the DPS, or instead placing these banks into resolution.

In this regard, the HKMA commenced resolution planning for D-SIBs in 2017 with requests for information. The HKMA plans to roll out resolution planning requirements to the other banks in Hong Kong in a phased approach, with priority given to the locally incorporated banks that have a higher potential systemic impact on failure. It has also commenced work to develop requirements on loss-absorbing capacity – with the January 2018 consultation paper covering both external loss-absorbing capacity for the banks for which HKMA acts as home authority, and internal loss-absorbing capacity to support the resolution strategies of financial groups for which the HKMA acts as a host authority – and on the suspension of early termination rights. As resolution planning progresses, other impediments to resolvability such as valuation capability and continuity of critical operations and of access to FMIs will also need to be

addressed. Relatedly, the HKMA should consider whether the internal decision making process for entry into resolution gives a sufficient role to the Resolution Office. Under the current framework a direct recommendation from the Resolution Office is not a requirement.

With respect to insurers and FMIs more broadly, resolution policy work is ongoing and remains at an earlier stage than for banks. In the case of the SFC, resolution resources will need to be devoted in particular to the Hong Kong CCP that is considered as systemically important in more than one jurisdiction and for which a CMG should be established. The SFC has chosen at this point not to establish a dedicated resolution function but to instead allocate responsibility for resolution across supervision teams.[96] Under this approach, it will be important to ensure that resolvability and resolution issues are carried forward as part of general policymaking and in business-as-usual engagement with firms and not considered only at the point of failure. It will also be necessary for those SFC staff who are responsible for resolution activities to be sufficiently familiar with resolution planning and execution to be able to undertake this role effectively in a crisis scenario, and to ensure that resolution objectives are not subordinated to supervisory objectives.

In this regard, the SFC has taken steps to clarify the internal process for entry into resolution for the financial institutions under its remit, including to ensure that responsibility for assessing the conditions for entry into resolution does not rest solely with line supervisors. As part of this work, the SFC should also consider whether Condition 2 – that there is no reasonable prospect that private sector action, outside of resolution, would result in the financial institution again becoming viable within a reasonable period – would benefit from a clarification that it can be satisfied in circumstances where any such private sector actions are likely to compromise financial stability, as set out in the FMI Annex to the *Key Attributes*.

- ***<u>Recommendation 6:</u> The HKMA, SFC and IA should advance resolution strategies and planning, and develop their approaches to resolvability assessments, in particular by: (a) identifying strategies for CCPs and for banks other than G-SIBs; and (b) developing and maintaining sufficient internal capabilities.***

***Resolution funding framework*:** The FIRO establishes a framework for a resolution funding account that can be used in preparing for, initiating or carrying out the resolution of a financial institution. The account may be funded at the point of use from public money or any other money under the control of the Government or a public officer, e.g. Hong Kong's Exchange Fund (which may be used for financial stability purposes) or from the general revenues of the government. Costs incurred in a resolution that are not recouped from the assets of the failed institution (including any shortfall in repayment of any funds provided by the Government) may be recouped from the financial sector through an ex post levy. The details of the ex post levy are to be prescribed in regulations, and the authorities note that they intend to issue further guidance on the operation of the resolution funding account in due course.

[96] This decision was taken partly due to the limited number of FMIs and designated exchanges that are within the scope of the resolution regime. The SFC also notes that, based on the current profile of within-scope LCs (all of which are either branches or subsidiaries of a G-SIB or G-SII), it is unlikely that it will be designated as the LRA for any cross–sectoral group.

The FIRO provides the authorities with a degree of discretion as to the timing of the use of a resolution funding account (with certain conditions, including having regard to the level of losses imposed on private creditors and shareholders) and the recovery of costs from the industry. This discretion, combined with the lack of detail in the FIRO on the ex post levy, may create uncertainty among market participants as to who would bear the costs of a firm's failure.[97] The authorities should therefore prioritise the development of the framework for the ex post levy and guidance on the operation of the resolution funding accounts, covering in particular liquidity facility design (e.g. term of lending, access criteria, potential terms of collateral, eligible participants, timing, capacity), and set out their expectation regarding the imposition of an ex post levy on the industry. This would help underscore the authorities' intent to recoup public funds, and lend more credibility to the FIRO's stated objective to minimise the risk to public funds.

The authorities should also reach a shared understanding on the expected operation of the resolution funding account, including how each resolution authority would request funds and the information that might be needed to enable swift consideration of such requests. This should help to ensure that sufficient notice is given of any expected use of the funds and that it is factored into the resolution planning of the respective resolution authorities.

- ***Recommendation 7*: The HKMA, SFC and IA should operationalise resolution funding arrangements provided for under the FIRO by: (a) establishing the levy framework to underscore the intent to recoup public funds used in resolution; and (b) planning options for the funding facility's design, including governance.**

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[97] For example, following the enactment of the FIRO, some credit rating agencies reduced, but did not eliminate, expectations of sovereign support for D-SIBs in Hong Kong, citing previous experience and the Exchange Fund Ordinance (which provides discretion for the FS on the use of the Exchange Fund) remaining in place.

Annex 1: Structure of the financial system and regulatory framework[98]

Financial system structure

Banking sector: Hong Kong has a large banking sector, comprising 195 institutions in 2016. Of these, 156 were licensed banks – 134 foreign bank branches and 22 locally incorporated banks. Bank assets totalled HKD 22 trillion (USD 2.8 trillion) as of September 2017, equivalent to 830% of GDP. The assets of the five largest banks accounted for 41.6% of total assets, and foreign banks' branches accounted for 43.1%. 29 of the 30 G-SIBs have business operations in Hong Kong, and the HKMA participates in 12 crisis management groups of G-SIBs.

Customer deposits are the main source of funding for locally-incorporated banks, while foreign bank branches generally acquire funding from their head offices. Total deposits (both in HKD and foreign currency) rose strongly, by a cumulative 36%, to reach HKD 12.5 trillion in September 2017 from HKD 9.2 trillion at end-2013. Total loan growth, after reaching 12.7% in 2014, moderated to 3.5% in 2015, before picking up to 6.5% in 2016. Bank loans grew another 15.7% year-on-year in 3Q 2017.

The overall capital adequacy ratio (CAR) was 18.7% in 2Q 2017 and tier-1 CAR was 16.1%. The average Liquidity Coverage Ratio was 144.2% in 2Q 2017, well above the statutory minimum requirement of 80% applicable in 2017, while the loan-to-deposit ratio was 72% at end-September 2017.

Besides employing countercyclical measures to help safeguard banking stability in the property market upcycle (i.e. tightening loan-to-value and debt-servicing ratios and increasing countercyclical buffer), the HKMA also requires banks to observe a Stable Funding Requirement (SFR)[99] to avoid liquidity drains due to sudden capital outflow. Banks' stress tests on solvency and liquidity risks – as required by the HKMA – show that they are able to withstand severe external shocks.

Securities sector: As of 29 September 2017, the total equity market capitalisation in Hong Kong amounted to HKD 31.4 trillion (USD 4.0 trillion), the sixth largest worldwide, or 1,261% of GDP. Of the 1,973 companies listed in 2016, 1,002 were from mainland China (H-shares, red chips and mainland private enterprises), representing 63.3% of total market capitalisation.

The stock market ranked first in initial public offerings (IPOs) issuance in 2016, raising HKD 195 billion. Another 40 IPOs were listed on the stock exchange in 1Q 2017. The post-tax return on assets of listed non-financial corporates weakened slightly to 2.6% in 2016 from 2.8% in 2015, which was itself down from 3.7% in 2014, reflecting sluggish global economic activities. Hong Kong's asset management business recorded net capital inflows in 2016, with the combined fund management business increasing by 5.2% to HKD 18.3 trillion (USD 2.3 trillion) at end-2016 compared to end-2015.

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[98] Based on information provided by the Hong Kong authorities.

[99] Banks with total loans of HKD10 billion or above and with annualised average loan growth in the latest eight quarters exceeding 15% are required to observe the SFR. Such banks will have to secure stable funding (on a net basis) to back up their lending by, for example: (i) increasing borrowing from the head office with remaining tenor longer than six months; (ii) increasing borrowing from other banks or issuance of debt instruments with remaining tenor longer than six months; or (iii) increasing the capital base.

Hong Kong continues to work closely with mainland authorities to facilitate cross-border investment flows between the two places. Following earlier introduction of QFII (2002), QDII (2006), RQFII (2011) and RQDII (2014), mainland and Hong Kong authorities launched the Shanghai-Hong Kong Stock Connect in November 2014, Mutual Recognition of Funds arrangement in July 2015 and the Shenzhen-Hong Kong Stock Connect in December 2016. The Bond Connect initiative was launched in July 2017 (see Box I-1 for a description of these schemes).

Box I-1: Stock and bond market schemes to facilitate cross-border investment flows between Hong Kong and mainland China

Qualified Foreign Institutional Investors – QFII was launched in 2002 for foreign institutions to invest in mainland financial markets using foreign exchange (FX), subject to a pre-set quota. The quota was abolished in 2016 in favour of a formula-based mechanism whereby an institution's investment quota is determined by its assets under management, among other things.

Qualified Domestic Institutional investors – QDII was launched in 2006 for mainland institutions to invest in financial assets abroad using FX. The **Renminbi Qualified Domestic Institutional Investors** (RQDII) scheme was introduced in 2014 to allow mainland institutions to use RMB for overseas financial investments.

Renminbi Qualified Foreign Institutional Investors – RQFII was established in 2011 to allow foreign investors to use RMB to invest in mainland financial markets. Hong Kong was the first place to be admitted under the scheme, which has since been expanded to 18 countries/places. Hong Kong continues to possess the largest RQFII quota (RMB 500 billion).

Shanghai-Hong Kong Stock Connect was launched in November 2014 to allow mainland investors to invest in eligible Hong Kong stocks and for international investors, through Hong Kong, to invest in eligible A-shares. The scheme was subject to a daily quota of RMB 13 billion/RMB 10.5 billion (northbound/southbound) and an aggregate quota of RMB 300 billion/RMB 250 billion. The aggregate quota was abolished in August 2016. The **Shenzhen-Hong Kong Stock Connect** was launched in December 2016, expanding the investable A-shares to those listed on the Shenzhen Stock Exchange.

The **Mutual Recognition of Funds** arrangement was rolled out in July 2015, enabling eligible Hong Kong funds to be sold in the mainland and vice versa. As at October 2017, eight Hong Kong funds were approved for sale in the mainland, drawing a net subscription amount of almost RMB 12.5 billion. In the other direction, 50 mainland funds were available for sale in Hong Kong, with net subscription amount of almost RMB 340 million.

Bond Connect is a new initiative for mutual access between the Hong Kong and mainland bond markets launched in July 2017. It will facilitate the efficient trading by overseas investors investing in the mainland bond market, through connection between relevant financial infrastructure institutions in Hong Kong and the mainland.

In relation to the local debt market, the total outstanding size grew a cumulative 59.1%, from HKD 3.8 trillion in 2013 to HKD 6.1 trillion in 2016. Of this, the outstanding HKD debt issued by the private sector increased 26.2%, while that of the public sector rose 4.2%. For foreign-currency debt issued by local and foreign entities, the outstanding amount expanded to HKD 3.8 trillion in 2016, more than double the HKD 1.7 trillion in 2013.[100] A major factor contributing to the marked increase was that mainland companies have become more active in raising offshore USD funds in Hong Kong to support their outward direct investment in recent years, given better liquidity and a lower cost of borrowing of foreign currencies in Hong Kong.

Insurance sector: The insurance sector is large and diversified. In 2016, Hong Kong ranked second worldwide for insurance penetration (17.6% of GDP) and second for insurance density (USD 7,679 per capita).[101] At end-2016, the sector had 160 licenced insurers and was dominated by foreign-owned insurers. The long-term insurance industry (i.e. including life insurance and annuities) is highly concentrated, while the share of the general insurance industry is more evenly distributed.

The insurance industry has seen strong growth over the years. Premiums grew a cumulative 72% between 2012 and 2016. Growth in long-term insurance is underpinned by increasing affluence and an aging population, while in general insurance, expansion of the dominant accident and health insurance has been sustained by increased awareness of the need to plan for future healthcare.

The solvency of the insurance sector exceeds prescribed requirements (of 1.5x the minimum solvency requirement). To facilitate early intervention where required, the authorities closely monitor insurers with solvency less than 200% of the minimum solvency requirement. The current solvency regime is rules-based and largely modelled on the EU's Solvency I. While a fully-fledged, risk-based capital regime for insurers is being developed, the authorities pay close attention to insurers' risk profiles. In particular, to assess insurers' vulnerability, all insurers are subject to quarterly and ad hoc stress tests, while long-term insurers are subject to annual dynamic solvency testing. This analysis indicates that long-term insurers are vulnerable to a protracted period of low interest rates and volatile financial markets, while the key risk facing general insurers seems to be intense competition that could lower their profitability. Where management action is needed to address any identified vulnerability, this is closely monitored until fully implemented.

Regulatory framework

Financial Secretary (FS): The FS's primary responsibility is to assist the Chief Executive of Hong Kong in overseeing policy formulation and implementation of financial, monetary, economic, trade and development as well as innovation and technology matters. The FS exercises control over the Exchange Fund with the assistance of the Monetary Authority (MA) and is a member of the Executive Council.

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[100] The figure for foreign-currency debt outstanding is based on Dealogic, whose issuers are Hong Kong companies or foreign entities with their debt instruments listed in Hong Kong.

[101] See Swiss Re Sigma No 03/2016: World Insurance in 2016.

Financial Services and the Treasury Bureau (FSTB): The FSTB[102] provides policy steers for and oversees the work of the regulatory authorities. The major roles and responsibilities of Financial Services Branch of the FSTB are: (i) to formulate policies and introduce legislative proposals covering the banking system, securities and futures market, asset management sector, insurance industry, Mandatory Provident Fund schemes and occupational retirement schemes, amongst others; (ii) to help maintain the integrity and stability of Hong Kong's financial system; and (iii) to provide a business environment which is open, fair and conducive to financial market development. The Financial Services Branch also coordinates and facilitates the implementation of new initiatives on financial infrastructure to enhance Hong Kong's competitiveness, and facilitates market innovation to deepen and broaden financial markets.

Hong Kong Monetary Authority (HKMA): The HKMA, as Hong Kong's central banking institution, has four main functions: (i) maintaining currency stability within the framework of the Linked Exchange Rate System; (ii) promoting the stability and integrity of the financial system, including the banking system; (iii) helping to maintain Hong Kong's status as an international financial centre, including the maintenance and development of Hong Kong's financial infrastructure; and (iv) managing the Exchange Fund.

The HKMA was established on 1 April 1993 by merging the Office of the Exchange Fund with the Office of the Commissioner of Banking. To enable the establishment of the HKMA, the Legislative Council (LegCo) passed amendments to the Exchange Fund Ordinance (Chapter 66 of the Laws of Hong Kong) (EFO) in 1992 empowering the FS to appoint a MA and staff to assist him. The office of the MA is known as the HKMA, and the MA is the Chief Executive of the HKMA. The powers, functions and responsibilities of the MA are set out in the EFO, the BO, the FIRO, the Deposit Protection Scheme Ordinance (Chapter 581 of the Laws of Hong Kong) (DPSO), the Payment Systems and Stored Value Facilities Ordinance (Chapter 584 of the Laws of Hong Kong) (PSSVFO) and other relevant ordinances. The division of functions and responsibilities in monetary and financial affairs between the FS and the MA is set out in their exchange of letters dated 25 June 2003. This exchange of letters discloses the delegations made by the FS to the MA. The letters are public documents and can be found on the HKMA website.

The EFO establishes the Exchange Fund under the control of the FS. According to the EFO, the Exchange Fund shall be used primarily for affecting the exchange value of the Hong Kong dollar. It may also be used for maintaining the stability and integrity of the monetary and financial systems of Hong Kong, with a view to maintaining Hong Kong as an international financial centre.

The BO provides the MA with the responsibility and powers for regulating and supervising banking business and the business of taking deposits. Under the BO, the MA is responsible for the authorisation of licensed banks, restricted licence banks and deposit-taking companies in Hong Kong.

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[102] FSTB also has a Treasury Branch, which is responsible for managing the allocation of resources; overseeing Government's tax and other revenue-raising policies; facilitating decisions on government investments; and promoting open, fair and competitive tendering, in line with prudent financial management principles and other policy objectives of the Government.

The FIRO provides that the MA is the resolution authority (RA) for authorized institutions (AIs) and certain financial market infrastructure (FMI). Under the FIRO, the Monetary Authority is vested with a range of powers to effect the orderly resolution of a non-viable systemically important AI for the purpose of maintaining financial stability, while seeking to protect public funds.

The Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) (SFO) and the Mandatory Provident Fund Schemes Ordinance (Chapter 485 of the Laws of Hong Kong) (MPFSO) empower the MA to regulate the selling of securities and mandatory provident fund products by banks.

Under the DPSO, the MA is charged with the responsibility to decide on triggering of the Deposit Protection Scheme (DPS) for making compensation to depositors of a failed bank and to assist in the operation of the DPS.

The PSSVFO provides a statutory regime for the MA to designate and oversee clearing and settlement systems that are material to the monetary or financial stability of Hong Kong or to the functioning of Hong Kong as an international financial centre. It also empowers the MA to implement a licensing regime for stored value facilities and to designate retail payment systems to ensure their operations are safe and efficient.

The Insurance Ordinance (Chapter 41 of the Laws of Hong Kong) (IO) confers on the MA supervisory power in respect of the insurance selling activities of banks.

The Anti-Money laundering and Counter-terrorist Financing (Financial Institutions) Ordinance (Chapter 615 of the Laws of Hong Kong) (AMLO) empowers the MA to supervise banks' compliance with the legal and supervisory requirements under AMLO and relevant guideline.

Securities and Futures Commission (SFC): As a statutory body, the work of the SFC (established in 1989) is mainly defined and governed by the SFO, which sets out the powers, roles and responsibilities of the SFC. Regulatory objectives of the SFC include: (i) developing and maintaining competitive, efficient, fair, orderly and transparent securities and futures markets; (ii) helping the public understand the workings of the securities and futures industry; (iii) providing protection for the investing public; (iv) minimising crime and misconduct in the markets; (v) reducing systemic risks in the industry; and (vi) assisting the Government in maintaining Hong Kong's financial stability.

Under the AMLO and the SFO, the SFC is empowered to supervise licensed corporations' (LCs) compliance with the regulatory requirements under the AMLO and the SFC's Guideline on Anti-Money Laundering and Counter-Terrorist Financing.

As with the HKMA and AIs and some FMI, the FIRO designates the SFC as the RA for LCs and certain FMI. Under the FIRO, the SFC is given similar powers to the HKMA but in relation to these LCs and FMI.

Insurance Authority (IA): The IA, a statutory body established by the Insurance Companies (Amendment) Ordinance 2015 ("Amendment Ordinance"), is a new insurance regulator independent of the Government. It assumed the functions of the Office of the Commissioner of Insurance (OCI) on 26 June 2017 when the relevant provisions of the Amendment Ordinance and various subsidiary legislations under the Insurance Ordinance (IO) (ICO to be renamed on the same date as IO as provided by the Amendment Ordinance) also came into force on that

day. The regulation of insurance intermediaries by the three Self-Regulatory Organisations (SROs),[103] will be replaced by a new statutory licensing regime administered by the IA two years after its establishment, i.e. in June 2019. Under the IO, the main functions of the IA are to: (i) regulate and supervise the insurance industry for the promotion of the general stability of the insurance industry and the protection of policyholders; (ii) promote sustainable market development and industry's competitiveness; and (iii) assist the Government in maintaining the financial stability of Hong Kong. As with the HKMA, the FIRO designates the IA as the RA for authorized insurers. Under the FIRO, the IA is given similar powers to the HKMA but in relation to authorized insurers.

Mandatory Provident Fund Schemes Authority (MPFA): The MPFA is a statutory body established on 17 September 1998 under the MPFSO. Its main functions are to: (i) regulate and supervise privately managed mandatory provident fund schemes; (ii) educate the working population about saving for retirement and the role of the MPF System as one of the pillars supporting retirement living; (iii) to lead improvements in provident fund schemes to make them more efficient, user-friendly, and better meet the needs of the working population. The MPFA also acts as the Registrar of Occupational Retirement Schemes as provided under the Occupational Retirement Schemes Ordinance.

In addition to the above regulatory authorities, two standing bodies – the Council of Financial Regulators and the Financial Stability Committee – oversee Hong Kong's financial stability, focusing on issues and developments that cut across various sectors and regulators.

Council of Financial Regulators (CFR): The CFR, chaired by the FS and comprising representatives from the FSTB, the HKMA, the SFC, the IA and the MPFA, is the main platform to close regulatory gaps among regulators and ensure cross-sectoral collaboration on regulatory and supervisory issues.[104] It aims to: (i) facilitate cooperation and coordination among the regulators; (ii) share information and views on regulatory and supervisory issues and important trends in the financial system, particularly those with a cross-sectoral impact; (iii) minimise duplication or gaps in the regulation and supervision of financial institutions ; (iv) review international developments in financial sector regulations and draw lessons for Hong Kong; (v) discuss regulatory and supervisory issues relating to individual financial institutions that may have a cross-sectoral impact; and (vi) oversee developments, trends and issues which may have implications for financial stability in Hong Kong.

Financial Stability Committee (FSC): The FSC, chaired by the Secretary for Financial Services and the Treasury (SFST) and comprising representatives from the HKMA, the SFC and the IA, aims to: (i) monitor regularly the functioning of Hong Kong's financial system, including banking, debt, equity, insurance and other markets; (ii) deliberate on events, issues and developments with cross market and systemic implications, and where appropriate, formulate and co-ordinate responses; and (iii) report regularly and, at any time where necessary, to the FS covering the above matters.[105]

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[103] They are the Insurance Agents Registration Board (established under the Hong Kong Federation of Insurers), the Hong Kong Confederation of Insurance Brokers and the Professional Insurance Brokers Association.

[104] The terms of reference for the CFR can be found here: http://www.fso.gov.hk/pdf/CFR-TOR%20_Sep06_.pdf.

[105] The terms of reference for the FSC can be found here: http://www.fso.gov.hk/pdf/fsc-tor_e.pdf.

Recent regulatory initiatives

In relation to insurance supervision, the Insurance Companies (Amendment) Ordinance 2015 for establishing the IA and a statutory licensing regime for insurance intermediaries was enacted on 10 July 2015, and it became operative on 26 June 2017. It confers upon the IA with the powers of inspection, investigation and taking disciplinary actions on insurers and insurance intermediaries. Commencement of the Amendment Ordinance will take place in phases. The IA took over the statutory functions of the OCI to regulate insurers on 26 June 2017. The OCI was disbanded on the same date. The new licensing regime regulating insurance intermediaries is expected to commence in two years' time from the transition, i.e. in June 2019.

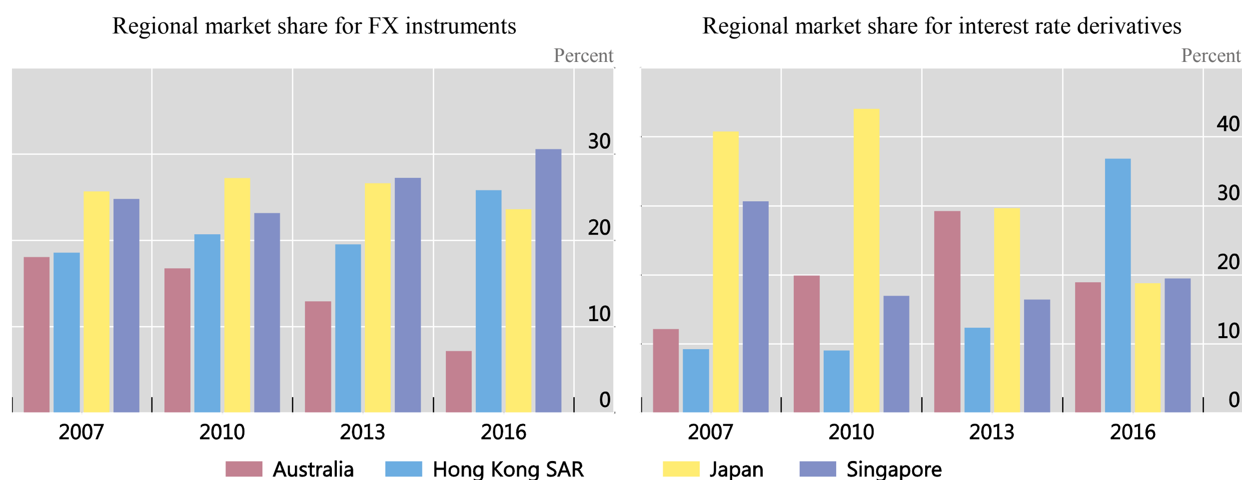
On the DPS, upon implementation of the Deposit Protection Scheme (Amendment) Ordinance 2016 which enabled the adoption of the gross payout approach in compensation determination, the target payout time for making full compensation payments to depositors has been shortened to within seven days in most cases, compared with the previous payout time of six weeks. Along with other new measures, such as empowering the DPB to use electronic communications to notify affected depositors, the enhanced DPS provides better protection to depositors and strengthens their confidence in the DPS as an integral part of Hong Kong's financial safety net.

On 4 November 2015, the Legislative Council passed the Clearing and Settlement Systems (Amendment) Bill 2015. The previous Clearing and Settlement Systems Ordinance is retitled the PSSVFO (Payment Systems and Stored Value Facilities Ordinance). Under the PSSVFO, the regulatory regime for stored value facilities and retail payment systems commenced operation on 13 November 2015. The PSSVFO empowers the MA to implement a mandatory licensing system for multi-purpose stored value facilities and perform relevant supervision and enforcement functions. It also empowers the MA to designate retail payment systems to ensure their safe and robust operation under prudential regulation.

In view of international standards and practices, the Government has drawn up proposals to improve the regulatory regime for the auditors of listed entities with a view to enhancing the independence of the existing auditor regulatory regime from the audit profession. After issuing the public consultation conclusions on the reform proposals in June 2015, the Government has been preparing an amendment bill and continuing its liaison with relevant stakeholders on the details of the new regime. The Government will introduce the amendment bill into the Legislative Council in January 2018.

Annex 2: Additional tables and charts on Hong Kong's derivatives reforms

Chart 1: Regional market share by turnover



Source: Bank for International Settlements (BIS) Triennial OTC derivatives statistics. "Regional market share" refers to market share among the four jurisdictions identified above, plus China, Indonesia, India, South Korea, Malaysia, New Zealand, Philippines, Thailand and Chinese Taipei.

Table 1: Outstanding OTC derivatives positions held by AIs by asset class (as of end-June 2017)[1]

	Gross notional outstanding (USD billion)[2, 3]	Share of total outstanding (%)	Estimated share of global market (%)[4]	3-year change (%)
Foreign exchange	7,040	59.0	9.1	36
Interest rate	4,724	39.6	1.1	34
Equity	90	0.8	1.3	-32
Credit	78	0.7	0.8	94
Commodity	10	0.1	0.7	47
Total	**11,941**	**100**	**2.3**	**34**

Notes:
1. The coverage of the data used in Tables 1 and 2 in this Annex is not the same. Table 1 covers only trades booked in Hong Kong by AIs, while Table 2 includes also 1) trades booked in Hong Kong by LCs and 2) trades conducted in, but booked outside of, Hong Kong by both AIs and LCs.
2. Outstanding positions held by all surveyed AIs obtained from HKMA's survey on off-balance sheet exposures in derivatives and securitisation transactions. Derivatives that cannot be classified into these five asset classes are excluded from the calculations.
3. Converted into USD using the end-June 2017 USD/HKD exchange rate published in the HKMA's Monthly Statistical Bulletin.
4. Calculated using global outstanding positions from the BIS semi-annual OTC derivatives statistics.
Source: HKMA.

Table 2: Outstanding OTC derivatives transactions in the HKTR by asset class (as of 31 August 2017)[1,4]

	Number of trades	Share of total outstanding (%)	Gross notional[2,3] (USD billion)	Share of total outstanding (%)
Interest rate products	285,118	24.2	16,871	62.0
Foreign exchange products	496,812	42.2	7,379	27.1
Equity products	385,974	32.8	2,883	10.6
Credit derivatives products	4,558	0.4	64	0.2
Commodity products	4,225	0.4	N/A	
Total	***1,176,687***	***100***	***27,198***	***100***

Notes:
1. The coverage of the data used in Tables 1 and 2 in this Annex is not the same. Table 1 covers only trades booked in Hong Kong by AIs, while Table 2 includes also 1) trades booked in Hong Kong by LCs and 2) trades conducted in, but booked outside of, Hong Kong by both AIs and LCs.
2. Derivatives transactions reported using non-standard reporting templates are excluded from the calculations of gross notional as the notional values of those trades have not been cleaned yet.
3. The gross notional values are calculated by aggregating the notional values of all the trades in the HKTR. Hence, there may be potential double counting resulted from the requirements of double-sided reporting.
4. A three-month grace period until 30 September 2017 was applicable for backloading outstanding transactions as at 1 July 2017. As a result, and given technical issues that reporting firms may encounter in the newly implemented Phase 2 of reporting, figures as at 31 August 2017 may not be complete.
Source: HKTR.

Table 3: Status of legal implementation in Hong Kong by mandate

	Actual[106]			*Expected[107]*		
	Q2 2015	Q2 2016	Q2 2017	*Q4 2017*	*H1 2018*	*H2 2018*
Trade reporting	3	3	3	Blue	Blue	Blue
Central clearing	1	3	Blue	Blue	Blue	Blue
Interim capital[(a)]	Blue	Blue	Blue	Blue	Blue	Blue
Margin	1	2	Blue	Blue	Blue	Blue
Platform trading	1	1	1	2	2	3

Legend to Table 3

Red	No existing authority to implement reform and no steps taken to adopt such authority.
1	*All reform areas:* **Legislative framework** or **other authority** is **in force** or has been published for consultation or proposed.

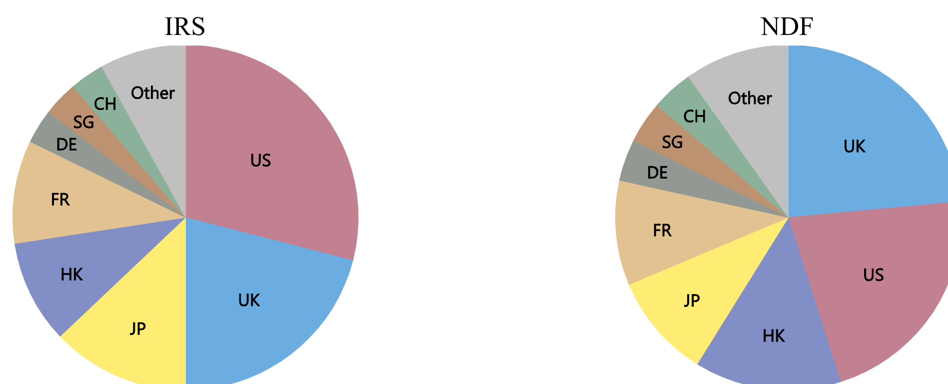
[106] Sources: FSB, *OTC Derivatives Market Reforms: Ninth Progress Report on Implementation* (July 2015, http://www.fsb.org/2015/07/ninth-progress-report-on-implementation-of-otc-derivatives-market-reforms/) and *OTC Derivatives Market Reforms: Eleventh Progress Report on Implementation* (August 2016, http://www.fsb.org/2016/08/otc-derivatives-market-reforms-eleventh-progress-report-on-implementation/).

[107] Source: FSB, *OTC Derivatives Market Reforms: Twelfth Progress Report on Implementation* (June 2017, http://www.fsb.org/2017/06/otc-derivatives-market-reforms-twelfth-progress-report-on-implementation/).

2	*Trade reporting:* Legislative framework or other authority is in force and, with respect to at least some transactions, **standards/requirements** have been **published for public consultation** or proposal. *Central clearing and platform trading:* Legislative framework or other authority to implement reform is in force and, with respect to at least some transactions, **standards/criteria for determining** when transactions should be centrally cleared/platform traded have been **published for public consultation or proposal**. *Capital and margins for NCCDs:* Legislative framework or other authority is in force and, with respect to at least some transactions, **standards/requirements** have been **published for public consultation or proposal**.
3	*Trade reporting:* Legislative framework or other authority is in force and, with respect to at least some transactions, public **standards/requirements have been adopted**. *Central clearing and platform trading:* Legislative framework or other authority is in force and, with respect to at least some transactions, public **standards/criteria for determining** when products should be centrally cleared/platform traded **have been adopted**. *Capital and margins for NCCDs:* Legislative framework or other authority is in force and, with respect to at least some transactions, public **standards/requirements have been adopted**.
Blue	*Trade reporting:* Legislative framework or other authority is in force and, with respect **to over 90% of transactions, standards/requirements are in force**. *Central clearing and platform trading:* Legislative framework or other authority is in force and, with respect **to over 90% of transactions**, **standards/criteria for determining** when products should be centrally cleared/platform traded **are in force**. An appropriate authority regularly assesses transactions against these criteria. *Capital for NCCDs:* Legislative framework or other authority is in force and, with respect **to over 90% of transactions**, **standards/requirements** are **in force**. *Margins for NCCDs:* Legislative framework or other authority is in force and, with respect **to over 90% of the transactions** covered consistent with the respective WGMR phase in periods, **standards/requirements are in force**.

Source: Extract from FSB *OTC Derivatives Market Reforms: Twelfth Progress Report on Implementation*, June 2017.

Chart 2: Geographic distribution of participants that are clearing members by domicile
(number of participants that are not consolidated at parent level)[1,2]



1. Participants include: a) entities with reporting obligation in Hong Kong and b) entities without a reporting obligation but which are counterparty to trades subject to reporting requirements in Hong Kong.
2. Clearing members refer to both prescribed persons reaching the clearing threshold and designated financial service providers.

Source: HKMA calculation based on outstanding transactions on interest rate swap (IRS) and non-deliverable FX forward (NDF) in the HKTR as of 6 January 2017.

Annex 3: Functioning of the Hong Kong Trade Repository

HKTR set-up

The laws of Hong Kong provide the legal basis for the establishment and operations of the HKTR, which is established by the Payment Systems Operation Division of the Financial Infrastructure Department of the HKMA. The HKTR is subject to the governance, decision-making, audit and control processes of the HKMA.

The daily operation of the HKTR is carried out by the Hong Kong FMI Services Limited (HKFMI) which is a wholly-owned subsidiary of the HKMA. The board of HKFMI consists of four directors who are senior officers of the HKMA, and its CEO and management team are filled by HKMA staff.

The HKMA has appointed Hong Kong Interbank Clearing Limited (HKICL) as a computer system operator, to develop and oversee the day-to-day operation of the computer systems of the HKTR. HKICL is a private company, jointly owned by the HKMA and the Hong Kong Association of Banks. The terms and conditions of the appointment are set out in a service agreement signed between the HKMA and HKICL.

In addition to the reporting core service, a trade matching and confirmation service connected to OTC Clear is also provided by the HKTR, but OTC Clear and the HKTR have decided to discontinue this service by May 2018 due to its low utilisation by market participants.

Oversight arrangements for the HKTR

In addition to the internal audit and risk management processes of the HKMA, the HKTR is subject to oversight by the Financial Market Infrastructure Oversight team of the Banking Conduct Department of the HKMA, which assesses and monitors the effectiveness, efficiency and safety of the HKTR in accordance with a guideline issued by the HKMA, with the latest version issued in July 2016.[108] The HKMA adopts a risk-based approach in overseeing the HKTR, which includes offsite review, on-site examination, meeting with management, annual assessment and assessment against international standards. The HKMA applies the *Principles for Financial Market Infrastructures* (PFMI) jointly issued by the Committee on Payments and Market Infrastructures (CPMI) and IOSCO in April 2012.[109]

This organisational set-up makes the HKMA both the ultimate system operator and overseer of the HKTR. In order to avoid any potential or actual conflicts of interest between the two teams in charge respectively of operation and oversight, there are "Chinese wall" arrangements between these teams. In particular, the two teams belong to two different departments of the HKMA and have separate reporting lines to the senior management of the HKMA.

Risk management of HKTR

The Board structure of HKICL includes a risk-management committee chaired by a representative of the HKMA and composed of representatives from banks, from the HKMA and of independent directors. The committee's role is to review and formulate HKICL's risk

[108] See http://www.hkma.gov.hk/media/eng/doc/key-functions/banking-stability/oversight/TR_guideline.pdf.

[109] An assessment report of the HKTR against the PFMI was published by the HKMA in April 2016. See http://www.hkma.gov.hk/media/eng/doc/key-functions/banking-stability/oversight/Assessment_report_of_HKTR2016.pdf.

management framework and policies and to evaluate the risk exposure of HKICL's operations including new services and systems.

The HKTR has a robust system infrastructure with full redundant units replicated at backup site and real time data mirroring between primary and backup site.

The HKICL risk management framework includes cyber resilience strategy, policies and procedures established to comply with the following regulatory requirements and frameworks:

- HKMA's Cyber Fortification Initiative (CFI) : the target is to meet the "Advanced" maturity level;
- CPMI-IOSCO's Guidance on Cyber Resilience for FMI: the target is to meet the guidance through addressing HKMA's CFI requirements; and
- SWIFT Customer Security Programme: the implementation status and attestation with respect to system security has already been reviewed by an external auditor, and HKICL has also notified SWIFT by end of 2017 as scheduled.

Participation in the HKTR

An entity must join the HKTR as a TR member before using the services of the HKTR. Prior to becoming a TR member, each applicant is required to enter into a standard contractual agreement with the HKMA and pass a "Simulation test", the purpose of which is to allow participants to become familiar with the operations of the HKTR system. As at end-October 2017, the HKTR had 244 members.

Submission of trade information

TR members can submit trade information of OTCD transactions to the HKTR through three different channels: SWIFTNet, FTS on HKICL Network and Internet.

The Reporting Rules allow TR members to submit trade information for reporting through an agent. The agent can be a third party service vendor or another TR member, including the counterparty to the TR member in the transaction. Prescribed persons reporting via an agent remain primarily responsible for the accuracy and timeliness of reporting. A TR member opting to submit trade information through an agent has to nominate the agent to the HKTR in accordance with the procedures of the HKTR. Reporting agents are required to complete and pass the same simulation test as TR members. There are currently two reporting agents with the HKTR: DTCC (which accounts for 90% of the volume of transactions reported via agents) and IHS Markit ("MarkitWire").

Data quality checks

The HKTR system has built features for data quality control such as validation processes to reject transaction submissions not providing mandatory data fields or not being in the appropriate format, and linking and matching processes to identify discrepancies and double-counting for both side reporting. To help enhance data quality and to facilitate TR members to identify and resolve potential reporting errors, the HKTR system identifies, compares and links up trade event records reported by TR members on both sides of a transaction. Trade event records that cannot be linked and any discrepancies in reported details are sent to counterparties for follow-up.

Reporting rate

The reporting rate of OTC derivatives transactions as at 23 June 2017 is shown in Table 1 below. About 50% of total number of transactions reported to the HKTR is reported via agents.

Table 1: Reporting rate during Phase 1, as at 23 June 2017

	Outstanding positions of trades booked in Hong Kong by AIs[1,2] (USD billion)	**Outstanding positions of trades booked in Hong Kong and reported to the HKTR[3,4]** (USD billion)	**Reporting rate** (%)
Interest rate	4,724	4,112	87
Foreign exchange	7,040	336	5
Equity	90	0	0
Commodity	10	0	0
Credit	78	0	0
Other	2	0	0
Total	**11,943**	**4,447**	37

Notes:

1. Outstanding positions by all surveyed AIs as of end-June 2017 obtained from the HKMA's survey on off-balance sheet exposures in derivatives and securitisation transactions.
2. Converted into USD using end-June 2017 USD/HKD exchange rate published in the HKMA's Monthly Statistical Bulletin.
3. Outstanding positions are derived from trades reported to HKTR as of 23 June 2017.
4. Trades "booked in Hong Kong" are identified via reporting fields related to the location of entity branch and trading desk.

Sources: HKMA and HKTR.

Thanks to this data control and also to regular training, simulation test and workshops organised by the HKTR, and also to the guidance provided to the industry by the HKMA and SFC through guidelines and instructions, data quality has improved over time. The percentage of outstanding unlinked trades in the HKTR has fallen to 7% in August 2017 (including Phase 2 data) from 33% in July 2015.

Annex 4: Follow-up of other key FSAP recommendations

This Annex presents the follow-up actions reported by the Hong Kong authorities to key FSAP recommendations that are not covered in sections 2 and 3. The actions mentioned below have not been evaluated as part of the peer review and are presented solely for purposes of transparency and completeness.

Recommendations	***Steps taken to date and actions planned (including timeframes)***
Banking sector	
Eliminate or specify the circumstances triggering the exercise of the legal authority of the Chief Executive of Hong Kong SAR to give directions to the Monetary Authority (MA), and provide for the public disclosure of the reasons for the dismissal of the MA in the BO (BO).	• Our position remains as noted in the authorities' response to the FSAP in 2013. In relation to Basel Core Principles 2 ("BCP 2"), the authorities concur with the IMF that the MA enjoys clear de facto operational independence in the performance of his functions. In respect of the question of de jure independence, however, the authorities would like to reiterate (as on the occasion of the 2003 FSAP assessment of HKSAR) that the reserve power vested in the Chief Executive of HKSAR to give directions to the banking regulator reflects the government's ultimate responsibility to formulate monetary and financial policies and regulate and supervise financial markets as enshrined in the Basic Law. The power, which is provided for under section 10 of the BO, has never been used and would only be used as a tool of last resort to implement specific remedial measures in the most critical and extreme circumstances. In order to exercise the reserve power, the Chief Executive of HKSAR would have to be satisfied that any direction given is in the public interest and consistent with the objectives of the BO and with the Basic Law, and the Chief Executive of HKSAR's decision to issue a direction may be subject to judicial review. Hence there are safeguards against arbitrary use of the reserve power and, given these qualifications, the authorities consider that the power does not in fact substantively compromise the operational independence of the MA as banking supervisor. • Also in connection with BCP2, the authorities consider that the existing arrangements for the removal of the MA as (the head of) the banking supervisor are in practice adequate to preserve his independence. The FS is empowered to revoke the appointment of the MA and, should he consider doing so, he will be required under the common law to act reasonably and take all relevant factors into consideration. The FS's decision may be subject to judicial review. The letter of appointment between the FS and the MA makes it clear that it is not the intention to terminate the MA's employment except for cause, such as his inability to discharge, or adequately carry out, his functions or duties; serious misconduct; conviction of a criminal offence punishable by imprisonment; or bankruptcy. In the interests of transparency, the HKMA makes public announcements of all of its staff changes at the level of Executive Director or above; including the reasons for such staff changes.

Insurance sector	
Establish the proposed independent Insurance Authority (IA).	**[Implemented]** • The IA has taken over the functions of the OCI in regulating insurance companies on 26 June 2017 when the relevant provisions of the Amendment Ordinance as well as eight pieces of subsidiary legislation under the IO came into operation on the same day.
Update the Insurance Companies Ordinance (ICO) to better reflect current international best practices, including by: (i) extending the fit and proper regime to cover Senior Management and Key Persons in Control Function; (ii) establishing a clear definition of control and pre-determined control levels; (iii) updating risk management requirements; (iv) granting authority to remove or disqualify persons on fit and proper grounds; and (v) requiring insurers to implement contingency plans.	**[Implemented]** • Enhancements made to the existing legal and regulatory framework took effect as soon as the IO became operative on 26 June 2017. These include the requirement to obtain prior approval of the IA for the appointment of certain individuals by an insurer, including directors, key persons in control functions and appointed actuaries, and the provision of the definition of control functions, such as risk management; financial control; compliance; internal audit; actuarial and intermediary management functions. • Under the IO, shareholder controllers of authorized insurers need to report the disposal of their shareholding interests in the authorized insurers to the IA, and the IA can revoke the appointment of Senior Management and Key Persons on fit and proper grounds. • Risk management requirements for insurers have also been updated to the related guidance note. Insurers are required by the revised Guidance Note on Corporate Governance (GN10) to have, among others, business continuity planning which covers detailed actions and procedures, including contingency plan, identification of critical business activities, roles and responsibilities of different parties etc.
Amend the IO to establish a regulatory regime for insurance groups.	**[On Track]** • Apart from the current roles in (i) leading the supervisory college of a Hong Kong SAR incorporated insurance group; (ii) co-leading a regional supervisory college of a G-SII with the home regulator; and (iii) actively participating in supervisory colleges of other insurance groups, the IA has proposed a regulatory regime for insurance groups and subgroups in the context of developing a risk based capital ("RBC") regime. • Depending on the structure and size of insurance groups/subgroups, a three-tier approach for supervisory measures for group-wide supervision has been proposed. It is aimed at introducing qualitative and disclosure requirements (i.e., Pillar 2 and Pillar 3 requirements respectively) through guidelines targeted by end of 2018 ahead of the legislative process on quantitative requirements (i.e. Pillar 1

	requirements) (see "Amend the IO to implement a risk-based capital regime" below).
Amend the IO to implement a risk-based capital (RBC) regime.	**[On Track]** • A consultation on the proposed RBC regime was concluded at the end of 2015 that the insurance industry should move towards a risk-sensitive capital adequacy regime and enhance enterprise risk management (ERM) requirements in order to reflect the actual risks that insurers face. • The IA kicked off the second phase of the development of RBC regime to develop detailed rules for quantitative requirements (i.e. Pillar 1 requirements under the RBC regime) and launched the four-month first quantitative impact study (QIS 1) in July 2017. In view of the complexity of the calibrations and the experience of other jurisdictions, more than one QIS will be necessary and it is expected that the whole QIS exercise will be completed in 2019. A further consultation exercise on the detailed rules will be conducted after the completion of the QIS exercise. • The implementation of the RBC regime will be rolled out in phases. Subject to further consultation with stakeholders, legislative amendments will be introduced. The whole process is expected to take about two to three years. • As regards the qualitative and disclosure requirements (i.e., Pillar 2 and Pillar 3 requirements under the RBC regime), the IA has proposed and discussed the key elements with industry working groups, with a view to revising existing guidelines and issuing a new guideline on ERM for consultation as next step. The IA expects promulgating these Pillar 2-related guidelines by end of 2018 ahead of the legislative process on Pillar 1 requirements.
Strengthen conduct of business requirements and direct supervision of insurance intermediaries.	**[On Track]** • The Amendment Ordinance provides for the establishment of a statutory licensing regime for insurance intermediaries and provides the IA with express powers to conduct inspection, initiate investigation, and imposes a range of disciplinary sanctions (including revocation of licence, issuance of reprimand and imposition of pecuniary penalty of up to HKD10mn) on licensed insurance intermediaries. The broad principles of conduct requirements on the part of a licensed insurance intermediary are stipulated in the Amendment Ordinance. The IA will also be empowered to make rules for insurance intermediaries to comply with practices and standards relating to conduct requirements, and issue codes or guidelines to facilitate their compliance with the conduct requirements. Relevant regulatory framework and supporting infrastructure are now under preparation, and it is expected that the statutory licensing regime will be implemented in about two years' time.

	• As regards the conduct of business requirements for insurers, the IA has issued two guidance notes for insurers on the underwriting of unit-linked policies and life insurance policies respectively, which are based on Insurance Core Principle 19 on Conduct of Business promulgated by the IAIS. Both guidance notes adopt a "cradle-to-grave" approach by requiring insurers to meet regulatory requirements on product design, disclosure of key product features, suitability assessment as well as sales and post-sale control measures to ensure that the products being recommended to clients do suit their needs.
Securities market	
Strengthen secondary markets regulation by (i) expanding oversight regime of the HKEX; and (ii) further developing clear and transparent requirements for the recognition of exchanges and the authorisation of automated trading services.	**[On Track]** • The SFC enhanced its supervisory approach in early 2014 following the announcement by HKEX in 2013 of its strategic plan which would change its business model as it expands into new markets, asset classes and infrastructures. Supervision focused on HKEX's capability to adequately identify, assess, and manage conflicts, business and regulatory compliance risks across the markets in which HKEX operates, and on conducting on-site inspections of the non-listing operations of HKEX. In this regard – (i) The SFC has imposed a gearing ratio requirement and financial resources requirement on HKEX and its subsidiary RECs and RCHs. The financial resources requirement for RCH was first introduced in the fourth quarter of 2013, when OTC Clear was recognised as an RCH. This was followed by the other three RCHs in 2014: HKSCC, HKCC and SEOCH. HKEX and its subsidiary exchanges and clearing houses have fully complied with the requirements. (ii) HKEX agrees on the need to strengthen its compliance function. A Regulatory Compliance Department has been established and is implementing a compliance monitoring programme. (iii) The SFC completed an on-site inspection of HKEX's cash trading operations and activities in September 2015. HKEX accepted all the recommendations of the SFC and completed actions to address all of the SFC recommendations. The SFC has commenced the next on-site inspection which focuses on cash market clearing operations in August 2017. • The RMC was established to focus on cross-market risks relating to HKEX in the aftermath of the Asian Financial Crisis in light of the interface between the securities market and the money market. It is essential for the SFC and the HKMA to continue to stay on RMC to provide inputs from the macroprudential and financial stability angles. **[Implemented]** • The SFC amended its Guidelines for the Regulation of Automated Trading Services ("ATS Guidelines") to clarify the factors relevant to considering whether a particular operator is more suited to be

	regulated as REC or an authorized ATS provider. The revised ATS Guidelines came into effect on 1 September 2016. The clarification will facilitate understanding of the regulatory differences between the REC and ATS regimes (which are reflected in the SFO) and guide potential applicants who wish to operate a futures market in Hong Kong SAR.
Strengthen auditors' oversight by (i) enhancing the independence of the auditor oversight body; (ii) strengthening the enforcement framework; and (iii) expanding the scope of oversight to all auditors of companies listed in Hong Kong.	**[On Track]** • FSTB launched a public consultation to solicit views on proposals to introduce an independent oversight regime for the regulation of listed entity auditors in June 2014. The consultation conclusions were issued in June 2015 (http://www.fstb.gov.hk/fsb/ppr/consult/doc/conclu_rpirrlea_e.pdf). • With general support from the audit profession and the relevant stakeholders, the Government has been preparing an amendment bill to implement the reform. The reform will bring Hong Kong SAR into line with the international standards that auditor regulatory regimes should be independent of the profession itself and be subject to independent oversight by bodies acting in the public interest. The Government will introduce the amendment bill into the Legislative Council in January 2018. • Under the reform proposals, the Financial Reporting Council (FRC) will become the independent auditor oversight body vested with direct inspection, investigation and disciplinary powers with regard to listed entity auditors. The enforcement powers to be vested with FRC will also be stronger as compared with those under the present regime. Without compromising the independence of the new auditor regulatory regime, the authorities will leverage on the experience of the Hong Kong Institute of Certified Public Accountants in handling matters pertaining to registration, standard-setting and continuing professional development with regard to listed entity auditors by entrusting the Institute with these statutory functions while being subject to the oversight by the FRC.
Strengthen enforcement by (i) providing the scope for the SFC to take both punitive and remedial actions in cases where breaches of the Code of Conduct do not contravene the law; and (ii) improving the existing coordination arrangements for	**[Implemented]** (i) The SFC has been using criminal prosecutions, market misconduct proceedings, civil restitutionary proceedings and disciplinary proceedings to tackle different types of financial crime and misconduct. In these proceedings, the SFC sought the imposition of punitive, deterrent sanctions and restitutionary orders, which have been proven to be effective in ensuring that the Hong Kong SAR markets remain safe, fair and efficient. The SFC has taken tough actions against LCs and registered institutions for breaches of the SFC Code of Conduct. Some recent examples of these actions include: • In March 2017 – reprimanded Merrill Lynch and fined it HKD15mn over internal control failures.

<table>
<tr><td>criminal enforcement.</td><td>

- In March 2017 – reprimanded BOCOM International and fined it HKD15mn for sponsor failures.
- In April 2017 – reprimanded Guoyuan Securities Brokerage (Hong Kong) Limited and fined it HK$4.5 million for anti-money laundering related regulatory breaches. The SFC has also instituted proceedings before the Court of First Instance and the Market Misconduct Tribunal (“MMT”) respectively against Gu Chujun, the former chairman and chief executive officer of Greencool Technology Holdings Limited, for grossly overstating Greencool’s financial statements. The MMT ordered Gu to disgorge approximately $481 million profit made. The SFC will seek final restitutionary orders in the Court proceedings.

(ii) The SFC and the Department of Justice (DOJ) entered into a memorandum of understanding on 4 March 2016 (MoU).

The MoU sets out: (a) the type of cases that will be referred to the DOJ, (b) the documents that will accompany each referral, (c) a fast track referral process where the cases are to be prosecuted summarily by the SFC in the Magistrates’ Courts, (d) the target DOJ response times, (e) procedures to deal with reviews and appeals, (f) procedures for starting Market Misconduct Tribunal proceedings, (g) line and format of communications, (h) consensus and procedures for use of expert evidence, (i) procedures for requests for granting immunity, and (j) procedures for review of DOJ decisions.

The relationship between the SFC and the DOJ has improved since the MoU was signed and the turnaround time for cases submitted to the DOJ for advice has been reduced.
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<tr><td colspan="2">Financial market infrastructures</td></tr>
<tr><td>Develop a clear timetable for each FMI for compliance with the PFMIs.</td><td>

FMI under the SFC purview [On Track]

- The SFC and HKEX have agreed on a timetable for the RCHs in the HKEX Group to comply with the PFMIs in respect of areas where improvements are required. All of the areas identified have been addressed, except for two. The first relates to settlement finality of transactions between brokers (other than those guaranteed by the CCPs which have already been provided settlement finality). This matter is being considered as part of SFC’s work on dematerialising the Hong Kong securities market which involves a review of the clearing and settlement model and is on-going. The second relates to the use of central bank money for settlement where we are in ongoing discussions with HKEX and the HKMA on the most appropriate design and implementation.
- HKEX is in the process of conducting a self-assessment on compliance with the PFMI Further Guidance issued in July 2017. HKEX aims to discuss its gap analysis and its plan to implement measures to address those gaps with the SFC in Q1 2018 with a view to finalising the implementation plan by Q2 2018.
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	FMI under the HKMA purview [Implemented] • The HKMA required the FMIs under its purview to make changes in accordance with relevant PFMI requirements, and be generally observant of the PFMI by end-December 2015. The requirement is stated in the HKMA policy statement on oversight of FMIs, which is available on the HKMA website.[110] • The HKMA has completed PFMI assessments on all the FMIs under its purview, with the assessment summaries published on the HKMA website.[111] All FMIs under the purview of the HKMA are considered to be generally observant of the PFMI. • The Central Moneymarkets Unit (CMU), Hong Kong dollar Clearing House Automated Transfer System (CHATS) and Trade Repository have all completed a self-assessment on their compliance with the PFMIs, and the disclosure framework for each was first published in October 2014, July 2014 and September 2015 respectively.
Develop a recovery and resolution plan for each FMI (in line with the resolution regime).	**FMI under the SFC purview [On Track]** • Three of the four existing RCHs of HKEX namely, HKSCC, HKCC and SEOCH have each submitted a recovery plan based on their respective existing rules. The three RCHs are working in consultation with the SFC to improve on their current recovery plans based on international standards. To this end, the RCHs will take into consideration (i) the guidance on Recovery of financial market infrastructures, October 2014 (Revised July 2017); and (ii) the report on *Resilience of CCPs: Further guidance on the PFMI*, July 2017 (Further PFMI Guidance 2017) jointly published by the CPMI-IOSCO. HKEX's fourth RCH, OTC Clearing Hong Kong Limited, has been reviewing its recovery plan to identify any areas for improvements in light of the revised guidance on Recovery of FMI and the Further PFMI Guidance 2017. • The resolution planning for the four RCHs is expected to commence soon. The enhanced recovery plans of the RCHs would facilitate their resolution planning given the close relationship between resolution and recovery of a CCP. **FMI under the HKMA purview [Implemented]** • For FMIs under the purview of the HKMA, the requirement to establish a comprehensive framework for recovery and resolution only applies to the settlement institution and system operator of the three foreign-currency Real Time Gross Settlement systems, namely the US Dollar CHATS, Euro CHATS and Renminbi CHATS.

[110] The policy statement is available at http://www.hkma.gov.hk/media/eng/doc/key-functions/banking-stability/oversight/FMI_oversight.pdf.

[111] The assessment summaries are available at http://www.hkma.gov.hk/eng/key-functions/banking-stability/oversight.shtml.

	• Each of the parties as mentioned above has developed its own recovery plan based on PFMI requirements. The recovery plans are updated annually and approved by the respective Boards of the parties concerned. • Other FMIs under the purview of the HKMA, namely the Hong Kong Dollar CHATS, the Central Moneymarkets Unit, and the HKTR, are FMIs owned and operated by the HKMA. According to a note issued by CPMI-IOSCO on application of the PFMI to central bank FMIs, the requirement to develop a recovery and resolution plan does not apply to central bank-operated FMIs. **FMI under the HKMA purview [On Track]** • The HKMA is working with the applicable FMIs to meet the relevant FSB's requirements. FSB published *Guidance on Continuity of Access to Financial Market Infrastructures (FMIs) for a Firm in Resolution* on 6 July 2017. The Guidance is also applicable to FMIs.