
Introduction

Throughout Hong Kong's history, financial markets and their regulation have evolved with financial crises. Every significant financial crisis in Hong Kong has pivoted on liquidity in either or both the banking and monetary systems.¹ Accordingly, liquidity support has played a prominent and critical role in managing Hong Kong's financial stability. From the beginning, the lender of last resort was the primary means of managing banks' liquidity and solvency, with funding being sourced from the private sector. Although the government has assumed this role over the past 30 years, there is yet to be a need for this support. With the modernization of financial markets, banks have become susceptible to funding and market liquidity. These liquidity risks were exemplified in the 2008–9 global financial crisis (GFC) and resurfaced, to a lesser extent, at the beginning of the COVID-19 pandemic.

The GFC brought to the fore a new era of liquidity risks and uncertainty which threatened the orderly functioning of the global financial system. At the heart of the crisis was the banking system having insufficient capital, liquidity, and leverage buffers, being overly reliant on wholesale funding, excessive exposure to subprime mortgages, securitization and derivative risk, the underregulated and unregulated shadow banking system, and the absence of resolution regimes for large financial institutions. The GFC decimated the global banking system. Hong Kong's financial system, which is dominated by the banking sector, performed relatively well because of the lessons learnt from the 1997 to 1998 Asian financial crisis.² Capital and liquidity levels were relatively robust, banks did not have a material exposure to the subprime mortgage

¹ See generally Tushar K. Ghose, *The Banking System of Hong Kong*, 2nd ed. (Hong Kong: Butterworths Asia, 1995).

² For a discussion, see Andrew Sheng, *From Asian to Global Financial Crisis: An Asian Regulator's View of Unfettered Finance in the 1990's and 2000's* (Cambridge: Cambridge University Press, 2009).

market, securitization, derivatives markets, nor the shadow banking system.³ Instituting a bank resolution regime was not a pressing consideration because no large banks failed, which was in stark contrast to other international financial centres. Hong Kong nevertheless recognized the importance of modernizing its financial regulatory architecture to ensure that future financial crises and financial stability risks could be effectively managed, remain competitive, while instilling and maintaining the confidence of market participants.

Over the past decade, Hong Kong has undertaken more financial market regulatory reforms, based on the recommendations made by the G20 and the Financial Stability Board (FSB), than in any other time throughout its history.⁴ For example, implementing the Basel III capital, liquidity, and leverage ratios, including additional requirements for systemically important banks. The promulgation of the Financial Institutions (Resolution) Ordinance (Cap 628) established Hong Kong's first financial institution and financial market infrastructure resolution regime.⁵

These regulatory reforms address the too-big-to-fail conundrum that had confronted regulators and governments during the GFC. Large, complex, and systemically interconnected financial institutions had to be bailed out at taxpayers' expense because otherwise a disorderly failure would have caused catastrophic financial and economic damage.⁶ Deposit insurance gained renewed impetus as a tool for maintaining the stability of banks under acute liquidity stress.

Unconventional liquidity tools were deployed en masse by central banks at the beginning of the GFC to restore market liquidity and reduce demand for funding liquidity. These tools have since become commonplace and were once again used in March 2020 to address the uncertainty surrounding the COVID-19 pandemic. Derivatives caused the rapid spread of systemic risk between the shadow banking system and banks during the GFC which led to the seizure of wholesale funding markets. Over-the-counter (OTC) derivative markets have subsequently been

³ See also Douglas Arner, Emiliios Avgouleas, and Evan Gibson, 'COVID-19, Moral Hazard and the Resolution of Systemic Banking Crises: Designing Appropriate Systems of Public Support' (2022 *forthcoming*) *European Business Organization Law Review*.

⁴ See Financial Services Board, *Peer Review of Hong Kong – Review Report* (28 February 2018).

⁵ For an international comparative analysis, see Financial Stability Board, *Thematic Review on Bank Resolution Planning – Peer Review Report* (29 April 2019).

⁶ See generally Emiliios Avgouleas, 'Effective Governance of Global Financial Markets: An Evolution Plan for Reform' (2013) 4 *Global Policy* 74.

regulated and central clearing counterparties established to better cope with systemic risk. Being financial market infrastructure, central clearing counterparties are subject to resolution regimes.

Expected loss accounting reforms had to be revisited because of the unusual circumstances surrounding the COVID-19 economic shutdown. These standards were scheduled for implementation from the beginning of 2020. If these standards had been instated, the sudden spike in loan-loss provisioning would have caused credit constraints in developed economies. Most jurisdictions retained the status quo of incurred loss accounting during the COVID-19 pandemic to support the economy and the financial position of banks.

Despite these wide-ranging reforms, any presumption that GFC-sourced financial regulations have sufficiently strengthened the international financial system against a future global financial crisis is ill-founded. In the succeeding decade, some profound market developments have emerged that have substantially transformed the financial and banking systems.⁷ This can be principally attributed to the post-GFC regulatory reforms, the financial technology revolution, competition for financial services and infrastructure emanating from non-traditional technology-based market entrants, and sustainability risks. For Hong Kong, the rise and growth of Mainland China (the Mainland) is another factor that is reshaping its financial and banking systems.

Gaps in the financial supervisory architecture persist and recent market developments are creating new risks that could undermine financial stability. Of the insistent gaps, only one FSB mandate addresses financial supervisory structures. That mandate dealt with promoting coordination among supervisors rather than the effectiveness of the supervisory structures or models.⁸ Post-GFC recommendations and policy areas are more concerned with regulatory tools and policies, not the supervisory structures that manage those tools and policies to achieve financial stability.

Building upon this broad background, this Book is set out in six parts. The first part provides a historical account of the development of finance in Hong Kong, the evolution of financial regulation in a market-based

⁷ For a discussion on the banking sector, see generally Ross P. Buckley, 'Changing Nature of Banking', in Ross P. Buckley, Emiliós Avgoulous, and Douglas W. Arner (eds.) *Reconceptualising Global Finance and Its Regulation* (New York: Cambridge University Press, 2016).

⁸ Financial Stability Board, 'About the FSB'. www.fsb.org/about/#mandate.

system, and the influence of financial crises on shaping the financial system and regulatory framework. Chapter 2 discusses the development of Hong Kong from its colonial beginnings in 1841 to the 1997 handover. The chapter canvasses Hong Kong's financial markets, the expansion of financial regulation, and financial crises during the period. Chapter 3 develops these findings by examining the regulatory responses and reforms in response to the Asian financial crisis and the GFC, Hong Kong's financial market integration with the Mainland, and the COVID-19 pandemic.

Part II takes a conceptual approach by considering the regulatory models of financial supervision. In this part, Chapter 4 comparatively analyzes the sectoral models operating in the Mainland, the United States, and Hong Kong to showcase institutional design elements and variations across different financial systems. The chapter assesses the advantages and disadvantages of the unified central bank and banking supervisory design of the Hong Kong Monetary Authority when managing financial stability. Chapter 5 studies systemic supervision under the integrated, functional, and Twin Peaks models, and composite systemic supervisors to elucidate each model's strengths and weaknesses. Supervisory models include those in Hong Kong, Mainland China, the United States, United Kingdom, Singapore, Australia, South Africa, and the Netherlands.

The third part theorizes the contemporary financial regulatory and supervisory approaches. Chapter 6 analyzes financial stability during financial crises with a focus on liquidity and systemic risk. The chapter argues that the definition of financial stability must be revisited to enhance financial supervision, by drawing upon the lessons learnt from the GFC. Chapter 6 observes the relationship between liquidity mismatches, financial instability, and a financial institution's balance sheet. Chapter 7 considers how the G20 framework for a sustainable recovery and economy can be achieved with the use of macro-prudential tools and regulatory policies. The chapter discusses how the design of the supervisory structure can strike an appropriate balance between micro- and macro-prudential regulation to control and monitor the build-up of systemic risks in the financial system.

Part IV surveys banking supervision, regulation, and financial stability in Hong Kong. Chapter 8 evaluates the implementation of the Basel III capital and liquidity reforms in Hong Kong, banking sector stability during the GFC and the COVID-19 pandemic, and systemic supervision. The chapter discusses how different supervisory structures and models

affect the regulation and supervision of financial stability in Hong Kong's banking sector. Chapter 9 assesses the effectiveness of Hong Kong's sectoral model of financial regulation, compared to the integrated, functional, and Twin Peaks models, when implementing unconventional liquidity tools.

In the fifth part of this book, there is a discussion on resolution regimes and crisis management mechanisms. Chapter 10 ponders the effectiveness of deposit protection, the lender of last resort, and how different supervisory structures affect the implementation of these bank stabilization tools. The chapter deliberates over which structures can adversely affect a supervisor from fulfilling the financial stability mandate. Chapter 11 considers the FSB-endorsed financial institution resolution framework and its application in Hong Kong. The chapter focusses on the supervisory flaws which could undermine the effectiveness of the banking sector resolution authority and the resolution regime. Chapter 12 evaluates the FSB over-the-counter derivatives reforms, specifically the use of central clearing counterparties to mitigate systemic risk. The chapter reassesses whether the resolution regime and the supervision of Hong Kong's central clearing counterparty, OTC Clear, reflects the underlying risks.

Part VI addresses certain aspects of Hong Kong's financial market and regulatory integration with the Mainland that could cause a financial crisis. Chapter 13 discusses Hong Kong's role in the internationalization of the renminbi, the connect schemes, and cross-boundary financial market infrastructure. Financial market integration is complicated by the dual supervisory and regulatory systems of Hong Kong and the Mainland. The chapter analyzes whether these differences produce cross-boundary flaws in the supervision of financial market infrastructure. This is followed by a discourse on how distributed ledger technology could impact cross-boundary supervision. Chapter 14 then turns to the digital yuan, its ability to circumvent United States dollar sanctions, strengthen capital controls, and promote financial liberalization. Mainland technology companies' payment platforms are instrumental in the circulation of the digital yuan. These same technology companies have recently established virtual banks and stored value facility payment platforms in Hong Kong. Chapter 14 examines the regulation of these developments and how technology could pose a material risk to the financial stability of Hong Kong's banking system. To conclude the chapter, the supervision of cryptocurrencies is reviewed.

Hong Kong's future as an international financial centre will continue to evolve with market developments and financial system integration with the Mainland. Regulatory reforms will follow the historical trend of maintaining Hong Kong's competitiveness as an international financial centre. Some of the most profound of these regulatory reforms will most likely happen in response to a financial crisis.

PART I

A Financial History of Hong Kong

Hong Kong, 1841–1997

Financial Crises and Financial Regulation

Introduction

Hong Kong underwent a rapid period of financial development during its first 25 years, transforming from a fishing village to enduring its first banking crisis. In these early years, Hong Kong was a typical British colony with the financial system being regulated in accordance with British law and oversight by the Bank of England. Financial market development gradually pushed the colony towards domestic regulation. Instead of financial market regulation being initiated by the colonial government, responsibility was appropriated by the market. Civic duty had nothing to do with this system of financial regulation. Market intervention was all about preserving self-interest. This arrangement persisted for almost a century until the late 1940s, when banking regulations were first introduced. These regulations were rudimentary and failed to adequately address financial stability, which was apparent from ongoing market intervention. More robust regulations only emerged in the 1970s following a severe banking crisis and stock market crash, with regulatory reforms gaining impetus during the 1980s and 1990s.

Financial markets and their regulation developed, evolved, and were shaped in response to a series of financial crises. Accordingly, this chapter provides a brief financial history of Hong Kong's financial regulation and financial crises prior to the 1997 handover. To begin, there is a discourse on the British colonial influence and market-based regulation between 1841 and 1935, followed by an examination of the late twentieth-century banking sector and monetary system which encouraged the development of financial regulation.

The shaping of financial regulation and the regulatory approach in Hong Kong underwent extensive change at a time when the first modern banking crisis and stock market crash battered the economy between the mid-1960s and the early 1970s. As a consequence, supervisors ring-

fenced and consolidated the banking sector. This regulatory response propelled the rise of shadow banking, which was instrumental in fuelling the deposit-taking company crisis of the early 1980s. Conduits between the shadow banking and banking sectors compelled the market to provide extensive lender-of-last-resort relief that prompted another round of regulatory reforms. This chapter concludes by discussing the events from the late 1980s to 1997, from which the current regulatory and supervisory architecture has evolved.

British and Market-Based Regulation

In 1841, the British occupied Victoria Island, Hong Kong, which became a British colony the following year. Since Hong Kong was a British colony, the recently enacted Colonial Bank Regulations 1840 were transplanted into Hong Kong, and the Bank of England was conferred with ultimate responsibility over the financial system. No local currency was in circulation. Hong Kong's economy was laissez-faire, based on free trade. In these early years, banking functions were performed by the large agency houses, namely, Jardine Matheson, Dent & Co., Gibb Livingston, and Russell and Co.¹ Subsidiaries of these agency houses were pivotal in bringing insurance business to Hong Kong through Canton Insurance and Union Insurance.²

By 1845, the first British joint bank, the Orient Banking Corporation, opened for business. British and European banks entered the market soon after to serve colonist interests, followed by the emergence of Mainland Chinese banks to serve local Chinese interests. The Orient Banking Corporation was the first bank to issue local bank notes. Hong Kong's first local bank, the Bank of China, was incorporated some 20 years later in 1864. This was not a significant milestone in the development of the colony because most of the Bank of China stock was held overseas. A far more significant development transpired when representatives of the major Hongs on China's east coast met to discuss the founding of a new domestic bank, the Hong Kong and Shanghai

¹ Tushar K. Ghose, *The Banking System of Hong Kong*, 2nd ed. (Hong Kong: Butterworths Asia, 1995), p. 2.

² Feng Bangyan and Nyaw Mee Kau, *Enriching Lives: A History of Insurance in Hong Kong, 1841–2010* (Hong Kong: Hong Kong University Press, 2010), p. 17.

Banking Corporation (HSBC). At the time, there were 10 banks operating in Hong Kong.³

The banking sector continued to be administered in accordance with the Colonial Bank Regulations 1840, a British statute which restricted banks from freely issuing bank notes. Banks which sought to issue bank notes required a Royal Charter approved under the Colonial Banking Regulations 1840. During the nineteenth century, Hong Kong's monetary system was backed by the silver standard.⁴

The establishment of HSBC was overwhelmingly supported by the Hongs, who immediately sought approval to issue bank notes. Hong Kong's newly enacted Companies Ordinance (No. 1 of 1865) permitted HSBC to register and commence banking business, and, from 3 March, 1865, issue bank notes.⁵ An objection was raised by Jardine Matheson on the grounds that the Companies Ordinance (No. 1 of 1865) was inconsistent with the Colonial Banking Regulations 1840. HM Treasury upheld the objection and ruled that the clause permitting the registration of HSBC was invalid. The Hong Kong Colonial Government (the Government) was forced to pass a new Companies Ordinance (No. 2 of 1866) in March 1866 to revoke the registration of HSBC. Subsequent advice from George Arbuthnot of HM Treasury instructed the Government on how to legally register HSBC under its own ordinance of incorporation: The Hong Kong and Shanghai Bank Ordinance (No. 5 of 1866).⁶ This ordinance enabled HSBC to successfully register and commence banking business in Hong Kong. In the same year, company shares began being publicly traded, and the first domestic insurer, Hong Kong Fire Insurance Company, began actuarial business.⁷

With the foundations of a domestic financial system having been established, the colony found itself engulfed in its first banking crisis. In the wake of this crisis, 6 out of 11 banks survived.⁸ Financial stability

³ Ghose n 1, pp. 2–10; Frank H. H. King, *The History of the Hong Kong and Shanghai Banking Corporation. Volume I: Hong Kong in Late Imperial China 1864–1902: On an Even Keel* (Cambridge: Cambridge University Press, 1987), pp. 10, 79, and 82.

⁴ Ghose n 1, p. 15; King n 3, p. 106.

⁵ Ghose n 1, p. 10; King n 3, pp. 70 and 105.

⁶ King n 3, pp. 107, 109, and 625. HSBC was incorporated on 14 August 1866. George Arbuthnot was Robert Peel's former private secretary.

⁷ Hong Kong Exchanges and Clearing Limited, 'Hong Kong Securities Market', in *Factbook* (Hong Kong: HKEX, 1999), www.hkex.com.hk/eng/stat/statrpt/factbook/documents/fb99_01.pdf; Bangyan and Kau n 2, p. 28.

⁸ Ghose n 1, p. 10.