

Praise for *The Tides of Capital*

'Julia Leung has been at the ringside for many years, observing and analysing financial developments. She has now written a book which connects all the dots and provides a map of the new financial reality. The mistakes committed by the Asian countries in 1997 and by the core countries in the years before and since the 2008 crisis are laid out in detail.'

– Prof. Lord Meghnad Desai, Emeritus Professor of Economics, London School of Economics and Political Science; author, *Rediscovery of India*

'Julia Leung, long-time Hong Kong public servant and close observer of financial markets, goes beyond normal public service rectitude by pulling no punches in describing the shortcomings in US and European economic policy that resulted in the global financial crisis. She presents Asia's more eclectic and pragmatic approach as the way forward.'

– Prof. Barry Eichengreen, George C. Pardee & Helen N. Pardee Professor of Economics and Political Science, University of California, Berkeley

'Many books have been written about the global financial crisis; unfortunately, the world appears to be still learning the right lessons from the crisis and building good foundations for sustainable growth. Even in this crowded field, Julia Leung's book is a most welcome contribution. As we seek to build a global financial system for the future, her recommendations on the pragmatic use of a diverse set of policies by Asian governments are worth serious study.'

– Dr Victor Fung, Chairman, Fung Global Institute

'Julia Leung provides a sensible and level-headed guide for how the world may draw appropriate lessons after the global financial crisis.'

– **Prof. Harold James, Professor of History and International Affairs, Princeton University**

'As a senior leader at the Hong Kong Monetary Authority, Julia Leung played a key role in managing the Asian financial crisis in the late 1990s and limiting damage to the economy. Her Asian perspective on the issue is stimulating. Her book examines the factors behind recurring financial crises and proposes a framework for better international co-operation to counter the danger of fresh upsets.'

– **Gao Jian, former Vice Governor, China Development Bank**

'This book provides a novel and refreshing perspective on the economic and financial crisis that originated in the US. This was transmitted around the world and to Asia through the collapse of the international banking system, following the Lehman bankruptcy. The book is remarkably well informed and dispassionate and draws important lessons for future management of financial crises in Asia. The most important of these is that Asia cannot rely on the US and international institutions it created and still dominates, most notably, the IMF.'

– **Prof. Dale Jorgenson, Samuel W. Morris Professor of Economics, Harvard University**

'We are living through one of the greatest power shifts, from west to east. Few understand how shrewdly the Asians have managed their affairs. Julia Leung's book throws new light on Asian perspectives. It is a must read for those who want to understand our times.'

– **Prof. Kishore Mahbubani, Dean, Lee Kwan Yew School of Public Policy, National University of Singapore; author, *The Great Convergence: Asia, the West and the Logic of One World***

'Julia Leung's book comes out at a most appropriate moment. The world economy is still struggling to cope with the consequences of the financial crisis. The Asian perspective that is the book's leitmotif provides an alternative analytical formulation of how monetary and financial authorities should respond to crisis. The key argument, based on Asian economies, is that financial bubbles have to be confronted at an early stage before they generate widespread disruption to credit flows to the real economy.'

– **Fabrizio Saccomanni, former Italian Finance Minister and Director-General, Banca d'Italia**

'There is a dearth of analyses of Asian and global financial markets by Asian policy-makers, who are generally very low key and diplomatic in their critique of the current situation. Julia Leung fills this gap through an incisive, up-to-date and important analysis of how rising capital flows once again threaten Asian and global stability. Investors and policy-makers interested in Asia must read this book for its first-hand insights and balanced judgements.'

– **Andrew Sheng, Chief Adviser, China Banking Regulatory Commission; former Chairman, Hong Kong Securities and Futures Commission**

'Julia Leung has written a wonderful, highly readable, short book on international capital flows, on mistakes made and lessons learned in Asia on the management of the capital account, in and out of crisis mode. The Asian perspectives that she presents are crucial inputs to the creation of a stable international financial and monetary system, for many reasons, not the least of which is that Asia will dominate the global economy in the not too distant future.'

– **Prof. Michael Spence, recipient, 2001 Nobel Memorial Prize in Economic Sciences; New York University**

‘This well-informed book is at its best on the bold solutions and non-doctrinaire approach to macroprudential regulation and market interventions shown by some Asian governments in the Asian crisis in 1997-98. On the other hand, Julia Leung may be a bit too negative on the role of the international advice to Asia; the IMF did rely too much on fiscal consolidation, but quickly changed gear, and tight monetary policy was necessary to contain overly strong depreciation and its contractionary effects. Most Asian countries had individually learnt useful lessons, well applied after 2008: keep larger reserves and allow exchange rates to move. But the book might have commented more on whether they learnt enough collectively; mutual surveillance and minimal policy coordination still seem in short supply.’
– Prof. Niels Thygesen, Emeritus Professor of Economics, University of Copenhagen

‘A western narrative has suggested that Asian countries were primarily responsible for their crisis of the late 1990s and that their “excess savings” caused the global crisis that began in 2007. As Julia Leung convincingly argues, these views are not just wrong but counterproductive. The blame game impedes international co-operation at a time when we desperately need more of it. In documenting in an even-handed way recent market failures, as well as widespread policy failures, Leung points the way to a more stable economic future, both domestically and internationally.’
– William White, Chairman, Economic and Development Review Committee, Organisation for Economic Co-operation and Development

THE TIDES OF CAPITAL

‘The world will rely ever more on a US-Asian tandem to chart a more effective global economic system.’ – Julia Leung

The centre of gravity of economics and finance has shifted towards Asia, a result of the dynamism of China and the rest of Asia and a weak US and European recovery from financial convulsions. The last 15 years has been a wrenching period for the international economy. For the first time, a senior Asian policy-maker, Julia Leung, former Treasury undersecretary in Hong Kong, lifts the veil on the sometimes acrimonious financial manoeuvrings between the west and Asia – striking through to the heart of world money and power.

A decade before the global financial crisis, Asia suffered severe disruption in 1997-98 in the face of virulent capital flows. The episodes led to bitter policy exchanges with the US and the International Monetary Fund, which forced problem-hit countries to implement draconian austerity programmes that many Asians resented as damaging and unwarranted. Yet Asia emerged stronger. When the 2008-09 upheavals broke out, the US and the west embarked on radical solutions diametrically different from precepts earlier advocated for Asia. The result was a fresh series of debilitating capital flows. In many fields, Asia has now decided to go it alone, forming new organisations to challenge the IMF and the World Bank and amassing huge foreign reserves to build self-dependence. The only way to overcome mutual distrust and suspicion is to rekindle international co-operation and create a new balance of monetary responsibilities between the US and China – but it will be a long and arduous journey.

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Publisher's Note

David Marsh

This book springs from a series of fortuitous coincidences. I had long wished to launch a book on what the west should learn – and indeed should have learned some time ago – from the Asian financial crisis and its aftermath. I am very pleased that Julia Leung, a senior Hong Kong policy-maker with considerable reserves of experience, verve, tact, charm and patience, has consented to write the first volume from the OMFIF Press, with results that I know will be a great success.

My curiosity on the issue was stirred by a succession of conversations over the years with Asian monetary officials, led by Governor Zeti Akhtar Aziz of Bank Negara Malaysia, about the vicissitudes they lived through in the 1990s caused by massive Asian economic imbalances, which were subsequently corrected under the impact of programmes partially imposed by the International Monetary Fund and western policy-makers, especially from the US Treasury. The large volume of advice and prescriptions that came Asia's way was disparate in nature and consequences. A considerable amount may have been well-intentioned. Some of it actually worked. But several elements were counterproductive.

Despite all this, Asia recovered. The west then manufactured its own crisis in 2008-09, starting off with trans-Atlantic perturbations that led to a new set of even more wrenching episodes with reverberations around the

Chapter 1

Asia's opportunity

This is certainly a skirmish, with countries using different tools to get an advantage. The industrial economies are using ultra-loose monetary policy, while the emerging markets are using currency intervention and capital controls.

Raghuran Rajan, future governor, Reserve Bank of India, 2010¹

This book relates how Asia recovered from its own financial crisis in 1997-98 and was then confronted anew with another set of disturbances in 2008-09, this time global in scale, emanating largely from financial excess in the US. The outcome of the story is open-ended. I make a set of recommendations at the close of the book on how policy-makers from across the diverse set of countries making up Asia have painted a framework for monetary and financial stability, how they differ from the west, and how they should better coordinate their positions within their own region and with the rest of the world to promote a more propitious environment for stability and growth.

Undoubtedly, what happens in China is crucial. In the light of my background in economic and financial policy-

making in Hong Kong, I can give a perspective on the growing international status of the Chinese currency, the renminbi – although many years will elapse before it can possibly supplant the dollar at the centre of the world system. But China is not Asia. One of my aims in writing this book is to provide a picture of the varied and resourceful set-up for policy-making across the continent. Japan, Korea, Hong Kong and Singapore, as well as the fast-growing south-east Asian countries grouped as emerging Asia, are making important contributions to the policy debate and to expansion of economic activity in what is widely and legitimately held to be one of the most dynamic and promising areas of the world economy.

To achieve our overall aim of a more stable and prosperous future, we must learn the right lessons from the past. The Asian crisis caused great pain and perturbation, but it yielded valuable precepts for the future for policy-makers from all over the world. For all Asian economies, but particularly the five most directly hit, Thailand, Korea, Indonesia, the Philippines and Malaysia, the economic and human toll was huge. In 1998, these five economies shrank by an average 7.7%; tens of thousands of companies went under; many millions lost jobs; and some even took their own lives. Yet just 10 years after Asia's travails, the US and Europe suffered an even more devastating financial crisis, with repercussions affecting Asia and the rest of the world, claiming colossal damages and job losses across the globe.

Asia in the meantime has made a striking recovery. Although affected by headwinds from the global economy, Asian countries – epitomised by the notable advance of China – have managed to carve out a far more independent place on the world stage. In particular, the experience of seeing the US and Europe – albeit in different ways – adopt strikingly contrasting policy responses compared with those that were advocated for Asia in 1997-98 has made

Asian policy-makers considerably more cynical about policy nostrums advanced by the west. This has led to a strong vein of suspicion towards multilateral forums such as the International Monetary Fund. In particular, the IMF has been at the centre of a long tussle over capital controls, creating a climate of mutual distrust and scepticism inimical to international monetary co-operation.

Asia in turn has put into effect a range of responses, from a build-up of regional safety nets and development institutions to widespread national reluctance to seek credit from the Fund, articulated in the desire of many Asian countries to build up foreign exchange reserves to well beyond traditional levels, partly as a means of self-protection from future monetary and financial alarms. In a positive sign that countries can learn from past experience, some of the nostrums adopted by Asia over the past 15 years have now become part of an international policy consensus.

In a similar way, there has been salutary convergence in the area of financial stability. In line with the practices of leading central banks such as the European Central Bank and the Bank of England, a number of central banks in emerging Asia reassessed their mandate for maintaining financial as well as monetary stability – with Malaysia standing out as a particularly positive example of successful legislative action. As these examples show, behind the sometimes poisoned debate, Asia has the chance to capitalise on a great opportunity.

Global growth towards the end of 2014 remains more subdued than during previous comparable recovery periods, with doubts over the position of large, previously fast-growing emerging market economies adding to perennial uncertainties over Europe. Even though the US is in better shape, the world cannot shrug off the fear that the fall-out of the last two crises may have created conditions that could engender a third bout of turbulence. Financial

crises are awful. Few governments survive one devastating spell of upheaval, let alone two. No one, whether from the governmental community or among mainstream workers in shops, factories or offices, should go through such a harrowing experience a third time in a lifetime.

No two crises are the same, but they tend to have a lot in common. Understanding the causes and effects of the 1997-98 and 2008-09 episodes may help policy-makers and regulators prevent the next one. Asian countries bore their scars from the last bout of disorder as they entered the global turmoil of 2008. Their defence mechanisms were fortified by reforms and restructuring, and their responses were shaped by their own history and understanding of what had worked and what hadn't. We have learnt that micro- and macroprudential tools are effective where interest rates fail to contain booming credit and asset bubbles fuelled by capital inflows arising from extraordinarily loose monetary policy in the major reserve currency areas. We have also learnt that market intervention and targeted capital controls are a necessary part of the armoury when faced with threats to financial market and exchange rate stability in Asia today.

My vantage point for dwelling on these themes is that of an Asian policy-maker with long and deep experience of dealing with and trying to coordinate governmental and central banking decision-makers in the US and Europe as well as across Asia. I am not an academic by training but I became, perhaps more intensively than I would have liked, a practitioner of crisis management: a practice which cannot be taught, but can only be learnt on the job. During the decades straddling the two crises, I was educated first at the Hong Kong Monetary Authority and then at the Financial Services and the Treasury Bureau of the Hong Kong government. I have learnt how indiscriminating contagion can spread during panic, how voracious and vicious capital flows can become, and how debilitating a

Financial stability and central banks

In the 1990s, central banking orthodoxy was that price stability was the goal, to be achieved through interest rates and inflation targeting. The Bank of England spun off its prudential regulation arm to form a mega-financial regulator, leaving the central bank with the sole objective of price stability. Many central banks in Asia followed suit, including Japan, Korea and Indonesia.

There is now broad consensus that achieving monetary stability is no guarantee of financial stability, and interest rates need to be supplemented with macroprudential tools to achieve systemic stability. The struggle is finding the best governance structure to support use of these tools. During the global crisis, central banks – many of which have no prudential responsibilities – were charged with providing liquidity to banks to avert a meltdown. The traditional role of central banks as lenders of last resort is nothing new. But the crisis put the spotlight on whether prudential regulation should return to the fold of the central bank, and whether financial stability should be written explicitly into the central bank mandate. These issues have led to particular confusion in Indonesia, which passed central bank legislation and created a new Financial Services Authority only as late as 2013.

The Bank of England has taken back its prudential regulatory function and formed a Prudential Regulatory Committee with a clear mandate for financial stability. Already in 2011, Bank Negara Malaysia established a Financial Stability Executive Committee, a body created by the Central Bank of Malaysia Act 2009.² 'Promotion of monetary stability

and financial stability conducive to the sustainable growth of the Malaysian economy' was written into the central bank mandate. The Malaysian central bank never parcelled out banking supervision, but the updated central bank legislation is particularly perceptive on how central banks can be empowered to deliver their financial stability mandate.

Financial crises have a way of evolving so that the causes and the market agents differ in every act. If banks are the 'culprits' in the last crisis, they then become well regulated or even over-regulated, and the problem of excessive leverage is pushed to a less regulated sector, particularly in an environment where the regulatory framework is fragmented. Malaysia's solution is to give its central bank the power to seek information and to issue instructions to any institution deemed to pose a risk to financial stability – a sweeping definition. The Financial Stability Executive Committee chaired by the central bank governor can seek information from any supervisory authority or government agency overseeing such institutions, and the Bank can specify remedial measures. The central bank has not only the mandate of financial stability, but also the power to regulate, rescue and resolve financial institutions. Replicating this in Europe or the US would be difficult, as parliaments in those jurisdictions are unlikely to vest such powers in unelected central bank governors.

single wrong policy move can turn out to be. And I know how much political courage and leadership is needed to implement unpopular action to contain financial upheaval and lead an economy to recovery.

It is now commonly recognised that capital mobility is closely associated with financial crisis, and that there is an

equal chance of these occurring in emerging markets and advanced economies, as amply demonstrated by Carmen Reinhart and Kenneth Rogoff's book *This Time is Different*. But it wasn't that widely accepted before. For the most part of the last 30 years, the debate on cross-border flows has been framed through the prism of the west, presenting the values of free markets and capital account opening in a virtuous light. There is a tendency in the US and in Europe, including at the IMF, to blame the bad policies and bad institutions of Asia for the damage inflicted by the crisis. To be sure, we in Asia have made policy mistakes. But we have also pointed out that the devastating effects of the Asian crisis were magnified by disruptive capital flows. Capital controls were justified to achieve financial stability.

There is a voluminous and rather discursive literature on the causes and aftermath of the two crises. However, no one, as far as I am aware, has entered into a detailed comparative analysis of their central aspects, seen through the eyes of an economic and financial public servant who was privy to many of the major policy discussions and decisions of the time. My aim is to focus on the common thread running through the two crises: the sheer size and intensity of volatile capital flows, how they come about and the measures that can be taken to cope with them. The size of banks' balance sheets and – a particularly fast-growing phenomenon in recent years – the build-up of internationally mobile capital held by both institutional and retail asset management companies mean the volumes of funds that can be unleashed through the world financial sector dwarf those seen in previous periods of market commotion. So this is a vital subject of analysis for anyone seeking better to understand the world economy – and also for all those who wish to peer ahead into the future and discover what kind of economy we will be experiencing decades from now.

Chapter 4

China's struggle for balance and control

Reform has gone into the deep water zone. You can also call it a state of rigid strong resistance, because it's going to touch entrenched vested interests. Now, touching vested interests is more difficult than touching one's soul.

Li Keqiang, Chinese premier, 2013¹

China responded to the global financial crisis with a massive stimulus package, part of a coordinated response by the world's largest economies to the incipient global recession. China's central leadership acted quickly to stabilise the economy after the initial downturn and then engineered a sharp rebound. This helped mitigate damaging turbulence not only in the Asia-Pacific region but across the world. Beijing's successful crisis management confirmed its economic leadership in Asia – as well as heightening suspicions among some neighbouring countries that it could conceivably use its widening economic and financial clout to bolster, too, its political and military power in the region.

Between 2008 and the end of 2013, the size of the Chinese economy doubled in dollar terms. The US economy grew 14% in the same period, compared to little or no growth in Japan, hit by a new downturn in mid-2014. The picture was still more sombre in Europe, with the euro area still not out of its doldrums and threatened by long-lasting imbalances between debtors and creditors. China extended its position as the world's No.2 net creditor behind Japan, ranking more or less even with Germany. For China's domestic currency and financial institutions to play a role in global finance commensurate with the country's economic and creditor status in the world, it is successfully pressing ahead with internationalisation of the renminbi, an issue of widespread importance for the world monetary system.

But this tale of economic success comes at a heavy cost. Measures to promote recovery unleashed a significant expansion of non-bank financial institutions, or shadow banks, to meet the credit demand from provincial governments and small and medium-sized businesses. These had seen their access to loans restricted by credit curbs and general distortions in the domestic financial system.

Under-regulated NBFIs are an important part of an informal financial economy. Through a mixture of different types of relatively unregulated loans, NBFIs have become a significant source of new credit to finance government infrastructure and real estate development. The sharp expansion in the informal banking sector created a credit explosion, resulting in overheated real estate prices and exaggerated increases in fixed asset investments. These spurred GDP growth to nearly 10% in the first quarter of 2011.

To correct these excesses, China tightened credit. Chinese leaders are seeking to shift from overt state capitalism to a more sustainable model that allows market forces and consumption to play a larger role. They are cutting back the

Reserve currencies and the renminbi

The history of the global monetary system shows that no single currency can retain its international dominance forever. The pound sterling, which began its ascent in the middle of the 19th century, lost its status as an international currency to the dollar somewhere between the first and second world wars. The dollar accounts for roughly 60% of the world's official reserve assets, while the euro makes up 25% and a number of other currencies, led by the yen, sterling and Swiss franc make up the rest.

The dollar's dominance has helped the world's No.1 economy borrow cheaply from the rest of the world and finance the consumption binge which eventually led to the near-collapse of its banking system. The preeminent status of the dollar as an international currency amplified the shock waves of the crisis and sent capital flowing to the rest of the world in search of returns.

The question is whether global financial stability would benefit from a multi-polar system based on multiple reserve currencies. And if the answer is yes, whether the renminbi stands a serious chance of success as an international currency.

At first glance, the renminbi is an unlikely candidate. China, with its largely closed capital account and tightly managed exchange rate, fails the typical requirements of a reserve currency. It is not freely convertible, nor is its home market deeply liquid and accessible to foreign investors. Thus the renminbi's debut on the international scene surprised many western observers. The Chinese state council

announced in April 2009 that cross-border trade in five Chinese cities would be conducted in renminbi.

The timing was not coincidental, for this was shortly after the US embarked on quantitative easing to stimulate growth after the crisis, and the resulting dollar volatility drove many Chinese exporters and importers to seek payments in renminbi to escape the uncertainties of dollar-based trading. In just five years, the renminbi has overtaken the euro as the second most frequently used currency in trade finance in the world, according to the Society for Worldwide Interbank Financial Telecommunication (SWIFT).² During the first three quarters of 2014, the renminbi was used to settle 20% of China's total cross-border trade.

extraordinary pace of investment growth, pushing through structural reforms and preparing for a period of slower GDP expansion of 7% to 7.5% per year.

Chinese economists have come out in chorus to declare that China has entered a new phase of slower but quality growth. Rather than focussing on expansion at any cost, this new growth will be conscious of protecting the environment, shoring up the social security net, bolstering household income and encouraging consumer spending. The road to financial reform and interest rate deregulation has hurdles. One hindrance is the entrenched interest of debt-ridden state enterprises, which have a natural tendency to resist interest rate reform. The Beijing authorities' success in restructuring the financial sector and completing the transition to a sustainable growth model is crucial for the stability and wellbeing not only of their own country but also of the rest of the world.

Asia's export-led growth model

The financial crisis struck China at a time when its investment-driven, export-led economic model was already showing signs of wear. China was the final assembly point of a powerful Asian production chain that supplied the rest of the world with a large selection of everyday goods. Yet a number of countries previously regarded as mere components in the Asian production system started to compete with China, vying for the helm of the assembly line. Rising costs eroded China's growth advantage. The need to ascend the value chain to higher-grade higher-margin products diverted attention away from mass production techniques towards more sophisticated output.

China has had the advantage of watching and learning from the general Asian experience of economic upscaling. Much of Asia prospered through a well-tested model. Development latecomers would transform their economies through international integration, gaining access to technology and learning successfully to produce and export. This fed through to higher domestic incomes, consumption and investment, and promoted a self-feeding cycle which elevated the exporting countries to a higher economic plane. Japan led the way in the 1980s, followed by the four so-called dragon economies Hong Kong, Taiwan, Singapore and South Korea and then the Asean 'tigers', Indonesia, Malaysia, Philippines and Thailand. As the leaders moved up the value-added chain, lower-value manufacturing work passed to those further down in a mutually beneficial process.

Japan, Korea and Taiwan were prime exponents of this economic model. Together with Hong Kong and Singapore, they exported progressively more sophisticated services including finance. This brought them past the middle-income trap and turned them into high-income economies.³ China followed the same model when it joined

the pack at the low end of the value chain, importing raw materials from resource-rich countries in the southern hemisphere and intermediate products from the rest of Asia for processing before shipping the final products to consumer markets in the US and Europe. Exports of semi-finished products account for half of Asian developing countries' exports to China, up from 10% in 1990. Intra-regional trade accounts for roughly 50% of trade in Asia.

China's growth strategy has been helped by two important ingredients. The first is capital deepening. As Nobel economics laureate Michael Spence pointed out, emerging markets typically show a high investment rate, often above 25%-35% of GDP, which is financed mainly by domestic savings.⁴ China's investment ratio, at around 47% of GDP, is among the highest in the world. The other ingredient is made up of incentives and government subsidies for priority sectors, in a system that is often called 'managed capitalism' or 'state capitalism'. Developing country governments offer benefits to firms which manage to increase exports, such as by maintaining an undervalued exchange rate, holding down bank deposit rates or wages, or even under-pricing key raw materials or energy inputs.

Just over three decades after the great economic opening up of 1979, when Deng Xiaoping implemented market reforms and privatised state-owned industries following Chairman Mao's death, China became the world's largest trading partner and second-largest economy. Its economic system, dominated by state-owned banks, state intervention and controls on interest rates, has been remarkably successful in mobilising savings and allocating capital to strategic sectors. In lifting China out of poverty, this has been a triumph. But there have been drawbacks. According to an incisive report by the World Bank and the Development Research Centre of the Chinese State Council, 'China 2030', China's financial system remains repressed and suffers from key structural imbalances.⁵

Global savings glut

Reflecting its sheer size, China's export-led growth strategy was bound to have a big impact, both positive and negative, on the rest of the world. It had a benign effect on international inflation – one of the reasons for the Great Moderation in the period before the financial crisis. But it also resulted in huge trade surpluses with the US and European markets. At its peak, China's current account surplus hit a staggering 10.7% of GDP at the end of 2007.

Prominent economists including Ben Bernanke, who first coined the phrase 'global savings glut', argued – probably rightly – that this contribution to global imbalances was unsustainable. The surplus declined sharply until by 2013 it was a much more manageable 2%. It is noticeable that western politicians and economists have been far more tolerant of persistent imbalances of a similar or higher order of magnitude in Europe, where Germany and the Netherlands run current account surpluses in excess of 6% and 10% of GDP respectively.

It is often said that China has the Midas touch. Because of the sheer size of its purchases – China owns the largest foreign reserves in the world – whatever it buys, prices go up. The only market which is deep enough to accommodate China's buy orders is the US Treasury bond market. Notwithstanding efforts to diversify, the bulk of foreign reserves is still invested in US Treasuries.⁶ This comes with a price. Dollar assets yield very little against China's own domestic currency assets.

What started as an academic discussion of the 'savings glut' became a political blame game, putting large surplus countries, particularly China, on the defensive. During 2006-07, my Asian colleagues and I sat through numerous macroeconomic surveillance sessions at the IMF, OECD and other economic forums where the theme was Asia's foreign exchange savings glut. This was viewed as the

faster than its neighbours, particularly Indonesia. A key moment came in November 2012 when the IMF agreed the acceptability of capital controls under certain circumstances. By 2014, the wheel has turned full circle. The Malaysian approach to capital controls is regarded as a textbook success story. Temporary and targeted in nature, complete with an exit strategy and launched as part of a comprehensive reform package, capital controls are back, and are probably here to stay.

Chapter 7

Korea's solutions for financial liberalisation

I think that we live in an economy in which prices including foreign exchange rates overshoot, markets then overreact, and policy-makers subsequently tend to over-respond. The consequence is high market volatility.

Choongsoo Kim, governor, Bank of Korea, 2014¹

Korea stands out among Asian economies as having twice been cast as the victim in a virulent chronicle of fluctuating cross-border capital flows. Poor sequencing of financial liberalisation prior to 1997 saw Korea in difficulties in the midst of the Asian crisis. A little over a decade later, the collapse of Lehman Brothers sparked fresh shocks transmitted by global banks' funding operations, and precipitated another dangerous liquidity crisis. The twin episodes show how, notwithstanding Korea's strong economic fundamentals, the country's financial markets remain vulnerable to international banking perturbations driven by the procyclicality of financial flows. To each episode, Korea swiftly responded with a framework of macroprudential measures designed to mitigate the risks of such global flows.

The prelude to the 2008 disruption showed marked similarities to the lead-up to the 1997-98 Asian crisis, with sharp increases in capital inflows. In the two years before the Lehman bankruptcy, capital flooded Korea through external borrowing in the interbank wholesale market involving Korean branches of global banks. Then, foreign banks in Asia suddenly reduced their borrowing and transferred funds back home to relieve their parent banks' liquidity crunch. In the last quarter of 2008, \$60bn flowed out of Korea, 40% of all the capital that had flowed in during the two years prior to Lehman's collapse. This left Korean banks and foreign bank branches in Korea drastically short of dollar liquidity and struggling to roll over roughly 60% of their short-term external debt.

Bank of Korea introduces assistance measures

Under these dramatic circumstances, the Bank of Korea promptly introduced liquidity assistance measures, including \$34bn in foreign currency liquidity provision to banks and a \$100bn guarantee of bank borrowing. But the single most effective tool to end market panic was the US-Korean bilateral swap agreement announced at the end of October 2008. Federal Reserve officials were reluctant to provide a currency swap to a non-G7 country without a triple A credit rating. Agreement was possible only after former President George Bush intervened, pushing aside these misgivings and supporting Korean President Lee Myung-Pak's request for assistance.

Korean officials regarded Bush's intervention as returning a favour: President Lee had lifted the import ban on US beef in July 2008 amid one of the biggest anti-government protests in years. The Bank of Korea-Federal Reserve currency swap was relatively small, at \$30bn, but it provided an important

psychological prop by convincing the capital markets that the Fed would provide Korea with the necessary backstops of dollar liquidity. From then on, the Korean market quietened down and a semblance of normality returned.

In the aftermath of the 2008 crisis, economists, bankers and other experts have produced a large volume of literature on the connection between procyclical cross-border banking flows and credit crises. Global banks are key intermediaries channelling liquidity around the world. Korean banks rely on international wholesale markets for funding to finance domestic credit expansion. When wholesale markets dry up, as in the global crisis, banks with excessive short-term external debts are badly squeezed.

Currency mismatches on banks' balance sheets, in the form of dollar funding for credit expansion in won, were the main factor precipitating the Asian financial crisis and the subsequent fall-out affecting Korea and other emerging markets. In the 2008 turbulence, however, the problem was caused not by direct currency mismatches but by contingent liabilities – potential debts which may materialise depending on future events – and off-balance sheet foreign exposures. Anticipating the appreciation of the won, shipbuilders and other exporters in Korea sold dollars forward to banks, contributing to a build-up of foreign exchange derivatives positions exceeding 800% of capital for foreign bank branches at the peak in 2007, and 20% for domestic banks. The banks hedged their overbought positions with foreign currency borrowing, mostly at short maturities. This led to a surge in banks' short-term external debt that they had great difficulty rolling over when the dollar liquidity squeeze hit home.

The Bank of Korea estimated that the currency and maturity mismatches peaked at \$68bn and \$85bn respectively. In a speech in 2013, Choongsoo Kim, the governor of the Bank of Korea who presided over the global crisis, described the 2008 liquidity squeeze in Korea as a testing ground for

maturity mismatch and rollover risks. His sombre conclusion was: 'Korean banks failed the test.'² At the beginning of the 2008 crisis, Korea's foreign exchange reserves exceeded \$250bn, more than adequate to cover the rollover risk of these short-term debts. The ratio of short-term external debt to foreign exchange reserves stood at 74% at the end of 2008, compared with 312% during the 1997 financial crisis. Yet, in spite of this considerable improvement, the capital market retained a highly pessimistic attitude towards Korea's prospects until the announcement of the bilateral currency swap with the US. For the future, the trend in Asia seems to be to rely on self-insurance through foreign exchange reserves, rather than depend on external safety nets. Korea has had experience in building bilateral currency swap lines with China and Japan as well as the US. Though the Japanese and US swap lines were subsequently closed on the grounds that they were not necessary, the Chinese swap was extended and nearly doubled to \$57bn in 2011.

Korean officials believe that bilateral safety arrangements have only limited applicability, and that international coordination of monetary policy is even less viable. The only answer, therefore, is to reduce the sheer volatility of capital flows. According to Jaewan Bahk, a former strategy and finance minister, the Korean government fixed this source of national vulnerability by erecting a new wall of defence. Hyun Song Shin, formerly of Princeton university, who joined the Bank for International Settlements in May 2014 as economic adviser and head of research, was brought in as senior adviser to President Lee in 2010. The Bank of Korea's mandate was extended to include financial stability. The authorities in Korea, like other countries in the region, see adequate foreign reserves as an important source of insurance, with the result that Korea has continued to build up its foreign exchange holdings to \$360bn in September 2014, from \$200bn in January 2009.

Most notably, Korea introduced a new package of macroprudential measures in 2010 to mitigate the risks for domestic markets of sharp reversals of capital flows. There are three lines of defence.

First, leverage limits on banks' foreign exchange derivatives positions were introduced in October 2010. The limits were initially set at 250% of capital for foreign bank branches and 50% for domestic banks. The limits were then reduced to 200% and 40% respectively in July 2011, and to 150% and 30% in January 2013.

Second, a levy was introduced in August 2011 to curb maturity mismatches. Labelled the macroprudential stability levy, this was imposed on outstanding amounts of non-deposit foreign currency liabilities, with rates varying from two to 20 basis points depending on maturity. Lower levies are applied to liabilities of longer maturity. In using price, regulators nudge banks to borrow at longer maturities, reducing rollover risks in a credit squeeze.

Third, a 100% loan to deposit limit was introduced in December 2009 to improve banks' liquidity. It curbed expansion that relied on volatile wholesale funding, and lowered procyclicality in bank lending. The average loan to deposit ratio, which exceeded 120% in 2008, fell below 100%.

Worldwide consensus after the Asian and global crises

The Korean measures are in line with a new worldwide consensus in the wake of the Asian and global crises. Unfettered capital flows are no longer useful or acceptable. A decade or so ago the International Monetary Fund would have labelled Korea's new battery of control mechanisms dangerously intrusive. By 2013-14, however, the mood had changed. There is finally recognition in the west that capital flows are not good for all countries all the time. It follows that there can be good reason to install speed bumps and

even quantitative restrictions on capital flows. And the focus for banking supervision has moved towards stress tests measuring banks' liquidity during market upheaval, when banks rely less on wholesale borrowing to fund their lending.

The promptness of corrective action became a Korean hallmark, contrasting with the incremental approach taken to bank restructuring in Japan. The Korean approach won widespread praise. Even some IMF officials later conceded that their own bail-out programme for Korea was overly microeconomic in scale and unnecessarily intrusive, particularly with regard to opening markets to foreign interests. In contrast, the Korean government pressed ahead with a wider spread of reforms with speed and force.

Kim Dae-jung, who won the presidency a month after the Asian crisis, wanted to demonstrate his political resolve to break with the past. The need to put the country on a new footing after the financial turbulence provided a highly appropriate opportunity. Public funds equivalent to a third of Korea's GDP were mobilised to inject capital or acquire bad assets, on the IMF's reckoning.

Two new entities were formed: Korea Asset Management Corporation to clean up non-performing loans, and Korea Deposit Insurance Corporation to strengthen banks' capital bases. About 1,000 financial institutions were closed or suspended. The drastic restructuring exacted a heavy human toll. In 1999, employment in banking dropped by more than 30% to 90,000. But this led to significant cost reductions. The banks' capital adequacy ratio rose to 12% in 2007 from 7% in 1997-98, while non-performing loans made up only 1% of assets compared with 9% in 1997.

Korea turns to corporate sector reform

The Korean authorities turned their attention to corporate sector reform with similar speed and force. The government

required corporations to significantly reduce their debt levels and improve capital structure. The 'chaebols', or classic Korean business conglomerates, had to eliminate cross-subsidisation of weaker affiliates. Korea made no exceptions on the grounds that some companies were 'too big to fail' – out of the 63 largest chaebols, 30 were forced to undergo some form of insolvency rehabilitation.

The extremely high corporate debt to equity ratio, which was over 500% in the years preceding the Asian crisis, receded to 200% by the end of 2000. Big companies were forced to bring in outside directors, breaking their family-run traditions, and financial disclosure was strengthened to protect minority shareholders. The government also pushed through reforms limiting chaebols' power: they were no longer allowed to cross-guarantee debts within groups. This significantly reduced the intra-group debt guarantees of the largest chaebols, helping create much more competitive conditions across the economy as a whole.

This corporate governance reform paved the way for a much stronger corporate and business structure. Industrial giants such as Samsung Electronics and SK Telecom in some cases now overshadowed their Japanese counterparts, which they had imitated in the 1990s. The 40% depreciation of the Korean won after the crisis helped to shape a strong export-led recovery after the Asian crisis. The economic rebound and steady growth in the 2000s underlined the overriding importance of comprehensive and swift reform.

The lessons of the 1990s served the Koreans well when the next crisis broke a decade later. Currency and maturity mismatches were all too familiar, resulting once again in a twin banking and currency crisis. Lessons from Korea's latest financial crisis provide useful guidelines for emerging markets such as China, which are considering timings and methodologies for opening up their capital accounts to global banking flows.