the warwick commission

The Warwick Commission on International Financial Reform:
In Praise of Unlevel Playing Fields

THE UNIVERSITY OF WARWICK

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THE REPORT OF THE SECOND WARWICK COMMISSION

THE UNIVERSITY OF WARWICK

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Preface
Professor Nigel Thrift

"The Report provides an important revision to much conventional thinking"

The Warwick Commission on International Financial Reform is the second of its kind from the University, and aims to bring together knowledge from scholars and market practitioners to address issues of global economic importance. There are few topics of greater urgency than how to reform the international financial system in the midst of crisis. The issues involved in considering financial reform are very complex, and the stakes at play for citizens, private enterprise, and governments are high. The aim of the Warwick Commissions is to act as an independent autonomous body and bring together an interdisciplinary and experienced team of scholars and practitioners with no specified prior agenda. Through debate and discussion, the Commissions are charged with the duty of producing recommendations that are practical, progressive, and realistic. In this sense, the Commissions seek to enter into the public debate. Through this report, the current Commission has sought to answer an important question often absent from debates in the financial press: what is a financial system for? The answers provided in this report will strike many as controversial, especially the stress on empowering national regulation rather than strengthening international cooperation around formal rules. Indeed, the Commission's conception of the social need for 'unlevel playing fields' will upset some. The Warwick Commissions do not aim for universal consensus around broad and general principles, but aim to fuse together scholarly analysis with reflection on what reforms are most needed and most appropriate.

The Warwick Commission on International Financial Reform began its work in January 2009. The team of commissioners was selected to provide a wide range of skills and experience from both academia and the financial marketplace. I would like to give special thanks to Professor Avinash Persaud for being a particularly active Chair of the Commission and certainly one of the central voices in debates on international financial reform.

The original idea for the Warwick Commissions belongs to Professor Richard Higgott, our Pro-Vice Chancellor for Research and Founding Director of Warwick's Centre for the Study of Globalisation and Regionalisation (CSGR). The current commission is directed by the new Director of CSGR, Professor Leonard Seabrooke,

a political economist whose research has concentrated on the connections between financial systems and welfare regimes. The other 10 commissioners are drawn from five continents and are a diverse group in terms of their academic backgrounds. Many of the commissioners are trained as political economists, including scholars oriented towards national welfare regimes and others concerned with international coordination problems. Other commissioners are trained as economists, including some who operate both in academia and are also finance practitioners. The Commission also includes a lawyer who specialises in international financial contracts. This combination of skills, knowledge and experience has provided the Commission with significant points of difference from which agreement had to be forged. Members of the Commission also engaged in evidence gathering sessions with key regulators and market participants in North America and Europe. The result is a report which tackles the big questions about how to regulate national and international financial systems head on. The Report provides an important revision to much conventional thinking about why financial markets should reflect a 'level playing field', and puts forward a strong argument for privileging the national to assist international financial stability.

The Commission, and its Report, reflect the University of Warwick's commitment to being involved in important international policy debates, as well as highlighting the impact that rigorous scholarly analysis can have on policy thinking. I anticipate that the Report will be read by financial market practitioners, regulators, and academics who have an interest in exploring alternatives about how to regulate financial systems. I expect that the Commission's recommendations will enter policy debates and that, as the most acute effects of the crisis pass, they will provide some food for thought in answering the question: what is a financial system for?

I am delighted to take the opportunity in this Foreword to thank several organisations for their financial and in-kind support for the activities of the Commission: these include The Centre for Governance Innovation (CIGI) at the University of Waterloo and the Indian Council for Research on International Economic Relations (ICRIER), as well as the EU Framework 6 Network of Excellence on Global Governance, Regionalisation and Regulation (GARNET), The Centre for Trade, Policy and Law (CTPL) at Carleton University, Ottawa, and the Stiftung Wissenschaft und Politik, in Berlin for logistical and dissemination support. The Report is a genuine reflection of the ideas, inputs and efforts of all commissioners, both electronically and from their three meetings at Warwick in January, Berlin in March and Ottawa in June this year. Finally, in commending this Report to you, it gives me great pleasure to thank Professor Avinash Persaud and his commissioners for bringing the second Warwick Commission to fruition.

Professor Nigel Thrift
Vice Chancellor, University of Warwick
November 2009

Foreword
Mark Carney

© Image courtesy of Bank of Canada

"The Report should prove invaluable to policymakers at this critical juncture"

The recent global financial crisis has already cost tens of millions of jobs and trillions of dollars in foregone output. Its aftershocks will persist for years. To prevent an even more severe outcome, monetary and fiscal policies have been stretched to their very limits. In its wake, policymakers are determined to reshape the financial services industry. Given the stakes, it is imperative that reforms are governed by a clear understanding of what went wrong. The crisis demonstrated the importance of incentives; the dangers of conformity, the imperative that core markets are continuously open, and the value of matching risk to risk-bearing capacity. Most fundamentally, it exposed the fallacy of composition that strong financial institutions collectively ensure the safety and soundness of the system as a whole. Even the most vigilant micro-prudential regulatory regime can be overwhelmed by systemic risks.

Armed with these insights, the challenge is to develop and implement a macro-prudential approach to regulation. This requires focusing on the system as a whole rather than institutions; on the forest rather than the trees. However, like ecosystems, financial markets are fiendishly complex, and macro-prudential regulations could have unintended consequences. Moreover, the interplay between new regulations and other policies should not be underestimated. In developing these tools, careful consideration must be given to policy frameworks, including finding the right balance between rules and appropriately constrained discretion.

The Warwick Commission Report goes to the heart of these issues. Refusing to treat the recent crisis as a special case, it examines the causes of financial crises in general. With its sophisticated grasp of how the credit cycle operates, innovative reform proposals, and considered treatment of the political economy of regulation, the Report should prove invaluable to policymakers at this critical juncture.

Mark Carney
Governor of the Bank of Canada

Foreword
Andrew Sheng

"The global public good is being consumed by unfettered greed and momentum trading"

The Warwick Commission is to be congratulated on taking a fresh look at the challenges facing international financial reform. The current global financial crisis demonstrated unequivocally that the world is unbalanced and will always be in a state of constant change.

Recognising that requires a systemic and system-wide view, not the partial view of mental and bureaucratic silos that tries to manage the global beast with local laws and local mindsets.

Globalisation has forced us to deal with the problem of collective action at the local and global level and to avoid a race to the bottom or a Tragedy of the Commons. The global public good is being consumed by unfettered greed and momentum trading.

Financial regulators cannot be lone Dutch boys putting their fingers in the dyke. They need to have the courage to warn the community when they see risks coming and to lean against the wind, but they cannot do it alone.

What this crisis has shown is that when values and mindsets are narrow and overspecialised, we end up with fallacies of composition that cause individuals and institutions to act in self-interest or preservation and that can lead to unsustainable bubbles or bust.

For this reason, the Warwick Commission tries to challenge the orthodoxy and should be congratulated for its recommendations and suggestions for understanding that there is no self-equilibrating stability, but a dynamic evolution where we need to encourage diversity of thinking to get more balanced markets than uniform thinking that herds into one direction.

Andrew Sheng
Chief Adviser to the China Banking Regulatory Commission

Foreword
Lord Adair Turner

"On all the issues it addresses, it is able to challenge conventional wisdoms, free from the constraints which inevitably influence the thinking of official authorities involved in complex international discussions"

In the wake of the last two years' financial crisis major reforms of global financial regulation are under way. These will result in higher bank capital and liquidity requirements, changes in accounting policy, and new policy approaches to currently 'too big to fail' financial institutions.

These reforms reflect considerable consensus on the causes of the crisis, and much of that consensus will likely stand the test of time. But there is a danger we will over-react to specific features of this particular crisis, that we will fail to identify actions which can guard against future risks, and that the detailed processes of international negotiations will lead to divergence from the initially identified priorities.

It is therefore essential that, even as we rapidly progress towards clearly appropriate change, we continue to step back, think through the fundamental causes of this and other crises, and ensure that the reform programme is focussed on what really matters. The Warwick Commission's Report does this very effectively.

Its focus on the credit cycle as the key driver of financial and macro-economic instability is correct and crucial, and the Report rightly identifies the danger that apparently sophisticated risk management and regulatory techniques, seeking to draw inference from observed market prices for assets and risks, can themselves generate instability of asset prices, of maturity transformation, and of credit extension.

The Report therefore draws a strong distinction between macro prudential and micro prudential regulation, rightly arguing that the latter cannot be effective without the former. Amid all the efforts devoted to reform of global micro-regulation, we must keep returning to this insight. While the argument for macro-prudential approaches has been accepted in principle, regulators and central banks have not yet defined how we will put in place this most crucial element of the policy response.

The Report also puts down a powerful challenge to the current primary focus on 'home country' regulation and supervision, arguing strongly that a greater focus on separately capitalised and regulated national subsidiaries would create not only more resilient financial institutions but also greater freedom for emerging market economies to address tricky macro-economic issues, such as volatile capital flows.

Not everyone will agree with that conclusion: but that is the value of a Report such as this. On all the issues it addresses, it is able to challenge conventional wisdoms, free from the constraints which inevitably influence the thinking of official authorities involved in complex international discussions. Its analysis of regulatory capture as essentially an intellectual process (capture by ideas rather than by interests) and its insistence on the need to consider the right sizing not only of specific institutions but of finance in total are particularly useful.

Its willingness to make strong arguments therefore makes this Report a most important and timely input to policymakers. As we struggle with the details of specific issues, we can lose sight of the big picture, and fail to address the most important priorities. This Report can play a valuable role in guarding against that danger.

Lord Adair Turner
Chairman of the Financial Services Authority, U.K.

The Commissioners

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The Warwick Commission on International Financial Reform: In Praise of Unlevel Playing Fields

Executive Summary

"Our primary objective is not more regulation but more effective regulation, focused on the market failures it is there to address"

This is not the first international financial crisis the world has seen. This tells us two things. First, in trying to prevent or dampen future crises, we must not focus too heavily on the specific character of the present crisis. We must focus on those factors that are common across financial crises. There will be a different financial innovation or product at the centre of the next crisis. Second, it is unhelpful to think in terms of increasing or decreasing the quantity of regulation. There is good and bad regulation. If elements of the current approach to regulation incentivised systemically dangerous behaviour, doubling up on existing regulation or spreading it more widely may make matters worse. While we doubt that financial crises can be prevented, we do believe strongly that policymakers, regulators and supervisors have the power to make them less frequent, shallower and with less spill over onto the welfare of ordinary households. The purpose of this report is to set out the regulatory approach that will help them do so across a variety of countries.

Micro and Macro-Prudential Regulation

Our primary objective is not more regulation but more effective regulation, more focused on the market failures it is there to address. The points of regulation must press against the points of market failure. One conclusion from this is that today's micro-prudential regulation, focused on individual institutions and instruments, must be strengthened and supplemented by macro-prudential regulation of the financial system. Such an integrated system is more than the sum of its parts. Macro-prudential regulation recognises the risks to the entire financial system posed by, amongst other things, the collective behaviour of financial institutions across the credit cycle and otherwise; the mismatch between risk-taking and risk capacity within the financial system and the failure of highly interconnected firms.

Micro-prudential regulation concerns itself with the stability of individual institutions and the appropriateness of individual instruments. Macro-prudential regulation concerns itself with the stability of the financial system as a whole. The prevailing approach to regulation in the run up to the crisis assumed that we can make the financial system as a whole safe simply by making individual financial firms and instruments safe. This sounds like a truism, but in practice it represents a fallacy of composition. In trying to make themselves safer, banks, and other highly leveraged financial intermediaries, can behave in a way that collectively undermines the system.

Where risks are endogenous to the financial system – where, for example, risks relate to the interdependence of institutions and their behaviour and perceptions – micro-prudential regulation will prove inadequate. Indeed, in certain circumstances, what seems to be sensible micro-prudential regulation can create endogenous risks.

An example of a simple micro-prudential regulation is a requirement that financial firms put aside substantially more capital if an asset they hold is rated as non-investment grade by an external credit rating agency. This sounds reasonable enough. But imagine an environment where an economic recession triggers a rating downgrade, which leads all holders of the asset to try and sell the same credit at the same time to avoid the higher capital requirement, which causes the credit price to collapse after the downgrade. This makes it harder for the issuer of the credit to borrow, which threatens its liquidity and then solvency, which in turn leads to a further credit downgrade and more selling. This turmoil triggers risk management systems to recommend that more capital be set aside against all credit risks, leading firms to sell other instruments at the same time to raise capital, leading to a general decline in prices, and increases in price volatility and correlation, which raises measured risk, twisting this vicious cycle further. This dynamic can turn a little local difficulty into a systemic crisis. In practice there can be a trade-off between micro-prudence and macro-prudence.

The Credit Cycle

A critical driver of endogenous risks is the credit cycle. If financial crises were driven by acts of mischief they would appear random in time, but they are not random; crashes always follow booms. The degree to which the credit cycle is a source of endogenous risk relates to the degree to which valuation, risk assessment and behaviour are driven by market prices. In the up-phase of the economic cycle, price-based measures of asset values rise, price-based measures of risk fall and competition to grow bank profits increases. Banks appear to be stronger, safer but facing threats to their profitability. Bank shareholders conclude that the bank is under-leveraged or over-capitalised. In such an environment financial institutions rationally respond by (i) expanding their balance sheets, taking advantage of the fixed costs of banking franchises and regulation; (ii) trying to lower the cost of funding by using short-term funding from the money markets; (iii) increasing leverage, and often all three. Those that do not do so are seen as being over-capitalised and are punished by the stock markets. Increasing leverage and expanding balance sheets puts a bid on asset prices pushing them up further, amplifying the boom.

When the boom ends, asset prices fall and short-term funding to institutions with impaired and uncertain assets or high leverage dries up. Forced sales of assets drives up their measured risk. Boom turns to bust. Banks look weak, risky and even less profitable than before.

Through a number of avenues, often in the name of prudence and sophistication, the role of market prices in valuation, risk assessment and behaviour has increased, intensifying the endogeneity of risk along the credit cycle. These avenues include mark-to-market valuation of assets. Regulators have taken to blaming the accountants for 'pro-cyclicality', but the blame can be shared more widely. Regulators themselves encouraged market-based measures of risk for capital requirements, such as credit default swap spreads in internal credit models or price volatility in market risk models; or external credit ratings, which tend to be correlated, directionally at least, with market prices.

Counter-Cyclical Regulation

Banking supervisors have always had the discretion to tighten regulatory requirements if they felt a firm's behaviour or all firms' behaviour posed additional risks. However, in reality their ability to utilise this discretion to get tough with the financial sector during a boom is limited by politics. Politicians are more likely to be re-elected if they prolong a boom rather than burst a bubble. Booms often lead to greater access to goods such as housing and the financing of large infrastructure, something politicians do not want to stop. In the early to middle part of a boom, the monetary authorities appear to have found the holy grail of non-inflationary growth, which boosts their credibility and they are reluctant to undermine that. And almost all booms have an element of real change afoot that makes it hard to discern accurately between what is sustainable and what is not. This is a point the financial sector will be quick to assert at the time. There is therefore little upside and much downside for the supervisor to announce that we are in an unsustainable credit binge that needs reversing. Consequently, it is our firm belief that in the area of macro-regulation, supervisory discretion has to be constrained by a rules-based framework so that supervisors can blame the rules as they try to take the punch bowl away when the party gets going.

We believe regulators should tighten capital adequacy requirements, leverage ratios and minimum liquidity requirements whenever they observe above-average growth of credit expansion as measured by a set of variables such as credit growth and output gaps. We recognise that the devil is in the detail. As a baseline, we find attractive an approach where Central Bankers and regulators agree beforehand on the degree of credit growth that is consistent with the long-run target, say inflation or nominal GDP, and then regulators tighten capital, leverage and liquidity requirements the more credit expansion exceeds this target, or else explain publicly why they are not doing so, providing constrained discretion. The purpose of this regulatory action is not to eliminate the economic cycle – and we do not have finely calibrated measures and instruments to do that even if we wanted to. Rather the aim is to ensure that financial firms are putting aside an increasing amount of capital and liquidity in a boom, when micro-prudential risk measures are suggesting that they can safely leverage or lend more. Capital and liquidity can then be released when the boom ends and asset prices fall back.

Risk Allocation

An equally problematic assumption at the heart of modern regulation is the erroneous view that there is a single thing called risk, and that it is inherent in the characteristics of an asset or financial instrument. Risk comes in more than one form. There are credit, liquidity, and market risks, for instance, and different parts of the financial system have different capacities to hedge each type of risk. Today, risk has as much to do with who is holding an asset as with what that asset is. The notion that there are 'safe' instruments to be promoted and 'risky' ones to be banned creates a false sense of security. You can do a lot of risky things with apparently safe instruments, like a mortgage. What matters is the risk inherent in behaviour.

To this end capital requirements need to be sensitive to an institution's capacity to hedge the kinds of risks it holds. Consider liquidity risk. Banks traditionally borrow from depositors who can withdraw their money tomorrow. Banks therefore have a limited capacity to hold assets that cannot be sold quickly without heavy discounting. Liquidity risk is more safely held by the likes of pension funds and insurance companies, which have long-term liabilities and often long-term funding that typically cannot evaporate overnight-retirement savings accounts, for instance, or insurance premiums.

The maturity mismatch can be thought of as the difference between the time it would take to sell an asset in a stressed environment and the remaining period before the holder of the asset has to find new funds to refinance the purchase of the asset if they cannot sell it beforehand. If we require firms to set aside capital for the degree of maturity mismatches it would incentivise those with the capacity to hold illiquid assets because, of their long-term funding, to do so. It would also incentivise banks to find more long-term funding and disincentivise them from increasing maturity mismatches in a boom when liquidity is under-priced. This requirement would have to

be formulated so as not to act pro-cyclically as liquidity conditions change across the cycle.

When it comes to credit risks, on the other hand, banks are in a better position to hedge effectively than pension funds. The process of making loans means they have much better information and understanding of credit and a greater access to different types of credit to diversify credit exposure.

To make the financial system safer is to encourage each type of risk to flow to where there is a capacity to hold it. Previously, regulation incentivised the opposite behaviour. By requiring banks to set aside more capital for credit risks, regulators encouraged banks to lay-off credit risks to non-banks who wanted the extra yield but had limited ability to hedge the credit risk. By not requiring banks to put aside capital for maturity mismatches, regulators incentivised banks to earn the liquidity premium by buying liquidity risks from insurers and pension funds and funding it in the short-term, even though they could not offset the resulting liquidity risk. By supporting mark-to-market valuations and short-term solvency and risk rules, regulators discouraged insurers and pension funds from holding the very liquidity risks they are best suited to hold. The result was a system that apparently had high levels of capital – in 2006, banks generally recorded far more capital than their minimum requirements – but was systemically extremely fragile.

To promote future systemic resilience we need to focus more on behaviour in the financial system and less on instruments and institutions. Instruments are not born with original sin, and if we ban one instrument without modifying the underlying behaviour, new instruments or new combinations of old instruments will quickly replace them. The objective of financial regulation should not be to hunt down risk and destroy it. Nor should it be to pile up sandbags of capital, leaving us only with behemoth banks that are too big to fail. At the very least, it should be to ensure that we are not getting in the way of different risks flowing to those parts of the financial system with a capacity for those risks. We could be more ambitious. Capital requirements that encourage risks to flow to those who have a capacity for it would allow the risk taking that is vital for economic growth while making the system safer. It will bring in new players with untapped risk capacities, lessening our dangerous dependence on a few banks that may appear well capitalised in a boom, but which hold risks they have little capacity to bear.

Systemically Important Institutions and Instruments

Apart from the credit cycle and the allocation of risk, another source of endogenous risk comes from the failure or fear of failure, of systemically important institutions, markets and instruments. Using system-wide stress tests, regulators can identify what is systemic and impose tougher capital and disclosure requirements on them. Conceptually this can be done by adjusting the micro-prudential capital requirements ratio by a coefficient corresponding to their macro-prudential risk. Systemically important institutions will balk at this special treatment, and regulators will likely end up using crude but transparent criteria of what is systemically important, such as size of balance sheets. This would still be better than making no distinction between the systemically important and the rest. There is need for a countervailing force against institutions becoming too big to be bailed out, or simply too politically influential.

Institutional Structure and Locus of Regulation

Macro and micro-prudential regulation require different skills and institutional structures. Where possible, micro-prudential regulation should be carried out by a specialised agency and macro-prudential regulation should be carried out by this agency in conjunction with the monetary authorities, as they are already heavily involved in monitoring the macro economy.

We believe that there should be a stronger connection between national social and economic interest and the financial sector. But while we believe that financing development, housing, education and health are legitimate goals of financial policy, we do not believe they should be advanced as part of prudential regulation. Mandatory reporting requirements can reasonably be used to acquire the information required for responsible credit creation as well as to monitor social implications

and to enforce non-discrimination rules. However, we recommend that governments assume those risks that are important to underwrite for social and economic reasons, or provide explicit subsidies, rather than use the banks to pursue social policy through the manipulation of regulatory definitions of risk.

Banks that operate in several countries present a distinct regulatory challenge. Currently, unless local banks are set up as independent subsidiaries, regulation and supervision are carried out in the 'home' country. Yet macro-economic conditions, capital market development and financial sector structures can differ substantially from country to country. Capital requirements designed to help iron out the credit cycle or to address mismatches in liquidity, credit or currency risk are not easily imposed by the home country regulator of international banks. Both cycle phase and risk capacities will typically differ between countries. For example, regulators in Latvia or Hungary may be far more concerned about the currency mismatch of local borrowing than their United States counterparts might be.

Consequently, while there must be greater information exchange at the international level, the locus of much banking regulation needs to be national. This does not preclude efforts to converge on common principles between countries or the regulation of global markets through central clearing, settlement and reporting rules. We suggest that national regulatory autonomy goes hand-in-hand with legitimate international cooperation on a wide range of issues.

Under the current 'home' country approach, international banks move capital around between branches. In quiet times this may be an efficient use of capital, but in stressed environments, capital may move for more dubious reasons, and with detrimental effects, including arbitraging government support. Within our proposed approach, each country would have the right to require foreign branches to become subsidiaries or whatever legal structure is necessary for them to impose local capital and other regulatory requirements, so that foreign-owned entities are able to withstand the failure of their foreign parent. We recognise that this creates opportunities for financial protectionism. International cooperation of national regulators should seek to avoid this. Foreign-owned subsidiaries should be subject to the same capital requirements as domestic banks.

We note that host country regulation will give developing countries greater policy space, allowing them to address the macro-prudential problems of volatile capital flows and currency mismatches of lending and borrowing. We are also conscious that in many countries, increased responsibilities of host country regulation will need to be supported by capacity building – a role that could be played by the multilateral institutions and/or new regional arrangements for peer review or coordination of regulation. Some regions with strong similarities may decide to act as the common host, which would deliver greater regulatory influence and capacity.

Regulatory Capture

This report puts a special emphasis on the underlying political economy factors that contribute to financial crises and frame the regulatory responses. Political economy issues are seldom discussed alongside the legal and technical 'nuts and bolts' of financial regulation, but in practice they cannot be separated. This is one of our main messages. Issues of, for example, the appropriate size of financial institutions or indeed of the financial sector, the trade-offs between macro-prudential and micro-prudential regulation, financial sector fragmentation, global or local regulation, counter-cyclical capital charges and loan-to-value limits are all important technical issues, but they also have distributional and power consequences and so they are deeply political.

We also suggest that one way to understand the current approach to banking regulation is to consider regulatory capture by large banks. Crises are generally macro; but regulation was primarily micro. And it was this micro focus that created regulatory costs that hit small banks the heaviest. Micro-prudential regulation acts as a barrier to entry into the financial sector, and so big banks are keener on it than many imagine. Instead of rewarding financial institutions for managing their risks well (results-oriented regulation) the current

system has rewarded those who have the largest databases of information and computer models of past default (process-driven regulation). Big banks can outspend small banks on process.

Instead of requiring systemically important institutions to hold more capital than others because their failure would have more acute systemic consequences, regulators were contemplating giving capital discounts to large institutions for the sophistication of their internal credit models. Instead of seeking to limit risk-taking to institutions that have a capacity for those risks, a key mantra of regulation, with little grounding in the economics of regulation, was the argument for a 'level playing field': that banks, despite their short term funding and national tax payer guarantee, should have equal access across all financial sectors and countries.

These and other features of the current approach to regulation disproportionately benefited large banks at the expense of the resilience of the financial system. Regulatory capture provides one possible explanation for such regulatory failure. The capture was intellectual. Many (though by no means all) regulators, central bankers and academics, genuinely thought that a financial system operating in what they viewed as efficient financial markets with a few institutions that were well capitalised against their individual risks, which transparently priced their risks against market prices and that used external credit ratings to transfer risks to a large number of non-banks, ensured financial stability. They were not unlucky; they were wrong. They were wrong in a way that could have been, and in some quarters was, predicted. We do not dwell on why these predictions were ignored, but recognise that policymakers and citizens need to consider how to address problems associated with regulatory capture.

Right-Sizing Finance: Too Big to Bail

One way to contain regulatory capture would be to limit the size of the financial sector. It makes little sense for large or mid-sized economies like the U.K., Switzerland, and the U.S. to be deriving 20 percent or so of their GNP from financial sector activities, when finance, like law and accounting, should be about facilitating economic investment, not being the investment itself. In a process similar to the 'Dutch disease', a bloated financial sector draws talent away from and prices-out productive sectors. A large financial sector is fed by short-term activity like the high turnover of leveraged funds and can draw interest away from the long-term savings and investment that is vital for the prosperity of households and economies. In crashes the negative externalities from a large financial sector are even worse and can destabilise the economy. A large financial sector may exert too much political influence on the bail-out. And the bail-outs of a bloated financial sector may be so large so as to force governments to slash discretionary spending that disproportionately impacts the more vulnerable.

Right-sizing finance also means right-sizing institutions. By focusing regulation on process, regulation has favoured larger institutions. Refocusing regulation on capacity will encourage smaller balance sheets and more specialised institutions. Taxes on financial transactions and additional capital requirements for large institutions are legitimate ways of trying to internalise social externalities onto bank behaviour.

Governance and Other Issues

The governance of financial firms, international financial institutions and the international financial architecture – like the world's currency arrangements – are critically important and we touch on them throughout this report. However, our views on these issues are well articulated elsewhere and we are comforted by the direction in which these discussions are heading. Consequently, we feel that little benefit would be gained and some distraction from our main messages would be risked by focusing on them here. Instead we focus on how we can regulate the financial system, locally and globally, to help avoid the kind of crisis we observe today. We feel that in this vital area there is a consensus that *something* must be done, but not on *what* must be done. This is where we can make our biggest impact.

Our Recommendations

Large international banks have promoted the idea of a level playing field in regulation between countries (home country regulation) and within countries (unitary regulators and

an end to 'Glass-Steagall' type segmentation of financial sectors). It seems heretical to argue against 'level playing fields', but in certain areas of finance, an unlevel playing field has merit. We need an unlevel playing field between countries as a result of the policy responses to economic cycles that are often less synchronised than they appear. We need to tilt the playing field within countries to reflect the unlevel capacity of financial institutions for different types of risk and to help risks flow to where they are best matched by risk capacity. We need a financial system that is robust to shocks, and that requires diversity, not homogenous behaviour derived from the blanket application of the same rules and standards on valuation, risk and trading. An unlevel playing field between countries is also desirable so as to best take into account different national political priorities, financial structures and institutional capacities.

The Commission recommends the following five key policy reforms in the Report:

1. Regulation needs to be formally more counter-cyclical, to offset the endogeneity of risk that arises from the credit cycle. Capital requirements, leverage ratios, maximum loan-to-value ratios must be tightened in the boom and loosened in the crash within a rule-based framework.

2. Risk-taking must be matched to risk capacity for the financial system to be resilient. One way to achieve this is through capital requirements for maturity mismatches (administered in a manner to avoid pro-cyclicality).

3. Regulators must have the flexibility to apply tighter regulatory requirements on systemic institutions, instruments and markets. Regular system-wide stress tests should help to identify what is systemic.

4. Greater emphasis must be placed on host country regulation within a more legitimate system of international cooperation. Host country regulators must be able to require foreign and domestic banks alike to keep local capital against local risks. Accountable global institutions should coordinate host country regulations, share information and lessons in order to improve regulatory effectiveness and limit regulatory arbitrage, and regulate market infrastructure for global markets such as single clearing and settlement houses. They should also be engaged in capacity building for countries with less developed financial systems.

5. Incentives for the financial sector and for financial firms to grow in size and influence, and to concentrate on short-term activity, must be offset, perhaps through additional capital requirements for large institutions and financial transaction taxes.

Chapter 1

Why Regulate?

"We regulate finance over and above the way we regulate other industries because finance exhibits market failures that can have devastating consequences"

Finance is part of the information industry. If the right borrowers and investors could find each other easily enough, we would not need banks. Until this happens, we need banks to allocate investment and savings across time and space and to package savings and investments in a way that facilitates transactions. This is a critical function. Financial markets help economies to grow by mobilising savings so that consumption can be higher in the future as a result of investments made today. Financial markets help global growth by sending savings from countries with little room for further investment, to countries with more room than current savings can satisfy.

We regulate finance over and above the way we regulate other industries because finance exhibits market failures that can have devastating consequences. When financial markets malfunction seriously, the real economy takes a nosedive. This financial crisis was triggered by problems in the U.S. subprime mortgage market, but it led to German GDP shrinking by 6 percent in the first quarter of 2009 and the biggest drop in global trade since the 1930s.

During the boom there were more than a few who warned that the bigger the boom the bigger the fall would be. Regulators generally responded that it may be easier to manage the crisis if and when it comes than try to prick a bubble whose dimensions were uncertain. The scale and chaos of this crash have expunged that notion for now. Recessions that follow financial crashes tend to be severe, long and painful. The crashes themselves are hard to manage. In the crash, policymakers are surrounded by the fog of war. Every banker claims that if their bank is not saved the entire financial system will fall apart – and some are right. In crises information about what is going on is scarce, rumours are plentiful and tax payers are angry. Crashes are best avoided or dampened, rather than managed.

During the recent boom the zeitgeist was to see the benefits of markets everywhere; today some of the same commentators can only see the costs of markets. In our view, there are two principal drivers of market failures in finance that require regulation: asymmetrical information and social externalities. There are other failures too. Principal-agent problems abound, but these are not so unique to finance and the principles we may use to address them are more readily found in other industries.

Reflections of an Academic Practitioner
Mark Taylor

I come to the Warwick Commission as both an academic financial economist and as a financial market practitioner. Reflecting on this experience, it seems to me that there are at least four key issues that will drive the policy and research agenda in the coming years.

First, of course, there are questions about the appropriate regulation of financial markets. Since the early 1980s there has been an international trend towards deregulation. Moreover, some of the regulations introduced – such as 'mark-to-market' accounting – actually exacerbated rather than ameliorated the crisis. Designing appropriate regulation is no easy task. Regulation of any kind tends to have distorting effects on incentives. Financial markets are also remarkably adept at circumventing regulation. But where the 'first-best' solution – freely functioning markets – fails, the 'second-best' alternative of appropriate regulation becomes inevitable.

Second, there are important questions to be answered about the design of monetary policy. At least one factor that fuelled the housing bubble – in the U.K., the U.S. and elsewhere – was the very low level of interest rates. There seemed to be a consensus among economists on both sides of the Atlantic that asset markets, including the housing market, could be left to their own devices and that interest rate policy should be directed solely at controlling price inflation, not asset price inflation. Additionally, it was understood that monetary policy could be used as the single main instrument of government macroeconomic policy. Inflation targeting, however, needs to be supplemented by some form of regulation specifically aimed at calming asset markets when they become overheated.

Third, a remarkable feature of the crisis in 'subprime' mortgages that triggered the global financial crisis in the summer of 2007 was that it appeared to take the world by surprise. While subprime markets featured on the radar screens of the Bank of England, the International Monetary Fund (IMF) and the Bank for International Settlements, no alarm bells were sounded. This is itself somewhat alarming since, following similar surprise at the Asian financial crisis of barely a decade ago, there has been a substantial amount of research on 'surveillance' and 'early warning indicators' of financial crises, both at policy institutions such as the IMF and the Financial Stability Forum and in academia. Perhaps this is because of an inherent nonlinearity in the world. If the world is unpredictable we need to learn to expect the unexpected. If it is not, then we need to develop more refined early warning systems.

Fourth, it has become clear to me that an interdisciplinary approach to the study of financial markets is the only way forward. Throughout much of the last three years, there has been a clear disconnect between the 'economic fundamentals' – what economic and financial models would predict should be the main drivers of financial markets – and actual financial market behaviour, as market participants were gripped by jitters, herding behaviour and a loss of confidence that often appeared to be related more to psychology and uncertainty than economic fundamentals. Similarly, the international financial structure is built within a political, sociological and geographical framework that governs its behaviour– the financial deregulation of the past two decades, for example, had its roots in political ideology. It is clearly time for a unified social science approach to the problems of the financial system.

A key asymmetry is between the sellers of financial products and the buyers. Markets work relatively well when there are repeat purchases; it is easy to identify the quality of the product and easy to switch from a poor

quality product. The market for apples in the local fruit marketplace is the example of a market that is likely to function well. In finance, buyers purchase a small number of products – a mortgage, life-insurance, a pension – each of which may have life-changing impact. The buyers only discover if it is a bad product long after the original transaction has occurred, when it will be hard if not impossible to do anything about it.

Thus, an important function of financial regulation is to balance the interests of unsophisticated consumers of financial products and their sophisticated sellers. This consumer protection focus of regulation is usually carried out through rules on how products are sold, who can sell them and, sometimes, what can be sold. Part of the process of consumer protection involves making a distinction between vulnerable consumers and professional investors who are deemed to be less vulnerable. Professional investors dominate the over the counter wholesale markets in bespoke financial products where trade size and turnover are large. Individual consumers dominate the retail exchange-traded markets where trade sizes are smaller and more transparent. This distinction is being reconsidered today given how bewildered some professional investors turned out to be and the way the wholesale markets froze in the crisis.

Another key reason why financial regulation is necessary is the presence of social externalities. A social externality occurs when the overall consequence of an activity is not captured by the private interests of those involved in the activity. The classic social externality is pollution from a factory. The shareholders of a sugar factory and the foreign buyers of sugar do not face the costs of the air pollution around the factory and consequently they are likely to raise production above levels that would be socially optimal if the interests of all were considered. The classic Pigouvian response to a social externality is to 'internalise' it through taxes. The sugar mill pays a tax scaled by the amount of pollution it produces, encouraging it to invest in pollution reduction. Faced with this pollution tax, the factory output may fall to a more socially optimum level or the revenues from the taxes may be used to provide compensation to those who suffer from the pollution.

One of the unique aspects of finance is that banks lend to banks. Bank A may borrow from Bank B to lend one of its customers a loan to buy a car from a customer of Bank B. Shoe shops do not lend to shoe shops. Consequently the failure of one shoe shop is good for the others, but the failure of one bank can undermine other banks. A bank run may be a result of the interconnectedness of the banks involved, or a result of panic by consumers that the bank that has failed looks like their own bank and that their own bank, therefore, may be the next to fail. A single bank failure could lead to a collapse of the financial system.

The costs of a failure of the financial system are far in excess of the costs to the shareholders of the bank that failed. This is a social externality. Left to their own devices, the shareholders in a bank will underinvest in the bank's safety from a systemic perspective. The regulatory response to this social externality is to provide government insurance for depositors and, in order to avoid moral hazard behaviour of these insured banks, to require them to hold greater capital than they would otherwise wish to hold. This response has not addressed interconnectedness directly; instead, it has sought to secure each individual element in the system. We argue that this neglects the endogenous risks that arise as a result of the collective behaviour of banks.

Chapter 2

Macro-Prudential and Micro-Prudential Regulation

"Micro-prudential regulation examines the responses of an individual bank to exogenous risks. It does not incorporate endogenous risk, and it neglects the systemic implications of common behaviour"

This is not the first international banking crisis the world has seen. Some estimates put it as the eighty-fifth. If crises keep repeating themselves, it seems reasonable to argue that policymakers need to reconsider, and not just 'double-up' existing regulatory measures. It also means that policymakers should not superficially react to the characters and colours of the current crisis. The last eighty-four crises occurred without credit default swaps and special investment vehicles. The last eighty-odd had little to do with credit ratings.

The reason we try to prevent financial crises, as discussed in Chapter 1, is that the costs to society are invariably enormous and exceed the private cost to individual financial institutions. We regulate to internalise these externalities in the behaviour of such institutions. One of the main tools regulators use to do this is capital adequacy requirements.

The current approach to capital adequacy is micro-prudential. Micro-prudential regulation—consisting of such measures as the certification of those working in the financial sector; rules on what assets can be held by whom; how instruments are listed, traded, sold and reported; and measures of the value and riskiness of assets—concerns itself with the stability of individual entities and the protection of clients of the institutions. Micro-prudential regulation examines the responses of an individual bank to exogenous risks. It does not incorporate endogenous risk, and it neglects the systemic implications of common behaviour.

Making the Macro Unsafe by Minding the Micro

A traditional approach to micro-prudential regulation is to consider a matrix with the probability of a credit event like a default on one axis, from low to high, and the loss given the default or impairment on the other, from low to high. Regulators say to financial firms that they must analyse their assets using this matrix and get rid of those assets in the top right hand corner where there is a high probability of a large loss. This is faintly ridiculous. Any bank that is willingly holding assets that will deliver it a high likelihood of a large loss does not need regulation; it needs to lose its banking licence. The real problem is not that banks willingly hold assets that they know will deliver a large loss with a high probability and are simply waiting for the regulator to tell them they cannot, but that assets *become* 'toxic'. However, when this occurs the regulatory matrix is unhelpful. It implies that the bank now has to sell the asset and indeed, where these rules

become standards, every regulated institution has to sell the same asset at the same time, causing its price to collapse towards zero and making banks short of capital (when compared with the higher risks and lower value of their assets). This in turn forces banks to sell other assets previously held for their low correlation with the original problem asset, causing asset correlations to rise, giving the impression that risk has risen further, and causing banks to sell more assets. This loss spiral was a feature of credit markets in 2007-08, of the dotcom debacle of 2000-01, of the Long Term Capital Management crisis of 1998, of the East Asian crisis of 1997-98, of the stock market crash of 1987 and of other modern financial crises. Paradoxically, micro-prudential rules can turn a bad situation into a worse one.

It causes us some concern therefore that in response to the crisis some argue that banks were not following micro-prudential rules strongly enough and so these rules must be deepened and made more comprehensive. The spread of micro-prudential rules can undermine systemic resilience. The best solution from a systemic perspective to the problem causing assets to turn 'toxic' is that the firms that have funded these assets with short-term liabilities should indeed mark them down, and other firms who have access to long-term liabilities should be able to consider whether the assets are now fair value at the marked-down price and whether they should buy. Instead, the spread of micro-prudential rules to non-banks like insurance firms (Solvency II) and funds (sometimes via brokerage arrangements with regulated banks) tend to lead to everyone being a seller at the same time.

Regulators must be careful about the application of micro-prudential rules, especially those on responding to market measures of value and risk, and ensure that they do not artificially create homogenous behaviour. We believe that macro-prudential regulation is where the glaring deficit in regulation lies.

Often, the problem is that in booms banks and borrowers underestimate risks and, when the crash comes, they overestimate risks. An essential problem is the big shift in risk perceptions, from 'too low' initially to 'too high'. The purpose of macro-prudential regulation is to narrow this gap by forcing banks to assume they have more risks than they think they do in the boom – by putting aside more capital than they think they need – and to try and support lending in the crash by releasing this capital. The striking thing about this crisis given the commentary is that it was not caused by banks throwing hand grenades of 'toxic' assets into unsuspecting crowds and running as far away from them as possible; it was caused by banks throwing hand grenades of 'toxic' assets and then running *towards* them because they didn't think they were 'toxic'. In fact, they devised complex special purpose vehicles to get more exposure to them than their capital adequacy requirements would allow.

In contrast, a macro-prudential approach to regulation considers the systemic implications of the collective behaviour of financial firms. A critical feature of macro-prudence and systemic stability is the heterogeneity of the financial system. Homogenous behaviour – everyone selling at the same time or buying at the same time – undermines the system. Invariably, market participants start off being heterogeneous but as we have seen above, a number of factors – some regulatory, some not – drives them to homogeneity. In this regard systemic risk is endogenous and macro-prudential regulation is about identifying those endogenous processes that turn heterogeneity into homogeneity and make the financial system more fragile.

Box 1: Alternatives for Implementing Counter-Cyclical Regulation

There is a growing consensus that the most important manifestation of market failure in banking and financial markets through the ages is pro-cyclicality. The credit mistake is made during the booms even though it only becomes apparent in the bust. A rapid increase in loan portfolios is positively associated with an increase in nonperforming loans later; loans made during booms have a higher probability of default than those made in periods of slow

credit growth. Also, collateral requirements are often relaxed in good times as collateral prices rise, and tightened in bad times. There is also growing agreement that both Basel II and the International Financial Reporting Standards mark-to-market system have an additional pro-cyclical impact on required capital by banks, reinforcing further the natural tendency of banks to lend pro-cyclically. Following the errors of prior regulation, counter-cyclicality has gained momentum as a regulatory principle. While such regulations need to be carefully structured and the devil lurks in the detail, they are fairly straightforward in design.

Counter-cyclical bank regulation can be introduced, either through banks' provisions and/or through their capital. It is important that this is done through simple rules, so regulators cannot relax them in boom times, when they can become captured by the over-enthusiasm that characterises booms (see elsewhere in this Chapter and Chapter 3 for a discussion of this effect).

Introducing counter-cyclical bank provisions has already been done for some time in Spain and Portugal, showing this is feasible and consistent with Basel rules. The Spanish dynamic provision system requires higher provisions when credit grows more than the historical average, linking provisioning to the credit cycle. Under this system, provisions built up during an upswing can be accumulated in a fund. The fund of what they called 'statistical provisions' but would now be considered 'macro-prudential provisions' can be drawn down in a slump to cover loan losses. This counters the financial cycle as it discourages (though does not eliminate) excessive lending in booms and strengthens the banks for bad times. Counter-cyclical rules regarding changes in the credit exposure of financial institutions would also be desirable. In particular, financial institutions could be asked to increase provisions when there is excessive growth of credit relative to a benchmark or a bias in lending toward sectors subject to strong cyclical swings (such as property mortgage or credit card lending). Indeed, India adopted counter-cyclical provisioning requirements for lending in the housing market fairly similar to the Spanish approach in that they were calibrated to increase in periods of rapid credit growth.

An alternative approach for counter-cyclical bank regulation through provisions is via capital. Charles Goodhart and Avinash Persaud have presented a very specific proposal: increasing Basel II capital requirements by a ratio linked to recent growth of total banks' assets. This provides a clear and simple rule for introducing counter-cyclicality into regulation of banks and can be easily implemented. In this proposal, each bank would have a basic allowance for asset growth, linked to macro-economic variables, such as inflation and the long-run economic growth rate. Growth above the basic allowance over the past year would have a 50 percent weight; growth over the year before that would have a 25 percent weight and so forth until 100 percent is approximated. Regulatory capital adequacy requirements could be raised by 0.33 percent for each 1 percent growth in bank asset values above the basic allowance. For example, if bank assets grew at a rate of 21 percent above the growth allowance, minimum capital requirements would rise from 8 percent to 15 percent. Given that credit cycles tend to be national, the application of counter-cyclical regulations needs to be on a host country basis. This would serve the added benefit of ameliorating the feast and famine of cross-border capital flows which we discuss below.

The existing framework of banking regulation was insufficiently macro-prudential and had been recognised as such by commentators for some time. We are not against micro-prudential regulation per se and we believe supervisors have an important role to play in addressing consumer protection issues and protecting the tax payer from abuse of the implicit government insurance. Aside from the absence of macro-prudential regulation, we note that the zeitgeist of the boom time, 'government

bad, markets good', impacted the quality of micro-prudential regulation. Supervisors were insufficiently ambitious in their oversight of banks. Going forward, supervisors should start off by making sure they understand exactly how a bank earns its profits and if they understand that fully, they are likely to be more aware of the amount and type of risk a bank is taking to earn those profits. That said, we do believe that endogenous risks that undermine the financial system often relate to an ill-considered application of micro-prudential regulation.

What to do about Credit Rating Agencies?

Avinash Persaud

Back in the summer of 2007, the collapse of confidence in the credit ratings of the once $1trn asset-backed commercial paper market triggered the global financial crisis. Investors lamented that they were lured into dodgy assets by credit ratings that were upwardly biased by the conflicted business model of the rating firms. The agencies became everyone's favourite punching bag; and policymakers are under pressure to do some punching too. To restore confidence in credit ratings there must be such adverse consequences for the agencies of poor ratings that it spurs innovation in credit research that in turn leads to more accurate ratings. Some hope that this will be achieved by switching the business model from ratings being paid by borrowers to investors. This seductively simple idea is flawed. In today's information-free, equal-disclosure world, the value of a rating is that everyone knows it. But if everybody already knows it they will not pay for it.

A common call has been for greater disclosure of ratings methodology. We have seen this before with disastrous results. Since 2004, U.S. rules requiring disclosure of rating methodologies helped banks arrange credit structures so as to maximise their credit rating. But this destroyed the statistical independence that underpinned the ratings and made the breakdown of structured finance ratings inevitable. While the issuer-pays business model is common across all ratings, rating failures are concentrated on structured finance. According to Standard & Poor's, the likelihood that a structured finance product held on to a 'BBB' rating throughout 2008 was a desultory 58 percent. The likelihood that a single-issue borrower – where it is almost impossible to 'build to rating' – held on to a BBB rating last year, a year of recession, was an impressive 88 percent. This suggests that the problem was not so much the business model – common to both types of ratings – but it was 'build to rating' behaviour, only possible by methodology disclosures in structured credit products.

Governments should instead require that agencies follow standardised rating definitions so there can be better comparison between firms and no investor can claim to be rating-confused. However, improving the transparency of ratings may not deepen the consequences of rating-failure. Many investment rules require investors to use all three major rating firms, neutering market discipline. Governments can respond to this market structure problem by raising the agencies' fear of ratings failure.

Ideally, rating agencies should be taken out of bank regulation altogether, but we may not be able to put the genie back in the bottle given that ratings will still exist. The trick is to devise a system that does not incentivise firms to become overly conservative – developing countries and small companies already feel their ratings are too low. A symmetrical measure of ratings performance is a Gini-coefficient, which measures the ordering of defaults relative to the order of ratings. In 2006, the Gini-coefficient of defaults in instruments rated by Standard & Poors ratings was a near perfect 90 percent. In 2007 this remained high in sovereign and corporate credits,

but slumped to 73 percent in structured finance. The lower the Gini co-efficient, the higher the financial penalty a ratings firm might incur. The biggest rating agencies could be required to put 20 percent of their revenues into a common pot that would be redistributed to those with the highest Gini co-efficient. A results-based, not process-based intervention would create innovation-boosting consequences of rating failures, while keeping governments out of the ratings kitchen.

A critical part of micro-prudential regulation in the last decade was the increasing use of market prices in valuation and risk assessment. This was done in the name of transparency, risk-sensitivity and prudence, but what it achieved was increasing homogeneity of market behaviour and as a result increased systemic fragility. The avenues through which market prices shaped behaviour include mark-to-market valuation of assets; regulator-approved market-based measures of risk, such as the use of credit spreads in internal credit models or price volatility in market risk models; and the use of credit ratings, where the signals are slower moving but positively correlated with financial markets.

Where measured risk is based on market prices, or on variables correlated with market prices, it can create systemic risk as market participants herd into assets that were safe in the past but where the crowding of investors make the assets overvalued, risky, and increasingly correlated with other assets the herd of investors own. Consequently, market-price based measures of risk end up being highly pro-cyclical, falling in the build-up to booms and rising in the subsequent crashes. Micro-prudential behaviour can endogenously create macro-prudential risks.

In light of the observations above, we believe that capital requirements need to have a counter-market-price (counter-cyclical) element to them in order to dampen rather than amplify the financial and economic cycle by requiring buffers of resources to be built up in good times.

In the next Chapter we look at credit cycles in greater depth, especially their international component, and we consider the appropriate regulatory and institutional responses.

A second major source of homogeneity in the financial system relates to *funding* and *leverage*. If regulators make little distinction between how assets are funded, financial institutions will all rely on cheaper, short-term funding, which increases interconnectedness and systemic fragility. In a crisis where there is a rush for cash and funding dries up, all those market participants who had purchased assets using short-term funding are forced to sell assets at the same time. This is even more pronounced if the asset purchases were highly leveraged and the drying up of funding requires highly leveraged holders to try and sell before others do, so as to save what little capital they may have left. In Box 2 we look at how regulators could disincentivise funding mismatches.

A third major source of homogeneity in the financial system is the tendency of regulators and others to consider risk as one thing, to be treated the same way and measured as the volatility of short-term prices. But risk is not one thing alone, there are different types of risk: credit risk, liquidity risk and market risk. We know they are different because they would each be hedged differently. Credit risks are best hedged by finding uncorrelated or negatively correlated credits: the credit of oil companies with inventories of oil may be inversely related to the credit of airlines, as they are generally 'short' of oil. Liquidity risks are best hedged across time: the more time you have before you have to sell an asset, the more you can hold assets that are hard to sell quickly. Market risks, like the value of equity markets, are best hedged using a combination of time and diversification. A financial system will be safe if each of these risks is held by market participants with a capacity for that specific type of risk. A financial system would be unsafe, even if each institution held more capital, if risks were not held where there was appropriate capacity. Arguably the neglect of issues of funding and the over-emphasis on market prices did just that.

Box 2: Regulation of Funding and Liquidity

Imagine two banks have the same assets. One funds those assets expensively, using deposits from their loyal deposit base and the other funds the assets cheaply by rolling over overnight borrowing every day. Previously, bank regulators did not make a distinction between these two banks. The markets did not distinguish between the two banks either and when they did they thought the short-term funded bank was more 'efficient' given that its funding was cheaper. Northern Rock, which funded 120 percent mortgages with short-term capital markets borrowing, had a higher stock market rating than HSBC which relied far more on deposits to fund assets. The prevailing view was that risk was inherent in the asset, not its funding; yet we can see today that these two banks are very different and that the risk of the asset reflects a combination of the liquidity of the asset and the liquidity of the funding. By not making this distinction, regulation incentivised banks to fund their assets using the cheapest funding which was invariably the shortest term. Regulators have woken up to this issue. Minimum funding liquidity is back on the table for discussions at the Basel Committee on Banking Supervision and at the Financial Stability Board. The U.K. amongst others has already announced that new liquidity requirements will require banks to hold much more capital or to lower their dependence on short-term money market funds. Below we set out one way in which capital could be used to disincentivise maturity mismatches.

In a financial crisis the liquidity of assets falls and the maturity of funding contracts. Consequently, putting aside capital for liquidity using current measures of the liquidity of assets and liabilities would be pro-cyclical. The implication is that for regulatory purposes the liquidity definition of assets could be fixed into two camps (liquid and illiquid) and the capital requirement could be time varying, encouraging maturity matching in a boom but relaxing this requirement in a crash.

The liquidity-based capital adequacy requirement could be multiplied by a factor that reflected the degree of maturity mismatch between pools of assets and pools of funding. Assets that the central bank does not normally consider suitable for posting for liquidity would be assumed to have a fixed 'liquidity maturity' of two years – implying it could take as much as two years to sell the asset. If a pool of these assets was funded by a pool of two-year term deposits, there would be no liquidity risk and no liquidity charge. But if the pool of funding had a maturity of one month and so had to be rolled over every month, the liquidity multiple on the base capital charge would be near its maximum – say two. Consequently if the capital adequacy requirement for credit risk was at 8 percent of risk-weighted assets, the new requirement for credit and liquidity risk would be 16 percent. The multiple would fall geometrically from 2 to 1 as the maturity of the funding lengthened. The maturity definition of assets and liabilities could be fixed for the purposes of this regulation in order to avoid the pro-cyclical appearance of maturity mismatches as assets become less liquid and funding dries up more quickly in the bust.

Banks with a capacity for credit risk sold the credit risks to others because of capital adequacy requirements on banks, and bought liquidity risk that they had no capacity for because they were allowed to rely upon short-term wholesale funding. Life insurance companies sold liquidity risk, for which they had a capacity, to banks because solvency ratios and mark-to-market accounting discouraged the holding of illiquid assets. At the same time, they bought credit risk, for which they had no particular capacity given that (a) they were not in the origination business with the ability to diversify credits and (b) they had long-term funding, and credit risk is the one risk that rises over time. In 2006, although banks each apparently had formally adequate capital under applicable regulations, and almost all were significantly above their minimum requirements, the system was highly fragile. In Chapter 7, we take a further look at this critical issue of risk allocation.

Regulation of Instruments and Markets

The crisis and the dysfunction of over the counter wholesale markets in complex instruments have raised the issue as to whether complex instruments and OTC markets should face greater regulation. These appear to be micro-prudential issues, but they are also macro-prudential.

Complexity is often associated with other problems. Products may be complex to try and evade regulations or taxes or to 'mis-sell' to uninformed buyers. Evading regulation and taxes and mis-selling with complex or simple products is illegal in most jurisdictions; these laws should be tightened and enforced. Supervisors should be empowered to look at all instruments and markets and, if they believe that their use or growth raises systemic issues, to require tighter regulation. The contracts for instruments that are made complex solely to deceive consumers or the authorities should be unenforceable. This should incentivise sellers to ensure buyers understand the instruments they sell. Regulators should be able to block the enforcement of deceptive instruments before any buyers have any losses.

But the fault lines of regulation should remain with systemic risk or consumer protection. Complexity by itself is neither new nor bad. Indeed, risk is created by trying to match simple assets to complex liabilities. In some cases, individuals do not have access to assets and instruments of sufficient complexity. The simplest product a retail investor can buy today is an instrument that tracks the equity index. Management charges for these products are small and transparent. The instrument's value is transparent and reported frequently. But this is a highly risky asset for many people, especially an elderly person, because the equity index does not offset their financial liabilities: the cost of their mortgage, pension, health care etc. Indeed, at times of general unemployment, the asset falls in value at precisely the time when a typical individual's net liabilities rise. We could imagine a product that provided financial insurance for an elderly person against all the potential expenditures they may have in the future and rose in value when the individual's liabilities rose. It would be a highly complex, illiquid, derivative instrument, but it would be low risk for the elderly buyer.

Complexity may be used to help people do bad things, but complexity itself may not be bad. Sometimes complex illiquid instruments are the heroes; we discuss some examples below. Similar issues arise with the notion that we should define 'safe' and 'risky' products to sanction the former and ban the latter. This is well-intentioned, but misguided.

Our primary focus should not be instruments. Instruments are fluid, easily created and abandoned. Most complex instruments are in fact packages of simpler instruments put together to make them cheaper than buying each separately. The fundamental problem with the deceptive notion of good and bad, safe or risky instruments is that risk is less a function of the instrument and more a function of behaviour. Declaring assets 'risky' or 'safe' will change behaviour in an adverse way. Complex, illiquid instruments can be used in a safe manner and simple, liquid instruments like mortgages can be used in an unsafe way. We need instead to regulate risky behaviour, in large part by restraining—through capital requirements or otherwise—the mismatch between risk taking and risk capacity; we discuss this in greater depth in Chapter 7 on risk allocation.

Exchanges, Counterparties and Clearing

Exchanges are useful for concentrating buyers and sellers of 'commodity' instruments – instruments that are similar or identical. One ordinary share in General Motors is identical to another and so they can be traded on an exchange. The vast majority of financial assets however are not commodity instruments, but derivatives or bespoke or illiquid instruments.

Announcing to the world that you want to sell a bespoke illiquid instrument on an equity exchange will drive the price against you. If the market place knows this is your position, market players may drive the price lower in anticipation of your forced sale if the price falls far enough. This was a feature of the LTCM crisis. Consequently, those instruments where announcements to buy and sell have no impact on market prices – because the trades are small relative to the market – should be on an exchange and there should be pre and post-trade transparency; those instruments where

such an announcement will move the price away should be free to be traded through the negotiated, inter-dealer markets (OTC) as long as there is mandatory post-trade transparency to the authorities and less frequent and more aggregated reporting to the public. In terms of trading venues this is what happens today, reflecting the markets' revealed preference for trading where there is maximum liquidity for a particular type of trade. Our concerns therefore are less with the venue of trading and more with issues of reporting – especially to the regulator – and of processes that reduce settlement risks and uncertainty, such as netting and centralised clearing.

The gross positions of derivative traders are many times their net positions. A typical derivative trader might have a $1bn position in options on the U.S. dollar, where it will be paid by a counter-party if the dollar rises above a certain level, and a $0.75bn position where it has to pay a different counter-party if the dollar rises above this level. Central clearing of trades between the major counter-parties allows traders to forget about counter-party risk (because the clearing house takes over the position) and view this as a $0.25bn net position and therefore allows the trader to put aside capital for its smaller net position than its much larger ($1.75bn) gross position. The presence of the central clearing house further reduces the risk that a counter-party failure will freeze the market with uncertainty and rumours of the solvency of traders. With respect to central clearing, it is likely that 70 percent of OTC transactions will be seen by clearing houses to be clearable. (This will be maximised the more clearing houses are independent organisations not beholden to any particular trading venue.) But perceptions and measures of risk are 'pro-cyclical'. Consequently, it is likely that in the middle of a crisis, there will be instruments that clearing houses will consider to be more risky than before and refuse to clear, thereby closing the credit markets more tightly to new borrowing. Pressure on clearing houses to clear more instruments during the boom could also undermine the resilience of clearing houses just as we make them more central to the markets.

This is an argument for every instrument having a clearing plan 'B' if they are no longer centrally cleared. This plan 'B' would probably specify bilateral collateral arrangements. Instruments that are cleared in accordance with plan 'B' would not incur an extra capital charge – as this would act pro-cyclically to worsen financial conditions in a crisis. It is unlikely that market participants would prefer bilateral trading where central clearing is on offer given the lower risks and collateral costs of central clearing. Instruments that are not centrally cleared and have no 'clearing plan B' built into the contract should incur a capital charge to reflect their contribution to systemic risks.

In the third quarter of 2008, Mexico hedged its $35bn of oil revenues using an OTC derivative, paying $1.5bn for a put on oil prices struck at $70 per barrel. It is estimated that the puts have earned Mexico some $8bn. This was a highly illiquid derivative contract and whatever the outcome of it was the safe thing for Mexico to do. It would have cost Mexico considerably more if they had to trade this contract on an exchange as it would have sent the price of puts up sharply and the oil price sharply lower as the markets reacted to the trade announcement. It would also not have been likely if 'speculators' were not allowed to be on the other side of the trade. Invariably when producers want to sell forward so do consumers and it takes a disinterested person in the middle with a view on oil prices to make such a hedge possible.

In summary, macro-prudential issues are very different from micro-prudential issues. They are about how interdependencies and endogeneities in the system lead individual firms to behave homogenously. The use of market prices in valuation and risk assessment is a major source of homogeneity, especially along the credit cycle. The reliance on short-term funding and leverage is another source of homogeneity, especially when crisis hits, short-term funding dries up and firms are forced to de-leverage. One of the striking aspects of modern financial crises is not that there are so many sellers in a crash but that there are no or so few buyers.

Systemic resilience requires heterogeneity of views and behaviour. When assets fall from 100 cents in the dollar to five cents in the dollar, why are speculative long-term investors not buying them up? They do not because micro-

prudential standards on valuation, risk and solvency limits make it hard for them to do so, yet these limits make little sense for long-term investors with their superior capacity for holding liquidity and market risk. In the pursuit of standards, 'best-practices' and micro-prudence, regulation has artificially created homogeneity and systemic fragility. Where possible we must design micro-prudential regulations in a way that minimises their macro-prudential consequences and given that this will not always be possible we must complement micro-prudential regulation with macro-prudential regulation.

Chapter 3

The National Boom-Bust Cycle

"We suggest that what has to be regulated is behaviour rather than particular instruments. This is the case because booms are often a result of things appearing to be safer than they turn out to be"

The current crisis has laid two economic commonplaces to rest. The first is the 'efficient markets hypothesis,' which maintains that financial prices embody the true value of their real counterparts, with price movements being a reflection of fundamental values. In such a world financial crises should be rare indeed. Given this, one of the key lessons of this crisis is that market discipline is little protection against the macro-prudential risks that come with the economic cycle. The institutions that have proved most resilient to the crisis, such as HSBC and J.P. Morgan, had lower equity 'ratings' (lower price-earnings ratios) than those that proved to be less resilient, such as Northern Rock, Bear Stearns, Fortis, and Lehman Brothers. Market discipline may have an important role to play in the efficiency of the financial sector; but it cannot be the front line of defence against crises.

The second, related and now discredited view is the proposition that if markets are 'efficient' in this way, then if crises do occur, they must be the result of policy error. That is, government, qua excessive regulation, causes financial crises.

Risk and Volatility in Development

Diery Seck

Many Least Developed Countries rely on external indebtedness to finance their development, at least, until they reach the stage of emerging economies and tap into more developed domestic credit markets. The frequency of sovereign debt crises affecting the poorer countries over the last decades suggests that either past interventions were mostly on the symptoms, or that measures to prevent them, if any, were unused or inadequate. My view is that volatility matters and will doom any sovereign debt architecture for developing countries, if left unaddressed. Currently, public external borrowing is the main link between developing economies and the international financial system.

Poor developing countries usually have highly volatile export earnings and, given their weak domestic credit markets, tend to rely on relatively high levels of external sovereign borrowing and long debt maturities. Their exports receipts typically follow a random walk and therefore tend not to return to a long term trend that is consistent with economic growth, and are also exponentially more uncertain over long periods. Consequently, they face a high probability of debt service difficulties which can be compounded in later periods if payment arrears lead to capitalization of unpaid interest or if they are forced to make debt service payments that hinder their development process and lessen their capacity to honor future debt service obligations. High volumes of external debt only make matters worse.

Yet, such countries need long term financing to avoid potential credit rationing that could arise from a severe national or global economic downturn, or the possibility of borrowing at high interest rates, if they need to borrow at the wrong time. These adverse events are more likely to happen if countries resort to short-term external debt and make frequent trips to the market. One remedy that could be considered is to combine external lending, even on concessionary terms, with provision of pure grants in proportions that would reflect the export volatility of developing countries. Countries afflicted with the highest levels of export volatility would receive the highest proportions of pure grant financing relative to external debt. This facility could be revised frequently to take current economic conditions into account. If properly and consistently implemented, this mechanism could result in comparable and acceptable default risk levels for all developing countries, regardless of their wealth or volatility.

The problem with the proposition that regulation causes crisis is that the historical record does not support it. From the 1940s through to the 1970s, the economic order of the day supported merchandise trade that was seen to be welfare enhancing, while discouraging financial flows through capital controls and regulations, since these were seen to be welfare-diverting and the cause of speculative excess. In this period OECD countries experienced very few financial crises and grew strongly in comparison to what came before. Only with the deregulation of finance in the OECD countries, and later the rest of the world since the 1970s, has the incidence and severity of financial crises increased. And as the current crisis amply demonstrates, it has increased markedly.

To admit this is not to wish for a return to the supposed 'glory-days' of a limited and de-globalised financial sector. While the risks to the system have increased, and with them their attendant costs, so have the benefits. The point of regulation is to skew the balance in favour of the latter over the former. The original form of securitisation, in which long-term loans from good borrowers that were on the bank's balance sheet for some time were moved off it in order to make room for new lending, did promote the development of deeper capital markets with more access to credit for consumption smoothing (we have suggestions on how to improve risk allocation below). Derivatives have both complicated, and eased, risk management. Savers get higher returns and borrowers get lower rates and easier access – so long as the market does not dry up. Moreover, in the advanced OECD economies, as employment has moved out of manufacturing and into services, finance has become an increasingly important source of jobs, income, and taxation. Given this, we need to establish two principles.

The first is that financial crises are a recurring phenomenon of capitalist economies. Trying to avoid them altogether would require a new form of organisation of an economy, which would no longer be capitalist. Sixteenth century Germans, seventeenth century Dutch, and twentieth century Texans all managed to have financial meltdowns without credit default swaps or 50:1 leverage ratios. As such, we should not treat this financial crisis as a unique event with equally unique causes that, if we attend to them, will mean that crises cease to be a problem. This view is false.

Financial crises may differ in the details; the triggering event, the asset class involved, the identified causes and other elements, but the commonalities are there across individual cases. Some shock to the system produces a redistribution of assets across portfolios that alter profit opportunities. If this occurs in a period of relative stability banks become less risk averse and expand credit in response to demand in light of these new opportunities. This leads to price increases in the speculative asset class that in turn encourages more credit, thus fuelling the upswing. The specific signal that 'its time to get out' will vary, but when it occurs (most recently, subprime losses and the implosion of Bear Stearns) investors all try to get out of the same assets at the same time. This drops market prices below modelled prices, which in turn results in a liquidation of other previously well-performing assets to cover losses in the original portfolio. The resulting cannibalisation of assets is the bust that always follows the boom. This pattern has occurred repeatedly in the history of modern capitalism. It is the rule not the exception.

We suggest that what has to be regulated is behaviour rather than particular instruments. This is the case because booms are often a result of things appearing to be safer than they turn out to be. Securitisation was viewed as a way of making banks safer. Diversified portfolios of subprime mortgages were viewed as having low delinquency rates. Banks were so convinced of the safety of these products that they found elaborate ways to be exposed to them. Indeed, while micro-prudential regulation is certainly necessary to weed out the truly reckless institutions, instruments and behaviour, it needs to be supplemented with macro-prudential regulation as a countervailing force against the decline of measured risks in a boom and the strongly-held belief by market participants that 'this time, it is truly different'. It never is, and it is the job of the regulators to remember that singular fact.

The second principle is that, not only are they not going away, financial crises have severe real costs. Reinhardt and Rogoff have recently demonstrated, across all modern (post-1977) financial crises (18 cases), asset price collapses of the order of 35 percent for housing and 55 percent for equities and unemployment increases of 9 percent above base are the norm during the bust phase of the cycle, which can last up to six years depending on the asset class. Given this, it is little surprise then that government debts surge by an average of over 80 percent of GDP as tax receipts collapse and deficits expand as the private sector deleverages and the public sector leverages-up through bail-outs to compensate.

Given all this, we must conclude that regulation to avoid the worst of both the upswing and the downswing is as inevitable as financial crises themselves. As stated above, we do not necessarily need more regulation; we need smarter regulation that enables regulators to act against financial institutions that try to capture them (we address this below). We recognise that supervisors have plenty of discretion to step in, to raise capital requirements where they feel there is too much risk and enquire about activities off-balance sheet or in other jurisdictions if they fear spill-over effects, but they find it hard to use this discretion in a boom when the political winds prevail against them. Almost everyone wants a boom to last. Politicians want to reap electoral benefit from the sense of well-being and prosperity during a boom. Policymakers convince themselves, and try to convince others, that the boom is not an unsustainable credit binge, but the positive result of structural reforms that they have put into place. Booms have social benefits. They are associated with a higher appetite for risk often making finance more inclusive (e.g. subprime mortgages). Booms are not quite a conspiracy of silence, but there are few who gain from their early demise.

In dealing with boom-bust cycles the Commission is focused upon pro-actively leaning against the wind such that crises are dampened during the upswing rather than expensively dealt with on an ad hoc basis on the downswing. An ounce of prevention really is worth a hundredweight of cure. The Commission's key ideas of counter-cyclical regulation, liquidity regulation, and 'unlevel playing fields' are of particular importance in this regard.

Chapter 4

Regulatory Responses to the International Boom-Bust Cycle

"The efficiency gains from financial market integration are counter-balanced by the negative effects of growth volatility. This prompts the question: what is a financial system for?"

The boom-bust cycle within countries is mirrored in the boom-bust cycle of cross-border capital flows to emerging economies. We know that credit cycles in the OECD have contributed to international volatility of capital flows, which was transmitted to instability in domestic financial sectors, and have seriously undermined growth in developing countries, particularly during severe and frequent currency and banking crises. Though financial crisis in developing countries have a very long history, they have become more frequent and more severe in the last decades, following a period of intense liberalisation of the domestic financial sector and of capital accounts worldwide. We do not make this observation as an argument in favour of financial market repression, but to better balance the cost-benefit assessment of liberalisation. Though pro-cyclicality is endemic in financial markets, inappropriate regulation and deregulation of these markets seriously accentuates its effects.

Regulatory Spillovers and Economic Development

Rajiv Kumar

At the time of the Asian financial crisis in 1997-98, Asian central bankers and finance ministers were given a strong dressing down by the financial gurus in OECD economies on the serious policy mistake of not bringing their financial sectors in line with those of advanced economies. The limited integration of their financial sectors with global markets, lack of capital account convertibility and continuation of administrative controls in these economies was seen as sign of backwardness and lack of sophistication in macroeconomic management. I still recall being told by financial sector fundamentalists, just after the massive capital flight had brought the Indonesian economy to near bankruptcy, that building up foreign exchange reserves was simply wasteful and foolish because they are not really needed if policymakers got macroeconomic management right. With complete exchange and interest rate flexibility, it was argued, reserves are simply not required! Those were the high days of the Washington Consensus where regulators saw any form of government control as unnecessary and dysfunctional and firmly believed that the markets and market

players can self-regulate while maximising returns. Now of course we know differently. One of the central lessons of the current financial crisis is that 'one cap certainly does not fit all' and especially not in the case of the financial sector.

The crisis has shown that there is hardly any case for a level playing field and uniform rules and operational principles for all economies irrespective of their level of financial sector development or their regulatory capacities. To many of us in Asia this had become reasonably clear even at the time of the financial crisis by observing the relative success of apparently unorthodox policy approaches adopted by the Hong Kong Monetary Authority in defeating attempts at breaking the peg or those adopted by Malaysia in preventing a run on the Ringgit by freezing the exchange rate and bringing in extensive capital controls. The Indian and Chinese success in weathering both the financial crisis while maintaining relatively strong capital controls and large segments of the banking sector in public ownership also points to the effectiveness of tailoring financial sector policies and regulatory regimes in sync with ground conditions and not with a view to earning brownie points from advanced economy theologians.

The second important lesson in my view is to make sure that the development of the financial sector and the extent of liberalisation and integration with the global economy should not run far ahead of the rest of the economy as it tends to happen in emerging economies who fall in the trap of equating the emergence of a sparkling financial district to modernisation of the overall economy. As a result, in many emerging economies, the financial sector quite often begins to look like an enclave that acts in tandem with global financial sectors rather than serve the needs of the domestic economy. This exacerbates the dualistic economic structure by attracting the human talent and leaving the real economy bereft of managerial resources. Therefore, it is important that the design and development of the financial sector is tailored to the actual needs of the individual emerging economy. This will of course imply the existence of a number of 'unlevel playing fields' especially if host country regulations are enforced as this report argues should be the case. This is required to prevent emerging economies from unnecessarily suffering the contagion from episodes that originate in the advanced economies and also allows them the degrees of freedom required to ensure that their financial sector grows organically with the rest of the economy.

The last three decades have made developing countries, particularly those more integrated into world markets, swing at the rhythm of highly pro-cyclical external financing, with very negative effects on their growth and development. Of particular concern is that the current global crisis, which originated in OECD countries, has led to a far larger decline of net private capital flows to developing countries (estimated by the Institute of International Finance at around 8 percent of emerging countries' GDP) than that caused in previous crises originating in developing countries.

Financial volatility has a direct impact on the balance of payments and domestic financial markets, and, through these avenues, on domestic economic activity and other macroeconomic variables. Furthermore, in the face of strong swings of private capital markets, developing countries lose the 'policy space' to adopt autonomous counter-cyclical macroeconomic policies. The unfortunate outcome of this dynamics is that 'twin' external and domestic financial crises became far more frequent.

The major task of a development-friendly international financial architecture, and particularly for regulatory reform both nationally and internationally, is to try to curb the pro-cyclical and volatile nature of financial markets and to mitigate the pro-cyclical effects of financial markets, thus opening 'policy space' for counter-cyclical macroeconomic policies in the developing world. This would also help avoid costly financial crises. It would also help

developing countries combat volatility generated by foreign financial institutions acting irresponsibly under home country regulation.

Boom-bust cycles reflect investor herding and associated contagion – of both optimism and pessimism. Volatility in developing countries is often associated with shifting appetite for risk of investors in developed countries. In particular, the 'search for yield' characteristic of low interest rate environments in developed economies generates incentives for credit creation, carry trade, and leverage that is often associated with the pumping up of asset bubbles in emerging economies and elsewhere.

A booming private sector tends to influence the public sector, through a number of ways, to support the boom and to refrain from counter-cyclical macroeconomic policies. Thus, unstable external financing distorts incentives that both private agents and authorities face throughout the business cycle, inducing pro-cyclical behaviour from economic agents and policymakers. The costs of such financial volatility in the developing world are very high. There is now overwhelming evidence that pro-cyclical financial markets and macroeconomic policies have increased growth volatility and have discouraged growth in the developing world. The efficiency gains from financial market integration are counter-balanced by the negative effects of growth volatility. This prompts the question: what is a financial system for?

Research by Eichengreen and others has suggested that over the past twenty-five years the incomes of developing countries had been 25 percent lower than they would otherwise be were it not for currency and banking crises. Others have estimated even higher average annual costs of crises. According to some estimates, Indonesia experienced larger falls in output and incomes during the 1990s Asian crisis than the United States during the Great Depression. The costs, in terms of lost output, of the current crisis, in both developed and many developing countries will be extremely large. Credit cycles contribute in a major way to international volatility of capital flows, reflected in domestic financial sector and macroeconomic boom-bust behaviour. This has very severe consequences for development.

What can developing countries do? The first instinct has been to call on home country regulators of international banks to chasten the cycle of feast and famine. However regulatory action there has tended to amplify the cycle not cut it. In booms, national regulators in the home countries tend to act like national champions of their local banks, afraid to reduce the international competitiveness of their banks by restraining their international activities even where there are systemic dangers in the host countries. Indeed, home country regulators tend to support the push of their banks abroad, arguing that developing country host regulators are being too protective of their financial systems and should apply common standards that the large international banks are more equipped to meet. In the subsequent crash, tax payers are angry at bailing out a bank that has been lending to foreigners and consequently home country regulators tend to exert less forbearance on international lending than local lending.

The best protection for developing countries from the feast and famine of cross-border capital flows is not to rely on the concern of home country regulators, especially where the home is a large developed country and the host is a smaller developing country, but to rely on host country regulation. On macro-prudential grounds, the host country regulator may require all lending activity to be carried out by locally regulated subsidiaries. It can impose higher capital requirements on lending when there is an above average growth of credit and where it can detect systemic risk, such as a crowding of investment in small sectors or a large build-up of foreign currency funding of local assets. Where host country authorities identify risks to domestic financial stability, borrowing outside the locally regulated sector could be made illegal and any charge on local assets by unregulated external lenders unenforceable. This is not to say that the home country regulator should not work with the host country regulator on these issues. Facilitating this process should be one of the objectives of multilateral regulatory bodies such as the Financial Stability Board. We return to the host-home country debate in later Chapters.

Chapter 5

Regulatory Capture

"The big banks wanted a level playing field so that they could grow within the national financial system and internationally"

To view the current crisis solely through a financial, economic or regulatory lens misses the important political dimension of financial regulation and financial booms. We suggest that regulatory capture is one possible explanation among many to help us understand what has occurred. In Chapter 1 we highlighted two main reasons why we regulate the financial sector over and above normal corporate law. First, there are information assymmetries between retail investors and professional financial firms and second, banks can be highly systemic. It follows from these market failures that the more systemic a bank is, the more regulated it should be; the better an institution proves to be at risk assessment, the less regulated it could be. Moreover, regulation should strive to put risks in the hands of those with the best capacity for those risks and regulation should be simple so that it would be easy to understand by consumers and administered by supervisors. In reality the opposite was the case.

Regulation favoured larger more interconnected and systemic firms over smaller, less systemic firms in a number of ways. Regulation was process-oriented not results-oriented. The bigger the database and the more sophisticated the computer models the more regulators were inclined to relax regulation and capital requirements. Computer models were favoured and relationship banking was considered antique. Credit unions or other institutions with – in many, though not all cases – substantial credit knowledge of their clients and good records on delinquency rates, were considered to be more dangerous as a result of insufficient IT capacity. The compliance side of regulation also exhibited strong economies of scale, giving a competitive advantage to large banks.

The ability of a bank to forecast its own delinquency rates – results oriented regulation – played almost no role in assessing capital requirements. (This is why supervisors came out of the crisis revealing that they had inadequate knowledge of the business models of banks, how the banks they supervised made their money and what risks they took to make it. It seems to us that knowing how a bank makes its money, what risks it is taking to earn this profit and how good it is at taking this risk should be the very first task of a supervisor, not an optional extra.) Instead the focus was on a bank's process, which, as explained above, gave big banks an advantage over small banks and drowned supervisors in details of process and not in an assessment of risk.

One of the strongest mantras of current regulation, still heard loudly today, is 'the level

playing field'. But there is little fundamental argument for why we need to have the level playing field other than the general sense that playing fields should always be level. The big banks wanted a level playing field so that they could grow within the national financial system and internationally. This level playing field helped banks with their short-term funding to hold substantial amounts of illiquid assets and insurance companies with their poor capacity for credit risk to hold large amounts of credit.

Regulatory complexity is also an avenue of capture and financial regulation ended up being highly complex and legalistic. This partially led regulators to see supervision as an exercise in legal compliance rather than an assessment of risk and risk capacity. Capture also distorted the application of global rules by home country regulators. Captured national regulators became champions of their national banks abroad. London's light touch regulation was as much a statement of competitive intent as it was a statement of philosophy. The same could be said for the approach to regulation in New York, Reykjavik and Vienna.

It would appear that at the centre of the crisis stood those things that were the result of regulatory capture: relatively lightly regulated, systemically important, international and universal banks; the level playing field which allowed a gross misallocation of risk-taking and risk capacity; the abandonment of good risk assessment in favour of computer models; and complex regulation that was complied with to the letter, but not the spirit. Regulatory capture substantially contributed to the regulatory failure. It stands to reason that to avoid financial crises we must deal with regulatory capture.

The Politics of Capture

We suggest that capture was achieved through a number of avenues. This was not a case of illegal or irregular influence, however. The financial industry gave generously to all political parties across the board, and donors one day sometimes became policy officials the next day. The revolving doors have been turning most rapidly at the top of U.S. policy making and investment banking in recent years, but they turn in other countries too. If it were only this, the capture would have been continuously contested and countervailing forces would have emerged more readily. The capture, however, was also intellectual. The revival of economic market ideas from the 1970s onwards was accompanied by an aura of respect and an intellectual inclination to recognise the superiority of these ideas. The tallest spires of academic finance generally, though not exclusively, supported the notion of efficient markets, reassessing the purpose of regulation and containing the ambitions of regulators.

Capture was helped by the emergent view that public agencies ought to be independent of politics. As part of this process, a policy role for the private sector was legitimised. Intellectual capture, in turn, also relates to the 'group-think' that has taken hold in the making of financial policy. Regulatory and supervisory arrangements are discussed and agreed in expert and apolitical terms, bringing like-minded individuals who, whether in the official, private or academic sphere, can reach common understandings based on shared training, practice and access to economic ideas. Both in the national arena and, increasingly, in the international fora around the Basel process, such networks are technocratic, informal, politically unaccountable and have a narrowly defined understanding of financial policy. They are also often de-coupled from other economic considerations or broader questions about the role of finance.

It is important to break 'group-think' and introduce new voices and interests to debates about financial regulation. But this report also accepts that reform efforts cannot be about the formal structure of policy-making arrangements alone – and that beyond the memberships of committees and institutions, the informal and intellectual dimension of governance and capture needs to be addressed.

The Politics of Booms

Political factors are also at work in making financial regulation and markets pro-cyclical as we have discussed in Chapters 2 and 3. In most jurisdictions supervisors have the power to tighten regulatory requirements to dampen a boom. But they do not. The Reserve Bank of India tightened regulations on lending for residential housing during the last housing

boom and was able to moderate its effects. The Spanish central bank has for several years imposed counter-cyclical provisioning. Chile and Colombia have had instruments to deal with the ebb and tide of international capital flows. But these are slim exceptions and they seem to be more accepted outside the Anglo-American world. More typical is the position of Alan Greenspan as Chairman of the Federal Reserve Board, who suggested that there is too much uncertainty as to whether there is a boom.

Responsible Credit and Welfare

Leonard Seabrooke

There are clear reasons why we need to think through what we could call the political economy of international financial reform. We often discuss the link between the financial sector and the 'real economy' during periods of high financial stress. Beyond the idea of the real economy are real political and economic interests in how national financial markets relate to national welfare concerns. The most obvious link between financial policies and social policies can be seen in how housing is financed, which is a reflection of how different societies see the need for housing. Political economy scholars call this a 'welfare trade-off'. In some countries citizens opt for high taxes and high welfare that provides social housing. Other societies favour low taxes and low welfare and then have to build assets over their life through housing and pension fund contributions. Governments and financial markets in low-tax economies have a clear interest in innovating to meet the political and economic need for housing.

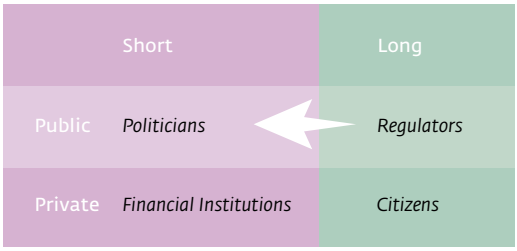
It is no surprise, then, that mortgage securitisation emerged within the U.S., and that access to credit was politicised as groups were excluded from credit access due to income or racial discrimination. In the U.S. access to credit for housing was, and is, a political good. Politicians have a clear incentive to increase credit for housing since those who miss out know that they are dependent on a weak welfare state. It is also not surprising that governments create institutional innovations to meet political and economic needs. The creation of the sibling institutions Fannie Mae, Freddie Mac, and Ginnie Mae (linked first to the 1930s depression and later to the civil rights movement) was to mediate the interests of private capital and public values. As we now know, the most recent U.S. property boom made it harder for many Americans to be 'prime' borrowers through the siblings and led to the boom in subprime mortgage securitisation. These securities attracted a lot of investment, from home and abroad, because they carried attractive yields while apparently being low risk as they were put into apparently uncorrelated, diversified packages.

At base, the now so-called 'toxic' subprime mortgage-backed securities are tied to Americans' welfare trade-offs. It is a priority for the U.S. government to restart securitisation as soon as possible because it performs a critical political and economic function within the American system. As such, President Obama will have an interest in saving securitisation since without it he may have an administration in which the community groups from which he claimed some of his political legitimacy have fewer chances to build assets through access to housing. What societies expect from their financial systems will constrain international financial reform. We should expect to see a lot of variety in how economies respond to the crisis. Such divergence may well be legitimate because it reflects different welfare trade-offs. An international financial crisis that arose from within democracies cannot be solved behind closed doors. We need to be aware that public expectations will shape international financial reform for good or bad.

This general reticence to act by regulators and supervisors relates to political pressure. In the middle of a boom, it is in no one's political interests to stop it. Politicians want the boom to last until the next election. The early phase of the boom, when it is best brought to a halt, has the characteristic of robust economic growth with low inflation. Policymakers misinterpret this as a sign that they have earned policy credibility and do not wish to suggest otherwise or do something that might change the character of the environment. Central bankers wasted many hours during the boom arguing that the circumstances of low-inflation growth and an apparently safe but expanding financial sector were due to increased policy credibility. In this environment, supervisors may not so easily stick up his or her hand and declare that we are in an unsustainable credit binge and easily argue that policy credibility, or other such institutional innovations, may have little to do with it.

We set out these issues in Figure 1. Politicians have an interest in being re-elected. The financial institutions have an interest in short-term profits to please shareholders. Ideally, the regulators have an interest in the long-term stability of the financial system. And citizens have an interest in the long-term stability of the system since they have heavily invested in it through pensions and, depending on the country, housing. This is especially the case in low-welfare economies, where citizens expect to build wealth over their life-cycle or through the family. In such systems we should expect to see groups that have been excluded from credit access to fight for it. In this context, a U.S. home-buyer who chooses to take up a subprime loan has not been irrational, but acting, given the expectations at the time, upon his or her long-term welfare interests, however aspirant they may be. Similarly, within such systems governments have a strong incentive to support and maintain securitisation that can aggressively recycle capital in order to provide credit to the masses. As long as there are investors, including countries with war chests of currency, to invest in such securities, mass credit provision is possible and asset bubbles become ever more likely.

Fig 1: Political Time Horizons and Financial Regulation



Politicians are able to ride on the growth spurred by easy credit that heightens their re-election chances and they seek to prolong that growth through various tricks (such as when U.K. authorities, during the boom, removed housing costs from the Consumer Price Index). During the boom, citizens who were not already invested in the pensions and/or housing markets became increasingly nervous about being left behind, and took on new levels of personal indebtedness to get in the game. In the U.S. system this led to both subprime and no-equity mortgages, while in systems with sturdier welfare, it led to world-beating levels of personal indebtedness (as in Denmark and the Netherlands).

Regulatory Solutions to Multilevel Political Problems

Mark Blyth

Regulators face a particular problem in that much of what we wish to regulate may have no regulatory solution. Instead what we face are political problems looking for regulatory solutions. Such difficulties present themselves on three levels. The first level is that of the global economy. For some analysts, critical in generating the current crisis are the global financial imbalances between the U.S. and the East Asian economies.

The second level where such problems appear lies at the level of the national financial systems. Here we encounter demands for the regulation of institutions such as Credit Rating Agencies (CRAs), Government Sponsored Enterprises (GSEs) such as Fannie Mae and Freddie Mac, or the major Banks themselves in terms of their size and leverage ratios. While demands for the regulation of these institutions seem both reasonable and rational in the wake of the crisis, the reform of such institutions is also bound up with political questions. The CRAs were blamed for having a conflict of interest at the heart of their operations. For the GSEs the problem was seen as poor underwriting and a dearth of good borrowers leading to the issuance of mortgage securities that were both over valued and far more correlated that advertised. Finally, that the major banks were too big and over leveraged is not in doubt. So, what can be done? For the CRAs the regulatory solution proposed is either a public agency to oversee the private ones, or a whole new business model for the industry. But if you are still relying on the CRAs to rate the securities the state is relying upon to stabilise the financial sector as a whole, why would the state wish to reform the system? For the GSEs the regulatory solution was to abolish them. But closing them down would likely lead to shrinkage of the U.S. mortgage market and through that, reduced securitisation, global liquidity and financial access. Finally, the same banks are both 'too big to fail' and 'too big to bail'. But with them being implicated in 20 percent of GDP and nearly 30 percent of gross value added in the U.S., their abolition or shrinkage would come at a heavy price. Now, add to this that any and all legislation has to pass by a Congress or similar democratic body, that there is no downside to the upside of a bubble for politicians, and that bureaucracies can suffer regulatory capture, and we can see how the politics of reform once again supervene in the design and execution of effective regulation.

So what are we left with? The third level is the level of markets themselves. Here we must deal with actual financial products implicated in the crisis. Currently, one particular set of instruments are highlighted; derivatives contracts, especially Credit Default Swaps (CDS). Such instruments were seen to be critical elements in the elaborate daisy-chain of risk that brought down AIG and that facilitated massive public interventions to shore up the global financial system. Consequently, politicians across the world seek to regulate their use far more than before. But are we likely to try and regulate these instruments because they can be regulated, rather than the fact that they should be regulated?

The following considerations are worth bringing to bear on this question. First of all, while it is true that such instruments can be used for speculation as well as hedging, it is in practice often difficult to distinguish between the two positions. Do we really want to limit hedging in order to reduce risk? Second, while the banks that sell these instruments are self-interested actors who reap huge profits from their sales, their claim that too much regulation will stifle innovation and growth needs to be taken seriously. The problem of coming down on one side or the other of such a claim is that it is very hard to test the proposition empirically. Establishing econometrically that over-the-counter products add to growth is as difficult as showing that they take away from growth. Their production certainly generates fees, but given the skewness of the income distribution in the U.S. and in the returns to finance in general, it is not clear that they add much to the growth of the economy more broadly construed. In short, banning such instruments, or posting them on exchanges or establishing a central clearing counterparty (CCP) or increasing trade reporting may be the regulatory solution we reach for because that is the one we can achieve rather than what really needs to be addressed. This is possible. And this is precisely what political solutions should focus on.

We believe that there are a number of ways of responding to the political pressures we discuss above. First, regulatory policy should be more rule-based or discretion needs to be more constrained, especially in response to the credit cycle. The regulation of capital, leverage and liquidity needs to be tightened in the boom and loosened in the crash. This is best done according to a simple rule, (see Chapters 2 and 3 for examples of counter-cyclical rules and Chapter 8 for a further discussion of rules versus discretion) where policymakers can decide not to follow the rule, but only if they set out the logic of their inaction to the public.

Second, the locus of regulation needs to be more host-country than home country. This is the best defence against a national regulator interpreting global rules in a permissive manner in order to give his local banks a competitive advantage abroad. Host country regulation will also provide emerging market economies with greater policy space to deal with the macro-prudential aspects of the cycle of cross-border capital flows.

A host country regulation system locates the source of authority within a national system. By contrast, a home country regulation system permits financial institutions to be regulated from afar and runs the risk of allowing disruptive economic outcomes within the host. We also suggest that host country regulation permits national and regional variations that provide useful and necessary variety and differentiation within financial markets. From a political economy perspective, this is necessary not only to enhance diversity, investment, and growth, but also to address political considerations. We return to this issue in Chapter 9.

The third more direct response is to have as a deliberate policy the 'right-sizing' of the financial sector, financial institutions and financial activity. We now turn to this idea.

Chapter 6

Right-Sizing Finance

"The disproportionate growth of the financial sector and the dominance of 'Wall Street' over 'Main Street' played a significant role in the scale of the credit crunch"

The loss figures cited for this crisis are in the trillions of dollars – so large as to be unfathomable to ordinary citizens. Financial markets and financial institutions had grown so large as to become too big to bail with governments being forced to come up with ingenuous ways of providing support, transferring to the public sector not just actual losses but even more enormous risks. With turnover in the main equity, bond and currency markets being many multiples of total global GDP, there is a suspicion that this size reflects excessive gearing, leveraging and churning. Questions also arise as to whether there is feedback from the size of the financial sector on to the nature and quality of regulation.

The mushrooming of the financial sector in recent years was accepted by politicians, regulators and voters alike because of the widespread belief that the financial sector was the most efficient allocator of resources across different economies and across sectors within economies. Therefore, a more developed financial sector produces a higher level of allocative efficiency and the securitisation of assets was understood to be a measure of economic sophistication and overall systemic efficiency.

This role of being the 'final and exclusive arbiter' of allocative efficiency gave the financial sector and its managers the right to sit in judgment over almost all else and be themselves above any control or supervision by anyone else. This was compounded by the growth of the investment banks and brokerage houses who it was thought, performed this role without directly risking the 'common man's deposits', relying instead on disintermediated capital from high net worth individuals, cash surplus corporates or countries, institutional savings institutions, like pension funds, insurance companies, and increasingly from debt provided by the banks. The freedom from 'retail deposits' put investment banks above consumer protection regulation, and, where they existed, leverage ratios, while the recourse to debt from the banks provided an almost unending supply of funds for expansion.

Another related reason for the excessive growth of the financial sector was that market participants were able to persuade regulators in the early 1990s, that they had developed sophisticated and complex mathematical models that better and more transparently measured and monitored risks.

Too Big to Fail?

Eleni Tsingou

This financial crisis has highlighted not only the links between finance and the 'real' economy but also, the special role that financial institutions play, and are seen to play within economies. As part of crisis management, rescue deals have been put in place to save financial institutions from collapse using public funds, while takeovers and mergers have been actively encouraged, to the possible detriment of rigorous competition rules. These actions have often been explained on the basis of the systemic importance of the financial institutions in question (banks or otherwise), citing size and interconnectedness as key factors. Commonly, these institutions have been labelled 'too big to fail'. Crisis management has, if anything, produced more of those institutions. Consolidation within the financial industry has created, in some cases, even greater financial conglomerates, while reform proposals thus far have been timid on the issue. And as regulatory and supervisory structures are being adjusted to allow for greater focus on systemically important institutions, this emphasis on process, while appropriate, leaves many outstanding questions. What makes an institution too big to fail? And has the implicit safety net afforded to financial institutions been altered by the crisis?

What is 'too big' or 'systemic'? The crisis has shown that systemic is not about size alone but also about interconnectedness. Allowing such institutions to fail, the official sector feared, would cause depositor unease and have unacceptable effects on creditors and to some extent shareholders, and trigger the panic and disorderly resolution that followed the collapse of Lehman Brothers. Instead, by opting to support bail-outs and buy-outs, financially and politically, state authorities have put themselves in a position where their regulatory credibility has been seriously challenged, and the finances of the state significantly affected. This alone has been a stark reminder that regardless of the transnational character of much financial activity, resolutions are mostly a national affair. While interconnectedness issues are addressed by reform proposals in play, the size of conglomerates and the potential for capture that such size might afford are not adequately dealt with, while few advantages of the size of these institutions are actually identified. Outside finance, the challenges paused by large conglomerates are seldom tolerated in the long run, for reasons of competition as well as for the weakness that a potential failure might bring to the system. In the world of finance, this does not appear to be the case. One need also consider that in some cases, large cross-border financial institutions are part of a broader financial and political project, as in the case of the European Union, where pan-European banks are seen as a key driver of economic integration.

The Commission's account of the working of the financial system does not address 'too big to fail' head-on but is more honest as to the seriousness of the topic and the political limitations of dealing with the issue. The reform proposals advocated, and specifically the Report's focus on host regulation limits surprises to regulators and depositors alike and thus decreases potential demands on public funds for bail-outs (the European context being one that necessitates consolidation of regulatory and supervisory functions). The recommendation to ensure more appropriate risk allocation also goes some way towards allowing both regulatory standards and financial innovation to develop in a context that does not privilege large financial conglomerates alone.

After the Latin American debt crisis, the Savings & Loans crisis and the Scandinavian bond crisis, regulators were open to the idea that models based on quantitative data and independent credit ratings would be better and more transparent at measuring risks than the grizzled bank credit officers. Regulatory acceptance of these models (for instance in the 1995 market risk directive of Basel I) prompted the development of new and sophisticated financial products that were seen by all – including regulators – to better manage and spread risks. This eliminated a key reason for restraining the growth of the financial sector. Risk taking was supporting growth, spreading capitalism to the poor while risks were being diversified outside the banking system across professional savings institutions. The crises that arose after these models were in operation – the Asian Financial Crisis (1997-98), LTCM (1998), and the Dot Com Bezzle (2000-01) were intense and yet, outside of the emerging markets, banks came out of the crisis largely unscathed. No major bank in the OECD failed or was on the verge of failure as a result of these crises. This reinforced the idea that financial innovation spread risks and made the financial system more resilient. The zeitgeist of the time was that a large, liberal financial system was a safer system, reinforcing calls from bankers for greater liberalisation.

Supermarket Banking and Limiting Leverage

The mathematical models and the risk transfers that they facilitated supported the false notion that there was one thing called risk and that the banks had superior ways of managing risks, and so the firewalls between different categories of products and depositors should be eliminated. This led regulators to support the call from large banks to create a 'level playing field' by removing segmentation within the financial system and to pressure the non-bank financial system to adopt the same risk models. This resulted in the emergence of financial sector super markets that covered all product and depositor categories and grew to enormous sizes, with balance sheets often larger than the GNP many mid-sized economies. These financial supermarkets not only became 'too big to bail' but also provided the main players within these markets – the banks – the human and financial resources and networking clout to capture the regulators. The results of this regulatory capture are amply evident (see the previous Chapter).

The disproportionate growth of the financial sector and the dominance of 'Wall Street' over 'Main Street' played a significant role in the scale of the credit crunch. A useful direction for future research and inquiry could be to estimate an optimum size of the financial sector and of the combination of size and leverage that would make an individual firm too big to bail.

Canada is the only G7 country not to have bailed out or guaranteed its banking system, in part because of its limits on house lending and its leverage ratio ceiling of 20 applied to all banks. (A leverage ratio compares the value of a bank's assets as a multiple of the value of its capital.) This and other experiences with the leverage ratio led the G-20 to urge its more comprehensive adoption, and we support this call.

A leverage ratio will provide some limit to the growth and size of the financial sector as a whole, but it would still permit individual institutions to be systemically important, whether through their size or interconnectivity. We support the idea that regulators must identify systemically important institutions and that these should have higher capital requirements, thereby internalising the social costs of their systemic risk.

How we define systemically important institutions will be a source of controversy because of the costs for an institution of being so defined. There will be pressures on regulators that are likely to lead them to underestimate what is systemic but right-sizing of the sector and of individual firms is essential and urgently required if we are not to revert to business as usual. If banks were confined to particular product categories or markets they would neither grow too large nor be interconnected so widely as to cause systemic problems. Regulators could determine systemically important institutions by looking at the results of single stress tests that they ask all financial firms to carry out a few times a year.

It is clear that the pressure for reforms will decline as financial conditions improve with cyclical upturn. It would be a pity if the

opportunity for making the financial sector more resilient and less capable of achieving regulatory capture and systemic distress was lost.

Right-sizing could be achieved by suggestions included in this report. First, mandating counter-cyclical capital provisioning norms will prevent banks from building assets too fast and too big. Second, a leverage ratio for all financial institutions should provide some further restraint to excessive growth. Third, going back to segregating different categories of finance, but along the lines of risk capacity, and re-establishing 'unlevel playing fields' will surely reduce interconnectedness and restraint the emergence of 'financial super markets.' Fourth, raising capital requirements for systemically important institutions should create the necessary disincentive for institutions to grow to that point where they pose substantial risks to the financial system.

A fifth idea is to use financial transaction taxes (like Stamp duties or Tobin taxes) to limit short-term and churning activity. Banks profit more from high-turnover than low turnover and consequently they are likely to over-invest (relative to a social optimum) in activities and instruments with high turnover and underinvest in activities and instruments with low turnover. If you establish a buy and hold fund you may never meet a banker; if you have the same size fund, but decide to adopt a strategy of turning over the portfolio every week you will find it hard to get to your desk through the throng of bankers offering a 'partnership'. This is a social externality and the classic economist response is to tax the activity. A common reaction to such ideas is that they may be a good, but they are not feasible. However, financial transaction taxes are common – in the U.S., the Securities and Exchange Commission is financed by one – and have been made more feasible through the moves towards centralised clearing and settlement allowing the tax to be collected at a central point through which the majority of trades are flowing, and creating substantial costs to those trying to get round the tax by avoiding central clearing and settlement.

Key features of all of these ideas are a degree of automaticity and the introduction of rules which slow down the growth of balance sheets and prevent them from becoming so large that they pose a systemic risk overhang on the real economy. Issues of systemic risk and optimal size are complex and appear to deserve intelligent discretion, but we fear discretion is too prone to regulatory capture and greater adherence to a set of structural rules will help the financial sector play its due role in achieving sustainable and equitable growth.

Chapter 7

Underestimating Risk and Developing the Capacity to Hold It

"Effective macro-prudential regulation lies in the appropriate allocation of risk: in particular, the matching between different types of risk and the capacity to hold those risks"

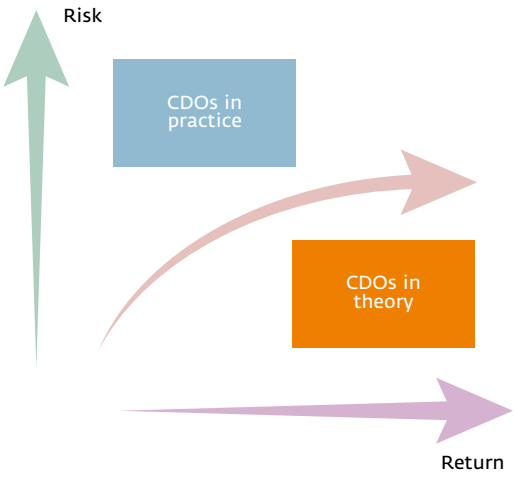
The loss figures cited for this crisis are in the trillions of dollars – so large as to be unfathomable to ordinary citizens. Financial markets and financial institutions had grown so large as to become too big to bail with governments being forced to come up with ingenuous ways of providing support, transferring to the public sector not just actual losses but even more enormous risks. Macro-prudential regulation concerns itself with a dangerous and generally unacknowledged fallacy of composition. That is, the financial system is not made safe simply by making individual firms safe. This is because risk is not just exogenous but also endogenous to the financial system. A critical source of endogenous risk is the credit cycle, which we have discussed extensively in Chapters 2 and 3. But it is not the only source. Another source lies in the current regulatory system's focus and approach on 'risk-sensitivity'. Regulation tried to measure and control risk through banks' internal risk models that assume risk to be a quantifiable property of an asset, and through related capital adequacy requirements that assume such measured risk to be a function of each individual bank's sum resources. This is one part of the fallacy of composition problem. While it is individually rational for any single bank to calculate its 'value-at-risk' or similar measure at the end of the day, it is not so for the system as a whole. These models of exogenous risk assume that financial players act independently of each other and in essence assume that only a small number of people are using the risk models that the regulators have asked everyone to use.

In an interlinked and pro-cyclical system model homogeneity can be collectively disastrous. The use of common models leads to common positions across disparate portfolios in terms of hedges and risks. So while one bank may appear diversified, in the context of other banks having similar positions, the system and the bank will be exposed to far greater shocks that the risk models would indicate at the time and the model 'surprise' will lead to a greater reaction that will be further compounded by the collective behaviour.

Given this inability to both fully capture and measure endogenous risk in the financial system that arises from collective behaviour, we feel that a further and related, but equally neglected component of macro-prudential regulation lies in the appropriate allocation of risk: in particular, the matching between different types of risk and the capacity to hold those risks.

Imagine two financial systems, each with the same amount of risk, but in the former risks were matched to holders with a capacity for that risk while in the latter risk was evenly spread across all holders without regard to the type of risk or capacity of the holder for that risk. The former system would be safer since the risk of a system is not just the amount of risk there is, but how that risk is absorbed. And if we consider allocation of risk to be about behaviour, this comes back to our earlier observation that, today, in a world of common information, risk is more inherent in behaviour and less inherent in instruments than commonly perceived.

Fig 2: The False Dichotomy of the Level Playing Field for Risk and Return



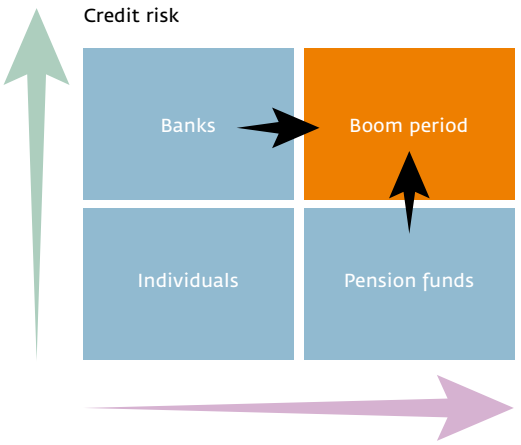
The figure above presents the false dichotomy of a level playing field where all activity can be collapsed into risk and return. Within the figure collateralised debt obligations were considered within markets to be a financial instrument with high returns and low risk. This satisfied the need of many financial institutions whose clients demanded this combination. Pension funds were one particular institution that invested in CDOs on the basis that they were required to invest in high performing assets that also had high credit ratings. As we now know, the collective use of the same valuation and risk rules meant that exogenous measures of risk underestimated the degree of endogenously created risk by investors and pensions funds buying and selling these instruments at the same time. This was compounded by pension funds and insurance companies outsourcing their investment to firms that could not hold liquidity risk, because of their short-term funding and use of market prices to measure risk and return. As liquidity risk increased, investment management firms were forced to sell these illiquid instruments, leading to a collapse in prices which gave the impression that their credit risk had worsened forcing the investors to sell more.

This whole episode reveals how risks were amplified many times over by the 'wrong' people holding the 'wrong' assets and suggests that if these illiquid assets were held by investors with long-term liabilities or funding, who held on to them as market prices fell, and considered buying those that looked cheap, the same genuine decline in credit quality in certain market sectors would not have led to the collapse of the entire market. As we have said before, the systemic problem is not so much that there were many sellers, but that there were no buyers. And there were no buyers not because no one saw value, but few had the capacity to buy illiquid assets and those that did followed standardised, market-sensitive, value and risk rules that did not allow them to hold the one risk they had a superior capacity to hold. It is interesting to note that the only buyer of these assets was the one buyer who did not have to apply the standardised value and risk rules trumpeted by regulators and accountants: the Government.

Segmentation Beyond Glass-Steagall

Segmentation by form and function today is a different kind of segmentation than we saw under the U.S. Glass-Steagall Act, and that many commentators seek to restore today. Although superficially appealing, the problem with focusing on institutions as the locus of regulation is that it encouraged flux in form and function. Banks began behaving like investment banks and hedge funds and insurers (AIG) began behaving like banks. Modern finance is fluid and our ability to put institutions into boxes and regulate accordingly is limited at best. We need to segment markets again, but we need to recalibrate the segmentation along very different lines to the past to deal with a fluid financial system.

Fig 3: Unlevel Playing Fields for Credit and Liquidity Risk



Such an approach would switch the locus of regulation away from institutions and instruments towards behaviour. Risky behaviour is where the underlying risk attached to an activity is unmatched by the capacity of those holding that underlying risk to do so. Inherent in this focus is the idea that instruments can have different risks depending on what they are being used to do and who is using them. A portfolio of commercial properties that cannot easily be sold, but where there are high quality tenants consistently paying a good yield, is a low risk instrument for a long-term pension fund that has time to find a buyer for the portfolio, but is a high risk instrument for somehow who needs immediate cash.

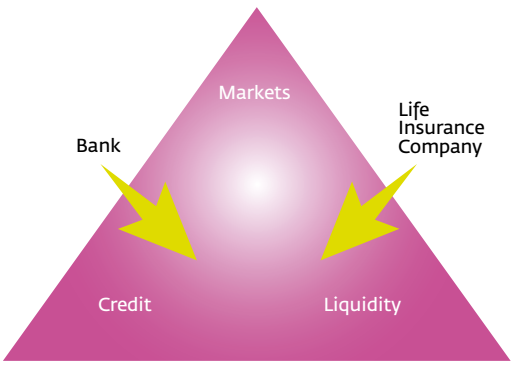
This is the reality of risk. It is a reality that runs counter to the current notion of level playing fields in the regulation of finance and the supporting notion of certain specific instruments being risky per se. The idea of risk being singular (there are not different risks or that the same instrument does not pose different risks to different holders) underpins the notion of the 'level playing field', and that there needs to be one set of rules common to all institutions and convergence across countries whether in norms of capital adequacy, risk modelling, or accountancy best practices.

The figure above depicts this scenario. Banks and pension funds were in the top right quadrant and should be, respectively, in the top left and bottom right. Including liquidity risk in addition to credit risk helps us see why the management of different kinds of risks, is not helped by the levelling of all playing fields.

Different Risks and Different Capacities

At base then, the problem with conceiving of risk as a single divisible property of an asset is that it crucially ignores how it is funded and who is holding it. There are three different types of risks that banks and other financial institutions actually face. Those are Market risk (the risk that market movements in general alter one's positions), Liquidity risk (the risk that assets held may have to be sold at a heavy discount), and Credit risk (the risk that counterparties will be unable to meet obligations). These are depicted in Figure 4.

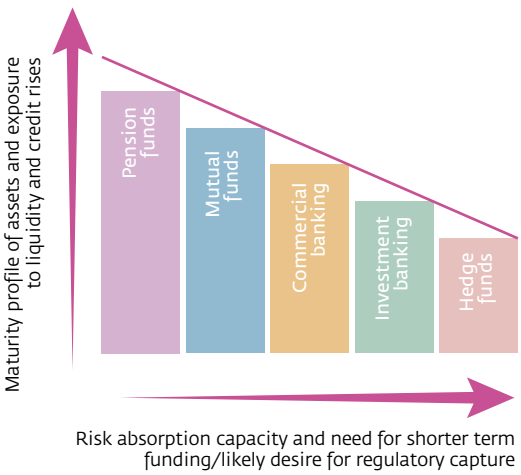
Fig 4: Locating Risks in Financial Systems



In this ternary plot, the sum of credit, liquidity, and market risks is 100 percent of the activity in a given financial system. The weightings of credit, market, and liquidity risks depend on the institution and the market. For example, Institution A faces acute credit risk while less liquidity and market risk, while Institution B faces significant liquidity and market risks while less credit risk. Figure 5 provides a conceptual frame for considering how different institutions vary in their risks and why they operate in an unlevel playing field.

One of the micro-level keys to developing an unlevel playing field is to create regulatory incentives so that risks are held in places and by institutions best suited to hold them.

Fig 5: The Unlevel Playing Field for Risk Allocation



In the figure the Y-axis combines the maturity profile of assets with their exposure to liquidity and credit risk as per the table above. The desire should be to attempt to match assets with liability maturities and risk exposure with risk absorption capacity.

The X-axis combines the ability to hold risk according to funding source with desire for regulatory capture. That is, risk absorption capacity reduces when liabilities are short term and are able to be withdrawn. Such institutions will not want to be regulated in terms of the sorts of assets that they can hold. Moreover, if left to their own devices, banks and other risk-traders will rely on short term funding in order to minimise costs. Hence, desire for regulatory capture will be an inverse function of risk absorption capacity since institutions are making returns on the basis of taking high levels of risk.

Rather than one set of regulations and requirements that lock in major player advantages and create 'too big to fail' dynamics, the role of regulation becomes to shape the financial system such that risk ends up where it can best be held at the same time as being financed appropriately when it is traded; the two critical functions of any financial system. Rather than encourage the maturity mismatches, as do current micro-prudential regulations, this approach segments risk without segmenting institutions by focusing on how risk and funding interact on the micro level to produce problems on the macro level. Unlevel playing fields for finance will still allow risk-taking and its financing, but will do so in a way that aids in 'leaning against the upswing' by eliminating potential endogenous and systemic risks before they arise via the proper matching of risk, liabilities and funding.

Chapter 8

Institutional Issues: The Locus of Regulation, Host or Home?

"While enhanced international cooperation is good, especially whilst markets remain global, the lasting solution is to make finance a little less global"

The crisis occurred as a result of domestic regulatory failures. The supervisors who failed to consider the risks of Northern Rock or IKB did so on their own. However, there is a legitimate concern that our attempt to rectify these issues must be global first because finance is global, and second to lessen regulatory arbitrage. We conclude that while enhanced international cooperation is good, especially whilst markets remain global, the lasting solution is to make finance a little less global. We question whether a global rule setting body would be the best way to end regulatory arbitrage. It is important to remember that a form of global regulation was the path we were inching along: home country regulation of financial institutions in accordance with a global set of principles, coded into rules – the Basel system. Yet this system appeared to provide avenues for regulatory arbitrage that would not have been averted simply by widening the coverage of institutions and instruments.

Many non-market participants tend to think that, like risk, there is a single thing called regulation and you can have too little or too much of it. The reality is that regulation can be just different, rather than light or heavy. Are counter-cyclical capital charges that rise above average in the boom and fall below average in the slump heavier or lighter than raising the average level of capital? We think it will be more effective. Is a switch to mark-to-funding which links value-accounting to the length of period a holder can hold on to an asset, lighter or stronger, than requiring mark-to-market value accounting?

It is also hard to conceive of a single set of regulations that would be appropriate for very different countries. China, Russia, Bermuda, Mexico, Peru, all have different credit structures, financial needs and institutional capacity. Political priorities differ too. In India, for example, financial regulators are focused on financial inclusion; in other countries that would seem to lead to lax regulation for those who need it most. However, even if we were to have a single set of regulations, national enforcement will differ as national priorities and/or enforcement capacity differs. This would be one source of regulatory arbitrage. Another would be that home country regulators are champions of national interests. The U.S., the U.K., Iceland, Ireland and Luxembourg signed up to Basel's core principles and rules, but the expansion of U.S. investment banks into Asia after the Asian Financial Crisis, 'light touch' regulation in Britain, the international expansion of Icelandic Banks, the pursuit of international mutual funds in Dublin and Luxembourg were part of explicit or implicit national development strategies.

Options for Coping with Global Imbalances

Heribert Dieter

Most financial crises of the last three decades have been preceded by high inflows of capital into booming economies. Latin America in the late 1970s, Asia in the mid-1990s and the United States, Iceland and Spain in the current decade are examples of that pattern. Normally, the emphasis of the discussion is on the capital importers, but in this boom an increasing attention has been placed on capital exporters. Just days before the September 2009 Pittsburgh Summit of the G-20, President Obama has criticised China and Germany for selling ever more goods to the U.S. and expecting America to go ever deeper into debt in the process.

The principle that both surplus and deficit countries should be sanctioned was the core of John Maynard Keynes' plan for the Post World War II financial order. Keynes had suggested the creation of an international clearing union. Countries producing surpluses would have lost these claims after a certain period of time. Whilst today's international transactions are far too comprehensive to make the introduction of an international clearing union a realistic proposal, the principle that Keynes identified is still plausible. Surplus countries should contribute to the resolution of a problem to the rise of which they contributed.

Policymakers have been discussing global imbalances at various summits, in particular at G-8 or G-20 meetings, for decades. Unfortunately, they have been doing so without results. Instead, global imbalances have risen sharply this decade. The world current account imbalance, i.e. the half-sum of all deficits and surpluses of the 181 countries in the database of the IMF, had been relatively stable between the early 1970s and 1997. In that period, the world current-account imbalance oscillated around 1.2 percent of global GDP. Between 1997 and 2007, the world current account imbalance has almost tripled to about 3 percent of global GDP. Since voluntary corrections of the current account surpluses are not happening, the question arises whether there could be other options.

Indeed, measures that sanction surplus countries could be considered. One of these is that countries that produce large current account surplus over longer periods should have to pay a percentage of these surpluses to an international authority. Large surpluses could be defined as larger than four percent of an economy's GDP, and longer periods are defined as more than three years. A penalty of ten percent of the surplus in the fourth year would have to be paid by the government of the surplus country in Special Drawing Rights to the IMF.

Of course, such a proposal raises a range of critical issues. First, the definitions used are arbitrary. Neither the ceiling of four percent of GDP, nor the three-year time frames are supported by hard economic rules. Second, one could argue that the export of capital is a private activity that the government of an economy cannot control. Whilst this is true in a narrow sense, a government has an obligation, or should have an obligation, to monitor and control the effects of the activities of its country's citizens for other countries. Just like governments take responsibility for, say, the proper behaviour of their corporate citizens abroad and prohibit corruption, a government has to accept responsibility for the production of large capital exports.

Third, critics might suggest that transferring taxpayers' money to an international organisation will be difficult in many societies. Whilst this is true, there is certainly no automatic transfer of money involved. Policymakers have a range of options at their disposal to discourage the export of capital.

They can make investing domestically more attractive, discourage saving, or they can encourage domestic consumption. In addition, some of today's capital exporters have failed to address major problems in their economy and a penalty on the creation of surpluses could provide an incentive for correcting these issues. Japan, for example, was unable to clean up the fallout from its own financial crisis and resorted to a zero interest rate policy, which in turn was a major source of instability since the mid-1990s. Another notorious exporter of capital, China, has been forcing its citizens into high savings because the country lacks an adequate system for both the financing of education and for retirement. Germany has been stimulating export growth without paying any attention to the consequences of that strategy for both its European partners and economies elsewhere. In all those cases, a penalty on sustained surpluses would focus policymakers' minds on a more sustainable and less aggressive economic model.

In essence, the proposed regime would address a major weakness of today's international financial order. Whilst in theory the production of surpluses would be self-correcting through currency re-alignments, in practice this has not worked. Japan has been manipulating its exchange rates by accumulating large foreign reserves. China uses an exchange rate that is set by the government, not by markets, and can do so because it implements restrictions on capital flows. Germany could produce surpluses without an effect on its exchange rate because it operates within the European Monetary Union, which as a group has not produced large surpluses vis-à-vis the rest of the world. Of course, an alternative to addressing global imbalances would be to ignore them. Taking this perspective, cross-border capital flows would simply not be an issue for policymakers, neither in the capital exporting nor in the importing economies. The risk of this hands-off approach is clear: frustration about the unwillingness of capital exporters to reduce their surpluses can easily spill over into the trade domain and can be used to justify protectionist measures. The liberal trade regime, which has proven to be of great benefit in particular to emerging economies in Asia and elsewhere, is too important to risk for the sake of enhancing the investment position of a handful of capital exporters.

We believe that host country regulation is best suited to address this kind of regulatory arbitrage in a way that best protects all countries – rich or poor, big and small. The idea is that all institutions carrying on financial activities nationally, raising funds from residents or investing in national assets or markets, must be regulated locally. An Icelandic bank could no longer operate in the U.K. as a branch, regulated in most part by the authorities in Iceland, but must be regulated in the U.K. as a stand-alone bank with sufficient capital for its activities in the U.K., and able to withstand the failure of its parent. The capital of all these local entities would be subject to a series of nationally focused rules such as macro-prudentially driven changes in capital requirements and additional capital requirements for currency or maturity mismatches between liabilities and assets.

Consider the rapid expansion of Swiss franc mortgages being issued by a large Swiss institution to Hungarian residents at seductively low Swiss franc interest rates. Under home country regulation of global rules, we would have to hope that the Swiss authorities are sufficiently concerned to act on an activity that poses no risk to the Swiss institution's survival, and that they are able to identify cross-border lending within a globally organised institution (note that from the perspective of the Swiss institution, it is a cross-border loan but not a currency mismatch as Swiss deposits are funding a Swiss franc loan).

Under host country regulation the lending institution would have to be a locally regulated entity. Debt contracts between local residents and foreign entities that are not regulated locally would be unenforceable. The nationally regulated subsidiary of the Swiss bank may be able to offer a Swiss mortgage to Hungarians

if the Hungarian regulators are content for it to do so. We may suppose that it would be allowed to do so if it were to set aside, locally, additional capital for currency and maturity mismatches between the asset and liability and, if this lending grew rapidly, additional macro-prudential capital. As a consequence, this would be a safer, rule-bound, more monitored and less attractive activity.

Consider an international hedge fund, private equity or mutual fund with head quarters in the Caymans. To raise funds from the U.K., Germany or India, or to invest in any of these countries they would have to have a locally regulated entity. How a hedge fund is regulated will differ from how a bank is regulated, depending on the nature of its activities. If a hedge fund is acting like a highly leveraged bank it should be regulated like one. But if it is a small, unleveraged, investment fund for experienced investors only and therefore with minimal systemic properties, it would not be regulated like a bank but like an investor.

Consider U.S. investors wishing to invest in the Indian stock market. They would have to do so through an Indian investment entity that would be locally regulated (as they do now). This regulation would be focused either on protecting local investors or, in the case of the international investors, minimizing the macro-prudential risks of lending that is concentrated by sector or time. The local entity would probably face local restrictions on the degree of leverage and currency and maturity mismatches of its assets and liabilities. These regulations may serve to make some markets less volatile, and as a result more attractive to underlying investors, creating a race, not to the bottom, but to the middle in regulation.

Our approach to regulation will have an effect on cross-border capital flows. It will generally dampen cross border flows between currency areas because of the additional capital requirements for currency mismatches and the administrative requirement to set up or invest via an entity or entities regulated where funds are raised and where they are spent; it will dampen cross-border flows of short-term capital because of additional capital requirements for maturity mismatches; it will dampen inflows during a national boom because of the additional (macro-prudential) capital requirements for lending during booms; and it would support capital inflows during a credit recession because of the lower capital requirements for lending during a credit recession.

Is this a license for financial protectionism? We would argue not. In our proposed regulation we make no distinction between where the parent is located, the only distinction concerns the activity. An Australian bank operating in Germany would face the same regulation as a German bank operating in Germany. If both banks lent to the same sector using the same instruments and the Australian bank's German subsidiary was entirely funded by German depositors, and the German bank was entirely funded by borrowing short-term dollar funds from international markets, the Australian Bank's German subsidiary would have lower capital requirements.

Ensuring that host country regulation did not lead to financial protectionism would be an important task of global regulatory bodies, perhaps best exercised through a peer review mechanism. While in practice the best defence from the predatory activities of a large lender is host country regulation and not home country regulation, we recognise that there is scope for larger lenders to bully small states or to try and arbitrage local regulations. So another task of global regulatory bodies would be to ensure that foreign regulators help domestic regulators pursue their legitimate national regulation and do not undermine it.

Institutional Issues: Rules versus Discretion

Financial regulation combines legal rules and principles-based administrative discretion. The effectiveness of the mix depends on the legitimacy of those who promulgate and implement the regulatory framework, and of the process by which it comes about. Rigid rule systems are prone to collapse under stress, and therefore lack credibility; unmoored discretion can turn into arbitrary exercise of power and often lacks transparency and invites capture. The challenge is to achieve the optimal mix for a given regulatory objective and political context.

We believe that a greater emphasis on rules is appropriate for host regulation at the national level. Such rules must be coordinated internationally to reflect the demands of financial integration. Coordination should produce agreement on common principles, a process by which the principles would change over time and a forum for peer monitoring and implementation.

We view the emphasis on principles at the international level as a necessary response to the diversity of national legal regimes, economic and political imperatives, the rapid evolution of financial instruments and markets, and the urgency of sensibly harmonised reform. We also believe that principles-based international regulation is more effective where it takes the form of soft law: a set of informal norms and fora that do not rely on judicial enforcement, but rather on the buy-in of its constituents.

The argument for host regulation in this report recognises the diversity of legal regimes, and the technical and political capacities of states. This means that weak and under-resourced states will be among those charged with regulating the activities of the world's largest and most sophisticated firms. To address this, we suggest that multilateral institutions should assist developing countries with capacity building (as outlined in greater detail in Box 5). On the flipside, global institutions will have to contend with a multitude of applicable governance regimes. We believe that such costs do not outweigh the benefits of regulating instruments, activities and institutions in the context where they have the most direct impact. But making host regulation more rules-based will help mitigate the costs.

Regulating Financial Contracts
Anna Gelpern

This financial crisis is a crisis of private contracts: mortgage, securitisation, and derivatives, among others. Consenting adults are normally free to agree as they please in the privacy of their conference rooms. Assuming it meets certain minimal formal criteria, the product of their negotiation gets the moral and legal presumption of 'contract sanctity'. Yet not all private agreements get the privilege of state enforcement. Few courts would compel performance of a suicide pact, a prostitution contract, or a conspiracy to fleece an elderly granny. Until recently, gambling debts were unenforceable in most common law jurisdictions. And on rare occasions, such as insolvency or financial crisis, contracts that are perfectly innocuous when made can be modified or invalidated retroactively because they become socially harmful, or come to interfere with the exercise of public policy.

Mortgages, securitisation and derivatives contracts have received bad press of late. This is understandable: in the run-up to the crisis, they became vehicles for very bad behaviour, ranging from fraud and gambling with other people's money, to unsustainable leverage that helped bring down entire financial systems. However, as this report observes, every financial crisis in history has found its own contractual bête noire. Banning or restricting specific financial instruments ex ante is at least insufficient and potentially harmful as a regulatory paradigm. It can create a temporary illusion of safety (ridding the world of a weapon of mass destruction!), but it locks regulators in a perpetual game of Whac-a-Mole – ceaselessly hammering on new instruments that arbitrage the latest ban.

There is no easy answer to this dilemma. Regulation should encourage appropriate risk taking, and discourage socially harmful behaviour, which can manifest itself in any number of formal instruments, and which can vary depending on who holds the instrument. It takes a lot more work to identify and manage private contracting patterns – ways in which diverse financial

actors use different instruments – in real time than to simply ban some contracts. Solutions such as requiring advance approval for financial innovation similarly operate in the dark. More often than not, the risk profile of an instrument is unknowable in advance. Moreover, any economic arrangement can be formally documented in countless ways. And some sensible instruments can become 'toxic' over time, simply because they get too big and widespread. This is true of some derivatives contracts in this crisis, just as it was of gold indexation in the 1930s. Yet innovation is both unavoidable and indispensable. It is as capable of producing socially useful financial products as socially harmful ones. This means that a good part of contract regulation will be retrospective, and some will come in a meltdown.

When crisis hits despite the best regulatory efforts, most governments face a choice between allowing mass bankruptcy and using public funds to subsidize performance by insolvent or illiquid contracting parties. Some choose instead to rewrite contracts ex post, wholesale, particularly where their enforcement would harm the macroeconomy. This is a distributional choice. It is also one that must be seen by regulators and market participants as part of the background landscape of norms governing finance.

Financial stability requires regulators to have the capacity to detect when a private contract becomes a vehicle for destructive behaviour, and then to withdraw the privilege of enforcement. Provided governments do not abuse this tool, this risk alone might help deter bad behaviour.

The benefits of rules are especially palpable in a weak institutional environment, but they also have important advantages in sophisticated markets where claims of regulatory complexity can disempower regulators and the public. Rules tend to be more transparent to their subjects and beneficiaries alike. This facilitates monitoring by the affected constituencies and the general public, as well as private enforcement and informal sanctions, even if public enforcement is lacking. If the rules are a product of regulatory capture, they also make capture more apparent at home and abroad. Similarly, breach is more visible in rule systems. On the other hand, demonstrable compliance with rules can boost public faith in regulatory institutions, creating a core of legitimacy that may in turn make it easier for regulators to exercise discretion on the margins.

Rules work best where their goals and the activities they govern can be defined with enough specificity. We believe that the risks of any given financial activity can only be defined in the context of that activity. Even basic activities such as secured credit, housing finance, deposit-taking and simple credit insurance can have widely different risk profiles in poor, middle-income and wealthy countries. From a macro-prudential perspective, patterns of financial activity may affect different economies very differently. National regulators are in the best position to assess the precise risk that an activity poses to their financial system and macroeconomic management, and to devise rules in response. In contrast, broadly applicable international rules are more likely to key off formal similarities among instruments and institutions, oblivious to or consciously disregarding the substance of the risks they present in a particular setting for the sake of a diplomatic consensus.

Hard National Rules and International Soft Law

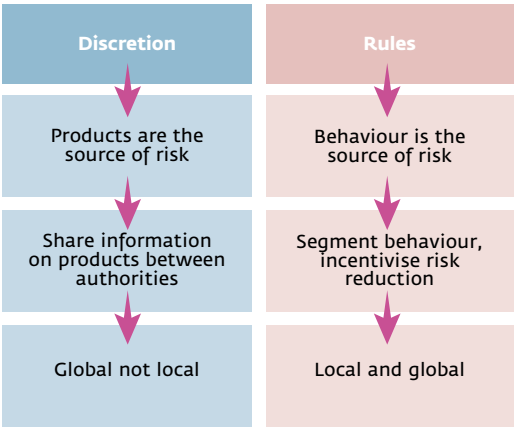
The advantages of rule systems at the international level are more attenuated. There is no single global context for financial activity, no cognizable global constituency, and no single global risk profile for an instrument or institution. Public and private institutions alike may seek to coordinate globally the management of similar or related risks that present themselves in different local contexts. However, the subjects and tools of risk management, and the politics of making regulation legitimate, vary considerably. Similarly, macro-prudential regulation is cognizant of the global economy, but must target the national cycle.

The process of negotiating international norms also works best where the objective is guiding principles, rather than specific rules. The Basel capital accords demonstrate the perils of specificity at the international level. National regulators come to international fora with the interests of national constituents in mind. They proceed to trade concessions, and produce a patchwork of rules that protect their respective domestic interest groups more than the system as a whole. The result is neither harmonised nor stable. Moreover, because global regulation is based on a very thin and fleeting commonality of subject, it is also very fragile. Thus many aspects of the Basel II accords were obsolete even before they were fully implemented.

Nevertheless, global coordination of host-country rules is absolutely essential. As we note later, this is because instruments and activities spill over national boundaries, and the activities of financial actors and national regulators in one jurisdiction can have a dramatic impact in many others. A country's inability or unwillingness to regulate risky behaviour can affect not just, or even primarily, its own citizens, but can create a 'hub' for risk production whose costs are borne by others. Regulators must have the capacity to identify transnational activities and the way in which their peers address them, so as to determine their impact in their jurisdictions.

Such coordination is most likely to succeed if undertaken through informal channels and fora, rather than formal, treaty-based international institutions. Norms and principles that are not frozen in time, but can evolve organically with global finance, are more durable. Achieving the necessary legitimacy and binding force at the international level is rightly cumbersome. Reforming treaty-based institutions is legally and politically daunting: witness the challenge of changing the voice and vote structure of the International Monetary Fund and the U.N. Security Council, in contrast to the overnight expansion of the Financial Stability Board and the displacement of the G-7 with the G-20. Finally, we believe that to the extent implementation must be local, political accountability should also run through local channels.

Fig 6: Local and Global Financial Regulations



We suggest that there are two streams of regulatory activity that break down neatly across the local and global frontiers. Figure 6 represents these streams of regulation. On the right hand side we have a focus on host country regulation where the stress is on the regulation of behaviour rather than on products. The Commission believes that within a rules-based context a focus on regulating specific products will simply lead to innovation and evasion. The past decade of regulatory permissiveness within many OECD economies to accommodate financial innovations for their competitive advantage suggests that a product focus would quickly become redundant within national rule-making. Instead we suggest that market segmentation according to institutional type makes more sense. Within this system host country rules may differ across types of institutions and encourage them to take on board different types of risks. National regulatory authorities would then be responsible for the regulation of local financial institutions as well as observing how international institutions playing under their house rules operate. For the global level we envisage a stronger focus on discretion and information sharing rather than rules-based mechanisms. This would be politically expedient. As stated, a focus on products does little to curb financial volatility, but information sharing on what kinds of financial products are of global systemic importance is useful for national authorities and international institutions. Such a system would encourage diversity and learning to curb systemic risks.

BOX 3: Differences from Host versus Home Country Regulation: Iceland versus India

The case of Iceland demonstrates the enormous inadequacies of 'home' country regulation. Iceland is a very small island state with just 300,000 inhabitants. Prior to the introduction of deregulated banking, Iceland's economy thrived on the exploitation of fishing rights and some industry. After a few years of economic boom the country went spectacularly bust and had to be bailed out by the IMF and bilateral packages, which totalled about 50 percent of Iceland's GDP. Iceland has been home to three very aggressive private banks – Kaupthing, Landsbanki and Glitnir. In 2007, these three banks alone held loans equal to nine times the size of the Icelandic economy. This represented a major jump from 2003, in which the loans totalled 200 percent of GDP. Iceland's membership in the European Economic Area meant that the country's banks could tap European savers. One bank alone – Landsbanki – attracted $8.2 bn from foreign internet depositors, which represents 50 percent of Iceland's GDP.

Of course, it is an illusion to assume that the government of Iceland could have ever been in a position to guarantee the national and international activities of these banks. Like other relatively small economies – Switzerland comes to mind – home country regulation hits logical limits in such a context. The operations of large, internationally operating banks cannot be guaranteed by small economies. As Iceland demonstrates, home country regulation fails in an environment of aggressive business practices. However, Iceland not only demonstrates the limits of home country regulation, but also of monetary policy. The authorities in Iceland did notice the overheating of the economy, and they did notice the reckless behaviour of both the banks and their citizens, which simply went deeper into debt. However, interest rate policy proved to be an inefficient tool. Raising interest rates did not result in a reduction of borrowing, but instead altered the type of borrowing: instead of borrowing in kronur, ill-advised Icelanders borrowed in Swiss francs or even yen to finance their consumption – a costly error indeed. The bill to the taxpayer of the failure of Iceland's banks may eventually cost the country's taxpayers 80 percent of GDP.

The Indian banking system, which has come out largely unscathed from the financial sector meltdown, demonstrates some of the advantages of host country regulation. Only one private sector bank, the ICICI, has a limited exposure of about $250 million to CDOs and this was quickly handled by using the reserves which the bank had provided for. Even with practically no exposure to subprime mortgage based instruments, the Indian banking sector saw some significant movement of deposits from the private to public sector banks as depositors sought the relative safety of government owned banks. This does perhaps point to the desirability of deposit guarantees to prevent bank runs. While this may result in some moral hazard issues, it would seem logical to consider such an arrangement especially after the recent crisis in which practically all deposits did end up receiving a government guarantee, though often after the run on particular banks had been precipitated.

There are three predominant reasons for the Indian banking sector to have escaped the negative impact of the crisis. First, Indian commercial banks were simply not active in global markets and, as pointed out above, had very limited exposure to complex instruments and derivatives. This can be construed as safety through weak or limited global integration of the domestic banking sector which also characterizes Chinese commercial banks, for example. Second, the Indian banking sector is covered by host country regulatory framework where foreign banks are allowed to operate provided they follow all the domestic regulations and adhere to specified prudential norms. This has allowed the regulator to implement an active monetary policy with the triple objective of macroeconomic stability (inflation control), growth promotion and

financial sector stability. As a result of this three pronged approach the Reserve Bank of India (RBI) has been able to factor in financial sector concerns in its overall policy stance. Third, the RBI has been pursuing an active and non-dogmatic regulatory regime that is well grounded in the Indian conditions. This is best reflected in the RBI stipulating a higher capital provisioning requirement by commercial banks for their advances to the real estate sector since the middle of 2007. This was done to prevent the real estate bubble from getting completely out of hand. Finally, the existence of sector specific regulators (separate for capital markets, insurance, banking and pension funds) seems to have delivered a more effective and responsive regulatory regime with each regulator being able to focus more sharply on the sector specific issues as they emerge. Fears of regulatory arbitrage being misused by financial sector operators have not borne out so far. On the other hand, the Indian banking sector can be seen to be relatively underdeveloped when compared to the banking system in other countries. This is reflected in several ways. Despite the Indian economy now ranking as the eighth largest in the world, the largest Indian commercial bank is the State Bank of India (which is owned by the Government), which ranks only 64th in the world. The next largest bank does not figure in the top 100. The credit to GDP ratio in India is much lower not only when compared to advanced economies but also in comparison to similar emerging economies. Finally, financial inclusion remains rather low, with reportedly 60 percent of rural households being outside the banking system and the great majority of small and medium sized enterprises having to borrow from the informal credit market at exceptionally high rates for meeting their investment and working capital requirements. Therefore, the way forward would be to achieve a good balance between further liberalising and moving towards an arms-length regulatory regime and further refining the supervisory and prudential norms for achieving an even more effective host country regulation framework.

Chapter 9

International and Regional Institutions

"Regulatory practices are likely to increasingly diverge at the national and regional levels. An international regulatory regime centred on host country control, twinned with less ambitious international cooperation, presents a better political fit with this new world"

Regional Alternatives

International financial crises not only affect individual countries but also regional economies. We know from other financial crises in the past three decades that particular regions have suffered more than others. The frequency of crises in South America is but one example. The Commission recognises that regional problems have called for regional solutions and that there is a great deal of institutional diversity and flexibility that should be embraced. A system of host country regulation marries well with more regional solutions since it empowers national regulators to foster strong lines of communication and information sharing with their neighbours as well as with international organisations. Regional solutions can also provide policy solutions that are not tied to 'one-size-fit-all' approaches to international financial governance.

The Commission recognises that there are significant regional variations in financial regulation that provide both opportunities and constraints. These variations are not only important for economic development within regions, but are also politically important in fostering the will for cooperation and consensus. Such variations may embrace more international or transnational institutions, but it may also exclude them, as discussed below. We note a number of initiatives within different regions which stress how, with varying degrees of importance, regional alternatives can provide policymakers with greater autonomy to answer the question 'what is a financial system for?' within their own context.

BOX 4: More or Less European Financial Governance?

The financial crisis caught the European Union at an uncomfortable half-way point: on the one hand, several European countries share a single currency and an increasingly concentrated financial industry while on the other, regulatory and supervisory functions, and lender-of-last resort responsibilities remain fragmented along national lines. Added to this is the peculiar situation of the U.K., with its large and in some ways dominant financial sector and independent monetary policy. Attempts to remedy the contradictions arising from this situation have been made in the past, especially in the context of the Lamfalussy process, but the crisis highlighted both the urgency of reform and the politics that has prevented further change thus far.

This Commission, in line with formal reports published in the past few months, agrees that the EU has two clear options: a greater centralised European role in financial governance or a return to a nationally fragmented system. We argue in this Chapter that Spain has shown that you can have national regulations that are different without undermining the single market. Indeed, additional national regulatory instruments could serve to support the single interest rate of the euro area when some countries are in boom and others are not. However, we believe this option to be politically unlikely and thus, following from the De Larosière recommendations, we expect to see more, not less, centralised activity in the EU, covering both systemically important institutions and the key principles and rules of financial regulation and supervision.

In the context of our recommendations, we consider it likely that the EU rather than Member States will become the 'host' regulator and there will be EU wide colleges of supervisors and systemic regulators. This leaves open a number of questions, including the interpretation of the rules in the actual decision-making location, and the independence of the specialised consolidated bodies dealing with systemic issues in terms of pushing through warnings and decisions and not merely acting as information collectors. Additionally, fiscal responsibilities and lender-of-last resort questions would not be consistently addressed in the emerging framework.

We address the question of whether European financial governance can provide regulatory solutions in Box 4. We also note that the Euro-area is a special case because of the commitment to a single economic space. The example of Spain, however, reminds us that it is possible to be in the euro area yet follow a more autonomous capital requirements policy for the local operation of financial institutions.

East Asian governments also increased their efforts to promote regional alternatives following the 1997-98 crisis. A series of initiatives have been launched to increase regional self-sufficiency, ranging from information sharing to financial swap arrangements and a regional bond market. The Chiang Mai Initiative, designed to provide liquidity support for member countries that experience short-run balance-of-payment deficits, and the Asian Bond Fund Initiative, which aims to create Asian reserve assets, are among the most important ones. They also serve to deepen and build regional financial markets in Asia.

East Asia's Counterweight Strategy: The Choice of Not Making Choices

Injoo Sohn

Having been trained primarily as a political scientist and a specialist on China and East Asia, I found it both exciting and rewarding to join the Warwick Commission on International Financial Reform. This issue intrigued and concerned me while observing the Asian financial crisis in Seoul,

studying and working in Washington DC and Princeton, and teaching in Hong Kong.

In my view, East Asia confronts a deep uncertainty about the evolution of both global and regional financial institutions. At the global level, the prospects for fundamental reforms in the G-7-centered global institutions have remained remote in the eyes of many Asian policymakers. Although the G-7 had begun to engage more expansively in dialogue with the rest of the world through the Financial Stability Forum and the G-20 following the Asian financial crisis, such adjustments have yet to meet the expectations of East Asian countries. Deep crises like the current financial crisis hold great potential for deep financial reforms. But global financial reforms are still full of uncertainty and contradictions. The interests of the major players of the G-20 do not necessarily coincide. And the conservative tendencies of status quo powers and the bureaucratic inertia of existing international institutions can considerably constrain the pace and scope of the global financial reforms.

Meanwhile, at the regional level, scepticism about the feasibility and desirability of Asia's efforts to create more cohesive arrangements or institutions have prevailed both within and outside the region. A series of potential political and economic hurdles (e.g. rivalry between China and Japan for regional hegemony) appeared to cast a shadow over the future of Asian financial cooperation. The ambiguity and uncertainty inherent in changing global institutions and creating regional institutions has become a central driver of current East Asian policy. Against this background, East Asia has pursued the risk-averse counterweight strategy, which intends to create new regional financial arrangements, thereby avoiding overdependence while sustaining collaborative relations with the G-7 dominated global institutions. Asian countries seem to explore both global and regional options lest it should limit the range of strategic options available to them. East Asia intends to get more say over the running of the world economy and resist the pressures of the reigning powers (e.g. the U.S.) through its counterweight strategy. At the regional level, East Asia has been making a soft commitment, instead of a strong form of commitment (threats of tightening an exclusive economic alliance) and watering down the exclusive nature of the regional arrangements by advocating the linkage of the Chiang Mai Initiative with the IMF and the Asian Bond-Eurobond linkage. This has helped to avoid a major fissure in its relations with key actors outside the region while further developing regional institutions. At the global level, East Asia seeks to manage or reduce the uncertainty associated with global financial reforms via the creation of credible exit options, that is, regional financial arrangements. Until substantial adjustments are made to reflect East Asia's growing economic power in the IMF and other Bretton Woods institutions, and address East Asia's vital concerns about the international financial system, East Asian countries are less likely to lose motivation to seek a regional alternative through a moderate, incremental and low-profile counterweight strategy. East Asia is unlikely to put all its eggs in one basket, namely, with only global financial institutions.

In Latin America, regional efforts have been devoted to providing additional development finance through a number of regional institutions with various degrees of geographical coverage. This implies a strengthening of regional cooperation and a wish to improve informational sharing. In Africa financial development has been substantial in recent years in a number of countries, but it is still at a relatively low level as measured by the amount of credit per capita or GNP. Countries in the region are mainly

concerned with the deepening of banking and credit markets and the availability of long-term finance. Regional initiatives are assisting national policymakers and regulators, who also seek to strengthen their capacities through working with international institutions (see Box 5), to which we now turn.

The Need for International Cooperation

In this report, we have discussed the need for host regulation by national governments to be the main foundation of financial stability. At the same time, we have mentioned already that host regulation would be sensibly coupled with international cooperation for a number of reasons which can be summarised briefly.

To begin with, not all governments may have the capacity to implement effective host country regulation. This task may be particularly challenging for governments in small, poorer countries whose financial systems are dominated by large foreign financial institutions. International cooperation will be needed to boost the regulatory capacity of the governments of these and other countries.

Even governments with effective capacity would benefit from information exchange concerning different national experiences managing similar kinds of risk. International information exchange and research cooperation would also be very useful for identifying the potential significance of global cycles for macro-prudential regulation and for developing early warning systems on the accumulation of systemic risk.

International cooperation could also address the risk that national authorities might use host country prudential rules as a protectionist device to restrict foreign financial institutions in domestic markets. One way to head off this possibility might be through international commitments to a 'national treatment' principle in the implementation of host country prudential regulation.

International cooperation is perhaps most important for addressing the externalities that lightly regulated foreign financial systems can generate for national regulators. These externalities may take the form of offshore evasion of national rules by banks and other domestic actors, or competitive pressures to deregulate in order to match lax foreign standards. National regulators may also face instability emanating from systemically-important financial markets or products abroad that are not regulated effectively by foreign authorities. In these situations, we have already discussed ways in which national regulators can use host regulation to protect their national financial system against these kinds of externalities.

But international cooperation provides another mechanism to minimise these problems. For example, national authorities could better anticipate, and minimise their exposure to, these kinds of externalities if up-to-date information was exchanged between countries concerning such things as: systemically-important markets and products, national regulatory initiatives, and the international financial activities of nationally-regulated entities.

BOX 5: Capacity Building for Financial Innovation in Developing Countries

Financial innovation can bring rewards to countries with a combination of specialists with financial, legal and mathematical skills and a permissive regulatory environment, but can also backfire and undermine economic growth as was the case when the regulatory spillovers and financial innovations originating in OECD countries recently impacted adversely on developing countries with weaker financial systems, regulatory support, and technical know-how. How then can we enhance developing countries' capacity to determine which financial innovations are useful to them, how to treat instruments under their system of host country regulation, and which kinds of investments are best avoided? Three prime sources of capacity building seem to emerge. The first one, education, provides training to postgraduates and policymakers whose newly acquired skills ensure continuous strengthening of developing countries'

financial systems. Local institutions of higher learning and regional training institutions can play a significant role in this regard by enrolling a large number of participants.

Many countries are engaged in bilateral programmes that are supported through aid networks or subsidisation. The Commission supports such activities, while also recognising that the skills and knowledge imparted are often abstract rather than tailored to domestic environments, highly dependent on colonial legacies, tied to broader deals such as through Preferential Trade Agreements, or subject to specific foreign economic policy concerns. The Fund and the World Bank have already established capacity building institutions such as the Joint Vienna Institute, which, since 1992, has trained over 22,000 participants from the former Soviet Union and Central Europe. Such initiatives must be encouraged in different regional centres as a key means to enhancing skills in financial innovation and regulation.

Programmes aimed at strengthening surveillance and consultations constitute the second capacity building avenue. For instance, Financial Sector Assessment Programmes (FSAPs) are conducted by the Fund in OECD economies, and jointly with the World Bank in developing countries, on the grounds that they provide information on a country's financial sector that is also shared with the marketplace. However, they have a mixed record regarding capacity building. On the one hand, they provide a forum for policy dialogue where mutual learning can and does take place. On the other hand, economists of the IMF and the World Bank have a strong incentive to provide positive assessments of a country's financial system, which undermines their credibility in international markets.

Policy dialogue and harmonisation of best practices, especially among countries of the same region or in similar circumstances, would provide a third, practice-based, confidence-building approach. This mutual learning process should be free of public market-based evaluation traditionally conducted by the IMF and the World Bank. Consultation of these two institutions with member-states should be in confidence to minimise the potential for conflict of interest of their staff and separate development management from competitive asset pricing. Whichever avenue or combination is chosen, we need to be mindful that capacity building in financial innovation is not an afterthought and has its requirements, in money and time, that cannot be ignored or neglected lest future crises are more devastating than the current one.

Equally useful would be efforts to coordinate regulatory policy at the international level. Because we have noted the importance of national differentiation and policy space, we favour only cooperation on key principles that set some minimum standards to which all countries are committed. These standards could relate not just to the kinds of principles for macro-prudential bank regulation that are outlined in this report (counter-cyclicality and risk allocation), but also minimum standards for systemically important markets and products of the kind that the BIS has suggested in its recent annual report, such as the use of central counterparties for clearing for over-the-counter markets. Compliance with minimum standards could be encouraged via peer monitoring.

More Democratic Representation in International Fora

Stephany Griffith-Jones

Central to debates on international financial reform is the question of who is represented within various international fora. The international community has taken important steps toward global coordinated regulation, and G-20 leaders have committed to further steps in this direction. However, their efforts, though welcome, seem

clearly insufficient given the depth of the globalisation of private finance and its often negative spillovers on innocent bystanders. Global markets are undemocratic, a problem that can only be addressed through intergovernmental cooperation and regulation, as well as democratic representation within international institutions and fora. Because capital and banking markets have large parts that operate globally, it is important that there is stronger global regulation, to avoid regulatory arbitrage by financial actors among nations in areas such as derivatives transactions. This would make it possible for developing countries to regulate destabilising carry trade, for example.

Greater representation for developing countries is required in order for them to have a voice on international standards for financial regulation and information sharing. There is momentum towards greater inclusion of developing countries in international regulatory fora. An important institution to guide international financial reform on information sharing and coordination of regulation is the Financial Stability Board (FSB), which expanded its membership to the G-20 in 2009. Similarly the Basel Committee has finally expanded its membership to include all G-20 countries. These are very welcome steps.

But inclusive and more democratic governance of finance needs to go further. There is a sound economic and political logic on why. Small and medium economies, still not represented need representation within international regulatory fora not only for their own sake, but also for the sake of the system as a whole. Regulators within smaller economies are more likely to oversee smaller financial sectors, and they are also more likely to have more autonomy from financial interests that may seek to capture them. Adding their voices to current discussions on how to monitor financial behaviour and financial products across the globe will add a great deal of diversity and help stop the 'group-think' that we have seen in recent years (such as through Basel II). I suggest that such a system is entirely consistent with the Commission's principle of empowering host regulation, since it would encourage greater intellectual diversity among regulators who are responding to the concerns of their societies rather than to large private international financial institutions.

In my view, such steps can also be taken much further. To ensure greater stability non-financial stakeholders could also be included, such as pension funds, unions and non-financial corporations, who are the users of the services that the financial sector provides. Including such groups would place greater emphasis on long-term growth sustainability over short-term profit, as well as improve information on what is going on with national and international credit cycles. It would also lead to a better allocation of capital within national economies and the global system. Ultimately, a more democratic and inclusive global financial system based on national host regulation, and coordinating globally national regulation of global markets, would ensure that governments would be more able to answer their citizens during a crisis on the question of 'what is a financial system for?' Even better, such a system could attempt to avoid costly crises altogether, and prevent some of the damage caused.

Summing up, international cooperation would play an important role in an international regulatory regime based on host country control, but the kinds of international cooperation would not be the same as under existing home country controls where international rules are negotiated in fine detail. Instead, cooperation would be focused on activities such as international research, early warning, financial protectionism, information

exchange, capacity building, and principles-based regulatory coordination. The latter could cover minimum standards for systemically important markets and products, as well as national treatment, and could be reinforced by peer monitoring, penalties and incentives. Providing an overarching framework would also be the principle that countries have the right to implement host country control (including restrictions on cross-border lending and borrowing that may be associated with prudential regulation).

This more limited kind of international cooperation is quite well suited to the changing international political context. Political economists remind us that the kinds of detailed international prudential agreements that were reached over the past two decades – such as the Basel accords – were politically possible only because they were supported by the two dominant financial powers of that time: the U.S. and the U.K. A more multipolar financial order is emerging from this crisis where power is more diffused and other countries' willingness to follow U.S. and U.K. regulatory leads is diminishing. In this political environment, it will be more difficult to reach detailed international agreements (let alone the creation of some kind of powerful global regulator which some favour). Instead, regulatory practices are likely to increasingly diverge at the national and regional levels. An international regulatory regime centred on host country control, twinned with less ambitious international cooperation, presents a better political fit with this new world.

A Reformed Financial Stability Board

What body would best facilitate the kind of international cooperation we are recommending? The obvious candidate would be the new Financial Stability Board (FSB), albeit in a reformed state. The FSB was created by the G-20 leaders at their April 2009 London summit not as a new supranational regulatory authority along the lines of the WTO. Instead, building on its predecessor the Financial Stability Forum, it is a relatively powerless body designed primarily to facilitate networks of cooperation among financial officials and regulators.

Many of its mandated functions in fact echo the kinds of cooperative roles we are proposing such as: conducting early warning exercises; assessing vulnerabilities affecting the financial system; promoting coordination and information exchange among authorities responsible for financial stability; monitoring and advising on market developments and their implications for regulatory policy; and advising on and monitoring best practice in meeting regulatory standards. Members are also required to commit to peer review and to some broad principles such as the pursuit of the maintenance of financial stability and the enhancement of the openness and transparency of the financial sector. They have also agreed to implement some key existing international financial standards and the G-20 leaders are considering proposals to develop a toolbox of measures to encourage compliance among non-cooperative (non-member) jurisdictions (as they have already done vis-à-vis tax information sharing).

To be effective in the kind of roles we are proposing, the representation of the FSB would need to be widened. At the moment, its country members include the G-20 countries as well as Hong Kong, the Netherlands, Singapore, Spain and Switzerland. Without more universal membership, the FSB's ability to foster information exchange, capacity building, and principles-based regulatory coordination across the world would be severely hindered. There would also be enormous resentment if it assumed a role of supporting multilateral sanctions against countries that were not meeting minimum standards. The promotion of worldwide compliance will only be effective and legitimate if it is combined with initiatives to provide all the world's countries with a voice in the development of such minimum standards.

The FSB need not become an enormous and unwieldy institution to achieve more universal country representation. One solution is that the FSB could be made accountable to a more universal body such as the Global Economic Council of the United Nations that the Stiglitz Commission has recommended, or the existing International Monetary and Financial Committee of the IMF (particularly if that committee were transformed into a formal

decision-making Council at the ministerial/governor level allowed for under the Articles of Agreement). At their London summit in April 2009, the G-20 leaders moved in this latter direction, recommending that the FSB report to both the IMFC and G-20 on issues relating to the "build up of macroeconomic and financial risks and actions needed to address them". A more inclusive solution, however, would be for more universal representation to be provided within the FSB through the use of IMF-style constituency systems or regional representation (especially if the trends described in the previous section of closer regional regulatory cooperation in Europe, Asia and elsewhere accelerate).

The Politics of International Regulatory Change

Eric Helleiner

I come to the Warwick Commission as a political economist long interested in the politics of international financial regulation. During this crisis (as in most past crises), economists have dominated the discussions about international financial reform. For the most part, their analyses are focused on the causes of crises and/or proposals for reform. What is usually missing from their work is analysis of what actually drives international regulatory change. Economists often assume that policymakers implement regulatory reforms based on a careful consideration of the pros and cons from the standpoint of maximizing global economic welfare. Two decades of study by political economists has shown how misleading that assumption is. To be sure, the ideas of economists do play a role in influencing the direction of international financial reform. But the empirical evidence shows the content and direction of regulatory reform is also driven by various political factors such as power, interests, ideologies, and so on.

Understanding the political economy of international financial regulation should help us to design a less crisis-prone system in two ways. First, it can help to explain the political failures of policymakers and regulators that contributed to the crisis. Many of the Warwick Commission's recommendations are designed with this political economy thinking in mind. The focus on host country control, in particular, emerges in part from a critical evaluation of political problems associated with alternative arrangements.

The political economy scholarship of the past two decades should also be useful to reformers in a second and more cautionary way: it highlights the limits of what is politically possible. Many proposals look perfect on paper but stand no political chance of being implemented at the moment. Academics can debate their merits, but time-constrained reformers need to look elsewhere to proposals that dovetail more closely with existing configurations of political forces. To what extent do the Warwick Commission proposals fall within the limits of the possible?

There is no question that a number of them challenge existing practices in major ways. In normal times, the dispassionate political economists would predict these had little chance of being implemented. But our deliberations have taken place in very unusual political times. This has been the worst global financial crisis since the Great Depression, a crisis that has discredited important ideas and interests. It is also coinciding with some substantial shifts in the tectonics of global power. As Commissioners, we were urged by specialists and practitioners over and over again to think big. There is, it seems, a yearning for ambitious thinking, for change, even within normally conservative circles.

That said, there is change and there is change. Our ideas will no doubt be too ambitious for many. We have tried, however, to develop proposals that fall within the limits of the possible, and I believe they

do indeed meet this criteria. Much will depend, of course, on how long the political momentum for change that has accumulated during this historical moment will endure. There are worrying signs that it is already dissipating. I hope, however, that our proposals help to keep the debate and momentum alive.

The FSB would need to be accountable not just to more countries but also to wider societal interests. We have already noted how financial regulatory policymaking – both national and international – is dominated by a narrow stratum of technocrats who risk intellectual insularity as well as capture by large financial institutions. Host country regulation will help to address partially the question of private capture by making regulators less inclined to see international regulatory discussions as an opportunity to promote the interests of their home firms. But just as important would be the development of mechanisms for wider societal interests to have a voice.

At the moment, the FSB's membership includes officials from ministries of finance, central banks, regulatory and supervisory authorities, and international financial institutions and standard-setting bodies. If some officials from outside these financial technocratic circles could be included in the FSB's peer review process, there might be both more blunt and productive talk as well as less of a likelihood for 'group-think'. The activities of the FSB could also be made more responsive to the broader public interest if more access points to international regulatory discussions were provided for citizens' groups (e.g. notice-and-comment procedures). Transnational groupings of legislators could also be encouraged to monitor the FSB's work, as the Parliamentary Network on the World Bank is attempting to do vis-à-vis that institution. So too could an arms-length body similar to that of the Independent Evaluation Office of the IMF or non-governmental shadow regulatory committees.

While accountability is important, it also has its limits. Certain kinds of sensitive information-sharing among financial regulators will only take place in narrow settings where guarantees of confidentiality can be provided. Similarly, staff working in the FSB framework and involved in international research and early warning systems must be guaranteed independence from political forces in order to establish credibility. (The size of the FSB's staff must also be expanded considerably from its present very small size in order to boost their capacity to develop independent advice.) In other words, at the same time that the FSB is made more accountable, it will be important to differentiate the various functions of the FSB and draw careful walls around those that require special treatment.

Chapter 10

The Unlevel Playing Field

"We want to create good incentives. We want to tilt the playing field so that risks flow to where there is risk capacity within financial systems"

One reason that market discipline was seen as such an important pillar in the pre-crisis approach to banking regulation was the implicit model that regulators had in mind: financial crashes occur randomly as a result of a bad institution failing and that failure becoming systemic. The historical experience is rather different. Crashes follow booms. In the boom almost all financial institutions look good, and in the bust almost all look bad. Differentiation is poor. The current crisis is another instance of this all-too-familiar cycle. But if crises repeat themselves and follow booms, focusing on micro-prudential regulation of instruments and institutions and ignoring the boom will do little to prevent the next crisis.

Requiring the banking system to hold more capital on average will not improve the resilience of the financial system as a whole unless there is also a better match of risk taking to risk capacity. Indeed, piling up capital requirements may act as an anticompetitive barrier, reinforcing the spectre of a few banks holding a government hostage because they are too big to fail.

Micro-prudential regulation was often accompanied by a misguided view of risk as an absolute, constant property of an asset that can be measured, sliced, diced, and transferred. This is an elegant view of risk and has the merit of allowing banks to build highly complex valuation models and to sell highly complex risk management products to handle and distribute risk. But it is also an artificial construct that has little bearing on the nature of risk.

In reality, there is not one constant risk. The three broad financial risks – credit risk, liquidity risk, and market risk – are very different. Moreover, the potential spillover risk from someone holding an asset depends as much on who is holding the asset as on what it is. Different holders have different capacities for different risks. The distinction between 'safe' and 'risky' assets is deceptive.

The capacity for holding a risk is best assessed by considering how that risk is hedged. Liquidity risk—the risk that an immediate sale would lead to a large discount in the price—is best hedged over time and is best held by institutions that do not need to respond to an immediate fall in price. A bank funded with short-term money market deposits has little capacity for liquidity risk. Credit risk—the risk that someone holding a loan will default—is not hedged by having more time for the default to happen, but by having offsetting credit risks. Banks, with access to a wide range of credits, have a far greater capacity than most to diversify and hedge credit risks.

The way to reduce systemic risk is to encourage individual risks to flow to where there is a capacity for them. Unintentionally, much micro-prudential regulation did the opposite. By not requiring firms to put aside capital for maturity mismatches and by encouraging mark-to-market valuation and daily risk management of assets by everyone, regulators encouraged liquidity risk to flow to banks even though they had little capacity for it. By requiring banks to hold capital against credit risks, regulators encouraged credit risk to flow to those that were seeking the extra yield, but were not required to set aside capital for credit risks, and had limited capacity to hedge that risk. No reasonable amount of capital can remedy a system that inadvertently leads to risk-bearing assets being held by those without a capacity to hold them.

What can regulators do? They need to differentiate institutions less by what they are called and more by how they are funded or the nature of their liabilities. They should require more capital to be set aside for risks where there is no natural hedging capacity. This will draw risks to where they can be best absorbed. They also must work to make value accounting and risk management techniques sensitive to funding and risk capacity. Instead, under the current system, the natural risk absorbers behave like risk traders, selling and buying when everyone else is doing so.

Capital requirements encouraging those with a capacity to absorb a type of risk to hold that risk not only will make the system safer without destroying the risk taking that is vital for economic prosperity; they will also introduce new players with risk capacities. This would both strengthen the resilience of the financial system and reduce our dependence in a crisis on a few banks that appeared to be well capitalised during the previous boom.

One of the striking things is that many of our recommendations challenge the notion, championed by big banks, of a level playing field. To some extent we have a story of returning to segmentation, but not along the lines of what institutions are called or what they say they do, as under the old Glass-Steagall, but along the lines of what capacity for risk they have. Rhetorically we could say that this is a Glass- Steagall for the 21st century. But we don't want to be binary, banning this, stopping that and limiting that as this would create bad incentives. We want to create good incentives. We want to tilt the playing field so that risks flow to where there is a risk capacity within financial systems. We want to tilt the playing field away from short-term funding of long-term assets. We want to tilt the playing field so that lending is pushed away from the boom and towards the subsequent contraction. We want to tilt the playing field so that cross-border capital flows away from countries experiencing a feast of capital and towards those experiencing a famine. We want to tilt the playing field away from an excessive focus on short-term activity. In financial matters, if not on the sports field, we see much merit in an unlevel playing field.

Appendix I

Evidence Sessions

In the preparation of this report, several commissioners discussed preliminary ideas with relevant finance practitioners, both in public fora and on a more informal basis. In addition, four commissioners conducted targeted but confidential interviews with a number of public sector officials and market actors.

In the context of these meetings, practitioners discussed their views on the main issues arising from the crisis and subsequent crisis management, the diversity of national responses, key areas of regulatory concern, the tensions between national priorities and international coordination, the role and influence of the private sector in the policy process, as well as outstanding questions from existing reports and recommendations. More broadly, the Commissioners also addressed the overarching question of the role of finance and its links to the real economy and the relationship between finance and social policies. This exercise was important in terms of evidence gathering but also served a purpose in testing the Commission's ideas and recommendations. Crucially, it reinforced the message that while much of the post-crisis reform work will focus on the technical aspects of regulation, political economy concerns cannot and should not be ignored.

The Commissioners conducted twenty-five interviews (in person and by telephone) with central bank and supervisory authority officials, private sector practitioners in banking and the hedge fund industry, a credit rating agency officer, as well as financial policy experts (including members of recent working groups on financial reform) and retired members of the financial policy community. Interviewees were predominantly based in Europe and North America, including Brussels, Frankfurt, London, Paris, New York, and Washington DC.

Appendix II

Commissioner Biographies

Professor Avinash Persaud
Chair
Avinash Persaud is Chairman of Intelligence Capital, a financial and economic advisory firm. Previously, he was Managing Director, State Street Corporation; Global Head, Currency and Commodity Research, J. P. Morgan and Director, Fixed Income Research, UBS.

He was elected Member of Council, Royal Economic Society, is Emeritus Professor at Gresham College and is a Governor and former Member of Council of the London School of Economics & Political Science. In 2009, he co-authored the Geneva Report on the Fundamental Principles of Financial Regulation with Andrew Crockett and Charles Goodhart and was appointed to the UN High-Level Task Force on International Financial Reform.

He is Co-Chair, OECD Emerging Markets Network and Deputy Chair, Overseas Development Institute. He is an External Expert Member of the Audit and Risk Committee of the U.K. Treasury Board. He was Visiting Scholar of both the IMF and ECB and was a former Director of the 70,000-strong, Global Association of Risk Professionals.

Professor Leonard Seabrooke
Director of Studies
Leonard Seabrooke is Professor of International Political Economy in the Department of Politics and International Studies, and Director of the Centre for the Study of Globalisation and Regionalisation (CSGR), at the University of Warwick. Prior to joining Warwick he was Professor (MSO) in International Economic Governance and Comparative Political Economy at the International Center for Business and Politics, Copenhagen Business School and a Research Fellow at the Department of International Relations, RSPAS, The Australian National University.

He is author of *The Social Sources of Financial Power* (2006) and U.S. Power in International Finance (2001), as well as co-editor of *Everyday Politics of the World Economy* (with John M. Hobson, 2007), *The Politics of Housing Booms and Busts* (with Herman Schwartz, 2009), and *Global Standards of Market Civilization* (with Brett Bowden, 2006). Len Seabrooke is also co-editor of the journal *Review of International Political Economy*.

Dr Heribert Dieter
Co-Director
Heribert Dieter is a Senior Fellow in the Global Issues Research Unit at the German Institute for International and Security Affairs in Berlin. He holds a doctorate in economics and political science (Dr rer pol) from the Free University of Berlin, where he has been an adjunct professor (Privatdozent) since 2005.

Since 2000 he also has been an Associate Fellow of the Centre for the Study of Globalisation and Regionalisation (CSGR) at the University of Warwick. His current research focus is on the further development of globalisation, the development of monetary regionalism in Asia and on the future of the global financial system. In addition, he works on the consequences of the world financial crisis for the position of both OECD countries and the new rising powers in international affairs.

Professor Mark Blyth

Mark Blyth is Professor of International Political Economy at Brown University. He received his PhD in Political Science from Columbia University in 1999 and was an Associate Professor in the Department of Political Science at Johns Hopkins University. He has been Permanent Visiting Professor at the International Centre for Business and Politics at the Copenhagen Business School since 2006.

His research interests lie in the fields of comparative and international political economy, particularly regarding questions of uncertainty and randomness in complex systems. He is the author of *Great Transformations: Economic Ideas and Institutional Change in the Twentieth Century* (2002). He has recently finished several joint projects: an edited volume on institutional change in American city school districts, *The Transformation of Great American School Districts*; a volume on constructivist theory and political economy called *Constructing the International Economy*; and a volume that surveys IPE around the world entitled *IPE as a Global Conversation*. He is currently working on a book called 'The End of the (Liberal) World?' Mark is also co-editor of the journal *Review of International Political Economy*.

Professor Anna Gelpern

Anna Gelpern is an Associate Professor of Law at American University, Washington College of Law, and a visiting fellow at the Peter G Peterson Institute for International Economics. She earned an A.B. from Princeton University, a J.D. from Harvard Law School, and an MSc from the London School of Economics and Political Science.

Anna Gelpern was an Associate Professor of Law at Rutgers School of Law, Newark and Rutgers University Division of Global Affairs between 2005 and 2009. She had previously held legal and policy positions at the U.S. Treasury Department, where her work focused on international debt and development, financial crisis management and international financial institutions. While practising with Cleary, Gottlieb, Steen & Hamilton in New York and London, she advised governments and other clients on the issues of debt restructuring, investment and cross-border financial transactions. Anna Gelpern's research addresses the legal and policy implications of international capital flows, and has been published in Law and Social Science journals.

Professor Stephany Griffith-Jones

Stephany Griffith-Jones is Financial Markets Director at the Initiative for Policy Dialogue at Columbia University. Prior to joining IPD, Professor Griffith-Jones was Professorial Fellow at the Institute of Development Studies at University of Sussex, United Kingdom and served as Senior Official at the United Nations Department of Economic and Social Affairs and the Economic Commission of Latin America (ECLAC), and as Head of International Finance at the Commonwealth Secretariat (U.K.). She has acted as senior consultant to governments in Eastern Europe and Latin America and to many international agencies, including the World Bank, the Inter-American Development Bank and United Nations, especially UNDP and ECLAC. She began her career at the Central Bank of Chile.

She is an economist whose areas of expertise include global capital flows to emerging markets, especially macro-economic management of capital flows in Latin America, Eastern Europe and Sub-Saharan Africa, and international financial reform with special emphasis on regulation (Basel II, hedge funds and derivatives). She was recipient of the Association of Latin American Financial Institutions prize for best essay on Latin America's international finance, and the Distinguished Czech Woman of the World Award (2006), granted by Charles University and the Czech Government.

She has published widely, being the author or editor of numerous books and articles. Her forthcoming book, co-edited with Joseph Stiglitz and Jose Antonio Ocampo, *Time for the Visible Hand*, policy responses to the 2007 crisis will be published in late 2009.

Professor Eric Helleiner

Eric Helleiner is CIGI Chair in International Governance at the Balsillie School of International Affairs and Professor, Department of Political Science, at the University of Waterloo. He received his PhD from the London

School of Economics and was founding Director of the MA and PhD programmes in Global Governance at the Balsillie School.

He is presently co-editor of the book series Cornell Studies in Money and has served as co-editor of the journal *Review of International Political Economy* and associate editor of the journal *Policy Sciences*. His work has won the Donner Book Prize, the Marvin Gelber Essay Prize in International Relations, and he is presently the recipient of a Trudeau Fellowship. His single-authored books include *Towards North American Monetary Union?* (2006), *The Making of National Money* (2003), and *States and the Re-emergence of Global Finance* (1994). His most recent co-edited books include: *Global Finance in Crisis: The Politics of International Regulatory Change* (2009) and *The Future of the Dollar* (2009).

Dr Rajiv Kumar

Rajiv Kumar is the Director of the Indian Council for Research on International Economic Relations (ICRIER). He is a non-executive member of the Central Board of Directors of the State Bank of India and a part-time Member of the Telecom Regulatory Authority of India. Prior to this he was a member of the National Security Advisory Board; a Professor at the Indian Institute of Foreign Trade; and worked for the Government of India from 1989 to 1995, first in the Bureau of Industrial Costs and Projects, Ministry of Industry and then as Economic Adviser in the Department of Economic Affairs Ministry of Finance.

Rajiv Kumar worked at the Asian Development Bank, Manila for nearly ten years and was the Chief Economist at the Confederation of Indian Industries, New Delhi. He has a DPhil in Economics from Oxford University and PhD from Lucknow University.

Professor Diery Seck

Diery Seck is currently Director of the Center for Research on Political Economy (CREPOL), based in Dakar, Senegal. From March 2002 to December 2008, he was Director of the United Nations African Institute for Economic Development and Planning (IDEP) in Dakar. Previously he served as Executive Director of the Secretariat for Institutional Support for Economic Research in Africa (SISERA) of Canada's International Development Research Centre (IDRC). Before returning to Africa in 1995, he was Associate Professor of Finance at the University of Windsor in Canada, and later Economist at the World Bank in Washington D.C. He specializes in financial economics and modelling of economic development issues.

For eight years Dr. Seck was co-editor of the *Journal of African Finance and Economic Development* (the previous name of the *Journal of African Development*). He has authored feature articles in the books of the G-20 Summit in Rio de Janeiro, in November 2008, and the G8 Summit in L'Aquila, in July 2009. He has also served as an expert for the African Union, several African Regional Economic Communities, African governments and the United Nations Economic Commission for Africa on issues of economic policy and sustainable development. Dr. Seck has been a Board Member of UNESCO's International Institute for Education Planning, 2006-2009. He is a member of the Editorial Board of the *Journal of African Development* and of the journal *Global Governance*. He is the current President-Elect of the African Finance and Economic Association (AFEA), a U.S.-based academic organization.

Dr Injoo Sohn

Injoo Sohn is an Assistant Professor in the Politics and Public Administration department at the University of Hong Kong. Prior to joining the University of Hong Kong, he was a Postdoctoral Fellow in the Princeton-Harvard China and the World Program (PHCWP) and visiting research fellow with the Princeton Institute for International and Regional Studies (PIIRS).

Injoo Sohn taught at the George Washington University, consulted for the Intergovernmental Group of 24 (G-24) and the United Nations Conference on Trade and Development (UNCTAD), and worked for the U.S. Congress (the Subcommittee on International Terrorism and Non-Proliferation). His teaching and research interests include international relations theory, international political economy, global governance, Chinese foreign policy, comparative politics, and Asian regionalism.

Professor Mark Taylor
Mark Taylor is Professor of International Financial Strategy at Warwick Business School and a Managing Director of BlackRock, the world's largest asset management company, where he works on international portfolio asset allocation. Previously a Fellow of University College, Oxford, he has also held professorships at Cass Business School and at Liverpool University and has been a visiting professor at New York University. He was also a Senior Economist at the International Monetary Fund, Washington D.C., for five years and an Economist at the Bank of England, and began his career as a foreign exchange trader in the City of London.

Mark Taylor has been a policy advisor to members of the U.K. government and his research has been published in many leading journals. In a recent study by the European Economics Association, Professor Taylor was ranked fiftieth in the world and second in the U.K. according to the number of scholarly citations to his work.

Eleni Tsingou
Eleni Tsingou is a Research Fellow at the Centre for the Study of Globalisation and Regionalisation (CSGR) of the University of Warwick and Programme Manager of GARNET (an EU-funded FP6 Network of Excellence) on 'Global Governance, Regionalisation and Regulation: the Role of the EU'. She also teaches in the Department of Politics and International Studies.

Eleni Tsingou's research work in CSGR has focused on global banking regulation and transnational private governance, the role of non-state actors and transnational policy communities, regulatory responses to the global financial crisis, the global anti-money laundering regime and the fight against terrorist financing, and regulatory regimes and global financial governance; it has appeared in a range of collections on issues related to global financial integration and transnational private governance.

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