1 Introduction

1.1 OVERVIEW AND OBJECTIVES

> If the terrain and the map do not agree, follow the terrain.[1]

Today, the world is in its sixth year of a deep and damaging financial crisis. The cause of this crisis was a massive failure of risk management and governance: quite simply, we lost control of our financial system. As a result, we experienced a debt-fuelled boom that turned rapidly into an economic "bust". Millions are suffering as a consequence: for example, youth unemployment has risen in the last ten years from 17.8% to 22.8% in the EU and from 12.0% to 16.2% in the United States.[2]

The problems could have been greater. The bankruptcy of Lehman Brothers could have led our modern, global economy to freeze. Such problems have been averted by the pumping of huge amounts of extra money into the financial system by central banks at low interest rates. These monetary policies are sure to have painful side-effects in the long term, but they have succeeded in keeping our economies moving and bought time to fix the causes of this financial crisis.

Banks are lead actors in the crisis. In many countries, large swathes of the banking industry failed and had to be supported by the state. In general, banks had been loosely supervised and some had been badly managed. Seeking ever-increasing profits, the banking industry took huge risks that were not apparent at the time but that we can now see were unacceptable. Problems emerged first in the US subprime mortgage market, which enabled poor people to buy expensive homes. New financial products used financial alchemy to turn this high-risk lending activity into seemingly low-risk investments for gullible investors. They were anything but low-risk: one study of $640bn worth of securities shows that investors lost two-thirds of their money.[3] Many of the most gullible investors were banks themselves, often banks outside the USA. The subprime malaise of over-confidence followed by ruinous losses spilled over into other markets and other countries.

Common sense should have told us from the outset that this kind of alchemy was impossible and that someone stood to lose out. In the end, it was society that was bearing those risks unwittingly. When the banks failed, society was forced to stump up the financial resources to prop up the system or face chaos and oblivion.

The public is rightfully angry about the burden of those losses, but also with the odious behaviours in the banking industry that have been uncovered by the financial crisis: greed, incompetence, negligence, arrogance, contempt, deceitfulness. Several of the leaders of the

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[1] Attributed widely to a Swedish Army training manual.
[2] Labour Force Survey: Unemployment rate for age group under 25 years 2002–12, Eurostat.
[3] Collateral Damage: Sizing and Assessing the Subprime CDO Crisis, Federal Reserve Bank of Philadelphia, May 2012.

banking industry, who had been lauded as superheroes and feted with honours and multi-million dollar bonuses during boom years, turned out to be incompetent or even downright villainous.

No-one disagrees that change is needed, in order to learn the lessons of the current financial crisis and enable us to reduce the likelihood, frequency and impact of future crises. There is a risk, however, that the diagnostic is incomplete and the remedial actions may be ineffective. This book aims to contribute to an improved understanding of the diagnostic as well as offering some additional and alternative proposals for consideration.

Current diagnoses tend to focus on the symptoms of the current financial crisis (e.g. the banks' excessive leverage, weak capital bases, poor funding profiles and insufficient liquidity buffers[4]) or play the blame game, singling out scapegoats in order to make the resolution of the problem punchier and more streamlined. Requiring higher levels of capital and exposing bad behaviour by bankers should solve the matter, apparently, all at little cost to the rest of us.

Such views are incomplete. A better diagnostic should do two things. Firstly, it should recognise the contribution of global macro-economic imbalances – especially the growing indebtedness of western consumer economies – to the current financial crisis. These imbalances are as much political as they are financial. They are also stubbornly difficult to reduce. Secondly, the diagnostic of the banking industry's problems should centre squarely on failings of governance, regulation and risk management. Society failed to control adequately the banks and the banks failed to manage adequately the risks they were running. Problems of excessively aggressive financial profiles, bad behaviours and excessive pay are consequent symptoms of the failure of governance, regulation and risk management. Society – the ultimate owner of the banking industry – must accept its responsibility for heaping praise on the "banker's new clothes", to extend a recently used metaphor.[5]

In order to advance this diagnostic, there is a need to engage a broad audience. A discussion that is restricted to dedicated professionals from the banking industry and the authorities may miss the broader picture and get lost in cul-de-sacs. Certain arcane elements of the regulatory response to the financial crisis (known as Basel III and covered in Section 4.5) indicate that this is the case. "Expert" diagnostics may also fail to achieve acceptance from the public, who are, after all, the "society" that ultimately carries the can. In the spirit of active engagement, therefore, we seek to set out a basic understanding of the nature and fundamentals of banking, to act as a methodological backdrop to the discussion and assist a simultaneous *broadening* and *simplification* of the subject. For example, a basic common understanding of the notions of risk and capital will help any diagnostic on the solvency and resilience of our banks.

An elegant diagnostic and a critique of the current regulatory response would be a noble objective for this book, but it would not be sufficient. Therefore, we have tried to set out some concrete, high-level, novel proposals for "better banking". All of these are to do with bank governance, regulation and risk management. To begin this task, we have had to assume at the outset that politically, a liberal free-market form of capitalism with moderate state oversight

[4] Basel III: A global regulatory framework for more resilient banks and banking systems, Basel Committee, December 2010 (revised June 2011).

[5] *The Banker's New Clothes*, Anat Admati and Martin Hellwig, 2013.

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is the desired economic framework; and that society's capacity for risk is low enough not to accept anything like the level of risk that was building up in the system in 2005/6. Our thesis is that finance and banking are important features of a modern, democratic society and liberal, capitalist economy. But the risks that are inherent need to be well managed, regulated and supervised. They can be mitigated, never tamed but, if we adopt the wrong approaches, they can be needlessly inflamed. So we propose a vision of a banking industry that is based firmly on free-market principles but supplemented by a benign and competent public authority, which ensures that risk is transparent and confronted through rigorous and intelligent risk management capabilities.

The proposals are set out in the immodestly titled Chapter 7: "A Blueprint for Basel IV". They comprise suggestions on:

- improved risk management processes, including better information and the use of dynamic "wargaming" over "stress testing";
- a hands-on "Guardian Angel" approach to supervision;
- a more impressionistic and subjective approach to capital and funding;
- some radical proposals on deposit funding (effectively, the nationalisation of guaranteed deposits by the central bank) and liquidity management (replacing investments in government bonds with a central bank overdraft);
- increased rigour in governance processes and management accountability structures through the adoption of a meticulous "Centurion approach";
- the active engagement of market forces in bank governance by means of a new "glasnost" approach; and
- relatively liberal and flexible common-sense views on human capital management and industry structure, which should be allowed to find their own form through market forces, good risk management and good governance.

These proposals are meant to be a "strawman": "throw stones and it doesn't hurt". We have put these ideas forward because there are so few, coherent, credible responses to the lessons of the current financial crisis, even those of the most esteemed experts and banking authorities. The debate on the banking industry is polarised and not progressing at a great pace. Banks are engaged in "lobbying" to protect their vested interests; the authorities are keen to be seen as competent and in possession of the magic fix; almost everyone else is frustrated and feels disenfranchised. We do not feel that taking sides is appropriate: this is not a battle between two armies. Society needs banks, banks need to change and society needs to guide that change. There should be no opposing objectives between bankers and banked: there may be multiple viewpoints, but the objectives should be non-controversial. Status quo is not acceptable. To put it bluntly, we feel that the banking industry has still not been fixed and the current reform agenda is not going to change that.

We hope we are not naïve. We are aware of some of the challenges that our proposal would entail and have dedicated Chapter 8 to the consideration of some of these challenges.

The reader should be aware of some questions of style:

- The subject matter is broad and raises many questions. This book skims the surface. We hope that the inquisitive reader will be left with a thirst to dig deeper into several areas.

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- We use quotes extensively, to demonstrate the views and nuances of experts in the industry and commentators, as there is no need to "reinvent the wheel" when others have already provided good material.
- Too much of the technical debate on the banking industry is inaccessible: this book hopes to be highly accessible, insofar as that is possible with a highly complex, sophisticated and, let's face it, intangible topic. In order to improve accessibility, we have a glossary of jargon. Data exhibits are kept to a minimum and are included only where they are highly relevant. We don't use maths beyond what's necessary and even then, only very basics of risk management or simple sums.

Thematically, the book has three main parts. Initially, we set out our diagnostic and methodological foundations; then, we consider 14 real-life case studies; lastly, we set out for consideration the proposals for "better banking".

1.2 QUICK START GUIDE TO BANKING CONCEPTS AND REGULATION

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The banking industry is huge and important. Due to its central role in the economy, it stores or handles vast sums of money. To give some idea of scale, consider the following statistics in Table 1.1.

These numbers may not mean very much in isolation. But they hopefully illustrate that banks deal with big sums of money and *getting it right* is important. Imperfections or – worse – sloppiness are bound to have a disastrous effect.

Banking is an industry that is at the heart of our capitalist system. On the one hand, banks take money in and safeguard it; on the other hand, banks provide credit for people to buy homes and companies to make investments. Banks act as a bridge between these two needs and their expertise in credit and investment management keeps both sides of the business happy, if everything is working well. Banks also provide payments services to facilitate the transfer of money for purchases, though this aspect of banking is not a focus of this book.

Banking is risky and banking is about risk management. The classic bank product, a loan, consists of the up-front provision of money by the bank to the borrower, who promises to repay the debt within a certain timeframe. How can a bank be certain that the loan will be repaid? What can the bank do to ensure the loan is repaid? And what should the bank do in the event of non-repayment? On the other side of the business, how can a customer be certain that the bank will be able to honour their deposit?

It is an often-overlooked fact that a bank deposit is not backed with cash on reserve or gold. Or, as was said of one of the largest and best regarded banks in the world: "Turns Out Wells Fargo Doesn't Just Keep Your Deposits in a Stagecoach Full of Gold Ingots".[6] In fact, most of any bank's deposit base is lent out to borrowing customers, who may or may not repay their debt.

This intermediation function makes banks fragile. They rely upon the confidence and trust of those who entrust their funds to them. They need to manage their risks sufficiently well to be viable in the long term (solvent) and in the short term (liquid). So risk management rapidly

[6] Dealbreaker.com, 3 January 2013.

Table 1.1 Key figures on banking

Penetration	It seems – though admittedly the data is not clear – that around half of the world's population has a bank account. One-third of small businesses have a credit line from a bank.[7] Globally, there is one bank branch for every 6,000 people. This number varies from one branch for every 1,100 people in Spain to one branch for every 150,000 people in Congo.[8]
Size: balance sheet	The balance sheet size of the world's largest 1,000 banks is more than $100,000bn.[9]
Size: deposits	Deposit balances globally are reported to be 44% of world GDP,[10] or around $30,000bn. In richer countries, the average is 84% of GDP.
Size: derivatives	The face value of derivatives contracts is more than $400,000bn[11] (see Section 3.7 for an overview of derivatives).
Volumes	The value of all the payments transactions processed by banks is in the region of £78,000bn in the UK alone,[12] or 50 times the UK's annual GDP. If we gross that up a factor of about 30 (reflecting the UK's share of global GDP[13]), then we would have an estimate equivalent to more than $3,000,000bn in payments globally. In addition to these volumes, the world's currency markets trade some $5,000bn per day[14] or $1,500,000bn per annum.
Market value	The top 55 banks in the world have a market capitalisation of $4,000bn,[15] representing nearly 10% of the entire global stock market capitalisation of listed companies, which is $53,000bn.[16] In China and Australia, large banks make up more than a quarter of the stock market's value.
Profitability	The top 1,000 banks make around $700bn per year in pretax profits.[17] In the USA, financial companies (including insurance companies as well as banks) made up 28% of corporate profits over the last three years.[18]
Big banks	Fifteen banks currently have balance sheets bigger than $2,000bn: • Europe: Deutsche Bank, HSBC, Barclays, BNP Paribas, Crédit Agricole, Royal Bank of Scotland • Japan: Mitsubishi UFJ, Mizuho, Japan Post Bank • China: Industrial & Commercial Bank of China, China Construction Bank, Agricultural Bank of China, Bank of China • USA: JP Morgan Chase, Bank of America. And a further 11 have balance sheets between $1,000bn and $2,000bn: • Europe: Banco Santander, Société Générale, ING Group, Groupe BPCE, Lloyds Banking Group, UBS, UniCredit, Credit Suisse Group • Japan: Sumitomo Mitsui Financial Group • USA: Citigroup Inc, Wells Fargo.

[7] Global Financial Development Database, World Bank, April 2013. [8] Ibid.
[9] Top 1000 World Banks 2012, *The Banker*, 2 July 2012.
[10] Global Financial Development Database, World Bank, April 2013.
[11] Mid-Year 2012 Market Analysis, ISDA, 20 December 2012.
[12] Payments Council Quarterly Statistical Report, 18 March 2013.
[13] World Bank. [14] *BIS Quarterly Review*, BIS, March 2012.
[15] World's Largest Banks 2013, relbanks.com, 25 January 2013.
[16] World Bank. [17] Top 1000 World Banks 2012, *The Banker*, 2 July 2012.
[18] Table 6.16D, Bureau of Economic Analysis, 28 March 2013.

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becomes an issue of solvency capital management (being able to absorb losses when they come around, without depositors losing their money) and funding and liquidity management (being able to borrow from – and repay when requested – the bank's depositors and creditors). This is the reason why bank regulation has been focused heavily on capital levels and liquidity measures.

If things don't go well, banks can lose confidence and suffer from bank runs, where depositors try to get their funds out; the bank simply runs out of cash to meet its obligations and is forced to close. Bank runs are fortunately rare, though the current crisis is providing several new case studies. The banking industry can also suffer from system-wide crises, the financial busts that generally follow a period of boom.

If something is important yet fragile, it follows that it needs to be protected. This is why regulation and supervision are important. The regulatory discussion focuses a lot on "Basel", the international club of banking regulators where such issues are managed. A basic understanding of the three Basel regulatory regimes (Basel I, Basel II and Basel III) will help to serve as a backdrop to the more prescriptive chapters later.

Society needs to ensure that the essential functions of banks are preserved, to avoid problems such as a "credit crunch", when certain reasonable needs of the economy cannot find financing. Society also needs a "guardian" to ensure that financial stability is preserved, the value of deposits is safeguarded and banking ethics are applied.

Finally, if something is important and fragile, it needs to be well managed. This is the duty of everyone, from the regulatory and supervisory "guardians" to the owners of banks to the executives and middle-managers of banks. It is also the duty of society itself for – to adapt a well-known quotation – every society gets the banking system it deserves.

The following three chapters give a brief overview of how banks contributed to the current financial crisis, what the basic concepts of banking and risk management entail and the history of banking regulation to the present day.

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