DIVERSITY AND RESILIENCE: LESSONS FROM THE FINANCIAL CRISIS

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I INTRODUCTION

It was everyone's worst nightmare; the spectre of systemic collapse. And this time, everyone was in it together.

Financial crises are no strangers to world economies in recent times: the collapse of the savings and loans industry in the United States in the 1980s and the Asian financial crisis of the 1990s. But this one was truly different, stunning in its breadth, speed and dramatic consequences.

Around the world, hundreds of millions of people were affected. Shocked and dismayed, people asked how and why, and the most puzzling question of all, why here. As a modicum of normality returns to financial markets, a torrent of analysis has started to spew forth. There is agitated finger-pointing and second-guessing; some sacred cows of modern finance, such as the efficient market hypothesis,[1] have taken a goring but will likely survive. On the other hand, more marginal theories that contribute to the understanding of modern finance, such as the chaos theory and the path dependency of market institutions, have received resounding validation.

With the benefit of recent hindsight, this paper will explore some of the immediate causes of the global financial crisis, document its origins and

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1 See the lively debate in current issues of The Economist:

> In 1978 Michael Jensen, an American economist, boldly declared that 'there is no other proposition in economics which has more solid empirical evidence supporting it than the efficient-markets hypothesis'(EMH)…Eugene Fama, of the University of Chicago, defined its essence: that the price of a financial asset reflects all available information that is relevant to its value…On such ideas, and on the complex mathematics that described them, was founded the Wall Street profession of financial engineering. The engineers designed derivatives and securitisations from simple interest-rate options to ever more intricate credit-default swaps and collateralised debt obligations. All the while, confident in the theoretical underpinnings of their inventions, they reassured any doubters that all this activity was not just making bankers rich. It was making the financial system safer and the economy healthier. That is why many people view the financial crisis that began in 2007 as a devastating blow to the credibility not only of banks but also of the entire academic discipline of financial economics.

'Efficiency and Beyond', *The Economist*, (London) 18 July 2009, 68.

investigate why some economies appeared more resilient to its effects than others. It will not be the whole story (that will not be known for years), but it will represent a modest effort at putting a few pieces of the puzzle in place.

A Immediate Culprits in the Global Financial Crisis

1 *The New Financial Products*

The complexity of modern finance is one obvious culprit.[2]

We have reached the point where some financial engineers have managed to baffle even themselves. Along the way, though, they seemed to have befuddled their boards of directors, risk management committees, lawyers, accountants, customers and regulators. A large financial institution cannot go from booking a position at par one day to writing off US$20 billion of the value of that position three months later, without admitting a degree of confusion about the investment's true risk profile.[3]

Brilliant innovation in financial products metamorphosed into incomprehensible gibberish.

What started out as an 'I lend – you borrow' proposition developed into something like this:

> A Cayman Islands special purpose bankruptcy-proof vehicle borrows money from qualified institutional buyers in order to acquire a credit-linked note issued by a Luxembourg entity, guaranteed by a Jersey financing subsidiary of a Cyprus corporation that in turn hedges the risk with a credit default swap written by an Irish entity.[4]

And so on.

Such gibberish roared through Wall Street, meeting no resistance – regulatory or otherwise.[5]

Centuries old legal principles, such as the notion of 'insurable interest',[6] were cast aside. In English law, the concept of 'insurable interest' found its expression in the *Life Assurance Act 1774* (UK): 'Whereas it hath been found by experience

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2 See Lee Buchheit, 'Did We Make Things Too Complicated?' (2008) 27(3) *International Financial Law Review* 24. See also Michael Lewis, *The End* (2008) Portfolio <http://www.portfolio.com/news-markets/national-news/portfolio/2008/11/11/The-End-of-Wall-Streets-Boom/> at 13 September 2009.

3 Buchheit, above n 2, 24.

4 Ibid 25.

5 Buchheit does not spare his fellow lawyers in this critique:

> Why do some contracts, tantamount to crimes against humanity, not occasion more expressions of outrage from bankers, analysts, rating agencies, investors and regulators? (They do sometimes incur the wrath of the judiciary). These people often meekly accept a turgid, incestuous, redundant, disorganised and arthritic contract without even a bleat of protest.

Ibid 26.

6 'At its simplest, the doctrine of insurable interest requires that someone taking out insurance gains a benefit from the preservation of the subject matter of the insurance or suffers a disadvantage should it be lost': The Law Commission and the Scottish Law Commission, *Insurable Interest*, Insurance Contract Law: Issues Paper 4 (2008) 2. According to this paper, Australia, taking the view that the issue should be left to the market, had eliminated the requirement for an insurable interest in an insurance contract in 1995 by an amendment to the *Insurance Contracts Act 1984* (Cth). See also, M Todd Henderson, 'Credit Derivatives Are Not "Insurance"' (Olin Working Paper No 476, University of Chicago Law and Economics, 2009) <http://ssrn.com/abstract=1440945> at 13 September 2009.

that the making insurances on lives or other events wherein the assured shall have no interest hath introduced a mischievous kind of gaming'[7] – the mischievous kind of gaming being the incentive to murder an insured party. The issue of whether credit derivatives (the financial product that felled AIG, the largest insurance company in the world) were 'insurance' was one of the questions considered by the Law Commission in the United Kingdom in a 2008 Issue Paper on insurable interests.[8] Although credit derivatives (a category of 'toxic asset') plainly came within one of the common law definitions of insurance,[9] both the United Kingdom regulator, the Financial Services Authority ('FSA'), and the industry association, the International Swaps and Derivatives Association ('ISDA'), argued against their characterisation as insurance and their regulation.[10] 'The FSA doubts there is a strong regulatory interest in the use to which insurance (or any other financial instrument) is put.'[11] It is hard to imagine these words being uttered by a financial regulator today; in fact, a requirement similar to 'insurable interest' has now been proposed for credit derivatives,[12] in order to rein in the moral hazard associated with their usage.

Equally, old fashioned 'gaming laws', which had once served to dampen the worst aspects of rampant speculation, could no longer operate as a brake.[13] The United Kingdom, for example, repealed its *Gaming Act 1845* (UK) by the *Gambling Act 2005* (UK) that came into effect on 1 September 2007.[14]

The nature of the new financial products though was the key to their consequences. Unlike financial products of the past, these new inventions linked ho-hum retail banking directly to supercharged capital markets: Main Street to Wall Street. This was not just a housing bubble bursting; it was not just a credit crisis; it was not just a stock market crash. The new hybrid financial products, by linking heretofore loosely correlated markets, became purveyors of systemic risk.

2 *Ideology and Denial*

In addition, exacerbating what might have been a predictable, and ultimately welcome, correction in an overheated housing market in the United States, were

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7 *Life Assurance Act 1774* (UK) c 48, preamble.

8 The Law Commission and the Scottish Law Commission, above n 6, [1.8].

9 'They are contracts whereby one party promises to pay to the other party a sum of money upon the occurrence of a specified event': Ibid 48.

10 '[A]ny review of the boundary between contracts of insurance and other types of contract risks damaging [market] consensus and undermining confidence in these economically significant products': Ibid.

11 Ibid 47.

12 For example, there have been calls for 'more skin in the game'. One proposal is to require purchasers of credit derivatives to actually hold the underlying bond against which default protection is sought. This, in effect, requires an 'insurable interest'. See 'Naked Fear', *The Economist* (London), 8 August 2009, 64.

13 See Lynn Stout, 'How Deregulating Derivatives Led to Disaster, and Why Re-Regulating Them Can Prevent Another' (Law and Economics Research Paper No 9–13, University of California, Los Angeles School of Law, 2009) <http://ssrn.com/abstract=1432654> at 13 September 2009.

14 *Gaming Act 1845* (UK) c 109; *Gambling Act 2005* (UK) c 19.

foolish and irresponsible lending practices far down the financial chain.[15] The manner in which these practices worked their way through the financial system is in part a testimony to the dangers of ideologically driven policymaking and denial in the face of imminent disaster.

Had the United States Federal Reserve and the United States Treasury moved more quickly, would the crisis have been contained? The Hong Kong Government did not let ideological scruples deter their quick and decisive action in creating the Tracker Fund in the face of the Asian financial crisis a decade before.[16] That the Hong Kong Government made a tidy profit in the longer term was a sweet vindication, given the immediate criticisms of the 'anti-market' actions which their actions attracted.

3 *Chaos and Contagion*

In the United States, the hurricane of financial chaos slammed against a creaking and outdated regulatory infrastructure. At the eye of the storm, was the fragmented financial and banking regulatory regime: dozens of state regulators interacting with an array of different types of financial institutions, grinding against the rocks of the Federal Reserve and the United States Treasury.[17]

The hurricane of the financial crisis is no idle metaphor. Chaos theory, which has been applied to the financial systems, originated in the study of weather systems.[18] The so-called 'butterfly effect' (does the flapping of a butterfly's wings in Brazil set off a tornado in Texas?) postulates that a small change in initial conditions in a system causes a chain of events leading to large scale phenomenon. Rather than being random or unpredictable, the future dynamics in the system are fully defined by initial conditions. As the noted German legal

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15 One of the most striking examples given by Michael Lewis is of the Mexican strawberry picker (who did not speak English) in California's San Fernando Valley, with an annual income of US$14 000 who was given a mortgage to purchase a US$720 000 house: Lewis, above n 2.

> In August 1998, the Hong Kong Government acquired a substantial portfolio of Hong Kong shares during a market operation. The Exchange Fund Investment Limited (EFIL) was established in October 1998 by the Government to advise on the disposal of this portfolio in an orderly manner. When seeking to dispose of these shares, the Government chose a stock neutral solution that would create minimal disruption to the market. An Exchange Traded Fund, the Tracker Fund of Hong Kong (TraHK), which met these requirements and added depth to Hong Kong's capital markets was launched in November 1999 as the first step in the Government's disposal programme. State Street Global Advisors Asia Ltd was appointed as the Fund Manager and State Street Bank and Trust Company was appointed as the Trustee of TraHK…With an issue size of HK$33.3 billion (approximately US$4.3 billion), TraHK's Initial Public Offering (IPO) was the largest IPO ever in Asia ex-Japan at the time of launch. Since the IPO, approximately HK$ 140.4 billion (by 15 October 2002) in Hang Seng Index constituent stocks has been returned to the market through TraHK's unique tap mechanism.

Tracker Fund of Hong Kong, *The History of Tracker Fund* <http://www.trahk.com.hk/eng/homepage.asp> at 13 September 2009. See also, Y C Jao, 'Financial Reform in Hong Kong' in Maximilian Hall (ed) *International Handbook of Financial Reform* (2003) 113, 126–7.

17 There are literally hundreds of state insurance, credit, banking and securities regulators in the United States in addition to their federal counterparts.

18 Edward Lorenz, 'Predictability: Does the Flap of a Butterfly's Wings Set Off a Tornado in Texas?' (Speech delivered at the American Association of Advanced Science 139th Meeting, December 1972).

scholar Gunther Teubner recently observed, the financial system has been a victim of its own rationality.[19]

If there had been any doubt as to the extent of integration of world capital markets forming one 'system', this global financial crisis laid it to rest. 'Contagion' had spread rapidly during the Asian financial crisis in 1997–98 but was more or less regionally contained, and, even within the region, had little effect on certain economies.[20] Not so this time.

Capital markets feed on information.[21] Owing to modern technology, information is now transmitted instantaneously. This same technology, of course, permits the virtually instantaneous transmission of capital. When someone cries 'fire' and there is a stampede for the door, this same technology fuels the conflagration in the markets, and also makes it possible.[22]

Two other factors acted as accelerants in the case of this particular conflagration: ideology and the propagation of what might, for use of a better term, be called 'false cognates' or 'false friends'. In September and October 2008, the actions of the United States Federal Reserve and the United States Treasury themselves, the immediate solutions to the crisis, were a main driver of the chaos. That an administration, at that time so ideologically well-defined, engaged in a volte face intervention in financial markets of a kind unparalleled in United States history pushed all the market panic buttons. The message, the information, transmitted to the market was very clear; this must be worse than we thought.

'False cognates' or its variant, 'false friends', as they are known in linguistic studies, present different issues. The problem (read, the crisis) may appear the same, but in fact, its origins are different from one economy to another. Or, as with 'false friends' – words that sound similar, and may in fact be related linguistically, but which have strikingly different meanings from language to language – the problems may appear similar from economy to economy, but in fact their significance varies dramatically from one place to another.

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19 Gunther Teubner, 'Two kinds of Legal Pluralism: Collision of Rules in the Double Fragmentation of World Society' (Speech delivered at the Comparative Law, Economics and Finance Program, International University College Torino, Torino, Italy, 31 October 2008).

20 For example, China and Vietnam, which were relatively 'closed' economies at the time.

21 Cf efficient market hypothesis, 'Efficiency and Beyond', above n 1.

22 Cf the current debate on 'flash trading', ie, the practice of:

> certain members of exchanges – often large institutions – buying and selling information about ongoing stock trades milliseconds before that information is made public. High speed computer software can take advantage of that brief period between when an order is placed and when it's executed to all those members to potentially get better prices and profits by slipping in and making the trade themselves… For example, if an exchange that offers flash trading gets an order from someone who wants to sell shares of stock, it can 'flash' that order on its system to find a buyer, before making it available to buyers using other exchanges. Traders pay fees to an exchange to access the information early. Three large exchanges – Nasdaq, BATS and Direct Edge – have offered flash order services.

Stephen Bernard, 'What is Flash Trading and Why is it About to be Banned?', *The Globe and Mail* (Canada), 13 August 2009.

Nasdaq OMX Group Incorporated announced that they will voluntarily cease to offer such services from 1 September 2009: see 'Nasdaq to Stop Offering Flash Trading Sept 1', *MSNBC* (United States), 6 August 2009 <http://www.msnbc.msn.com/id/32317239/> at 13 September 2009.

So as the hue and cry about the United States financial crisis spread like electronic wildfire around the globe, with it were propagated (perhaps misconceived) assumptions as to the origins and consequences of financial crises in other economies. Television coverage of a grandstanding United States congressman (on the eve of seeking re-election) picked up the phrase 'greed and corruption on Wall Street'. Within hours, Australia's Prime Minister (his speech writer obviously having watched television the night before) lambastes 'greed and lax regulation' in Australia.[23] Irrespective of the prevalence (or not) of greed and corruption on Wall Street, had greed and lax regulation suddenly surged in Australia? Most likely not.

4 *'False Cognates' and 'False Friends'*

The relative resilience of some economies to the financial crisis may be partly explained by this phenomenon. A bank is a bank and a mortgage is a mortgage from Los Angeles to Toronto to Adelaide. Or are they? Share prices in Canadian banks plummeted at the height of the crisis, seemingly infected by financial crisis flu. Yet Canadian banks had not engaged in the lending practices which brought low United States mortgage lenders and the structural weaknesses of the fragmented United States banking system were not present in Canada.[24] Information about these differences took much longer to percolate through the collective investment consciousness than the cry of fire which set the markets tumbling. When the more accurate assessment of risk gained greater currency, economies such as Canada and Australia appeared to be more 'resilient' to the crisis.

The point here is that instantaneous information flows may in fact propagate the equivalent of 'false cognates' or 'false friends', creating a problem where none existed, or leading to misinterpretation of a very real problem. In time, cooler heads may prevail and the existence or sources of such problems may be reconsidered. However, in the interim, an inappropriate regulatory response, also propagated by international information flows, may have taken root.[25]

Information does drive markets, but not necessarily to the most obvious or most desirable destination.

B Chaos, Path Dependency and Evolutionary Biology

It is anomalous that a country such as the United States noted (and justly so) for its dynamic financial system, full of genius and innovation, should be burdened with such a difficult and obviously deficient regulatory regime. But that is the case. Part of the problem is the political and legislative system, with its

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23 Michelle Grattan and Julia Medew, 'Rudd War on Bankers' Salary Deals', *The Age* (Melbourne), 16 October 2008, 1.

24 Canadian banks, though, are international institutional investors and as such, did find 'toxic assets' in their investment portfolios.

25 For example, the notorious *Sarbanes-Oxley Act of 2002*, Pub L No 107–204, 116 Stat 745 in the United States, provoked a rash of look-alike legislative and other initiatives around the world (eg, the proposal, ultimately defeated in the European Parliament, to require audit committees on a pan-European basis).

exquisite checks and balances, and the key role played by lobbyists. It is not that this system is any better or worse than any other. However, it does make legislative and regulatory reform in complex areas, such as finance, a slow and arduous process – except possibly in times of crisis.[26]

At the heart of this financial crisis is the fragmented, inefficient banking system and its regulation in the United States. There are thousands of credit institutions, of various kinds, each subject to a multiplicity of regulators. Opportunities for regulatory arbitrage, lax oversight and imprudent practices leading to systemic failures abound. There is nothing new here. The same industry, mortgage lending, was the centre of the savings and loans crisis in the 1980s, which resulted in a public rescue effort in the form of the Resolution Trust Corporation.

Over a dozen years ago, possibly prompted by the savings and loans crisis in the United States, Mark Roe examined the United States financial system through the prism of chaos theory, concepts of path dependency and evolutionary biology.[27] The argument was a counterpoint to prevalent law and economics views of the United States market inspired by the efficient market hypothesis.[28]

In looking at the United States financial system, Roe noted:

> what survives depends not just on efficiency but on the initial, often accidental conditions (chaos theory), on the history of the problems that had to be solved in the past but that may be irrelevant today (path dependence), and on evolutionary accidents – what might do best today could have been selected out for extinction in the past.[29]

The nature of financial institutions and their regulation in the United States are hard to change. The institutions and their regulation date back, not just decades, but to decisions made in the early days of the new Republic. Not only did the United States break politically with Britain in the late 18th century, it made a break with a British legislative tradition and British institutions. That included British banking. The fragmented, small local banking system (and the

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26 Some financial sector reforms in the United States, such as the abolition of the *McFadden Act of 1927*, Pub L 69–639, 44 Stat 1224 and the *Glass-Steagall Act of 1933*, Pub L 73–66, 48 Stat 162 took decades. Others, such as a comprehensive reform of securities regulation, the so-called 'aircraft carrier' proposals of 1998, never see the light of day.

27 Mark Roe, 'Chaos and Evolution in Law and Economics' (1996) 109 *Harvard Law Review* 641.

28 It is difficult to overestimate the importance of the efficient market hypothesis over the last several decades. It is now undergoing serious questioning: see 'Efficiency and Beyond', above n 1. However its tenets have been such an accepted part of financial market theory, that not only do they implicitly underpin regulatory initiatives, but rather they are made explicit in statutory provisions. See, eg, s 2(b) of the United States *Securities Act of 1933*, 15 USC §77a et seq:

> Consideration of Promotion of Efficiency, Competition, and Capital Formation. Whenever pursuant to this title the Commission is engaged in rulemaking and is required to consider or determine whether an action is necessary or appropriate in the public interest, the Commission shall also consider, in addition to the protection of investors, whether the action will promote efficiency, competition, and capital formation.

See, eg, *Australian Securities and Investment Commission Act 2001* (Cth) s 1(2):

> In performing its functions and exercising its powers, ASIC must strive to: (a) maintain, facilitate and improve the performance of the financial system and the entities within that system in the interests of commercial certainty, reducing business costs, and the efficiency and development of the economy.

29 Roe, above n 27, 641.

seeds of the present global financial crisis) originated in the 1830s. 'Andrew Jackson's destruction of the Second Bank of the United States…yielded weak financial institutions that today would be out of place in America, which is now a nation of large businesses and which could well absorb large-scale finance'.[30] According to Roe, United States capital markets developed to the extent they have to compensate for the inefficiencies of the banking institutions.[31] So it is not surprising, in the overall scheme of the United States financial system, to see the creation of financial products (those 'toxic assets') which transfer risk from the banking sector to the capital markets.

Chaos theory does provide some intriguing insights into the current financial crisis. As Roe suggests, dysfunctional aspects of the current system of financial regulation in the United States, closely tied to this financial crisis, may be traced back to those initial conditions, decisions as to structure and regulatory philosophy of the early 19th century. But the 'butterfly effect' of chaos theory also appears to be operating, that is, the exponential growth of perturbations from a small change in initial conditions. This suggests that international financial markets are now operating as a closed system, according to set rules producing predictable results, the rationality suggested by Teubner.

There are several implications to this observation. The first is, why did so few people see it coming? After all, the Financial Stability Forum, created in the aftermath of the Asian financial crisis, was dedicated to promoting international financial stability, as its name indicates.[32] The second implication is the importance of correctly identifying and monitoring those initial conditions.

The following sections of this paper will look more closely at the immediate chain of events in the United States which precipitated the global financial crisis – just where those butterflies flapped their wings. Then it will examine the sources of resilience demonstrated by some economies, notably Australia.

II BACKGROUND TO THE FINANCIAL CRISIS: THE UNITED STATES PERSPECTIVE

As events have unfolded, it appears that consequences of the global financial crisis are manifesting themselves differently across the world. Certain economies, such as Australia, China and Canada, appear to have weathered the crisis in different ways and with less dire effects. The origins are, however, in the United States and an understanding of its immediate causes is useful in analysing its consequences.

It is clear that there were numerous factors which contributed to the onset of the crisis. While this article examines these factors individually, it is important to understand that the global financial crisis was not born through a linear chain of

30 Ibid 644.
31 Ibid 645.
32 As a tacit admission of its blatant failure, the Financial Stability Forum has been renamed the Financial Stability Board, and work is in progress to reformulate its mission.

causation. Rather, the causes of the crisis are interrelated, and the feedback loops between these factors were essential for the crisis to develop and unfold.

A Home Ownership: The American Dream

The United States, like Australia, has a strong cultural inclination towards home ownership. Some would even say that 'America, as a country, has an obsession with home ownership'.[33] Indeed, it is the long lasting 'American Dream'.

There are many government policies that have been implemented to promote home ownership, such as the establishment of government-sponsored entities, the provision of tax deductions and the allowance of non-recourse mortgages. These policies provided early momentum for the global financial crisis.

1 *Government-Sponsored Entities*

Fannie Mae[34] and Freddie Mac[35] are government-sponsored entities that promote home ownership in the United States. Their main activities encompass the purchase and guarantee of American mortgages, as well as the purchase and sale of mortgage-backed securities. Through the process of securitisation, government-sponsored entities indirectly promote home ownership by providing low-cost funding and liquidity for the United States housing and mortgage market.

Fannie Mae and Freddie Mac played a key role in the development of the markets for mortgage-backed securities. When they started taking part in mortgage securitisation, they purchased and securitised prime mortgages[36] that conformed to high standards.[37] The government-sponsored entities would pool the mortgages and sell the resulting mortgage-backed securities. Investors were keen to purchase these securities, since they were backed by low-risk mortgages and the promised payments from these securities were guaranteed[38] by the government-sponsored entities.[39] By restricting their purchases to conforming prime mortgages, the government-sponsored entities[40] were able to restrain mortgage originators from venturing into risky subprime mortgages.

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33 Tim Harcourt, Interview with David Hale, United States Economist (Australia, 12 November 2008) <http://www.austrade.gov.au/What-does-the-global-financial-crisis-mean-for-Australia/default.aspx> at 12 September 2009.

34 Fannie Mae, *About Fannie Mae* < http://www.fanniemae.com/about/index.html> at 12 September 2009.

35 Freddie Mac, *Company Profile* < http://www.freddiemac.com/corporate/company_profile/> at 12 September 2009.

36 Rather than subprime.

37 Martin Hellwig, 'Systemic Risk in the Financial Sector: An Analysis of the Subprime-Mortgage Financial Crisis' (2008) *Preprints of the Max Planck Institute for Research on Collective Goods Bonn 2008/43* 45.

38 And implicitly guaranteed by the United States Government.

39 Andrea De Michelis, 'Overcoming the Financial Crisis in the United States' (Working Paper No 669, Organisation for Economic Co-operation and Development, 2009) 8.

40 Who were the only mortgage securitisers at the time.

The development of an expansive mortgage-backed securities market allowed mortgage originators to reduce their exposure to the borrower's credit risk.[41] It was the beginning of the so-called 'originate-and-distribute' model.[42] The government-sponsored entities were achieving their purpose of promoting home ownership through this process of securitisation, which allowed mortgage originators to sell their loans and use the revenues from such sales to make more loans.

The seeds of the current subprime crisis were to be planted in the mid-1990s. As a result of various government housing policies, Fannie Mae and Freddie Mac were forced by political pressure to purchase riskier Alt-A and subprime mortgage products.[43] These were mortgages that had previously been classified as being too risky, and were previously avoided by the government-sponsored entities. Furthermore, the government-sponsored entities were required to increase their portfolio holdings of such mortgages by a certain amount each year.[44] Notwithstanding the increased demand, subprime mortgage origination was still kept under control in this environment.

The real problem arose when private-label mortgage-backed securities began financing non-conforming mortgages.[45] In particular, hedge funds and investment banks began financing these non-conforming loans, and were providing strong competition for Fannie Mae and Freddie Mac. Soon enough, private-label securitisation had become the main funding source of these risky subprime mortgages. As a result, the government-sponsored entities market share in the issuance of mortgage-backed securities fell substantially, from 76 per cent in 2003, to 43 per cent in 2006.[46]

Credit quality in the mortgage market began to fall as Fannie Mae and Freddie Mac were sidelined in favour of private institutions. The reason for this decline in credit quality was simple: unlike the government-sponsored entities, private institutions[47] were not providing a guarantee to investors of the mortgage-backed securities, and therefore did not have an incentive to impose and enforce creditworthiness standards on originators. Private institutions were using mortgage-backed securities simply as a source of revenue.[48]

As private-label mortgage-backed securities expanded, mortgage origination patterns changed in the United States. There was a relative decline in prime mortgage lending and a significant increase in subprime mortgage lending. Mortgage originators had responded to the increased demand for subprime mortgages, and were creating more loans that did not meet the standards of the

41 De Michelis, above n 39.
42 Ibid.
43 From the Carter, Clinton and Bush Administrations, and Department of Housing and Urban Development.
44 Russell Roberts, 'How Government Stoked the Mania', *The Wall Street Journal* (US), 3 October 2008, A21 .
45 De Michelis, above n 39.
46 Hellwig, above n 37, 17.
47 Such as commercial banks, investment banks and hedge funds.
48 Hellwig, above n 37, 34.

government-sponsored enterprises. During this period, the share of subprime mortgages rose from around nine per cent of new mortgages in the early 2000s to above 40 per cent in 2006.[49] By the end of 2007, subprime mortgages accounted for 16 per cent of outstanding mortgages (compared to 7 per cent in 2001[50]) and 25 per cent of outstanding mortgage-backed securities.[51]

Therefore, it seems that government policy to promote home ownership provided the early building blocks of the subprime crisis that would unfold in 2007.

B Monetary Policy

In the United States, the Federal Reserve implements monetary policy to influence short term interest rates. As the target rate flows through the financial system, it can act to cushion the impact of extremes in the economic business cycle.

When the economy is booming, target rates are tightened to dampen demand and prevent the economy from overheating. When the economy experiences a downturn, interest rates are loosened to provide an expansionary stimulus to the economy.

The Federal Reserve's policy with regards to the target interest rates in the period following 2001 has been seen by many as a contributing cause of the current global financial crisis. The Federal Reserve in the United States significantly reduced target interest rates in the aftermath of the 'dot-com' bubble and terrorist attacks of 2001. At this time, the United States was going through a recession, and expansionary stimulus was required. The Federal Reserve responded with a sharp reduction in the target rate, which fell 475 basis points during the course of 2001 alone; and from a level of 6.5 per cent to a level of one per cent in the period between 2001 and 2003. Furthermore, the Federal Reserve left the target rate at these unusually low levels until mid-2004, when they began to rise again.[52]

The low target interest rates resulted in very low yields from government-issued securities. Investors began searching for yield, and disregarded the attached risk. This high yield mentality and the huge influx of capital flowing from the global savings imbalances fuelled the expansion of subprime mortgages in America.[53]

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49 Ibid 17.

50 Ibid.

51 De Michelis, above n 39, 8.

52 Sitikantha Pattanaik, 'The Global Financial Stability Architecture Fails Again: Sub-prime crisis lessons for policy makers' (2009) 23(1) *Asian-Pacific Economic Literature* 21, 26–7.

53 Malcolm Edey, 'The Financial Crisis and its Effects' (Address to the Foundation for Aged Care Business Breakfast, Sydney, 19 March 2009).

C Savings Imbalance and the Search for Yield

The period leading up to the crises of 2008 was characterised by large account imbalances between 'surplus' and 'deficit' economies around the world. Countries such as China, Japan and the Gulf states had a high level of savings, whereas the United States and United Kingdom were largely in debt. For many years, there was an outflow of savings from surplus countries and an inflow of savings into deficit countries.[54]

International investors with surplus cash had a strong appetite for yield during this period. Furthermore, there was a strong global preference for investment in United States assets as these assets were considered both less risky and more liquid than others.[55] However, with interest rates at decade lows, the returns on safe government-issued securities were low. This nurtured a growing demand for riskier assets such as Collateral Debt Obligations ('CDOs'), which also had AAA ratings and returned higher yields than government-issued securities.[56]

Partly in response to demand,[57] financial institutions[58] created innovative financial products[59] to satisfy international investors' appetite for yield. The search for yield was indeed satisfied by these complex financial products and surplus countries spent their cash on 'bidding up housing prices and financing consumption'.[60]

This surge in financing for mortgage-backed security products fuelled the growth of subprime mortgages and also drove the overall boom in the United States housing market. The influx of foreign investment into the United States also explains how 'toxic asset securities' found their way onto balance sheets all over the globe.

The falling interest rates and substantial capital inflows meant that United States borrowers could access credit both easily and cheaply. This resulted in a significant increase in leverage for households and businesses alike. As interest rates kept falling and house values kept rising, households continually refinanced their mortgage, credit card and other debt obligations. Securitisation activities escalated, and this resulted in the creation of more exotic financial products which further supported risky loans and the booming property market.

United States monetary policy thus contributed to the global financial crisis by herding investors into assets that that provided higher returns with supposedly

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54 *Global Financial Crisis* (2009) Malcolm Turnbull MP <http://www.malcolmturnbull.com.au/FAQs/tabid/85/articleType/ArticleView/articleId/146/Global-Financial-Crisis.aspx> at 14 September 2009.
55 International Monetary Fund, 'Lessons of the Global Crisis for Macroeconomic Policy' (2009) 3.
56 Gert Wehinger, 'Lessons from the Financial Market Turmoil: Challenges ahead for the Financial Industry and Policy Makers' (OECD, 2008) 7.
57 Other factors such as government policy to promote home ownership also played a role.
58 Such as commercial banks, investment banks and hedge funds.
59 Such as residential mortgage-backed securities and collateral debt obligations.
60 Turnbill, above n 54.

little risk, based on the credit ratings. In fact, as events transpired, these investments proved to be high risk indeed.

D Relaxed Lending Practices

The lengthy period of unusually low interest rates in the United States and the global imbalance in savings led to an abundance of cheap credit.[61] With credit being so easy to obtain due to an increase in private-label mortgage-backed securities, mortgage origination standards substantially eased during this period.

There was a considerable increase in loans being offered to risky borrowers. That is, lenders were making loans to borrowers whose prospects of repaying these funds were not strong. These subprime loans, which did not meet government-sponsored entities' standard criteria for good credit quality, became widespread in the United States during this period.[62]

From 2003, the subprime mortgages entered a period of exceptional growth. Mortgage originators began to target the subprime segment of the mortgage market. A new range of mortgage products, known as 'affordability products', emerged. Products such as 'Adjustable Rate Mortgages', 'Negative Amortization' loans, 'High Loan-to-Value' loans and 'Low-doc' loans were being issued in greater proportions. These mortgages allowed low-income (and sometimes no-income) households to enter the housing market relatively easily.

These 'affordability products' provided mortgages on easy terms. A rapidly increasing share of Alt-A and subprime mortgages required very low or no deposit, had low introductory interest rates (teaser rates) and scheduled repayments at such a low level that the loan balance actually increased (negative amortization). This made initial repayments exceptionally, and irresistibly, low but subsequent payments had the potential to be impossibly high.

Subprime originations reached over 40 per cent of total United States mortgage originations in 2007, and accounted for 16 per cent of mortgage debt outstanding.[63] In terms of dollar value, there had been US$130 billion in subprime mortgage lending in 2000, compared to US$625 billion in 2005.[64] That corresponds to a growth of approximately 380 per cent over five years.

More and more subprime loans were issued as house prices kept rising, and house prices kept rising as more subprime loans were issued. A dangerous circular pattern had been established which ultimately resulted in outrageous house values.[65] These loans left borrowers and lenders exposed to the risk of decreasing house prices and weaker economic conditions.[66]

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61 Ibid.

62 Such as sound credit history, good income documentation or a conservative loan-to-valuation ratio.

63 De Michelis, above n 39, 8.

64 Lewis, above n 2.

65 Luci Ellis, 'The Global Financial Crisis: Causes, Consequences and Countermeasures' (Paper presented at the Emerging from the Global Storm: Growth and Climate Change Policies in Australia Conference, Melbourne, 15 April 2009) 3.

66 De Michelis, above n 39, 12.

E Securitisation: Changing Business Model

Securitisation was an effective method of financing mortgage-lending through the capital markets. It had been used by government-sponsored entities for decades, and had successfully provided liquidity in the housing and mortgage markets.

But it is important to remember that government-sponsored entities were traditionally not in the business of *subprime* mortgage securitisation. They only purchased prime mortgages. Mortgage lenders were forced to retain subprime loans and therefore they maintained a keen interest in the credit quality of those loans.[67] As such, this provided a deterrent to lenders originating high risk loans.[68] However, this all changed as private-label mortgage-backed securities grew.

Private institutions rapidly increased their activity in the securitisation business, eventually driving the government-sponsored entities substantially out of the market.[69] The growth in private-label mortgage-backed securities was fuelled by investors who had an appetite for yield and highly-rated[70] securities.[71] As credit quality on the earlier editions of subprime loans[72] were seen to be very good, the *perceived* risk associated with these loans was low. As such, based on historical data, investors were not afraid to hold these high-yielding securities based on subprime loans.[73] This fuelled further innovation, resulting in exotic product such as CDOs.

Problems began to emerge when private financial institutions entered the securitisation business.[74] A rise in activity from these institutions caused the rapid growth of the CDO market, which in turn fuelled the growth of subprime lending.[75] The financial institutions that were involved in the origination of CDOs were not concerned about the quality of the underlying subprime loans[76] as they were not going to bear the primary risk.[77] Rather, the investors in the capital markets bore the risk. It was a classic case of creating moral hazard at the point of origination, as the risk associated with subprime debt was immediately passed down the chain.[78]

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67 Mark Adelson and David Jacob, 'The Sub-prime Problem: Causes and Lessons' (Adelson & Jacob Consulting LLC, 2008) 1.

68 Ibid.

69 Ibid.

70 Credit rating agencies rated these products as AAA investments.

71 Guy Debelle, 'A Comparison of the US and Australian Housing Markets' (Speech delivered at the Sub-prime Mortgage Meltdown Symposium, Adelaide, 16 May 2009) <http://www.rba.gov.au/Speeches/2008/sp_ag_160508.html> at 15 September 2009.

72 That were guaranteed by the government-sponsored entities.

73 De Michelis, above n 39, 6.

74 Such as commercial banks, investment banks and hedge funds.

75 Debelle, 'A Comparison of the US and Australian Housing Markets', above n 71, 3.

76 Adelson and Jacob, above n 67.

77 Ibid 7.

78 Dorit Samuel, 'The Subprime Mortgage Crisis: Will New Regulations Help Avoid Future Financial Debacles?' 2 *Albany Government Law Review* (2009) 254–5.

There were no longer any constraints on the level of risk that could be securitised.[79] In the absence of restraints that were traditionally imposed by the government-sponsored entities, lenders started originating unreasonably risky loans.[80] Financial institutions encouraged riskier underlying mortgages, as it meant the resulting CDO would have a higher yield, which were easier to sell to high-yield seeking investors.

The changing culture of the banking business model was another cause of this rapid growth in CDOs. In the United States, the business model for banks moved from traditional credit culture towards an equity culture with a focus on faster share price growth and earnings expansion. The previous model, based on spreads on loans, was discarded. The banks' strategy switched towards generating trading income and fees via securitisation. The objective of the securitisation process had therefore changed dramatically. No longer was it about risk spreading; rather it was a key part of the process to drive revenue ever upwards.[81]

Therefore, the abuse of the securitisation structure lies at the heart of the current global financial crisis. The securitisation process gave rise to a 'moral hazard chain of behaviour' and loans were no longer made with an ongoing interest in their repayment. Instead, the originate-and-distribute model was used by institutions with intent on profiting from them.[82] These institutions were more interested in generating a large volume of transactions than maintaining high credit quality. It worked, until the underlying real estate market bubble burst, and crisis quickly followed.[83]

F Housing Bubble: From Boom to Bust

The United States residential real estate market played a significant role in triggering the global financial crisis. The property boom between 2002 and 2006 had delivered great apparent prosperity to United States homeowners. However, the ensuing collapse would deliver even greater hardship.

In the United States, conditions were ripe for a housing boom in the early 2000s. Interest rates had fallen to exceptional lows, large inflows of money from surplus countries made credit easy and government policy promoted home ownership. All these factors stimulated the housing market. But the housing bubble really began to inflate following the increase in private label mortgage-backed securities. This fuelled excessive mortgage lending for 'low income people, disadvantaged people, unemployed people'.[84] These mortgages were then

79 Adelson and Jacob, above n 67, 6.
80 Ibid 1.
81 Adrian Blundell-Wignall, Paul Atkinson and Se Hoon Lee, 'The Current Financial Crisis: Causes and Policy Issues' (OECD, 2008) 5.
82 Samuel, above n 78, 15.
83 Ibid.
84 Harcourt, above n 33.

consolidated into securities packages, repackaged and sold to investors.[85] This fuelled more lending and thus drove house prices even higher.

Between 2002 and 2006, real estate prices increased by 70 per cent in the United States.[86] In markets like California and Florida, house prices doubled and tripled. Historically, the ratio of median home prices to income in the United States is approximately 3 to 1. By 2004, this ratio had risen to 4 to 1, demonstrating that housing prices were being artificially inflated and incomes were not growing at the same rate. The problem was exaggerated in particular cities, for example, in Miami the ratio was 8.5 to 1, and in Los Angeles the ratio was a staggering 10 to 1.[87]

Refinancing on the back of rising house prices gave borrowers considerable financial flexibility. They could refinance and avoid any increase in interest rates that had been built into their mortgage contract. Borrowers were also able to roll credit card debt into their home mortgage and lower monthly payments on consumer credit. As a result, debt was reaching mammoth proportions.[88]

By 2004, house prices had clearly reached unsustainable levels. As housing became less affordable, demand diminished, which resulted in a build-up of unsold homes. House price growth rates began to slow in mid-2004, with the eventual outcome being declining home prices.[89] With falling house prices, borrowers who had been granted subprime mortgages could no longer refinance, and delinquency rates began to increase.

Delinquencies were highest in locations where house price appreciation had previously been strongest.[90]

Furthermore, in response to an overheating economy, the Federal Reserve began increasing interest rates. The target rate rose sharply from 1 per cent to 5.25 per cent between 2004 and 2006.[91] This had severe consequences for subprime mortgages, such as adjustable-rate mortgages, which were vulnerable to rising interest rates, and now reset at significantly higher monthly repayments.

The combined effect of falling housing prices and rising interest payment obligations had a major impact on the housing market. This manifested an increase in delinquency and foreclosure rates, and by the end of 2007, 21 per cent of subprime mortgages had become delinquent by 90 days or more.[92]

As delinquencies increased, large losses were realised on mortgage-backed securities, and market sentiment shifted rapidly. Trust among market participants dissipated, leading to a sudden drying-up of liquidity. Credit markets began to freeze up, thereby amplifying the financial crisis and pushing several institutions

85 Samuel, above n 78, 3.
86 Harcourt, above n 33.
87 Lewis, above n 2.
88 De Michelis, above n 39, 13–4.
89 Ibid 13.
90 Ibid 13–4.
91 Pattanaik, above n 52, 27.
92 Ibid.

to the brink of bankruptcy.[93] The credit crisis and its associated negative sentiment peaked with the collapse of Lehman Brothers in September 2008.

III THE AUSTRALIAN EXPERIENCE: KEY DIFFERENCES

The past 18 months in the United States have been times of collapsing financial institutions, government bailouts, and deep recession.

In contrast, the Australian financial system has, generally, weathered the global downturn better than most.[94] In fact, Australian banks have recorded solid profits over the past year[95] and their balance sheets have not been weighed-down by toxic assets.[96] Australia has outperformed its peers, being the only major advanced economy that is not in recession.[97]

Why has Australia's experience not paralleled that of the United States? What are the reasons for Australia's relative resilience? 'Some of it was luck. Some of it was good management. Some of it was good regulation. And some was due to all of these interacting in an environment that sustained traditional banking and made it profitable.'[98]

A A Colonial Legacy of British Banking

Some of the luck for the 'lucky country' has been the legacy of an old-fashioned British banking tradition, one of those 'initial conditions' which has persisted for two centuries. Australian financial institutions have continued to perform strongly during these difficult times. They have recorded healthy profit increases of 12.5 per cent,[99] and delivered a 17 per cent return on equity during the 2008 reporting period.[100] In addition, Australian banks are well capitalised by private investors,[101] and have continued to tap both onshore and offshore capital

93 De Michelis, above n 39, 6.

94 Tim Colebatch, 'How Australia Avoided the Global Financial Meltdown (Touch Wood)' *The Age* (Melbourne), 6 June 2009, <http://www.theage.com.au/business/how-australia-avoided-the-global-financial-meltdown-touch-wood-20090605-byn2.html> at 15 September 2009.

95 Ellis, above n 65, 31.

96 David Lewis, 'How APRA is Responding to the Global Financial Crisis' (Paper presented at the Banking Seminar, Edmund Rice Centre for Social Justice and Community Education, Sydney, 25 March 2009) <http://www.apra.gov.au/Speeches/upload/2009-March-25-Presentation-to-ERC-Paper-2.pdf> at 16 September 2009.

97 Emma Rodgers, *Growth Justifies Stimulus Cash: Rudd* (2009) ABC News <http://www.abc.net.au/news/stories/2009/06/03/2588181.htm> at 15 September 2009.

98 Colebatch, above n 94.

99 Philip Lowe, 'The Financial Cycle and Recent Developments in the Australian Financial System' (Speech delivered at the 6th Annual Retail Financial Services Forum, Sydney, 13 August 2009) <http://www.rba.gov.au/Speeches/2008/sp_ag_130808.html> at 15 September 2009. Compared to 90 per cent profit falls for banks in the United States and Europe. Reserve Bank of Australia ('RBA'), *Financial Stability Review March 2009* (2009) 3–4.

100 Glenn Stevens 'Australia and Canada – Comparing Notes on Recent Experiences' (Speech delivered at the Canadian Australian Chamber of Commerce Canada-Australia Breakfast, Sydney, 19 May 2009) <http://www.rba.gov.au/Speeches/2009/sp_gov_190509.html> at 15 September 2009.

101 Ibid.

markets as required.[102] Furthermore, all four major Australian banks continue to enjoy AA credit ratings.[103] As in Canada, which also shares the legacy of the British banking tradition,[104] there are a small number of relatively large banks under one primary regulator. Despite their federal political structure (shared with the United States), the single regulator model and consolidated industry structure of England was emulated by placing banking in the sphere of federal constitutional competency. In this way, Australia and Canada both avoided the fragmentation and regulatory inefficiencies that ensued in the United States by virtue of that fateful choice made by Andrew Jackson in the 1830s.[105]

1 *Offshore Funding*

Australia usually runs a current account deficit,[106] where national debt is generally greater than savings. Rather than having excess cash to invest,[107] Australian banks need to raise capital to fund their activities, and they do this by accessing offshore capital markets.[108]

Australian banks are heavily reliant on offshore funding. The cost of funding depends on the banks' credit rating. In the lead up to the global financial crisis, Australian banks were determined to keep their high credit rating so as to maintain a low cost of funding.[109] As such, Australian banks were not in a position to take unreasonable risks by investing excessively in CDOs and MBS originating in the United States;[110] Australian banks thus had little direct exposure[111] to subprime mortgages.

2 *Prudent Lending Practices*

Australian banks have remained profitable due to their conservative, some would say old-fashioned, lending practices and relatively high interest rates.[112] There are no subprime loans in Australia. The closest equivalents are non-conforming loans, which are provided to borrowers who do not satisfy the standard criteria of mainstream lenders.[113] Non-conforming loans in Australia are only available from specialist non-deposit taking lenders.[114] This is in contrast to the United States where subprime mortgages were provided by a range of

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102 Lowe, above 99.
103 Ibid.
104 In the case of Canada, it might be more accurate to refer to the legacy of the *Scottish* banking tradition.
105 Roe, above n 27.
106 Ellis, above n 65, 9.
107 As do banks in the United States and Europe.
108 Colebatch above n 94, 2.
109 ABC Television, 'Four pillars policy has saved the major banks: MacFarlane', *Lateline Business*, 2 March 2009.
110 RBA, above n 99, 18.
111 ANZ and NAB did have exposures, but it was relatively small compared to United States and European banks.
112 Stevens, 'Australia and Canada – Comparing Notes on Recent Experiences', above n 100.
113 Debelle, 'A Comparison of the US and Australian Housing Markets', above n 71.
114 Ibid.

financial institutions.[115] As such, non-conforming loans only made up one per cent of the mortgage market in Australia, at a time when subprime loans comprised 13 per cent of the market in the United States.[116]

Lending practices had also eased much more in the United States than in Australia. When compared to subprime mortgages in the United States, Australian non-conforming loans were of a much better quality as they had lower loan-to-value ratios, no teaser rates and did not provide negative amortisation. Furthermore, non-conforming loans were often kept on-the-books of the originating institution, therefore eliminating the moral hazard issues that arose in the United States.[117]

3 *No Competition for Corporate Control*

The 'four pillars policy', which aims to prevent the four large banks from merging,[118] may have insulated the Australian financial system from the worst of the global financial crisis,[119] at least according to Ian Macfarlane, former Reserve Bank governor. He has argued that the four pillars policy reduced takeover pressures between Australian banks.[120] As there was no 'competition for corporate control' amongst financial institutions, it removed the pressure to maximize short-term earnings.[121] Australian banks were able to act in their long term interests, and unlike banks in the United States, were not 'blind to risk in the competition for turf'.[122] The Australian banks did not adopt an equity culture,[123] and avoided the short-term risk taking associated with exposure to subprime MBS and CDOs. The four pillars policy therefore encouraged sound banking practices,[124] it is argued, protecting the health of the Australian financial system,[125] thus offsetting some of the drawbacks inherent in a less competitive system.

4 *Traditional Business Model*

Australian banks avoided financial crisis by concentrating on the highly profitable business of lending to Australian businesses and households, and, partly due to the lack of competition, at high interest rates.[126]

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115 Ibid.

116 Stevens, 'Australia and Canada – Comparing Notes on Recent Experiences', above n 100.

117 Debelle, 'A Comparison of the US and Australian Housing Markets', above n 71.

118 Tom Valentine and Guy Ford, 'Bank Mergers in the Australian Financial System – Should the Pillars be Pulled Down?' (2001) 20(4) *Economic Papers* 36.

119 ABC Television, above n 109.

120 Lewis, 'How APRA is Responding to the Global Financial Crisis', above n 96, 2.

121 Colebatch above n 94, 2.

122 Hellwig, above n 37, 21.

123 ABC Television, above n 109.

124 Colebatch above n 94, 2.

125 Ibid.

126 Guy Debelle, 'Some Effects of the Global Financial Crisis on Australian Financial Markets' (Speech delivered at the Finance Professionals Forum, Sydney, 31 March 2009) <http://www.rba.gov.au/Speeches/2009/sp_ag_310309.html> at 16 September 2009.

Australian banks also focused on a traditional business model, old fashioned banking, rather than diversifying extensively into trading activities or portfolio investment.[127] Nor did they rely on securitisation as a major source of revenue.[128] Intermediation was still the dominant banking model in Australia, in contrast to the prevailing originate and distribute model in the United States which transferred financial assets, and the risks associated with those assets, into the capital markets.[129]

Securitisation in Australia was used as an alternative funding source, but funded only some 25 per cent of mortgages.[130] In addition, the securitisation structure used in Australia was significantly different to that in the United States; the originating bank in Australia would maintain a number of links to the loans, such as an equity tranche. Reputational forces also played a role, given the visibility of the small number of banks in Australia, thus reducing moral hazard. As a result, securitisation did not exert the same downward pressures on lending standards for Australian banks.[131] As a result, there has been considerably less counterparty risk between Australian banks when compared to the European and United States banks during the global financial crisis. Hence, credit markets did not seize up in Australia as they did overseas, and monetary policy mechanisms were not affected.

B Economic Management

Disciplined macroeconomic policy over the last decade has proven to be a trump card for the Australian economy. During the years of economic growth, the Government recorded budget surpluses and the Reserve Bank of Australia (RBA) managed monetary policy effectively. This has left more scope for the current Government and policy makers to combat the effects of the global financial crisis.

1 *Monetary Policy*

Australia's monetary policy during the early 2000s was quite different to that of the United States. While both economies adopted expansionary monetary policy, mainly to provide economic stimulus during the downturn, the RBA did not cut rates as sharply as in the United States. In Australia, rates fell from a peak of 6.25 per cent in 2000, to 4.25 per cent in 2001. Furthermore, interest rates were on the increase again in 2002. This meant that investors could look to

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127 In Australia, five per cent of revenue was through trading or holding securities. This compared to 33 per cent in the United States: RBA, above n 99, 22–3.

128 Ibid.

129 David Lewis, 'Weathering the Storm: APRA's Role in Financial Crisis Management' (Speech delivered at the Continuity Forum: Business Continuity Expo, Melbourne, 27 November 2008) <http://www.apra.gov.au/speeches/WEATHERING-THE-STORM-APRAS-ROLE-IN-FINANCIAL-CRISIS-MANAGEMENT.cfm> at 16 September 2009.

130 Debelle, 'Some Effects of the Global Financial Crisis on Australian Financial Markets', above n 126.

131 Ibid.

returns on government-issued debt, without venturing into exotic financial products.

The RBA took the lead in October 2008 to reduce interest rates; many countries joined in a co-ordinated interest rate cut the following day. Since its peak in 2008, interest rates in Australia have fallen 425 basis points, and are currently at three per cent. The initially high interest rates in Australia provided more room for downward adjustments.

Although all central banks have been moving towards lower interest rates, the success of such actions has varied. In some countries, the effectiveness of stimulatory monetary policy has been muted due to the seizing up of credit markets. While in other countries, the effectiveness of monetary policy has been inhibited by reaching the so-called zero bound.[132] Australia has not been one of these countries.

A further factor, according to the RBA, has been the ability to pass official interest rate cuts along to end borrowers, particularly for housing loans. This is in stark contrast to a number of other countries, where financial institutions have been more heavily affected by the global financial crisis and have struggled to pass on interest rates cuts.[133]

2 *Fiscal Policy*

The Australian government managed to eliminate government debt over the last decade and recorded fiscal surpluses during periods of economic growth. This provided it with greater flexibility during economic downturns, such as the current crisis. Furthermore, since the government has not had to give direct financial support to the banking system, public finances have not suffered to that extent.[134]

Nevertheless, the government was quick to deliver large fiscal stimulus packages which aimed to provide an expansionary boost to the economy.[135] The packages involved transfer payments to households, and spending on goods, services and infrastructure. The total value of both stimulus packages is in excess of A$52 billion.

There has been lively debate regarding the effectiveness of the cash bonus being delivered. Some argue that households will not spend the transfer

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132 Nigel Ray, 'The Role of Fiscal Policy in the Current Environment' (Speech delivered at the Finance Professional Forums, Sydney, 31 March 2009) <http://www.treasury.gov.au/documents/1510/HTML/docshell.asp?URL=Nigel_Ray-Finance_Professionals_Forum.htm> at 16 September 2009.

133 Malcolm Edey, 'The Global Outlook' (Speech delivered to the Committee for Economic Development of Australia Economic and Political Overview 2009, Sydney, 18 February 2009) , <http://www.rba.gov.au/Speeches/2009/sp_ag_180209.html> at 16 September, 2009.

134 Glen Stevens, 'The Road to Recovery' (Speech delivered at the Australian Institute of Company Directors, Adelaide, 21 April 2009) <http://www.rba.gov.au/Speeches/2009/sp_gov_210409.html> at 16 September 2009.

135 Glen Stevens, 'Economic Update' (Speech delivered at James Cook University's Business Excellence Series in the Tropics Luncheon, Townsville, 4 June 2009) <http://www.rba.gov.au/speeches/2009/sp_gov_040609.pdf> at 16 September 2009.

payments, but will rather use that money to pay off debts, or save it for future use. As such, these critics argue that this fiscal package will not provide a boost to aggregate demand in the economy.

The counter-argument is that it does not matter how households use the cash bonus. Even if households are directing the cash bonus towards savings or reducing debt, it means that they reach their desired financial position more quickly. Either way, the cash bonus will lift consumer sentiment and bring forward the point at which consumers will increase spending.[136] Therefore, the argument that is either directly, or through balance sheet effects, transfer payments will have a positive impact on the Australian economy.[137]

Despite some criticism, the stimulus plans from the government have shown good results for the economy. Retail sales rose a seasonally adjusted 0.3 per cent in April, after a 2.2 per cent lift in March.[138] The fact that Australia is the only advanced economy not in recession is further proof that fiscal policy is indeed working somewhat, to stimulate the economy.

However fiscal policy alone is probably not solely responsible for this strong result. There are other stimulatory factors at work in the economy, including tax breaks, rate cuts and falling petrol prices that are providing expansionary effects for the economy.

C Housing Market

The housing bubble in the United States was a factor that strongly contributed to the subprime crisis and eventual global financial crisis. Australia may have been spared some of the consequences associated with the United States housing bubble for a number of reasons.

First, Australia had experienced a housing boom earlier than the United States. The truly rapid growth rates in Australian housing prices had ceased at the end of 2003, after which the Australian market went through a period of consolidation. While prices kept rising in Australia (albeit at a slower rate), housing supply did not boom in the same way as in the United States and as a result, the Australian housing market did not experience the same drastic house price declines.[139]

Second, the underlying position of the household sector was better in Australia. Since 2003, household incomes in Australia have risen faster than dwelling prices.[140] In addition, the real earnings of average Australians grew much faster when compared to the United States. Unlike in the United States, in Australia there was a tight labour market, which further boosted household

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136 Ray, above n 132.

137 Ibid.

138 *Aust Shares Lift 2 per cent on Banks, Commodities* (1 June 2009) Business Spectator <http://www.businessspectator.com.au/bs.nsf/Article/Aust-shares-open-flat-pd20090601-SKUEE?OpenDocument&src=srch> at 16 September 2009.

139 Ellis, above n 65, 10.

140 Ibid 11.

incomes.[141] These factors meant that Australians were able to fund their increased mortgage payments as interest rates increased after 2002.

D Regulatory Framework

1 *Australian Prudential Regulation Authority*

One of the key differences between Australia and the United States are the structural aspects of the regulation and supervision of the financial system. Some maintain that the United States lacked a hands-on, interventionist regulator, allowing the subprime crisis to build, resulting in the ultimate loss of confidence in the financial system.[142] The real differences though reside in the structural aspects of the financial regulatory systems, not the interventionist enthusiasms of the regulators themselves. The United States has too many, competing, regulators on the credit side of the financial system, and too fragmented and inefficient an industry, all deriving from those initial conditions determined in the 1830s.

The Australian Prudential Regulation Authority ('APRA') is a 'prudential' regulator.[143] It is one 'peak' in the 'twin peaks' model of financial regulation for which Australia is noted, a model that has elicited interest in the United States and elsewhere. APRA's aim is to ensure that deposit-taking institutions can meet their obligations to beneficiaries as they fall due.[144]

APRA prides itself on its vigilance and 'hands-on' approach, in particular, its ability to identify the most vulnerable and troubled entities before they run aground.[145] 'Many of the entities that would have been most seriously exposed to the consequences of the recent market turmoil were removed from harm's way before the trouble started'[146] due to such proactive supervision.[147] APRA's task is no doubt facilitated by the relatively large size and small number of major financial institutions which it supervises. A lively financial press also delights in shining a spotlight into the murky corners of the business community. Compared to the United States, Australia is a village, or perhaps more accurately, a compilation of villages.

Nevertheless, APRA has always, justifiably as it turns out, been wary of the non-conforming and so called 'low-doc loans' which became prevalent in the United States beginning in 2003, and which ultimately led to the onset of the

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141 Ibid 9.

142 Colebatch, above n 94, 3.

143 See *About APRA* (2009), Australian Prudential Regulatory Authority <http://www.apra.gov.au/aboutApra> at 16 September, 2009.

144 David Lewis, 'Surviving the Downturn: APRA's Role in Financial Crisis Management' (Speech delivered at the Business Continuity Summit, Brisbane, 25 March 2009) <http://www.apra.gov.au/Speeches/upload/2009-March-25-Presentation-to-Continuity-Summit-_Brisban.pdf> at 16 September 2009.

145 Colebatch, above n 94.

146 David Rush, 'Latest Developments in Australian Regulation (and Their Impact on Financial Markets)' (Speech delivered at Risk Australia 2008, Sydney, 18 September 2008) <http://www.apra.gov.au/Speeches/upload/Risk-Australia-Presentation-final-with-graphs.pdf> at 16 September 2009.

147 Colebatch, above n 94.

global financial crisis. To manage the risks involved with these loans, APRA introduced significantly higher capital charges for low-doc loans in 2004. In addition, if an Authorised Deposit-taking Institution ('ADI') were to use broker-originated loans, the ADIs own credit assessment standards would have to be met. Furthermore, the ADI was required to ensure the on-going compliance with its own lending criteria through the monitoring and auditing of loans originating with brokers.[148] This reduced the moral hazard associated with loan origination by brokers who assumed no default risk.

APRA also adopted a more conservative stance on capital adequacy than some of its overseas counterparts which meant better capital buffers were in place when trouble did strike. This proved an important source of confidence for financial institutions, bolstering general confidence in the financial system.[149]

There is no doubt that the differences in the regulatory framework for financial institutions, as between Australia and the United States, muted the effects of the spreading financial instability of the crisis for Australia. A happy confluence of the colonial legacy of an old-fashioned British banking tradition with some innovative approaches to the structural aspects of the regulatory framework stood Australia in good stead. However, on balance, the global financial crisis should be seen not as much as an endorsement of APRA's regulatory approach but as brutally revealing the weaknesses and structural inadequacies of the United States system In certain respects, comparing APRA to the piecemeal and fragmented United States prudential regulatory system is a sterile exercise and does not produce a balanced assessment given the great differences in the size and complexity of the markets as well as the regulatory regimes themselves.

And, it would be unfortunate if the lessons which Australian policy-makers took away from the global financial crisis were overly coloured by smug self-congratulation. The onset of the crisis highlighted some surprising gaps in the prudential regulatory framework, the absence of retail deposit insurance, for example. Retail deposit insurance had long been on the policy agenda, but the financial crisis finally prompted its implementation. Its implementation, though, was hardly deft and expert. By discriminating, at first, between domestic and foreign deposit-taking institutions in Australia, the introduction of retail deposit insurance provoked a stampede from one part of the financial sector to another, hardly promoting the confidence and stability desired in a time of crisis.

2 *Tax System*

Another key difference between Australia and the United States is the tax system. Partly as a result of these differences, Australian households may have had a greater financial buffer against falling house prices than their United States counterparts.[150]

148 Lewis, 'Surviving the Downturn', above n 144.
149 Lewis, 'How APRA is Responding to the Global Financial Crisis', above n 96.
150 Ellis, above n 65, 11.

In Australia, households cannot deduct mortgage interest payments against their tax liability.[151] This effectively discourages borrowers from maintaining a high mortgage balance. In fact, many Australian households pay off more of their monthly mortgage than they have to. In doing so, borrowers accumulate an additional buffer of equity against falling housing prices.[152]

On the other hand, in the United States, home ownership is said to be promoted through tax policy. Unlimited tax deductions are allowed for mortgage interest payments on a primary residence. This encourages households to increase their mortgage balance by refinancing during a housing boom, and leaves very little buffer against falling house prices. As seen during the last year, many households in the United States fell into negative equity, prompting defaults when repayment difficulties arose.[153]

3 *Legal Aspects of Mortgages*

Differences in the legal recourses of mortgage lenders in the United States may also have exacerbated the consequences of payment difficulties. In some states, but certainly not all, mortgages are 'non-recourse'. This means that the lender can only look to the collateral, the house, to satisfy its claims in case of default; if the value of collateral does not cover the outstanding debt at the time of default, the lender has no further recourse against the borrower for the shortfall. In a time of falling house prices and negative equity, it is only logical for homeowners to walk away from their houses (and their mortgage payments) and send the keys back to the lender who then bears the loss. In theory, at least, non recourse lending provides homeowners with an incentive to gamble on rising house prices over time without bearing any significant risks.[154] Combined with the home mortgage interest tax deduction, the result is high mortgage balances across the board.

Non-recourse mortgages may encourage home ownership by protecting the borrower from liability, but in actual fact probably result in more bad than good. Non-recourse loans create a moral hazard on the part of borrowers and encourage irresponsible borrowing, the counterpart to irresponsible lending.

In Australia, non-recourse mortgages do not exist. When a borrower takes out a mortgage to buy a house, they know that they will be responsible for the shortfall if the mortgaged property doesn't cover the outstanding amount of the balance owing in the event of default. Borrowers are on the hook; banks can and will pursue their other assets if the shortfall is not met. As such, Australians are more cautious when entering the housing market and, arguably, more responsible borrowers.[155]

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151 On their primary residence.

152 Ellis, above n 65, 11.

153 Ibid.

154 Debelle, 'A Comparison of the US and Australian Housing Markets', above n 71.

155 Jane Albrechtsen, 'Not Everyone Should Own a Home', *The Wall Street Journal* (New York), 6 October 2008, <http://online.wsj.com/article/SB122325772150706655.html> at 16 September 2009.

Furthermore, the Uniform Consumer Credit Code in Australia allows courts to set aside mortgage agreements where the lender could have reasonably known that the borrower could not repay the loan without substantial hardship.[156] As such, there is a further disincentive to the lender engaging in very risky lending to homeowners. These particular aspects of the Australian legal framework help to focus the minds of both lenders and borrowers on the risk of entering into a loan contract.[157]

E The China Factor

Australia's economic resilience is largely the result of strong trade relationships with rapidly growing Asian nations. While Australian exports to both the European region and the United States fell in March 2009, exports to China continued to grow strongly at 23.3 per cent.[158] This led to Australia's second-biggest trade surplus, adding 2.2 per cent to GDP growth, and keeping the nation from sliding into a recession.

Australia's economy is strongly tied to the growth of emerging Asia. This region has the most dynamic growth potential in the world, as hundreds of millions of people seek better living standards. Australia is well placed to benefit from the growth of Asia, having exposure to and a strong engagement with countries in this region.[159]

Chinese-Australian trading has increased largely due to Australia's proximity, and the abundance of Australia's resources. The booming commodity sector and China's demand for these materials is insulating the Australian economy from the worst of the global financial crisis.

Traditionally, Australia was a large exporter to the G7 nations, including Japan, the United States and the United Kingdom. However, the share of Australia's exports has changed over the last decade. Australia now exports a majority of merchandise goods to developing countries, accounting for 53 per cent of total exports.[160] This is good news for Australia, especially given that the developing world is increasing its influence in terms of contributions to global GDP.[161]

In particular, it is the urbanisation of China and the associated resources boom which has benefited Australia. Between 1999 and 2007, Australian exports to China grew at an average annual growth rate of 24.8 per cent,[162] and China is

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156 Philip Lowe, above n 99, 5.

157 Ibid.

158 'Exports Continue to Hold Up in Turbulent Economic Times' (Press Release, 6 May 2009) <http://www.trademinister.gov.au/releases/2009/tf_090506__exports.html> at 16 September 2009.

159 Stevens, 'The Road to Recovery', above n 134.

160 Tim Harcourt, *Animal Spirits or Rational Economics: Can Exporters Ride Out the Storm?* (2008) Austrade: Australian Businesses Global Markets <http://www.austrade.gov.au/Can-Australian-exporters-ride-out-the-storm-/default.aspx> at 16 September 2009.

161 Ibid.

162 Tim Harcourt, *Who Wants to be a Trillionaire (Can China Save the World)?* (2008) Austrade: Australian Businesses Global Markets <http://www.austrade.gov.au/Who-wants-to-be-a-trillionaire-Can-China-save-the-world/default.aspx> at 16 September 2009.

now Australia's largest export destination.[163] The relationship is of vital importance to Australia's economy, as the mining and energy sectors account for 8.4 per cent of gross value added[164], and the sector accounts for 61 per cent of total export value.[165]

Australia has benefited from the booming commodity sector. The index of commodity prices has more than tripled since 2000.[166] The increase in prices for Australian commodities, particularly iron ore and coal, has given the country the equivalent of a 'giant economic airbag against any sudden braking'.[167] Furthermore, Asia has been relatively unaffected by the problems of the global financial crisis.[168] Even where these countries have been somewhat affected, they are still showing strong signs of growth which has been beneficial to Australia.[169] A pickup in Chinese and Korean industrial output in 2009 has helped to boost export in the first quarter of 2009.[170] Furthermore, Australian exports have been supported by the weak exchange rate. The drastic drop in value of the Australian dollar made Australian exports cheaper in the international market. As a result, Australia's export volumes have not weakened as much as many other countries.[171]

The future direction of coal and iron ore prices is vital for the Australian economy. They have underpinned the country for a decade, providing a buffer against adverse international developments.[172] High prices of these commodities have meant that export demand has had a significant effect on the overall growth in the Australian economy.[173] However, with contract prices being renegotiated and falling in excess of 30 per cent, future trade data and national income will no doubt be lower.[174] This was reflected in April trade figures which reported an A$91 million trade deficit, reflecting the long-anticipated fall in coal and ore prices.[175] Regardless, commodity prices are still at very high levels by historical standards. Even with falls of 45 to 60 per cent for coal and 35 per cent for the price of iron ore, the 2009–10 prices will still be the second highest on record.[176] Furthermore, contract prices should recover in the future as the global economy recovers, and demand from China should remain high for the foreseeable future.

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163 CNBC, 'Interview with Karen Tso and Matthew Taylor' *Asia Squawk Box,* 27 January 2009.
164 Stevens, 'Australia and Canada – Comparing Notes on Recent Experiences', above n 100.
165 Ibid.
166 According to RBA Index of Commodity Prices: ibid.
167 Jennifer Hewett, 'Credit Crunch is Here to Stay', *The Australian* (Sydney), 4 October 2008, <http://www.theaustralian.news.com.au/story/0,,24443127-28737,00.html> at 16 September 2009.
168 Stevens, 'Australia and Canada – Comparing Notes on Recent Experiences', above n 100.
169 Stevens, 'Economic Update', above n 135.
170 Stevens, 'Australia and Canada – Comparing Notes on Recent Experiences', above n 100.
171 Ibid.
172 'Australian Recession is Unlikely, Economists', *AsiaPulse News* (Sydney), 24 October 2008, 1.
173 Stevens, 'Australia and Canada – Comparing Notes on Recent Experiences', above n 100.
174 'Recession Unlikely', above n 177, 2.
175 Chris Zappone, 'Shock Trade Deficit', *Brisbane Times* (Brisbane), 4 June 2009 <http://www.brisbanetimes.com.au/business/shock-trade-deficit-20090604-bwcy.html> at 16 September.
176 Stevens, 'Economic Update', above n 135.

The China factor, though, is not without its risks for Australia. Having such a large dependency on one country in its trade relationships, can be problematic, especially where there is such a huge disparity in the size of the economies (ask the Canadians about this). And trade relations can sour quickly and unpredictably. Nevertheless, the China factor has been one source of Australia's relative resilience in face of the global financial crisis.

IV CONCLUSION

And so, what are the implications of this state of affairs, for an economy such as Australia's, and more generally?

A Implications for Australia

Despite the rapidity, severity and international reach of the financial crisis, some economies have fared better than others, Canada and Australia being among them. A number of different factors may be at play here, but undoubtedly the commonalities of their financial regulatory regimes and the nature of their banking industries have been important, as has the prudent macroeconomic management of their economies. Credit markets did not seize up in Australia as markedly as they did elsewhere, which meant that monetary policy mechanisms continued to function. Furthermore, in the case of Australia, strong trade relations with China continued to stoke the Australian economy.

However, for Australia in particular, there may be a danger in complacency. At the height of the crisis, the Australian Treasurer Wayne Swan remarked, 'if you were any country in the world in these circumstances, the country you would want to be is Australia'.[177] These comments tap into the Australian ethos of glorious isolation, which is the counterpart to the tyranny of distance.[178] It is perhaps for this reason that the impact of the global financial crisis (where instantaneous communications obliterated the tyranny of distance) was so perplexing and unsettling to Australians.

Distance did not protect Australia from the implications of the financial crisis. To the contrary, as in other economies, the crisis provoked collapse of financial institutions, wreaked havoc with personal savings, devastated university endowments and stirred public fear and outrage. Scandals and abuse of retail

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177 David Uren, 'Growth defies predictions', *The Australian* (Sydney), 4 September 2008 <http://www.theaustralian.news.com.au/story/0,25197,24290892-5013871,00.html> at 16 September 2009.

178
> Australians have always recognised that distance or isolation was one of the moulds which shaped their history….In understanding Australia's history, the idea of distance may be as revealing as say Frederick Jackson Turner's 'frontier theory' is in probing the history of the United States.

Geoffrey Blainey, *The Tyranny of Distance – How Distance Shaped Australia's History* (revised ed, 2001) ix–x.

investors surfaced, some of them in the early days of the crisis, before its true significance was recognised.[179]

As elsewhere, the crisis also exposed structural weaknesses of the financial regulatory system. Some structural weaknesses, such as the lack of retail deposit insurance, were hastily, if somewhat clumsily, addressed. The point here, of course, is that the structural weaknesses were different in Australia than elsewhere – putting into question the appropriateness of certain regulatory responses, copycat regulation.

As elsewhere, the principles of path dependency also played out in Australia. The crisis has been significant enough to jolt some institutions and regulatory trajectories off their usual path.

> In a sweeping shake-up of market regulation, the Australian Securities Exchange is to be stripped of its powers to detect insider trading and market manipulation. The move resolves the long-standing conflict of a listed company supervising brokers trading in a market the ASX depends on for its profits. It also paves the way for a Government decision on three rival market operators that have applied to set up in competition to the ASX.[180]

Another blow to the fading tradition of self-regulation, and a recognition of the inevitability of competition among financial market institutions.[181]

The financial crisis has also graphically brought to the surface some of the darker implications of the enthusiastic emulation in Australia of the United States retail investor culture. According to a leading Australian legal scholar, Ian Ramsay, 'all of us are shareholders and we've never had more of an interest in market integrity. Australia has one of the highest rates of share ownership in the world – latest ASX figures put Australia second only to the United States – and that's excluding 'compulsory super'. Everyone now has a strong interest in ensuring the market has strong integrity.'[182] The question, of course, is whether the regulatory framework in Australia is robust enough to address the new concerns raised by such an increase in retail investor interest.

However, the elephant in the parlour (or the lounge room, as it would be called in Australia) is the 'compulsory super' referred to by Ian Ramsay. Unlike the United States, Australia successfully privatised an important aspect of social security by introducing a compulsory superannuation scheme whereby all employees in Australia become, in one fashion or another, directly invested in the market through various private superannuation funds. The financial crisis has graphically exposed the implications of this massive shift of market risk to the general public. The press is full of 'super' stories:

> High-profile superannuation funds operated by some of the nation's savviest

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179 For example the collapse of the OPUS Prime Group. See Stacey Steele, 'Lessons (To Be) Learnt from the OPES Prime Insolvency' (2008) 32 *Melbourne University Law Review* 1127.

180 'Regulator to Get Broker Oversight' *The Age* (Melbourne) 25 August 2009, 1.

181 On self-regulation of market institutions, see Cally Jordan and Pamela Hughes, 'Which Way for Market Institutions: the Fundamental Question of Self-Regulation' (2007) 4 *Berkeley Business Law Journal* 229.

182 Quoted in David Scott, 'Walking the Regulatory Tightrope?' 5(2) *The University of Melbourne Voice* (August 2009) <http://uninews.unimelb.edu.au/news/5889/?menuLink=/uninews.php> at 16 September 2009.

> bankers have delivered some of the worst returns on investment in recent years, according to the first comprehensive snapshot of Australia's A$1 trillion superannuation industry….The APRA figures show that A$280 billion worth of the nation's superannuation savings are tied up in funds that have delivered below average returns over the past five years.[183]

And those figures *predate* the financial crisis.

A major rethinking of the privatised superannuation schemes is underway, with the former Deputy Chairman of ASIC, the capital markets regulator, leading the newly commissioned *Review into the Governance, Efficiency and Structure and Operation of Australia's Superannuation System*.[184] Consideration is also being given to 'renationalising' certain aspects of the private superannuation scheme.[185]

B Broader Implications

Going forward, there are two related phenomena which merit further investigation, the resilience of economic systems to contagion and the predictability of financial crisis.

Chaos theory, as applied to financial systems, would suggest that crises, like hurricanes, are predictable. The question then is why so many were caught unawares by this one. In particular, the Financial Stability Forum ('FSF') created in the aftermath of the Asian financial crisis specifically to detect 'vulnerabilities' in financial systems and serve as an early warning system, was caught flat-footed.

This was despite the mass of information collected by bodies such as the IMF and The World Bank pursuant to the FSF mandated Financial Sector Assessment Program ('FSAP'). It is hard to escape the conclusion that the FSAPs, conducted on a country by country basis using various international standards, were asking the wrong questions. Initial conditions were not being correctly identified and regulatory responses were being misinterpreted.

The widespread adoption of such top-down, assumption-riddled, standards and their use as indicators of potential financial instability, should have been put into serious question by the financial crisis. Unfortunately, that does not appear

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183 Eric Johnston, 'Banks Deliver Less than Super Retirement Returns', *The Age* (Melbourne), 21 August 2009, 1.

184 Jeremy Cooper was appointed full-time chair of the Review by the Minister for Superannuation and Corporate Law, The Hon Nick Sherry. 'Expert Panel and Terms of Reference for Review into the Governance, Efficiency and Structure and Operation of Australia's Superannuation System' (Press Release, 29 May 2009) <http://parlinfo.aph.gov.au/parlInfo/download/media/pressrel/5A5U6/upload_binary/5a5u61.pdf;fileType per cent3Dapplication per cent2Fpdf> at 16 September 2009.

> Retirees with modest superannuation nest eggs could "buy" a lifetime top-up to the age pension from the government under a plan being examined by the Henry review of tax policy. Under the plan, lower-income earners retiring with small super lump sums would be given the option of handing the money to the government in return for guaranteed income payments indexed to the age pension.

'Top-up Plan for Low Super', *The Age* (Melbourne), 13 August 2009 <http://www.theage.com.au/business/topup-plan-for-low-super-20090812-eib1.html> at 16 September 2009.

to be the case. More of the same, just more of it, has been the immediate response.

> Broader reform could be achieved by creating a ministerial body with decision-making powers not inside but above the [International Monetary] Fund. It would also be responsible for political supervision o f the other international institutions, including the World Bank, the Financial stability Board, and the World Trade Organisation.[186]

The seeming resilience of some economies to the financial crisis may also put into question the desirability of the international best practice and international standards approach propagated by the FSAPs and the FSF. Although it may be too soon to judge whether such resilience is real or a temporary mirage, it does suggest that diversity, like the rain forest for the planet, is a good thing for financial systems.

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186 Timothy Adams, 'Global Economic Council Should Oversee All', *Financial Times* (Melbourne), 17 August 2009, 9.