Submission to the

Productivity Commission into Competition in the

Australian Banking System

A Theory & Evidence Based Assessment of Competition in the Australian Banking System

Peter Twigg
BA (Hons) PPE (Open UK) Politics, Philosophy & Economics

Date: 24th February, 2018

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Introduction

Shortly after the global banking crisis of 2007 and 2009, an Australian Senate Commission was appointed under the chair of former CBA CEO David Murray to instigate a Financial System Inquiry (FSI) (Internet accessed: 02/06/2015: Financial system inquiry).

The Australian Financial System Inquiry looked to ensure financial stability and viability of the banking system and yet by 2015 regulators were still expressing concerns regarding misconduct issues in the banking system. The current Productivity Commission Inquiry into Competition in the Australian Financial System (AFS) seeks to address the issues of competition in the AFS and by default issues pertaining to structure, conduct and performance. To look at any one aspect of the AFS however is not possible without taking into context the public choice issues that often mask the nature and risk in the Australian Financial Industry.

At the time of the FSI findings, 69 firms were Authorized Deposit-taking Institutions (ADIs). At time of writing there are 85 ADIs operating (Internet accessed 28/01/2018: APRA banks deposits). The Australian banking industry still experiences the remnants of the "Four Pillars" policy which concentrated customers and deposits in the hands of just four banks leaving the remaining 81 ADI's to fight over the scraps (22.92% of total deposits representing $490.848 billion). These four banks (ANZ, CBA, NAB and WBC) currently hold 77.08% (as at November 2017) of bank deposits:

	Deposits Held	**% of Total Deposits**
ANZ	$314,891b	14.70
CBA	$527,770b	24.64
NAB	$362,275b	16.92
WBC	$445,790b	20.82
Big Four	**$1,650.728b**	**77.08%**
Other ADIs	$490,898b	22.92%
Total Deposits Held by ADIs	**$2141578 millions**	**100%**

Source: http://www.apra.gov.au/adi/Documents/MBS-November-2017.pdf

This paper will show how this skewed deposit distribution impacts greatly on the structure, conduct and performance (SCP) of the Australian banking industry.

An analysis of the features of the Australian banking industry reveals concentrated market power demonstrating many features of **oligopoly**. An oligopoly is a market containing a small number of firms whose behaviour is influenced by recognised mutual interdependence (Regibeau, 2010 p.327).

An Oligopoly exhibits the following criteria:

- An industry which is dominated by a few firms, usually up to 4 or 5 firms. There is an interdependence of firms where firms will be affected by how other firms set price and output.
- There are barriers to entry, but less so than a monopoly.
- Differentiated products, which are essentially the same
- advertising is often an important differentiator.
- Oligopoly is a common market structure.

In an **oligopoly** one **firm's** actions affect the decisions of other competing **firms**. There is a high degree of **interdependence**. If you read newspapers long enough you can witness banks signalling each other through press releases. A typical signal may be one bank saying: "we believe credit card annual fees should be raised".

Another key characteristic of oligopolistic firms is that they achieve "super profits" because of their unique situation and market advantage. Super profits are very large profits compared to non-oligopoly competitors.

The Australian banking system is unique in that we have this interdependence seen as an integral part of an oligopoly and yet at the same time banks derive their power and advantage from the fact they operate under license. This makes them **rent-seekers**. A rent-seeker is someone who seeks to gain and hold *an economic benefit* by manipulating the social or political environment in which economic activity occurs, rather than creating new wealth.

Rent-seeking implies extraction of uncompensated value from others without making any contribution to productivity. In the case of the banks they hold onto their competitive advantage through their license and the distortions that occur through a regulatory monopoly.

Government through its agent the Reserve Bank of Australia grants an implicit "Too Big to Fail" status on the Big Four banks (TBTF). The Big Four always have on eye on the government to protect their advantage. Thus, whenever you see the threat of an inquiry or just recently an additional tax placed on the banks, our oligopolist banks use their power and weight to bully the threat away or pass the cost on to their customers.

As David Murray opined at the time of the FSI "with such overbanking and associated costs, how do Australian banks make such super profits? It can hardly be lack of competition Murray believes, as there is "competition a plenty" (Internet accessed 02/06/2015: Murray inquiry). This comment goes to the heart of the issues facing this AFS inquiry in that the source of super profits and attendant privilege stem from the TBTF status they enjoy. As this paper will show, it is a license to print money knowing that others will pick up the tab if anything goes wrong.

The risk inherent in an oligopoly is that one of the oligopolist banks runs into trouble. If this was just another industry that would not be such a problem. But just four banks holding 77.08% of all deposits creates a systemic risk that few are aware of and that none choose to address. Banks are the corner stone of modern economies. They hold a profoundly important position in the Australian economy.

The big four banks individually hold between 14.7% and 24.64% each. That is a total of **$1,650.728b** in depositor's funds. The loss of one of these banks would have dire consequences for the Australian people, the Australian economy and the government of the day.

An unintended consequence occurs when the actions of people, corporations or government have effects that are unanticipated or unintended. Often cited but rarely defined, the law of unintended consequences illuminates the perverse unanticipated effects of legislation and regulation (Internet accessed 27/08/2012: unintended consequences) on individuals or society at large.

A corollary to unintended consequence is moral hazard. Moral hazard occurs when one party to a contract takes advantage of asymmetric information to act in a manner inimical to the

interests of the other party (Simonetti, Santos, 2010 Book 1, p.289). Typically, depositors place their funds in a bank believing their money safe. The banks utilize that money to maximize a profit incurring risks to do so. Depositors are not aware of the extent of the risk involved. This is a moral hazard.

In this submission to the AFS inquiry I undertake a theory and evidence based assessment of the source of the ongoing concerns about this industry and its focus is narrowed to four specific areas:

1) Identify those features within the structure of the banking industry having neo-classical features comprising oligopoly;
2) Examine the conduct and performance of the banking industry arising out of the structure;
3) Identify the public choice theory issues in the industry itself, ie, the system of central banking and bank operations issues that give rise to misconduct and;
4) Propose simple, non-regulatory solutions to improve the conduct, structure and performance of the banking, superannuation and financial services industry.

Proceeding, we will examine economic theory, literature and method before discussing theory and evidence.

Literature & Economic Theory

Examining the Australian banking industry, the issues involved and its impact on the broader economy draws on many different aspects of economic theory. Theories relating to monopoly and oligopolistic competition introduce structure, conduct and performance issues (SCP Model) that drive industry participant behaviour (Regibeau 2010 Book 1 p.325).

Some nine years after the financial crisis Australian regulators remain critical of the banking industry, particularly regarding issues of conduct and performance (Internet accessed: 01/06/2015: Regulators, banking culture and incentives). Elements of oligopolistic competition emerge as consequence of market power derived from legal monopoly and oligopoly arising from government licensing and regulation. This raises implications of public choice theory (Mackintosh 2010 p.471). Oligopolistic traits include industry barriers to entry and exit, requirement of large economies of scale, high concentration of product market share and supernormal profits (Costello 2006 p.89-103).

As Regibeau points out, "critics of the SCP model note that the link between structure, conduct and performance run both ways .... resulting in exploitation of market power and licensed position" (Regibeau 2010 Book 1 p.326). Rent-seeking behaviour, explicit and implicit subsidy, misconduct and distortions to the banking process itself; such as inadequate capital requirements and excessive leverage become the unintended consequence of regulation in banking. These features are all seen in the Australian banking system.

When we examine the issue of inadequate capital requirements, it is not that Australian banks fail to meet their Basel II & III and other capital adequacy ratios. They clearly meet these requirements. However, when we examine the Big Four banks in terms of market structure, conduct and performance; the disproportionate percentage of deposits they hold, the systemic risk they pose to the banking system and Australian economy at large. We suggest that capital adequacy ratios for the Big Four do not truly reflect the risk they impose on the Australian economy.

The FSI concluded that ring-fencing and other measures adopted by the UK and other countries to adequately protect the financial system and the broader economy as unnecessary. Australian regulators are still addressing aspects of banking culture and incentives which we suggest are the unintended consequence of structure, conduct and performance.

Some economic theories (dynamic and evolutionary economic theory) suggest that banking is dynamic and innovative. Whilst this may be true of technological innovation and product innovation the lack of change in market structure, illustrated previously demonstrate evolutionary selection issues in banking industry market structure imply that the problem lies elsewhere (Simonetti 2011 Book 1 p.219). This is true of the Australian banking market structure.

The literature supporting this evidence is extensive from which to draw a strong argument. Drawing on the FSI, and other regulatory authorities both here and abroad (see Appendix 2 for a complete list), various academic studies, books, reputable institute papers and newspaper articles along with economic theory show there is strong evidence that regulation of the banking industry does create unintended consequences that impact on the conduct and performance of Australian banks.

Method

Economic theory and supporting research reveal extensive evidence from academic as well as regulatory sources to form propositions to answer questions this AFS inquiry seeks to address. Industry participants also generate and share research material in their specific fields about the banking industry and contribute towards formulating government policy.

Methodology involved defining terms and propositions and contrasting this with economic theory out of which natural conclusions may be drawn.

Due to the scope of this topic, specific focus has been given to core elements of economic theory and supporting literature as they pertain to the link between regulation, structure, conduct and performance to draw conclusions about the misconduct of TBTF banks.

As a secondary data research submission all evidence is drawn from existing sources including academic reports, governmental organisations such as APRA, ASIC, RBA, company annual reports, economic journals, university course texts and government reports. An epistemological approach has been taken in clarifying the state of affairs in the Australian banking industry.

Theory & Evidence

Banks function to provide liquidity to the economy through a process of maturity transformation where funding of long term loans is made with on-demand deposits (Shipman 2010 Book 2 Pt 2 p.216). This process makes banks fragile as sudden shifts in deposits or asset values can create large enough liquidity problems to bankrupt an otherwise solvent institution the UK's Independent Commission on Banking, "Vickers Report" (VR) states (VR 2011 p.271). This is the main argument for regulation in that banks perform this unique role in the economy. Regulation should provide a safe-and-sound banking industry that protects depositors and promotes good investment policy among banks (Dionne 2003 p.14).

Yet, in the UK, the financial crisis forced government to intercede at considerable expense to the economy and taxpayer. The industry in all economies attracts a high level of regulation. The UK had four main bodies (Australia three) having some form of regulatory oversight of banks (at time of writing). See Appendix 1. The Australian banking industry avoided the need for substantial government and taxpayer intervention however the resilience of the system and banking practices have been called into question and remain under question despite some policy adjustment.

Turning to identify those features within the structure of the banking industry having neo-classical features comprising oligopoly and if they contribute to the unintended consequences of misconduct:

Structure

In examining the features of the Australian banking industry, we see it is characterised by a government license created legal monopoly in the case of the RBA, and an oligopoly in the case of commercial banks in Australia. Legal monopoly occurs when a government gives the right to provide a particular good or service to one company or institution (Internet accessed 27/8/12 legal monopoly). Legal oligopoly in the banking industry occurs therefore, when government gives the right to provide banking services to a small group of firms. Legal monopoly or oligopoly generates market power and profits for the incumbents. The government promotes competition seeking to increase the number of banks, but the inherent nature of the banking industry limits the entry of new challengers by strategic entry deterrence (VR 2011 6.12 p.155, 8.6 p.204); namely capital, licensing and regulatory requirements by government. As previously mentioned there are 85 ADIs however

government policy upholds the Big Four failing to recognise the systemic risk oligopolistic market share ad position imposes on the Australian economy. This generates market power and super profits for the anointed four.

The RBA exists to ensure monetary stability and to contribute to financial stability (Internet accessed: 27/8/12 RBA) which in turn, along with other regulatory authorities, licenses commercial banks to operate. Being licensed creates high barriers to entry for new entrants (Costello 2006 P.91) and sufficiently large economies of scale are required by banks to maintain this privileged role at the heart of the payments, liquidity and lending process of the economy. New entrants face significant challenges to enter the market as customers give preference to banks with extensive branch networks (VR 2011 7.19 p. 171).

Significant start-up costs, IT, branch structure and marketing costs make it difficult for new entrants to capture market share and create a return on investment. In addition, the burden of regulatory compliance implies high costs for new entrants. Interestingly, a perusal of bank annual reports shows none of the major banks disclose compliance costs yet significant portions of their annual reports are given over to the discussion of compliance and governance issues.

The rewards to banks are the ability to make supernormal profits when they manage their business risk and activity correctly (Costello 2006 p.89-103). This ability to generate supernormal profits causes significant dismay to governments and society at large and governments are consistently pressured by the electorate to reign in the excessive profits that are made by banks. Governments regulate because they perceive the economic, social and political costs of bank collapse as too high. As the Big Four hold 77.08% of all deposits, government focus naturally falls on their conduct and performance. These banks generate large profits because of the nature of their enterprise; namely using leverage, maturity transformation (borrowing short, lending long) and managing risk. What could possibly go wrong?

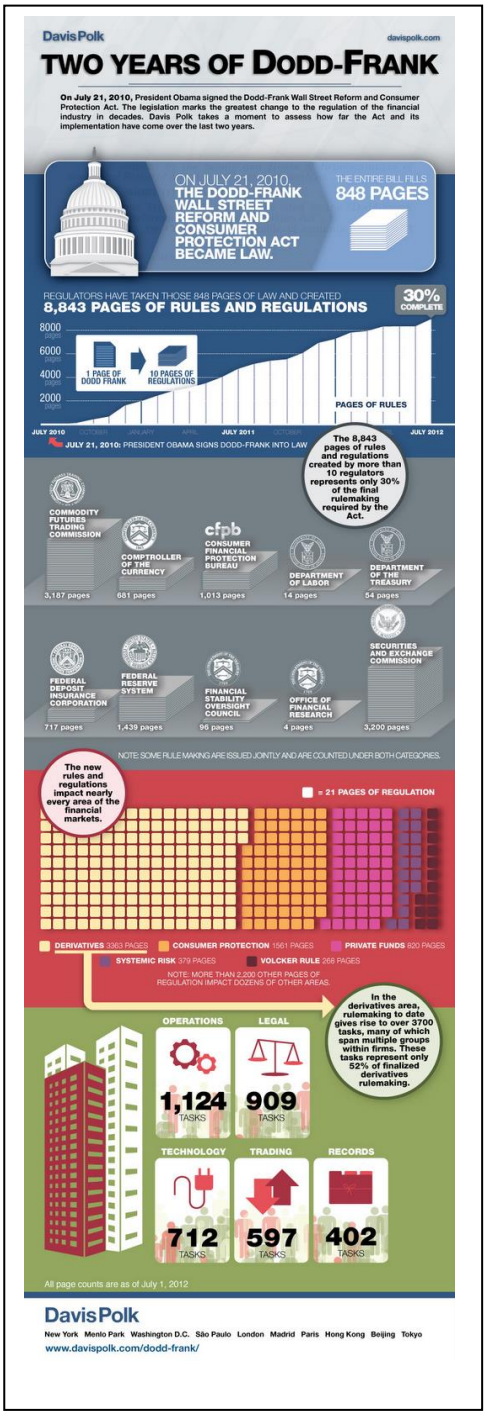
Examining structure, conduct and performance issues developed by J. S. Bain into the Structure - Conduct - Performance Model (SCP Model) that drives industry participant behaviour (Regibeau 2010 p.325). Elements of oligopolistic competition emerge as consequence to legal monopoly and oligopoly that arise from government licensing and regulation of banks. It is not so clear that bankers are vigorously engaged in anti-competitive behaviour to lock out competitors thus creating an oligopolistic competitive market structure.

Bank products are largely homogenous meaning they are similar. Governments create monopoly and oligopolistic power through licensing and regulation (Mackintosh 2010, Book 1, p.471). Oligopolistic competition in the Australian banking industry does not typically focus on mutual interdependence characterised by neoclassical theories of oligopolistic competition (Regibeau 2010 Book 1 p.327) other than the normal counter-party exchange occurring in bank business. Rather, any discussion of oligopolistic competition masks the true nature of the distorted links between structure, conduct and performance and results in exploitation of market power and licensed position" (Regibeau 2010 Book 1 p.326). The focus for banks has become rent-seeking and the implicit and explicit subsidy that comes from government. That is why it is may be more accurate to say that the Australian banking industries experiences "oligopoly-like" competition. The effects may be the same but the mutual interdependence is not towards each other but towards government.

The resultant behaviour brings distortions to bank operations itself, through inadequate capital requirements and excessive leverage which are the consequential effect of regulation in banking.

The effects of "oligopoly-like competition" illustrate the consequence itself, where the field has already been distorted by the licensing and regulatory environment and further attempts to regulate perpetuate the risk of unintended consequences.

The picture on the right was published by a US legal firm illustrating the progress of implementation of the Dodd-Frank Bill passed in 2010. Only 30% completed, rules and regulations running to 8843 pages as at July 2012 (Internet accessed: 28/08/2012: Davis Polk).



Now examining the structure of the industry, to see how further unintended consequences are created:

Conduct and Performance

As Regibeau observes, the links between structure, conduct and performance resulting in exploitation of market power and licensed position brings rent-seeking behaviour, explicit and implicit subsidies, and distortions to the banking process itself such as inadequate capital requirements and excessive leverage. These are the unintended consequence and moral hazards of regulation in banking we will discuss now.

Rent-seeking and Implicit Subsidy

Rent-seeking occurs when self-seeking behaviour by those competing to receive rents generated by government decision making. (Mackintosh 2010, Book 1, p.471). Rent-seeking includes lobbying for positions and contracts and campaigning for policies that create rents or income streams.

Julian Morris, VP of Research at the Reason Foundation comments:

> "In his seminal 1971 paper, *Theory of Economic Regulation*, Nobel laureate economist George Stigler observed that regulation by the state is a more important source of rents, benefiting incumbent firms and individuals at the expense of potential competitors (this rent is sometimes referred to as gains from "barriers to entry").
>
> Moreover, Stigler suggested that regulation is sought by the regulated industry - and is designed and operated primarily for the industry's benefit. Consumer activists Mark Green and Ralph Nader largely concurred, writing in 1973, "the verdict is nearly unanimous that economic regulation over rates, entry, mergers, and technology has been anticompetitive and wasteful" (Internet accessed: (28/8/12): rent-seeking).

Government, APRA and RBA policy decisions therefore create unintended consequences and moral hazard by generating rents to incumbents (Mackintosh 2010 p.471).

A type of rent generated by government policy is 'implicit subsidy,' a non-balance sheet benefit paid by government to rent-seekers. A study by Noss and Sowerbutt at the BoE

discusses the distortions created by implicit subsidy to banks (Noss, Sowerbutt, 2011). Implicit subsidy causes three types of distortion.

> "First, banks that benefit from the implicit subsidy have a competitive advantage over those that do not. The perception by banks' creditors that the government will intervene to protect them from the risk of bank failure reduces the compensation they demand for bearing banks' risk, lowering those banks' cost of funding. This may enable guaranteed banks to expand at the expense of non-guaranteed banks.
>
> Second, the implicit subsidy can also increase banks' incentive to take risk. The implicit guarantee reduces market discipline, which distorts banks' risk-taking incentives as investors no longer fully price the risks they are aware the banks are taking, allowing banks to take more risk. A pernicious spiral can therefore develop, where the existence of an implicit guarantee encourages banks to take more risk, raising the likelihood and cost of bank failure, thus increasing the subsidy. The resulting cost to society of financial crises, not least the reduction in GDP, could far exceed the original implicit subsidy.
>
> Third, the implicit guarantee of banks results in an increase in the size of the financial sector in aggregate. This diverts resources from other sectors of the economy, as more financial services are produced and consumed than would be the case in its absence. Measuring the size of the subsidy is therefore important as it offers a valuable insight into the potential magnitude of these distortions. And estimates of the implicit subsidy help put into context the costs the financial sector incurs in meeting more stringent financial regulation" (Noss, Sowerbutts, 2012 p.5).

The financial crisis showed the threat of failure does not always work for banks. The consequences of letting banks go insolvent would have imposed unacceptably high economic, social and political costs. To political and economic leaders, financial institutions had become 'Too Big To Fail' (TBTF) (Noss, Sowerbutts, 2012 p.5). Estimates of the implicit subsidies paid out during and after the financial crisis in the UK vary between £6.0 billion and £100 billion (Noss, Sowerbutts, 2012 p.5). Australian banks were not greatly impacted by the financial crisis. That does not mean to say it could not happen in the future. Australian 'Big Four' banks enjoy TBTF status and the implicit subsidy this brings.

To illustrate anecdotally how close the financial crisis was for Australian banks however, in 2008/2009 I observed Credit Default Swap rates for CBA debt on international credit markets climb to close to 11%. If that rate had reached 12% it would have triggered a revision of credit ratings for the CBA on global credit markets affecting their capacity to borrow and its attendant impact for other counterparties.

Similarly, at time of writing analysts consider that 30 Year US Treasury Bonds will return to the 5% level (currently 2.97%) later in 2018. This will impact the Australian residential mortgage market deeply as many residential mortgage holders would be under severe financial stress with just a modest interest rate increase (Internet accessed: 31/01/2018: Australian mortgage stress).

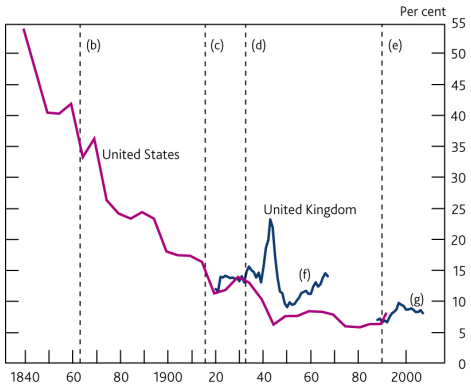
Public choice theorists would challenge that political and economic leaders' self-interest in maintaining their leadership role had directly contributed to the implicit and explicit subsidy paid to banks resulting in a potential massive welfare cost to government, economy and taxpayers during the financial crisis. If they had not been so heavily invested in the centralisation process i.e., licensing and regulation, then the welfare cost would have been much lower (Mackintosh 2010, Book 1, p.456-471).

The other public choice theory issue needing to be acknowledged is that when it comes to the Big Four, nobody wants to upset the "golden goose." The Big Four are the source of capital gains, profits and dividends to nearly every Australian holding superannuation or shares. The Australian government and people are "asleep at the wheel" in acknowledging the systemic risk the Big Four impose on the Australian economy and depositors at large. The misconduct of Big Four banks and other large financial services institutions is merely the consequence of the TBTF status granted by license.

Capital Adequacy

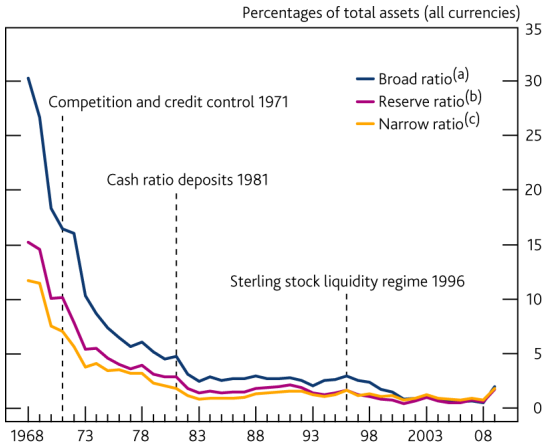
Another area where unintended consequence arise is inadequate capital adequacy ratios maintained by banks leading up to the financial crisis. The following BoE charts illustrate the serious degradation of capital requirements maintained by banks over the long term.

Chart 7 Long-run capital levels for UK and US banks(a)



Sources: Berger, A, Herring, R and Szegö, G (1995), 'The role of capital in financial institutions', Journal of Banking and Finance, pages 393–430; United Kingdom: Billings, M and Capie, F (2007), 'Capital in British banking 1920–1970', Business History, Vol. 49(2), pages 139–62; British Bankers' Association; and published accounts.
(a) US data show equity as a percentage of assets (ratio of aggregate dollar value of bank book equity to aggregate dollar value of bank book assets). UK data show risk-weighted Tier 1 capital ratios for a sample of the largest banks.
(b) National Banking Act 1863.
(c) Creation of Federal Reserve 1914.
(d) Creation of Federal Deposit Insurance Corporation 1933.
(e) Implementation of Basel risk-based capital requirements 1990.
(f) From Billings and Capie (2007).
(g) BBA and Bank calculations. This series is not on exactly the same basis as 1920–70, so comparison of levels is merely indicative.

Chart 8 Sterling liquid assets relative to total asset holdings of UK banking sector



Sources: Bank of England and Bank calculations.
(a) Cash + Bank of England balances + money at call + eligible bills + UK gilts.
(b) Proxied by: Bank of England balances + money at call + eligible bills.
(c) Cash + Bank of England balances + eligible bills.

The graphs illustrate the long-term decline of capital adequacy ratios (Internet accessed: 06/08/2012: Bank of England). Basel II, III and the VR have implementing new capital adequacy requirements to ensure banks have greater loss-absorbing capacity as well as simpler and safer structures (VR 2011 p.27). This is also a requirement of Australian banks. Much has been done to improve capital adequacy globally including Australia. However, nothing has been done to dilute the risk to the Australian economy of having four banks

holding 77.08% of the total ADI deposit market or the unintended consequence of TBTF status.

Giving the second Bagehot Lecture at the Buttonwood Gathering, Mervyn King, former Governor of the Bank of England explained how the size, concentration and riskiness of banks have grown markedly. He went on to say:

> "Yet many treat loans to banks as if they were riskless. In isolation, this would be akin to a belief in alchemy – risk-free deposits can never be supported by long-term risky investments in isolation. To work, financial alchemy requires the implicit support of the taxpayer."

> "Public support incentivizes banks to take on yet more risk, knowing that, if things go well, they will reap the rewards while the public sector will foot the bill if things go wrong. Greater risk begets greater size, most probably greater importance to the functioning of the economy, higher implicit public subsidies, and hence yet larger incentives to take risk …"

Indeed, the Australian Parliament has already proposed bail-in" legislation whereby depositors may have deposits confiscated in order to protect banks but this was defeated in 2014 (Internet accessed 28/01/2018: Australia legislation bail-in).

King furthermore proposed that "limits on leverage have much to commend them" by pointing out that Walter Bagehot (1826-1877) would have been used to banks with leverage ratios (total assets, or liabilities, to capital) of around six to one. But capital ratios have declined and leverage has risen. Immediately prior to the crisis, leverage in the banking system of the industrialised world had increased to astronomical levels. Simple leverage ratios of 40 to 50 or more could be found in the US, Australian, and the continent of Europe, driven in part by the expansion of trading books (Internet accessed 21/07/12: BoE).

As Bagehot himself writes in Chapter IV of his book *Lombard Street: A Description of the Money Market*:

> "Under a natural system of banking it would have every facility. Where there were many banks keeping their own reserve, and each most anxious to keep a sufficient reserve, because its own life and credit depended on it, the risk of the Government in keeping a banker would be reduced to a minimum. It would have the choice of many

> bankers, and would not be restricted to anyone" (Internet accessed: 21/7/2012: Bagehot IV.6).

This begs the question, why were liquidity and capital ratios allowed to decline so much? Central banks and other regulatory authorities were tasked with determining what levels were adequate, yet the prolonged decline as shown by the graphs and King's speech contributed to the unintended consequence of the 2007-2009 crisis.

New regulatory requirements for higher capital and compliance now exists and observes this will place further constraints on new and small challengers to compete effectively as it, along with liquidity standards, could have the potential to exacerbate differences between incumbents and new entrants. For example, by imposing higher fixed costs of compliance (OFT 2010 9.5 p.175). This is another unintended consequence where regulators are trying to meet the challenges of introducing more competition into retail banking and at the same time making banks more robust in Australia and abroad.

Deposit Insurance

Deposit insurance in Australia is on an "as needed" basis at the discretion of government. If the goal of banking regulation is to provide a safe-and-sound banking industry then deposit insurance improves welfare by protecting the creation of liquidity. This is the standard welfare-improving argument associated with the presence of insurance in the absence of information problems (Dionne 2003 p14).

Matters are however, not quite so simple when information problems associated with deposit insurance arise, because problems of this sort destroy insurance value. For financial stability it is important to have a credible and stable set of regulations which include rule-based exit policies for weak or insolvent financial institutions. Politicians may be interested in stalling actions in the short run, and, in the long run, supervisors may be pressured to bailout rather than liquidate. If this type of behaviour is anticipated, some bank managers will be tempted to increase their risk, knowing that their complete independence will not be observed by the politicians (Dionne 2003 p.29).

Interestingly it has been found that more failures are observed in economies where insurance coverage is generous because bankers are less closely monitored by their depositors, thereby taking excessive risks. By contrast, New Zealand, since 1994, has not had deposit insurance. Banks are not supervised by the regulator there but are required to disclose their information

on their accounts, and bank directors are personally liable in case of false disclosure statements (Dionne 2003 p.16).

A study by O'Hara and Shaw investigating deposit insurance and wealth effects found positive wealth effects accruing to [declared] TBTF banks, with corresponding negative effects accruing to non-included banks. They demonstrated that the magnitude of these effects differed with bank solvency and size. They also showed that the policy to which the market reacted was that suggested by the *Wall Street Journal* and not that actually intended by the Comptroller (O'Hara, Shaw 1990 p.1).

Whilst deposit insurance improves welfare, it also risks introducing, subject to how it is set up, moral hazard. It appears that explicit deposit insurance covering only depositors and excluding uninsured subordinated debt holders serves as a commitment device to limit the safety net and permit monitoring (Gropp 2004 p. 571). This process goes some way toward eliminating moral hazard. In the UK, the VR has moved to strengthen this process through the ring-fencing of retail banks and provision of deposit insurance to transfer risk of bank runs away from taxpayers and depositors (VR 2011 Exec Sum. p.8). Australian bank deposit insurance covers only depositors and ultimately the taxpayer and government carry this risk.

RBA, APRA and Government

The RBA functions to provide financial stability entailing detecting and reducing threats to the financial system. This is pursued through RBA market and policy operations including lender of last resort to banks; that they may smooth out the liquidity mismatches between short term deposits and long-term balance sheet assets (Internet accessed: 27/8/12: BoE).

Yet O'Driscoll, quoting Nobel Prize winner F.A. Hayek writes: "the price system is "a mechanism for communicating information. ….. Prices are a vital part of the information flows necessary for markets to do their job of allocating resources. Prices economize on the information required to allocate resources across competing ends and users" (O'Driscoll 2011 p.2).

Thus, when interest rates (the price of money) are set by central banks, thereby artificially distorting the information flow and pricing banks use to set market rates, it creates false market signals to bank clients and, over time, ultimately, to banks themselves. Central bank

operations set off intended and unintended consequences that have repercussions throughout the entire economy.

Speculatively, given the size of each Big Four bank, it is questionable if it is even possible for the RBA to save the day in the event of a collapse as the contagion of counterparty risk would also increase the severity.

Irwin & Vines write on this effect in crises situations:

> "If there is a lender of last resort, which not only resolves liquidity crises by the provision of finance, but also resolves solvency crises by subsidized lending at sufficiently reduced interest rates to avoid bankruptcy, there will be incentives to borrow excessively, and too little equity will be invested in projects. This makes solvency crises more likely in the first place. In addition, firms might make the initial investment in circumstances where it is inefficient to do so, encouraged by the subsidy. These problems provide a clear argument in favor of the resolution of solvency crises by debt write-downs rather than by subsidized IMF lending" (Irwin, Vines, 2002, p.4).

Similarly, government acts to promote agendas of full employment and economic growth. High prosperity and economic growth reflect well on incumbent governments. Banks are the heart of the liquidity and credit creation process integral to economic growth. Governments implicitly encourage banks to assume higher levels of risk given political expectation economic growth can and should be maintained. Thus, government and central banks each provide implicit and explicit support to bankers. The process of providing subsidy or implicit acknowledgement creates moral hazard.

As the VR suggests….

> "….in a crisis, the government may feel compelled to prevent the insolvency of a systemically important bank by injecting public funds into it. If government support is anticipated, higher leverage will not increase creditors' perception of risk as much as it should. The cost of bank debt will not properly reflect the risks involved, and there will be private incentives (at contingent public expense) to take on too much risk in the first place. This is the 'moral hazard' problem. Implicit government support incentivizes higher leverage. Key employees of the bank might well have substantial

> shareholdings, and/or bonuses linked directly or indirectly to returns on equity in which case their incentives also encourage leverage" (VR 2010 4.11 p 8).

Given the fragile nature of banks how did regulators, including central banks, let capital adequacy ratios fall to such low levels? How did leverage and bank asset prices get so high? Post financial crisis, many criticisms have been made that regulators and central banks "were asleep at the wheel". BoE Governor King admitted in a BBC interview: "With the benefit of hindsight, we should have shouted from the rooftops that a system had been built in which banks were too important to fail, that banks had grown too quickly and borrowed too much, and that so-called 'light-touch' regulation hadn't prevented any of this" (Guardian 2012 We did too little).

As Noss and Sowerbutts conclude: "implicit subsidies arise from a fundamental distortion in the financial system: the costs of bank distress are so large that the authorities have been unable to commit credibly not to intervene to prevent their failure ..... The extent to which outcomes are distorted is directly related to the size of the subsidy, which is why measurement of its size is useful" (Noss, Sowerbutts, 2012 p.14).

At a competitive level, being recognised as TBTF is an implicit subsidy that raises the barrier to entry for challengers and may result in skewed pricing of industry products as consumers favour the banks with implicit support. TBTF is a feature of modern banking that perpetuates the concentrated market power of retail banking in Australia.

Barriers to entry, expansion and exit, which can be a natural feature of the market or be created, or exacerbated, by the behavior of incumbent firms, are critical to these developments. If firms face significant difficulties in entering and competing in the market, incumbent firms will not face the threat of new firms challenging them for business and will have little incentive to reduce costs, innovate and price competitively to retain and attract customers (OFT 2010 1.4 p.4). Whilst TBTF as an implicit subsidy remains a feature, there is no possibility for barriers to entry or expansion to come down thus alleviating the level of concentration found in the Australian banking industry.

The costs that the failure of a large bank, or, of many small banks, would impose on the economy prompts governments to provide support in the event of stress – as the UK

government did during the ’08 - ‘09 crisis. The outlay of government funds can be large enough to generate substantial social costs in itself because of its implications for taxation and other public expenditure, and possibly for the terms on which government can borrow. The prospect of this support makes it cheaper for banks to take risks, as their creditors, anticipating a bail-out, do not charge banks properly risk-reflective rates for funding (VR 2011 p.272).

Conclusion & Recommendations

Nothing can be truer in theory than the economic principle that banking is a trade and only a trade, and nothing can be more surely established by a larger experience than that a Government which interferes with any trade injures that trade. The best thing undeniably that a Government can do with the Money Market is to let it take care of itself (Internet accessed: 21/7/2012: Bagehot IV.1). These words written in the 19th century is as true today as then, given the failure of regulators globally to prevent the 2007-2009 crisis from happening.

We have seen that the Australian banking industry constitutes a concentrated market and is oligopoly competitive when seen through the lens of the SCP Model. We also note the strong similarities between the Australian and UK banking industries and draw natural conclusions about the effect of differing government regulatory approaches and their unintended consequences on the respective banking industries.

This author notes it is also important that this industry, a corner stone of the Australian economy continues to be regulated. Finding the right balance of regulation, corporate responsibility and liability remains the key to unwinding the classical economic oligopoly issue and the systemic risk it brings to the Australian economy, people and government.

Similarly, unwinding the public choice issues of incentive, implicit subsidy, moral hazard, TBTF status and unintended consequence that mask the nature of the Australian banking industry remains the foremost challenge of this AFS if a solution to the downstream consequences of misconduct are to be eliminated. This author is also aware of the enormity of the task given the vested interest in maintaining the status quo by the Big Four banks, government and agencies, shareholders, depositors and superannuation funds.

The truth remains that the current disposition of the Australian banking industry creates an enormous systemic risk. Clearly, the downstream consequence of the structure, conduct and performance of banks induces a high level of misbehaviour in the marketplace. In other words, the TBTF status given to the Big Four banks promotes a systemic culture of misconduct that pervades these large institutions. Note that while misconduct occurs in smaller ADIs, it is the Big Four that are routinely involved in misconduct issues.

Government licensing and regulation of banks relieve bankers of their responsibility to depositors. Depositors' insurance schemes, RBA lender of last resort, rent-seeking, explicit and implicit subsidy absolve bankers from taking full responsibility for depositors' funds

thereby creating moral hazard. Oligopolistic-like competition emerges because of legal monopoly and oligopoly created by government license, policy and regulation.

Furthermore, governments create implicit subsidy by recognising banks as TBTF thereby raising the barrier to entry for challengers and a biased distribution of deposits across the whole industry. It may also result in skewed pricing of industry products as consumers favour the banks with implicit support. TBTF is a feature of modern banking that perpetuates the oligopolistic nature of retail banking due to its implicit subsidy by government.

Low capital adequacy ratios, high leverage, and oligopolistic characteristics of barriers to entry, large economies of scale, high concentration of product market share and supernormal profits are the consequence of unintended policy. Oligopolistic characteristics also produce systemic risk for the Australian economy, its people and government.

As the FSI and now this AFS show, despite the efforts of regulators nothing much has changed in almost a decade. Australian regulators remain critical of the banking industry, particularly regarding its conduct and performance. And yet still the misconduct issues keep rolling out. Nothing has been done to amend the structure, conduct and performance of the Australian banking industry. It can be seen in the UK how the VR is attempting to unwind the implicit and explicit subsidy banks receive. This is being achieved by transferring risk from the broad economy, government and taxpayer back to the banks through ring-fencing, capital adequacy, limited leverage and deposit insurance measures being undertaken, thereby reducing implicit subsidy, moral hazard and unintended consequence. None of this has happened in the Australian banking industry other than moving to comply with Basel II and III requirements.

How effective these policy initiatives are in achieving their desired effect remains to be seen. The FSI and VR could be viewed as fixing the fix with yet another fix. The risk is that this AFS and the Royal Commission into Misconduct in the Banking, Superannuation & Financial Services Industry may do the same. The oligopolistic-like competitive nature of the banking industry cannot change whilst the industry operates as a legal monopoly and oligopoly-like structure. It cannot change while public choice issues abound in the industry. Therefore, as evidenced, we see government regulation of the Australian banking industry does in fact create unintended consequence and a thorough examination of the role of regulation must be included as part of this AFS inquiry process.

This paper in summary recommends, if regulators are serious about effecting change in the structure, conduct and performance of banks, the following:

1) Increase Capital Adequacy ratios of Australian banks with disproportionate shares of ADI deposits to adequately reflect the pivotal role they play in the economy. This author proposes placing an additional capital reserve requirement (call it a systemic risk reserve) on those banks. It is a reasonable proposition that those banks with a significant share of the ADI market maintain a systemic risk reserve reflecting their size and importance in the Australian economy. This could mean rises in capital reserves to more than 20% including a systemic risk reserve and be achieved by incremental increases over a period of 2-3 years. As small banks become more competitive, this would realign the level of deposits held by the Big Four. The systemic risk born by the economy, government and ultimately taxpayers would shrink over time.
2) Withdraw the implicit subsidy made to TBTF banks by ending "lender of last resort" capacity of the RBA.
3) End deposit insurance completely thereby letting depositors take complete management and responsibility for their own funds.
4) Reduce regulatory supervision of banks and require all banks to fully disclose risk information in their accounts.
5) Make bank directors personally liable in case of false disclosure statements.
6) Reduce the number of government bodies with oversight of the banking industry.
7) Educate the public on bank risk.

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Appendix 1

Regulatory Authorities with regulatory impact on Australian banks:

Australian Prudential Regulatory Authority (APRA)	Basel II & III
Australian Securities & Investment Commission (ASIC)	Reserve Bank of Australia (RBA)
Australian Competition & Consumer Commission	USA regulatory requirements (Frank Dodd)

Regulatory Authorities with regulatory impact on UK banks:

Bank of England (BoE)	Basel II & III
Financial Conduct Authority (FCA)	EU regulatory requirements
Financial Services Authority (FSA)	Prudential Regulation Authority (PRA)
Office of Fair Trading (OFT)	USA regulatory requirements (Frank Dodd)