Competition, Systemic Risk and Financial Stability

Paper to the *Political Economy of Systemic Risk* symposium, LSE November 2016.

Stephen Bell (School of Political Science and International Studies, University of Queensland)

Andrew Hindmoor (Department of Politics, University of Sheffield)

We have recently started work on an Australian Research Council-funded project on the relationship between competition and banking prior to and since the 2007/8 financial crisis.

In our previous research in this area we have examined the causes of the financial crisis on a comparative basis using, as a starting-point, the empirical observation that there was a great deal of inter-country and intra-country variation in bank fortunes.[1]

The common refrain of a *global* financial crisis overlooks the fact that only some economies and banking systems were at the heart of the crisis. A key underlying question that so far has received only limited attention is what led banks in some countries (but not others) to extend their leverage, maturity mismatches and scale and also expose themselves to highly volatile short-term funding markets which eventually became illiquid and precipitated the crisis.

As examples of 'bad' banking countries we focus primarily upon the UK and US and as examples of 'good' banking countries Australia and Canada. As examples of (relatively) 'good' banks within bad systems we focus on HSBC, Lloyds (prior to its disastrous merger with HSBC), JP Morgan and Wells Fargo. As examples of (again relatively) bad banks within 'good' systems we focus on National Australia Bank and Canadian Imperial Bank of Commerce.

One important argument we develop within our work is that institutional pressures as well as specific profit opportunities embodied in nationally specific banking markets were central in shaping banker behaviour; either producing or not producing strong pressures on banks to engage in highly leveraged mortgage-backed securities trading. In the US and UK, financial markets imposed strong competitive pressures and placed bankers under intense pressure to reengineer their balance sheets in the search for additional profits. The main opportunities here were in highly leveraged mortgage-backed securities trading. It was the collapse of these markets that *triggered* the banking crisis. We show that such pressures were strong in the US and UK, but weak in the Australian and Canadian markets; a key factor that explains the very different banking outcomes in these countries. National market conditions in banking thus emerge as a core variable that explains the origins or the trigger of the crisis.

The UK and US:

Bankers in the US and UK became almost 'slaves' of the system they had helped create. This reflected institutional pressures as well as the nature of specific profit opportunities in banking markets. First, institutional arrangements produced intense competitive pressures and a strong focus on short-term profits. Second, the nature of profit opportunities in different banking markets

[1] Our paper and presentation at this conference draws upon parts of this work: most notably *Masters of the Universe but Slaves of the Market* (Harvard University Press, 2015) and 'Slaves of the Market: Bankers and the Great Financial Meltdown'. *British Journal of Politics and International Politics*, 17 (1), 1-22.

dictated where profits could be best found. These pressures, especially in the core US and UK markets meant that bankers were strongly encouraged to enter into highly leveraged mortgage-backed securities trading. As we show below however these pressures and profit opportunities were not central to banking markets in Australia and Canada. Banks therefore behaved quite differently in different national markets. Despite 'globalisation', the global financial system is in fact comprised of nationally specific markets with different dynamics stemming from distinct institutional arrangements, differing levels of competition and historically specific market structures.

In the core economies, institutional pressures produced intense levels of market competition, from several sources. First, from governments, the regulatory emphasis on market discipline meant that there was a strong focus on fostering competition within the banking sector. In 1987 legislation was passed in the UK to encourage greater competition within the banking sector by allowing locally-based building societies to demutualise and become privately-owned companies listed on the stock exchange. A number of building societies - most notably the Alliance and Leicester and the Newcastle-based Northern Rock – went on to develop a national market presence. In 2001 the Cruickshank Report addressed issues around the costs of switching accounts and hidden fees which tied consumers to particular banks. Finally, and in the years immediately preceding the crisis, the Financial Services Authority encouraged new firms like Tesco Finance and Virgin Money to enter the market. At the same time, and through a series of successful mergers and take-overs, a number of smaller banks, including the Royal Bank of Scotland (RBS) (which took-over the giant but ailing NatWest bank in 2000 and the Dutch ABN Ambro in 2007) and the Bank of Scotland (which merged with the Halifax Building Society in 2001 to form HBOS) extended their market shares. The largest UK banks also had to compete against overseas banks which established offices and trading operations in London.

Second, liberalisation and financialisation was accompanied by the rise of large institutional investors that pushed for 'shareholder value', embodied in short-term capital placements, the threat of hostile takeover, and intense pressures for high short-term returns. Blundell-Wignall, Atkinson and Lee (2008, 10) suggest that in this institutional environment 'market share, revenue gaps and beating the competition became the topic of every morning meeting at all levels' within banks and that for senior management it became a 'question of holding your job'. The former Director of Financial Stability at the Bank of England, Andrew Haldane (2012, 4) argues the intensity of market competition resulted in a 'financial arms race' as bankers continually sought to improve their return-on-equity (RoE) and competitive performance. In his review of corporate governance within the UK banks, Sir David Walker (2009, 27) describes a pervasive and 'myopic' focus on 'short-term horizons' sustained by:

> the increased weight placed on full reporting of company performance on a quarterly basis, increasing short-term pressures on market valuations that inevitably feed back to the way in which chief executives, and by inference, their boards seek to run their businesses.

The emphasis on boosting RoE also reflected a further institutional incentive: namely that remuneration packages were tied to ROE metrics. Bankers thus operated in a competitive fish bowl. Competition became warfare. Dick Fuld, the CEO at Lehman Brothers, thought 'every day is a battle… You've got to kill the enemy' (Fishman, 2008). Another banker stated, 'from 1999 through to the middle of 2007, anytime you stopped participating, by *not* adding more risk or by *not* aggressively pursuing more transactions, you were wrong' (McGee, 2010, 10).

The pressures to perform are illustrated by the experience at Morgan Stanley. In 2004 the bank recorded a pre-tax profit of \$6.2bn and a RoE of 15.8% - only slightly short of Goldman's market-leading 16.9%. Nevertheless, in June 2005 a group of eight major shareholders and former senior managers nevertheless publicly attacked the firm's Chief Executive, Philip Purcell, for 'the failure to continue to earn a premium return on equity; the failure to maintain earnings growth relative to its peers; and the weak performance of the firm's retail and investment management business over the past five years'. Purcell was replaced by John Mack who, in 2006, was able to record a 36% increase in share price and a 44% growth in net income by 'leveraging our global franchise' to 'close the gap' with rivals in areas such as 'leveraged finance, residential mortgages and equity derivatives'. (Morgan Stanley, 2006, 1). In 2005 HBOS met its 20% ROE target for the first time and recorded a pre-tax annual profit of £4.8bn. By this time however the bank's mortgage business was coming under intense pressure from new entrants to the market like Egg and Direct Line and from the Northern Rock building society which had launched a 'Together' mortgage allowing customers to borrow up to 125% of the value of the house they were buying. When HBOS announced in 2007 that its share of the new mortgage market had fallen from 20% to 8%over £1bn was wiped from the bank's market value in a matter of days (Rutherford, 2007). Executives reportedly pressed HBOS's Head of Retail, Benny Higgins, to introduce new 'equity release' mortgages. Because these mortgages were premised on the assumption of rising house prices, they could be used to lower short-term repayments and so entice new borrowers. Higgins refused and resigned a few months later. Perman (2013, 138) quotes a member of HBOS's Board of Directors as follows: 'Benny was a hero. He called it right on the mortgage market, but the executive and the rest of the board did not have the courage to back him'. Once Higgins had left, executives lowered the bank's credit standards and offered a 125% mortgage to compete with the Northern Rock. By the end of 2008, £66.5 billion (28%) of the banks' retail mortgage lending was classified as non-standard and 62% of the Division's book had a loan-to-value ratio of over 70% (Parliamentary Commission on Banking Standards, 2013a, 74).

Competitive pressures are sometimes mentioned in analyses of the financial crisis. Hellwig (2009, 152) for example, notes that high levels of competition often follow in the wake of financial market liberalisation and such periods often drive financial market crises. But the full significance of this factor is not often grasped in contemporary policy debates. The Treasury (2012), the Labour Opposition (Miliband, 2014) and the Parliamentary Commission on Banking Standards (2013b, 18) continue to extoll the virtues of increased competition as a guardian of the public interest. The significance of competitive pressures is further underlined by comparing the US and UK cases with other banking markets where competitive pressures were more attenuated, as we show below when we analyse banking in Australia and Canada.

In the core markets banking was also shaped by changing structural dynamics in markets, especially in restricting profits in more traditional banking activities and in opening up new profit opportunities. The saturation of traditional mortgage markets and thin lending margins saw increasingly limited opportunities in traditional banking markets in the US and UK. As banks were forced to compete for customers, interest-rate margins – the difference between the interest rate on loans compared to the rate paid to depositors – also began to fall. Matthews and Thompson (2005, 10) show that in the UK the interest rate margin fell from 3.9% in 1979 to 1.1% in 2006. Falling interest-rate margins strengthened the position of consumers but threatened bank profits. In this context, new profit opportunities increasingly emerged in highly leveraged financial trading which increasingly led to further structural changes in financial markets. Traditionally, commercial banks in the US and building societies in the UK had been banned from most kinds of financial trading, whilst investment banks had focused on limited trading for clients, not on their own proprietary trading. However, from the 1980s trading became more widespread, first in the newly liberated foreign exchange markets and by the 1990s and 2000s in increasingly deregulated domestic financial markets. As profits on traditional lending and deposit-taking were increasingly squeezed, commercial banks sought to reengineer their balance sheets in desperate searches for ways to boost yield. Investment banks too were looking for new ways to make money. Increasingly, profit pressures saw banks reengineer their balance sheets to secure profit through leveraged 'securitisation' and other forms of innovative derivatives trading (Gowan, 2009, Crotty, 2009). Securitisation saw previously illiquid forms of debt such as mortgages repacked into tradable securities. These securities were tranched into complex structures such as collateralised debt obligations (CDOs) which could either be sold to outside investors or, increasingly, as with the 'senior' higher rated tranches, held on bank balance sheets to generate additional returns. Bank executives and regulators believed that overall risks within the system had been calibrated and effectively distributed and that the financial system was resilient. They typically became 'true believers' in the safety of the system and were on the whole sanguine about market developments. In the case of CDOs derived from subprime mortgage securities, bankers were reassured because the assets they had retained on their balance sheet mainly carried AAA ratings by credit agencies, formed only a small fraction of overall balance sheets, and were usually backed by credit default swaps (a form of insurance).

The banks did not, by and large, learn how to extract more profits from the assets on their balance sheets. Profit growth was instead driven by increasing leverage and trading volumes. As asset prices increased banks took on more leverage to help fund increasing volumes of securities trading. The Independent Commission on Banking (2011, 128) calculates that average leverage in UK banks in 2006 exceeded 40:1. High leverage sustained high profits. In the case of the largest UK banks, return on assets fluctuated between 0.5% and 1.5% (Engelen et al 2011, 108-110). However, between 1989 and 2007, as leverage grew, average RoE for UK banks rose from 1% to 38% (Haldane, 2012, 4). Kalemli-Ozcan, Sorensen and Yesilitas (2012, 33) calculate that leverage at US investment banks rose from 30:1 in 2003 to 36:1 in 2005 and 44:1 in 2007. The Financial Crisis Inquiry Commission (2011, 65) suggests that, taking into account off-balance sheet exposures, Bank of America's leverage in 2007 was around 36:1 and Citigroup's around 48:1. Freddie Mac and Fannie Mae were operating with a leverage ratio of a staggering 75:1 (FCIC, 2011, 65).

Australia and Canada:

The argument that 'markets matter' is further underlined by comparative analysis and by the experience in Australia and Canada. The events of 2007/8 are routinely described as a 'global' financial crisis. Yet the crisis was far from 'global' and outcomes varied markedly across countries. The significance of this variability across countries is often overlooked in accounts of the crisis. In 2009 The World Economic Forum's Global Competitiveness Report classified Canada as being the world's safest banking system and Australia as being it's third safest. The average leverage of the four largest Australian banks – the Commonwealth, Westpac, ANZ and NAB – rose only slightly from 15:1 in 2000 to 19:1 in 2007. Gross loans (mortgages and commercial loans) constituted, on average, 72% of assets. In contrast, gross loans continued just 28% of total balance sheet assets at Barclays in 2006. The Reserve Bank of Australia (RBA) (2009, 18) estimates that the non-conforming housing loan market in Australia (the closest equivalent to the sub-prime market in the US) accounted for only around 1% of the total mortgage market in 2007. The RBA board member, John Edwards (2008) argues that: 'Australian banks do not engage in trading activities to the same extent as the major global banks. They are closer to the model of the traditional balance sheet'. Much the same applies to banks in Japan, Israel, France and Spain (Howarth 2012; Royo 2012).

In Australian and Canada regulation prevented the largest banks from taking each other over, thus partly insulating executives from short-term market pressures and especially takeover threats. In this respect the market for corporate control is important. The former Governor of the RBA, Ian Macfarlane (2009, 42), argues that by reducing the threat of corporate take-over, government regulation reduced competition 'to a sustainable level and thus prevented our banks from moving too far in the risky direction… that saved us from the worst excesses that characterised banking systems overseas'. Charles Goode, formerly Chairman of the ANZ bank, similarly argues: 'If you look at the countries that came through this crisis well, in a banking sense, you think of Australia, Canada, Singapore, Hong Kong, and Israel. They're all countries where in domestic banking there were three or four major banks – and really stable. So, you'll find an oligarchic structure without much international presence in domestic banking in the countries that survived' (Interview, 29th February 2012). Strong growth in domestic mortgage markets also meant that the largest banks could make high profits and equivalent RoE to their US and UK counterparts through traditional business and mortgage lending. As the RBA's Ric Battellino (ASIC, 2009, 48) has argued, 'the banks chasing profitable lending opportunities in Australia could grow their balance sheet by 15% a year… without having to take on new additional risks'.

Competition and Financial Stability: Toward a More Formal Analysis:

<u>In our new project, we want to develop, extend and more formally test our earlier arguments about the relationship between competition and financial stability.</u>

For their part, economists have reached differing views about the relationship between competition and banking and financial stability. A once widely-accepted view proposed a competition-instability link. This argument held that competition threatened bank stability by decreasing profit margins and reducing the 'charter' value of banks, thereby encouraging excessive risk-taking (Marcus 1984; Chan et al. 1986; Keeley 1990). Hellmann et al. (2000), for instance, argue that competition for deposits undermines prudent bank behaviour. The authors cite the U.S. Savings and Loans crisis and the Japanese crisis as examples of this, blaming financial liberalisation which removed barriers to entry and branching restrictions, in addition to deregulating interest rates. Increased competition for deposits, in turn, lowers bank profitability and destroys franchise value. A more competitive environment furthermore means that banks earn fewer informational rents from their relationship with customers, which reduces bank's incentives to screen borrowers (Boot and Greenbaum 1993). The so-called NINJA or LIAR loans, that is loans with little interest in or verification of income, jobs, and assets of borrowers, which had been centre at the 2007/2008 US subprime mortgage crisis, are an example of this. The putative link between competition and risk-taking is not a new feature of financial relations. As Adam Smith argued in his *Wealth of Nations* (1776, vol. I, 312), 'free competition, too, obliges all bankers to be more liberal in their dealings with their customers, lest their rivals should carry them away'.

On the other hand, and more recently, economists have claimed evidence of a positive statistical relationship between competition and financial stability (Schaeck et al. 2006). Schaeck and Cihak (2008), for instance, examine the relationship between bank competition, efficient and stability in European and US banking and argue that competition increases both efficiency and soundness. Regarding the later, it is assumed that larger banks, operating in a more concentrated market, may be able to diversify loan-portfolio risks more efficiently due to higher economies of scale and scope (Boyd and Prescott 1986). Boyd et al. (2006) and De Nicolo and Loukoianova (2006) find that the risk of bank failure rises in more concentrated markets, that is markets with less competition. One explanation is that competition between banks reduces interest rates and gives entrepreneurs more incentive to succeed, reducing default rates and thus enhancing financial stability. A highly competitive banking sector is furthermore said to be less likely to give rise to moral hazard behaviour where institutions engage in reckless lending believing that they are 'too big fail' and thus more likely to be explicitly or implicitly protected by government-sponsored safety nets. Recent surveys of the relevant literature by the OECD (2010) and World Bank (2013) largely endorse this view.

This strand of the competition literature relies heavily on measurements of market structure, especially market concentration, to gauge the competitive environment in which banks operate. Yet market structure is an imperfect measure of competition. As Thorsten Beck (2014) has commented, 'concentration is not the same as lack of competition… competition between a few large banks in a concentrated banking system can be fierce'.

The question we are currently engaged with is about how best to define and measure competitive pressures in terms that are independent of their effects.

The key variables which best capture the intensity of competitive pressures in a market relate to:

1. Interest-rate spreads (an existing measure)

There is some evidence that, under the pressure of market liberalisation, interest rate spreads fell in the 1980s and that this was a spur for balance sheet reengineering. But we need to be able to link evidence about interest-rate spreads at particular banks (via Bankscope data) to changes in balance sheets prior to the financial crisis. Put bluntly, did the banks which took the largest risks prior to 2008 (in terms of leverage and dependence upon wholesale funding and financial trading) tend to have lower interest-rate spreads and what was the sequencing of change here?

2. Management pressure.

In what circumstances and to what extent do executives and senior bankers working in banks which were deemed to be under-performing risk losing their positions? The example above of Philip Purcell is instructive here. But if we are right about the importance of market structure as a variable we ought to find that in banking systems with less intense competitive pressures (including Canada and Australia) a higher level of management stability within banks that were under-performing.

3. Take-over pressure.

In what circumstances and to what extent do banks which are deemed to be under-performing become the subject of rumoured or actual take-over speculation? There is plenty of data within Bankscope and other databases on actual merger and take-over activity. Indeed, in a sense, there is too much data. Each year banks are involved in dozens or more of acquisitions. What we are interested in here is the extent to which, during the 2000s, banks which were deemed by market analysts to be under-performing became the subject of takeover speculation. This will require us to systematically look not only at actual mergers and acquisitions in relation to underperforming banks, but also at newspaper reports about the threat of possible take-overs and their impacts.

4. Share price.

Finally, and perhaps most saliently, if we are right that competitive pressures in the UK and US were particularly intense prior to the 2008 crisis but not as intense in Australia and Canada and other countries then we ought to expect to see this reflected in the 'elasticity' of the relationship between profit performance (particularly ROE) and share price. In the UK and US, we would expect to see a much clearer and taut relationship between ROE and share price measured both in terms of end-of-year price and in terms of immediate post-announcement movements.

We plan to collect and analyse data (via, primarily, Bankscope and the World Bank Global Financial Development dataset) on the major banks in the UK, US, Germany, France, Australia and Canada and – potentially – other managed markets such as Israel and Singapore.

Post-Crisis Dynamics

There is a prima facie argument that, as a result of bankruptcies, mergers, and take-overs, and, more generally, a 'flight to safety' that the largest banks are now much larger and that the market is now less competitive. Such fears have prompted the Competition and Markets Authority in the UK to launch an investigation into small and medium-sized enterprise business lending (Bank of England, 2014, 40). Sun (2011) suggests that, within Europe, there has been a 'significant but small' decline in bank competition since 2008. The European Central Bank (2013, 12) also reports a decline in competitive pressures.

The implication of our argument is that increased competition might actually be a key source of financial instability and that, therefore, efforts to increase competition might cut across regulatory efforts to ensure greater financial stability. Since 2010, most of the largest banks have struggled to generate significant pre-tax profits or positive returns on equity. The average return on equity (ROE) in 14 of the largest global banks has fallen from 18.5% in 2005 to just 3.6% in 2015. Standard Charter (-4.6%), Credit Suisse (-6.5%) and Deutsche Bank (-9.6%) all recorded negative average returns on equity in 2015. It is generally estimated that a bank needs to achieve a return on equity in excess of 10% to compensate for the cost of capital (xx), but in 2015 only three banks – Wells Fargo (12.2%), UBS (11.3%) and JP Morgan (10.2%) – met this target. In this environment, increased competition in so far as it leads to increased pressure to generate higher profits could be a source of future financial instability.

References

ASIC [Australian Securities and Investment Commission] (2009) *Global Crisis: The Big Issues for our Financial Markets* [report]. ASIC Summer School, Sydney, 2-3 March 2009.

Bank of England (2014), Financial Stability Review. December

Beck, T (2014). 'Debate about Competition and Banking', On-line debate, *The Economist*, http://www.economist.com/debate/days/view/706#pro_statement_anchor

Blundell-Wignall, A. and Atkinson, P (2008) 'The sub-prime crisis: causal distortions and regulatory reform', in

Bloxham, P. and Kent, C. (eds)., *Lessons from the Financial Turmoil of 2007 and 2008* (Sydney: Reserve Bank of Australia).

Boot, A.W.A. and S.I. Greenbaum (1993), "Bank-Regulation, Reputation and Rents: Theory and Policy Implications", in C. Mayer and X. Vives (eds.) Capital Markets and Financial Intermediation (Cambridge University Press).

Boyd, John H. and Edward C. Prescott (1986), 'Financial Intermediary Coalitions, Journal of Economic Theory, 38, 211-232.

Boyd, J.H., and De Nicoló, G (2005). 'The Theory of Bank Risk-Taking and Competition Revisited, *Journal of Finance*, 60, 1329-343

Chan, Y, Greenbaum, S Anjan V. Thakor, A (1986). 'Information Re-usability, Competition, and Bank Asset Quality'. *Journal of Banking & Finance* 10: 255–276.

Crotty, J. (2009) 'Structural causes of the global financial crisis: a critical assessment of the 'new financial architecture', *Cambridge Journal of Economics* 33: 4, 563–580.

Edwards, J. (2008) 'The sub-prime mortgage meltdown: origins, trajectories and regional implications – Australia's experience in the sub-prime crisis', Address to the Flinders University International Expert Symposium, 16th May.

Engelen, E. Erturk, I., Froud, J., Johal, S., Leaver, A., Moran, M., Nilsson, A. and Williams, K. (2011). *After the Great Complacence: Financial Crisis and the Politics of Reform* (Oxford: Oxford University Press).

European Central Bank. 2014. Banking Structures Report. http://www.ecb.europa.eu/pub/pdf/other/bankingstructuresreport201311en.pdf.

Financial Crisis Inquiry Commission (2011) *The Financial Crisis Inquiry Report* (New York: Public Affairs).

Fishman, S. (2008), 'Burning Down his House'. *New York Magazine*, 30 November.

Gowan, P. (2009) 'Crisis in the Heartland', *New Left Review*, 55, January-February.

Haldane, A. (2012) 'Financial Arm's Races', Based on a speech to Institute for New Economic Thinking, Berlin, 14 April, 2012.

Hellwig, M. (2009) 'Systemic risk in the financial sector: an analysis of the subprime mortgage financial crisis', *De Economist* 157: 2, 157: 129-207.

Howarth, D. (2012) 'France and the international financial crisis: the legacy of state-led finance', *Governance*, 26: 369-95.

Independent Commission on Banking (201) *Final Report: Recommendations* (London: ICB).

Kalemli-Ozcan, S., Sorensen, B. and Yesiltas, S (2012) 'Leverage across firms, banks and countries'. NBER Working Paper 17354 (Washington DC: National Bureau of Economic Research).

Keeley, M (1990). 'Deposit Insurance, Risk, and Market Power in Banking'. *American Economic Review* 80 (5): 1183–1200.

Marcus, A (1984), "Deregulation and Bank Financial Policy." *Journal of Banking and Finance* 8: 557–65

Matthews, K. and Thompson, J (2005) *The Economics of Banking* (Chichester: John Wiley).

Macfarlane, Ian. 2009. 'The crisis: causes, consequences and lessons for the future. The Australian perspective'. In *Global Crisis: The Big Issues for our Financial Markets*, ASIC Summer School, 2-3 March 2009. Sydney: ASIC.

McGee, S. (2010) *Chasing Goldman Sachs: how the masters of the universe melted Wall Street down – and why they'll take us to the brink again* (New York: Crown Publishers).

Miliband, E. (2014) Speech on banking reform, University of London, 14th January.

Morgan Stanley. 2006. Annual Letter to Shareholders. New York: Morgan Stanley.

OECD (2010). 'Competition, Concentration and Stability in the Banking Sector. OECD, Paris.

Parliamentary Commission on Banking Standards (2013). *'An Accident Waiting to Happen': the failure of HBOS*. (HC 705, Fourth Report of Session 2012-13) – Volume I (London: TSO).

Parliamentary Commission on Banking Standards (2013b). *Changing Banking for Good*. (HC 175-I, First Report of Session 2013-14) – Volume 1: Summary, and Conclusions and recommendations (London: TSO).

Perman, Ray (2013) *Hubris: How HBOS wrecked the best bank in Britain* (Edinburgh: Birlin).

Reserve Bank of Australia (2009) *Financial Stability Review*. March (Sydney: Reserve Bank of Australia).

Royo, S. (2012) 'How did the Spanish financial system survive the first stage of the global crisis?' *Governance*, 26: 4, 631-56.

Rutherford, Hamish. 2007. 'HBOS Shares Slump on Mortgage Share'. *The Scotsman*, 13 June.

Schaeck, K., Cihak, M., and Wolfe, S. (2006) Are more competitive banking systems more stable? *IMF Working Paper*, 06/143

Sun, Y (2011), 'Recent Developments in European Bank Competition'. IMF Working Paper (WP/11/146).

Treasury (2012) *Banking reform: delivering stability and supporting a sustainable economy,* Cmnd 8356 (London: HMSO).

Walker, David (2009) *A Review of Corporate Governance in UK banks and Other Financial Industry Entities: Final recommendations* (London: HMSO).

World Bank (2013), *Global Financial Development Report: Rethinking the Role of the State in Finance*. World Bank, Washington