

Could the Icelandic banking collapse of 2008 have been prevented?

The role of economists in its unfurling*

John S.L. McCombie**

Cambridge Centre for Economic and Public Policy, University of Cambridge, UK

Marta R.M. Spreafico

Institute of Economic Policy, Catholic University of the Sacred Heart, Milan, Italy

In 2008, the three main banks in Iceland collapsed. There is strong evidence that the banks would have become insolvent even without the subprime crisis. Yet, there was a marked difference in opinion at the time about the viability of the Icelandic banks. A clean bill of health was given by the commissioned reports of Mishkin in 2007 and Portes in 2008, just prior to the collapse, whereas severe reservations about the Icelandic financial system were expressed by Wade, inter alios. These contrasting views were widely debated and may well have influenced both potential and actual foreign depositors in the banks. This paper analyses the disparate arguments put forward and contrasts it with the actual outcome. It considers the influence of economists in public policy debates and draws some methodological conclusions.

Keywords 2008 Icelandic banking crisis; financial regulation; rating agencies; role of economists; Special Investigation Commission.

JEL codes: A11, E6, G00

*We are grateful to Robert Wade and an anonymous referee for helpful comments. We would also like to thank the participants in the 19th FMM Conference, Berlin, 22 -24 October, 2015.

**John McCombie is Director of the Cambridge Centre of Economic and Public Policy, University of Cambridge (UK) and Fellow in Economics, Downing College, Cambridge, UK. Marta Spreafico is at Institute of Economic Policy, Catholic University of the Sacred Heart, Milan, Italy, and an Associate Member of the Cambridge Centre for Economic and Public Policy.

1 INTRODUCTION

On 9 October 2008, the UK Chancellor of the Exchequer, Alistair Darling unprecedentedly invoked the UK anti-terrorism laws to freeze the UK assets of the collapsed Icelandic Bank, Landsbanki Islands. This action was to protect the deposit savings of UK residents who had invested in the bank's online savings branch, Icesave. The nadir of the Icelandic banking system, which over the previous decade had enjoyed spectacular growth, was fast approaching. For a short time, Iceland had become an important international financial centre and the banking system came to dominate the small Icelandic economy. At its zenith, shortly before the banking collapse in 2008, the consolidated financial assets of the three big banks (Glitnir, Kaupthing and Landsbanki) were over nine times the size of Iceland's GDP (Dwyer 2011). The exceptionally fast rate of growth of Iceland's banking system over the period 2003-2008 is evidenced by the fact that five years earlier the ratio of assets to GDP was less than two. Briefly, for a short time, the banking system brought unparalleled prosperity to the country. In 2008, the country's per capita income exceeded that of the United States, but the growth had been accompanied by increased income inequality with the increasing importance of the banking sector.¹ The banks collapsed on the 8 and 9 October 2008 and the bankruptcy of the three banks is the third largest in the world, after Lehman Brothers and Washington Mutual.

The purpose of this paper is not primarily to discuss the causes and consequences of the Icelandic banking collapse, as these are by now well known.² Instead, the focus of this paper is on why some economists anticipated the crash and others were more sanguine. Many of these concerns of the economists were expressed in public meetings and lectures in Iceland, in reports or on blogs. In particular, we shall consider the views of Wade and his co-author, Sigurgeirsdóttir, (2009; 2010; 2012 a & b) who subsequently expressed why they had a number

¹ Much of the gains of financialisation went to the already wealthy. The Gini coefficient increased from 24.1 in 2004 to 29.6 in 2009. The share of income of the top one percent of the population increased from 5 percent in 2000 to 20 percent in 2008.

² There is a comprehensive literature on this topic. The most notable is the report of the Special Investigatory Commission (SIC), a report of several volumes to the Icelandic Parliament published in 2010. The SIC were given unprecedented access to all relevant financial documents and took extensive evidence from the major players. It is fair to say that the causes of the Icelandic banking crisis are now better understood than those of any other financial crisis. Only short, but informative, excerpts of the SIC report are available in English. Fortunately, Johnsen (2014), who was the Senior Researcher with the SIC, has written a detailed book of the crisis based on the SIC findings. The OECD (2009) survey of Iceland provides a discussion of the issues surrounding the collapse and Jännäri (2009) considers the performance of the regulatory system. We also do not discuss the subsequent events following the crisis, which are covered by Sigurgeirsdóttir /Wade (2015) and McCombie/Spreafico (2016).

of major concerns about the viability of the Icelandic banking system and the effectiveness of its regulation. However, it should be noted that Wade had expressed these concerns in public lectures in Iceland as early as 2005.

In 2006 there was the so-called short-lived ‘mini-crisis’, precipitated by a temporary loss of confidence in the Icelandic banks by the international financial markets and international rating agencies (Fitch and Moody’s). The Danske Bank, the largest Danish bank, was so concerned about the Icelandic banking situation that, although Iceland was not one of their core research areas, its research department issued a report in March 2006 entitled ‘Iceland: Geyser Crisis’. Part of its concern was due the rapid growth of the banking sector and part to the rapidly deteriorating macroeconomic situation.

All these raised important issues about the viability of the Iceland banking system. The SIC has shown that the government, the Central Bank of Iceland and the financial regularity body (FME) were at that time aware of the fundamental problems. However, they largely sought to counteract these with an orchestrated campaign to show that these concerns were ill-founded. Most notably, the Iceland Chamber of Commerce commissioned two reports, one by Mishkin, and his co-author Herbertsson (May 2006) and the other by Portes/Baldursson, with Ólafsson (November 2007).³ For convenience, we shall refer to these reports as Mishkin (2006) and Portes (2007). Both, these two reports each came to diametrically opposite conclusions to those sounding alarm bells. With a few minor reservations, both reports gave Icelandic banking a clean bill of health and any overseas investor accepting the conclusions of both these reports would not have had any reservations about keeping money in one of the Icelandic banks.

There is no doubt that these reports were very influential. They were not some obscure academic reports, but were widely cited by the Icelandic government, *inter alios*, and used to persuade investors and the other central banks that the Iceland banking system was sound. The SIC, for example, implies that the Mishkin report was sufficiently influential that it had a role in ending the mini-crisis, and, implicitly, may have induced unwarranted confidence in the banking system. Indeed, there is little doubt that Mishkin’s report ‘played a role in helping the Icelandic Banks to continue to borrow’ (Ferguson 2012: 254). The Prime Minister of Iceland, for example, informed the 2008 annual meeting of the Central Bank of Iceland that the ‘prospects are good’ and this ‘has been thoroughly confirmed by well-known scientists such as

³ Mishkin was paid a fee of \$135,000 and Portes was paid £58,000 for their reports respectively (Wade/Sigurgeirsdóttir 2010: 16, fn. 16 and 17, fn. 17 respectively). Mishkin disclosed the payment only when he was ‘required to, on the government financial disclosure form required by the Federal Reserve Board’ (Ferguson 2012: 253). These reports were given prominence in Ferguson’s documentary *Inside Job* and his book of the same name (Ferguson 2012) where he pointed out that these payments may well have led to a conflict of interest and should have been disclosed at the time of publication.

Frederic Mishkin, who has become governor of the US Federal Reserve, and Richard Portes, the well-known academic expert in the field' (cited by Wade/Sigurgeirsdóttir, 2010: 5). Morgan Stanley stated that the Mishkin report had reassured them that 'Iceland does not display meltdown characteristics' (Jónsson, 2009: 79).

Wade, among others, comes to a completely opposite conclusion. Wade adopts a political economy approach to the crisis. In a series of papers, he and Sigurgeirsdóttir have looked in detail at the historical political and economic changes in the Icelandic economy, including who were the beneficiaries of privatization of the banks and the network of connections between the power and financial elite, suggesting that these were important factors in the collapse. They trace how political connections over the decades dominated economic life in Iceland. Paradoxically, even as liberalization was introduced, this did not weaken the grip of the power and financial elite on the control of the economy. While a few other economists expressed concern about the Icelandic banking system immediately prior to its collapse, largely on account of its rapid growth, Wade and Sigurgeirsdóttir virtually alone correctly saw that the problems fundamentally stemmed from the close political and financial networks that existed in Iceland. (See, for example, Wade, 2009 and Wade/ Sigurgeirsdóttir, 2010 and 2012a). The close financial connections were dramatically confirmed by the SIC's detailed analysis of the extensive overlapping ownership links between Icelandic firms. (Johnsen, 2014: chapter 10).

In an op-ed in the *Financial Times* in July 2008a, Wade summarised many of the problems of the Icelandic banking system arising from poor regulation and conflicts of interest in the ownership of the banks. This drew a response from Baldursson/Portes (2008) who, in a letter published in the *Financial Times*, asserted that 'Robert Wade gets Iceland very wrong'. According to them, even as late as the latter part of 2008, the macroeconomic indicators were sound and there was effective bank regulation. Much of Wade's op-ed was dismissed as 'political, including rumour-mongering' by Baldursson/ Portes. However, Wade's concerns were echoed by Gylfason (2008) and Zoega (2008). The former was concerned about the rapid expansion of the banks, the latter about the unsustainable credit boom. A mere three months after Baldursson and Portes' strong reassurances, the Icelandic banking system collapsed.

This raises two issues. The *first* is the extent to which the impending crisis should have been foreseen by Mishkin and Portes, *inter alios*, but was not. After all, it could be argued that just as very few anticipated the subprime crisis, so likewise it might have been difficult to predict the Icelandic banking crisis. The *second* issue is that the two reports raise some interesting questions that go to the heart of conflicting methodologies in economics and the role of paradigmatic assumptions. It will be argued that the failure to see the impending Icelandic banking crisis was similar to the failure of Greenspan and many other mainstream economists to foresee the subprime crisis. This was due an uncritical reliance on broad published macroeconomic indicators and macroeconomic statistical relationships and a belief in the

assumption of the efficiency of financial markets and the effectiveness of light regulation. As a result of this, so the argument goes, there is, *a priori*, no need for any detailed investigation of the various institutions involved.

Although couched in diplomatic language (Gylfason, 2010), the conclusions of the SIC are clear-cut. The Icelandic banking collapse is a story of reckless expansion after financial deregulation, totally inadequate regulatory control and also regulatory capture, opaque financial accounting and bank reports, serious conflicts of interest and fraud.⁴ It was likely that 2006 was the last date by which policies could have been introduced to save the banking system (Flannery 2009).

So why was it missed by so many and, in particular, by Mishkin and Portes?

2 THE RISE AND FALL OF THE ICELANDIC BANKING SYSTEM

In this section, we briefly set out the background concerning the Icelandic banks for the subsequent discussion. Wade/Sigurgeirsdóttir (2010: 11), in particular, have traced the close ties of the political parties to commerce and finance in the early post-war period where ‘market transactions became political and personal, as credit and jobs were allocated by calculation of mutual advantage’. This patronage was increasingly challenged in the 1970s and, in 1991, the Independence Party came to power committed to implementing the neoliberal philosophy of deregulation. Yet, paradoxically, it merely replaced one set of patronage with another. Financial deregulation began in 1994 when Iceland, as part of the European Free Trade Area, joined with the countries of the European Economic Community to form the European Economic Area (EEA). This gave it access to the European financial markets, subject to EU financial regulatory rules that had to be incorporated in Icelandic law, as was the case for other EEA countries. Nevertheless, this gave a false sense of security as it turned out that there was financial fragility and the lack of a coherent regulatory framework across Europe in dealing with cross-border banking issues.

In the late 1990s, the financial sector did not play a major role in the Icelandic economy. It was small and consisted mainly of publicly owned banks. But this was to radically change in the early 2000s when the major banks were privatised. The privatisation of the banks displays all the characteristics of cronyism emphasised by Wade and Sigurgeirsdóttir. Landsbanki was sold to the Samson group comprising of three wealthy Icelandic business associates with strong political connections. They had “no previous experience of significant ownership in an Icelandic financial institution” (SIC, 2008, cited by Johnsen, 2014, table 5.1: 65). There was initially a stated government goal of involving in the purchase, but this was not enforced. The sale of the

⁴ At the time of writing (May 2016) 26 Icelandic bankers have been jailed.

banks was handled by a Committee of Privatization (CoP) and, as result of the selection of Samson, one member resigned “and claimed that he had never witnessed such unprofessionalism during his 11 years of service for the CoP” (Johnsen, 2014, p.67). The sale of Bunadbanki⁵ went to the S-Group, another Icelandic cabal with strong political connections. One of the conditions of the purchase was again that a reputable overseas bank should be an investor. When the purchase agreement was signed, the S-Group revealed that the international financial institution was a privately owned German bank, Hauck & Aufhäuser. It later transpired that nobody in the German bank knew anything about the purchase or had even heard of Bunadbanki (Johnsen, 2014: 71. See also OECD, 2009: 19).

Consequently, the Icelandic banking system became highly concentrated with a few large shareholders and close ties to the political elite, which included all the major political parties. It was a curious mix of free market deregulation, neoliberalism and crony capitalism.

The Icelandic banks initially attracted high ratings from the international rating agencies, primarily because of their close political links and implicit government support. There was also a hybrid merger of the investment banks with the commercial banks, with no sharp demarcation between them. Until the rapid development of the banking system, Iceland had been heavily dependent upon only two export activities, namely, fishing and aluminium. Hence, there was a deliberate attempt to diversify and turn Iceland into a low-tax financial sector based on the Swiss model.

The strategy of the banks was to borrow heavily in the foreign capital markets (especially the European Medium Term Note Market) to finance loans made to only a few Icelandic investment companies, such as Baugur and Samson. These companies were controlled by the main shareholders in the banks. The investment companies, in turn, used the loans to buy substantial equity stakes in foreign firms including high profile retail companies. By the end of 2007, the three largest banks relied on short-term financing for three-quarters of their funds, nearly all obtained from abroad.⁶ The OECD (2009: 22) likened Iceland’s international investment position to the ‘balance sheet of a hedge fund, with large debt-finance equity positions’. This posed two systemic risks.

The first was that if the prices of the international equities collapsed and the firms became insolvent, this would lead to a serious credit loss to the banks. Secondly, the banks relied

⁵ Bunadbanki later merged with a small brokerage firm and became Kaupthing, but its ownership remained largely the same.

⁶ 58% of their overall income was derived from branches located abroad. The net external debt increased by 142% of GDP over the next four years and most of this was due to the banks’ overseas borrowings. The net equity assets as a percentage of GDP grew to 99% of GDP, extraordinarily large by international standards.

heavily on the wholesale financial markets, rather than expanding through the growth of domestic deposits.

There was widespread conflict of interest in the privatised banking system right from the beginning. The owners of all the big three banks also became the major borrowers from the banks, at low rates of interest. They also received preferential treatment from the banks' subsidiaries, such as the investment banks (SIC 2010a). Thus, the owners were the principal borrowers and their debts in many cases exceeded the total equity of the banks.

In many cases, the activities of the owners were a classic case of Ponzi finance. They borrowed heavily from a bank using the proceeds to buy shares in the very same bank, driving up the price of the bank's shares. At other times, they purchased shares in one of the other big banks; the owners of which reciprocated: a practice known as 'cross financing'. All the banks purchased their own shares in automatically matched trades in the Stock Exchange in an 'attempt to elicit abnormal demand for their own shares' (SIC 2010a, chapter 2: 8). A vicious circle developed as, when the crisis unfolded, the more the shares dropped in value, the more the owners purchased their banks' shares in an attempt to stave off the impending crisis.

The SIC came to the conclusion that this and the excessive leverage threatened the stability of the banking system long before the collapse. But there was also a related effect. The apparently larger equity base provided the foundations for rapid growth, but one that led to an increase in operational risk. The eventual collapse in the banks' share price was not the fundamental cause of the problem; it was a consequence of the risks already inherent in the Icelandic banking system.

This was also aided and abetted by expansionary policies of the Iceland government, which cut direct and indirect taxes. Furthermore, the relaxation in the guidelines for housing loans in 2004 was also imprudent. These led to major macroeconomic imbalances in the economy, which, by themselves, would have led to the hard lending.

The SIC concluded that the CBI knew of the weaknesses of the banks yet did nothing to prevent them and continued to make huge loans to the banks against the 'weak equity' (the banks' own shares that was used to provide collateral) that was barely compatible with the legal provision of valid collateral. What is interesting is that the parlous state of the banking system was known to the CBI and also to the banking regulators long before the crash. The SIC report considers that 2006 was probably the last chance the government had of taking decisive action to prevent the crash.

Consequently, by 2006, the signs for all to see were that there was a crisis looming, but perhaps not that it would lead to a financial meltdown. The Government set up an ad hoc coordination committee, although it proved largely ineffective.

The details of the Icelandic crisis are well-known and need not detain us to long. The rapid growth of the three Icelandic banks was accompanied by increasing fragility, for the reasons

noted above. The proximate cause of the crash was the freezing of the international financial markets in mid 2007 due to the subprime crisis. The Icelandic banks had extensively borrowed short-term from these markets. The consequent move to a greater reliance on off-shore deposits from the on-line banks Icesave and Kaupthing Edge could not offset the rapid withdrawal of wholesale deposits in foreign currency. In the end, the banks collapsed because the CBI could not act as the lender of last resort for foreign currency.

3 TO WHAT EXTENT SHOULD THE BANKING CRASH HAVE BEEN FORESEEN?

Concerns were building up in 2005 and were explicit by 2006. Johnsen, who had worked at the IMF on credit crises (see Hilbers et al., 2005) was particularly worried and expressed concern to several Icelandic authorities. Under certain conditions, the rapid growth of credit, such as Iceland was experiencing, is a clear indication of an impending banking crisis. Empirical research suggests that there is a credit boom if the growth of real credit exceeds 17% per annum and about 50% over a three-year period (Hilbers et al., 2005). This should have set alarm bells ringing in the case of Iceland. The three-year cumulative percentage growth rates since 2000 were 42.7 (2000); 44.8 (2001); 45.28 (2002); 36.80 (2003); 44.57 (2004); 77.11 (2005); 97.64 (2006); and 77.88 (2007). Concerned by such findings (see *Vidskiptabladid*, 2007), Johnsen approached the CBI, the Prime Ministry of Iceland and the FME; none were interested in discussing the matter with her.

The credit rating agencies expressed doubts about the banking system at this time and downgraded the banks ratings, only to upgrade them shortly after, having been convinced by the banks that there was nothing fundamentally wrong. Particularly influential was the Merrill Lynch report of 7 March 2006, 'Icelandic Banks – Not what You are Thinking'. (See also Fitch, 2006a; 2006b and 2006c.) The Danske Bank report on 21 March 2006, 'Iceland: Geyser Crisis', argued that many of the macroeconomic indicators for Iceland were worse than those for Thailand, immediately before the 1997 Asian crisis and Turkey before the 2001 crisis. As Johnsen (2014: 84) notes the authors of the report 'were sufficiently specific in their analysis for anybody with any knowledge of the matter to take notice'.⁷

⁷ Jónsson (2009: 77), even with the benefit of hindsight, dismisses the Danske report merely as an attempt 'to step into the limelight and garner international exposure for its research team by reporting on the hot topic of the day'. The rapid increase in spreads on Icelandic banks in 2006 was simply due to a few hedge funds acting out of anti-Icelandic sentiment more than anything else (p.74). What is interesting is that Johnson was Head of Research and Chief Economist at Kaupthing Bank.

Aliber also expressed concern in 2006.⁸ Looking back on the crisis, Aliber/Zoega (2011: 5) wrote that, because of the macroeconomic imbalances, the huge current account deficit (even when excluding FDI), the rapid increase in the prices of stocks and of the assets of the big three banks, ‘it was also obvious that Iceland would experience a crash like the one observed in Mexico and Thailand, since a ‘limit theorem’ applies to the external indebtedness of a country, which cannot increase relative to its GDP for an extended period’.

The IMF in its Staff Report on Iceland of 13th July 2006 expressed guarded worries about the financial sector, although they had to accept the traditional indicators that the financial sector was healthy.

The first major report to contradict such concerns was that of Mishkin/ Herbertsson (2006) to which we turn next.

3.1 ‘Financial Stability in Iceland’. The report by Mishkin and Herbertsson (May 2006)

The core of Mishkin’s (2006) report is the discussion of what is seen as the three main routes to financial instability. These are (i) ‘financial liberalization with inadequate prudential regulation and supervision’ (p.36), (ii) ‘severe fiscal imbalances’ (p.39) and (iii) ‘imprudent monetary policy’ (p.40). None of these were considered to present a major problem for Iceland, but it is useful to consider the report under these headings to see how they stand up to scrutiny. The Mishkin report draws heavily on published financial and other indicators from which inferences are drawn. It clearly was not considered necessary by Mishkin to put the privatization and growth of the banks into a political and historical context. There was no detailed discussion about the functioning of specific financial institutions and their performance, beyond *assuming* that the banks operated in a prudent manner and financial regulation by the Financial Supervisory Authority (FME) was effective.

3.1.1 ‘Financial Liberalization with Weak Prudential Regulation and Supervision’

The report outlines the causes of financial crisis, following Mishkin (1992), who attributes them to a combination of asymmetric information, adverse selection and moral hazard. The first, drawing on the work of Akerlof (1970) and the ‘market for lemons’, occurs when the lenders in the debt and equity markets have difficulty in differentiating whether a borrower represents a good or bad risk. Under these circumstances, the financial markets will not function well and credit rationing will occur. Adverse selection results when, with high interest rates, only those

⁸ Alber, in 2006, on the basis of publically available data, considered Iceland’s financial rise to be “the perfect bubble”. In May 2008, giving a seminar at the University of Iceland, he opined that the Icelandic banks only had nine months left before they would collapse (Lewis, 2010: 215-216).

with very risky projects will seek funds. Thus, even a small rise in the interest rate can lead, according to Mishkin, to a large decrease in lending as banks become increasingly concerned about adverse selection. Moral hazard occurs after a loan has been granted and is where the borrower engages in activities that if known by the lender, would not have led to the loan being advanced.

Mishkin's definition of financial instability (2006: 31) emphasises the risks posed to the banks by poor performing loans rather than the risks generated by the banks themselves. It is assumed that without informational failures, the banks will optimally allocate financial capital rather than themselves generating financial instability and the misallocation of capital. But, in the case of Iceland, the instability almost entirely came from the risky actions of the banks.

Mishkin notes that bank instability generally occurs immediately after financial liberalisation, when regulation is in its infancy and is not particularly effective, because of lack of regulatory experience. He thus tended to discount poor regulation and lack of banking expertise as a problem in Iceland, as the process of financial deregulation in Iceland was concluded about ten years earlier in 1995 (see Mishkin 2006: 8). But what he overlooks is that it was only in 2003 that the privatization of the banks was finalized. It was then that the incentive structure of the banks managers' and employees changed with the widespread introduction of the use of stock-options and bonuses. This led to greater risk taking in search for higher rates of return and the banks started on their policy of extremely rapid growth. It also led to misreporting of the accounts (Johnsen 2014: chapter 14). Mishkin was well aware of this rapid growth, but does not express any concern. According to the Report, the banks had more than enough time since 1995 to 'develop the expertise to manage risk' given by the new opportunities that deregulation brought. However, until 2003 the Icelandic banks undertook what was essentially vanilla banking that did not need detailed regulating.

The new owners of the banks had virtually no experience of banking. The banks grew rapidly by both internal growth (making more loans) and external growth (buying up other financial institutions or other assets). The problem of the former is that with its rapid growth the quality of the loans decreases and the management of the loans becomes poorer. This can give rise in future years to problems of default. There was an exceptionally rapid growth of the banks in both these areas from 2003.⁹ By 2006, from the published figures, it should have been apparent that the banks' asset portfolio was one of high risk (see SIC 2010a, chapter 21: 3).

Mishkin (2006: 8) asserted, however, there was no cause for concern as 'prudential regulation and supervision is generally quite strong'. The financial regulator is the Financial Supervisory Authority (FME), which is independent of the CBI. According to Mishkin (2006: 42), 'in

⁹ External growth rates were 57.5 % in 2004 and 24.7 % in 2005, and in organic growth was 43.5 % (2004) and 59.5% (2005).

contrast to the inadequate prudential supervision in countries that have experienced financial instability, Iceland's prudential supervisors are seen as honest and competent. *Their statements that the banking system is safe and sound should be taken at face value*'. The evidence is based largely on a number of highly aggregate indicators such as the corruption perception index and economic freedom index constructed for individual countries, which place Iceland in a favourable light. However, this is clearly no substitute for a detailed assessment of the financial structure of the Icelandic banking system.

Consequently, the regulatory powers of the FME were seen as comprehensive and sufficient by Mishkin. But were there any indications in 2006 that the FME would turn out to be so ineffective as documented by the SIC and Johnsen (2014)? In particular, was there any evidence that the resources and expertise of the FME had not matched the rapid growth and increasing complexity of the banking system?

Wade/ Sigurgeirsdóttir (2012b) note that the offices of the FME were physically decrepit and the financiers and bank officials were scornfully dismissive when called to meetings there. The website of the FME, and its annual reports, make the FME appear very professional. However, even a cursory glance at the very small size of the FME's staff readily available in these reports should have raised some questions. Moreover, the FME lacked the necessary information technology and computer experts for continuous financial monitoring, so that the FME 'did not really have the foresight of the activities of the financial institutions that was so urgently needed' (SIC 2010a, chapter 21:100). Furthermore, the turnover of the staff of the FME was high, especially in the two divisions covering the credit and securities market, as employees moved to the better paid private sector jobs.

But the position was worse than this. 'The FME did not sufficiently concern itself with some basic questions, such as the size of the banking system, and the Authority's necessary reactions in regard to its much too rapid growth' (SIC 2010a, chapter 21: 99). It furthermore lacked firmness to ensure that those decisions it made were implemented by the financial corporations, although it had the legal powers to do so. The FME, right up until the end of 2008, 'unreasonably' (as the SIC put it) did not consider that there were any major problems threatening the banks. The stress tests of the FME were flawed, and gave a misleading impression of the banks' situation. As Flannery (2009: 102) notes, 'the questions raised [by outside analysts] about the Icelandic bank's portfolios were quite specific, dealing with the extent of lending to related parties and credit risk concentrations'. One major problem was reflected in the repeated concerns about the limited information of the bank's asset quality. The 'weak equity' meant that the reported capital adequacy ratios were misleadingly high.

The potential problems of the CBI lender of last resort were dismissed by the report as it was asserted that the CBI had international lines of credit, including those with the other Nordic countries. Unfortunately, these turned out to be inadequate and the SIC traces the growing

isolation of the Iceland authorities from the other Central Banks. The report also considered that the likelihood of a self-fulfilling prophecy of a run on the Icelandic banks (the existence of multiple equilibria), was small, because the underlying fundamentals of the economy were strong.

With the benefit of hindsight, the crisis was the result of the rapid growth of the banking system with weak prudential regulation and supervision. Mishkin briefly touches on the first potential problem, the rapid (credit) growth of the banks, which is not assessed in any detail and dismissed with the comment ‘the banks are beginning to deal with this criticism by selling (or planning to sell) shares in companies where cross-ownership seems to be a potential problem’ (Mishkin, 2007: 53). They did not do nearly enough to reduce the systemic risk.

3.1.2 ‘Severe Fiscal Imbalances’

Severe fiscal imbalances were dismissed as a cause for concern as the government was running a budget surplus over much of this period and government net debt fell from 31% of GDP in 2003 to a small net asset position of 0.8% in 2008. In retrospect, this was not the main cause of the banking crisis. Nevertheless, as the OECD (2009: 41) points out, ‘the government should have gone further, thereby providing a greater counterweight to the unsustainable boom in private domestic demand’.

3.1.3 ‘Imprudent Monetary [and Fiscal] Policy’

The Mishkin report does not find anything much to criticise about the macroeconomic policy. However, prior to the mini crisis, the CBI had let, in the words of the OECD (2009: 33), an ‘unsustainable, domestic-demand led boom’ develop; although the growth rate of output was rapid.¹⁰ This was accompanied by a stock market and house price bubble and the CBI’s monetary policy was not sufficiently restrictive. Taxes were lowered, purely for political reasons. The economy was overheating and there were concerns of a hard landing, especially if the exchange rate fell precipitously. Even without the banking crisis, it was predicted by the OECD that the economy would have experienced a decline in its growth rate.

Mishkin also considered the current account deficit, which by 2005 was 26% of GDP. This is dismissed as a problem on the grounds of the neoclassical proposition that current account deficits could result from optimal behaviour on the part of households, firms, and governments. If the heroic assumptions are ignored, this statement could be reassuring. In other words, in much the same way as Lucas argues that theoretically there is no such thing as involuntary

¹⁰ It averaged over 6% per annum in the four years up to 2007.

unemployment and employment fluctuations are simply due to agents inter-temporally optimising their work-leisure trade-offs in the face of productivity shocks, so current account deficits are optimal as they are determined by the actions of rational optimising agents. Of course, as Mishkin points out, part of the deficit could be due to FDI in the aluminium industry, but this cannot explain the whole of the deficit, which was also driven by short-term capital flows (Danske 2006). Moreover, this had the effect of driving up the exchange rate to about 25% above its equilibrium value. The share of household savings as a percentage of GDP was negative for much of this period.

However, this ignores the extensive empirical evidence that there is a limit to the size of the net overseas debt to GDP ratio (about 50%) before the international foreign markets become exceedingly nervous and there is a balance-of-payments crisis and a currency crisis (see Catão/Milesi-Ferretti 2013). In 2005, the net overseas debt of Iceland had risen to just under 150%, an increase of 40% in three years. Consequently, while the growth rate of economy would have probably slowed in 2007 as a consequence of the poor macroeconomic policies, it was not the major cause of the banking crisis and so we shall not consider it further.

Mishkin (2010) later defends his report in these terms: ‘My co-author and I did correctly identify several risks to Iceland, including rapid credit growth, a lack of transparency in the banking system and the possibility that banks could experience refinancing problems’. This defence is not compelling. First, the report concludes unequivocally ‘The analysis in this study suggests that although Iceland’s economy does have imbalances that will eventually be reversed, financial fragility is not high, and the likelihood of a financial meltdown is very low’ (Mishkin 2006: 56). The only *caveat* expressed was the danger of a run on the banking system due to a self-fulfilling prophecy and, hence, the need to bolster confidence in the banks. The probability of a bank run was seen to be ‘small’, but the possibility could not ‘be ruled out, as with any risk’.¹¹ Secondly, as far as we are aware, given that the report was used uncritically to increase confidence in the Iceland banks, nowhere in the public debate did Mishkin, *inter alios*, emphasise any of the, admittedly minor, concerns arising from his report. Moreover, the earlier concerns raised by the credit rating agencies and problems of the Iceland economy already in the public domain and emphasised by the Danske Bank (2006) report were largely ignored.

¹¹ It is interesting to note that Herbertsson, Mishkin’s co-author, was reported by the *Financial Times* as late as March 2008 as considering that the situation was close to ‘becoming a self-fulfilling prophecy’ (Ibison 2008). It was just the result of ill-informed opinions by the international financial of the state of the banks. Portes was also reported as expressing the same sentiments.

3.2 'The Internationalisation of Iceland's Financial Sector.' The report by Portes and Baldursson (November 2007)

The Portes report was published at the end of the mini crisis in November 2007, but just before the subprime crisis had its major impact. Like the Mishkin report, it concentrated mainly on published financial indicators which, apart from those relating to the current account, were uncritically accepted. This is especially true with regard to the published data on the banks, such as the rate of returns on assets and equity and the capital ratios. The mini-crisis is dismissed primarily as an 'informational crisis' (Portes et al. 2007: 1). The implication is that while there were indeed problems in disclosure and transparency, there were no fundamental problems with the banks' viability and the crisis was not due to shocks to the sector. This, according to the report, is evidenced by the fact that there was no increase in debt default. Moreover, the 'Icelandic financial sector responded quickly and decisively' (Portes et al. 2007: 1) to the mini crisis. The resilience of the financial system 'has proved excellent' (Portes et al. 2007: 2). The deposit base was expanded and cross-holdings were largely eliminated and there was greater disclosure in the banks' accounts.

Certainly, the banks did change their strategy as they diversified away from the wholesale markets by expanding their deposit base by aggressive expansion in the retail banking sector in European countries. This was done by offering higher interest rates compared with other European banks. In fact 'the February 2006 turbulence worked as an alarm bell putting the banks in a much stronger position to come through the current liquidity squeeze unscathed' (Portes et al. 2007: 20).

However, there is no compelling evidence for this view. While the banks did make some attempt to adjust in response to the financial markets concerns, 'some of the banks' responses to the analyst's criticisms were more directed at style than substance' (Flannery 2009: 99). It addressed the *form* but not the *substance* of the financial markets' concerns. Moody's in January 2008 placed Landsbanki on review for a potential downgrade because of its heavy reliance on internet deposit accounts (such as Icesave). Moreover, the increase in retail deposits did not offset the loss in the wholesale deposits. The banks continued to prop up their own shares by issuing loans that were used for their purchase. And while they attempted to reduce the degree of cross-holdings, there was a rapid growth in loans to 'holding companies' that were considered to be closely related to the banks and were therefore questionable creditors.¹² Nevertheless, the report notes that Iceland banks had lower ratings than the Nordic banks. 'We

¹² As Jännäri (2009: 30, emphasis in the original) commented 'Even if the number of large exposures in these banks was small, it is still very unusual that banks as large as these should have so many large exposures of this nature. My judgement is that their **behaviour** in this regard **has been very imprudent**'.

see no justification for this in their risk exposure' (Portes et al. 2007: 1). The fact that the Icelandic banks did have a higher than average risk profile than the other Nordic countries is, according to the report, 'compensated by unusually high capital ratios'. However, this overlooks the fact that the quality of the banks' assets was considerably weaker than the published figures suggest. There are other factors that cast doubt on the strength of the Icelandic banks including the high degree of 'weak equity', risky lending to, for example, construction companies, and dubious accounting practices. Flannery (2009: 102, emphasis added) summarises it succinctly when he writes: 'Although their [the Icelandic banks'] accounting standards showed high asset quality, high earnings and high capitalization, all three characteristics depended on an important *managerial judgement*: the accuracy of the banks' loan loss allowance'.¹³

What is remarkable is that even as the crisis deepened, the incident of delinquent loans reported by the banks barely altered. (Portes sees this as an indication of the strength of the banks, whereas Flannery suggests it should have sounded warning bells.) There is evidence reported in the SIC (2010a) that the banks engaged in renegotiating delinquent loans rather than declare them as in default.¹⁴

So if this is correct, what did this imply about the effectiveness of financial regulation of the banks? Nothing, according to the report – 'it has proven to be excellent' (p.2). Like the Mishkin report, the Portes report considered that the financial regulation, as it was determined by the international standards, was strong (p.14). The FME has 'considerable enforcement powers' with which to monitor and enforce prudent behaviour of the banks (p.14). Moreover, the FME 'budget has recently been doubled to enable it to keep pace with the rapid growth of the financial sector'. However, the FME was markedly understaffed in 2007 and there was no evidence of any dramatic increase in resources to the FME during the rapid expansion of the banks until 2007.

The problem of the CBI acting as a lender of last resort is not seen as a major problem and is brushed aside in the Portes report. This is directly contradicted by the views of Johnsen (2007) and Buiters/Sibert (2008). The latter argued that because of the exposures to foreign deposits and loans, Iceland needed a foreign currency as well as a normal lender of last resort and the CBI

¹³ The allowance for loan losses (ALL) is an important indicator of a bank's profitability, but if it is understated it misleads investors about the quality of the loans, and produces artificially high returns on equity.

¹⁴ There were other accounting methods used to prevent loans being written off. After all, a loan may eventually come good in the future even if it is with a very small probability. Also about half of the banks' loans were zero-coupon loans where during the life of the loan, the borrower was not required to pay any interest or repay any of the loan (the interest is capitalised into the final repayment) so it was little wonder that delinquent payments were so low in the run up to the crisis. The loans did not generate any cash repayments which could be subject to a default.

was simply incapable of playing this role. Hence, *pace* Portes, Iceland's 'business model' is not viable' (Buiter/Sibert 2008: 1).

It is interesting to note though that Buiter and Sibert considered that 'if, however, the authorities think that the Icelandic banks are fundamentally sound, and most knowledgeable economists, including the authors of two recent reports on Iceland's economy and financial system (Mishkin/Herbertsson (2006) and Portes et al. (2007)) believe this to be true, then it is likely to be worth the risk to attempt to avert a crisis that could result in the insolvency of one or more of the banks.' (Buiter/Sibert 2008: 2). Two comments are apposite at this stage. The first is not only did the authorities, broadly defined, know the banks were bordering on insolvency, but they were part of the cause of the problem. The second emphasises the influence of the Mishkin and Portes reports on the public perception of the crisis.

So to what extent is the conclusion of the report justified? 'Our view, which appears to be shared by the regulatory authorities (the [FME] and the CBI) is that these are in fact very well run banks. Their management is indeed entrepreneurial, but they are wary of becoming involved in anything they do not understand, and they are very focused on risk managements' (Portes et al. 2007: 35).

But all the detailed evidence based on how the banking system worked in practice and critical examination of their accounts at that time gives no support for this conclusion. Arguments about the effectiveness of the FME are merely an assertion in the report, backed up by no compelling evidence.

The SIC report clearly demonstrated that the banks' books were far from healthy. Ironically, Baldursson/Portes (2013), building on the study and statistics of the SIC, not surprisingly confirm the SIC's findings about the behaviour of the bankers of Kaupthing in using the banks own funds in an attempt to maintain its share price.¹⁵ Yet curiously, they consider this to be case of what is known as 'gambling for resurrection'. This occurs when the financial situation is so dire that a bank rationally undertakes high-risk financial activities, where there is the possibility of high rate of return, but with a low probability of success, in an attempt to stave off its collapse. The implication is that because the banks had such large exposures to the international financial markets, the freezing of international liquidity caused the banks to crash (as Buiter/Sibert (2008), but not Portes et al., (2007) warned about). Thus, the banks supposedly were sound in November 2007, but were caught out by the generally unforeseen subprime crisis and its contagion effect. Hence, their risky financial decisions should be seen in this light.

¹⁵ Baldursson/Portes (2013) do not mention the unequivocal position they took as late as 2008 that the Icelandic banking system was healthy. There is no reference to the interchange with Wade in the pages of the *Financial Times* or the warnings voiced in 2006 and discussed above.

But, as Black (2014a and b) has, rather polemically, emphasised, this is a complete misreading of the evidence. The banks engaged in reckless behaviour right from the start of their privatisation acting solely in the interests of the few large shareholders, as noted above and shown by the SIC (2010a) and Johnsen (2014). The bank's behaviour was not 'gambling for resurrection', but rather 'looting' in Akerlof and Romer's (1993) sense of the term.¹⁶ (Black terms it 'accounting control fraud'.) Given the close political networks, the absence of an effective regulatory body, perceived freedom from prosecution and the implicit guarantee from the government of a bailout, it becomes optimal to make high risk and fraudulent decisions if they are to the direct benefit of the owners, although there is a high probability of loan default and even bankruptcy. Akerlof /Romer (1993) produce a simple model illustrating how this can occur.

4 CONCLUDING COMMENTS

In this paper, we have contrasted two diametrically opposed views on the state of the Icelandic economy and its banking system. These were the views of Wade and Sigurgeirsdóttir, *inter alios*, and Mishkin and Portes. The importance of all these views is that they entered into the public arena as they were debated in the media and may well have influenced investors' decisions about whether or not to make deposits with the Icelandic banking system. Indeed, it seems to have been the major aim of the Icelandic Chamber of Commerce, who commissioned the reports of both Mishkin and Portes, and the Icelandic government to convince the financial markets that there was nothing fundamentally wrong with the Icelandic banking system. The causes of the banking crash were exhaustively examined by the Special Investigation Commission and it is clear that the reports of Mishkin and Portes were far too sanguine, given the information available at the time, and the concerns of Wade and Sigurgeirsdóttir were vindicated.

The question arises as to why there was such a divergence of opinions. The answer involves a consideration of the different underlying methodologies. The Mishkin and Portes reports drew largely on published data and they assumed that the banking data were reliable. They also made the erroneous *assumption* that the regulatory body (the FME) and the CBI were effective and all the banks were well managed. In the case of the Mishkin report, this was largely based simply on the fact that Iceland was an advanced country and a number of aggregate indices pointing to lack of corruption, etc. The Portes report drew uncritically on a number of banking indices such

¹⁶ Gambling for resurrection is where a bank or financial institution gets into serious financial difficulties and takes high risk investment or loan decisions, but which will, if successful, bring a high return, albeit with a low probability.

as the rate of return on equity and the capital ratios, without any explicit consideration as to whether these reflected the correct financial health of the banking system: they didn't. Of course, it could be argued that only after the banks' nationalization did the full extent of the degree of cross-holdings, poor quality loans to the owners, weak equity, and the misleading values of the capital ratios become apparent. However, it was these precise concerns that the rating agencies and others raised, which led to the mini-crisis of 2006.

Implicit in both reports is an erroneous assumption that regulation was effective. This assumption receives support from the *a priori* belief in the efficient market hypothesis and that banks always behave largely in an ethical manner. Self-regulation by the financial sector itself and the fear of reputational damage is assumed to be sufficient to ensure the financial markets operate efficiently, with only the need for light government regulation. This was also at the heart of the approach of Greenspan and is one of the reasons why the subprime crisis was unanticipated by the Federal Reserve and the Federal Open Market Committee.

Yet even a cursory knowledge of, for example, the US Savings and Loans debacle in the early 1990s (Black, 2014a) and the partial failure of the regulatory bodies (in that crisis caused by lack of resources and political lobbying), and the bankruptcy of Enron and the complicity of the internal auditors (Arthur Andersen) should have raised severe doubts.

Drawing inferences from merely a series of macroeconomic indicators and the mere existence of a regulatory body, supposedly following accepted international banking standards, produced an erroneous and misleading picture of the soundness of Iceland's banking system. As Wade and Sigurgeirsdóttir (2010, 2012a) have clearly shown, it was only from a detailed knowledge of the political and economic history and the complex political and financial interlinkages, including widespread political patronage, that a more sceptical and accurate picture emerges. In other words, it is an approach that emphasises the need for a detailed case study of the various institutions and the pressures exerted by them – the antithesis of the deductive approach inherent in neoclassical economics.

In the wake of the crisis, the SIC also contained a working group on ethics (SIC, 2010b). It is worth citing one of their conclusions. 'The most important lessons to draw from these events are about weak social structures, political culture and public institutions.' This emphasises the need for what be best termed a political economy approach to understanding financial crises that involves more than just macroeconomic variables and their relationships.

5. REFERENCES

Akerlof, G. A. (1970): The market for 'lemons': quality uncertainty and the market mechanism, in: *Quarterly Journal of Economics*, 84(3), 488-500.

- Akerlof, G. A., Romer, P. A. (1993): Looting: the economic underworld of bankruptcy for profit, *Brookings Papers on Economic Activity*, 1993(2), 1-73.
- Aliber, R.Z., (2008) Monetary turbulence and the Icelandic economy, mimeo, reprinted in Aliber R.Z, Zoega. G (2011): *Preludes to the Icelandic Financial Crisis*, Basingstoke: Palgrave Macmillan.
- Aliber, R. Z., Zoega, G. (2011): *Preludes to the Icelandic Financial Crisis*, Basingstoke: Palgrave Macmillan.
- Baldursson, F. M., Portes, R. (2008): Criticism of Icelandic economy does not square with the facts, *Financial Times*, 4 July, available at <<http://www.ft.com/cms/s/0/f11a86b2-4960-11dd-9a5f-000077b07658.html#axzz39mn3b16l>> (accessed 29/08/2014).
- Baldursson, F. M., Portes, R. (2013): Gambling for resurrection in Iceland: the rise and fall of the banks, CEPR Discussion Paper, No. DP9664.
- Black, W. K. (2014a): *The Best Way to Rob a Bank Is to Own One: How Corporate Executives and Politicians Looted the S&L Industry*, Austin: University of Texas Press (2nd ed).
- Black, W. K. (2014b): The Icelandic chutzpah prize is retired: Portes and Baldursson win by losing, *New Economic Perspectives* at <<http://neweconomicperspectives.org/2014/01/icelandic-chutzpah-prize-retired-portes-baldursson-win-losing.html>> (accessed 25/03/2015)
- Buiter, W. H., Sibert, A.C. (2008): The Icelandic banking crisis and what to do about it: the lender of last resort theory of optimal currency areas, Mimeo, Revised version 23 July 2008 at <https://www.google.co.uk/?gws_rd=ssl#q=The+Icelandic+banking+crisis+and+what+to+do+about+it:+>> (accessed 24/01/2016)
- Catão, L. A. V., Milesi-Ferretti, G. M. (2013): External liabilities and crisis risk, IMF Working Paper, No. 13/113, Washington, D.C.
- Danske Bank, (2006): Iceland: Geyser Crisis, 21 March, at <www.mbl.is/media/98/398.pdf> (accessed 12/08/2014).
- Dwyer, G. P. (2011): Economic effects of banking crises: a bit of evidence from Iceland and Ireland, centre for financial innovation and stability, Federal Reserve Bank of Atlanta, available at <http://www.frbatlanta.org/cenfig/pubs/cf/nftv_1103.cfm> (accessed 12/08/2014).
- Ferguson, C. (2012): *Inside Job: The Financiers Who Pulled Off the Heist of the Century*, London: Oneworld Publications.

- Fitch, (2006a): Bank Systemic Risk Report, 6 February.
- Fitch, (2006b): Outlook for Issuer Default Ratings for Icelandic Companies, 21 February.
- Fitch, (2006c): Fitch Ratings, Sovereigns. The Republic of Iceland, 14 November at <http://www.sedlabanki.is/lisalib/getfile.aspx?itemid=9027> (accessed 12/08/2014).
- Flannery, M. J. (2009): Iceland's failed banks: a post-mortem, prepared for the Icelandic Special Investigation Committee, 9 November. Appendix 3 of the Special Investigation Commission (2010a).
- Gylfason, T. (2008): Events in Iceland: skating on thin ice?, *Vox*, 7 April, at <http://www.voxeu.org/article/events-iceland-skating-thin-ice> (accessed 12/08/2014).
- Gylfason, T. (2010): Iceland's special investigation: the plot thickens, *Vox*, 30 April at <http://www.voxeu.org/article/iceland-s-special-investigation-plot-thickens> (accessed 12/09/2014).
- Hilbers, P., Otker-Robe, I., Pazarbasioglu, C., Johnsen, G. (2005): Assessing and managing rapid credit growth and the role of supervisory and prudential policies, IMF Working Paper WP/05/151.
- Ibison, D. (2008): Whispers shake faith in boom, *Financial Times*, 26 March, available at <http://www.ft.com/cms/s/0/81446b06-fad6-11dc-aa46-000077b07658.html#axzz3A4ODLnHa> (accessed 29/08/2014)
- IMF (2006), Iceland, Staff Report at <https://www.imf.org/external/pubs/ft/scr/2006/cr06296.pdf> (accessed 12/08/2014)
- Jännäri, K. (2009): Report on banking regulation and supervision in Iceland: past present and future, Iceland: Prime Minister's Office, available at <http://eng.forsaetisraduneyti.is/news-and-articles/nr/3581> (accessed 12/08/2014).
- Johnsen, G. (2007): Credit rating: a blessing or a curse?, (Eng. trans.) *Vidskiptabladid*, March 7, p.14, Reykjavik.
- Johnsen, G. (2014): *Bringing Down the Banking System*, London: Palgrave Macmillan.
- Jónsson, A. (2009): *Why Iceland?: how one of the world's smallest countries became the meltdown's biggest casualty*, New York: McGraw-Hill.
- Lewis, M. (2010): Wall Street on the tundra: the implosion of Iceland's economy, in Carter G. (ed.) *The Great Hangover*, New York, Harper Collins.
- Merrill Lynch, (2006): Icelandic banks. Not what you are thinking, 7 March.
- McCombie, J.S.L., Spreafico, M.R.M. (2016), Capital controls and the Icelandic banking

- collapse: an assessment in Arestis P. and Sawyer M. (eds), *Financial Liberalization, Past, Present and Future, International Papers in Political Economy*, London, Palgrave Macmillan.
- Mishkin, F. S. (1992): Anatomy of a financial crisis, in: *Journal of Evolutionary Economics*, 2(2), 115-30.
- Mishkin, F. S. (2010): The Economist's reply to the 'Inside Job', Economists' Forum, *Financial Times*, 8 October at <http://blogs.ft.com/economistsforum/2010/10/the-economists-reply-to-the-inside-job/> (accessed 12/08/2014).
- Mishkin, F. S., Herbertsson, T. T. (2006): Financial stability in Iceland, Reykjavík: Iceland Chamber of Commerce, May.
- OECD, (2009): *Economic Surveys, Iceland*, Paris: OECD.
- Portes, R., Baldursson, F. M., Ólafsson, F. (2007): The internationalization of Iceland's financial sector, Reykjavík: Iceland Chamber of Commerce (November).
- Sigurgeirsdóttir, S., Wade, R. H. (2015): From control by capital to control of capital: Iceland's boom and bust, and the IMF's unorthodox rescue package, in: *Review of International Political Economy*, 22(1), 103-133.
- Special Investigation Commission (SIC), (2010a): Report of the Special Investigation Commission (SIC), report delivered to Althingi, the Icelandic Parliament, at <http://www.rna.is/eldri-nefndir/addragandi-og-orsakir-falls-islensku-bankanna-2008/skyrsla-nefndarinnar/english/> (accessed 12/08/2014).
- Special Investigation Commission (SIC), (2010b): The Main Conclusion of the working group on ethics, at <http://www.rna.is/eldri-nefndir/addragandi-og-orsakir-falls-islensku-bankanna-2008/skyrsla-nefndarinnar/english/> (accessed 12/08/2014).
- Wade, R. H. (2008a): Iceland pays the price for financial excess, *Financial Times*, 1 July, available at <http://www.ft.com/cms/s/0/061070b8-4781-11dd-93ca-000077b07658.html#axzz3VPULvuMV> (accessed 12/08/2014).
- Wade, R. H. (2008b): Iceland: wiser counsels should have prevailed, *Financial Times*, 14 October, available at <http://blogs.ft.com/economistsforum/2008/10/iceland-wiser-counsels-should-have-prevailed/> (accessed 12/08/2014).
- Wade, R. H. (2009): Iceland as Icarus, in: *Challenge*, 52(3), 5-33.
- Wade, R. H., Sigurgeirsdóttir, S. (2010): Lessons from Iceland in: *New Left Review*, 1(65), 5-29.
- Wade, R. H., Sigurgeirsdóttir, S. (2012a): Iceland's rise, fall, stabilisation and beyond, in: *Cambridge Journal of Economics*, 36(1), 127-144.

Wade, R. H., Sigurgeirsdóttir, S. (2012b): The strange case of Iceland: how to discredit a financial regulator, mondediplo.com/blogs/the-strange-case-of-iceland-how-to-discredit-a (accessed 07/08/2014).

Zoega, G. (2008): A spending spree, *Vox*, 9 April, available at <http://www.voxeu.org/article/icelandic-turbulence-spending-spree-ends> (accessed 12/08/2014).