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Gylfi Zoega

Address:

Faculty of Economics
University of Iceland
Oddi, at Sturlugata,
101 Reykjavik, Iceland

Email: gz@hi.is

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Gylfi Zoega*

Department of Economics, University of Iceland, Sæmundargata 2, 101 Reykjavik, Iceland
and
Department of Mathematics, Economics and Statistics, Birkbeck College, University of London, Malet Street, Bloomsbury, London WC1E 7HX

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Abstract

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The paper discusses the measures taken to restore confidence in Iceland's economy following the collapse of its banking system in 2008. These include collaborations with international organisations, an internal investigation into the causes of the collapse, the prosecution of many bankers and a successful mix of monetary and fiscal policy.

Keywords: .

JEL: J13, D02

1. Introduction

This paper is about the attempts of the government of Iceland to restore trust and confidence in the country's economy among international investors and creditors following the financial crisis of 2008 as well as among the local population. The crisis involved the collapse of all three major banks in the economy, a currency crisis, inflation and unemployment. In effect, this was a perfect storm that received a lot of attention in the international media. In restoring confidence in the economy, the authorities attempted to be able to liberalise capital flows, borrow at reasonable rates and negotiate affordable settlements with creditors. The collapse of the banks in October 2008 had destroyed what remained of trust and confidence in the local financial system as well as the sovereign. It therefore became a priority to rebuild this trust. Building confidence involves an interaction between sound policies, an incentive structure that leads one to believe that those policies will be implemented over the long term, and good public relations about those policies. The Icelandic authorities were challenged on all three fronts in the years that followed the collapse of its banking system in 2008.

The flow of capital into Iceland during 2003-2008 slowed in 2007 and stopped completely in the spring and summer of 2008 resulting in the collapse of the banking system and a currency crisis. The inflow, prior to this sudden stop, had taken the form of international bond issues by domestic commercial banks, borrowing by domestic holding companies from foreign banks and "hot money" in the form of carry trade. As it became increasingly difficult to borrow in foreign capital markets in 2007 and 2008, the domestic commercial banks faced liquidity problems and the prospect of default. The carry trade unwound in 2008 when owners of domestic currency bonds amounting to around 40% of GDP tried to exit the currency resulting in a sharp depreciation. The domestic stock market also fell dramatically in 2008 because of the credit contraction, having been driven by credit and speculation more than fundamentals. This made a significant part of the collateral behind the banks' lending worthless, undermining their solvency.[1] Thus insolvency and illiquidity were intertwined in the collapse of the banking system.[2]

The boom and bust of the Icelandic economy had all the characteristics of a sudden stop of capital inflows, similar to those affecting Chile in 1982, Thailand and other East-Asian countries in 1997 and, Greece, Ireland and Spain in the 2000s.[3,4] Capital inflows flows preceded all these events and in Iceland these flows became very severe in the first decade of the century due to very low US interest rates and current account imbalances in the world. For example, as shown by Katsimi and Zoega (2016), the positive correlation between national savings and investment had vanished in the Eurozone indicating perfect capital mobility.[5]

The relationship between a borrower and a lender is inevitably based on trust. The trust enjoyed in international capital markets by Icelandic financial companies that attracted the capital inflow was based on several pillars. First, the three main banks were clearly too big to fail. Hence the state could be expected to do its best to save them if they got into trouble. The sovereign had a triple-A rating and this rating was also given to the banks, not because the banks themselves had any history in international credit markets but because the state had this rating. Second, if the state turned out to be unable to save the banks it might be expected to seek help from the International Monetary Fund. In that case the lenders would possibly get their money back while the taxpayer would be saddled with debt to the IMF. Thirdly, the Icelandic state has never defaulted on its debt giving the country the reputation of a culture of paying back debt. Finally, the association in lender’s minds of Iceland with the other Nordic nations – Denmark, Finland, Norway and Sweden – may have had the same effect.

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[1] For an early warning on the crisis see Christiansen (2006).

[2] See Einarsson et al. (2015, 2016) on the history of financial crises in Iceland.

[3] For an account of Iceland´s financial crisis, see Benediktsdottir et al. (2011), Nielsson and Torfason (2012), Johnsen (2014, 2016) and Zoega (2016). A parliamentary investigative report was published in 2010 in Icelandic, see Hreinsson et al. (2010).

[4] See Calvo (1998) on the economics of sudden stops. For a history of financial crises see Aliber and Kindleberger (2015) and Reinhart and Rogoff (2009).

[5] Thus the Feldstein-Horioka puzzle (1980) was no longer present in the Eurozone.

The sudden stop of the capital inflow and the shutting out of domestic banks from foreign capital markets marked the disappearance of this trust between domestic borrowers and foreign lenders. It was clear that the banks were not too big to fail, they were too big to save; the central bank was not able to come up with enough foreign currency; the government could not borrow in foreign currencies; and the inability to borrow reflected the lack of confidence by foreign governments and central banks towards the domestic authorities. Hence confidence evaporated as the scale of the debt problem became known – the banks' balance sheets added up to ten times the country's GDP – and domestic authorities appeared to have lost control of the country's financial system. The banking adventure that had looked like an impressive accomplishment now looked more like a manifestation of hubris and excesses and the country became a symbol of the western financial crisis.[6]

The government did not seek the assistance of the IMF prior to the collapse of the banks. Instead the summer of 2008 passed without any significant measures being taken that could have averted the collapse. After the collapse, however, the government did not have any alternatives because other countries, including notably the Nordics, were willing to provide financial assistance only if Iceland had an IMF programme. Before asking for assistance, the government took the important step of passing emergency legislation that prioritized deposits over bonds, that is depositors would be paid first from the banks' assets and bond holders only thereafter. This turned out to be a wise decision in retrospect. Other measures were more fumbling and less impressive. There was the unsuccessful and embarrassing attempt to secure a loan from the Russian government, a fumbled attempt to nationalise one of the banks, which only hastened the collapse of the whole banking system, and an exchange rate peg at a non-credible level, an attempt that lasted only a few hours.

[6] Internally, the problem of lack of trust and confidence in government institutions did not start with the collapse of the banks. Trust towards fellow citizens and to government institutions has for a long time been lower than in the other Nordic countries while comparable to that in the Continental European countries. See World Values Survey (http://www.worldvaluessurvey.org/wvs.jsp).

In November Iceland signed an agreement with the IMF, which described the economic policies to be followed, and the Nordic countries, as well as Poland and the Faroe Islands had agreed in advance to provide financial assistance in the context of an IMF programme. The insistence on IMF involvement testified to a lack of confidence in the domestic authorities. As an example of this lack of trust of the US Fed refused to include Iceland in the currency swap arrangement it made with other Nordic countries in the weeks preceding the fall of Lehman Brothers. The Nordic countries provide another example. In May 2008 they provided a limited currency swap arrangement that was conditional on changes in economic policies. Iceland's subsequent failure to change its policies then wiped out what remained of the Nordic governments' trust. Partly for this reason the Nordic countries refused to come to Iceland’s help after the collapse of the banks without Iceland first adopting an IMF programme.

Several measures were taken to restore confidence in the government, its institutions and the economy following the collapse of the financial system in October 2008. These can be classified into three categories: external relations, internal issues and the conduct of monetary and fiscal policy.

2. Collaboration with international institutions

The government of Iceland sought the assistance of the IMF after the collapse of its banking system in October 2008 when no foreign government or central bank was willing to come to the rescue without Iceland having gone to the IMF. Another, more proactive, step was taken in February of 2009 when a new government applied for EU membership. The combination of the IMF programme and the EU membership application made the government want to settle its dispute with the UK and the Netherlands about deposits lost in foreign branches of one of the failed banks. This "Icesave dispute" with the governments of these two countries led to a gruesome internal debate on the merits of negotiating versus taking the case to court.

2.1 The IMF programme

The IMF-supported programme had four main components. First, measures were taken to stabilize the exchange rate and get inflation back under control by means of capital controls and high interest rates. This was thought to be important because most of business debt was denominated in foreign currencies and also a significant part of household debt. The remaining household debt was indexed to inflation, which also could be expected to rise were the exchange rate to fall further. Any additional depreciation of the currency would thus make the financial crisis deeper. The IMF referred to this policy as using both "a belt and suspenders" to stabilise the exchange rate. High interest rates were meant to reduce the volume of capital leakages through the capital controls. Second, in order to stabilize demand the programme allowed significant government deficits in 2009, which were then wound down over several years. Thus monetary policy was initially contractionary and fiscal policy expansionary. Thirdly, the programme involved a plan to rebuild the country's financial system. Finally, the IMF as well as the Nordic countries provided a large foreign currency loan, which looks excessive in retrospect but was deemed to be necessary to increase confidence in the economy.[7] In essence, the plan involved gradually restoring trust, which would allow the capital controls to be removed; using the low exchange rates to generate export-led growth and for the government to gradually eliminate its deficits and reduce the debt that would be accumulated during the recession. The main unknown was which export industry would lead the way and when a recovery would start.

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[7] The total sum was 5 billion US dollars, which is the largest loan given to any IMF member country in comparison to its quota in the history of the institution. Of these the IMF paid 2.2 billion and the Nordic countries, Poland (which has many immigrants in Iceland) and the Faroe Islands the rest. In per capita terms the loan amounted to 62,500 dollars per family of four members in Iceland

How did the IMF help build trust? First the IMF enjoys a lot of trust itself and this spills over to a country with an IMF program. Second, the IMF provides and the country signs on to a 2-4 year program of measures. The very existence of plan helps (compared with the fumbles of October 2008). Third, the policies can be explained and hold together. Fourth, there are explicitly confidence-boosting measures such as the huge reserve buffer. The fact that the buffer was huge, even, debatably, excessive, helped because it was commensurate with the size of the problem. Fifth, the fact that the government signs on to the program – an unpopular thing to do – signals that it is ready to do whatever is necessary. And, sixth, the programme delivers tangible results early on such as stopping the depreciation of the currency.

The right-of-centre government that was in power in the runup to the crash fell in early 2009 and was succeeded by the most left-wing government the country had had for decades. To the surprise of many, this government embraced the IMF programme and collaborated with the IMF on its budget and banking restructuring. The finance minister at the time, who belonged to the Left-Green party, took the lead in implementing the economic programme. Thus the politicians who had been most skeptical of the IMF and its role, and also most opposed the privatisation of the banking system in the early 2000s, turned out to be the most ardent supporters of the IMF policies followed in the years after the collapse of the banking system. In essence, the plan was to restore confidence by making a success of the IMF programme; Iceland was to become the Fund’s star pupil. As it turned out, the IMF's representative in Reykjavik was also cooperative and respectful of Iceland’s sovereignty, making it easier for the IMF-supported programme to take on a collaborative nature.[8] In this way the government as well as the central bank, which had come under new leadership in early 2009, took ownership of the programme and implemented it, while sticking to their

[8] Mr Franek Rozwadowski was the IMF's representative in Iceland from early 2009 until the programme was completed in 2011.

political priorities on taxes and welfare policy. The left-leaning government decided to protect the welfare state and raise taxes instead of cutting it down. Of course, it is difficult to tell what if the previous government would had not done the same. As a matter of fact, no other coherent economic plan was created by the domestic authorities, either before or after the collapse of the banks and criticism of the IMF-sponsored plan was limited to the size of the loan. In retrospect, however, the IMF can be criticized for not having looked at the structural or institutional weaknesses that were revealed during the episode, including a fair amount of corruption before the collapse of the banks and the weakness of domestic institutions. It did, however, help create the new laws on the central bank, strengthen the financial supervisor both technically and in terms of independence and pushed for an organic budget law.

2.2 EU membership

The government of Social Democrats and the left-green party applied for EU membership in July 2009, mostly at the insistence of the Social Democrats. This was a long-time objective of the Social Democratic Party but made more urgent for two reasons. The first was that at least the Social Democrats and some members of the Independence party, including the current finance minister, appeared to realise the difficulties of having a very small currency area with a floating exchange rate and perfect capital mobility. They concluded that the way to secure financial stability was to become a part of the Eurozone, which required Iceland to become a full member of the European Union and then to satisfy the Maastricht criteria. The second reason was that by applying for membership of the EU Iceland would gain credibility. Thus investors would gain confidence in the government knowing that it intended to abide by EU financial regulations and ultimately have a lender of last resort in the for of a lender of last resort in the euro.

The application for EU membership ran into a major obstacle, which was that one of the coalition partners, the Left-Green party, did not support it. Thus the negotiations dragged on for four years until a new government was elected, which was opposed to membership. By that time the crisis in the Eurozone had erupted without any end in sight and the domestic economy had started to recover in the summer of 2010.

2.3 The Icesave dispute

The period 2009-2013, was marked by a fierce debate on whether Iceland should guarantee deposits in UK and Netherlands branches of one of the failed banks. The government did guarantee the deposits held in domestic currency but not those held in foreign currencies. The claim was that this involved discrimination between domestic and foreign deposit holders, which violated the rules of the European Single Market. One of the conditions imposed by the Board of the IMF in Washington in its agreement with the government of Iceland and the Central Bank of Iceland in November 2008 was that Iceland start discussions with a view to reaching understandings on their prefinancing. This was done at the insistence of the UK, the Netherlands and the Nordic countries, who all agreed that Iceland should have some responsibility for the actions of its banks abroad and not discriminate among deposit holders within the same bank. The bank had collected deposits in the UK and the Netherlands amounting to nearly half of Iceland’s GDP, claiming that EU regulations on deposit insurance applied to these deposits. According to these regulations, each deposit was guaranteed up to 20 thousand euro. Not surprisingly, the Icelandic deposit insurance scheme did not have the money to pay for the insurance so the UK and the Dutch governments stepped in to pay the deposit insurance and then insisted that the IMF require Iceland to pay back the money before continuing to support Iceland's programme. Honouring this obligation was important for the government because of both the IMF programme, which it wanted to make a success of, as well as the ongoing membership negotiations with the EU. Pressure from the UK and the Netherlands delayed a couple of programme reviews and disbursements but had no impact on the design or implementation of the programme. Some even thought it was right that the Icelandic government honour the commitments it had undertaken while others thought it was morally wrong to impose costs on taxpayers for the failed private banks.

The negotiations with the UK and the Netherlands resulted in several agreements none of which was implemented. One was repudiated by the UK and Netherlands after Iceland's Parliament modified it retroactively. Two others were turned down in national referenda triggered by the President's refusal to sign them into law. An important element of these agreements was that the liquidation of the bank's assets could be used to pay off the debt, leaving only the interest payments to be paid by Iceland and what remained to pay of the principal. The case ended up in the EU courts where Iceland, to most people's surprise, won the case. Although the case was won on a technicality, the victory was taken by some as justifying the opposition of the majority of the population to the agreements.[9] This saved the country from paying interest on the debt since the assets of the estate of the failed bank covered the total of the deposit insurance. However, if the court had decided against Iceland the consequences could have been dire, both financially and in terms of regaining confidence.

3. Internal Matters

Partly in response to public anger the government took measures meant to calm the population, some of which may have affected confidence outside the country. One measure, by the outgoing government in 2008, was to create a commission to investigate the causes of the collapse. A second was to create the office of a special prosecutor to go after those who had broken the laws during the banking boom and bust. Third, and somewhat different in

[9] See Matthiasson (2015).

character was the decision by the incoming leftist government in the spring of 2009 to set in motion a process to rewrite the constitution of the republic. This was a promise that all parties represented in parliament had made in 1944 but not kept.

3.1 The Special Investigation Commission (SIC)

At the end of 2008 Parliament appointed a "Special Investigative Commission"
to explore the causes of the collapse of the banking system. The commission had wide ranging powers to interview the main players and had access to bank data. It was made up of a Supreme Court Judge, the Parliamentary Ombudsman of Iceland and a lecturer and associate chair at Yale University in the U.S. The commission delivered its report to parliament on 12 April 2010.[10] The report is voluminous: the executive summary alone runs to 18 pages. It emphasised the rapid expansion and subsequent large size of the banking system; the failure of supervision to keep up with the expansion of lending; lending to related partners;[11] incentive schemes used to motivate the staff; the limited capacity of the supervisory authority; the lack of response by the government to the oversized banking system, which in contrast facilitated the growth of the banks; the easy access to credit by the owners' of the banks; the creation of capital by lending to purchase own shares; the failure of monetary and fiscal policy to stem the growth of the economy when taxes were reduced further fuelling the boom; and large current account deficits. The report clearly stated that laws had been broken and that some government figures were guilty of negligence.

The SIC report focused on the financial fragilities within the economy of Iceland. However, as is demonstrated by the crisis in the Eurozone, which erupted in the same year

[10] See https://www.rna.is/media/skjol/RNAvefKafli2Enska.pdf.
[11] This included the staggering loans to Landsbanki's Chairman of the Board which resulted in the world´s greatest personal bankruptcy up to that time.

that the report was published, the problems were not confined to Iceland. The abundance of cheap credit in the years preceding the crisis had created a capital inflow into many countries. Spain had the largest current account deficit as a fraction of GDP in continental Europe, but other countries were also booming from the abundance of capital: The public sector in Greece borrowed heavily while the private sector was more cautious while in Ireland it was the private sector that fuelled a construction boom and the government reduced its debt. Other countries that were affected were the Baltic States and Portugal. Of these the Baltics, Greece, Ireland and Portugal sought IMF assistance, as Iceland had done in 2008.

Simultaneous financial crises in many countries cannot be a coincidence. Two explanations have been proposed. First, current account surpluses in some countries have the effect of generating deficits in others.[12] In Europe, Germany and the Netherlands had large surpluses and these had to be invested somewhere. In other parts of the world it was Japan and China that had to invest their surpluses. In this situation the U.S. became the "consumer of last resort", having a current account deficit in excess of 700 billion dollars in 2007.[13] Secondly, the low central bank interest rates maintained by the U.S. Fed after the 9/11 attacks have been mentioned as a culprit for the abundance of cheap capital in this period. In effect, interest rates may have been kept low for too long, violating the so-called Taylor rule, fuelling a house price bubble in the U.S. and through its effect on interest rates in other countries a housing bubble in Ireland and Spain and a stock market bubble in Iceland. Looked at in this light, the capital inflow into Iceland was caused by forces far bigger and more powerful than domestic institutions or policy. What the SIC report may then explain, in my view, is he structural weakness that got Iceland into trouble and not Sweden, Denmark or Finland, to name a few of the countries that were mostly spared a crisis.

[12] See Aliber (2011) on this explanation.
[13] Source: IMF.

Parliament accepted the results of the SIC report in 2010, including the failure of the government and its institutions and that the political culture was in need of an improvement.

3.2 A new constitution

The government coming into power in February 2009 cannot be criticized as lacking in ambition. In addition to applying for EU membership, it attempted to rewrite the constitution through a democratic process. In doing so it was following what it sensed as the will of the public. Many people appeared to be convinced that the country's governing class was corrupt and had abused its position. As pointed out by Gylfason (2013), most constitutions are revised following economic or political upheaval because the crises expose flaws in the current regime. He argues that the absence of checks and balances in the constitution of Iceland from 1944 made it possible for the executive branch of government to exercise power at the expense of both parliament and the courts. He cites as an example that the leaders of the two parties in power in the early 2000s decided between themselves to let Iceland join the "Coalition of the willing" in support of the invasion of Iraq in 2003 without any parliamentary approval. Another example is the privatisation of the banking system, which was apparently decided on by the same two leaders. In effect the two large state banks were sold to individuals who had close connections to the two parties. This observation suggests that the bankers had political backup that made any effective supervision by the financial authority or measures by the central bank to limit the size and growth of the banking system difficult. In effect, the banks were cashing in on the sovereign's AAA credit rating and their privatisation turned out to be tantamount to the privatisation of the sovereign's credit rating.

The development and growth of the banking system constituted the state's industrial policy that generated large tax revenues and high-paying jobs. In the autumn of 2005 a government appointed committee headed by the chairman of the board of the largest bank, Kaupthing, presented plans for Iceland to become an international financial centre. By that time the banks were already very large, around four times the size of the country's GDP and had more than doubled in size since 2003. The average growth of assets of the three largest banks was around 50% per year between 2004 and 2008.[14]

The banks were not only well politically connected, they were also very powerful and large compared to the institutions of the state. As an example, Benediktsdottir et al. (2011) document that at the end of 2007 there were 2248 employees working for the third largest bank (Glitnir), 2814 employees working for the second largest bank (Landsbanki) and 3334 employees at the largest bank (Kaupthing), a total of 8396 people, which dwarfed the number of employees of the government institutions that were supposed to monitor and supervise the banks. Thus in August 2008 there were 26 people working in the office of the Prime Minister, 20 in the Ministry of Commerce, 47 working for the Financial Services Authority and 115 at the central bank. This includes all staff, not just those with expertise in finance and economics. Moreover, it was difficult to hold on to staff at the financial authority because the banks paid much higher salaries.

The banks were important for the economy, dominated the government institutions in size, were politically well connected and gave thousands of families well paid jobs. They also controlled parts of the media and the population as a whole accepted the explanation that the apparent success of the bankers was due to their abilities and ingeniousness. As the SIC (2010) report documents, the banks may also have been able to influence the politicians directly. At the time of the crash, ten out of 63 members of parliament had borrowed more than one million euro each at the pre-crash exchange rate of the krona and their personal debts to the failed banks ranged between one and 40 million euro. Moreover, according to Gylfason

[14] See Benediktsdottir et al. (2011).

(2013) they donated 14 times more per capita to political campaigns than did the US financial industry in 2008.

In retrospect it is easy to see this industrial policy and nepotism as signs of folly and corruption. However, there were few who saw the problems emerging before 2008. In fact, international institutions such as the IMF and the OECD praised the successful creation of international banks in Iceland.[15] Two notable warnings came from Christensen (2006) and Aliber (2011), the former in 2006 and the latter in a lecture in May 2008, but both received a hostile reception from the media and the banking sector. The *Monetary Bulletin* of the Central Bank also described the internal and external imbalances, the dangers of borrowing in foreign currencies and an anticipated recession.[16]

In light of the problems described above and the developments in the years preceding the crash, parliament decided in 2009 to convene a National Assembly selected at random through stratified sampling from the national registry; appoint a Constitutional Committee to gather information and provide analysis; and hold an election to the Constitutional Assembly. The national election to choose representatives of the Constitutional Assembly was held in November 2010 where 552 candidates competed for 25 seats. The elected individuals were then given the task to draft a new constitution. However, in 2011 the Supreme Court declared the election null and void on technical grounds that had to do with the design of voting booths and other such issues. The parliament responded by directly appointing the 25 elected representatives.

The draft new constitution, presented to parliament in July of 2011, incorporated substantial changes from the existing constitution.[17] For example, the principle of "one person, one vote" was introduced while the existing constitution gave rural voters a heavier

[15] See Aliber and Zoega (2011).
[16] See also Herbertsson and Zoega (2005).
[17] See http://www.stjornlagarad.is/english/.

weight than urban voters. Second, the fishing grounds around the country would be owned by the nation instead of being private property (the system of transferable quotas). Third, the draft new constitution had a section on environmental protection. Fourth, the freedom of the media and transparency of ownership should be guaranteed by law. Finally, the signatures of 10% of the electorate would suffice for a national referendum to be called on issues other than taxes and other financial issues. The new constitution was approved by voters in a referendum in October 2012 with a majority of 67% of the vote. But Parliament did not respond and let the matter rest until the spring of 2013 when the government lost its majority and the same two parties that had been in power when the banks were privatised in 2003 came back into power and showed the matter no interest. The constitution remains unchanged to this day. The failure to ratify the new constitution may have adversely affected trust towards the government within Iceland but apparently not among international investors.

3.3 Bankers go to jail

The practice of market manipulation, amongst other crimes, was discovered to have taken place in the banks, especially in the months preceding their downfall. The Special Prosecutor took dozens of individuals to court and many have received sentences. These include the CEO and the Chairman of the Board of the largest bank, Kaupthing, and the CEO of the second largest bank, Landsbanki, as well as the third largest, Glitnir. Most of those receiving sentences were, however, mid-level staff in the banks. So far 35 individuals have been sentenced to a total of 90 years in prison. Some cases have still not been closed and the number of individuals involved may rise further. These criminal prosecutions have been reported on in the international media and have probably increased confidence in the authorities abroad.

4. Fiscal and monetary policy

In collaboration with the IMF monetary and fiscal policies were calibrated to deal with the collapse of the banks, the insolvency of large segments of the private sector, the contraction of the economy and the currency crisis.

4.1 Monetary policy

The lack of confidence in domestic institutions put severe constraints on the conduct of monetary policy in the aftermath of the collapse. The IMF programme mandated that interest rates be raised from 15.5% to 18% in November 2008 in order to stem the capital outflow in addition to imposing capital controls for an indefinite period of time. According to the legislation, investors were allowed to convert interest income into foreign currency but not principal.

In early 2009 a new central bank law was passed. This abolished the positions of the three central bank governors and replaced them with a single governor, a deputy governor and a Monetary Policy Committee (MPC). The MPC in turn was to be made up of the governor, the deputy governor, one other central bank staff-member chosen by the governor (to date this has been the chief economist), and two external members appointed by the prime minister. This change was made in order to increase confidence in the central bank, which had been granted operational independence in 2001. Moreover, the prime minister chose a foreign well-established academic economist, Anne Sibert, as one of the external members, which may have been a way of increasing confidence in the institution further. The mandate of the MPC (deriving from that of the central bank itself) was to achieve a stable price level, defined as an inflation rate of 2.5%, and to implement the government's economic policy as long as does not violate the objective of stable prices and to raise a warning flag if financial stability was threatened.

The three governor system that was now abolished had been used by different political parties to provide a reward to senior politicians. Thus one or more of the governors were at times former leaders of political parties without training or experience in economics or finance. At the time of the collapse in 2008 the head of the triumvirate of governors was a former prime minister and leader of the conservative party who had had been the mayor of Reykjavik between 1982 and 1991 and prime minister from 1991 to 2004.

It should be noted that the blame for the collapse of the banking system in 2008 cannot be put solely on mistakes in the conduct of monetary policy: failures in banking supervision and the reckless operation of the banks played a larger role. Moreover, the banks were individually and collectively "too big to save" by domestic authorities. As pointed out in a paper by Buiter and Sibert in 2008 this realisation could trigger a modern bank run in the form of other banks refusing to roll over loans or grant new credit.[18] The central bank could, however, be criticized, at least with the benefit of hindsight, for creating the incentive for foreign currency debt to accumulate through its interest rate policy without issuing sufficient warnings or asking for more policy tools.[19] Businesses that borrowed in foreign currencies had higher profits year after year while the currency appreciated, hence enticing others to also start borrowing in foreign currency. By 2008 the economy resembled a hedge fund that was long in the domestic currency and short in foreign currencies. When foreign investors started to short the krona in the reasonable anticipation of its collapse, in light of the huge current account imbalances and unstable banking system, the game was up and most of the economy

[18] See Buiter and Sibert (2011). They suggested that Iceland could seek IMF help, ask other central banks such as the US Fed for help or nationalise the banking system and use the country's natural resources as collateral for further loans. While their advice apparently went unnoticed by the government at the time, the central bank did approach the Fed but was turned down. An attempt to nationalise one of the banks and going to the IMF had to wait until the banking system had collapsed. See also Sibert (2011).

[19] The bank's financial stability report in 2005 did describe the dangers of foreign currency mismatches but this warning received less emphasis in subsequent reports. See https://www.cb.is/library/Skraarsafn---EN/Financial-Stability-Report/en_FS_2005.pdf.

became technically insolvent, hence also the banks. This development is not a testimony of a well conducted monetary policy!

The new regime had several advantages over the three-governor structure. First, by including external members in the MPC it made it more likely that opposing views would be heard. As it turned out, and as can be seen from the minutes of the meetings of the MPC, this was the case; there have on a number of occasions been differences between the views of the members and lack of unanimity behind many decision.[20] The publishing of minutes of meetings was also a step forward, which served the role of enabling market participants to predict future actions better and in retrospect assess when and where mistakes were made. Finally, all members have education and experience in the fields of economics and finance, which is in accordance with the laws passed in 2009.[21]

The newly appointed Monetary Policy Committee faced a daunting task in the spring of 2009 when inflation peaked at 20%. While the economy needed lower interest rates to recover as well as to convert the foreign currency loans into domestic currency loans, the stability of exchange rates and hence also the level of FX debt denominated in domestic currency depended, at least to some extent, on maintaining high interest rates. The same can be said about the CPI-indexed mortgage debt. Thus lower interest rates might cause a depreciation of the exchange rate that would have the effect of increasing the level of business and household debt and hence deepening the financial crisis.

Figure 1 shows the central bank's interest rate corridor as well as the inter-bank interest rates since the MPC was appointed in February 2009. The approach taken was to start lowering interest rates in small steps as inflation gradually came down and then wait and see if the exchange rate moved as a result. The largest cut, and it was a large cut!, came in May

[20] See Vignisdóttir (2016) on the voting record within the MPC over its first seven years.
[21] See Central Bank of Iceland (2017) on Iceland's experience with inflation targeting since 2001 and the recent improvements in policy outcomes.

2009 when the banks were advised to use the bottom of the exchange rate corridor, which is the deposit rate, as a benchmark when setting interest rates. Although central bank interest rates were lowered by 150 basis points, interbank interest rates fell by 300 basis points, from 12.5% to 9.5%. This is by far the largest change since the MPC was established. Since then changes of 25 basis points have been the norm. From then on the effective policy rate became closer to the bottom of the corridor; that is the deposit rate, instead of the repo rate.

The IMF opposed the large cut in May and attributed the ensuing deprecation to the combination of lower interest rates and lax enforcement of capital controls. One member of the MPC argued that while higher interest rates increased the attractiveness of the domestic currency, supporting its value, they also increased the outflow of interest payments to foreign investors, which would *ceteris paribus* depreciate the currency. Given that the overhang of assets from the carry trade was in excess of 30% of GDP it followed that the payment of a large amount interest income to foreigners would involve a significant transfer problem in the Keynes/Ohlin sense: the exchange rate would have to depreciate in order to generate a current account surplus.[22] Following a meeting between the MPC and the representatives of the IMF the MPC held interest rates constant until November 2009 when increased monitoring of capital controls, which is what the IMF had been calling for, had stabilised the exchange rate and both the MPC and the IMF agreed that further cautious interest rate reductions would not weaken the exchange rate. Central bank interest rates reached a bottom in late 2011 when the deposit rate was reduced to 3.25%. Interest rates were in subsequent years raised in small, infrequent steps as the economy recovered and currently the effective central bank interest rate is 4.5% and the deposit rate 4.25%.[23]

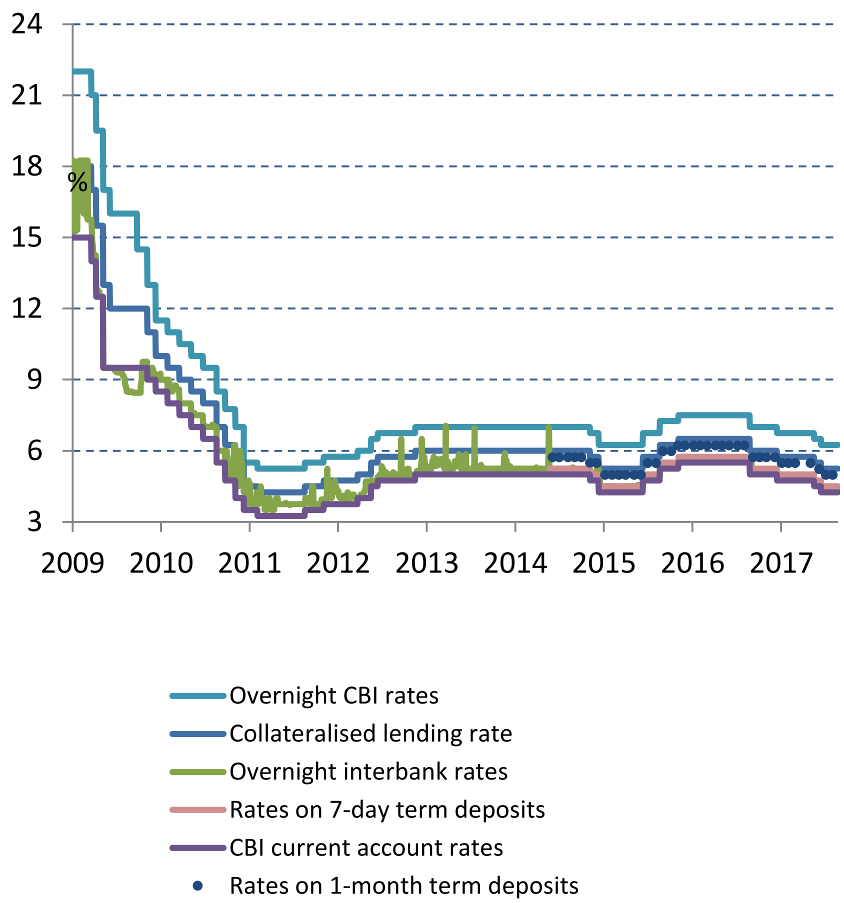
[22] See Gudmundsson and Zoega (2016).
[23] The 4.5% interest rate is the rate on one-week deposits as opposed to the 4.25% rate on perfectly liquid deposits.

The MPC has over the years changed its use of instruments. In the spring of 2013 it began to use intervention in the currency market as an instrument to reduce the volatility of the exchange rate. Also, changes in interest rates have become less frequent. Starting in June 2016 a new reserve requirement on investment in domestic-currency bonds by foreign residents has been used to reduce the volume of the carry trade. Currently, foreign investors are required to put 40% of the amount invested into an interest-free account at the central bank for a period of one year.[24] This in effect amounts to a "Tobin tax" on the carry trade and enables Iceland to have an interest rate that differs from that in other countries. Thus in spite of there being currently an interest differential in excess of 400 basis points between central bank interest rates in Iceland and the Eurozone the volume of the carry trade is very limited. The combination of interest rates setting and currency market interventions can thus be used to affect both domestic demand and reduce excessive volatility of the exchange rate.

The rapid recovery of the economy can be seen in Figure 2 below. First, note the steep upswing between 2004 and 2008, which was credit fuelled, the steep slump from 2008 to 2010, which was caused by the financial crisis, and then the recovery that brought GDP in dollar terms back to its pre-crisis peak by 2014.

[24] The central bank can raise this to 70% for a period of five years or lower it to zero.

Figure 1. Central bank interest rates and the inter-bank interest rate



Source: Central Bank of Iceland.

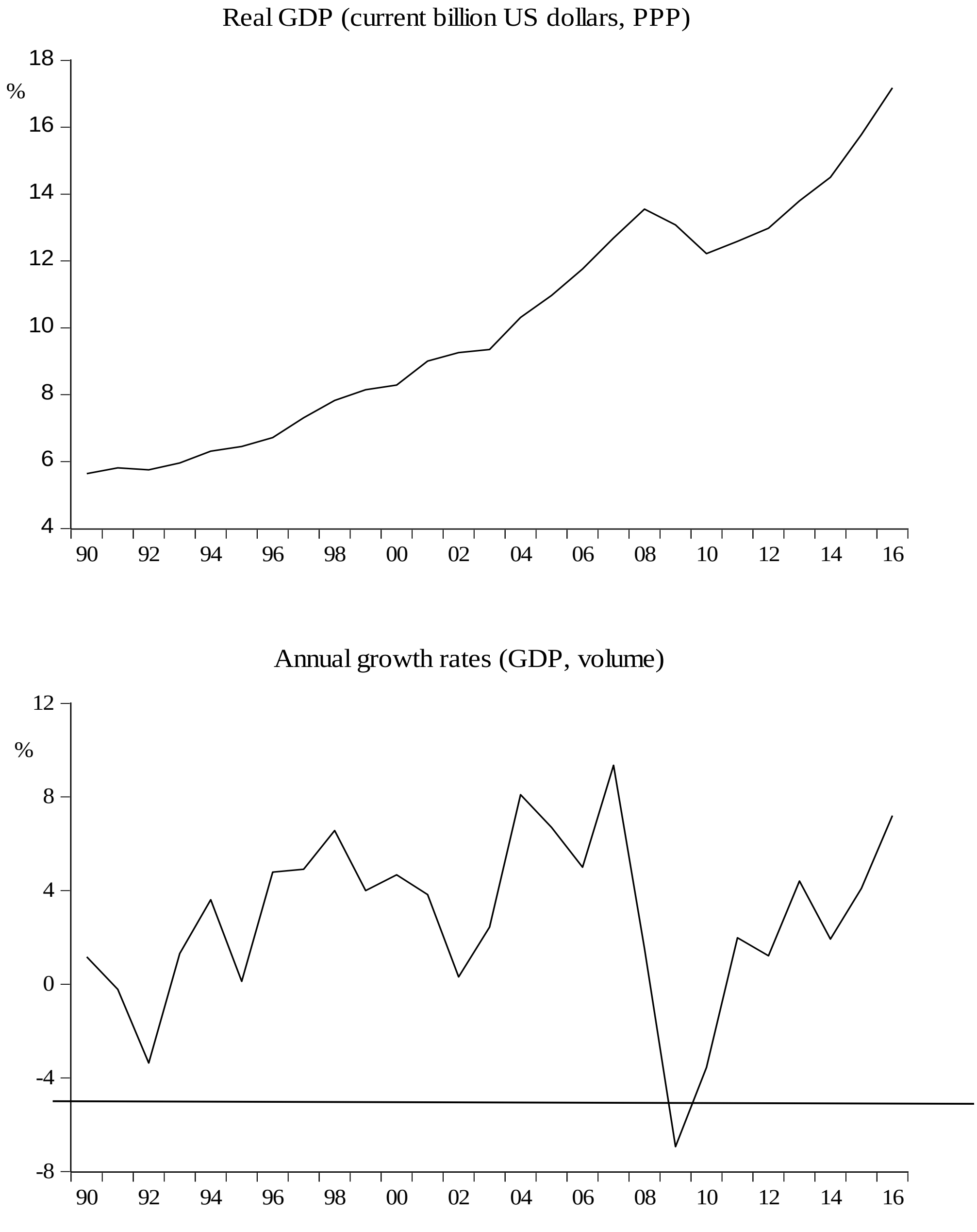
The recent recovery has been in many respects atypical for Iceland. First, it was export driven, fuelled mainly by the rapid growth in the number of tourists. It has also gained in speed, the rate of growth of GDP was 7.20% in 2016, up from 4.10% in 2015 and 1.22% in 2012. The growth episode was initially started by the capital outflow and larger foreign debt which reduced the real exchange rate and hence offset Iceland's natural resource related high real exchange rate or "Dutch disease".[25] Thus competitiveness was restored. Second, credit did not increase and the recovery coincided with the deleveraging and debt restructuring of households, businesses and the sovereign as well as local authorities. The current account was

[25] See Gylfason and Zoega (2017).

positive in every year since 2008. In 2016 it was 8% of GDP, in contrast to -23.3% at the peak of the previous boom in 2005. Both internal and external debt have been reduced and Iceland's net external position recently became positive for the first time since the end of the Second World War. The foreign currency reserves of the central bank are also at a record high, amounting to around 40% of GDP. Third, inflation has remained on target for more than three years in a row, which is another record since the inflation targeting regime was introduced in 2001. At the same time Iceland did not face a problem with deflation, the 12 month inflation rate was 1.7% in June 2017. Membership of the European Economic Area – the single market in goods, services and labour – has helped keep a lid on inflation. The excess demand for labour has been met by increased labour supply in the form of immigration of workers from other member states. This has helped in many industries such as construction and tourism.

The boom in tourism may have been triggered by the depreciation but it accelerated after the real exchange rate had appreciated again. At this point it remains unexplained why the tourism boom continues now that the country has become a very expensive destination again. Among the possible causes are the worldwide increase in tourism, the attention caused by a volcanic eruption in 2010, and successful marketing campaigns. Moreover, tourists who came to the country while it was cheap in the wake of the collapse may have had a positive experience which attracted others to the island.

Figure 2. The evolution of GDP since 1990



Source: OECD statistics (www.oecd.org).

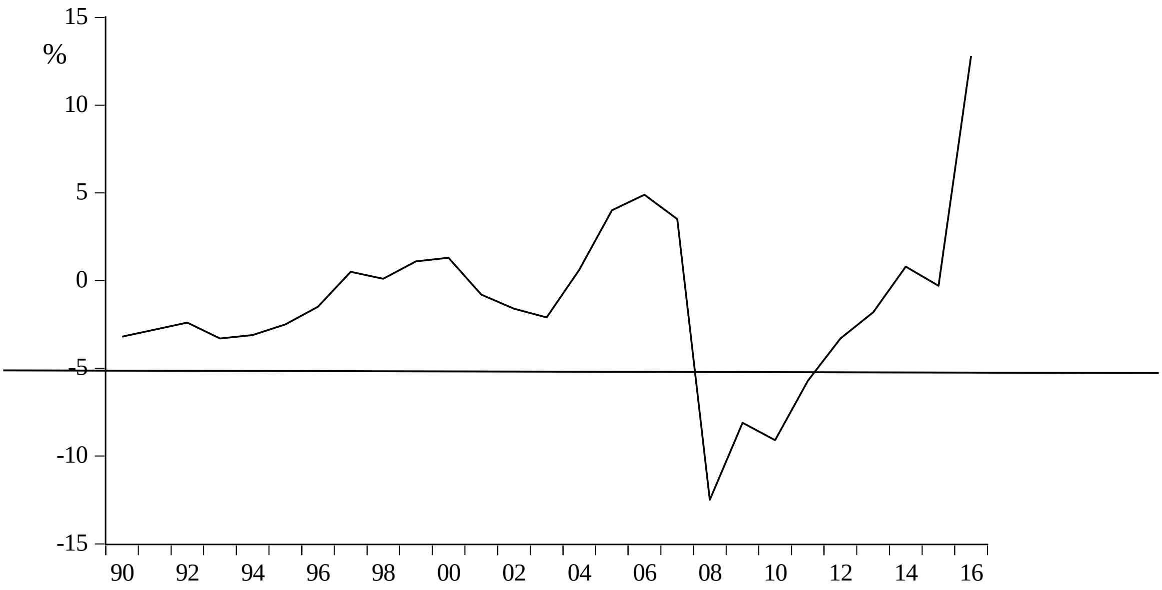
Over time the credibility of monetary policy has been enhanced.[26] Among financial institutions and those responsible for financial oversight, the Central Bank of Iceland gained the most trust among the public during the post-crisis period 2009-2017 (see Sigurbjornsdottir and Johnsen in this volume). Inflationary expectations have converged to the inflation target of 2.5%. In a recent study, Dincer and Eichengreen (2014) find that the increase in transparency was largest for the Central Bank of Iceland from 1998-2010 of all central banks in the OECD. Finally, the lifting of capital controls in 2016-2017 was accompanied by orderly conditions in the exchange rate market and capital flows.[27] Indeed, far from depreciating, the krona appreciated in the first half of 2017 after the lifting of capital controls.

4.2 **Fiscal policy**

The sovereign was in the enviable position at the start of the crisis of having reduced its debt during the financial boom. Therefore, the IMF programme could allow fiscal stabilisers to work. The central government had a surplus of 4.9% of GDP in 2006 and 3.5% in 2008, which then turned into a deficit of 12.5% of GDP in 2008 and 8.1% in 2009. The deficits were then gradually reduced as the economy recovered. Hence the public sector was used to stimulate demand while debt was restructured in the private sector and labour shifted from the sectors fuelled by the credit boom – mainly banking, imports and construction – to the export sectors. Figure 3 shows the evolution of the central government surplus as a share of GDP.

[26] See Central Bank of Iceland (2017).
[27] The one-year inflation expectations of large businesses were 1.8% in June of 2017 while the one-year inflation expectations of households were 2.5% at the same time. Source: Central Bank of Iceland (www.sedlabanki.is).

Figure 3. The central government surplus as a percentage of GDP



Source: *Statistics Iceland* (www.hagstofa.is).

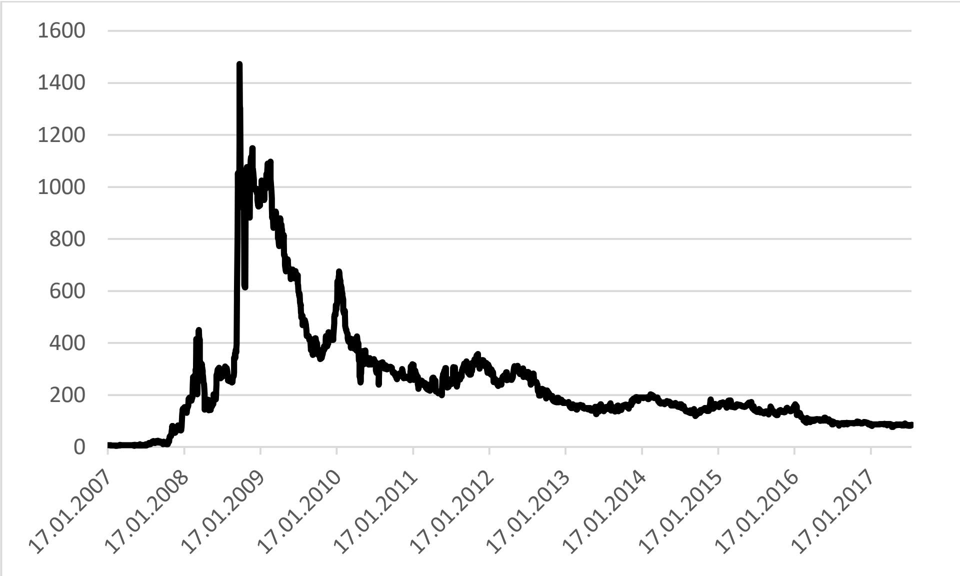
The level of (gross) public debt peaked at 86% of GDP in 2011 but then fell to 53.4% at the end of 2016.

5. **Concluding comments**

Confidence in domestic authorities has been largely restored in international credit markets at the time of this writing. The CDS on five-year government bonds is around 80 basis points, capital controls have been abolished and Fitch Ratings has upgraded Iceland to an A$^-$ with a positive outlook.

Figure 4 shows the evolution of the CDS on five year government debt. After peaking in late 2008 it has been on a downward path. This has been interrupted briefly by domestic upsets, mainly the refusal of the President to sign the Icesave agreements in 2010 and 2011 into law and events outside the country such as the crisis in the Eurozone.

Figure 4. The CDS on five-year government debt



Source: Central Bank of Iceland (www.sedlabanki.is).

This paper has documented the many endeavours and initiatives taken by the authorities to restore confidence. It remains to assess which of these were most important in restoring confidence.

A small island economy that relies to a large extent on natural resources for its exports is in a different state than the large European economies since it can rely on a stream of foreign currency earnings. Small countries can also get away with having banks fail, which would have more dire consequences for the larger banks in medium-sized and large economies. In Iceland's case the losses were mainly suffered by foreign creditors and not the sovereign. The recovery of the economy owes a lot to these factors, as well as the depreciation of the currency that turned a current account deficit into a surplus and restored the competitiveness of the economy in a matter of months. Of course, the depreciation also caused a debt crisis due the prevalence of foreign-currency loans and the insolvency of most business on the island! But these losses were mostly thrust upon foreign creditors leaving the new domestic banks with the task of restructuring the bankrupt firms.

The successfully executed IMF programme was also instrumental in fostering the recovery through the mix of monetary and fiscal policies. Before the programme the policy mix had been inappropriate and destabilising: monetary policy was contractionary and fiscal policy expansionary resulting in very high interest rates (peaking at 15.5% in the summer of 2008), and a capital inflow as firms, households and investors took advantage of the interest rate differential to engage in what in effect was carry trade. Now, the policy mix became coordinated for the first time; monetary policy used to support the currency and fiscal policy to stimulate the economy in the first phase of the programme and then gradually changing to having monetary policy promote an export-led recovery and fiscal policy to become contractionary as confidence returned.

Iceland also gave the impression that it was not hiding any wrongdoings. The SIC report and the prosecution of the bankers both give the impression that what had happened before was not likely to occur again.

The application to join the European Union, the Icesave dispute and its outcome and the attempt to rewrite the constitution played a less significant role. This is not to say that confidence could not have been increased faster and further were these issues to have been addressed and resolved differently. The rewriting of the constitution was mainly intended to reduce the likelihood of other crises in the future as well as restoring internal confidence and trust. However, the failure to adopt it appears not to have affected confidence outside the country.

Internal trust towards the authorities has not been fully restored. According to Gallup, parliament is trusted by 14% and the banks even less. This is an issue discussed by Sigurgeirsdottir and Johnsen in another paper in this volume. The inclusion of the country's Prime Minister in the infamous Panama Papers did not help build confidence internally or, for that matter, externally. However, his prompt resignation may have reduced the damage to trust and confidence both internally and externally. However, in spite of the recovery from the crisis, much remains to be done in building trust towards domestic institutions within the country.

The author is an external member of the Monetary Policy Committee of the Central Bank of Iceland. The views reflected in this article are his own and do not reflect the views of other members of the committee. The author is grateful to Gudrun Johnsen, Thorvaldur Gylfason, Thorarinn G. Petursson and Franek Rozwadowski for comments on the paper.

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