

LESSONS FROM THE ICELANDIC FINANCIAL CRISIS.

EMPHASIS ON BANK RESOLUTION, COSTS AND PROBLEM STEMMING FROM CAPITAL FLOWS.

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FROM A BROOKINGS PAPER BY BENEDIKTSDDOTTIR, EGGERTSSON AND THORARINSSON¹

Iceland is a tiny economy with many unusual features. It is tempting to write off its banking crisis as a one-off saga, a frenzy that would be unlikely to be repeated anytime soon anywhere else. A frenzy it was, but we think important lessons can be learned. In this short paper we will revisit some of the lessons we put forth in a Brookings paper in 2017, emphasizing some of the lessons learned. This paper is built on the talk given at the conference “The 2008 Global Financial Crisis in Retrospect”, which was in Reykjavík 30-31 August 2018.

After the East Asian crisis of the 1990s, when excessive capital flows and increasing leverage also culminated in a banking crisis, there was a tendency for economists to treat such a crisis as a special case, unlikely to be echoed in more developed economies. There was even a special term used to describe those economies: “crony capitalism” (Kang 2002). Presumably, this was meant to separate these economies from “regular” advanced capitalist societies. Iceland was touted as not being one of those countries.

Iceland’s banks grew too fast, and they became too large on the backs of both implicit and explicit government guarantees. The liabilities of the three largest banks grew from little over the gross domestic product in 2003 to over 9 times the gross domestic product mid-year 2008, figure 1. The Icelandic banking system grew from one of the moderate sized banking systems in Europe to the largest. Even larger than the Swiss banking system, figure 2.

FIGURE 1. LARGE BANKS LIABILITIES

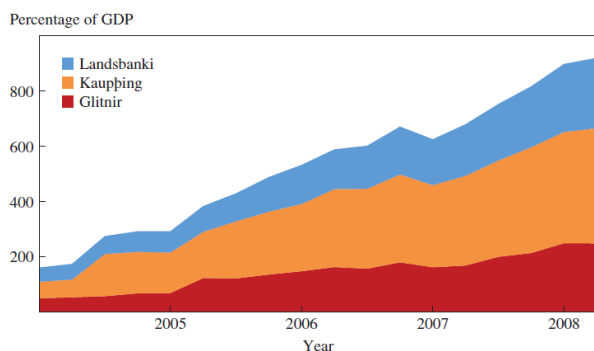
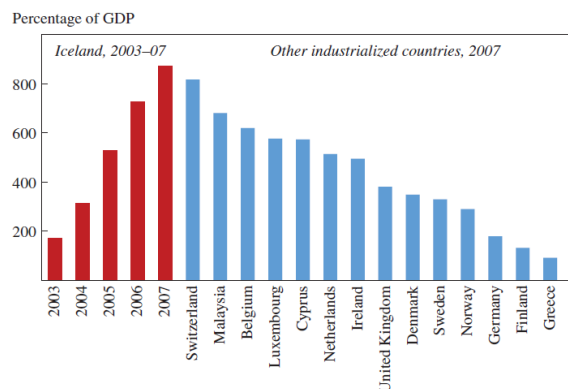


FIGURE 2. BANKING SYSTEM SIZE

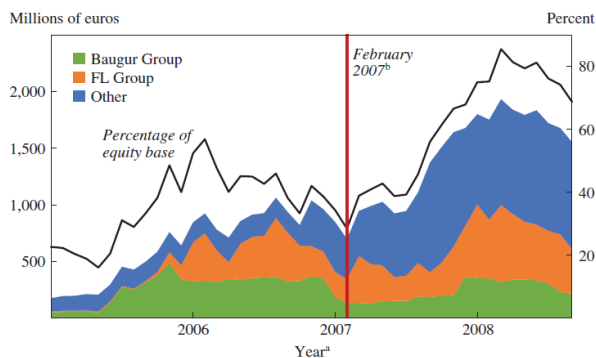


The growth of the Icelandic banks was initially largely funded in international financial markets and later by international deposit collection. These funds were then funneled into loans, which to

¹ Benediktssdóttir, Sigríður, Gauti B. Eggertsson, and Eggert Þórarinnsson. The rise, the fall, and the resurrection of Iceland. No. w24005. National Bureau of Economic Research, 2017.

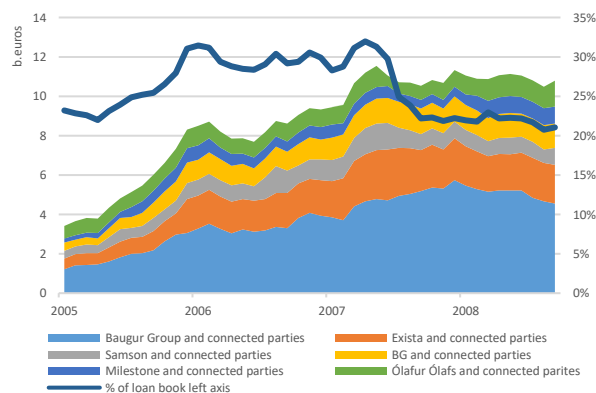
a disproportionate extent were made to the same groups of related parties and to insiders—that is, to the banks’ owners. In hindsight, the evidence suggests that universal rules about large exposures, which are meant to limit concentration risk and are crucial to banks’ viability, were broken for years before the banks’ failure. The banks themselves always reported large exposures within regulatory limits, while an employee of the FSA notified the director general of the FSA as early as 2004 that he thought that the banks were not correctly connecting together large exposures. The employee used Baugur Group and related parties as the main example (see figure 3.) The FSA did not follow up on that work and lending to the group grew exponentially in the following years. Additionally the banks’ owners had too much access to the banks’ funds, despite rules on insider borrowing. Hidden to a large extent by large web of firms with opaque ownership. Pointing to figure 3 again, Baugur Group bought a large stake in Glitnir in February 2007, market by the red line. Consequently, the loans to the Baugur group of related parties, who were now insiders, almost doubled from 1 billion euros to about 2 billion euros in less than a year. Figure 4 shows insider lending, that is lending to six groups of large stakeholders of the banks, by all three large banks. When the banks failed, lending to these six groups corresponded to over 20 percent of the loan book of the parent banks.

FIGURE 3. GLITNIR LARGE EXPOSURE



Source: SIC.

FIGURE 4. LOANS TO LARGE RELATED PARTIES THAT HAD LARGE OWNERSHIP IN THE BANKS

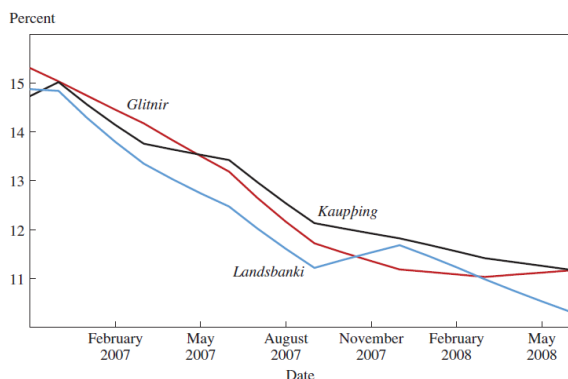


Source: Benediktssdottir et. al. and SIC

Lesson 1. We need transparent firm ownership to facilitate supervision of insider lending and large exposures. Firm ownership is still not transparent in Iceland despite the well documented abuses of rules and regulations which took place in the shadow of opaque ownership.

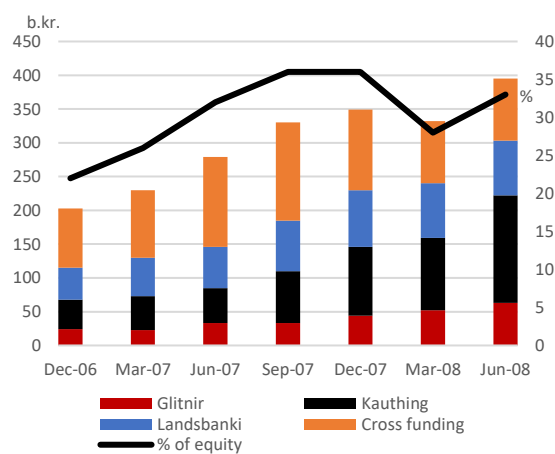
The large banks in Iceland funded their own shares excessively, weakening greatly the shock absorbing capability of their equity and hence increasing systemic risk. By middle of 2008 each bank was funding on average 25 percent of its own shares and if cross funding of shares is included this amounts to 33 percent of the shares in the three large banks. This totaled about 4 billion euros. These loans became worthless when the banks failed, giving the equivalent outcome for depositors and other creditors, as if that equity had never been there as a buffer against losses. The capital adequacy ratio for the banks was hence overestimated in the middle of 2008. Loss absorbing capital buffer was only about 8 percent rather than the 11 percent reported, see figures 5 and 6.

FIGURE 5. BANKS REPORTED CAD RATIO, PERCENT



Source: SIC.

FIGURE 6. FUNDING OF OWN SHARES AND CROSS FUNDING OF SHARES



Source: SIC

Lesson 2. We need strict rules against lending against own banks shares, and also against lending with collateral in other financial institutions shares. Rules against funding own shares and shares of other financial institutions have been clearly stated in Iceland now.

Large portion of loans that incurred large losses occurred in the last months before the failure of the banks. These included some repatriation of loans from abroad, increasing the risk to the Icelandic economy. Many of these loans were to large creditors, often insiders, who were running into trouble themselves. This “gamble for resurrection” increased the cost of the bank’s failure.

Lesson 3. Regulatory intervention is important when banks start to run into liquidity and solvency problems. There was put in place wide ranging allowance for the FME to take action once a financial institution runs into trouble in 2008. These regulations are still in effect or have been replaced by a more comprehensive Bank Recovery and Resolution directive (BRRD) from the EU.

The Icelandic government had a strong ex post incentive to bail out deposits in the *domestic* portion of the banks, while it had little incentive to risk taxpayers’ money to bail out depositors in *foreign* branches. There unsurmountable political costs domestically from doing so: much of the political turmoil in Iceland following the crisis came from the strong opposition of Icelandic voters to any law that was seen as bailing out foreign depositors or creditors at tax-payers expense. Aside from the government’s incentive, it is furthermore unlikely that any attempt to bail out the foreign branches would have been credible

Lesson 4. Implicit government guarantees are much weaker for cross boarder deposits and liabilities.

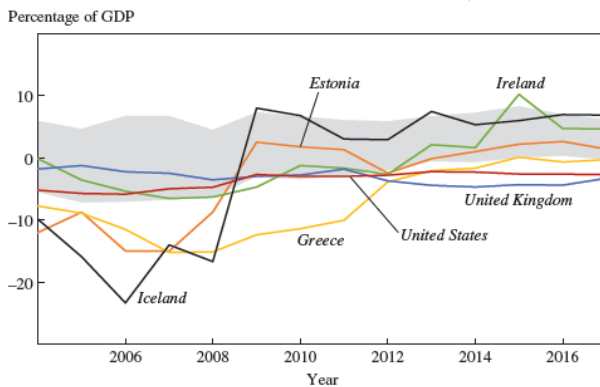
The banks' operations were increasingly in foreign currency, both borrowing and lending, while the lender of last resort was the CBI. Once the crisis hit, the banks quickly became illiquid in foreign currency, and with no lender of last resort in foreign currency, they were bound to fail, irrespective of whether they were solvent or not. Swap lines with relevant Central banks may stave off a run, but they are usually not guaranteed in a credible manner prior to a crisis and should thus not be relied upon.

Lesson 5. Once banks are allowed to operate in different currencies or across borders, they can become victims of self-fulfilling runs simply because they do not have access to a lender of last resort that uses the currency in which they operate (see also the discussion in Benediktsdottir, Danielsson, and Zoega 2011).

Capital inflows rose quickly in the years before the crisis, see figure 7. Borrowing from abroad increased exponentially, led by the Icelandic banks, which funneled the funds to firms and households. This capital inflow bonanza increased the likelihood of a full-blown financial crisis. As the crisis hit, the sudden stop threatened the solvency of local governments, firms, and households. The Icelandic case is a vivid example of how capital inflows can amplify economic fluctuations, and it also illustrates that looming capital flight also greatly complicates policy.

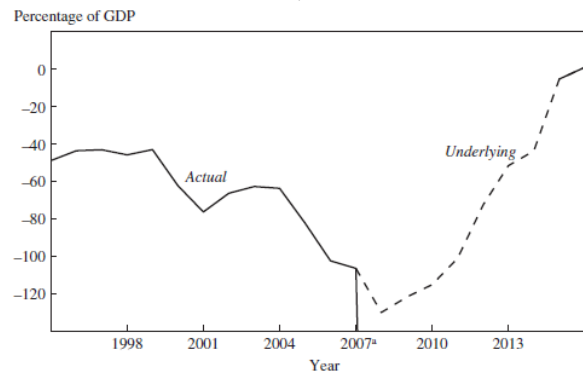
Lesson 6. More attention needs to be paid to capital flows, and policy tools need to be developed to respond to them.

FIGURE 7. CURRENT ACCOUNT BALANCE FOR ICELAND AND SELECTED COUNTRIES, 2004–17



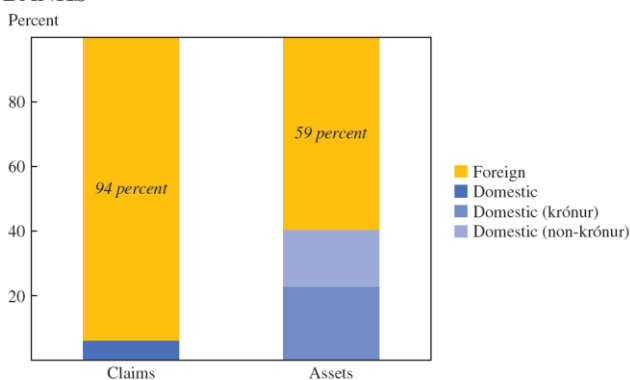
Sources: International Monetary Fund; CBI (2017b).
 a. The shaded area denotes the interquartile range of the distribution of current account balances as a percentage of GDP for 38 industrialized countries.

FIGURE 8. ICELAND'S NET INTERNATIONAL INVESTMENT POSITION, 1995–2016



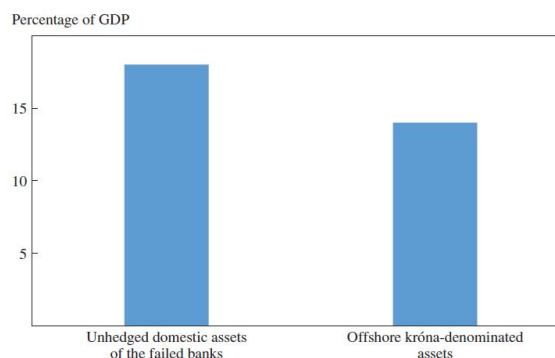
Source: CBI (2017b).
 a. Between 2007 and 2008, the actual net international investment position dropped to -663.5 percent of GDP.

FIGURE 9. ESTIMATED DOMESTIC/FOREIGN BREAKDOWN OF ASSETS AND CLAIMS OF THE OLD BANKS



Source: CBI (2015).

FIGURE 10. THE POTENTIAL BALANCE OF PAYMENTS PROBLEM



Source: CBI (2016b).

The banks' excessive borrowing in foreign markets during the run up to the crisis and carry trade borrowing in securities markets created a systemic risk externality that remained in place years after the external borrowing took place. Negative international investment position of Iceland deteriorated from around half GDP at the turn of the century to over one GDP in 2007 and bottomed out at around 130% of GDP in 2008, see figure 8. The resulting systemic risk was not well understood until a number of years after the crisis started. It mainly came from three sources. First, at the end of 2015 the total remaining assets of the estates of the three large banks amounted to well over Icelandic GDP. The problem is that only 6 percent of the claims into the estate were from domestic creditors, while 41% of the assets of the estates were domestic (see figure 9). This meant that a lot of domestic assets, mostly denominated in krona, would be liquidated, converted into foreign currency and distributed to foreign creditors. It was estimated in 2015 that this settlement of the failed banks' estates would have a negative impact on Iceland's already strained international investment position (IIP) amounting to nearly 18% of GDP. Additionally there were deep concerns about the effect on the already fragile domestic currency and the knock-on effect of that on firms and households.

The second source of outflow pressure was the remnant of the pre-crisis carry trades. It was in the form of krona deposits and government bonds in the hands of foreigners who were impatient to repatriate the funds but could not due to capital controls that were in place. This amounted to about 14% of GDP in 2015, or double the current account surplus at the time.

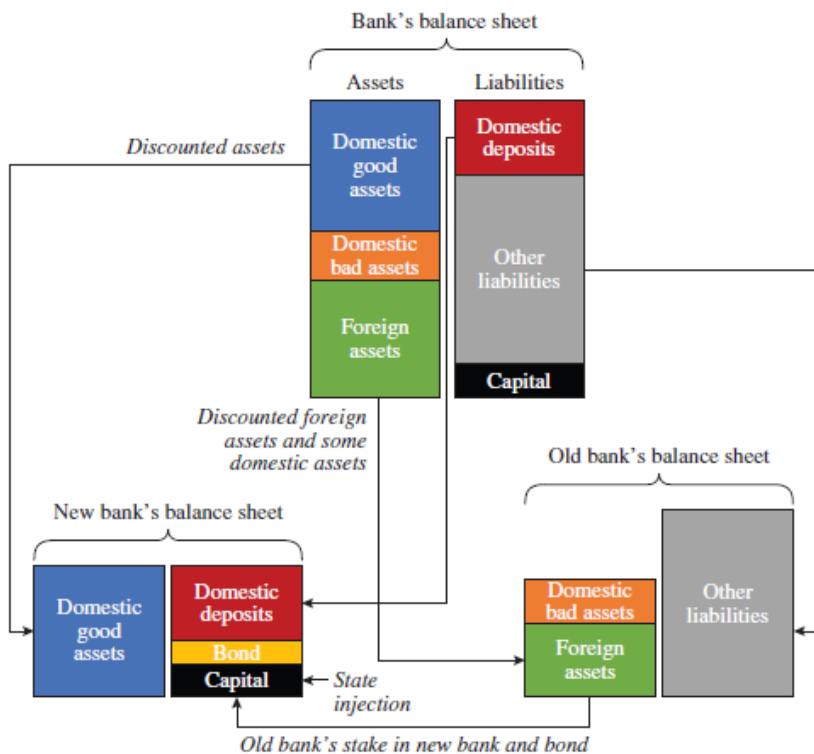
The third source of capital outflow concern was domestic firms, individuals and in particular pension funds who had not been allowed to invest abroad since the capital controls were put in place in 2008.

The combined amount of potential negative balance of payment effect from the first two sources was estimated to be about 32% of GDP at the end of 2015 (see figure 10). The risk of domestic investment flight from Iceland was, however, always heavily reliant on the credible alleviation of

the capital outflow pressures from the first two sources of risk and on general economic conditions. Concurrently to these outflow pressures, ongoing external debt deleveraging, continued to be a strain on the economy. A key concern was that there was too little latitude for these additional capital outflows, since terms on international financial markets remained very tight after the crisis, forcing domestic firms to aggressively pay down their external debt. Policymakers also judged that the terms in international financial markets would continue to be tight as long as this balance of payment problem was looming.

Lesson 7. External position of the economy and expedited deleveraging of external borrowing may pose a systemic risk for the economy irrespectively of who the borrower is. In this case the outstanding external liability was mainly from private firms in unwinding that did not have external assets to cover their external liabilities.

FIGURE 11. THE SPILT OF THE BALANCE SHEETS INTO NEW AND OLD BANKS

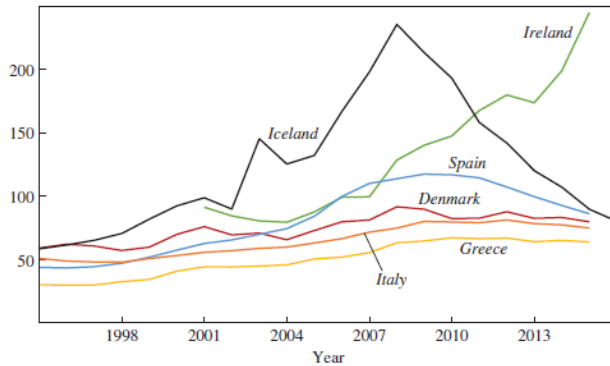


Source: Hafliðason, Valgeirsson, and Marinósson (2009).

Banks resolution and new bank set up appears to have worked well despite being mostly formulated on the go as the banks failed. The banks were split into two. A “new” operational commercial bank with domestic deposits on the liability side and domestic loans on the asset side, see figure 11. The remaining assets and liabilities were put into an “old” bank in unwinding. The main motivation for this kind of resolution of the banks was maintaining financial stability and important operations of the financial system.

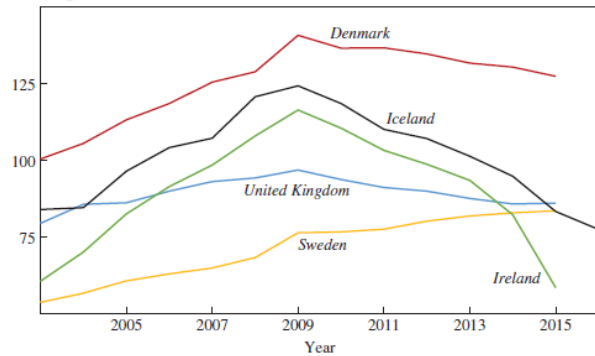
Lessons 8. It is good to have a resolution plan in place before crisis hit. Also it is important to consider other aspects besides capital adequacy when establishing “new banks”, such as for example term mismatch, liquidity, asset encumbrance and currency mismatch.²

FIGURE 12. CORPORATE DEBT
Percentage of GDP



Source: CBI (2017b).

FIGURE 13. HOUSEHOLD DEBT
Percentage of GDP



Source: CBI (2017b).

The write-downs that were done as the new domestic banks were formed were undoubtedly important, providing scope to clean up household and firms’ balance sheets without affecting the new banks’ capital and to prevent, in some instances, the costly process of bankruptcy, see figures 12 and 13. Additionally government policy, both through the pension fund system and direct government funding of individuals house equity proved to be important in cleaning up households debt overhang, see figure 13. This supported consumption and thereby economic recovery.

Lesson 9. Important to resolve household and firm debt overhang to expedite the recovery.

Although the capital controls appear to have stabilized the currency, they did remain in place for an extended period, along with associated distortions. Because the main ingredients in the so-called stability conditions were already understood as early as 2013, it seems quite possible that the controls could have been lifted more rapidly—thus possibly further speeding up the economic recovery.

Lesson 10. This one is well known, it is always difficult to loosen capital controls, in particularly politically difficult.

² Due to term mismatch, the new banks needed liquidity support for some time following their establishment. The encumbrance of two of the three new banks was so high that it could have caused problems if a second wave of the crisis had hit, lowering the amount of assets available for the government to minimize depositors’ losses. This increased the fiscal risk associated with the government-backed guarantee on domestic deposits. All the liabilities in foreign currency, excluding deposits in foreign currency in branches in Iceland, were left in the old banks, while some of the domestic assets that were transferred to the new banks were in foreign currency. This meant that the old banks were short on foreign currency, an issue that was resolved with a stability contribution, while the new banks were long on foreign currency. This situation was partially solved by the government injecting a portion of their equity, in the form of subordinated debt in foreign currency.

Note from non-legal scholars. Both Icelandic courts and the European Free Trade Association’s court have written judgments that gave the government extraordinary latitude to take actions to maintain financial stability during systemic crises of these proportions.

Lesson 11. Nations legal policy space is highly state dependent.

FIGURE 14. GDP INDEX AT CONSTANT PRICES IN DOMESTIC CURRENCY

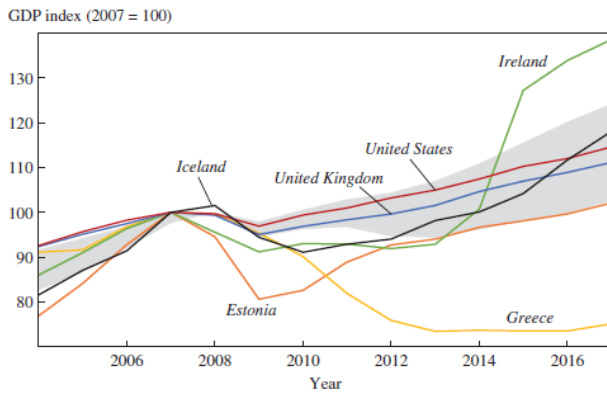
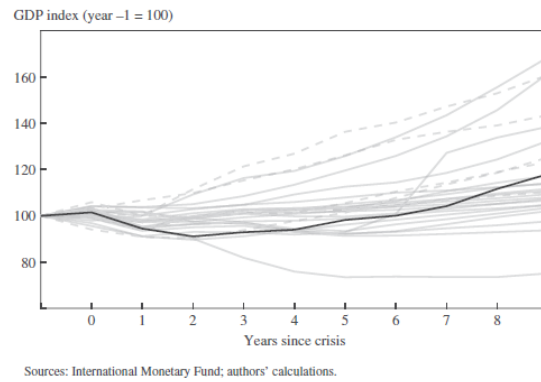


FIGURE 15. GDP INDEX



Sources: International Monetary Fund; authors' calculations.

Iceland suffered the largest banking crisis on record, in terms of the size of the failed banks’ balance sheets relative to GDP. The output cost of the banking crisis appears, however, close to average, according to various measures. Figure 14 shows real GDP, normalized at 100 at the year of a banking crisis in 22 advanced industrial economies, using a definition of a banking crisis proposed by Laeven and Valencia (2012). Icelandic GDP is depicted with a dark solid line. Other countries that are categorized as having experienced a banking crisis in 2008 are shown in solid lines, while the dashed lines depict four other banking crises (Finland in 1991, Norway in 1991, Japan in 1997 and Korea in 1997). Output fell in Iceland by about 10 percent in the first 2 years of the crisis, only Greece contracted more during the same period in this sample. If we look towards the end of the period (IMF estimate of 2017 GDP), however, Iceland has recovered to beyond pre-crisis levels, and it has the third highest level of output of the countries hit by the crisis, relative to 2007.

Fiscal cost of the crisis is also not as high as initially feared. Despite being one of the most fiscally expensive crisis historically in gross terms, the net fiscal cost will likely end up being somewhere between zero and five percent of GDP, depending on the how much the states stake in the new banks is worth, see table 1.

TABLE 1. NET POSITION OF FISCAL COST BASED ON PRICE TO BOOK 1.25-0.25 ON THE GOVERNMENT SHARE IN THE NEW BANKS.

	p/b = 1.25	p/b = 1	p/b = 0.75	p/b = 0.5	p/b = 0.25
Net position (b. ISK)	127	-20	-165	-291	-405
Net position (% of 2016 GDP)	5,3	-0,8	-6,8	-12,0	-16,7

Sources: Islandsbanki, Arion banki and Landsbankinn annual reports, Central Bank of Iceland FSR 2016/1 and authors calculations.

Three things may be important to explain this. First, the recovery was to some extent reliant on large-scale default and subsequent write-offs of private external liabilities, which was one of the bases for the newly established financial system. Second there was a relatively aggressive clean-up of firms' and households' overleveraged balance sheets. Third, the theory on optimal currency areas emphasizes the benefit of a country having its own currency when shocks hit. It seems quite plausible that the devaluation of the krona played a constructive role in the recovery.

Lesson 12. Good policy actions and some luck can greatly decrease the economic and fiscal cost of a major financial crisis.

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