The Financial Crisis in Iceland:
Reflections on causes, consequences and lessons to be learnt

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Bank of England
London, 11 May 2011
The recent Icelandic saga

Two separate but interrelated sub-stories:

1. Iceland’s boom-bust cycle and problems with macroeconomic management in small, open, and financially integrated economies.

2. The rise and fall of three cross-border banks operating on the basis of EU legislation (the European “passport”).

The two converged in a tragic grand finale in early October 2008, when Iceland’s three commercial banks failed and were placed in special resolution regimes.
The boom-bust
It began as a positive FDI shock

Gross fixed capital formation and contributions of its main components 2000-2013

### Business investment as % of GDP 1991-2012

Deviation from average for 1970-2007


Sources: Statistics Iceland, Central Bank of Iceland.
Developing into a credit boom and serious overheating

Credit growth, real exchange rate and real interest rates on non-indexed bank loans

Current account, output gap and inflation

1. Latest figures for credit are from Q3 2008.
2. Real interest rates on non-indexed bank lending.

Sources: Statistics Iceland, Central Bank of Iceland.
Fiscal policy was too loose and monetary policy overburdened

General government balance

<table>
<thead>
<tr>
<th>Year</th>
<th>Overall balance</th>
<th>Cyclically adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>-10%</td>
<td>-10%</td>
</tr>
<tr>
<td>2004</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>2006</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>2008</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>2010</td>
<td>2%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Sources: IMF, Statistics Iceland.

Real and nominal policy rates

<table>
<thead>
<tr>
<th>Year</th>
<th>Nominal policy rates</th>
<th>Real policy rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>2003</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>2004</td>
<td>10%</td>
<td>10%</td>
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<tr>
<td>2005</td>
<td>5%</td>
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<tr>
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<tr>
<td>2009</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>2010</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>2011</td>
<td>25%</td>
<td>25%</td>
</tr>
</tbody>
</table>

Source: Central Bank of Iceland.
A wide interest rate differential induced capital inflows and encouraged carry trade.
The cross-border banks
The European Economic Area

• European “passport” for financial institutions headquartered in any country within the area
• Common legal and regulatory framework ... 
• ... but supervision, safety net (e.g., deposit insurance and LOLR), and crisis management and resolution remained largely national.
Rapid expansion of the banks

Banks' balance sheet expansion and leverage

% of GDP

Total assets/Equity

2003 2004 2005 2006 2007 2008

18
16
14
12
10
8
6
4
2
0

Total assets (left axis)  Leverage ratio (right axis)

Consolidated accounts of three largest commercial banks. 2008 data is end-June.

Source: Central Bank of Iceland.
Geographic and currency dispersion

- 41% of total assets in foreign subsidiaries.
- 60% of total lending to non-residents and 60% of income from foreign sources.
- Over 2/3 of total lending and deposits in foreign currency.
The warning: mini-crisis of 2006

- Icelandic banks experienced a marked drop in their stock market valuations; this was associated with a sizable currency depreciation.
- But they “cleaned up their act” somewhat.
- They began collecting foreign deposits, largely in branches, reducing the likelihood of failure but increasing its impact. Iceland is still suffering the consequences (Icesave).
- Then global risk appetite returned ...
- ... and some of the rating agencies took the Icelandic banks to AAA!!
Traditional metrics looked fine but there were hidden vulnerabilities

<table>
<thead>
<tr>
<th></th>
<th>Official</th>
<th>Less “weak” capital*</th>
</tr>
</thead>
<tbody>
<tr>
<td>As of 30 June 2008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAD ratio</td>
<td>11%</td>
<td>7%</td>
</tr>
<tr>
<td>Tier 1 ratio</td>
<td>9%</td>
<td>5%</td>
</tr>
<tr>
<td>Equity/tangible assets</td>
<td>6%</td>
<td>3%</td>
</tr>
<tr>
<td>Leverage ratio</td>
<td>16</td>
<td>31</td>
</tr>
<tr>
<td>Bond maturity</td>
<td>5y</td>
<td>5y</td>
</tr>
<tr>
<td>Liquidity ratio</td>
<td>1.7</td>
<td>1.7</td>
</tr>
</tbody>
</table>

* “Weak” capital is bank equity financed by lending from the banks themselves.
The crisis
Adjustment and three shocks

• Their subsiding was bound to be associated with a significant slowdown, if not an outright recession (from 2006 onwards, the CBI consistently predicted a recession in 2009).
• Currency crisis in early 2008 (exchange rate fell by 26% in the first half).
• Collapse of the banking system in October 2008 (exchange rate fell by another 26% to year-end).
• Global contraction in Q4/2008 and the first half of 2009.
Sudden stop and a run on FX liabilities

• The Icelandic banks were largely unable to refinance foreign currency liabilities after the outbreak of the international financial crisis in August 2007.

• Claimed to be able to operate without market access well into 2009 at least.

• Serious concerns in early 2008.

• Run on FX liabilities post-Lehman in late September 2008.
Building defences

- It was clear by early 2008 that the banks were in dire straits and faced massive rollover risk in terms of foreign currency liabilities.

- Authorities tried to negotiate swap lines, declined by ECB, BoE and Fed (told to go to the IMF), but negotiated €1.5 m with Nordic countries in May.

- In May 2008, Parliament approved substantial foreign borrowing to boost FX reserves (€5 m, mostly unused).
FX liquidity available to the Central Bank was dwarfed by the banks’ FX liabilities.

Banks’ foreign currency liabilities and Central Bank FX reserves, September 2008

- Central Bank FX reserves: 21% of GDP
- Central Bank swaps and credit lines: 14% of GDP
- Banks’ foreign currency liabilities: 750% of GDP

%
The policy responses
Too big to save

- These were private banks.
- Their assets were in excess of 10x GDP, with around 2/3 of the balance sheet in foreign currencies.
- CB did some limited last-resort lending in FX.
- But in the absence of international cooperation, forced downsizing through resolution and winding-up was the only option.
- Guaranteeing the banking system would have been a disaster.
Securing continued domestic payment and banking operations

- **Emergency Act:**
  - FME entrusted with broad-based intervention powers
  - Deposits given priority over other unsecured claims
  - Parliamentary approval of governmental capital injections

- **Statement from the Government that all deposits in Iceland were guaranteed.**

- **Failing banks were placed in resolution regimes (became the property of (mostly foreign) creditors).**

- **Domestic banks were carved out of the failed banks (1.7 times GDP).**

- **Domestic payment systems functioned throughout.**
Disorderly and partly hostile cross-border crisis management

- Lack of information sharing and co-operation across affected jurisdictions.
- Early sale of “good” assets at fire sale prices => recovery ratio for bond holders will be reduced.
- UK authorities froze and ring-fenced assets and closed Singer & Friedlander, bringing down Kaupthing – however, LOLR loan in Sweden and Iceland to Kaupthing.
The crisis struck a heavily indebted private sector

- With a large share of foreign currency-denominated or foreign currency-linked debt.
- 75% of total household debt was price-indexed.

Proportion of total foreign-denominated debt

1. Figures for households and municipalities are as of year end 2008, and figures for businesses are as of June 2009. Source: Central Bank of Iceland.
IMF programme

• A Stand-by Arrangement was initiated in November 2008 (USD 2.1 bn)
• External financing from IMF, the Nordic countries, Poland and others (USD 3 bn)
• Three key policy goals:
  – Exchange rate stability
  – Fiscal sustainability
  – Financial sector reconstruction
• Comprehensive capital controls a key element in the programme
The recession
The recession in international comparison

Economic recovery in international comparison\(^1\)

2007 - 2013

Index 2007 = 100

- Iceland
- United Kingdom
- Ireland
- Euro area
- Denmark

1. Figures for Iceland are from Central Bank of Iceland baseline forecast.

Sources: IMF World Economic Outlook April 2011, Central Bank of Iceland.
Iceland has not been the hardest hit

Percentage change in GDP from the average of 2005-2007 to 2010

Unemployment rate
Q1 2011\(^1\)

Source: Eurostat.

1. Data for countries with an asterisk are only available for Q4/2010.
Source: Macrobond, Central Bank of Iceland.
The stabilisation and recovery
Stabilisation

- The underlying current account has swung into a significant surplus (around 8% GDP in 2011 and 2012).
- This contributed to stabilisation of the exchange rate in the second half of 2009 and then appreciation in 2010 (12%).
- Exchange rate still 20% below 30-year average in real terms.
- Inflation has been close to the 2½% target recently.
Recovery

• GDP seems to have begun growing again in Q3/2010.
• The recovery is still weak, however, and unemployment is still close to peak.
• Investment rate is at a historical low.
• Iceland faces the task of re-integrating into global capital markets.
• Lifting capital controls and demonstrating market access of the sovereign are important elements in the process.
International investment position

- When the failed banks have been wound up, Iceland will not be an outlier in terms of net foreign debt.
- Figures do not include the unsettled Icesave issue.

1. Figures are for 2008. 2. IIP excluding DMBs undergoing winding up proceedings.

*Sources:* IMF and various central bank and statistics websites.
Some lessons
Exchange rate regime

• In Iceland, the floating exchange rate contributed to the problem but is also a part of the solution.
• Membership in the euro area would have prevented the currency crisis and greatly reduced the problem of FX balance sheets without LOLR => the banking crisis would have been less severe.
• But it is no panacea, and banking crises and sovereign debt crises can still take place.
• Iceland’s recent experience in this regard is a factor behind its EU application.
Cross-border banking

- Cross-currency risk and maturity mismatches in terms of foreign currency (=> rollover risk) was underestimated prior to the crisis =>

- Under-regulated and insufficiently backed by capital or safety net facilities (e.g., LOLR).

- EU/EEA framework is flawed and entails particular risk for small countries outside the euro area.

- We need to move towards EU supervision, deposit insurance, crisis management and resolution regimes for cross-border banks. Domestic banks could remain within the national safety net.