Central Bank of Iceland

Lessons from the Iceland Crisis

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Brussels, 21 March 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 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.

Plan of the presentation

- The build-up of economic and financial imbalances
- The rise of the cross-border banks
- The crisis and the crisis management
- Policy responses
- The recession
- Stabilisation and recovery
- The lessons

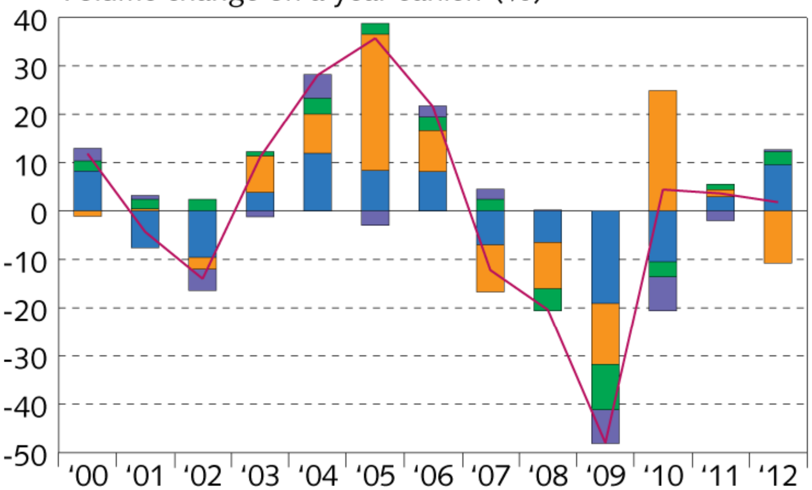
Build-up of imbalances

Build-up of imbalances

It began as a positive FDI shock

Gross fixed capital formation and contributions of its main components 2000-2012[1]

Volume change on a year earlierr (%)



- Total gross fixed capital formation
- Businesses excluding aluminium and power stations
- Aluminium and power stations
- Residential
- Public sector

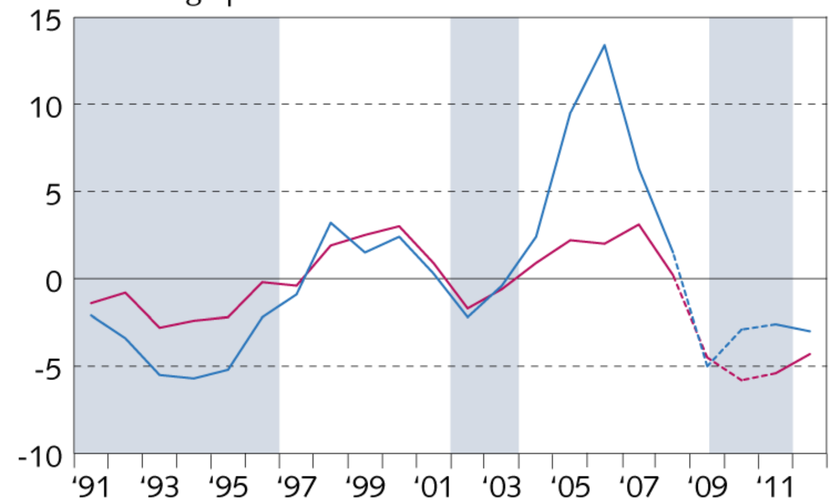
1. Central Bank baseline forecast 2009-2012.

Sources: Statistics Iceland, Central Bank of Iceland.

Business investment as % of GDP 1991-2012[1]

Deviation from average for 1970-2007

Percentage points



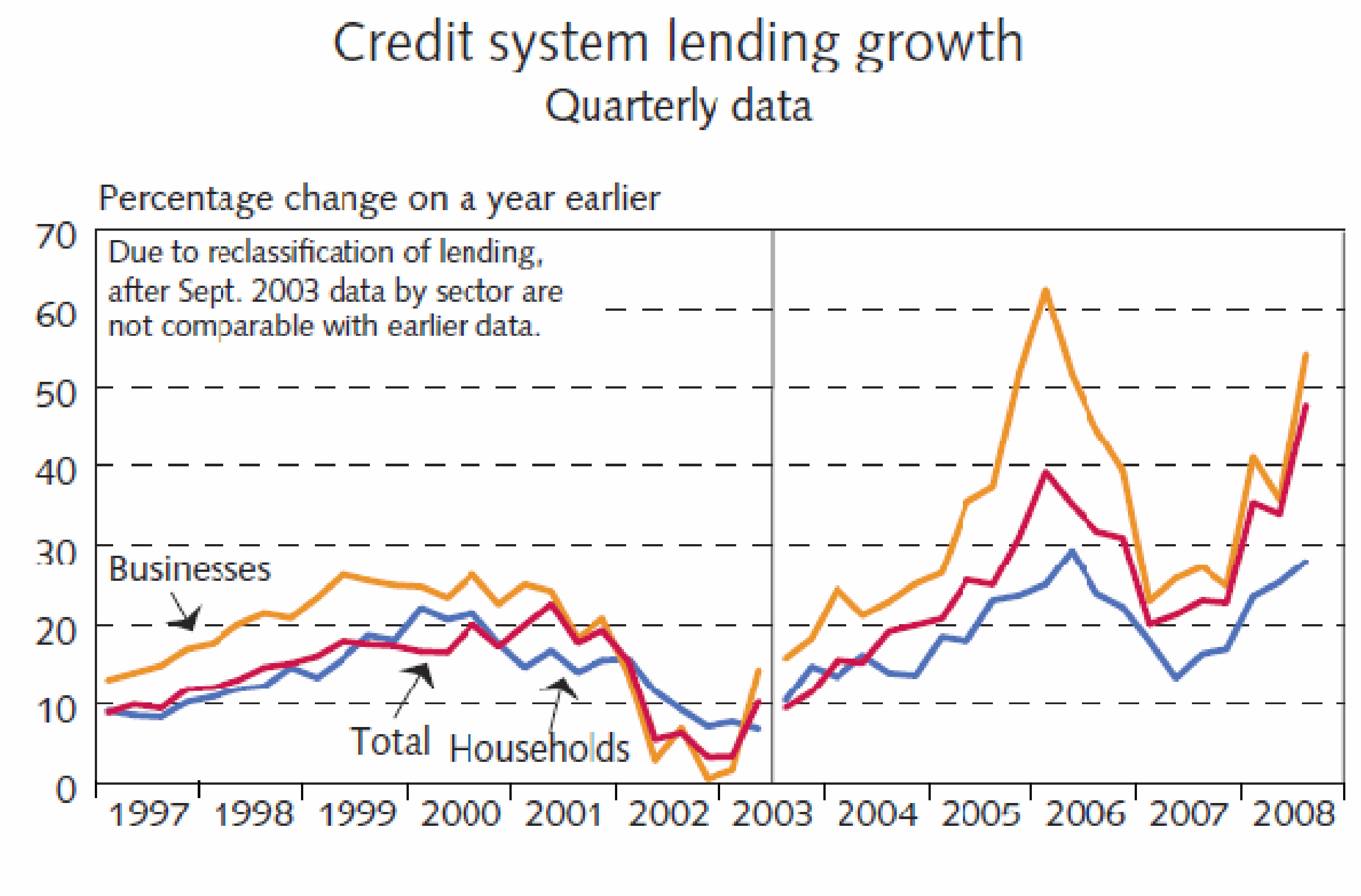
- Business investment
- Business investment excluding aluminium and power stations

1. Central Bank baseline forecast 2009-2012. Shaded areas show periods with negative output gap.

Sources: Statistics Iceland, Central Bank of Iceland.

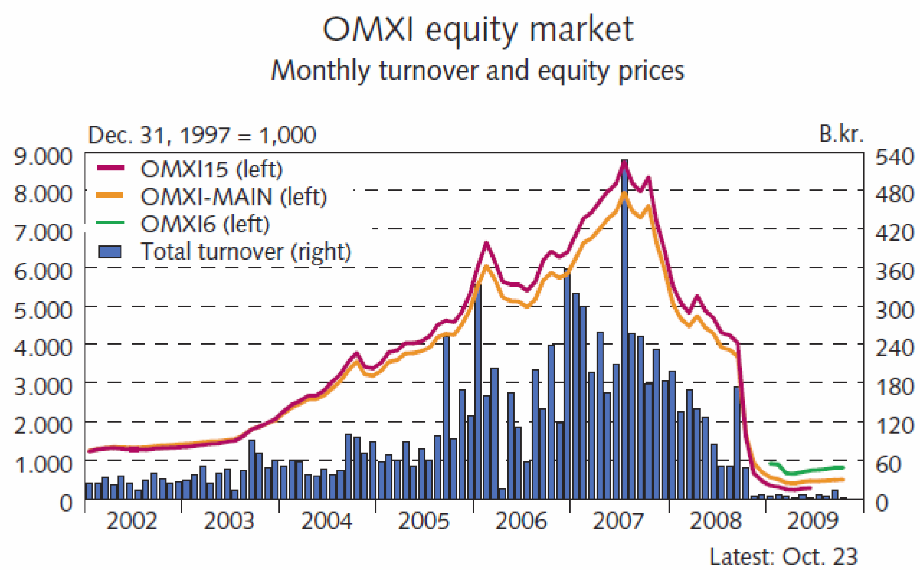
Build-up of imbalances

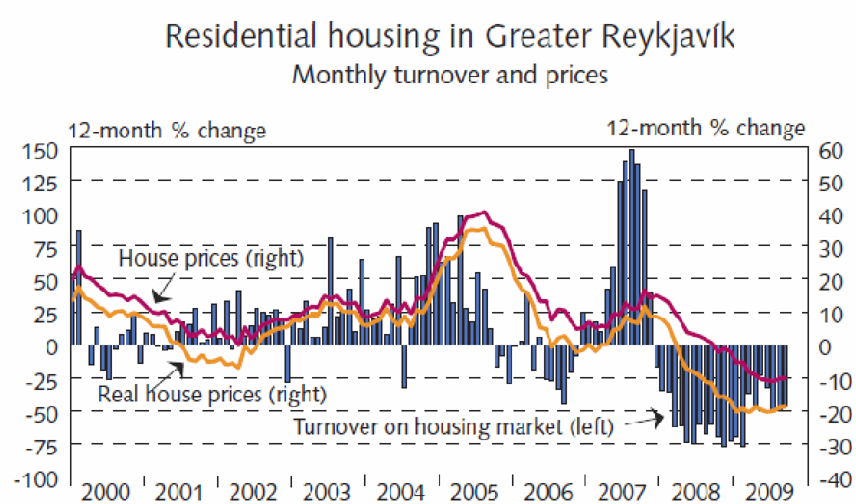
Credit boom following privatisation of the banks



Build-up of imbalances

Fuelling asset price bubbles

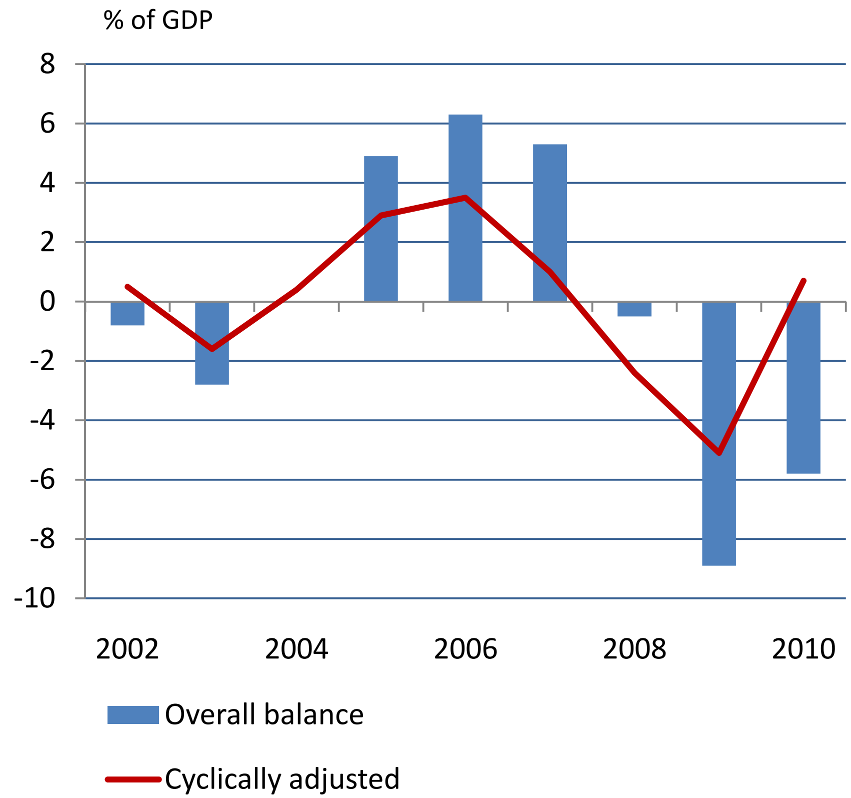




Build-up of imbalances
Fiscal policy was too loose

- Tax cuts after the 2004 elections
- Strong expenditure growth
- Traditional cyclical adjustments were in retrospect misleading
- Gross public debt was 29% of GDP in 2007 and net 11%

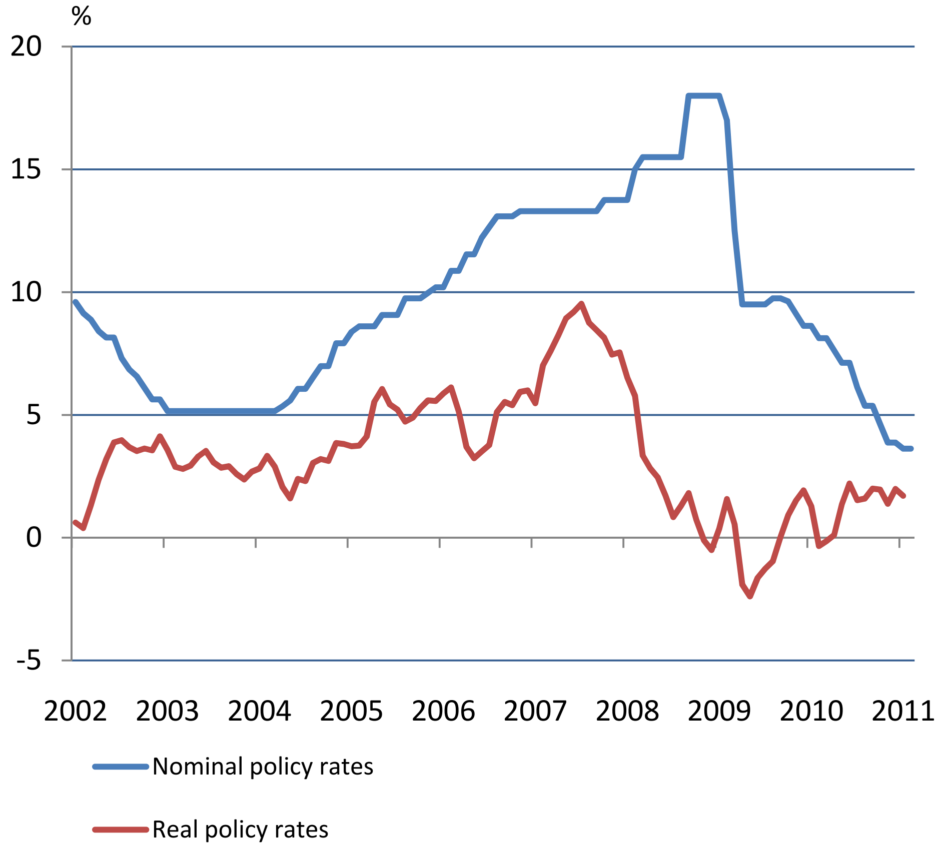
General Government Balance



Sources: IMF, Statistics Iceland.

Build-up of imbalances
Monetary policy was overburdened

Real and nominal policy rates

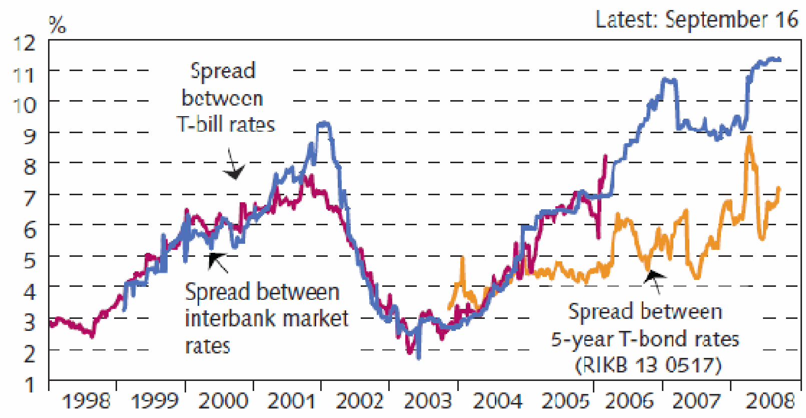


Source: Central Bank of Iceland.

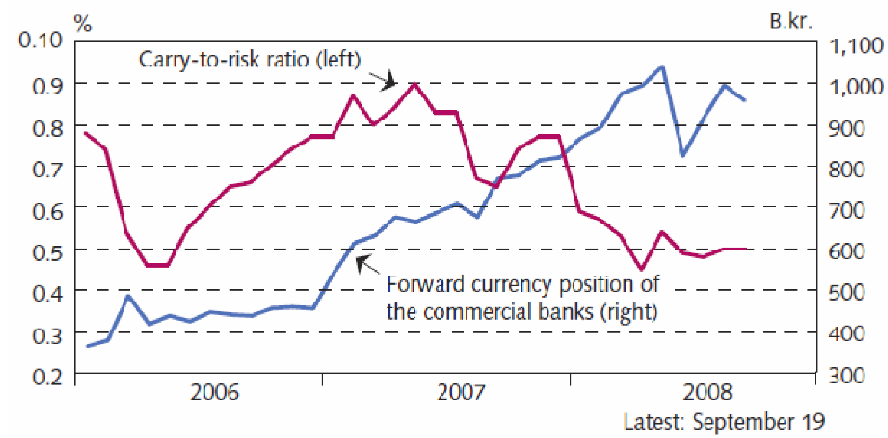
Build-up of imbalances

Wide interest rate differential encouraged carry trade

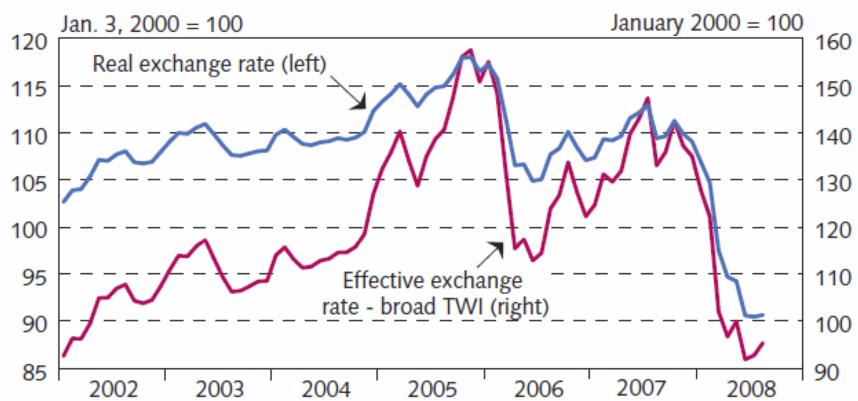
Interest rate differential with abroad
Weekly data



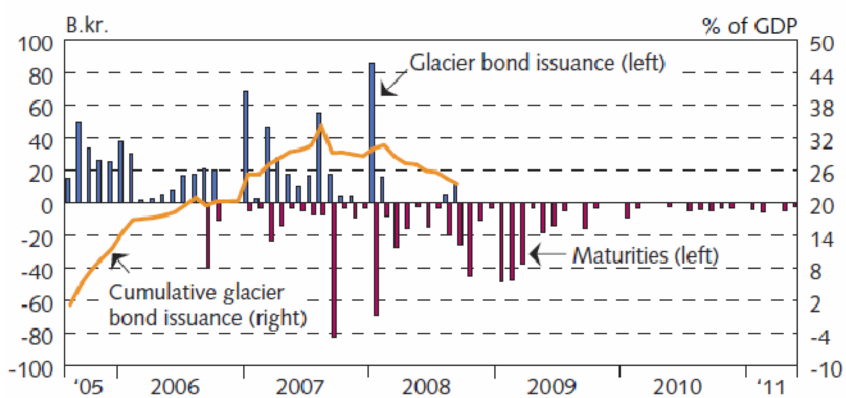
Carry-to-risk ratio and forward currency position of the commercial banks
Monthly data



Nominal and real effective exchange rate of the króna
Monthly averages



Króna Eurobond issuance[1]
Monthly data



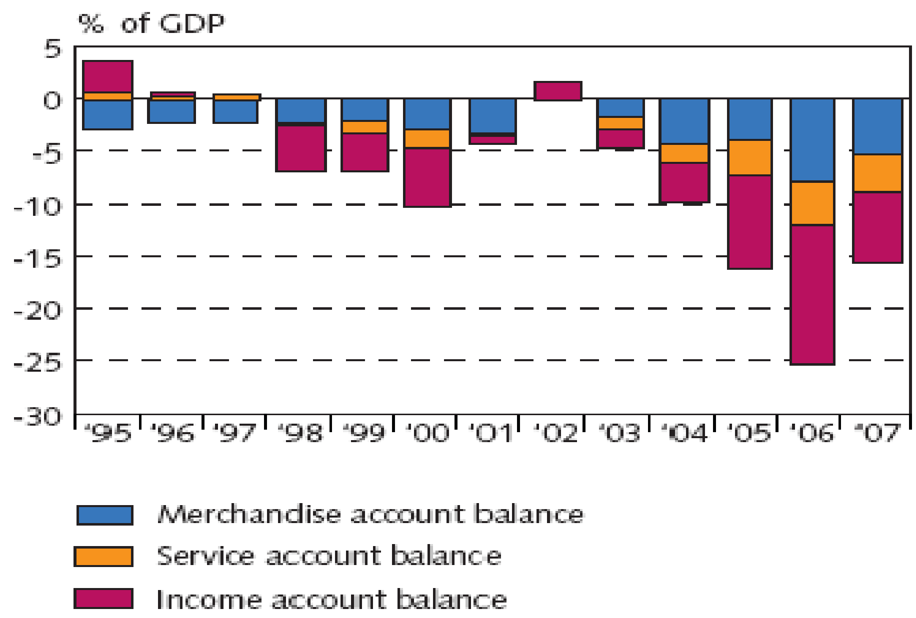
Build-up of imbalances

All of these developments were reflected in a huge current account deficit

Chart VII-1

Current account balance components[1]

Annual data 1995-2007



1. Net current transfer is included in balance on income.

Sources: Statistics Iceland, Central Bank of Iceland.

The rise of the cross-border banks

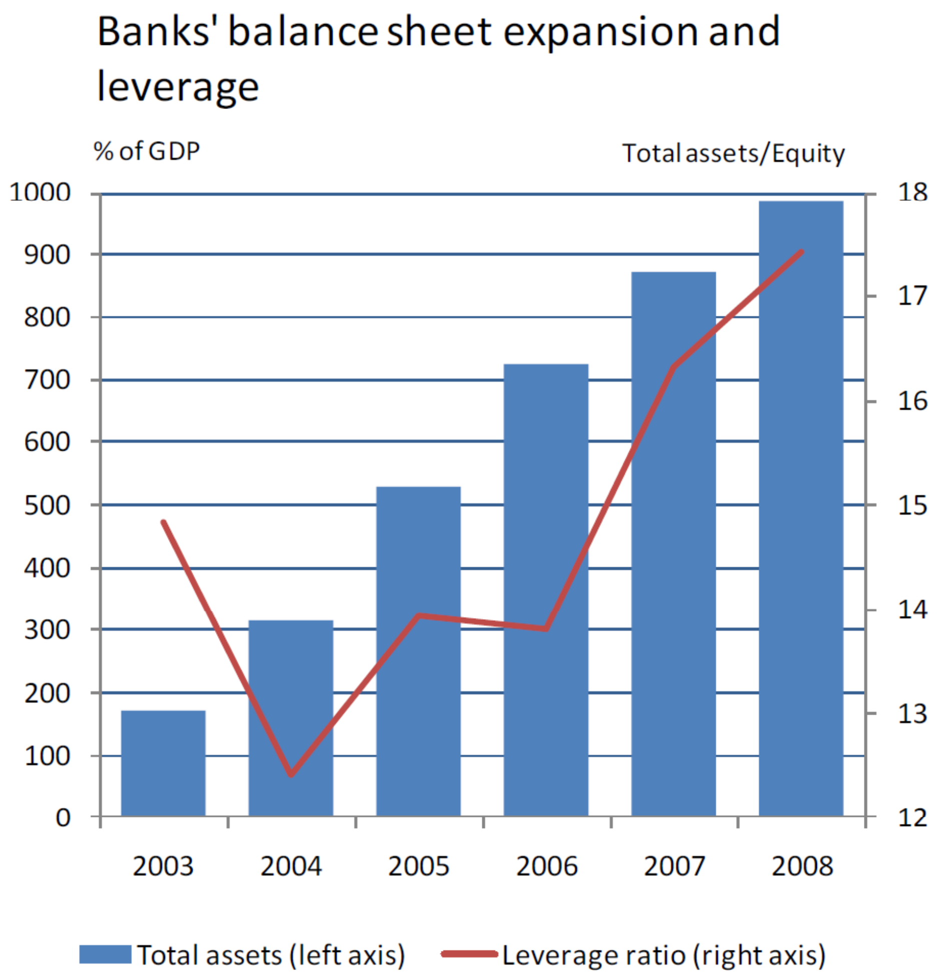
The European Economic Area

- Iceland became a member of the EEA in 1994
- Free movement of capital
- European "passport" for financial institutions headquartered in any country within the area
- Common legal and regulatory framework …
- … but supervision, the safety net (e.g., deposit insurance and LOLR), and crisis management and resolution remained largely national.
- There was a built-in vulnerability/risk in this setup, especially for small countries outside the euro area

Consolidation and privatisation

- The Icelandic banks began consolidating in the 1990s.
- They were gradually privatised from the late 1990s, a process largely completed in 2003.
- Armed with the EU " passport," Icelandic banks grew very rapidly by expanding their activities abroad, for the most part by acquiring financial institutions in other countries, opening up bank branches, and stepping up foreign operations.

Rapid expansion of the banks



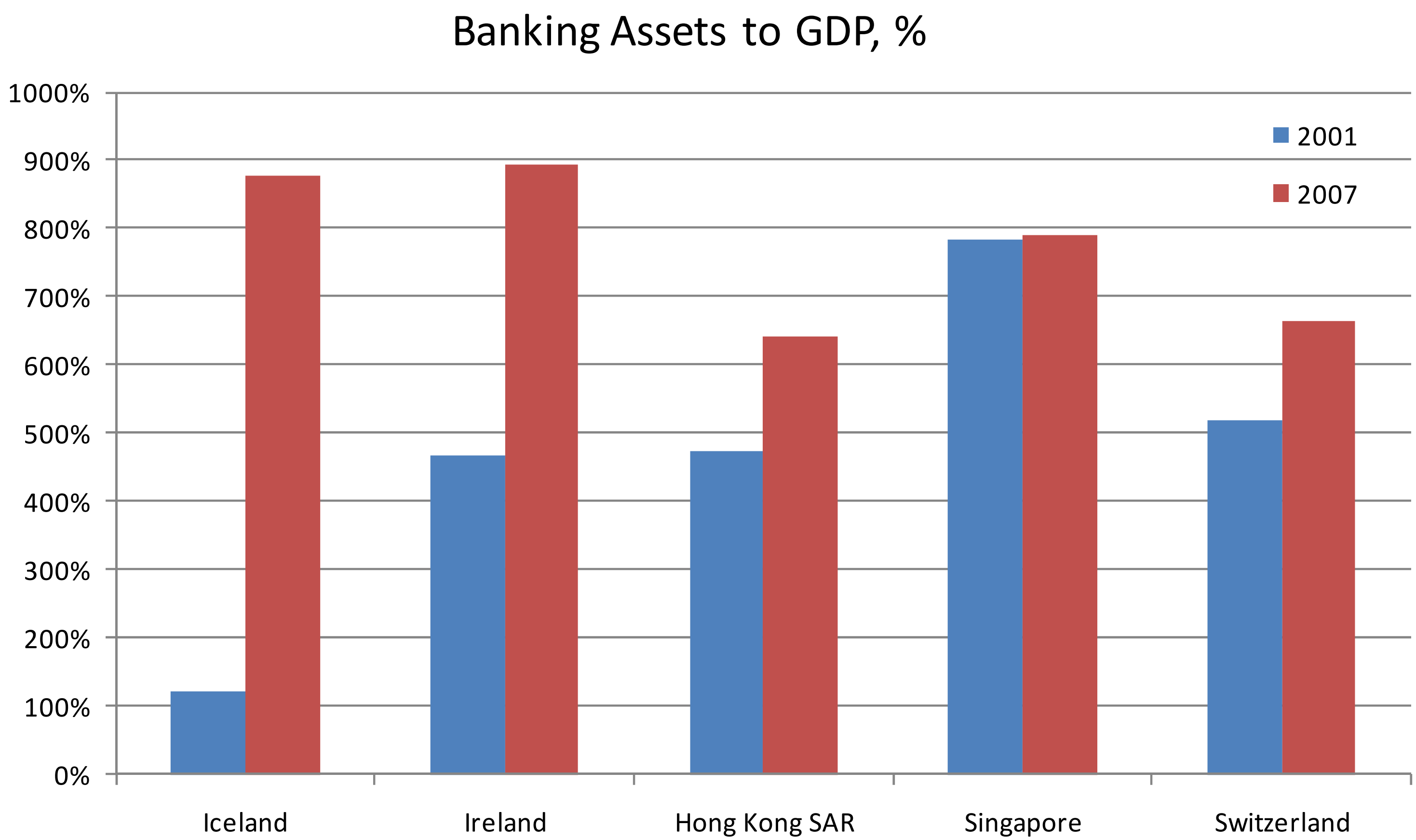
Consolidated accounts of three largest commercial banks. 2008 data is end-June.

Source: Central Bank of Iceland.

Geographic and currency dispersion

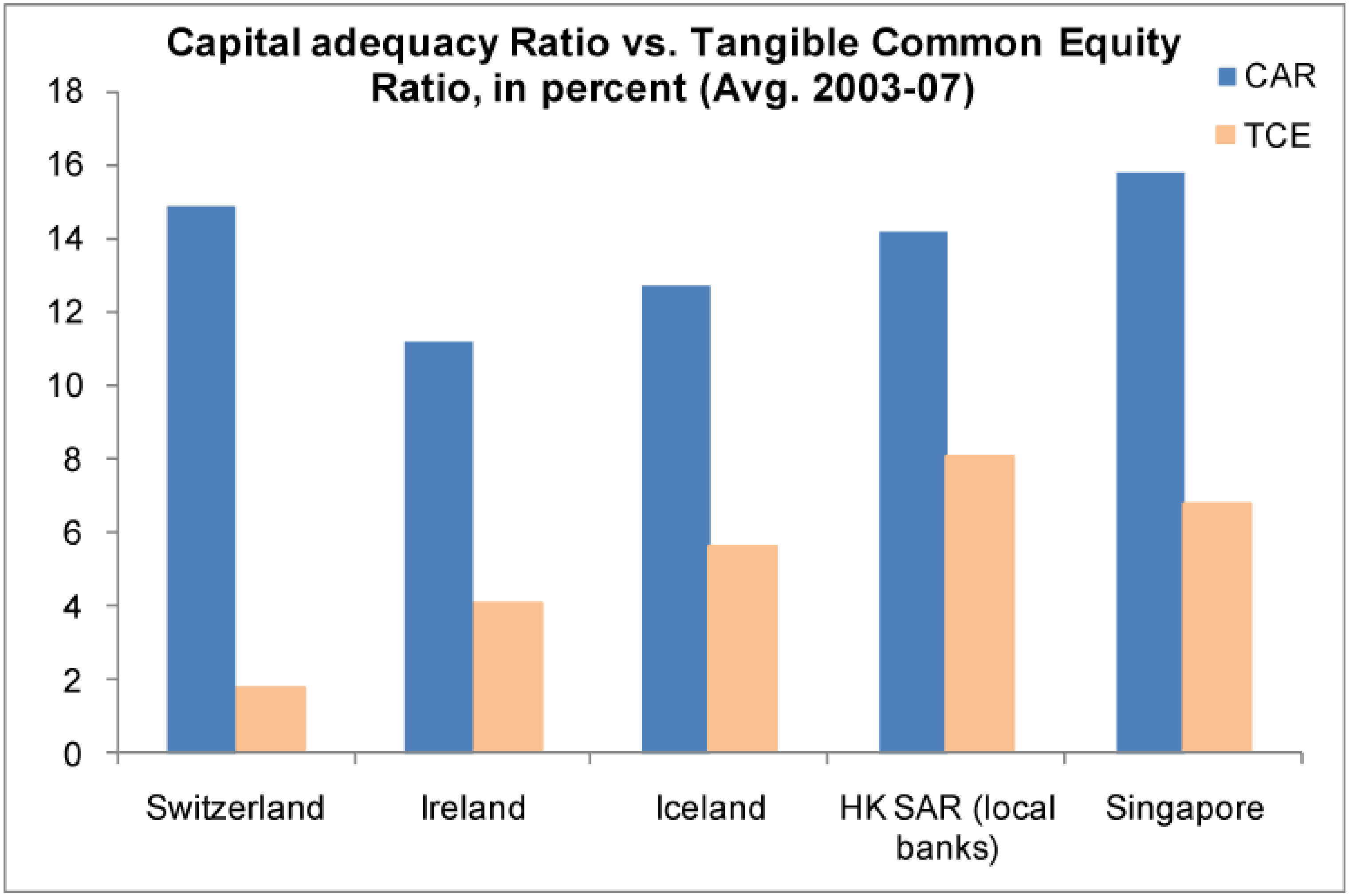
- 41% of total assets in foreign subsidiaries.
- 60% of total lending to non-residents and 60% of income from foreign sources.
- Over 2/3 of total lending and deposits in foreign currency.

Small countries - big banks

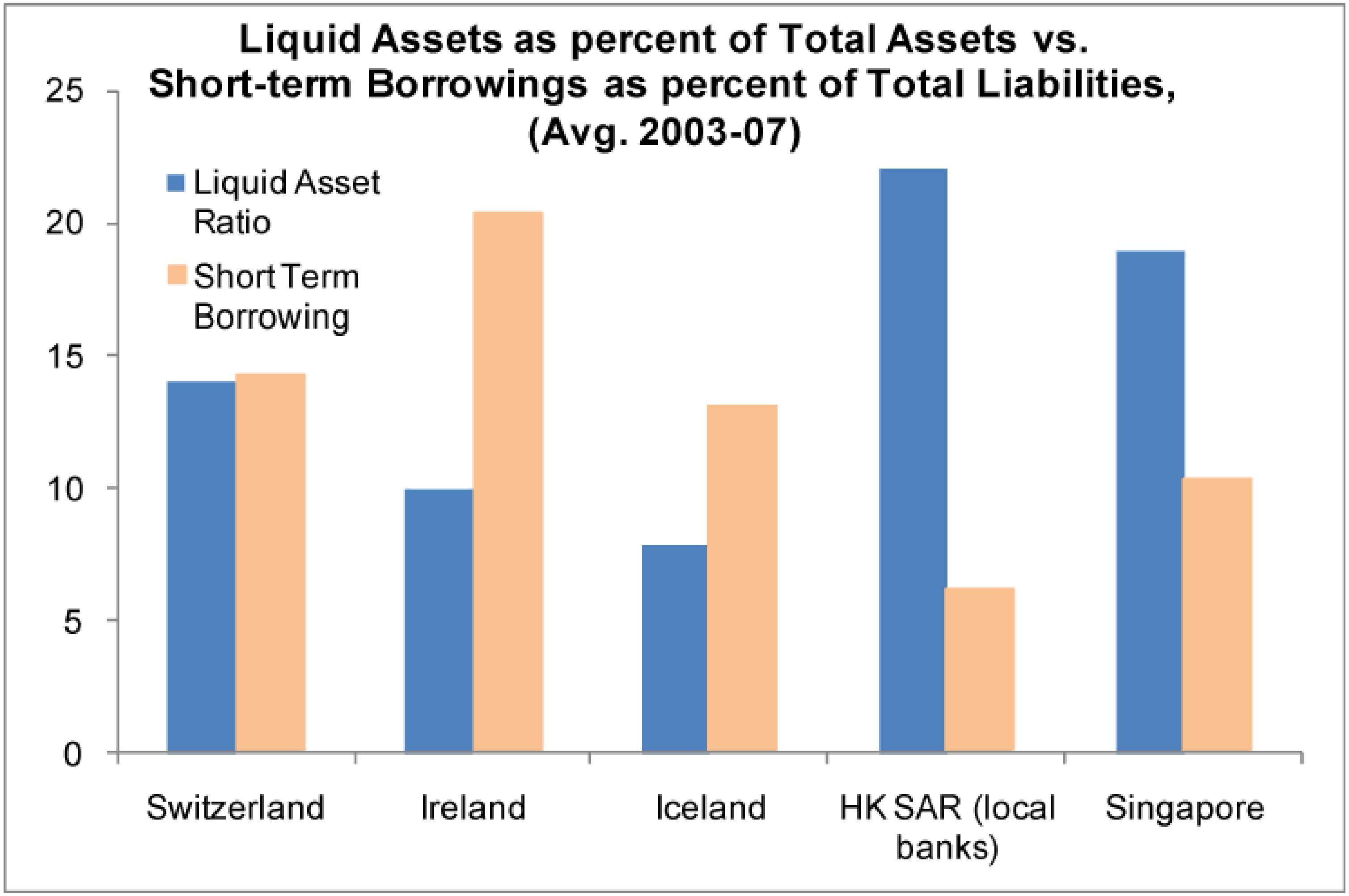


Source: IMF: Cross-Cutting Themes in Economies with Large Banking Systems

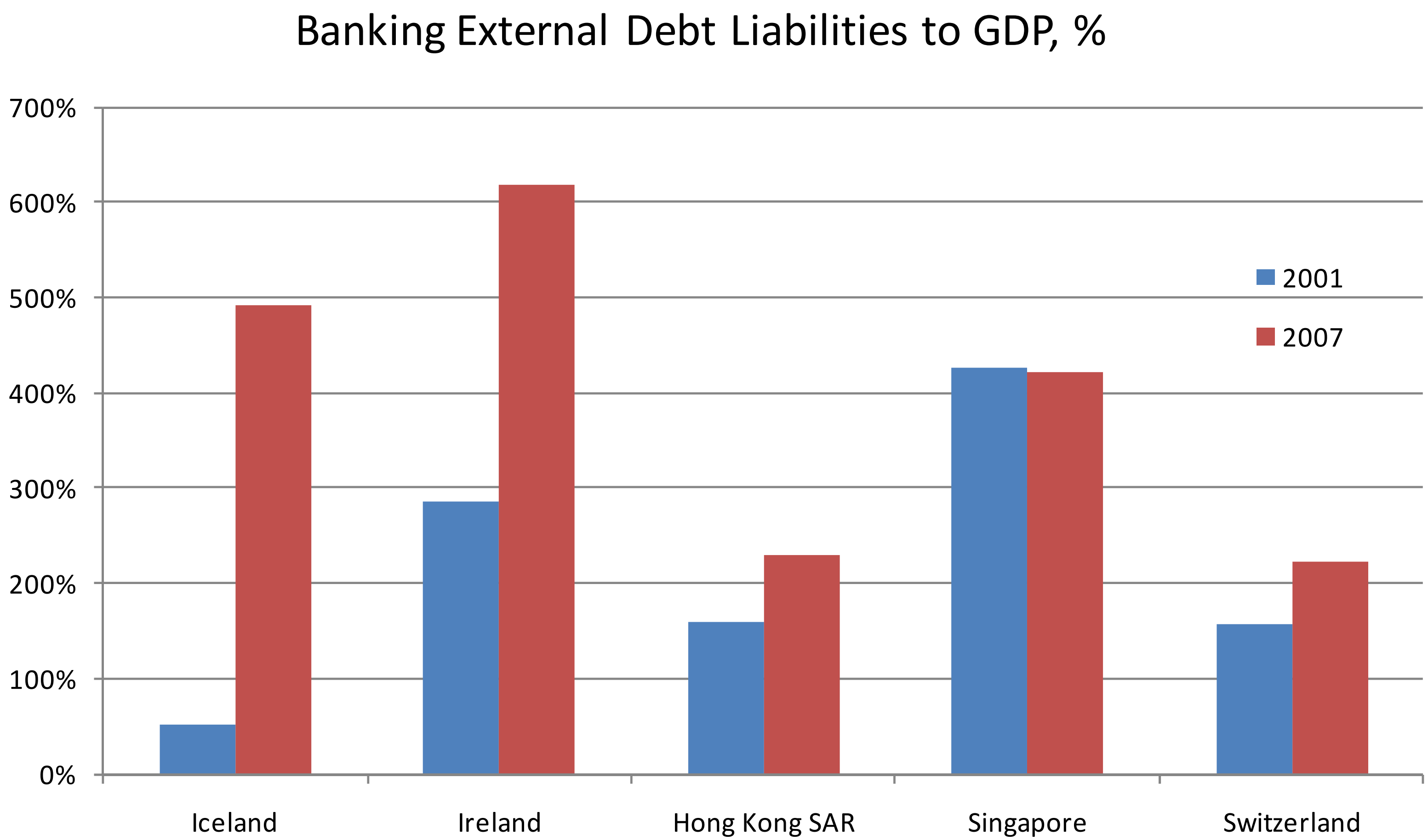
Not outliers in terms of capitalisation



Somewhat weaker in terms of liquidity



Icelandic banks had the largest foreign currency liabilities in relative terms



The warning: Mini crisis of 2006

- Icelandic bank´s experienced a big drop in their stock market valutations which was associated with a sizable currency depreciation.
- But they cleaned up their act somewhat.
- Began collecting foreign deposits, largely in branches – made the likelihood of failure less but the impact much bigger – Iceland is still suffering the consequences – e.g. 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

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

* “Weak” capital is bank equity financed by lending from the banks themselves.

The crisis and crisis management

Adjustment and three shocks

- Unusually large external and internal macroeconomic imbalances 2005-2007.
- Their subsiding was bound to be associated with a very significant slowdown, if not an outright recession (from 2006 ownwards 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 further by 26% to year-end).
- The global contraction in Q4 2008 and the first half of 2009.

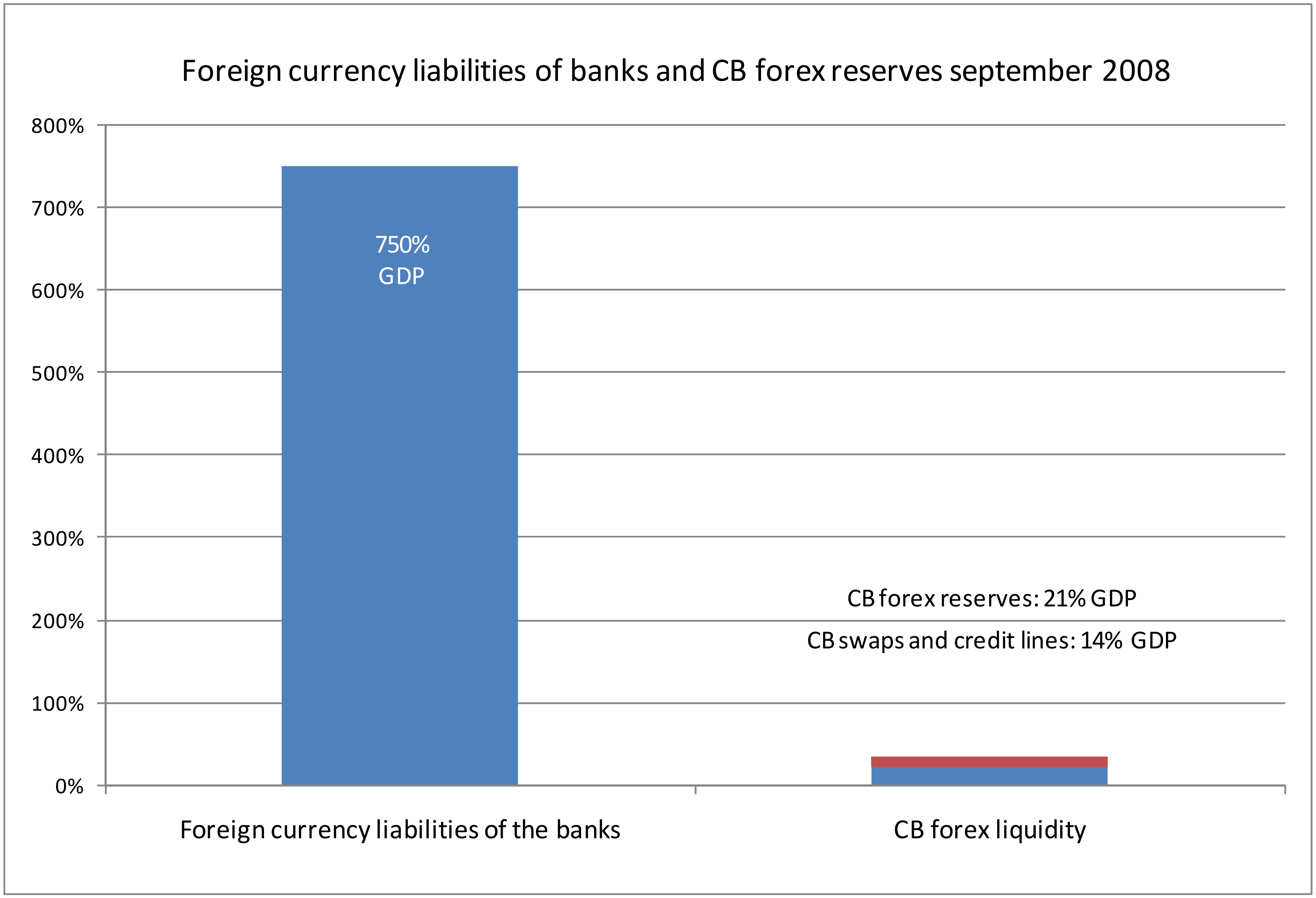
Sudden stop and a FX run

- The Icelandic banks were mostly unable to refinance foreign currency liabilities after the outbreak of the international financial crisis in August 2007.
- Said to be able to be 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



Too big to save

- These were private banks.
- Their assets were in excess of 10xGDP with around 2/3 of the balance sheet in foreign currencies.
- CB did some LOLR in FX (limited lending against collateral) .
- But in the absence of international cooperation, a forced down-sizing through resolution and wind up processes was the only option.
- Guaranteeing the banking system would have been a disaster.

Securing continued domestic payments and banking operations

- Emergency Act:
  - FSA got broad based intervention rights;
  - deposits were given higher priority than other unsecured claims;
  - parliamentary approval of governmental capital injections
- Statement from the Government that all deposits in Iceland were guaranteed.
- Failing banks were were put into a resolution process (became the ownership of the (mostly foreign) creditors).
- Domestic banks carved out of the failed banks.
- And domestic payments system worked throughout.

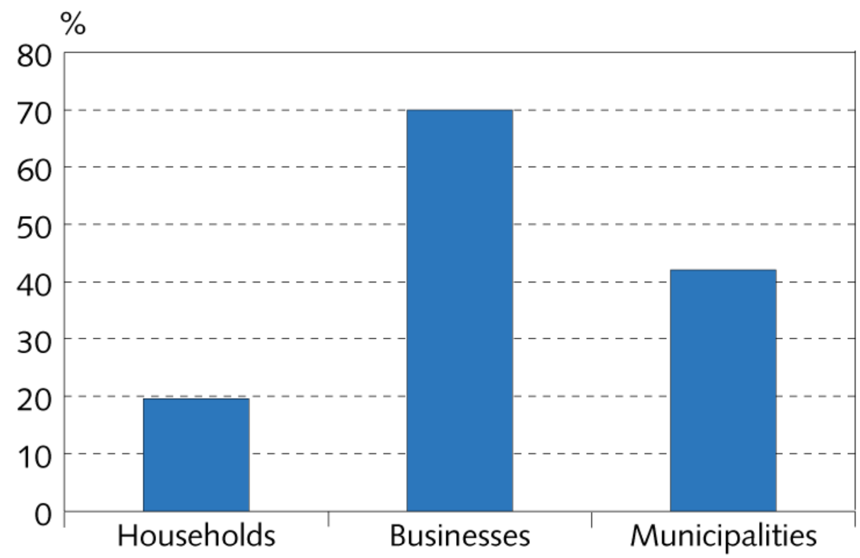
Disorderly and hostile cross-border crisis management

- 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 & Friedland that brought down Kaupthing – however, LOR loan in Sweden and Iceland to Kaupthing.
- Dispute with UK and Dutch authorities over the settlement of deposit insurance related to the branches of Landsbanki.

The crisis hit a very indebted private sector

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

Proportion of total foreign-denominated debt[1]



1. Figures for households and municipalities are as of year-end 2008, and figures for businesses are as of June 2009.

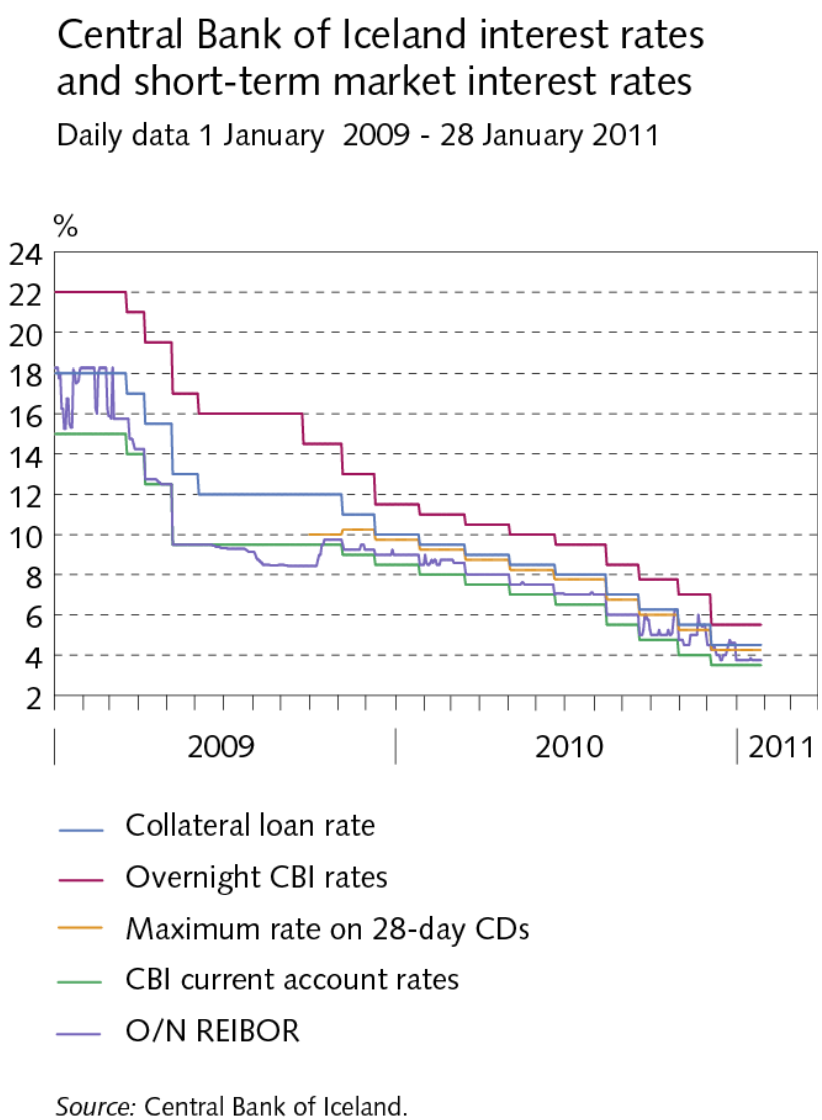
Source: Central Bank of Iceland.

The policy responses

IMF program

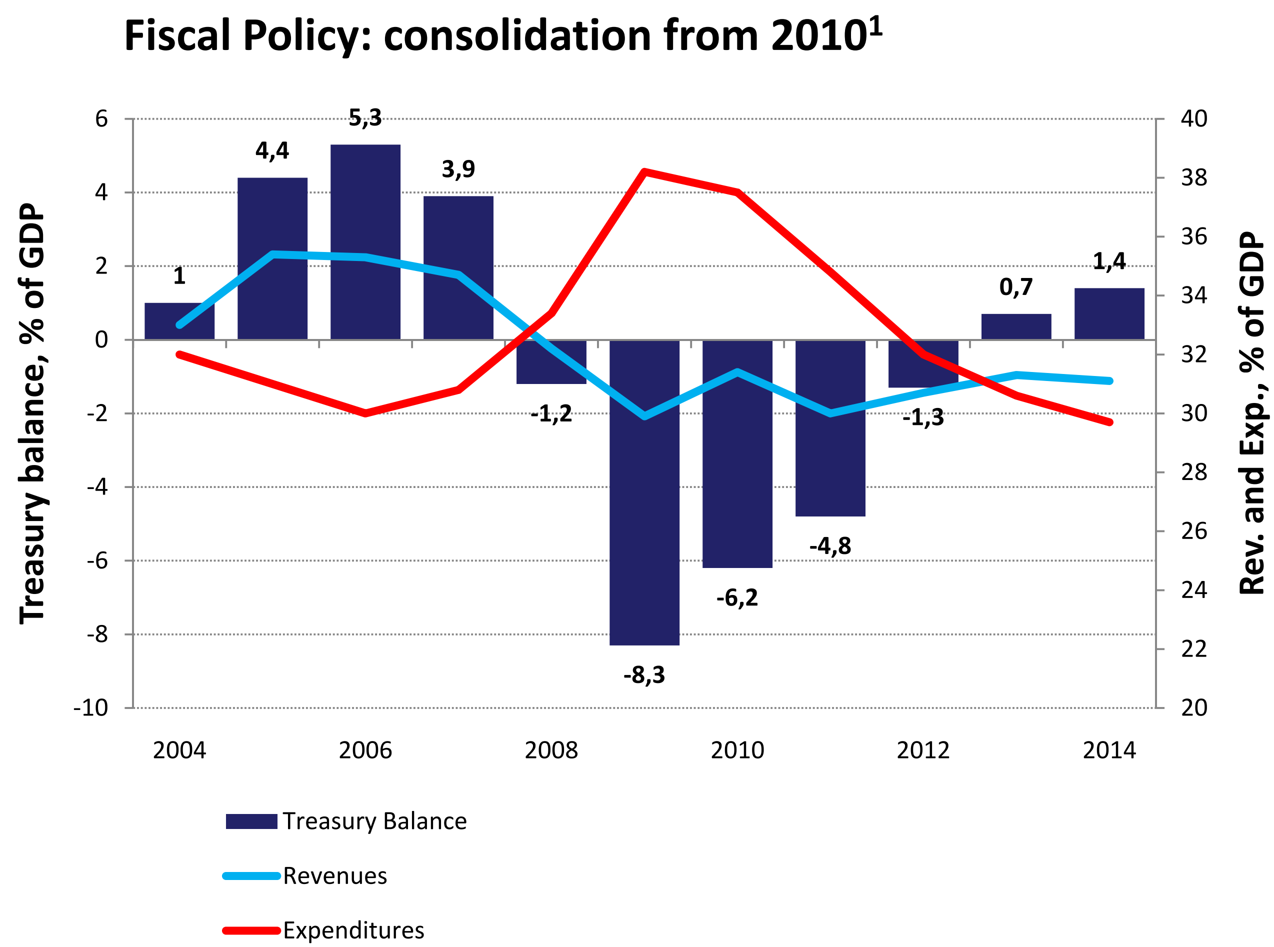
- A two year Stand-by Arrangement was initiated in November 2008 (2.1 b. USD):
- External financing from IMF, the Nordic countries, Poland and others (3 b. USD)
- First review was delayed but completed in October 2009, 2nd in April 2010 and 3rd on 29 September 2010.
- Three key policy goals:
  - Stabilising the exchange rate
  - Fiscal sustainability
  - Rebuilding the financial sector

Monetary policy



- Exchange rate stability was first priority
- Supported by comprehensive capital controls
- Interest rate cut as exchange rate stabilised and inflation subsided
- Effective policy rate from 18% to 3½%

Fiscal policy: consolidation from 2010



1. ISK 192 billion in write-offs of outstanding claims excl. in 2008 exp.
Sources: IMF, Statistics Iceland.

The banking system in 2010

- The banking system is now much smaller than in 2008 (about 2 x GDP) and majority foreign owned.
- Five commercial banks with domestic operations
  - Around 95% of the banking system at year-end 2010
- 11 savings banks
- Big three commercial banks with CAD ratios well above 16%.
- Operating behind capital controls and a government statement that “deposits are safe”.

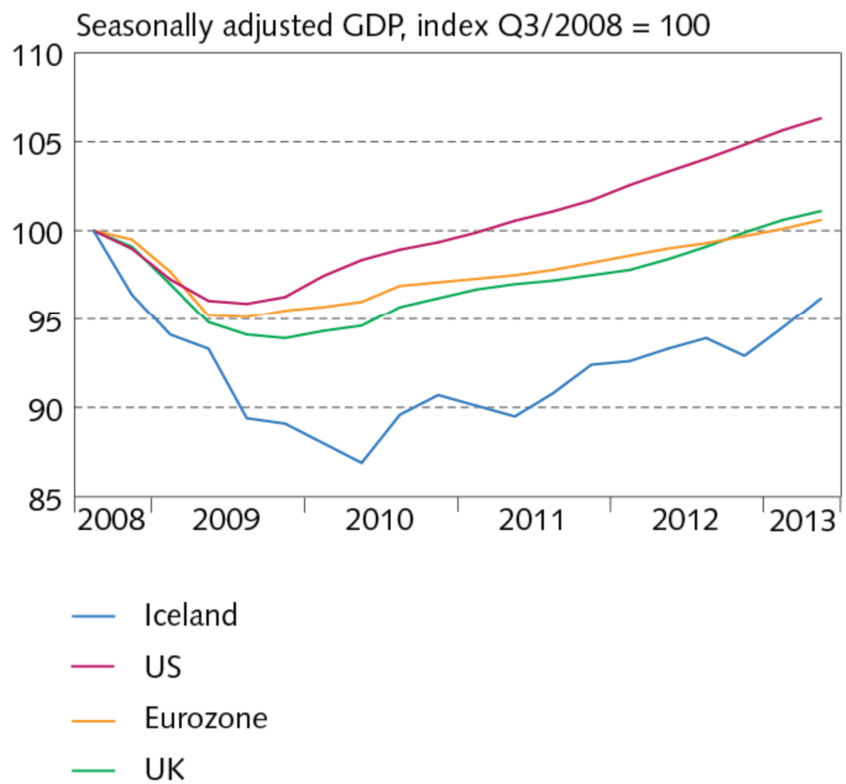
The recession

The recession in international comparison

Chart 1

Economic recovery in international comparison

Q3/2008 - Q2/2013

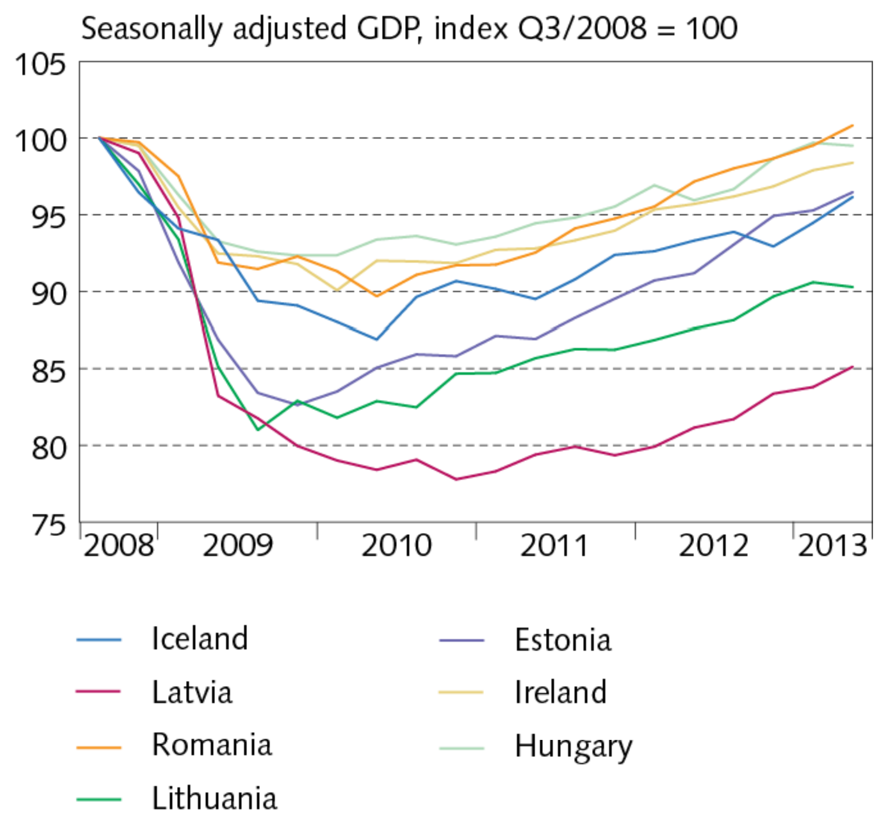


Sources: Global Insight, Central Bank of Iceland.

Chart 2

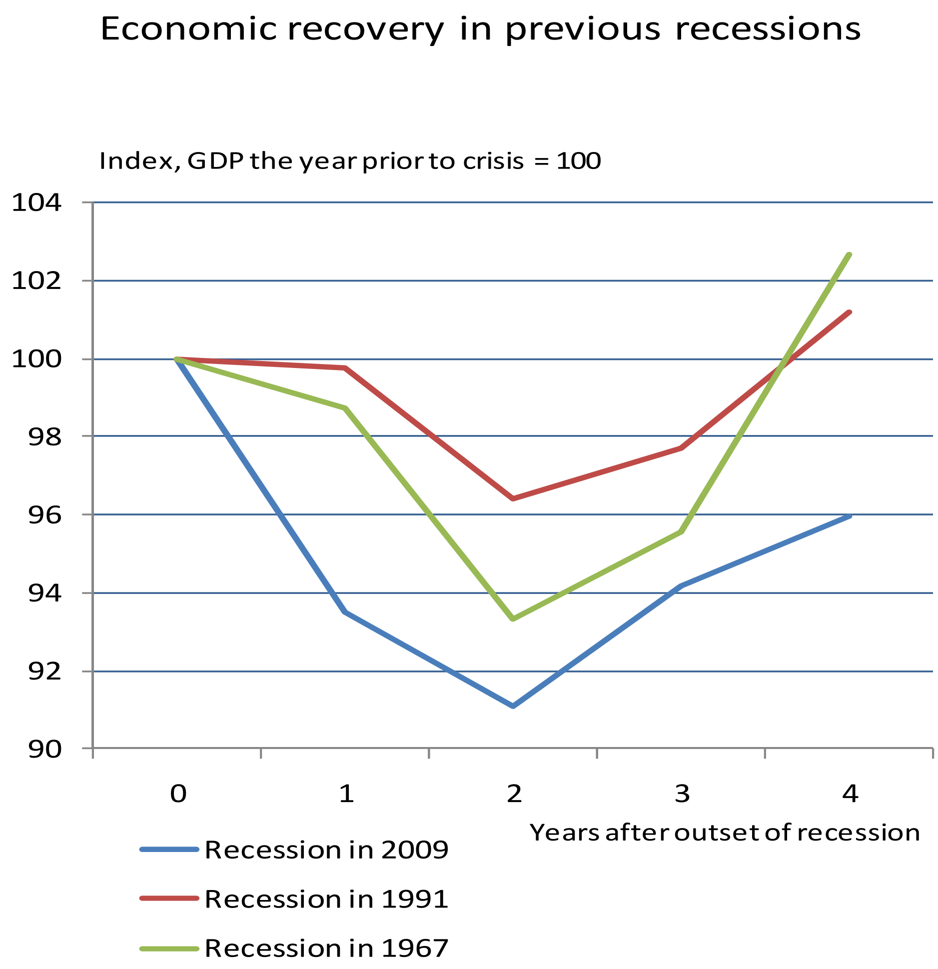
Economic recovery in crisis countries

Q3/2008 - Q2/2013



Sources: Global Insight, Central Bank of Iceland.

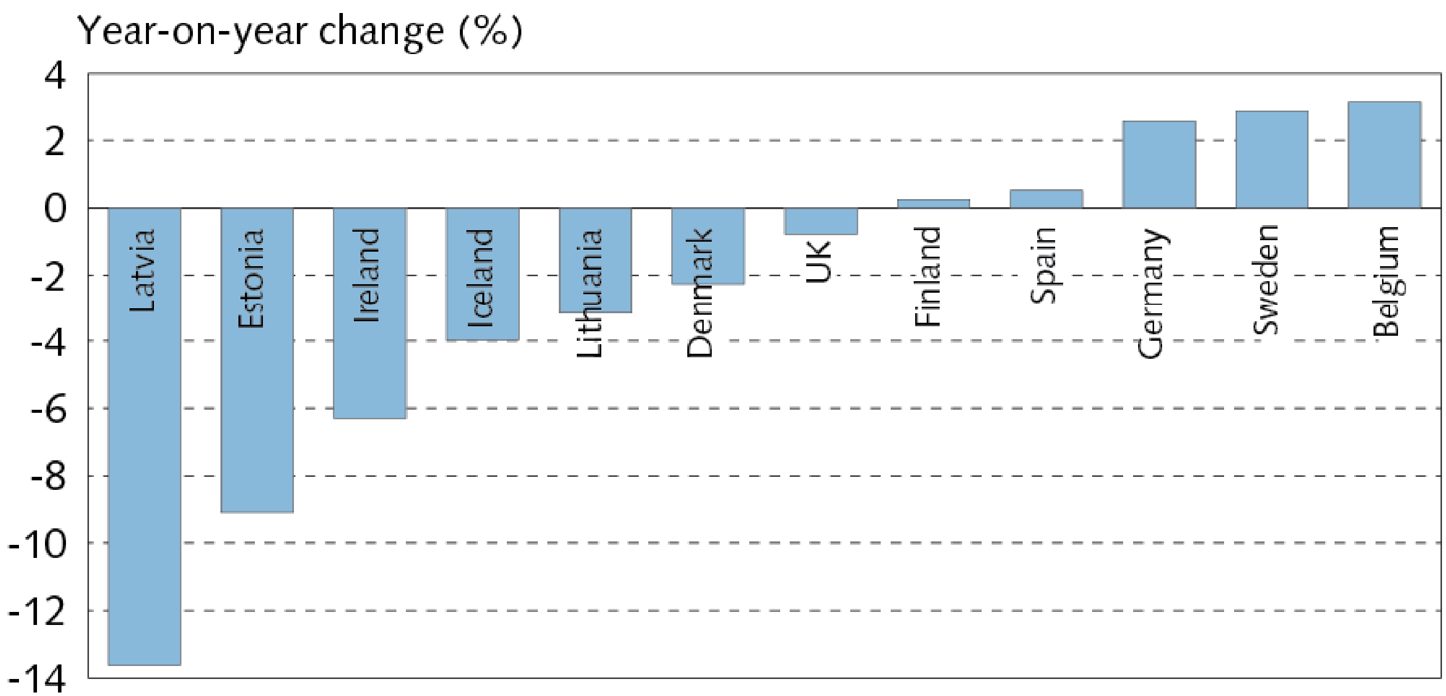
The recession is long and deep in historical comparison



Source: Statistics Iceland, Central Bank of Iceland.

But Iceland is far from being the worst affected

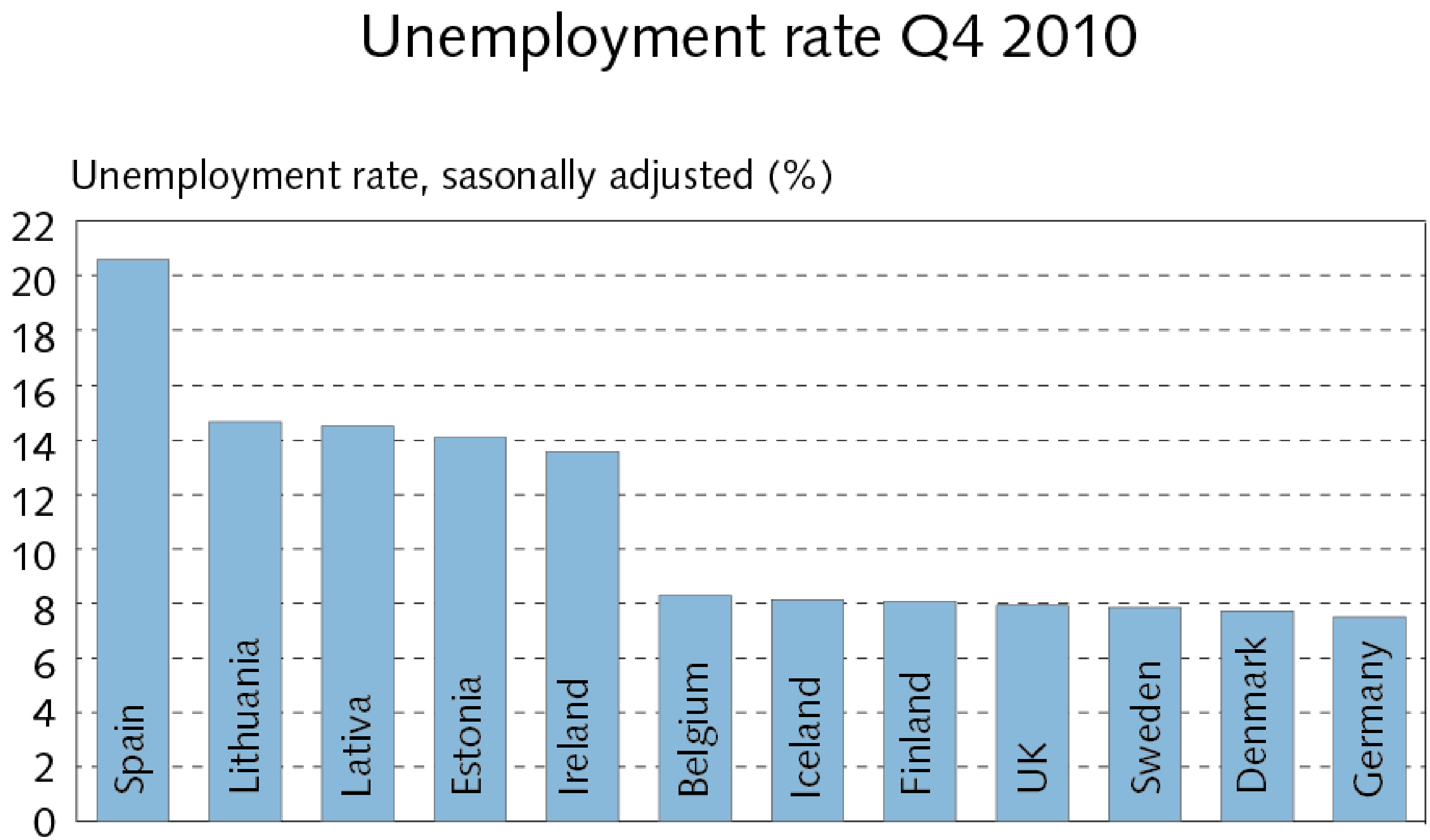
Percentage change in GDP from the average of 2005-2007 to 2010[1]



1. OECD forecast for UK and Ireland for 2010.

Source: Macrobond.

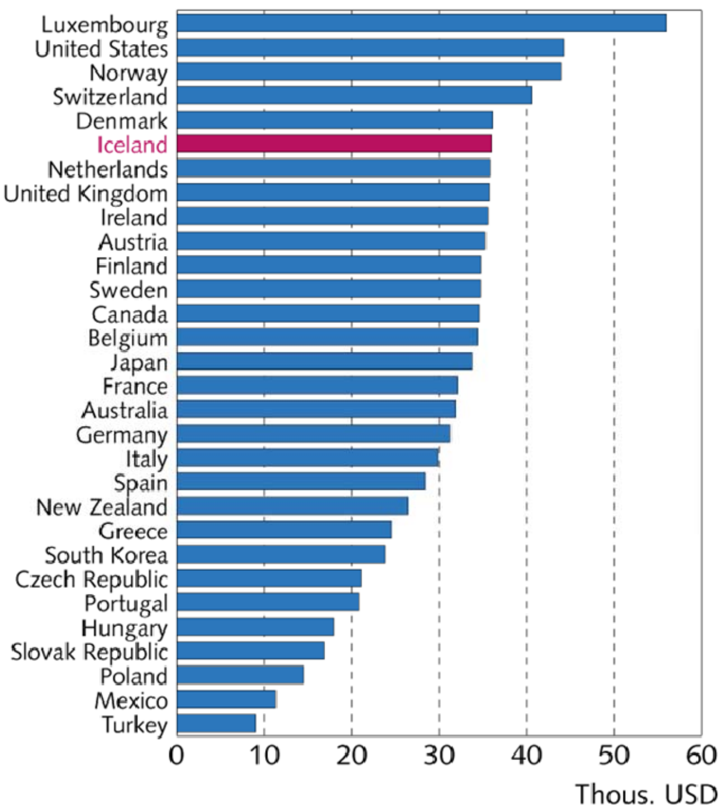
Labour market flexibility has helped



Source: Macrobond, Central Bank of Iceland.

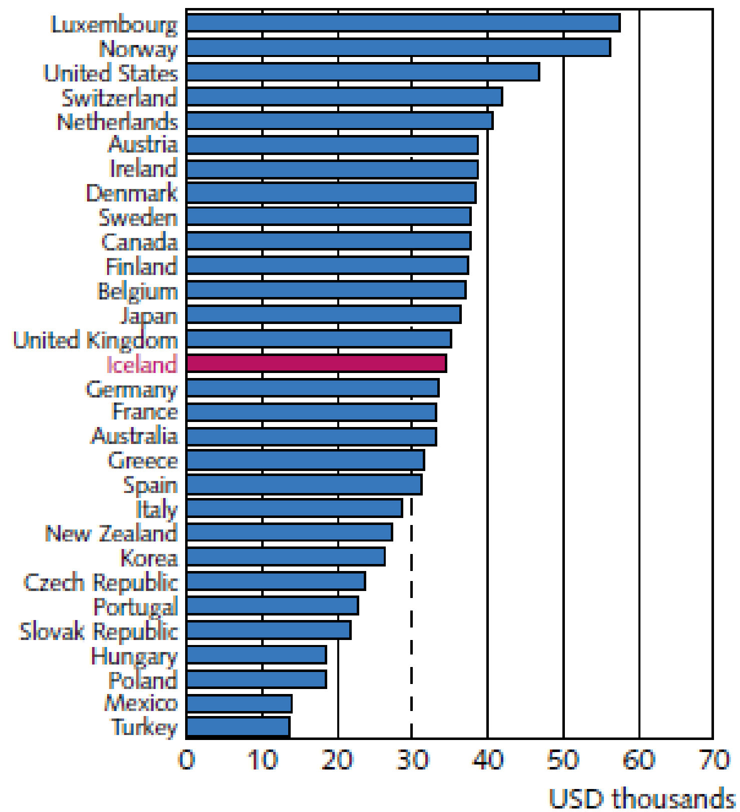
Iceland has dropped down the league of nations

Chart 4.1
Gross national income per capita in OECD countries 2006[1]



1. Based on PPP.
Source: World Bank.

Chart 3.1
Gross national income per capita in OECD countries 2009[1]



1. Based on PPP.
Source: World Bank.

The stabilisation and recovery

Stabilisation

- The underlying current account has swung into significant surplus (around 8% GDP in 2011 and 2012)
- External risk premium has fallen with sovereign CDS down to 246.
- This has contributed to stabilisation of the exchange rate and then appreciation in 2010 (12%).
- Exchange rate though in real terms still 20% below 30 year average.
- Inflation fallen to target (2½%) and is forecast to remain below for a while.

Recovery?

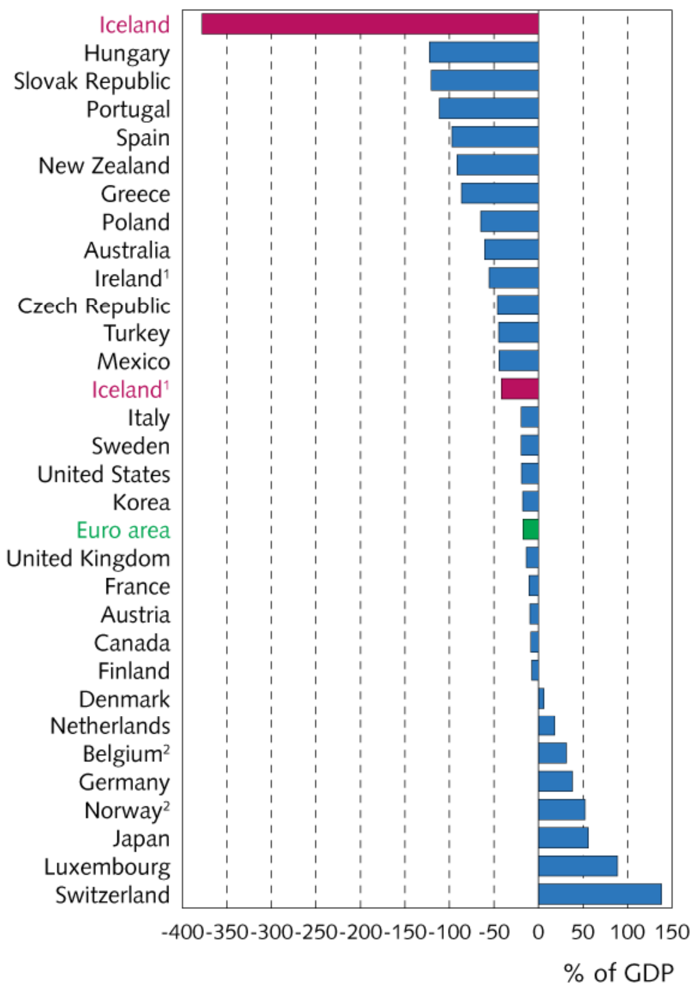
- GDP seems to have started to grow again in 2010 Q3.
- However the recovery is still weak and unemployment has not begun to fall.
- Investment rate is at historical lows.
- Iceland faces the task of re-integrating into global capital markets.
- Lifting capital controls and demonstrating market access of the sovereign are important elements in that process.

Is there a debt crisis?

- There is an internal private sector debt crisis affecting parts of households and companies.
- Negatively affects the prospects for a robust recovery but there is joint action programme of the government and the banks dealing with the issue.
- Gross public debt is around 96% of GDP and net around 70%. Sustainable and significant decline in the years to come due to the fiscal consolidation programme.

International investment position

International investment position
of OECD countries 2009



1. IIP excluding DMBs undergoing winding-up proceedings.
2. Figures are for 2008.
Sources: IMF and various central bank and statistics office websites.

- 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.

Some lessons

Macroeconomic management in small open economies

- Policy conflicts are very dangerous in small open and financially integrated economies.
- Do not be afraid of big government surpluses during booms.
- Traditional government balances only tell a partial story – look at all channels through which government policy affects demand.
- Current account deficits matter.

Exchange rate regime

- In Iceland the floating exchange rate contributed to the problem but is also a part of the solution, although it is a mixed bag.
- Membership in the euro area would have avoided 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 crisis and sovereign debt crisis can still take place.
- Iceland’s recent experience is a strong factor behind its EU application.

Monetary policy

- Price stability is not enough.
- IT+:
  - Lean as well as clean
  - Better support from fiscal policy
  - Better support from prudential policy, both micro and macro
  - Active forex intervention
  - Selective capital controls?
  - More role for reserve and liquidity requirements?

Crisis management and resolution

- Liquidity support and LOLR against good collateral has a role, both in order to prevent failure of solvent institutions and mitigate a panic.
- Keeping the payments system going and peoples access to their deposits is a key priority and it is possible even if all banks fail.
- Promising to protect deposits works if they are in your own currency.
- For small countries with big banks it is very risky, and in the limit impossible, to bail out the bond holders.

Cross-border banking

- Cross-currency risk and maturity mismatch in terms of foreign currency (=> rollover risk) was underestimated prior to the crisis =>
- Under-regulated and not sufficiently backed by capital or safety net facilities (e.g. LOLR).
- Truly international banks in only based in a handful of countries? Subsidiarisation?
- Global extension of LOLR: Multilateralisation and institutionalisation of FX swap lines? Access criteria and conditionality?

EU/EEA framework

- European passport but national supervision, deposit insurance, crisis management and resolution.
- Regulatory framework largely ignored foreign currency liquidity risk, and currency regime and country size.
- The framework for deposit insurance violated the principle of matching international private action with international public measures and the insurance principle of pooling.
- Vulnerability/risk for small EU/EEA-countries outside the euro area.

EU reform agenda

- Key proposals (e.g., De Larosière and what has followed) do not go far enough and do not measure up to the Icelandic experience.
- Seen mostly as a supervisory failure, which it was only in part.
- Should banks from such countries (especially the small ones) or even the same “passport” rights and/or capital charges as banks inside the euro area?
- We need to move towards EU supervision, deposit insurance, crisis management and resolution regimes for cross-border banks. Domestic banks could stay within the national safety net.