



# FINANCIAL STABILITY

2011 • 2

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Financial stability means that the financial system is equipped to withstand shocks to the economy and financial markets, to mediate credit and payments, and to redistribute risks appropriately.

The purpose of the Central Bank of Iceland's *Financial Stability* report is:

- To promote informed dialogue on financial stability, i.e. its strengths and weaknesses, the macroeconomic and operational risks that it may face, and efforts to strengthen its resilience;
- To provide an analysis that is useful for financial market participants in their own risk management;
- To focus the Central Bank's work and contingency planning;
- To explain how the Central Bank carries out the mandatory tasks assigned to it with respect to an effective and sound financial system.

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Icelandic letters:

ð/Ð (pronounced like th in English this)

þ/Þ (pronounced like th in English think)

In *Financial Stability*, ð is transliterated as *d* and þ as *th* in personal names, for consistency with international references, but otherwise the Icelandic letters are retained.

## Foreword by the Governor

### The financial system has strengthened, but vulnerability remains

The Central Bank of Iceland publishes its *Financial Stability* report twice yearly, in the spring and towards the end of the year. The spring issue is usually the longer and more detailed of the two. This is the case with the present issue, which presents an assessment of financial system risk based on the most recent information available.

This is the second *Financial Stability* report issued following the Central Bank and the Financial Supervisory Authority's (FME) consultative meeting on financial system risk. According to the co-operation agreement that took effect between the two institutions at the beginning of 2011, the Bank and the FME shall hold such meetings at least twice a year. Topics discussed at the recent meeting included macroeconomic conditions, developments in the financial markets, risks attached to lifting capital controls, financial companies' earnings and balance sheets, salient risk factors, and the relationship between risks. The meeting contributed in a variety of ways to this report; furthermore, the Central Bank has made use of a wide range of data from the FME. The Central Bank is solely responsible for the contents of *Financial Stability*, however.

The financial system is stronger than when *Financial Stability* was published in the spring. Economic recovery began in the latter half of 2010 and, according to the most recent statistics, has been gaining momentum. The recovery has been accompanied by elevated employment levels and a rise in real wages. In addition, a lower domestic real interest rate and debt restructuring measures have improved households' financial conditions. Businesses' overall conditions appear to have improved as well, but they are extremely changeable. For example, many export firms have generated strong returns because of the low real exchange rate and favourable product prices. Companies have taken advantage of this positive situation by paying down debt, among other things. In other sectors, many firms that have not completed their financial restructuring are unable to service their debt. On the whole, banks and other credit institutions have made significant progress with private sector debt restructuring in the recent term. Households' and firms' indebtedness is therefore on the wane, due to scheduled repayments and to write-downs and write-offs. Private sector debt is currently estimated at just under 314% of GDP, after having fallen by just over one GDP from the mid-2009 peak.

But the situation is fragile. Private sector debt has certainly declined, but it is still high, as is public sector debt. New shocks, such as those precipitated by international developments, could trigger a new wave of default. So far, the European banking and sovereign debt crisis has made little impact in Iceland. There appear to be two main reasons for this. First of all, Iceland's banks and Treasury are relatively independent of foreign funding, and the capital controls provide a buffer against global financial market unrest. Second, Iceland's exports are less vulnerable to individual countries' business cycles than is the case in many other small countries that depend more heavily on exports of industrial and technological goods. If Europe suffers a much deeper contraction than is currently projected, however, there will inevitably be negative implications for Iceland. Foreign tourists could decline in number, and foreign direct investment could be adversely affected.

The financial institutions' accounts show the interplay between recovery and risk, which reflects macroeconomic conditions and the position of borrowers. The banks' capital position is strong. Their ratio of capital to risk-weighted assets was about 24% as of end-September, which is very good in international comparison. No less important is the fact that the banks' capital is largely net share capital and aggregate profits, so that there is relatively little difference between their risk-weighted assets and the book value of their assets. As a result, their leverage ratios (the ratio of total liabilities to equity) are relatively low, in the 4½-6 range. In comparison, it is worth noting that, according to the banks' accounts, their leverage ratio was about 16 in the autumn of

2008, and actually about 30, if corrected for the share of equity funded with loans granted by the banks themselves. The leverage ratios of Europe's large banks are in the 25-40 range at present.

But offsetting these positive factors is the fact that the banks' asset portfolios still need to be cleaned up. Their recorded default ratios are still too high, although they are falling rapidly. Furthermore, their balance sheets still contain imbalances. Foreign exchange imbalances have declined considerably in the recent term but are still excessive. At the same time, indexation imbalances have increased, and the banks would lose money if inflation were to fall.

In addition, it should be borne in mind that, since November 2008, the financial institutions have operated in an environment protected by capital controls and comprehensive deposit guarantees. The first steps in lifting the capital controls have been cautious ones. The banks' liquidity is strong, and they can tolerate sizeable outflows of deposits, but for the long term they will need to access foreign credit markets and lengthen the maturity profile of their domestic funding in preparation for a more open financial environment. Lifting capital controls could entail considerable movement of liquid assets, as well as exchange rate volatility. Consequently, the financial institutions must prepare themselves in stages for the removal of the controls. Experience has shown us that, concurrent with liberalisation, it is necessary to develop precautionary rules to combat risk in the banks' foreign balance sheets.

In addition, there is risk involved in the interplay of limited confidence in the banking system and the sometimes irresponsible public discussion of the banks' ability to write down debt. The risk is twofold. First, because confidence is lacking, the banks' restructuring measures are viewed with suspicion. Second, discussion of this kind could reduce investors' interest in owning stakes in the Icelandic banks or lending them money if potential investors believe, rightly or wrongly, that the rules of the game are inappropriate or could be changed arbitrarily. It is important for economic recovery – and no less for the future of the financial institutions themselves – that debt be restructured in an appropriate manner. But it is also important to bear in mind that assets were transferred from the old banks to the new ones as a result of contractual agreements under which the new banks bought the assets at deep discounts, with the idea that the old banks' creditors would benefit indirectly from potential increases in value. Anyone is entitled to have an opinion on how good or bad those agreements were. But confidence in the financial system demands that these agreements be expected to stand. Both the banks themselves and the politicians and administrators involved in the banking system must be realistic and find a balance between the benefits of writing down debt and the long-term benefits that will accrue to Iceland by bolstering confidence among the general public and the banks' creditors. Confidence is a prerequisite for a strong, secure financial system and future economic growth.



### The situation has improved ...

Economic recovery has begun after a deep contraction. The most recent Central Bank forecast assumes 3.1% output growth in 2011, driven primarily by private consumption and business investment. Purchasing power is growing, and the labour market is showing signs of recovery.

Financial companies' capital ratios are high and have been rising due to strong earnings. As a result, financial firms are reasonably well prepared to face shocks. Their leverage ratios are within acceptable limits, and their liquidity is sound. They have the capacity to service profitable investments.

Private sector indebtedness is declining in the wake of restructuring and debt relief measures. Following the post-crisis surge in private sector default, the number of households and firms on the default register has not risen in the past six months. Bankruptcy and unsuccessful distraint measures against individuals increased year-on-year in the first half of 2011, but the past few months have seen an abrupt turnaround. Among firms, however, bankruptcy and unsuccessful distraint measures have increased markedly year-to-date and are high in historical context. This trend is a natural accompaniment to the inevitable reshuffling that entails restructuring of viable firms and failure of those that cannot survive.

### ... but the outlook is unusually uncertain

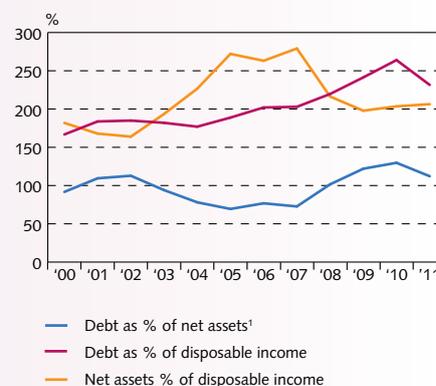
In spite of positive developments in the recent term, there are clouds on the horizon, and the outlook is more uncertain than might be expected. Global economic instability – particularly the banking and fiscal debt crisis in the euro area – has had little direct impact in Iceland as yet, largely because of the capital controls and the fact that domestic entities are relatively independent of foreign credit markets at present. If the European crisis persists, however, Iceland could be indirectly affected by declining demand for Icelandic exports and deteriorating terms of trade. The recovery of investment could also be delayed if conditions for new investment financing prove difficult.

Since November 2008, Iceland's financial companies have operated under the aegis of capital controls and deposit guarantees. Now, however, the first steps in lifting the capital controls have been taken. The banks can withstand sizeable outflows of deposits, but for the long term they will need to access credit markets and lengthen the maturity profile of their domestic funding in preparation for a more open financial environment. Even though the capital account liberalisation strategy aims to reduce movement of liquid assets and minimise exchange rate volatility, it is important that financial companies be prepared for it. Precautionary rules will be developed as the controls are lifted, in order to contain risks in the banks' foreign operations and protect the foreign-denominated part of their balance sheets.

Although private sector debt restructuring has proceeded apace, households and businesses are still heavily indebted. As a

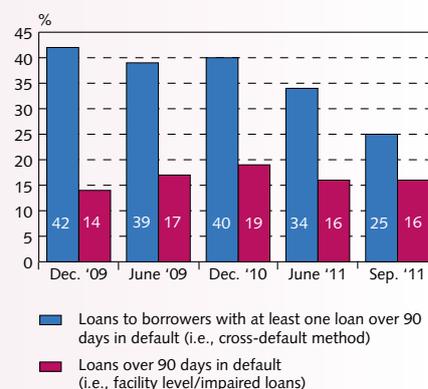
## Outlook and major risks

Chart 1  
Financial position of households



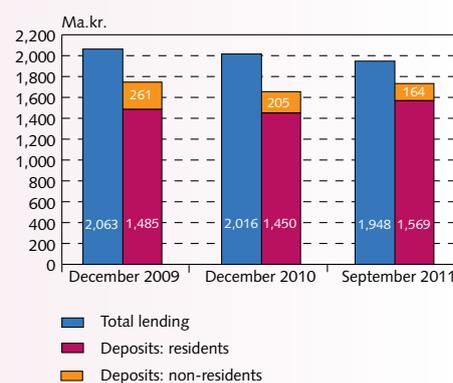
1. Including real estate, motor vehicles, bank balances, and various securities but excluding pension assets.  
Source: Central Bank of Iceland.

Chart 2  
Serious default ratios of the three largest commercial banks<sup>1</sup>



1. Parent companies.  
Source: Financial Supervisory Authority.

Chart 3  
DMBs' deposits and lending



Source: Central Bank of Iceland.

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result, they are vulnerable to exchange rate volatility and other shocks. It is important that debt restructuring be carried out carefully, but striking a balance between debt relief and extension of loan maturities could prove difficult. If firms emerge from debt restructuring too heavily leveraged, it could cut into investment levels and delay economic recovery. This is a risk factor that must be monitored.

A stable external environment is important for households, businesses, and financial institutions. Massive unexpected changes – for example, in operational framework or financial conditions – exacerbate uncertainty, complicate planning, and erode the economy's willingness to undertake the investment necessary for continued output growth.

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## Private sector indebtedness on the wane

The outlook for financial stability is somewhat ambiguous at present. Most indicators suggest that conditions abroad – particularly the banking and sovereign debt crisis in the euro area – are worsening. As yet, the European crisis has had limited impact in Iceland, both because of the capital controls and because domestic investors depend very little on foreign credit. Unlike the situation in many other countries, conditions are improving for the domestic private sector, although vulnerability remains. Household and corporate default is on the decline for the first time since the crash. Household debt restructuring is well underway and household indebtedness is falling relative to both GDP and disposable income. Private consumption and purchasing power are on the rise, and unemployment is declining. Corporate indebtedness is still considerable in spite of restructuring and debt relief measures, and investment is at a low ebb. The output slack and risk aversion compound one another, and many firms' future is shrouded in uncertainty. It is critical that debt restructuring measures for viable firms create a clear vision of their future; otherwise, wrong incentives will prevail. In many instances, continuing economic recovery is essential for households and firms to be able to manage their debt.

### Global economy

#### GDP growth outlook deteriorates

The global economy has lost vigour after a rise in output growth in 2010. Households and firms have continued to adjust their balance sheets in the wake of the financial crisis. Private sector demand has not risen in line with expectations, and risk in the global financial markets has escalated in connection with the financing of fiscal debt, which soared during the crisis. This has made a direct impact on the real economy in many industrialised countries, through rising financing costs and fiscal austerity measures. As a result, international forecasters have adjusted their 2011 output growth forecasts for many industrialised countries downward. For example, the IMF projects output growth in the US and the euro area at about 1.5% this year, a downward adjustment of 0.7 percentage points since last autumn.<sup>1</sup> Output growth in the UK is forecast at 1.1%, down 0.9 percentage points. In Greece, GDP is expected to contract by 5.0% in 2011, some 2.4 percentage points below last year's projections. On the other hand, the IMF expects 2.5% output growth in Iceland this year, about 0.5 percentage points below last year's forecast. The current difficulties have also affected GDP growth forecasts for 2012. For instance, GDP growth for 2012 is now forecast at 1.8% in the US and a mere 1.1% in the euro area. Weak or negative output growth makes it difficult for indebted countries to implement fiscal consolidation and generate confidence in the credit markets.

#### The banking and sovereign debt crisis in the euro area deepens

The banking and sovereign debt crisis in the euro area deepened in the second half of 2011, increasing the likelihood of a new downturn.

1. See IMF (2011). World Economic Outlook: Slowing Growth, Rising Risks. September. <http://www.imf.org/external/pubs/ft/weo/2011/02/pdf/text.pdf> and IMF (2010). World Economic Outlook: Recovery, Risk, and Rebalancing. October. <http://www.imf.org/external/pubs/ft/weo/2010/02/pdf/text.pdf>.

Chart I-1  
GDP growth in industrialised countries  
Real GDP growth Q1/2003 - Q2/2011

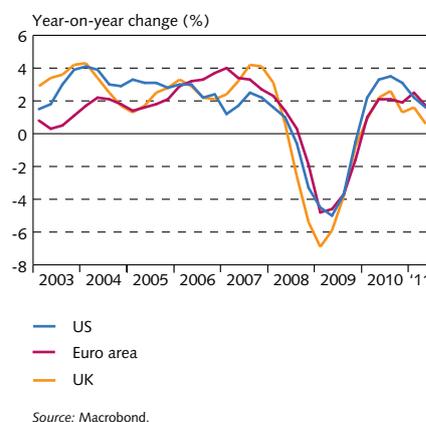
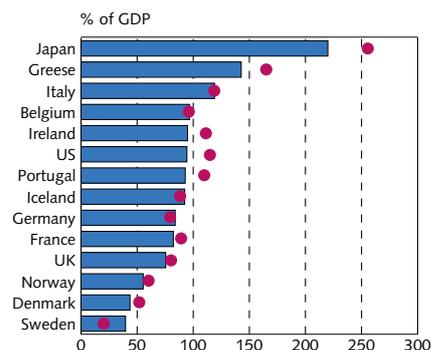


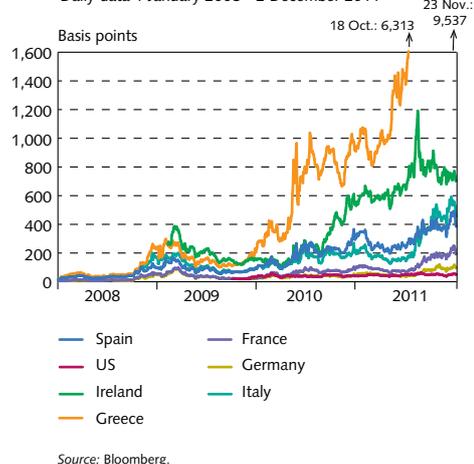
Chart I-2  
Government sector gross debt in various industrialised countries in 2010 and 2016<sup>1</sup>



1. IMF forecasts for 2016 are shown as red dots. Sources: IMF, Central Bank of Iceland.

Chart I-3  
5-year CDS spread

Daily data 1 January 2008 - 2 December 2011



As a consequence, international institutions have called for decisive policy action to prevent the crisis from spreading and threatening world output growth.<sup>2</sup> Demand has remained weak in the euro area, in spite of a low policy interest rate. For the short term, tighter austerity measures pursued by heavily indebted European countries reduce output growth. At the same time, higher risk premia make it more difficult for them to gain control of their finances. Under these circumstances, uncertainty about debt sustainability has increased.

The market is of the opinion that authorities responses are a step in the right direction but fall into the “too little, too late” category. In July, an agreement was reached on the resolution of the Greek debt crisis. In September, the EU council of ministers approved a proposal for closer collaboration among EU Member States on public sector finances. At the end of October, a more comprehensive agreement was reached on a resolution of the eurozone debt crisis. Half of Greek public debt held by private parties will be written off, the Greek treasury will receive a loan, fiscal restraint measures will be stepped up, contributions to the European Financial Stability Facility will be increased sharply, and the banking system’s equity base will be strengthened. This will reduce the co-ordination and decision-making problems plaguing the euro area.

International banks and investment funds have stepped up sales of euro area countries’ bonds and reduced their purchases of new bonds from these issuers as a result of the demand for a 50% write-off on Greek government bonds. The Italian government’s financing costs have increased sharply in the recent term and its CDS spread has risen, indicating contagion between Member States and suggesting that a vicious cycle has perhaps begun.

Experts on economics have assumed power following recent changes in the Greek and Italian political arenas, but the solution to the eurozone crisis depends on success in returning crisis-struck countries’ public sector finances to a sound footing. Governments and banks must also have increased access to capital. A recent currency swap agreement between the US Federal Reserve Bank, on the one hand, and the Bank of England, European Central Bank, Bank of Japan, Bank of Canada, and Swiss National Bank, on the other, will remain in effect until 2013, allaying market concerns about refinancing problems facing the banking system. There are also plans to harmonise fiscal affairs in the euro area still further. Until more progress is made in these areas, the outlook will probably remain uncertain.

Lending growth in the European banking system is still limited, reflecting continuing balance sheet adjustment among banks and corporations, reduced demand for credit, elevated risk aversion, and stricter lending requirements by euro area banks. Many banks in the euro area are still heavily indebted, and the risk of contagion remains for weak banks. Business models for banking operations and risk management are therefore undergoing widespread review.

2. See OECD (2011). Economic Outlook No. 90. 28. November. Paris. [http://www.oecd.org/document/18/0,3746,en\\_2649\\_33733\\_20347538\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/18/0,3746,en_2649_33733_20347538_1_1_1_1,00.html).

## Icelandic economy

### Modest output growth following a deep contraction

The Icelandic economy is gradually righting itself after a deep contraction following the currency and banking crisis. The financial conditions of households and firms have gradually improved in the wake of debt restructuring, interest rate cuts, rising asset prices, and readier access to credit.

Economic recovery is considered to have commenced in mid-2010, when GDP began to grow quarter-on-quarter. According to preliminary figures from Statistics Iceland, GDP growth measured 3.7% for the first nine months of 2011, which is quite acceptable in comparison with other industrialised countries. The Central Bank's last macroeconomic forecast, published in the November issue of *Monetary Bulletin*, assumes output growth of 3.1% for 2011 as a whole, a decisive departure from the past two years. Output growth for 2012 and 2013 is projected at 2.3%.

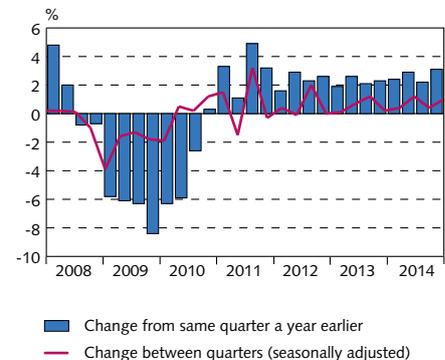
It is expected that near-term GDP growth will be driven primarily by private consumption and investment. Household debt restructuring, newly concluded wage agreements, and third-pillar pension savings payouts together with interest rebates have bolstered private consumption, which grew by 4.4% year-on-year in the first nine months of 2011. The most recent statistics suggest that private consumption has continued to grow: for instance, payment card and groceries turnover have continued to increase, employment is on the rise, and real wages and house prices have risen. Business investment grew by 7.7% year-on-year in the first nine months of 2011, and business investment excluding energy-intensive industry, ships, and aircraft was up by about 0.8%. The Central Bank forecast assumes continuing investment growth fuelled by business and residential investment. Public investment is expected to continue contracting.

The labour market also shows signs of recovering. According to the Statistics Iceland labour market survey for Q3/2011, employment was up by 3.3% year-on-year. Unemployment has fallen as well, from 7.3% in Q3/2010 to 6.7% in Q3/2011. According to Directorate of Labour statistics, most of those who leave the unemployment register find paid work. The Central Bank forecast assumes that unemployment will continue to fall and will measure about 6% over the next two years.

Inflation is now 5.2%, after declining between October and November. Underlying inflation has continued to rise, however, from 4.2% in October to the current 4.7%. The Central Bank forecast projects that inflation will peak in Q1/2012 and then begin to taper off gradually.

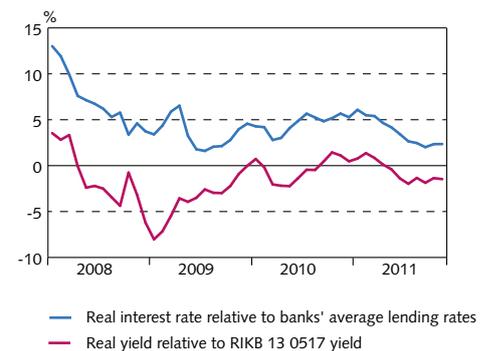
Both this forecast and the overall economic outlook are subject to considerable uncertainty, however. The strength and durability of the domestic economic recovery are highly uncertain due to uncertainty in connection with global economic developments, the European debt crisis in particular. It is also unclear to what extent private sector indebtedness will impede economic recovery. Another source of uncertainty is the pace of disinflation, which depends in part on the exchange rate: the króna must not lose too much ground

Chart I-4  
Gross domestic product  
Q1/2008 - Q4/2014<sup>1</sup>



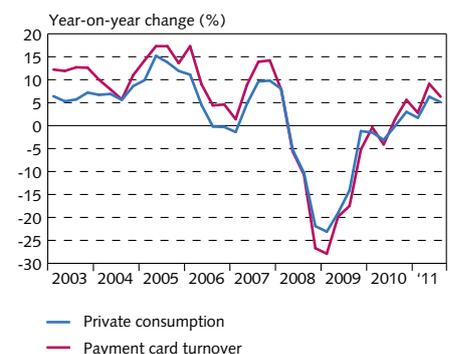
1. Central Bank baseline forecast 2011-2014, published in *Monetary Bulletin* 2011/4.  
Sources: Statistics Iceland, Central Bank of Iceland.

Chart I-5  
Real interest rate relative to CPI



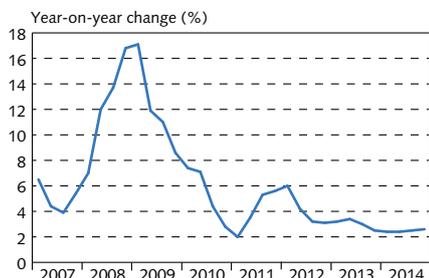
Source: Central Bank of Iceland.

Chart I-6  
Private consumption and payment card turnover  
Q1/2003 - Q3/2011



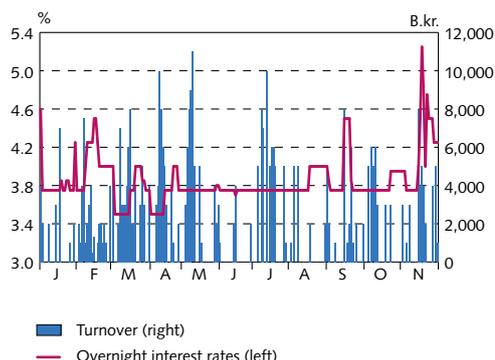
Sources: Statistics Iceland, Central Bank of Iceland.

Chart I-7  
Inflation  
Q1/2007 - Q4/2014<sup>1</sup>



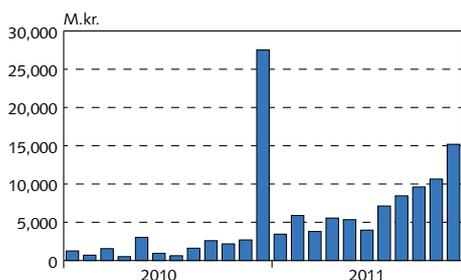
1. Central Bank baseline forecast 2011-2014, published in *Monetary Bulletin* 2011/4.  
Sources: Statistics Iceland, Central Bank of Iceland.

Chart I-8  
The interbank market for ISK  
January - November 2011



Source: Central Bank of Iceland.

Chart I-9  
The interbank foreign exchange market<sup>1</sup>  
2010-2011



1. About 90% of turnover in December 2010 was due to transactions between Central Bank of Iceland and some commercial banks to correct foreign exchange imbalance.  
Source: Central Bank of Iceland.

when the capital controls are lifted, and it must not weaken excessively in response to global financial market unrest. Global inflation developments are a further source of uncertainty, as is the spare capacity in the economy and its effectiveness in containing wage and price increases. Inflation could therefore prove more persistent than is assumed in the Bank's forecast. Finally, public sector finances are a cause of some uncertainty. Increased fiscal slack could push domestic interest rates upwards and have an adverse effect on investment plans, as well as raising the Government's financing costs.<sup>3</sup>

### Capital account liberalisation underway

To some extent, the capital controls buffer the Icelandic economy and financial system from global financial market unrest. According to the Central Bank of Iceland's capital account liberalisation strategy, published on 25 March, removal of the capital controls is to occur in two main phases. The first phase, which has already begun, aims at reducing offshore króna positions and promoting stability through investment, while the latter phase will focus on lifting restrictions on general foreign exchange transactions. The main objective of the strategy is to lift the controls while minimising systemic risk; that is, without giving rise to major exchange rate or monetary instability that could jeopardise financial stability by, for example, causing liquidity problems in the banking system. When the first phase has generated the desired results, the second phase will be launched. It is clear that the Icelandic authorities have little control over global developments, which, if negative, could adversely affect the execution of the liberalisation strategy. In order to minimise systemic risk, it is important that the Government's plans for fiscal sustainability, improved regulatory framework, and financial sector supervision be successful.

### Domestic financial markets

#### Interbank market trading still limited

On the whole, the financial institutions have had ample liquidity ever since the crash. The lion's share of their funding comes from sight deposits, but large amounts are owned by non-residents who are locked in by the capital controls. The interbank market for krónur has seen a drastic reduction in trading since before the crisis. Turnover was up slightly year-on-year in 2011, however, totalling 405 b.kr. in the first 11 months of 2011, as opposed to 398 b.kr. for 2010 as a whole. Uncertainty about the future and limited confidence in the market have prompted financial companies to depend on Central Bank facilities rather than trading amongst themselves. Under such circumstances, price formation is less effective and harder to interpret than it would otherwise be. As a result, interbank market interest rates have been rather erratic, sometimes remaining unchanged for long periods of time. If market activity is to return to normal, financial companies must have the incentive to trade with one another.

3. In this context, it should be noted that the credit rating company Standard & Poor's recently decided to keep Iceland's investment-grade sovereign credit ratings unchanged (at BBB-/A-3 for foreign- and local-currency obligations) and to change the outlook from negative to stable.

The interbank foreign exchange market shows signs of being protected by capital controls. It is thin, and trading is limited. The króna has depreciated slightly this year after having strengthened appreciably in 2010. Interbank FX market turnover varies somewhat from year to year and has been higher in 2011 than in 2010. In general, turnover increases during the summer and into the fall, when inflows are larger. In recent months, however, it has not tapered off as it often does at this time of year. The number of days with no trading at all has diminished as well. Turnover totalled just under 80 b.kr. in the first 11 months of 2011, as opposed to 45 b.kr. for 2010 as a whole. The Central Bank's share in 2011 turnover amounted to 11.6 b.kr. about 15% of total volume, which stems from its programme of regular foreign currency purchases, that began in August 2010 with the aim of expanding the Bank's non-borrowed reserves.

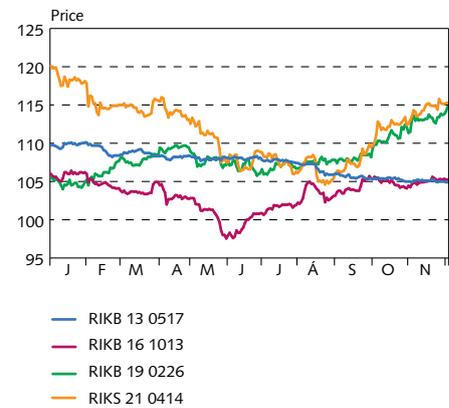
### Increased securities market activity

Reviving the stock market after the crash has taken a long time. At present, the Main List consists of six companies: Icelandair, Marel, Össur, and three Faeroese companies. The Main List index has fallen by just under 5% in the first 11 months of the year, from 934 at year-end 2010 to 891 at end-November. Icelandair shares have appreciated by about 57% over the same period, Marel shares are up 19%, and Össur shares are down by just over 8%. Trading volume in the stock market during the first 11 months of the year was 57 b.kr., twice the total for all of 2010. Several Icelandic companies have announced plans for listing on the stock exchange.

Bond market turnover on the Nasdaq OMX Iceland exchange averaged 218 b.kr. per month during January-November 2011, as opposed to 236 b.kr. per month in 2010. Bond market trading has therefore returned to pre-crisis levels, as turnover averaged 200 b.kr. per month in 2007. Over 99% of bonds traded in the market are issued by the Treasury or the Housing Financing Fund (HFF), and most of the remainder are issued by the municipalities and Municipality Credit Iceland plc. Corporate bond trading totalled only 3.9 b.kr. in the first 11 months of 2011. Covered bonds issued by Íslandsbanki began trading on the Nasdaq OMX Iceland Exchange on 7 December, the first financial company bonds listed for trading since the crash. Íslandsbanki is authorised to issue bonds for 10 b.kr. but issued 4 b.kr. on this occasion. The bonds will have a market maker. In coming years, encouraging listing and trading of such bonds will be an important factor in strengthening the domestic bond market. If such efforts are to be successful and firms are to obtain bond market financing, the debt problems related to the collapse of the banks must be resolved and companies' assets must not be pledged to specific creditors, which could potentially exclude other bond holders.

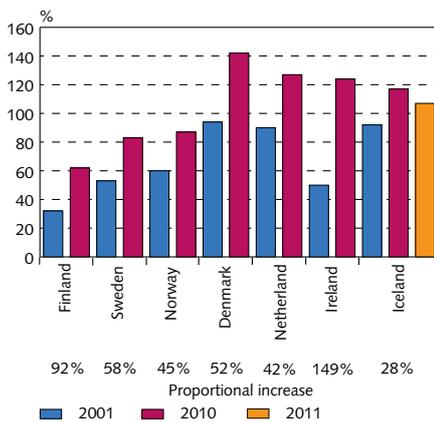
Domestic bond market prices have been very volatile in recent years, primarily due to uncertainty about factors such as market expectations concerning monetary policy, capital account liberalisation, fiscal sustainability, and the Icesave dispute. The price of medium- and long-term nominal bonds fell in the first half of 2011, but prices of longer bonds turned around in early September and have

Chart I-10  
Indexed (RIKS) and non-indexed (RIKB)  
government bonds, price  
3 January - 2 December 2011



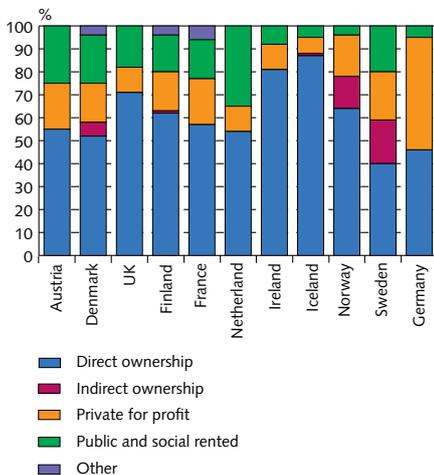
Source: OMX Nasdaq Iceland Exchange.

Chart I-11  
Household debt ad % of GDP



Sources: Danmarks Nationalbank, IMF, Central Bank of Iceland.

Chart I-12  
Distribution of housing stock  
by category of owner



Sources: Sveinsson, Jón Rúnar: Crisis, ideology and social housing (The article only published in Icelandic); Ruonavaara, Hannu: Home ownership and the Nordic housing policies in the retrenchment phase.

risen since then. Prices of short-term nominal Treasury bonds have fallen in 2011, most notably in August, following the Monetary Policy Committee's (MPC) decision to raise interest rates. The policy rate hike in November appears to have taken the market less by surprise, as the increase in bond prices was less pronounced than in August. Indexed bonds have risen in price so far in 2011, most sharply in the past few months. The increase is probably due to limited supply coupled with strong demand from end investors such as pension funds. Upward pressure on indexed bond prices intensifies when public entities are the only issuers in the domestic bond market and the capital controls prevent residents from investing abroad.

Conditions in the financial market can affect financial stability in a variety of ways. Few investment options are available to investments, and limited options for diversification of risk could be a source of systemic risk.

## Households

### Household debt continues to decline

Icelandic households' debt peaked at 1,940 b.kr., or 129% of GDP, in Q3/2009<sup>4</sup> but has declined rather steadily since, to the current 107% of estimated year-2011 GDP. It can be assumed to continue falling in the near future, as is evidenced by the large number of debt relief applications currently being processed by the financial institutions. The Icelandic Financial Services Association estimates the number of outstanding applications at about 5,500 as of early November.

Just after the turn of the century, Icelandic household debt relative to GDP was similar to the levels in Denmark and Holland, but now, a decade later, Iceland is well on the way to undercutting those countries. Furthermore, household debt in Ireland has risen steeply in the interim and now exceeds that in Iceland. In comparison with Holland, Ireland, and the other Nordic countries during the 2001-2010 period, the debt ratio has risen least in Iceland. There are two main reasons why the household debt ratio in Iceland, Denmark, Holland, and Ireland is higher than that in the other Nordic countries. First of all, credit has been readily available and loan-to-value ratios have been high in Iceland, Denmark, and Holland.<sup>5</sup> On the other hand, the proportion of owner-occupied housing is much higher than average in Iceland and Ireland, which explains the high debt ratio in these countries (Chart I-12).

Household debt relative to disposable income is expected to decline in 2011, after having risen or remained stable for several years.<sup>6</sup> The forecast in *Monetary Bulletin* 2011/4 assumes that real disposable income will rise by 2.2% in 2011, after having fallen by

4. Information about lending to households and businesses is based on the most recent data available to the Central Bank and may differ from previously published figures. After the collapse, it was difficult to gain access to this information. It was particularly difficult in the case of financial institutions whose licences have been revoked and in the case of asset-backed securities issued by the banks before the crash. The Central Bank of Iceland devotes great effort to compiling detailed data on private sector lending for its statistical reports, but this work is demanding and time-consuming in a complex landscape of lenders.

5. IMF, World Economic Outlook, 2008.

6. Based on the Central Bank of Iceland's quarterly macroeconomic model (QMM).

17% and 11% in 2009 and 2010, respectively. The contraction in disposable income is attributable in large part to a drop in investment income, which rose sharply during the pre-crisis years (Chart I-18). Household demand has risen once again, owing to increased purchasing power and lower debt service. In historical terms, however, private consumption is still very low relative to GDP. Special interest rebates in 2011 and 2012, rising house prices, and expanded authorisations for third-pillar pension savings withdrawals coupled with the proposed changes in the tax treatment of such withdrawals give demand a further boost.

Household debt relative to net assets, including real estate, motor vehicles, bank deposits, and various securities holdings, but excluding pension assets declined by a full 18% between 2010 and 2011, the first drop since the collapse. Finally, net household assets as a share of disposable income have begun to grow again after having fallen sharply since the crash. All of these statistics indicate that households' position is improving.

### Default no longer on the rise ...

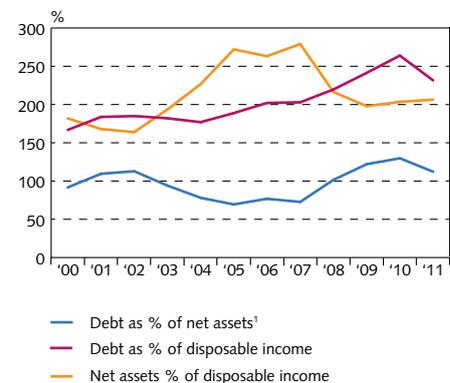
The number of individuals on the default register has remained relatively constant at 25,700 since June. There are signs that the frequency of bankruptcy and unsuccessful distraint measures is also falling. There were 1,960 personal bankruptcies or unsuccessful distraint proceedings in the first eight months of 2010, and 4,655 over the same period in 2011. The trend has reversed since September, and the number of bankruptcies and unsuccessful distraint measures is now considerably lower year-to-date than in 2010. This is the first time since July 2010 that these figures have declined year-on-year. The number of individual bankruptcy rulings has remained more or less constant this year; therefore, the turnaround is due to a change in the number of unsuccessful distraint proceedings.

### ... and the benefits of restructuring are beginning to surface

At end-September, some 19% of total loans to households from the three largest commercial banks and the Housing Financing Fund (HFF) were in default, based on book value and assuming that a customer is in default if he or she has one loan in default (cross-default). This ratio was 21% in December 2010. Debt restructuring has probably made an impact on the situation, as the ratio of performing loans following restructuring rose during the period (Chart I-15). Further discussion of household debt restructuring can be found in Section II.

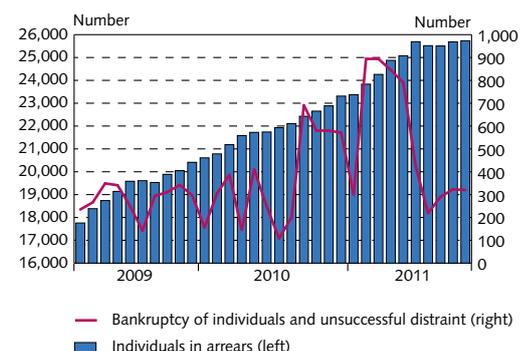
According to the Icelandic Financial Services Association, loan principal reductions granted by financial institutions, the HFF, and the pension funds to individuals as a result of recalculation and write-downs totalled 172.6 b.kr. as of end-September. The total reduction due to recalculation amounted to 134.9 b.kr.: 96.4 b.kr. for exchange rate-linked mortgages and 38.5 b.kr. for exchange rate-linked motor vehicle loans. The reduction due to write-downs totalled 37.7 b.kr.: principal declined by 31.6 b.kr. due to the "110% option" and 6 b.kr. due to problem debt restructuring measures. A total of 17,500 applications for these two options were received by these lenders, and

Chart I-13  
Financial position of households



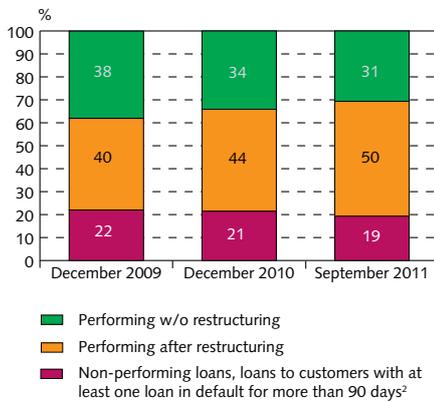
1. Including real estate, motor vehicles, bank balances, and various securities but excluding pension assets.  
Source: Central Bank of Iceland.

Chart I-14  
Individuals in arrears, bankruptcy of individuals and unsuccessful distraint  
March 2009 - October 2011



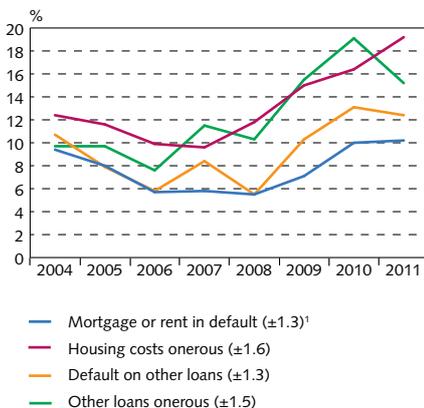
Source: CreditInfo.

Chart I-15  
Status of loans from three largest banks and Housing Financing Fund to households, book value<sup>1</sup>



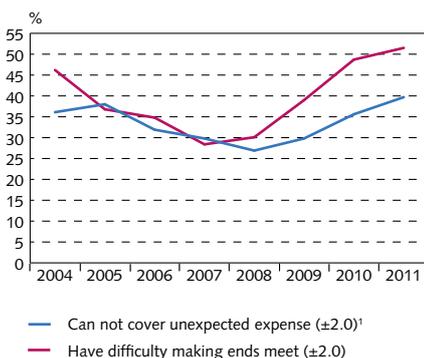
1. Parent companies. 2. Non-performing loans are defined as loans that have been in default for more than 90 days or deemed unlikely to be paid. The cross-default method is used, i.e., if one loan taken by a customer is non-performing, all of that customer's loans are considered non-performing.  
Source: Financial Supervisory Authority.

Chart I-16  
Statistics Iceland random sample survey  
Debt service and default



1. Values in parentheses show 95% confidence interval.  
Source: Statistics Iceland.

Chart I-17  
Statistics Iceland random sample survey  
Financial distress



1. Values in bracket show 95% confidence interval.  
Source: Statistics Iceland.

4,850 are still being processed. It is likely that write-downs of loans to individuals will increase still further, as 27% of applications are still awaiting processing, and there can be a delay between the approval of the application and the final result.

As of end-October, the Debtors' Ombudsman had received 3,778 applications for debt mitigation, the most aggressive option available to individuals in financial distress. In October 2010, the Act on Debt Mitigation was amended so as to defer loan payments beginning on the date the application is received by the Debtors' Ombudsman. The number of applications rose sharply after the amendment was passed, but by year-end it had flattened out at about 300 per month. According to Act no. 101/2010, the option of deferring payments concurrent with the application for debt mitigation expired at the end of June 2011. Clearly, this decision made a strong impact, as the Debtors' Ombudsman received 794 applications in June and only 30 per month from July onwards. Of 3,778 applications, 1,790 were being processed by the Ombudsman's office as of 30 October and 1,467 were being processed by debtors' supervisors. Another 521 applications had been closed.

**Statistics Iceland survey: households' position still difficult**

At the end of October, Statistics Iceland published the results of its annual standard of living survey, which is part of the EU Quality of Life Survey. In all, over 3,000 households answered questions that included topics such as default and financial position. The sample for the survey was a large one; thus the findings give a relatively strong indication of households' position.

According to the main findings, although the percentage of households that consider housing costs a heavy burden rose from 16% to 19% between 2010 and 2011, mortgage default is virtually unchanged at about 10% and the percentage of households that consider other loans onerous fell from 19% to 15% over the same period. It is likely that the Supreme Court judgments on the illegality of exchange rate-linked loan agreements lightened the debt service on other loans but that households must make a greater effort to cover housing costs.

About 52% of households had difficulty making ends meet during the period from March to May 2011, as opposed to 49% during the same period in 2010; however, the difference is not significant in terms of a 95% confidence interval. The first Statistics Iceland standard of living survey, carried out in 2004, indicated that just over 46% of households had difficulty making ends meet. At that time, however, household debt was much more manageable and unemployment much lower than in 2011. It should also be noted that in 2007, the peak of the boom years, about 30% of households had difficulty making ends meet. The share of households in default on their mortgages is roughly the same as in 2004, or about 10%. The 30-39 age group is in greater financial distress than are other age groups. Some 59% of these households consider themselves to have difficulty making ends meet, and 40% of them consider housing costs onerous.

### Outlook improving for households

Although households' financial conditions remain difficult, a number of factors suggest that things are slowly improving. Household debt restructuring measures are beginning to bear fruit, and debt is declining as a result. Restructuring measures are still underway at many financial institutions, and further write-downs can be expected in the future.

Purchasing power has begun to rise again after plummeting in 2009 and 2010. The real estate market has begun to rally as well, with turnover rising sharply year-on-year and prices climbing as well, which improves households' equity and increases the collateral value of their property. The improvement in households' financial position emerges in private consumption, which is estimated to rise considerably in 2011 after having declined in 2008 and 2009 and remained flat in 2010.

Demand for labour has risen once again, and unemployment has fallen. The number of hours worked and the number of persons employed in the labour market have increased as well. Furthermore, investment is projected to begin growing in 2011 and continue to rise in the next few years, which will further boost labour demand and thereby strengthen households' position.

### Businesses

The first indications from the 2010 annual accounts of Iceland's 300 largest companies indicate that, on average, both turnover and profits rose sharply year-on-year. This accords with the findings from the previous year's annual accounts, which indicated that, in general, firms had adapted their operations to changed external conditions. The price of Iceland's chief exports, aluminium and marine products, is high, and exporters' revenue generation is strong. In other sectors, the situation varies widely, and some sectors are quite vulnerable.

### Debt restructuring proceeds slowly ...

The number and percentage of firms on the default register appears to have peaked at about 6,500, or 18% of companies. Bankruptcy and unsuccessful distraint actions have also risen substantially in 2011, and the frequency of bankruptcy is the highest in decades (Chart I-22). This is probably an aftershock of the 2008 collapse rather than the result of new problems emerging in company operations. In many instances, the firms affected had no actual commercial activities but were holding companies for shares in other businesses. In many cases, their assets are paltry and the operations simply not viable.

According to information from the Icelandic Financial Services Association, just over 64% of corporate debt restructuring cases were complete by end-October, while 18% were in processing and another 18% had been handled by credit committees. The affairs of firms with facilities under 1 b.kr. were concluded in nearly 80% of cases not involving the so-called "Straight Path".<sup>7</sup> Only about 40% of cases involving the Straight Path were completed. The joint objective of the

7. In order to expedite debt restructuring for small and medium-sized businesses, the authorities, the Confederation of Icelandic Employers and the financial institutions signed an agreement called the "Straight Path" in December 2010.

Chart I-18

Housing market prices in greater Reykjavik, wages and disposable income per person

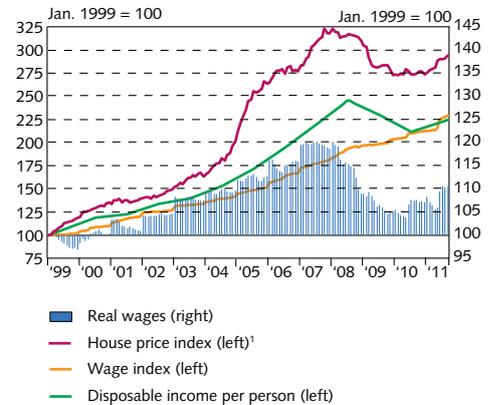


Chart I-19

Seasonally adjusted unemployment<sup>1</sup> and investment as % of GDP 1988-2011

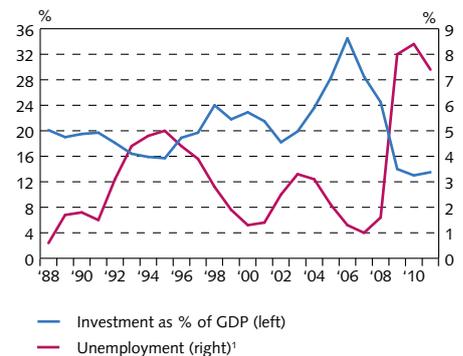


Chart I-20

Companies in serious default  
March 2009 - October 2011

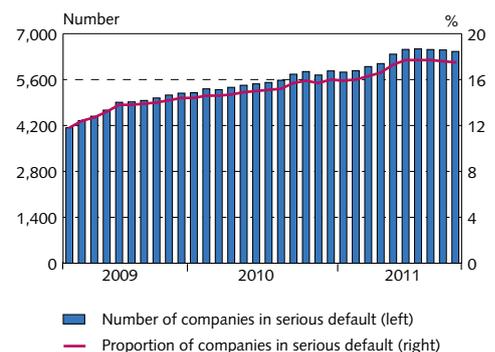
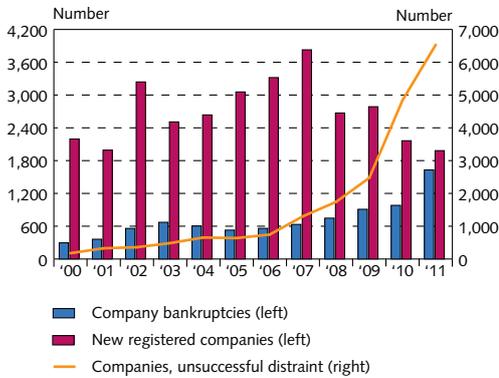
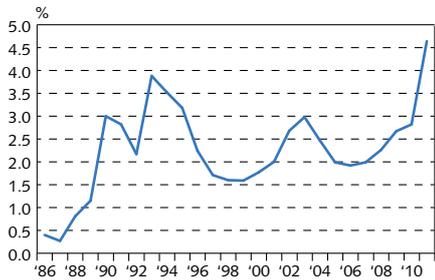


Chart I-21  
Company bankruptcies, new registered companies and unsuccessful distraint  
Total for entire year<sup>1</sup>



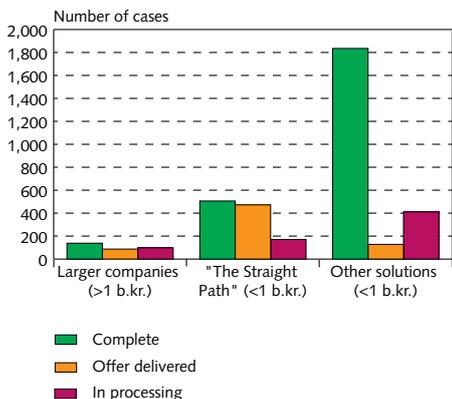
1. Total for 2011 is extrapolated from the first 10 months of the year. Sources: Registers Iceland, Statistics Iceland.

Chart I-22  
Corporate bankruptcies, frequency<sup>1</sup>



1. The percentage for 2011 is based on figures from the first 10 months of the year. Sources: Statistics Iceland, Central Bank of Iceland.

Chart I-23  
Corporate debt restructuring<sup>1</sup>  
October 2011



1. Based on information from all commercial banks. Source: Icelandic Financial Services Association.

parties involved in the Straight Path was to finalise proposals for financial restructuring no later than 1 June 2011. This has not materialised. In some cases, the delay is due to a lack of data from the companies concerned; however, is cause for concern that in half of cases for which restructuring proposals have been submitted, the proposals have not yet been approved. This gives rise to questions about how realistic the banks' restructuring proposals are. Only about 43% of restructuring cases for firms with facilities over 1 b.kr. were complete. A massive amount of work remains to be done. Systematic restructuring of the debt of viable companies is essential in order to guarantee them a normal environment in which to operate. It is important to remember, though, that the job at hand is tricky and often complex, as it can involve conflicting interests of creditors and debtors.

**...but progress is being made**

A slight drop in the number of firms on the default register and a sharp rise in bankruptcy and unsuccessful distraint proceedings suggest that non-viable firms' operations are being wound up. It is critical to wind up non-viable companies and restructure viable firms' debts. The current trend will probably continue in the near future if external conditions remain unchanged: default will continue to decline as debt is restructured, and the frequency of bankruptcy and unsuccessful distraint will remain high for some time. One-fourth of corporate loans granted by the three large commercial banks are still in default based on book value and assuming that a customer is in default if one of its loans is in default (cross-default). This percentage dropped by nearly half in the first nine months of 2011, see also Section II.

In spite of restructuring and debt cancellation, Icelandic corporate debt as a percentage of GDP is among the highest in the industrialised world at about 210%, although it has fallen rapidly since peaking at 375%.<sup>8</sup> It is clear that the current debt burden will be very heavy for the long term. The risk of an excessive debt burden must be monitored. If firms emerge from restructuring too heavily leveraged, they could be prevented from investing in the long run, which could slow down economic recovery. Furthermore, the banks' assets could be overestimated if firms' debt tolerance is overestimated when restructuring takes place.

**Ownership unclear**

According to the amendment made to the Act on Financial Undertakings, no. 161/2002, in the summer of 2010, financial firms' ownership of companies in unrelated operations is limited to a period of 12 months. The Financial Supervisory Authority (FME) was authorised to extend that period of time, however, and in its annual report the FME<sup>9</sup> states that financial firms' current ownership of commercial enterprises is widespread and undesirable. A number of exemptions have been granted from the 12-month maximum holding period.

8. This refers to Icelandic firms' total liabilities, both direct lending and bond issues, domestically and abroad. Foreign direct investment is not included.  
9. <http://www.fme.is/lisalib/getfile.aspx?itemid=8731>.

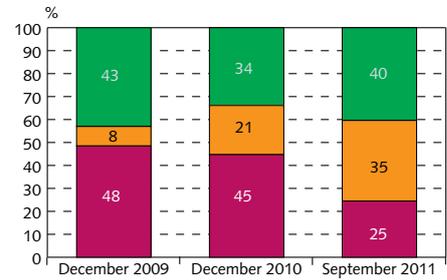
According to a June 2011 report from the Competition Authority,<sup>10</sup> firms owned by the financial institutions had a market share of about 46% in the largest competitive markets. Hidden ownership is also thought to exist in some instances. The financial institutions have yet to divest themselves of firms in unrelated activities.

The first post-crisis listing on the domestic stock exchange is to take place soon, and five other companies have publicly announced their plans for listing. These firms were taken over by the banks after the crash; hence this is positive news. Listing them on the exchange will promote more transparent pricing and perhaps strengthen their equity, with an eye towards further investment.

**Firms' future shrouded in uncertainty**

New company registrations have declined in number in 2011. New corporate lending appears to be limited as well. The contributing factors appear to be spare capacity in the economy, risk aversion, and the uncertainty about the future of many firms. A lack of margin for collateral could be at play as well, as equity was decimated by the crash. The banks' liquidity is ample, however, and they have the capital to lend for investment in the economy. Economic recovery, increased investment, and output growth are important if households and firms are to be able to handle their debt. With that in mind, the most important task for the immediate future is to continue private sector debt restructuring.

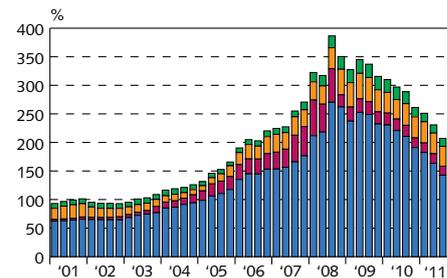
Chart I-24  
Status of loans from the three largest banks to companies, book value<sup>1</sup>



■ Performing w/o restructuring  
 ■ Performing after restructuring  
 ■ Non-performing loans (loans to customers with at least one loan in default by more than 90 days)<sup>2</sup>

1. Parent companies. 2. Non-performing loans are defined as loans that have been in default for more than 90 days or are deemed unlikely to be paid. The cross-default method is used; i.e., if one loan taken by a customer is non-performing, all of that party's loans are considered non-performing.  
 Source: Financial Supervisory Authority.

Chart I-25  
Companies debt as a % of GDP



■ Loans from domestic financial institutions  
 ■ Bonds issued in ISK  
 ■ Loans from foreign financial institutions  
 ■ Bonds issued in foreign currencies

Source: Central Bank of Iceland.

10. [http://www.samkeppni.is/media/skyrslur-2011/Samkeppnin\\_effir\\_hrun.pdf](http://www.samkeppni.is/media/skyrslur-2011/Samkeppnin_effir_hrun.pdf).



## II Credit institutions

### Uncertainties around

The banks' operations are characterised by uncertainties about various factors, such as loan quality and the implications of capital account liberalisation. Significant progress has been made in debt restructuring this year. The courts have handed down further decisions on the illegality of exchange rate-linked loans, and the banks' foreign exchange balances have declined accordingly. The banks' liquidity is strong, but they are heavily dependent on sight deposits for their funding. They must be prepared for some of those deposits to shift to other investments when the capital controls are lifted. The banks' financial statements still contain a variety of estimated items such as income from assessed loan value increases. Public levies on the banks are increasing, necessitating operational streamlining. The banks' capital position has continued to strengthen due to operating profits. A strong capital position is necessary in the current economic environment, not least because of the prevailing uncertainty about loan portfolio values.

### Credit institution lending

#### Further concentration in the financial market

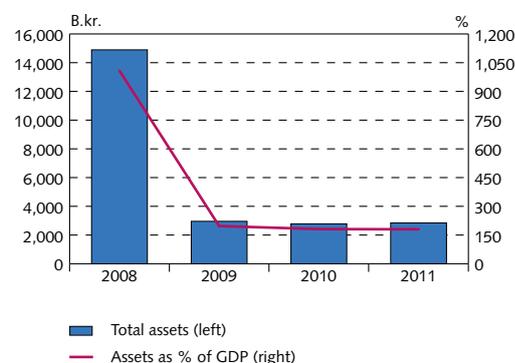
At the end of Q3/2011, deposit institutions' assets totalled just over 2,800 b.kr., or slightly less than twice GDP. The banks' operations are restricted almost entirely to domestic activities. The smaller the banking system and the more it focuses on the domestic market (and domestic currency), the easier it is for the authorities to provide capital and liquidity facilities if such assistance is considered necessary to maintain financial stability. This also gives the authorities greater scope to back deposit guarantees if needed.

The Housing Financing Fund (HFF) and the three largest commercial banks have a market share of 86% among credit institutions. Since year-end 2010, the largest commercial banks' assets have grown, mainly through mergers and acquisitions of other financial companies. The most important change is the merger of Landsbanki and SpKef, although there is also some concentration among companies in investment-related services. The requirements for the merger of Íslandsbanki and Byr were met at the end of November. The HFF's total assets have grown in line with increased lending. The savings bank system has shrunk markedly in the recent term, and its total assets account for less than 2% of total credit institution assets. The future of the savings banks will probably be determined in the near future, as their operating conditions are difficult, limited lending capacity, and the proportionally high IT and back office costs. Other expenses are onerous for the savings banks as well, including the new financial administration tax, higher monitoring fees, and increased deposit guarantee premiums.

#### Risk base for lending unchanged; composition altered

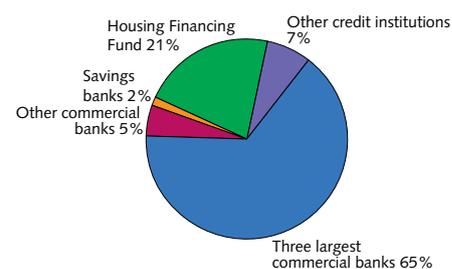
The greatest single risk on the asset side of deposit institutions' balance sheets stems from loans. The risk base for the three largest commercial banks' credit risk was about 1,680 b.kr. as of end-September. It has changed little since the beginning of the year, but its composi-

Chart II-1  
DMBs' total assets, % of GDP<sup>1</sup>



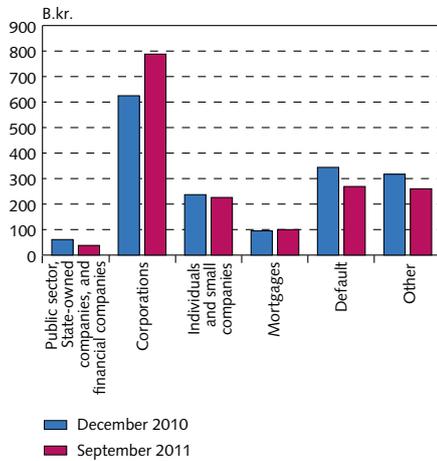
1. Parent companies, September 2008, December 2009 and 2010, September 2011.  
Source: Central Bank of Iceland.

Chart II-2  
Credit institutions' total assets<sup>1</sup>



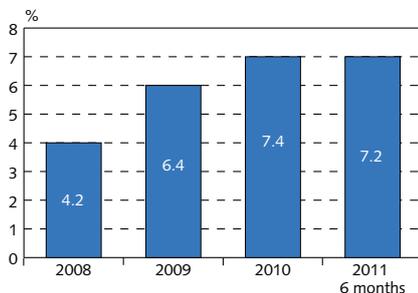
1. Parent companies, September 2011.  
Source: Central Bank of Iceland.

Chart II-3  
Risk-weighted assets, credit risk of three largest commercial banks<sup>1</sup>



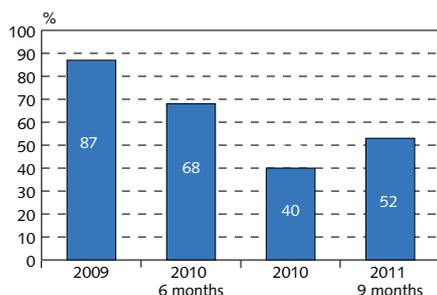
1. Consolidated figures.  
Sources: Financial Supervisory Authority.

Chart II-4  
Credit provisioning accounts of three largest commercial banks<sup>1</sup>



1. Consolidated figures. Credit provisioning accounts and claims against customers as % of total lending.  
Sources: Financial institutions' annual and interim accounts.

Chart II-5  
Large exposures, % of own funds<sup>1</sup>



1. Consolidated figures. Percentage of own funds. Large exposures to a client or a group of clients may not exceed the value of 25% of the own funds of a financial undertaking. The total amount of large exposures may not exceed 800% of a financial undertaking's own funds.  
Source: Financial Supervisory Authority.

tion has shifted somewhat. About 47% of the risk base is due to corporate loans, a significant increase from the year-end figure of 37%. The book value of the three large commercial banks' loans rose slightly over the same interval, although the increase was well below inflation during the period.<sup>1</sup> On the other hand, the risk base due to non-performing loans has declined since the beginning of the year, in line with the decrease in the percentage of default among households and firms. The item labelled as "other" includes the risk base due to assets for resale, such as the banks' subsidiaries that hold assets due to financial restructuring.

### Credit provisioning balance drops slightly

The balance on the three large banks' credit provisioning accounts was just over 7% of total lending in mid-2011. It has remained relatively stable since the beginning of the year, with the elevated balance caused by impairment in the wake of default and restructuring. In 1995-2004, before the banks expanded, the credit provisioning ratio averaged about 3%. Impairment is likely to remain high in the near future, until a balance is achieved in corporate debt restructuring and household debt relief measures.

### Large exposures on the rise

The commercial banks' large exposures (obligations over 10% of the own funds) have declined marginally in number but have risen in value by about 14%, or 63 b.kr., to 52% of the own funds, a significant increase since the beginning of the year. Exposures have begun to increase again after contracting in 2010. It is clear that facilities granted to individual customers and parties connected to them can create large exposures in the accounts of more than one bank. This situation must be monitored closely, together with cross-ownership in the financial system, both of which could jeopardise financial stability.

### Loan portfolios: developments and composition

The bulk of the banks' assets is in the form of lending. The book value of loans was 1,760 b.kr. at the end of October 2011, after having declined by almost 2% during the year. At the same time, overdraft loans were unchanged, non-indexed loans were up 55%, indexed loans were unchanged, and exchange rate-linked loans declined by almost 40%. The Supreme Court judgments on the illegality of exchange rate-linked loans are presumably a major contributor to these changes. The proportion of asset financing agreements also rose markedly, mainly due to the merger of Avant and SP Financing with Landsbanki and the transfer of their loan portfolios. Deposit institutions' loans have therefore been affected primarily by loan portfolio transfers (cf. Landsbanki's takeover of SpKef), exchange rate differences and inflation, changes in assessed loan values, and retirement of debt. Credit creation has been limited, with many new loans probably taken to refinance previously existing household and business loans. Furthermore, a number of loans

1. Book value of loans with write-downs according to Central Bank of Iceland balance sheet summaries.

have been paid off, as low deposit interest provides an incentive to retire debt. In comparison, HFF lending has been on the rise, with total lending for the first 10 months of 2011 amounting to 19.2 b.kr., up from 14.9 b.kr. over the same period in 2010.

As of end-October, loans to domestic companies constituted about 65% of total deposit institution lending, and loans to non-residents accounted for another 5%. The majority of corporate loans were to companies in the services sector. The distribution of credit among sectors has remained relatively unchanged in the past two years. Almost half of deposit institutions' corporate lending was foreign-denominated.

Loans to households accounted for 28% of the banks' loan portfolios. Indexed loans are most common, at 58% of total household lending by the banks. If the HFF is included, the share of indexed loans rises to 83%. The share of non-indexed household loans has risen sharply in the past two years, to 14% of total bank and HFF lending. The outlook is for non-indexed loans to continue encroaching on indexed loans. From a financial stability standpoint, further diversification of loan types is a positive development; however, the relationship between risks to borrowers' income and debt must not change too dramatically for the worse.

### Default ratios still high, but declining

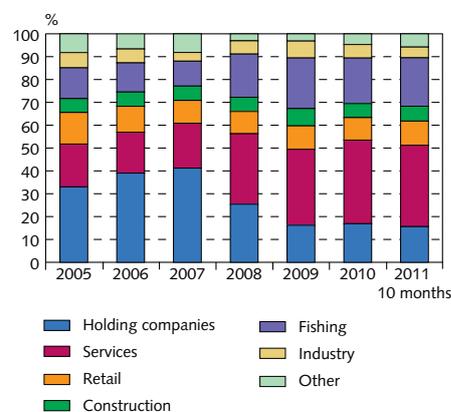
Private sector debt restructuring is obviously an important factor in building a strong economy in Iceland. It is no less important for the financial institutions that their loan portfolios be sound and that the risk attached to them be reduced. Although restructuring proceeded more slowly than originally hoped, significant progress was made this year.

The share of non-performing loans has fallen sharply during the year; for example, about 25% of the large commercial banks' loans were in default as of end-September, down from 40% at the beginning of the year (Chart II-9). Of that total, about 5% were undergoing document processing and will be transferred to the "performing loans" category when restructuring is complete. These figures are based on book value, and they assume that all of a customer's loans are in default if one is in default or if payment is considered unlikely (cross-default). There is no single international definition of non-performing loans; however, it is common that even though a customer has one loan in arrears by 90 days or more, that customer's other loans are not considered to be non-performing. According to this criterion, some 16% of the Icelandic banks' loans are non-performing. This ratio has changed relatively little in the past two years (Chart II-10). Foreign banks with strong loan portfolios commonly have a non-performing loan ratio of 1-2%. But whether cross-default is assumed or not, the three Icelandic commercial banks' non-performing loan ratios are still too high.

### Corporate debt restructuring proceeding apace ...

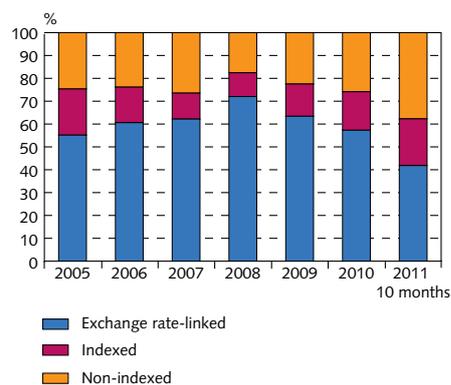
About 73% of the three large commercial banks' loans are to firms, and about three-fourths of these loans are to firms that have been granted facilities in excess of 1 b.kr. As of the end of September, about

Chart II-6  
DMBs' lending to companies, by sector<sup>1</sup>



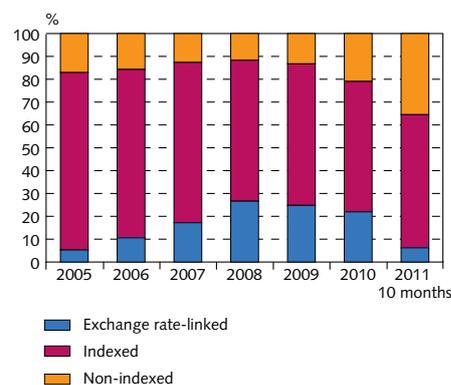
1. Parent companies, book value.  
Source: Central Bank of Iceland.

Chart II-7  
DMBs' corporate lending, by type of loan<sup>1</sup>



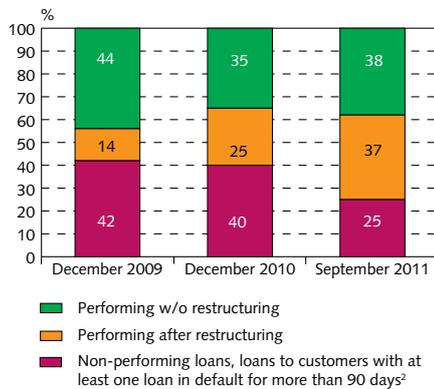
1. Parent companies, book value. Asset financing agreements excluded.  
Source: Central Bank of Iceland.

Chart II-8  
DMBs' household lending, by type of loan<sup>1</sup>



1. Parent companies, book value. Asset financing agreements excluded.  
Source: Central Bank of Iceland.

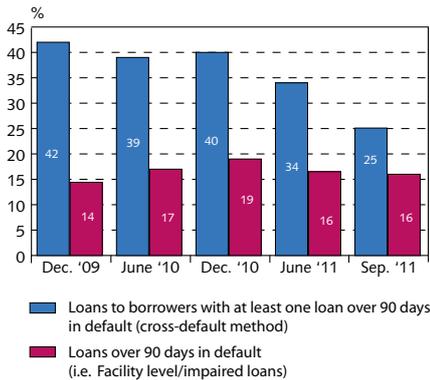
Chart II-9

Lending by three largest commercial banks, book value<sup>1</sup>

1. Parent companies. 2. Non-performing loans are defined as loans in default by at least 90 days or those for which payment is deemed unlikely. The cross-default method is used; i.e., if one loan taken by a customer is non-performing, all of that customer's loans are considered non-performing.

Source: Financial Supervisory Authority.

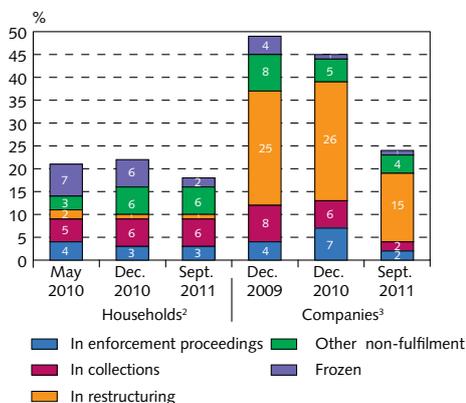
Chart II-10

Default ratios by the three largest commercial banks<sup>1</sup>

1. Parent companies, book value.

Source: Financial Supervisory Authority.

Chart II-11

Loans in default<sup>1</sup>

1. Parent companies, book value. 2. Non-performing loans are defined as loans that have been in default for more than 90 days or deemed unlikely to be paid. The cross-default method is used; i.e., if one loan taken by a customer is non-performing, all of that customer's loans are considered non-performing. 3. Loans to households include loans from the three largest commercial banks and the Housing Financing Fund. 3. Loans to companies include loans from the three largest commercial banks.

Source: Financial Supervisory Authority.

25% of the three large banks' corporate loans were in default, down from roughly 50% at the beginning of the year. At the same time, the share of non-performing loans and loans undergoing restructuring has declined from 26% to 15%, including 7% still in document processing. Furthermore, the share of non-performing loans undergoing enforcement or collection proceedings has fallen from 13% to about 4% (Chart II-11). This accords with the increased frequency of bankruptcy and unsuccessful distraint, which may have been necessary in order to wind up non-viable firms and satisfy outstanding claims.

There is a positive development in restructured corporate loans, in that there appears to be a greater frequency of real write-offs or conversion of debt to equity. The share of corporate loans that have been restructured and partially written off rose from about 2% at year-end 2010 to 15% as of end-September (Chart II-12). Almost half of restructured corporate loans have been extended. This may well be sensible in an uncertain climate, but expectations concerning debt tolerance must be realistic. This is a risk factor that must be closely monitored in the future.

### ... and household restructuring is nearing completion

The Housing Financing Fund (HFF) is Iceland's largest single residential mortgage lender, with a loan portfolio roughly equal in size to that of the three largest commercial banks. In general, default on loans to households has been much less than on corporate loans. As of end-September, some 19% of household loans from the HFF and the three banks were in default (cross-default), as opposed to 21% at the beginning of the year. The main reason for the decline is that the share of frozen loans fell from 6% to 2% in the interim, probably as a result of court judgments on the illegality of exchange rate linkage. Only about 1% of household loans are currently in restructuring, and an insignificant portion are undergoing document processing. Of the 19% of household loans that are non-performing, 9% are in enforcement or collections. This percentage has remained relatively stable for some time (Chart II-11).

Extension of loan maturities, including payment smoothing, is the most common means of restructuring household debt. Some 42% of household loans have been lengthened. About 8% of household loans have been partially written off through the 110% option or through problem debt restructuring (Chart II-12). This percentage has risen sharply in recent months, indicating that the most serious cases are being addressed. It should be noted, however, that the proportion of loans in enforcement or collections proceedings has remained virtually unchanged.

The loan-to-value (LTV) ratios of the banks' mortgage loans in the recent term indicate that the collateral coverage for mortgage loans is deteriorating. Loans with an LTV ratio of 70-90% of market value are on the rise and now constitute 52% of loans backed by residential real estate, as opposed to 46% at year-end 2009. Mortgage loans exceeding 90% of the market value of the underlying property rose from 19% of total mortgages in 2009 to 32% by end-September 2011. In both instances, persistent inflation has made an impact, as

have reductions in property valuations. Residential property valuations will rise by an average of 9% at the beginning of 2012. Other things being equal, this will contribute to a reduction in LTV ratios.

### Restructuring is a complex task

Corporate debt restructuring is a tricky and complex task. The banks are faced with a choice between putting a company into bankruptcy proceedings, writing off debt, or converting debt to equity, which often ends simply in a take-over. It is undesirable for the banks to own companies in competitive operations for a long period of time, as it is incompatible with normal banking activities and is extremely dubious from a competition point of view. On the other hand, it can be dangerous to force the banks to sell companies too soon, as this could prompt them to avoid taking companies over and delay restructuring, or to sell them heavily leveraged. This increases the risk that the value of the companies will fall and the current owners will not work in creditors' interests, which could damage the banks' balance sheets. It is therefore critical to find the middle ground.

In many instances, economic recovery, increased investment, output growth, and employment are important if households and firms are to be able to handle their debt. Achieving acceptable levels of GDP growth is therefore in the long-term interest of borrowers and lenders alike. This will be done most effectively by creating a clear future vision for borrowers without compromising the interests of lenders, through continued debt restructuring. Uncertainty about the outlook for the future could make it difficult to assess debt tolerance. This is a risk factor that should be monitored in the near future.

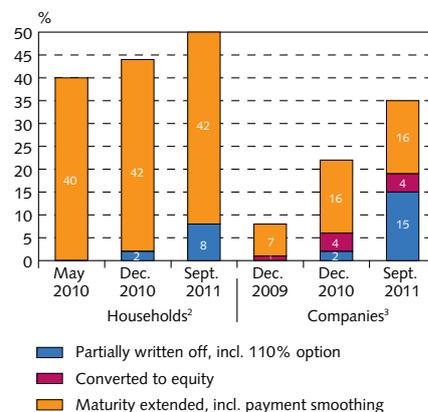
### Funding

The vast majority of the commercial banks' funding comes from deposits. Deposits have declined as a share of total funding, however, and now account for just under 2/3 of the total. Over 80% of the banks' deposits are sight deposits; therefore, the banks must be prepared for sizeable withdrawals at any given time. The banks' other borrowings are relatively limited, and subordinated loans account for only 2% of total funding.

### Market funding

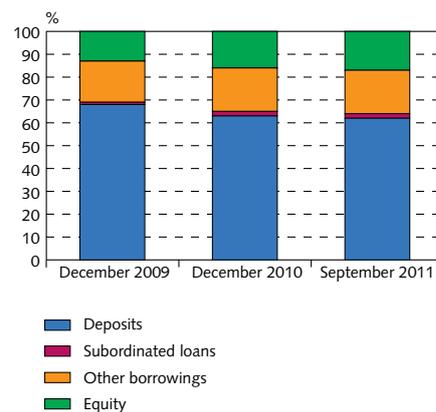
The banks' other borrowings remain limited, with the exception of a foreign-denominated bond issued by NBI (new Landsbanki) to the old Landsbanki Íslands hf. as compensation for the difference between transferred assets and liabilities. The banks have recently begun to offer non-indexed mortgage loans and have stated that the loans will initially be funded with deposits and equity. For the long term, it is important that funding be properly aligned with financial assets. Íslandsbanki and Arion Bank have been authorised by the Financial Supervisory Authority to issue covered bonds in order to fund their mortgage loans. At the beginning of December, Íslandsbanki issued 4 b.kr. worth of covered bonds and listed them on the Nasdaq OMX Nordic Exchange. The most likely buyers of covered bonds are pension funds, mutual funds, and insurance companies. Landsbanki can-

Chart II-12  
Debt restructuring<sup>1</sup>



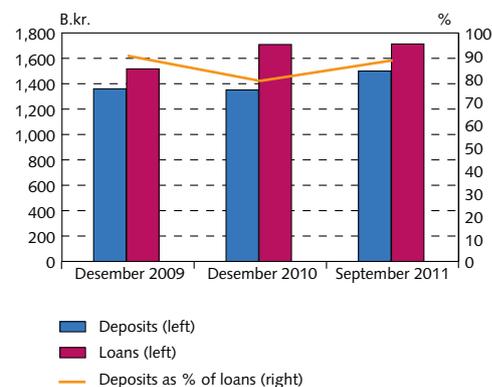
1. Parent companies, book value. 2. Loans to households include loans from the three largest commercial banks and the Housing Financing Fund. 3. Loans to companies include loans from the three largest commercial banks.  
Source: Financial Supervisory Authority.

Chart II-13  
Commercial banks' funding 2009-2011<sup>1</sup>



1. Parent companies.  
Source: Central Bank of Iceland.

Chart II-14  
Deposits as % of loans 2009-2011<sup>1</sup>

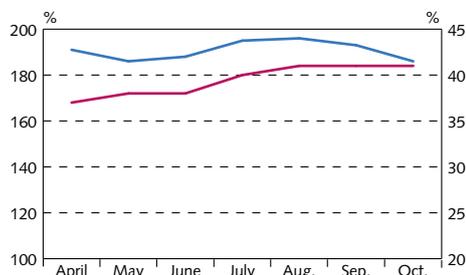


1. Commercial banks, parent companies. Deposits from customers as % of loans to customers and asset financing contracts. Byr included as of 2010 and SPKef as of 2011.  
Source: Central Bank of Iceland.

Chart II-15

Liquidity: the largest commercial banks<sup>1</sup>

According to Central Bank of Iceland liquidity rules and FME requirements



— Assets as % of liabilities, 0-3 m. (left)  
 — Secured liquid assets as % of deposits (right)

1. Parent companies.

Sources: Financial Supervisory Authority, Central Bank of Iceland.

not issue covered bonds because of the agreement with the old bank, which places restrictions on hypothecation of assets. In order to facilitate other domestic market funding, the banks must complete debt restructuring, and non-performing loans must be within appropriate limits. Government declarations fully guaranteeing all deposits in Iceland and the prioritisation of deposits during bankruptcy proceedings will continue to be a thorn in the side of the banks' market funding activities.<sup>2</sup> It is obvious that the banks will have difficulty obtaining funding from abroad. Foreign funding will probably be accessible first from multinational banks or institutions, and then later in the market, after a credit rating has been issued. If Iceland's sovereign credit rating is upgraded, it will be more feasible to request such a rating.

### Liquidity sound according to regulatory provisions

By law, the Central Bank sets rules governing credit institutions' liquidity. According to the Central Bank rules, credit institutions' liquid assets and liabilities are classified by periods and assigned weights according to risk. The rules state that credit institutions must have liquid assets in excess of the next three months' liabilities. The rules entail a certain stress test where a discount is applied to various equity items, but where it is assumed, on the one hand, that all obligations must be paid upon maturity, and on the other, that a portion of other obligations, such as deposits, must be paid at short notice or none at all. In addition to the Central Bank rules, the Financial Supervisory Authority has demanded that the largest commercial banks hold liquid assets equal to at least 20% of all deposit balances, and cash and cash equivalents (cash and deposits) equivalent to at least 5% of sight deposits. The large commercial banks meet the Central Bank's liquidity requirements and the Financial Supervisory Authority's requirements for deposit payout ratios with room to spare.

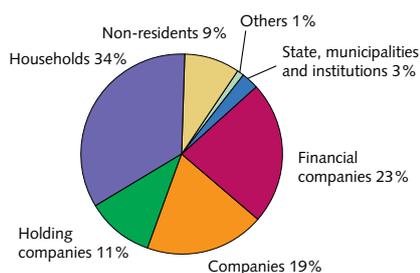
### Potential withdrawals of deposits and liquid assets

The banks' liquidity risk is related primarily to potential withdrawal of deposits. Over 80% of the banks' deposits are sight deposits; therefore, the banks must be prepared for sizeable withdrawals at any given time. The capital controls currently in effect prevent depositors from transferring funds out of Iceland. They can transfer funds between banking institutions, however, or move them to other assets, such as marketable securities. When the capital controls are lifted, the banks must be prepared for the possibility that a portion of their deposits – particularly those owned by non-residents – will be expatriated. As of end-September, non-residents owned about 9% of all deposits in Icelandic commercial banks. A large portion of these deposits are in Icelandic krónur. The first phase of the capital account liberalisation strategy focuses on these assets; that is, on releasing them in stages or placing them in the hands of residents or non-residents interested in long-term investment in the Icelandic economy.<sup>3</sup>

Chart II-16

Deposit owners<sup>1</sup>

September 2011



1. Parent companies.

Source: Central Bank of Iceland.

2. Judgments handed down by the Supreme Court on 28 November 2011 confirmed the prioritisation of deposits in the settlement of the old banks' estates, as was provided for in the Emergency Act, no. 125/2008.

3. See the Capital Account Liberalisation Strategy. Report from the Central Bank of Iceland to the Minister of Economic Affairs, 25 March 2011.

According to the Financial Supervisory Authority, the banks can withstand sizeable withdrawals of deposits because they hold ample secure liquid assets.<sup>4</sup> As of the end of October 2011, secure liquid assets held by the largest commercial banks amounted to 640 b.kr., or 41% of their total deposits. About half of secure liquid assets are in Icelandic Treasury bonds that can be used as collateral for Central Bank facilities, and about one-third are in foreign currencies. It is important that the banks prepare themselves for massive outflows of deposits, with the associated impact on liquidity and foreign exchange market flows. Consequently, they must have ample liquid assets and must increase their proportion of term deposits.

Table II-1 Commercial bank deposits<sup>1</sup>

Deposits (b.kr.)	31.12.2009	31.12.2010	30.09.2011	%
Residents	1,485	1,450	1,569	91
– in Icelandic krónur	1,228	1,257	1,359	87
– in foreign currency	257	193	210	13
Non-residents	261	205	164	9
– in Icelandic krónur	200	192	152	93
– in foreign currency	61	13	12	7
Total deposits	1,746	1,656	1,733	100

1. Commercial banks, parent companies. Deposits of customers and financial institutions. Byr hf. deposits included as of 2010. SpKef deposits included in 2011 (merger with Landsbanki).

Sources: Central Bank of Iceland.

## Operations and equity<sup>5</sup>

The large commercial banks' financial statements contain a number of estimated items, chief among of them items concerning the real value of transferred loan portfolios. The banks' methods for estimating these values vary in many respects, as does the structure of their balance sheets, in part because of settlement with the estates of the old banks. Clearly, there is still some uncertainty about the actual value of the banks' loans – and therefore, about operating results, capital adequacy, and financial ratios.

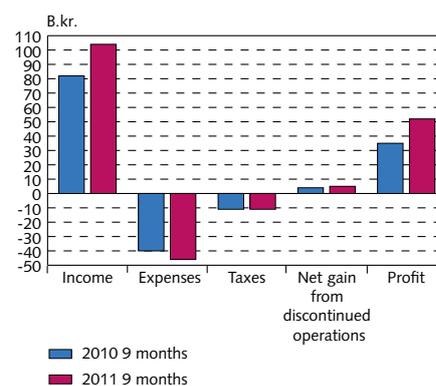
### Value increase in loan portfolios and irregular items

The three large commercial banks' combined calculated return on equity was 16% in the first nine months of 2011, and their return on total assets was just under 3%. During the period, net interest income totalled 66 b.kr., and the combined interest rate margin was 3.4%. The banks' calculated returns and interest margin are high relative to those of banks in neighbouring countries (see summary in Appendix). The Icelandic banks' interest margins vary, in part because of differ-

4. Here secure liquid assets are cash, financial institutions' deposits with others, securities eligible as collateral for Central Bank facilities, etc.; cf. the definition of secure liquid assets according to the FME's liquidity requirements.

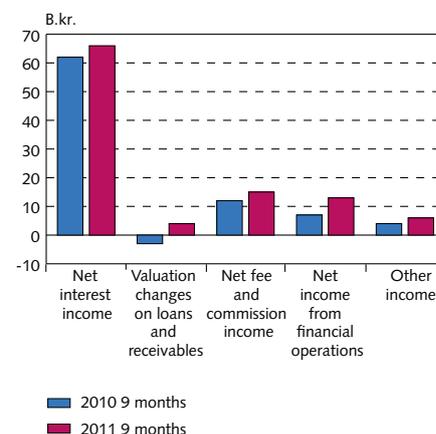
5. The discussion of financial statements is based on the consolidated accounts of the three largest commercial banks for the first nine months of 2011, and the Housing Financing Fund's financial statements for the first half of 2011. Figures represent the aggregate position of the commercial banks unless otherwise stated. Discussion of the aggregate position may diverge from that of individual financial companies. There could be errors or omissions in data received by the Central Bank from financial undertakings and the Financial Supervisory Authority. The Central Bank assumes no responsibility for the presentation of data or conclusions drawn on the reliability of external data, nor does it assume responsibility for any legal uncertainty that may arise.

Chart II-17  
The largest commercial banks' income and expenses<sup>1</sup>



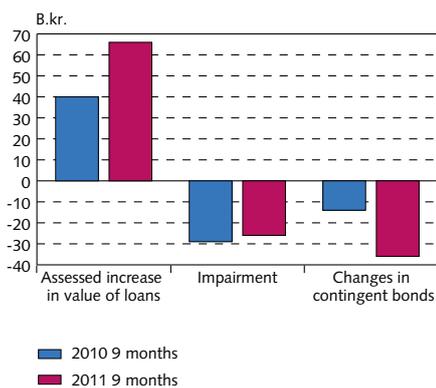
1. Consolidated figures.  
Sources: Commercial banks' interim accounts.

Chart II-18  
The largest commercial banks' operating income<sup>1</sup>



1. Consolidated accounts.  
Sources: Commercial banks' interim accounts.

Chart II-19  
Income and expenses due to valuation  
changes of loans and receivables<sup>1</sup>



<sup>1</sup> Consolidated figures.  
Sources: Financial institutions' interim accounts.

ing financial reporting methods, but they have risen somewhat since 2010, when they averaged 3.1%. The banks' assets are funded largely through debt at non-indexed interest rates, particularly deposits. In the first half of the year, continuing interest rate cuts combined with inflation increased the interest rate differential. The banks must ensure that lending rates on restructured loans are consistent with their cost of capital so as to maintain acceptable profit. For the first nine months of the year, commissions and fees totalled 15 b.kr. and income from financial activities 13 b.kr., due in particular to sizeable capital gains at Landsbanki. It is likely that the weight of commissions and income from financial activities will grow as economic activity grows and financial market turnover rises. During the period, there was significant income from the assessed increase in loan portfolio values. The banks' combined income entries from assessed increases in loan values, after adjusting for new impairment and value changes in contingent bonds, totalled just under 4 b.kr. Profit from discontinued operations totalled just under 5 b.kr., due primarily to Landsbanki's sale of appropriated companies.

#### Increased levies on the banks

Excluding income from financial activities and other sources, including write-ups of transferred loans, the banks' operating expenses constituted 56% of their total regular income and 2.3% of total assets. The Icelandic banks' operating expenses as a share of total assets are high in comparison with other countries (see summary in Appendix). Levies on the banks are increasing. For example, the premium they pay to the Depositors' and Investors' Guarantee Fund has risen, they now pay a special financing tax, and a tax on their payroll costs is proposed. Their operating expenses are therefore on the rise, and they will need to streamline their operations to offset the increase. Expenses should decline, however, when debt restructuring is complete.

#### Operations of the Housing Financing Fund

In the first half of 2011, the Housing Financing Fund's (HFF) profit from operating activities totalled just under 1.6 b.kr. The entire profit is due to reversed loan impairment, as actual impairment was much less than originally estimated. The number of residential properties owned by the HFF has risen steadily, to 1,377 as of end-June. Some 42% of these properties are being rented out. In the first half of the year, the HFF appropriated 388 properties and sold 80.

The EFTA Surveillance Authority (ESA) has concluded that the Emergency Act provisions concerning the HFF's purchase of financial institutions' bond portfolios constitute state aid. The authorities must therefore demonstrate that the purchase of individual portfolios was carried out at market terms or must reclaim the potential state aid. The HFF is currently preparing a report to ESA, containing an analysis of the loan portfolio values underlying these purchases. The Fund has already sent ESA a proposal for reorganisation of its social and competitive role.

## Imbalances between assets and liabilities

The role of the banks is to intermediate funds between parties; i.e., between investors (depositors) and borrowers. It is inevitable that banks should have some mismatches in the composition of their assets and liabilities, but if the mismatches are too large, it creates too much risk in the banks' operations. After the banks failed in 2008, sizeable mismatches developed in the balance sheets of the new banks. Foreign liabilities remained in the estates of the old banks, while exchange rate-linked assets were held in the new banks, both foreign loans with foreign-denominated payment flows and Icelandic loans with unlawful exchange rate linkage clauses. The extent of illegal exchange rate linkage is not yet entirely clear, but the courts have ruled in several such cases in the past months. Substantial currency imbalances in the banks' assets and liabilities affect their income and expenses, thereby affecting equity. Interest income and expense are denominated in the currency of the underlying obligation and therefore affect the banks' operating performance.

The foreign exchange imbalances in the system have been reduced considerably in the recent term, as have imbalances between individual currencies. Capital requirements due to foreign exchange risk have therefore declined accordingly. The largest commercial banks' foreign exchange balance was about 33% of their capital base at mid-year and has been reduced still further in the wake of the so-called Motormax judgment this summer.<sup>6</sup> The three banks' adjusted foreign exchange imbalances have also declined steadily, to about 3% of their capital base at mid-year,<sup>7</sup> as a result of Supreme Court judgments on the illegality of exchange rate linkage of loans, currency swap agreements made with the Central Bank, and restructuring of foreign-denominated loans. The banks' ineffective foreign-denominated assets totalled about 150 b.kr. according to their six-month interim financial statements, after having declined by 92 b.kr., or 40%, since the beginning of the year.<sup>8</sup> It is important to continue reducing the uncertainty about these foreign assets, but there is still legal risk attached to them.

One of the side effects of reducing foreign currency mismatches is an increase in indexed loans in the banks' loan portfolios, which has resulted in increased indexation imbalances. The banks have responded to this by directing their recalculated exchange rate-linked loans towards non-indexed króna-denominated loans, offering affordable non-indexed loans to individuals, and concluding derivatives contracts.

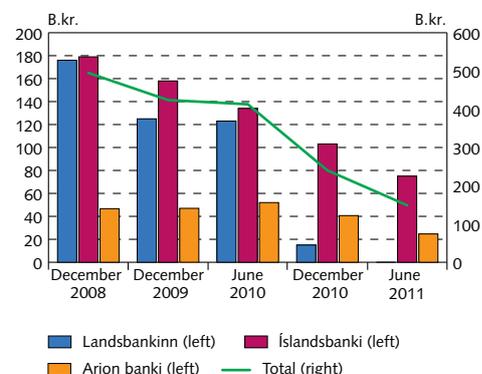
6. Supreme Court Decision no. 155/2011, 9 June 2011.

7. Method used to calculate foreign exchange balance, which takes account of whether value and recovery are dependent on exchange rate movements. This method has been called the delta correction, the balance has been called the effective foreign exchange balance, and the exchange rate-linked assets not included in the effective balance have been called ineffective exchange rate-linked assets (so-called FX/ISK assets). This balance should therefore be closer to the balance the bank would have if uncertainty were eliminated and restructuring of foreign assets entirely complete. Only the three largest commercial banks are authorised to use this method.

8. Ineffective exchange rate-linked assets (FX/ISK assets) refers to foreign-denominated loans taken by borrowers with income in Icelandic krónur. In many instances, their ability to pay was insufficient to enable them to pay the loans. The book value of the loans was therefore reduced in accordance with an assessment of capacity to pay. Because the book value of a portion of this loan portfolio was much lower than the claim value, further fluctuations in the ISK exchange rate were not considered likely to affect the book value of the loans.

Chart II-20

Ineffective exchange rate - linked assets by the three largest commercial banks<sup>1</sup>

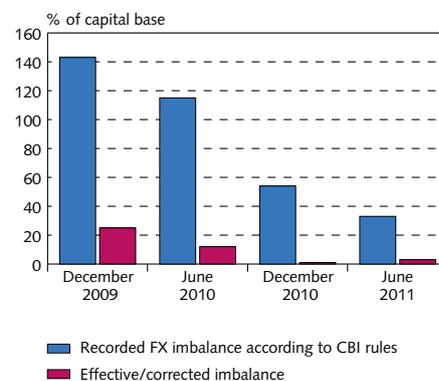


1. Consolidated figures. Ineffective exchange rate-linked assets (FX/ISK assets) refers to foreign-denominated loans taken by borrowers with income in Icelandic krónur. In many instances, their ability to pay was insufficient to enable them to pay the loans. The book value of the loans was therefore reduced in accordance with an assessment of capacity to pay. Because the book value of a portion of this loan portfolio was much lower than the claim value, further fluctuations in the ISK exchange rate were not considered likely to affect the book value of the loans.

Sources: Financial institutions' annual and interim accounts.

Chart II-21

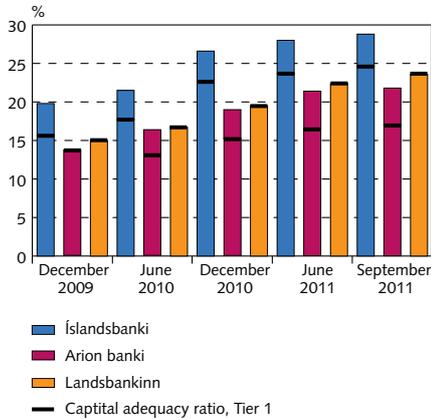
Imbalances between the three largest commercial banks' foreign-denominated assets and liabilities<sup>1</sup>



1. Consolidated figures. Imbalance as a percentage of the capital base. Only the three largest commercial banks are permitted by the FME to carry a corrected foreign exchange balance.

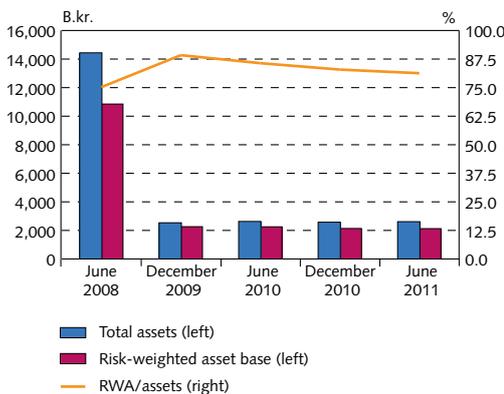
Source: Financial Supervisory Authority, financial institutions' annual and interim accounts.

Chart II-22  
Capital adequacy ratios of the three largest commercial banks



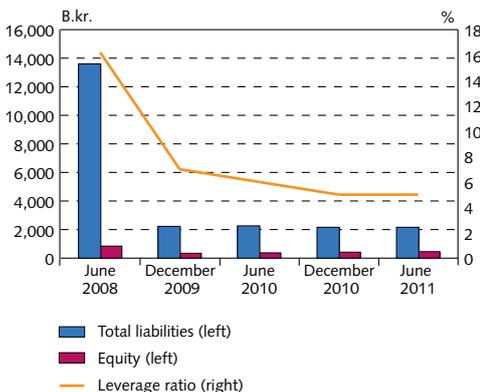
Source: Financial institutions' annual and interim financial statements.

Chart II-23  
Total assets and risk-weighted assets of the three largest commercial banks



Sources: Financial institutions' annual and interim accounts.

Chart II-24  
Total liabilities, equity, and leverage ratios of the three largest commercial banks



Source: Financial institutions' annual and interim accounts.

It can be assumed, however, that the banks' indexation imbalances will continue to increase, as the recalculation of illegal exchange rate-linked loans is probably not complete yet. However, the HFF's indexation risk declined after the Treasury exchanged the non-indexed bonds that constituted the Fund's equity for indexed bonds. The HFF's liabilities are all indexed, as are the majority of its assets.

### Equity and capital adequacy ratios

The large commercial banks' capital position has strengthened considerably during the year and is now well above the Financial Supervisory Authority's 16% required minimum. This strength is necessary in the current economic environment and in view of the uncertainty about the value of the banks' loan portfolios.

The capital base of the large commercial banking groups totalled about 500 b.kr. in September 2011; it has risen by 48 b.kr., or 10%, since the beginning of the year as a result of operating profits. The banks' capital ratios have risen by 3 percentage points year-to-date, to about 24% as of end-September. The increase is due to a stronger capital base and reduced market risk following the unwinding of their foreign exchange imbalances. The three large banks' Tier 1<sup>9</sup> capital increased as well during the year, from just over 19% at year-end 2010 to almost 22% by end-September 2011.

The HFF's capital position has strengthened in 2011, and its equity totalled just over 10 b.kr. at the end of June, an increase of 1.5 b.kr. since the beginning of the year. The Fund's capital ratio was slightly above 2.4% at the end of June, well below its long-term target of 5%.

### Risk-weighted assets and leverage ratio

There has been considerable discussion internationally of risk weights and whether they reflect risk accurately. Financial institutions' capital ratios are heavily dependent on these risk weights. As such, if risk weights fall, capital ratios can rise, even if total asset values and the capital base remain unchanged. As risk-weighted assets decline relative to total assets, the amount of capital that must be on reserve to offset these assets declines as well, and the financial institution can incur more debt. The banks' risk-weighted assets relative to total assets has been declining

Just before the crash, the three large commercial banks' leverage ratios were slightly above 16; that is, their debt was about 16 times their equity. These ratios plummeted after the 2008 collapse and have been falling slightly since then. In June 2011, the banks' leverage ratios were as follows: Íslandsbanki, 4.3; Arion Bank, 5.9; and Landsbanki, 4.4.

### Uncertainty about actual equity

The value of the banks' loans is quite uncertain due to heavy default and uncertainty about the legality of loan agreements. Increased loan losses could make a strong impact on the banks' capital ratios;

9. Tier 1 capital comprises mainly common stocks and retained earnings, see article 84. in Act no. 161/2002.

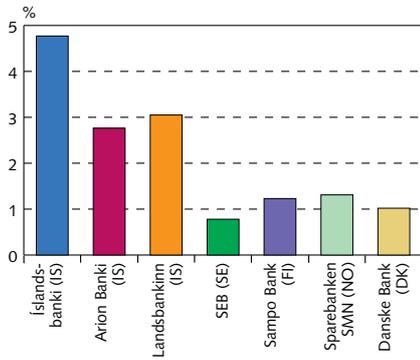
therefore, a strong capital position is needed while debt restructuring is nearing completion. This uncertainty should give the banks the incentive to complete the restructuring process as soon as possible.

The removal of the capital controls could cause exchange rate volatility, which in turn could affect the ability of borrowers with foreign-denominated loans and domestic income to service their debt. It is important to restructure both these loans and non-performing loans as quickly as possible so as to reduce credit risk.

# Appendix

## Nordic comparison

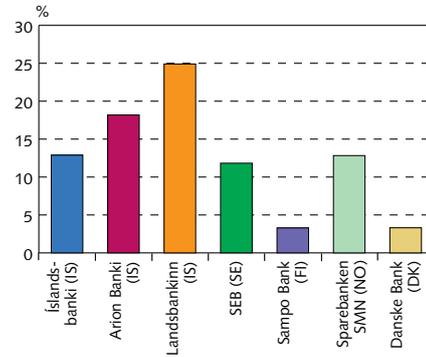
Chart 1  
Interest rate difference<sup>1</sup>  
2011/6m



1. Interest rate difference = net interest income/average of total assets. Islandsbanki's large net interest margin is due largely to a difference in financial reporting methods used by the banks; Islandsbanki uses a different method for redemption of interest income from transferred loans.

Sources: Financial institutions' annual and interim reports.

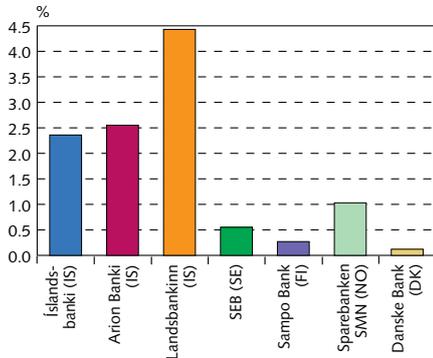
Chart 2  
Return on equity<sup>1</sup>  
2011/6m



1. ROE = net earnings/average of total equity. 45% of Landsbankinn's profit is due to asset sales or write-ups of the bank's unlisted shares. An insignificant share of the profit of Islandsbanki and Arion Bank derives from this source.

Sources: Financial institutions' annual and reports.

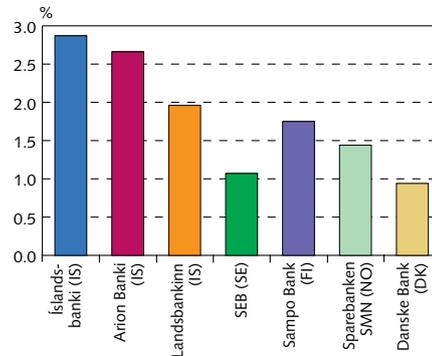
Chart 3  
Return on total assets<sup>1</sup>  
2011/6m



1. ROA = net earnings/average of total assets. 45% of Landsbankinn's profit is due to asset sales or write-ups of the bank's unlisted shares. An insignificant share of the profit of Islandsbanki and Arion Bank derives from this source.

Sources: Financial institutions' annual and reports.

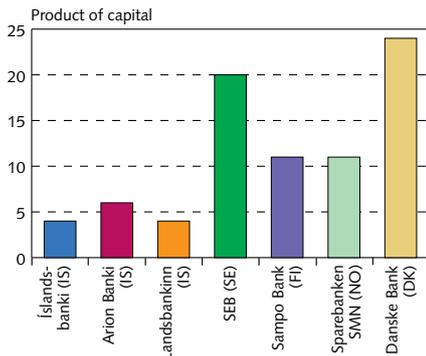
Chart 4  
Cost to assets<sup>1</sup>  
2011/6m



1. Cost to assets = operating expense/average of total assets.

Sources: Financial institutions' annual and reports.

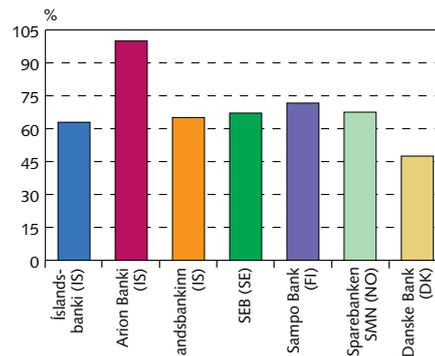
Chart 5  
Leverage ratio<sup>1</sup>  
2011/6m



1. Leverage ratio = debt/equity.

Sources: Financial institutions' annual and reports.

Chart 6  
Deposit-to-loan ratio<sup>1</sup>  
2011/6m



1. Deposit-to-loan ratio = deposits from customers/loans and receivables to customers.

Sources: Financial institutions' annual and interim reports.