FINANCIAL STABILITY

2015 • 1

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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.

Published by:
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Vol. 16 22 April 2015

Printing: Oddi ehf.

This is a translation of a document originally written in Icelandic. In case of discrepancy or difference in interpretation, the Icelandic original prevails. Both versions are available at www.cb.is.

ISSN 1670-584X, print
ISSN 1670-8156, online

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

Resilience of the economy and financial system must be preserved during the prelude to capital account liberalisation

This issue of *Financial Stability* contains the usual analysis of factors that could affect the stability of the Icelandic financial system. These factors centre primarily on the economic environment in Iceland and abroad; the balance sheets of Iceland's economy, households, firms, and financial institutions; and the functioning of markets. On the whole, the conditions for financial stability have continued to improve as the economic recovery has progressed, private sector debt has declined relative to income, the external position of the economy has improved, and financial institutions have grown stronger.

The main risks that could undermine financial stability at present are associated with the planned liberalisation of capital controls. There is also the risk that the relatively good balance that the economy has enjoyed in the recent term, as is seen in low inflation and a surplus on external trade, could be derailed. Further ahead, prolonged capital controls could weaken output growth, thereby eroding debt sustainability at the same time as imbalances in domestic financial markets could increase. As regards risk factors less closely associated with the capital controls, there is some cause for concern that the banks' core operations – excluding temporary income due to asset write-ups and other one-off items – are relatively weak. If this does not change in the next few years, it could weaken the banks' balance sheets and compromise their resilience. The current tension in global financial markets could have adverse effects in Iceland if developments are unfavourable, even though the capital controls mitigate the direct impact through the domestic financial market.

Lifting the capital controls involves two types of risk to financial stability. The first centres on the massive amounts of capital that could, other things being equal, seek to exit through a shallow foreign exchange market, putting pressure on the króna. In order to prevent this, we need mitigating measures that reduce the amount of capital that could seek a speedy exit once the controls are lifted. Furthermore, the capital outflows that might take place upon liberalisation, including outflows from Icelandic residents, could adversely affect banking system funding and liquidity. The second type of risk lies in the fact that complex, difficult measures could entail legal and reputational risk that, in turn, could delay resident borrowers' access to foreign credit markets. The measures being formulated jointly by the Government and the Central Bank are intended to reduce the risk of financial instability without placing additional burdens on the State or the Icelandic people and without taking on excessive legal or reputational risk.

This report, like other recent issues of Financial Stability, contains statistical information and analysis that shed light on the scope of the balance of payments problem that complicates capital account liberalisation due to potential capital outflows (see Chapter II on the external position and Chapter VII on the settlement of the failed banks' estates). The capital in question includes the so-called offshore krónur (króna-denominated assets held by non-residents), the estates of the failed banks, and possibly some outflows from Icelandic residents. The magnitude of the last of these is highly uncertain, as I discussed in my speech at the Central Bank's Annual General Meeting on 26 March 2015. The other factors have been well mapped out, as can be seen in this report.

Short-term króna assets held by non-residents amounted to 291 b.kr., or just under 15% of GDP, at the end of February. The domestic assets held by the estates of the three failed banks totalled 910 b.kr., or almost 46% of GDP, at the end of 2014. Of that amount, 507 b.kr. was denominated in krónur, including the estates' holdings in the new banks, which totalled 316 b.kr. The estates' domestic assets denominated in foreign currencies amounted to 403 b.kr. When we assess the extent to which the estates' domestic assets cause a balance of payments problem, we must consider that 94% of them will revert to foreign creditors and that a portion of the domestic assets denominated in foreign currency are financed with foreign assets, either with foreign collateral or with residents' foreign liquid assets. Adjusting for these factors, the domestic assets of the failed banks' estates which will, when exported from Iceland, make claims on Iceland's foreign exchange revenues or put pressure on the exchange rate or the foreign reserves amount to roughly 500 b.kr., or 25% of GDP. This does not mean that all of this capital will seek to exit at the same time. For instance, the estates' holdings in the new banks are not

available for disbursement until they are sold. Furthermore, a portion of it is tied up in long-term payment profiles, such as Landsbankinn's debt to the old banks, which currently totals about 200 b.kr., or 10% of GDP. The problem is big nonetheless, and finding a solution that preserves stability is the prerequisite for liberalisation of the capital controls. The authorities are working hard on developing such a solution.

The outlook for Iceland's current account balance has improved in the recent term, due in part to improvements in terms of trade following a steep drop in oil prices. This, together with the lengthening of the maturity of the Landsbankinn-LBI bond in late 2014, has reduced the scale of the balance of payments problem, as can be seen, for instance, in the substantial foreign currency purchases undertaken by the Central Bank. Consequently, there is reason for concern if this outlook is spoiled because domestic demand grows too fast or the real exchange rate rises sharply, which could happen, for instance, if the current wage negotiations result in excessive pay increases. If the current account surplus disappears in the near future because of such developments, lifting the capital controls will be riskier.

The position of the three large commercial banks is strong in many ways and improved still further in 2014. Their returns on total assets were 2.7%, which is high in international context. Their capital ratios continued to increase and are on a par with the highest in neighbouring countries. In this context, however, it is well to remember that, in many cases, European banks' capital position is weaker than is desirable. The combined risk-weighted capital ratio of the three banks was 28.5%. Without risk-weighting, it was 20.3%. The banks' liquidity is strong as well, as can be seen in the fact that their overall liquidity ratios and their foreign liquidity ratios are well above the Central Bank's required minimum. The same is true of their foreign currency funding ratio. In addition, their foreign funding requirements will be modest in coming years. They only need to borrow a total of 30 b.kr. per year in the next few years in order to refinance debt and remain well above the Central Bank's minimum FX liquidity requirement. In comparison, Arion Bank borrowed 45 b.kr. in euros in March.

But closer examination reveals that the situation is not quite as solid as it appears at first glance. There are two main reasons for this. First of all, the banks' funding is protected to a degree by the capital controls. Second, a large share of their 2014 profits were due to revaluation of assets and other one-off items, while their underlying returns on core operations are much weaker. Therefore, under current conditions, it would be imprudent to cut into their resilience with large dividend payments.

The financial system: outlook and key risks

Financial system risk has diminished since the publication of the last *Financial Stability* report in October 2014, owing primarily to the reduction of resident entities' refinancing risk with the lengthening of the Landsbankinn bonds and a larger current account surplus. The outlook has therefore improved in that, other things being equal, it is likelier that the trade surplus will cover residents' unfinanced foreign debt service in coming years.

The balance in the domestic economy is relatively good: the economic recovery continues, unemployment is declining, and inflation is low. Real estate market turnover has increased, and house prices have risen markedly. The capital area house price index rose 3.2% in the first three months of 2015. This increase from a relatively low real price level primarily reflects economic fundamentals such as falling unemployment, growing purchasing power and declining debt levels. Developments in house prices vary somewhat by neighbourhood and community, however. Although there are no discernible signs of bubble formation in the market as a whole, prices are high by most criteria in certain neighbourhoods in Reykjavík.

The large commercial banks generated sizeable profits in 2014. Their returns increased from the prior year, and their cost-to-assets ratios declined slightly. Their loan portfolios grew markedly in value, yet a number of estimated and irregular items affected their operating performance. The banks are well funded, and the refinancing risk attached to their foreign funding is moderate at present. The commercial banks fulfil the requirements set forth in the Central Bank of Iceland's rules on liquidity ratios and funding ratios with room to spare. Their funding consists mainly of customer deposits, which are generally considered a source of stable funding for commercial banks. In recent years, their market funding has grown more diverse – with foreign bond issues, for example – reflecting increased confidence in the Icelandic banking system (for further discussion, see Chapter III).

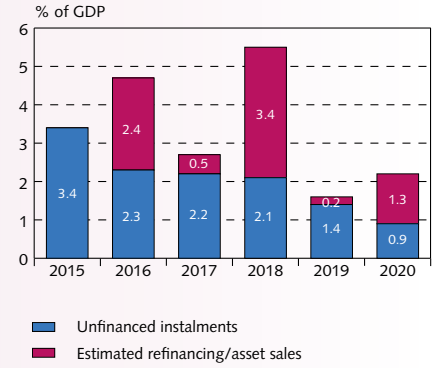
The Housing Financing Fund's position is still weak, and its business model is clearly fragile in the current environment. Default among individuals and legal entities has diminished, but the Fund's prepayment problem will probably continue to escalate in the wake of the Government's mortgage loan write-downs and authorisation to withdraw third-pillar pension savings tax-free in order to reduce mortgage principal (see Chapter VI).

Households' position improved markedly in 2014. Disposable income and real wages increased significantly during the year, and the real wage index rose to a new high in January 2015. Firms' position has improved as well, as their economic environment has developed favourably. The 500 largest firms' debt levels have declined, and indicators of their financial position have improved between years. Household and corporate debt continued to fall in 2014, reaching 2004 levels by the end of the year in terms of the ratio of debt to GDP. If the current trend continues, Iceland will have relatively low household debt ratio compared to other developed countries (Chart 3). Early on, Icelandic households were much more heavily leveraged, for instance, than those in Norway and Sweden, where debt has risen steadily since the turn of the century. Private sector debt restructuring continued in 2014, and the large commercial banks' non-performing loan ratios declined in terms of book value from 4.5% at year-end 2013 to 2.4% at the end of 2014. Signs of the financial crisis can still be seen, however, in personal bankruptcies and the number of individuals on the default register (for further discussion, see Chapter IV).

Chart 1

Contractual foreign-denominated debt[1, 2]

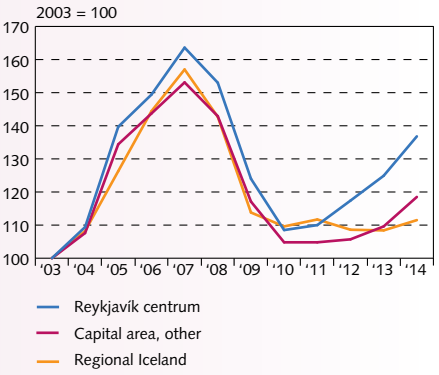
Instalments on foreign loans and foreign-denominated debt to the failed banks



1. Excluding the Treasury and the Central Bank. 2. Based on position as of 20 March 2015 and exchange rates as of 19 February 2015.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 2

Real house prices[1]

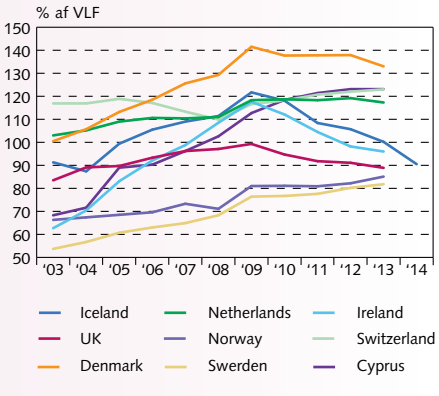


1. Price per sq.m. at constant 2003 prices.
Sources: Registers Iceland, Central Bank of Iceland.

Chart 3

Household debt by European comparison

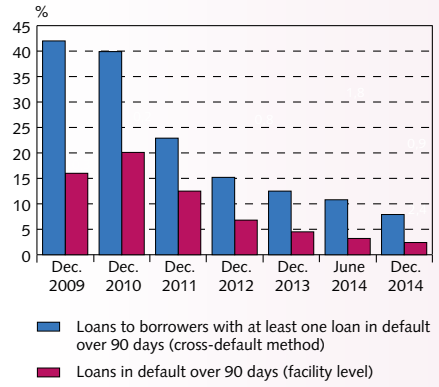
2003-2014



Sources: Eurostat, Statistics Iceland, Central Bank of Iceland.

Chart 4

Default ratios of the three largest commercial banks[1]

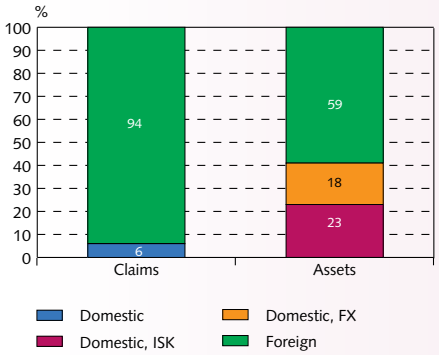


1. Parent companies, book value.
Sources: Financial Supervisory Authority, Central Bank of Iceland.

Chart 5

Estimated domestic/foreign breakdown of assets and claims of DMBs in winding-up proceedings

Book value of assets 31.12.2014

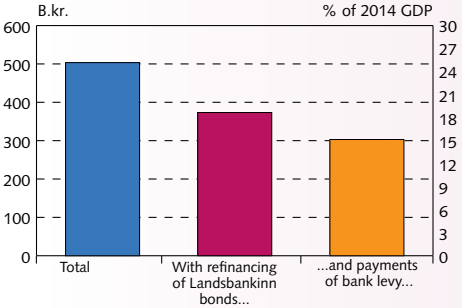


Sources: Claims lists and financial information from Glitnir, Kaupthing, and LBI; Central Bank of Iceland.

Chart 6

Unfinanced domestic assets reverting to foreign creditors, various scenarios[1]

Book value of assets 31.12.2014



1. Assuming equal distribution of assets among creditors.
Sources: Claims lists and financial information from Glitnir, Kaupthing, and LBI; Statistics Iceland; Central Bank of Iceland.

External conditions are favourable for capital account liberalisation at present, owing to low interest rates abroad and a trade surplus stemming from improving terms of trade and a growing tourism sector (see also Chapter II).

Key risks

Capital account liberalisation and the interrelationship between it and the settlement of the failed banks' estates and non-residents' short-term ISK assets is one of the main threats to financial stability at present. If measures are not taken to reduce or lengthen the maturities of volatile króna-denominated assets before liberalisation, there is a risk of severe instability in the foreign exchange market. The measures employed must also take account of the legal and reputational risk that often accompanies complex, difficult policy action and, as in this case, could delay resident borrowers' access to foreign credit markets.

Winding up the failed banks' estates will place large amounts of domestic assets in the hands of foreign creditors, other things being equal. Domestic assets that are not financed directly or indirectly with foreign assets and will therefore put pressure on the foreign exchange market are valued at an estimated 500 b.kr. The book value of the estates' króna assets is about the same amount. One of the prerequisites for liberalisation without severe foreign exchange market instability or pressure on the foreign exchange reserves is to find a solution to the problem stemming from distribution of the estates' unfinanced domestic assets to foreign creditors (for further discussion, see Chapter II).

The stock of short-term króna assets held by non-residents has been more than halved in the past few years, from 650 b.kr. in autumn 2008 to 291 b.kr. at of end-February 2015. This has been achieved through contractual agreements with individual owners, direct trades, and foreign currency auctions, which have provided an exit route for the most impatient investors. The investors that remain have lengthened their investments, and the rise in the offshore exchange rate in recent years indicates that they are price-sensitive (for further discussion, see Chapter II).

Prolonged capital controls undermine the economy's potential output and exacerbate the risk of imbalances in domestic asset markets. Residents' financing costs abroad are higher than they would otherwise be, and the controls prevent residents from diversifying risk in their asset portfolios. As a consequence, the capital controls can weaken financial system resilience over time.

In spite of the three large banks' solid returns and strong capital position, it is necessary to strengthen their **core operations**. One-off items dominate their earnings reports; for instance, income from loan portfolio write-ups and from the sale and write-up of the largest stakes in companies and discontinued operations accounted for 55% of their total pre-tax profit in 2014. If the banks' core operations are not turned around, there is the risk that their resilience will suffer when the one-off items cease to apply. As a result, it is important to proceed with caution in paying out dividends on irregular profits (for further discussion, see Chapter III).

I The economic environment

Volatility in the international markets

Differences in monetary policy focus across major economies and differing effects of lower oil prices from one country to another have made their mark on exchange rates. Most indicators suggest that the US Federal Reserve Bank will raise interest rates this year. The European Central Bank (ECB) and the Bank of Japan (BoJ) have stepped up their asset purchases in the markets in a bid to bolster economic activity, and policy rates in Japan and many European countries are at or below zero. Low oil prices have had a particularly detrimental effect on emerging market countries dependent on oil exports. The global GDP growth outlook is relatively good for this year; overall, it has improved for developed countries but deteriorated for emerging countries. Asset prices are still rising in international markets, owing in part to the prolonged period of low interest rates and the ECB's injections of liquidity into the market. In Iceland, the economic outlook is good and terms of trade are improving, although there is uncertainty about the results of the ongoing wage negotiations and the liberalisation of the capital controls. Yields on the Treasury's foreign bonds have fallen in the recent past, and Treasury debt has declined. Prices have risen in the main asset markets, but there are few signs of a bubble as yet. Property prices in the heart of the capital region have risen more rapidly in the recent term than can be explained by conventional supply-and-demand rationale, however.

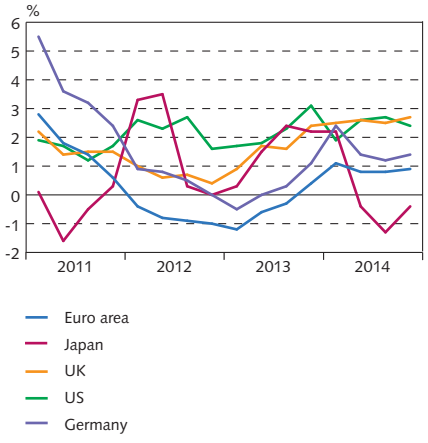
Foreign economic affairs and financial markets

World economic outlook

The GDP growth outlook has improved for developed countries but worsened for emerging countries. The International Monetary Fund (IMF) projects global GDP growth for 2015 at 3.5%, similar to that in 2014.[1] The US economy saw strong growth in 2014, apart from the first quarter. Towards the end of the year, there were signs of increased growth in the euro area, owing in part to increased private consumption and low oil prices, while in Japan there was a contraction in the second half of the year (Chart I-1). Inflation is low in many economies and appears set to fall still further. This exacerbates the widespread debt difficulties still remaining after the global financial crisis that struck over seven years ago. Interest rates have continued to fall, reflecting low inflation expectations and low real rates. Low real interest rates could signal expectations of low growth, but they also contribute to increased GDP growth and rising asset prices.

Global oil prices plummeted late in 2014. They fell below 100 dollars per barrel at mid-year and were under 50 dollars by December. Although they have risen some what since then, there are no expectations of a major increase in the near future. Supplies have remained strong due to increased production in the US and stable production in the OPEC countries. Growth prospects have therefore improved in countries that rely on oil imports, but by the same token, oil exporters suffer. Major currency exchange rates have changed markedly, partly because of oil prices, but also owing to differing output growth prospects and expectations of interest rate increases in the US later this year, even as rates in many European countries continue to fall.

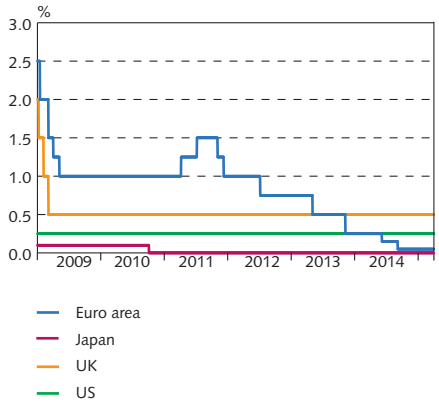
Chart I-1
GDP growth in selected countries[1]



1. Year-on-year change
Source: Macrobond.

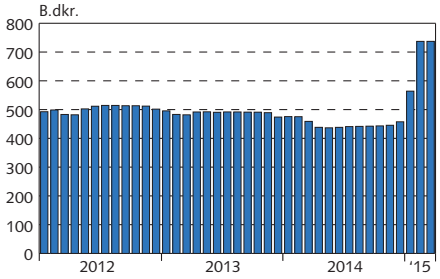
1. International Monetary Fund, World Economic Outlook, April 2015.

Chart I-2
Policy interest rates



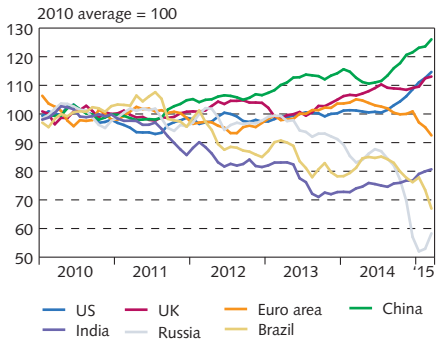
Source: Macrobond.

Chart I-3
Danmarks Nationalbank
foreign exchange reserves



Source: Danmarks Nationalbank.

Chart I-4
Currency exchange rates[1]



1. BIS nominal indices
Source: Macrobond.

The ECB and the BoJ have increased the supply of money in circulation in an attempt to stimulate their respective economies, as their policy rates are near zero (Chart I-2). Policy rates are extremely low elsewhere as well, and government bond yields are negative in many euro area countries, as well as in Denmark, Sweden, and Switzerland. In some of these countries, yields are negative on long-term bonds as well.

In Switzerland, the policy rate turned negative in mid-December, but even this did not suffice to stem the tide of capital inflows. The foreign exchange reserves increased by 13% in 2014, to 84% of Switzerland's GDP by the year-end. The Swiss franc appreciated by 19% against the euro (and by over 40% intraday) and by 16% against the US dollar on 15 January, when the Swiss National Bank (SNB) announced the abolition of the ceiling on the franc-euro exchange rate. At the same time, the SNB lowered the policy rate by half a percentage point, to -0.75%. Afterwards, there was strong upward pressure on the Danish krone, which is pegged to the euro. Rates on Danish certificates of deposit were lowered four times in January and February, from -0.05% to -0.75%. Danmarks Nationalbank has absorbed capital inflows, and its foreign exchange reserves increased by 61%, or 279 billion kroner, during the first two months of the year (Chart I-3).

Developments in global financial markets

The strong growth of the US economy in the recent term and the sluggish recovery of the eurozone are reflected in differences in monetary policy focus and exchange rate movements. The US dollar and the pound sterling have appreciated in the past year and are now about 15% and 13% stronger, respectively, than their 2010 average, according to Bank for International Settlements (BIS) exchange rate indices (Chart I-4). According to the same criteria, the euro weakened by roughly 8% in the first three months of the year. Emerging countries' exchange rates have also developed in differing ways. The Chinese yuan has continued to appreciate in recent months, as has the Indian rupee. The Brazilian real, however, fell by roughly 12% in the first three months of the year but the Russian rouble appreciated by 2%, on the heels of a 38% drop in 2014. Most of the collapse of the rouble is linked to the plunge in oil prices late in the year.

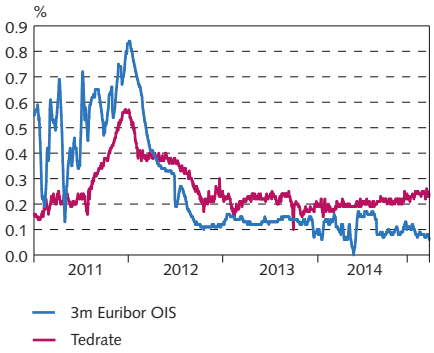
The protracted low-interest phase in Europe gives rise to risks in the financial markets.[2] Low interest rates make indebtedness cheaper for private and public sector alike, and low interest rates in the eurozone weaken the currency. The BoJ and the ECB stepped up their regular bond purchases in Q4/2014. The BoJ's balance sheet looks set to grow to about 70% of GDP by the end of the year and the ECB's to about 30%. In January, the ECB announced that it would increase its monthly asset purchases to a total of 60 billion euros and continue them until at least September 2016. On the other hand, the US Federal Reserve Bank is aiming towards downsizing its balance sheet and has signalled that the policy rate will be raised this year. The

2. International Monetary Fund, Global Financial Stability Report, April 2015.

contraction in the Fed's liquidity is accompanied by increased risk of financial market volatility.

One indicator of financial market risk is the spread between interbank rates and risk-free rates. It was negligible from after the turn of the century until the global financial crisis struck in 2007 and then soared during the period of greatest unrest, both in Europe and in the US (Chart I-5). In the past few months, however, these indicators have developed differently in the US and Europe, as the US Federal Reserve Bank is expected to scale down the liquidity it has injected into the market in recent years, while the ECB has announced further liquidity measures to support the markets. The VIX implied volatility index, which is a measure of market unrest, rose somewhat in the latter half of 2014, particularly in tandem with the drop in oil prices. Bond issuance is strong in the global markets, and cross-border bank lending to non-bank borrowers is rising worldwide (Chart I-6). Such funding has contracted in Europe, however, particularly in emerging countries.[3] The continued appreciation of the US dollar and increases in the US policy rate could fuel further outflows of capital from emerging economies.

Chart I-5
Three-month OIS spread



Source: Federal Reserve Bank of St. Louis.

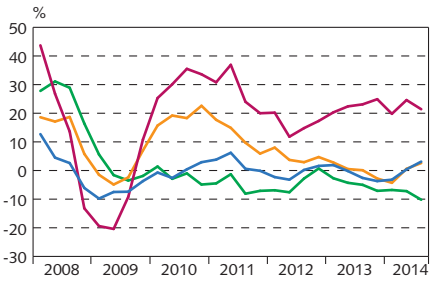
Asset prices still rising

Yields on German Treasury bonds have fallen rapidly in late 2014 and early 2015. They are now lower than Japanese bond yields and about two percentage points below the yields on long US and British Treasury bonds (Chart I-7), reflecting expectations of a protracted low-interest phase in Europe, which pushes asset prices upwards.

Share prices have risen steadily in most markets over the past five years, albeit noticeably less in Europe than in the US, UK, or Japan (Chart I-8). European markets have rallied since the beginning of 2015, however, and the STOXX share price index is up about 9% year-to-date, almost keeping pace with the Japanese market (up 10%). The S&P 500 index has remained virtually unchanged over this period.

Real house prices have risen markedly over the past two years in the Nordic countries apart from Finland, as well as in other markets, including the UK, Ireland, and the US. In all of these countries except Sweden and Norway, prices are still below pre-crisis levels. In Sweden, prices have continued to rise and, in Q4/2014, were 15% above the pre-crisis peak. In Norway, they were 14% higher in Q4/2014 than in mid-2007 but had fallen nearly two percentage points since Q2/2013 (Chart I-9).

Chart I-6
Cross-border credit[1]



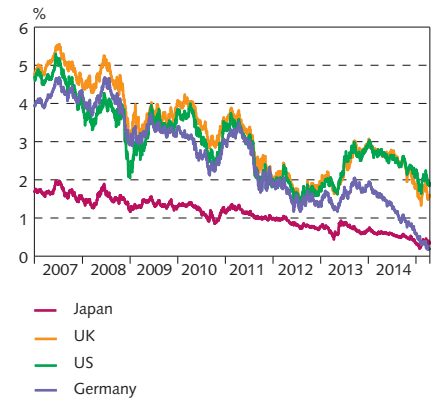
1. Year-on-year change. Non-bank borrowing.
Source: Bank for International Settlements.

The domestic economy

Domestic demand

Latest national accounts data show 1.9% growth in 2014, 1.4% in the first half of the year and 2.3% in the second half, and the Central Bank has projected it at just over 4% in 2015. Domestic demand growth measured 4.4%, while the contribution of net trade to output growth was negative by 3% of GDP. Private consumption and demand are expected to continue growing strongly in 2015 and 2016.

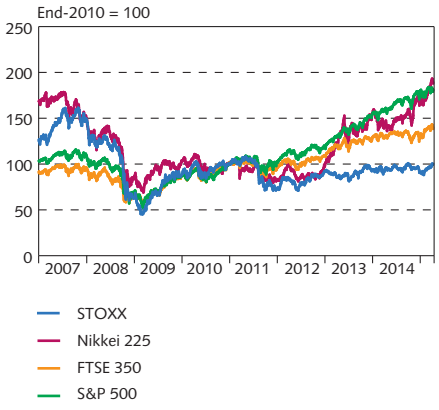
Chart I-7
Yields on 10-year government bonds



Source: Macrobond.

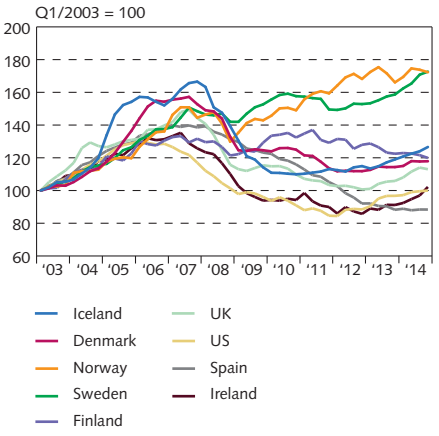
3. Bank for International Settlements, Global liquidity: Selected indicators, February 2015.

Chart I-8
Share price indices



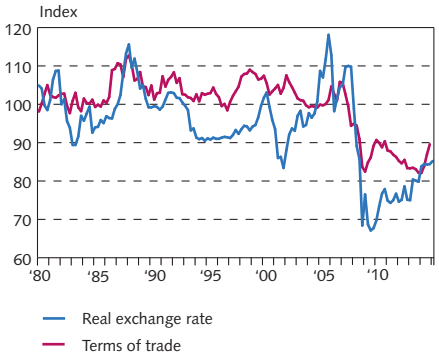
Source: Macrobond.

Chart I-9
Real house prices[1]



1. House price indices deflated by relevant CPI.
Sources: Macrobond, Registers Iceland, Central Bank of Iceland.

Chart I-10
Real exchange rate and terms of trade



Source: Central Bank of Iceland.

Inflation has been well below target for just over a year, falling below 1% from December to February and then rising again. The relative strength of the króna and low import prices – oil prices in particular – are major contributors to the low inflation rate. Inflation is expected to pick up slightly in coming quarters but it could rise faster if oil prices begin rising significantly again or if the current wage negotiations result in large pay increases.

Real exchange rate, terms of trade, and exports

The real exchange rate has continued to rise in recent months. The nominal exchange rate has been relatively stable, however, rising against the euro but falling against the US dollar. Inflation has been somewhat higher in Iceland than in major trading partner countries, although it has been very moderate in historical terms. After deteriorating for several years, terms of trade improved markedly in 2014 and have continued to do so this year (Chart I-10). Both of these factors support the trade surplus. External trade has generated a substantial surplus in recent years, as is discussed more fully in Section II. Debt has been paid down, and non-borrowed foreign exchange reserves have been increased.

Yields on Treasury foreign issuance

Rating agency Standard & Poor's has held Iceland's sovereign credit rating for foreign currency obligations unchanged at BBB- since November 2008. The outlook was revised to positive in July 2014. The rating from Moody's has been Baa3 since November 2009 and the outlook stable since February 2013. Fitch Ratings upgraded the sovereign to BBB in February 2014, and changed the outlook to positive in January 2015. The spread between the US dollar bonds issued by the Republic of Iceland in May 2012 and comparable bonds issued by the US Treasury has been on the decline (Chart I-11). In the past half-year, however, it has fluctuated in a relatively narrow range. Lithuania issued a US dollar bond maturing at around the same time, and the spread between it and a comparable US Treasury bond has also narrowed, although it has held relatively stable since mid-2014. Lithuania's sovereign rating from Moody's is Baa1, while S&P and Fitch upgraded it to A- in April and June 2014, respectively.

In July 2014, the Icelandic Treasury issued a eurobond that matures in 2020. Latvia has issued a bond maturing around the same time (2021), and the yield has developed similarly to the yield on the Icelandic bonds. In both cases, the spread between these bonds and German Treasury bonds maturing in 2020 has narrowed, albeit slightly more for the Latvian bond. Latvia adopted the euro at the beginning of 2014. Moody's upgraded its sovereign rating from Baa1 to A3 in February 2015, and S&P and Fitch upgraded it from BBB+ to A- in May and June 2014, respectively.

Treasury debt position

Treasury debt has declined relative to GDP in the past two years (Chart I-12). Borrowings and issued securities amounted to 76% of GDP at the end of 2014, as opposed to 78% a year earlier. Interest

expense on domestic and foreign debt has fallen in the recent term. Treasury bond issuance for 2015 is estimated at 55 b.kr. Issuance in Q1 totalled 24 b.kr., including 14 b.kr. in a new two-year series issued to cover the redemption of a 22.2 b.kr. bond maturing on 8 April. The Government used the proceeds of its 750 million euro issue from mid-2014 to pay off the less favourable loans from the Nordic countries. The borrowing terms available to the Treasury have improved markedly since it resumed foreign market issuance three years ago.

Domestic markets

Domestic asset prices under capital controls

Restrictions on capital outflows channel savings towards domestic investments. One of the risks attached to prolonged capital controls is that the controls generate excess demand in domestic asset markets, causing prices to rise more than the returns on the assets can support. This, in turn, can lead to an abrupt adjustment, with a steep drop in asset prices. Other things equal, it can be assumed that the effects of the capital controls on domestic asset prices will intensify over time, as will the risk that accompanies a sudden correction, with prices overshooting when the controls are lifted.

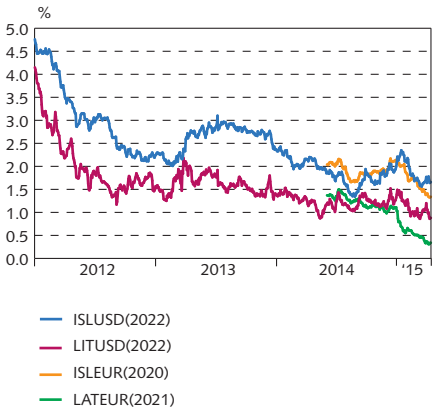
Unrestricted cross-border movement of capital can also decouple asset prices from the economic situation. The surge of foreign capital into Iceland during the 2004-2007 period played a large part in creating the asset price bubble that burst in autumn 2008. The likelihood of a repeat boom-bust cycle can be reduced if the appropriate authorities have measures to hand that they can adopt in order to temper capital inflows (Box II-2).

A large share of Icelanders' assets are invested with pension funds, which invest mainly in bonds, other securities, and real estate. Other things being equal, the longer the capital controls remain in place, the more the pension funds' asset values will fluctuate upon liberalisation. As yet, it appears that the pension funds' asset portfolio structure is not overly affected by the capital controls, but the longer the controls restrict investment options, the greater the risk to pension savings will be.

Real estate market

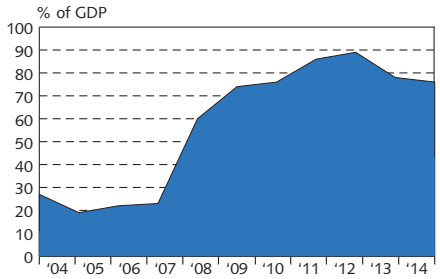
Real estate market turnover has nearly doubled in the past two years (Chart I-13). The capital area house price index rose by 9.6% in 2014 and another 3.2% in the first three months of 2015. Following a steep decline between 2008 and 2010, real house prices in greater Reykjavík began rising again in 2012. They rose by 2% that year, followed by 2.8% in 2013 and 7.9% in 2014. This increase from a relatively low real price level primarily reflects economic fundamentals such as falling unemployment, increased purchasing power, declining debt levels, and interest rates. As yet, price increases do not seem to be out of sync with market conditions.[4]

Chart I-11
Government bond spreads[1]



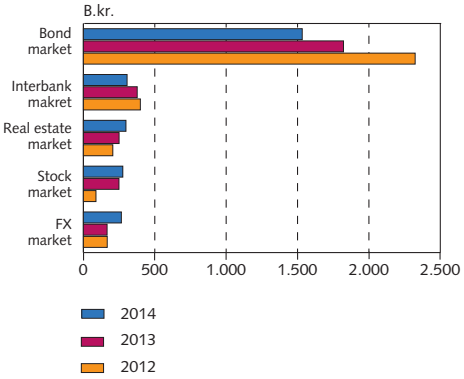
1. Difference between yields on Icelandic and US bonds maturing in 2022, Lithuanian and US bonds maturing in 2022, Icelandic and German bonds maturing in 2020, and Latvian and German bonds maturing in 2020.
Source: Bloomberg, Central Bank of Iceland.

Chart I-12
Treasury debt



Source: Statistics Iceland.

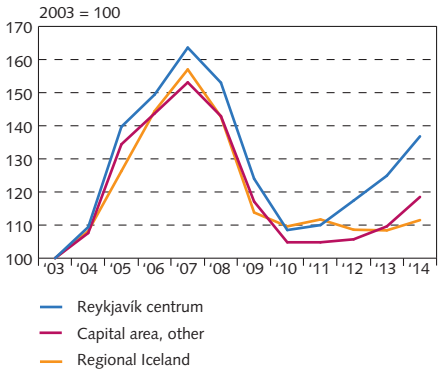
Chart I-13
Market turnover



Sources: Registers Iceland, Nasdaq Iceland, Central Bank of Iceland.

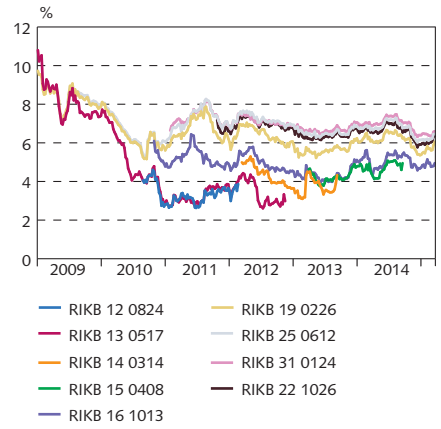
4. Sergei Antoshin and Christina Cheptea (2015) "Asset price bubbles: evidence or superstition?" *Iceland: Selected Issues,* IMF, March 2015, and Lúdvík Elíasson (2014) "Icelandic boom and bust: Immigration and the housing market". *Working Paper* no. 66, Central Bank of Iceland, November 2014.

Chart I-14
Real house prices[1]



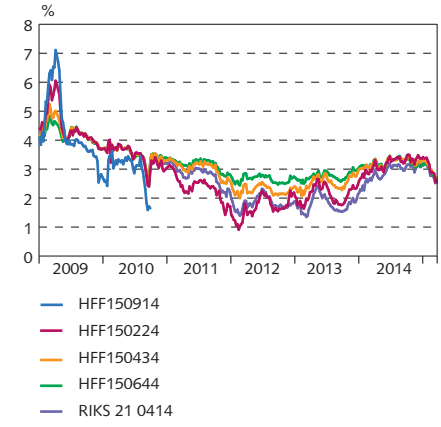
1. Price per sq.m. at constant 2003 prices.
Sources: Registers Iceland, Central Bank of Iceland.

Chart I-15
Yields on nominal Treasury bonds[1]



1. Weekly data.
Source: Central Bank of Iceland.

Chart I-16
Indexed bond yields[1]



1. Weekly data.
Source: Central Bank of Iceland.

Developments in house prices vary somewhat, however, by neighbourhood and community. Real house prices were about 5-10% higher in 2011 than in 2003. A year later, in 2012, prices in the central part of greater Reykjavík began to climb rather quickly and have now risen by another fourth since then. Prices started to rise somewhat later in other parts of the capital area, but in regional Iceland they have stood virtually still for the past five years (Chart I-14). Although there do not seem to be any signs of bubble formation in the market as a whole, prices are high by most criteria in certain neighbourhoods in Reykjavík.

Bond market

As in recent years, the bond market is affected by the capital controls. Yields on Treasury bills and short Treasury bonds are below the Central Bank's collateralised lending rate and have been since the controls were introduced. Non-resident investors' bond holdings declined marginally in 2014, to a year-end total of just over 178 b.kr. (for further discussion, see Chapter II). Offsetting this drop, the failed banks, among others, have increased their holdings in shorter bonds, owing to growing liquidity. Other things equal, bond market yields can be expected to rise when the controls are lifted.

Nominal yields fell across all bond series in 2014, as Chart I-15 illustrates. The decline is somewhat in line with the Central Bank's 0.75 percentage point policy rate cut during the year. In an environment featuring a declining policy rate and low inflation, yields on indexed bonds rose most at the short end of the yield curve. In Q1/2015, yields on nominal bonds rose again while indexed yields fell (Charts I-15 and I-16), as uncertainty about wage settlements has pushed inflation expectations upwards. Yields on most series are now broadly at the level seen in early 2014.

Bond market turnover has diminished in the past year, as Chart I-13 shows. It totalled 1,533 b.kr. in 2014, down 16% from the 2013 total of 1,822 b.kr. Nominal bonds accounted for just over 75% of total turnover and indexed bonds the other 25%.

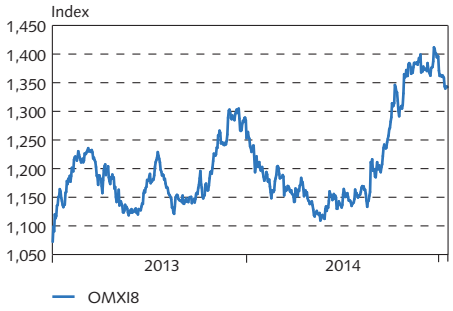
Equity market

The OMXI8 index rose by 4.1% in 2014, after rising 18.9% in 2013 (Chart I-17). It rose by another 2.4% in Q1/2015. Price developments varied from company to company during the quarter, with Össur and N1 rising most, at 20.3% and 15.6%, respectively. TM shares fell most, by 14.1%, strongly affected by decisions on dividend payments and repurchases during the period. In 2014, shares in Össur and Fjarskipti appreciated most (68.6% and 28.4%, respectively) and TM shares fell most (17.9%). Equity market turnover has held relatively stable in the past two years, even though the number of companies listed on the exchange has risen. Turnover was 276 b.kr. in 2014, as opposed to 249 b.kr. in 2013. In Q1/2015, it totalled 79 b.kr., up from 76 b.kr. in the same quarter of 2014.

Two new companies, Sjóvá (SJOVA) and HB Grandi (GRND), were listed on the exchange in 2014. HB Grandi had previously been listed on First North, Nasdaq's European growth market. Real estate

company Reitir was listed on the Main Market in April, and another real estate company, Eik, is scheduled for listing later in the month, following an initial public offering held on 17-20 April. There have been reports of other listings planned for this year and next year.

Chart I-17
OMXI8 share price index[1]
1 January 2013 - 30 March 2015



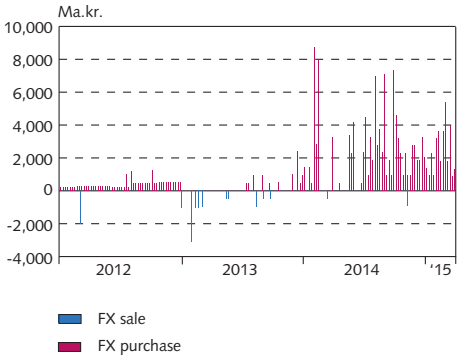
1. Daily data.
Source: Nasdaq Iceland.

Foreign exchange market

The króna appreciated only marginally in trade-weighted terms in Q1/2015, as compared with about 2.0% over the same period in 2014. It appreciated by 1.7% over the course of 2014. In the first quarter of 2015, the volatility of the trade-weighted index (TWI), measured in terms of the standard deviation of daily changes, was broadly similar to that in Q1/2014. Developments in the exchange rates of major currencies in the index have diverged greatly, however, owing to significant volatility in foreign exchange markets abroad. In Q1/2015, the króna weakened by 7.5% against the US dollar but strengthened by 4.8% against the euro. These movements are in line with developments in foreign exchange markets abroad.

The Central Bank has continued to be very active in the foreign exchange market, with regular purchases and ad hoc intervention measures. The Bank buys 1 million euros from each market maker twice a week. It has also intervened in the market, almost without exception on the buying side. In Q1/2015, for instance, the Bank bought a total of 33.7 b.kr. worth of foreign currency and sold none. During the same period in 2014, it bought for 24.5 b.kr. and, on one day, sold for half a billion krónur. In 2014 as a whole, the Bank was a net purchaser of foreign currency in the amount of 111 b.kr., and in 2013 its purchases exceeded sales by 1 b.kr. The Central Bank's foreign exchange purchases are discussed more fully in Box I-1. Foreign exchange market turnover has grown concurrent with increased activity by the Central Bank. It totalled 77.8 b.kr. in the first quarter of 2015, as opposed to 64.3 b.kr. in Q1/2014. Turnover was just over 266 b.kr. in 2014, up from 166 b.kr. in 2013.

Chart I-18
Central Bank of Iceland FX market intervention
2012-2015



Source: Central Bank of Iceland.

Interbank market for krónur

The interbank market for krónur saw a spurt of activity in Q4/2014. Turnover for the year totalled 306 b.kr., some 225 b.kr. of it in the fourth quarter. So far in 2015, turnover has been limited – roughly on a par with the same period in 2014. Interbank market interest rates have been below the centre of the interest rate corridor for quite some time, averaging 0.25 percentage points above the floor. Only once in 2014 did they rise to the ceiling of the corridor. About ¾ of interbank market turnover is in overnight trades and about ¼ in seven-day trades. There is no trading for longer periods.

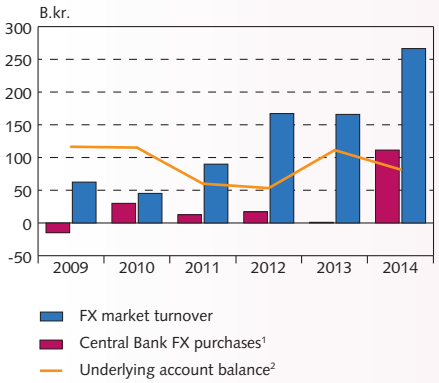
Box I-1

Central Bank FX purchases

Since 2009, a sustained surplus on external trade has given residents with unhedged foreign exchange risk on their balance sheets the scope to pay down foreign debt. To the extent possible, the Central Bank has also used this opportunity to purchase foreign currency in the foreign exchange market, both to cover interest payments on the Treasury and Central Bank's foreign debt and to expand its non-borrowed reserves. At the end of August 2010, the Bank began a programme of regular currency purchases in the foreign exchange market. That programme remained in place until year-end 2012. At the beginning of that period, the Bank bought 500 thousand euros per week from each market maker in the market, and later it stepped up its purchases to 1 million euros per week from each market maker. With the Monetary Policy Committee's (MPC) statement of 15 May 2013, the Bank announced its intention to intervene more actively in the foreign exchange market than it had done previously, so as to mitigate fluctuations in the exchange rate of the króna. An addition, the Bank resumed its regular foreign currency purchases in June 2014, buying 1 million euros per week from each market maker, and in July of that same year it increased the regular purchases to 2 million euros per week. The volatility of the króna in the foreign exchange market has diminished concurrent with the Bank's regular purchases and ad hoc intervention in the market.

Chart 1

Interbank market turnover and Central Bank FX purchases



1. Some of the Central Bank's FX purchases in 2010 and 2014 were ad hoc transactions. 2. Services account balance adjusted for FISIM of DMBs in winding-up proceedings. Primary income account balance adjusted for the effects of DMBs in winding-up proceedings and other factors that do not reflect Iceland's financial burdens.

Sources: Statistics Iceland, Central Bank of Iceland.

Increased FX market turnover

The surplus on external trade has been relatively stable since 2009. In spite of this, foreign exchange market turnover has grown in recent years. Chart 1 shows the trade surplus, foreign exchange market turnover, and the Bank's foreign currency purchases since 2009. As the chart shows, turnover in 2014 was nearly six times that in 2010, even though the trade surplus was broadly similar. The increase in turnover is due primarily to improvements in the commercial banks' foreign exchange balances and to reduced need for foreign currency among domestic borrowers without foreign-denominated income to service their foreign debt. Previously, the commercial banks had met this need by netting out purchases and sales of currency internally, but because demand for foreign currency has diminished among the banks and their largest customers, the currency is channelled increasingly into the foreign exchange market. The Central Bank has taken advantage of this increased market supply and stepped up its foreign currency purchases, buying for a total of 111 b.kr. in 2014. During the first three months of 2015, it has bought currency for nearly 34 b.kr., as compared with 24 b.kr. in the first quarter of 2014. Excluding one-off effects, the Bank's purchases have more than doubled year-on-year.

Possible increase in FX inflows

At first glance, it appears as though foreign currency inflows are increasing, but this is not a given. Table 1 and Charts 2 and 3 show a breakdown of the trade surplus and known inflows and outflows. The trade surplus, the underlying current account balance, amounted to 82 b.kr. in 2014, as opposed to 111 b.kr. in 2013. Foreign currency inflows are unrestricted. Investors benefit by reporting such inflows, however, either as new investments or as part of the Bank's Investment Programme. Investors that report new investments are permitted to export their capital without restriction, and those participating in the Investment Programme had the option of selling half of the foreign currency for their proposed investment at the auction exchange rate, provided that the other half was exchanged in the onshore market. In all, foreign exchange market inflows deriving from foreign currency auctions and new investment totalled 40

b.kr. in 2013 and 33 b.kr. in 2014. Residents' short-term foreign financing (accounts payable) has increased, and short-term claims against non-residents (accounts receivable) have declined in recent years. The net change amounted to 8 b.kr. in 2013 and 9 b.kr. in 2014. The main change between years lies in a substantial decline in residents' contractual instalments on foreign loans (adjusted for refinancing) and a slowdown in the changes in the commercial banks' foreign exchange balances. These items were negative by 133 b.kr. in 2013 and by 63 b.kr. in 2014. Because of the capital controls, it is prohibited to export foreign currency for investment abroad. As a result, FX outflows are largely limited to contractual payments on foreign loans. The Bank's purchases in the foreign exchange market totalled 1 b.kr. in 2013 and 111 b.kr. in 2014. Unexplained changes (errors and omissions) were positive in the amount of 25 b.kr. in 2013 but negative by 51 b.kr. in 2014. Most likely, this is because residents holding foreign currency subject to repatriation requirements hesitated to convert it to krónur early on, but following the MPC's 15 May 2013 announcement, the incentive to delay conversion diminished because of reduced exchange rate volatility.

Foreign debt service and commercial banks' FX purchases major factors

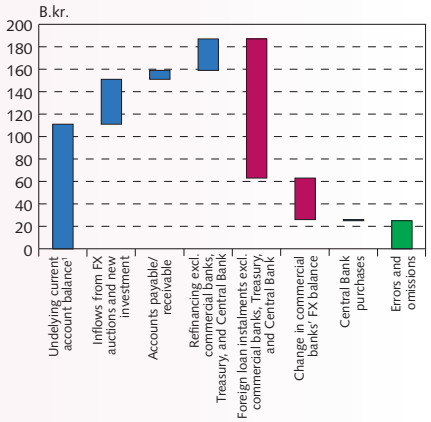
During a period of a constant surplus on external trade, it appears that residents' foreign debt service and changes in the commercial banks' foreign exchange balance have been major determinants of FX market turnover – and therefore of the Bank's potential FX purchases. Resident entities' access to foreign credit markets has eased considerably in the recent term, and contractual payments on foreign loans taken by borrowers other than the commercial banks, the Central Bank, and the Treasury have been declining. They totalled 124 b.kr. in 2013 and 82 b.kr. in 2014, and are estimated at 75 b.kr. in 2015. All of the commercial banks have a positive foreign exchange balance, and with increased access to foreign credit markets, they are unlikely to go to the domestic foreign exchange market in search of foreign currency for their own account. On the contrary: they will probably take advantage of foreign market access to repay the Treasury and the Central Bank for foreign-denominated facilities, thereby expanding the foreign exchange reserves. The Bank's opportunities to buy currency in the foreign exchange market in the near future without affecting the ISK exchange rate will probably be determined mainly by the trade surplus and FX inflows.

Estimates subject to significant uncertainty

It should be borne in mind that the discussion above is in no way exhaustive. For instance, FX inflows could turn out much larger, or the trade surplus could be underestimated due to flawed data entry. The main objective of the balance of payments is to measure trade between residents and non-residents; however, it is not a given that such trades lead to foreign exchange transactions. This is particularly the case for large firms with cross-border operations. Furthermore, there could be time lags between delivery of goods or services and payment for them. Attempts are made to estimate such time lags with measurements of accounts payable and receivable. There could also be mismatches between factor income and FX flows, as the method used to calculate the balance on income is based in part on estimates using reference interest rates. Therefore, there could be rational explanations for the above-described difference between the Central Bank's foreign currency purchases and the trade surplus adjusted for other capital flows.

Chart 2

Underlying current account and change in residents' foreign exchange balance in 2013

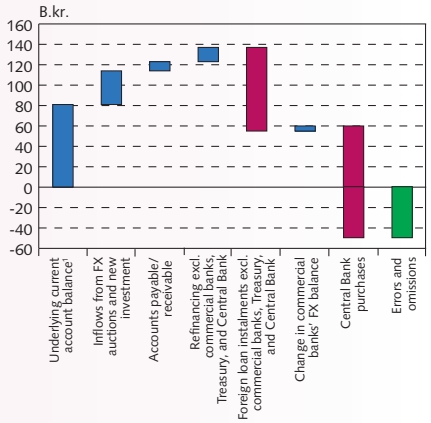


1. Services account balance adjusted for FISIM of DMBs in winding-up proceedings. Primary income account balance adjusted for the effects of DMBs in winding-up proceedings and other factors that do not reflect Iceland's financial burdens.

Sources: Commercial banks' annual accounts, Statistics Iceland, Central Bank of Iceland.

Chart 3

Underlying current account and change in residents' foreign exchange balance in 2014



1. Services account balance adjusted for FISIM of DMBs in winding-up proceedings. Primary income account balance adjusted for the effects of DMBs in winding-up proceedings and other factors that do not reflect Iceland's financial burdens.

Sources: Commercial banks' annual accounts, Statistics Iceland, Central Bank of Iceland.

Table 1. Estimated FX flows in 2013 and 2014

B.kr.	*2013*	*2014*
Underlying current account balance[1]	111	81
New investment	10	14
Inflows via FX market from currency auctions	30	19
Changes in accounts payable and receivable	8	9
Foreign loan refinancing excluding commercial banks, Treasury, and Central Bank	28	14
Foreign loan instalments excluding commercial banks, Treasury, and Central Bank	-124	-82
Change in commercial banks' FX balance, excluding valuation changes	-37	5
Central Bank purchases	-1	-111
Errors and omissions	25	-51

1. Services account balance adjusted for FISIM of DMBs in winding-up proceedings. Primary income account balance adjusted for the effects of DMBs in winding-up proceedings and other factors that do not reflect Iceland's financial burdens.

Sources: Commercial banks' annual accounts, Statistics Iceland, Central Bank of Iceland.

Box I-2

The size of the Icelandic shadow banking system

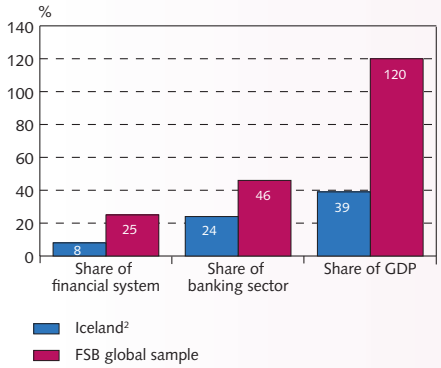
In the wake of the global financial crisis of 2007-2008, countries around the world have strengthened the regulatory framework for their financial systems, including placing increased requirements on financial undertakings. When rules are tightened in one place, however, there is the risk of regulatory arbitrage; i.e., activities move partly or wholly to places where rules are less stringent and supervision is less rigorous so as to avoid the costs associated with the regulations. An example of this is the transfer of activities from the banking system to the shadow banking system, which gives rise to the possibility that risk will be underestimated. Shadow banking activities can also lead to increased systemic risk, particularly if there are strong links between the conventional and shadow banking systems.

The Financial Stability Board (FSB) estimates that 25% of the financial assets of the financial market entities included in its global sample belonged to the shadow banking system as of year-end 2013.[1] The financial assets of shadow banks in Iceland were somewhat less, or about 8% (7%) of assets held by financial market entities, about 24% (22%) of financial assets held by the banking system, and about 39% (35%) of GDP. [2, 3] Iceland's shadow banking system expanded somewhat during the run-up to the collapse in 2008. Its financial assets increased from 7% of total assets held by financial market entities in 2002 to about 12% in 2005. The same proportions cannot be seen if the ratio of shadow banks' assets to the banking system is examined, however, as the banks grew

Chart 1

Icelandic shadow banking system in international comparison

Financial assets of other financial intermediaries at year-end 2013[1]



1. Other financial intermediaries comprise all financial institutions that are not classified as banks, central banks, insurance companies, pension funds, public financial institutions, or financial auxiliaries.
2. Financial institutions in winding-up proceedings are excluded in the data. Data for brokers, dealers, SPVs and limited partnerships that operate as funds are currently unavailable.

Sources: Financial Stability Board, Statistics Iceland, Central Bank of Iceland.

1. The FSB estimates the size of the shadow banking system based on other financial intermediaries, which are financial market entities other than banks, central banks, insurance companies, pension funds, public financial intermediaries, and financial auxiliaries. See the FSB's Global Shadow Banking Monitoring Report 2014, October 2014.
2. Central Bank of Iceland estimate, using FSB methodology and Central Bank/Statistics Iceland financial accounts data. The Icelandic shadow banking system includes miscellaneous credit undertakings, money market funds, UCITS, investment funds, and alternative investment funds, among others. Data on special purpose vehicles (SPVs), brokers/dealers, and limited partnerships that function like funds are lacking. The financial assets of financial undertakings in winding-up proceedings are excluded from the data.
3. The figures in parentheses indicate a narrowed measure of the shadow banking system, which is constructed by filtering out entities not engaged in financial intermediation, such as equity funds.

exponentially during this period.[4] The size of the shadow banking system remained relatively stable in 2011-2014, relative to both the conventional banking system and total assets held by financial market entities. At the same time, the activities of limited partnerships that function like funds increased somewhat, but the data do not extend to these entities, and the shadow banking system is therefore underestimated by this amount. If these entities are included, it is possible that the shadow banking system increased proportionally in 2012-2014.

The traditional and shadow banking systems can be linked in various ways. Banks can own stakes in shadow banks and vice versa, banks can finance shadow banks with loans, and a portion of banks' market funding could come from shadow banks. In addition, there could be indirect connections through credit lines and through banks' and shadow banks' holdings in the same assets. The banking system's financial holdings in the shadow banking system (and vice versa) can be viewed as an approach to credit risk between the systems. By this criterion, the connections between the systems have diminished through the banks' assets side in recent years, but at the same time the banking system has grown more dependent on shadow banks for funding. This is partly due to improved data collection, however. For example, information on institutional investment funds was added to the data series in 2011, which explains in part the abrupt increase between 2010 and 2011. The connections have changed very little in the past three years, however. At the end of 2014, the banking system's financial holdings in shadow banks amounted to 8% of their total financial assets; this is a higher percentage than in most of the countries in the FSB's global sample, where the range is 1-5% for most countries.[5]

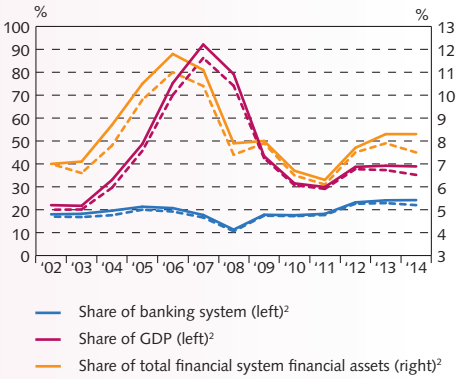
The available data and estimates indicate that the Icelandic shadow banking system is small in international context, but there appear to be a number of links between it and the banking system. Growth of shadow banking activities could be a positive sign of a deepening financial market, and the shadow banking system can be viewed as an economical substitute for conventional banking activity. As links to the banking system grow, however, so does the risk that shocks to the shadow banking system will spread across the financial system and have adverse effects on the real economy. As a result, it is necessary to follow developments in the shadow banking system and its links to conventional banks closely so as to reduce the likelihood that shadow banking activity will pose a threat to financial stability.

4. It should be noted that the ratio could change when financial undertakings are moved between categories or are subjected to winding-up proceedings.
5. See the FSB's Global Shadow Banking Monitoring Report 2014, October 2014.

Chart 2

The size of the Icelandic shadow banking system

Financial assets of other financial intermediaries[1]

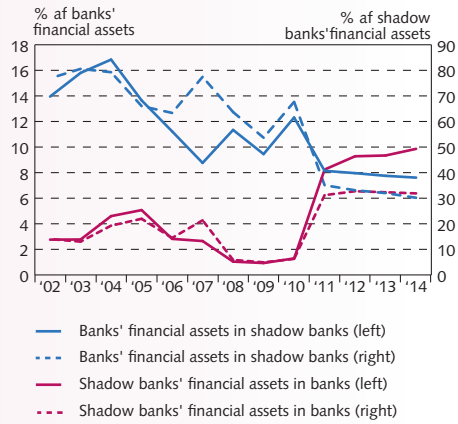


1. Other financial intermediaries comprise all financial institutions that are not classified as banks, central banks, insurance companies, pension funds, public financial institutions, or financial auxiliaries.
2. The dotted lines present a narrowed measure of the shadow banking system which is constructed by filtering out entities that have no direct relation to credit intermetion, e.g. equity funds..

Sources: Statistics Iceland, Central Bank of Iceland.

Chart 3

Interconnectedness between the banks and the shadow banking system[1]



1. Other financial intermediaries comprise all financial institutions that are not classified as banks, central banks, insurance companies, pension funds, public financial institutions or financial auxiliaries. Financial institutions in winding-up proceedings are excluded in the data and data for brokers, dealers, SPVs and limited partnerships that operate as funds are currently unavailable. Institutional investment funds were added to the data in 2011 which partly explains the jump in the data series between 2010 and 2011.

Source: Central Bank of Iceland.

II External position

Improved terms of trade and good prospects for trade surplus

The outlook is for a surplus on external trade in the next few years, owing in part to improved terms of trade, which in turn stem largely from lower oil prices and growing tourism. Residents' near-term foreign refinancing need has been reduced, in particular with the lengthening of the Landsbankinn-LBI bond maturity. Furthermore, resident borrowers' access to foreign credit has eased. The stock of short-term ISK assets held by non-residents, often referred to as offshore krónur, has continued to shrink and is now equivalent to just under 15% of GDP. The overall conditions for capital account liberalisation are good, and the main obstacles are the adverse effect that, in the absence of mitigating measures, the settlement of the failed banks' estates would have on the exchange rate and the foreign exchange reserves.

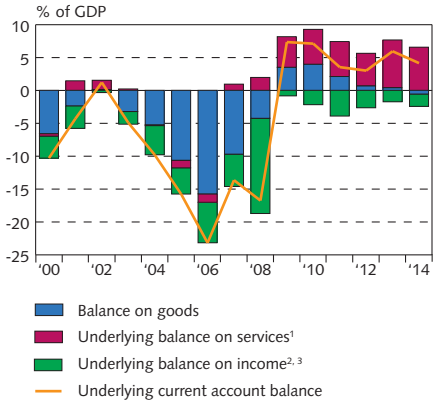
Favourable external conditions

Residents' access to foreign credit markets has eased somewhat in the recent past, and the repayment profile of large foreign maturities has been lengthened. At the same time, the outlook is for a surplus on external trade in coming years, as a result of improved terms of trade and rising numbers of tourists visiting Iceland. These favourable external conditions have given the Central Bank the scope to expand the portion of its foreign exchange reserves not financed with foreign credit, but without putting pressure on the exchange rate.

GDP growth is weak among Iceland's main trading partners, and interest rates are low in many economies (for further discussion, see Section I). At the same time, prices on foreign asset markets are high in historical terms. These conditions, together with the surplus on external trade and declining Treasury debt, are in many respects favourable for capital account liberalisation. The main obstacle to liberalisation is the stock of króna assets held by the failed banks' estates, which could adversely affect the exchange rate or the foreign exchange reserves if it is allowed to exit without mitigating measures. From a logical standpoint, there are two main channels for such mitigating measures: reduction of the stock of krónur prior to liberalisation or significant lengthening of maturities.

Chart II-1

Balance on goods, underlying balance on services, underlying balance on income, and underlying current account balance



1. Services account balance adjusted for FISIM of DMBs in winding-up proceedings. 2. Transfers included with income account. 3. Primary income account balance adjusted for the effects of DMBs in winding-up proceedings and other factors that do not reflect Iceland's financial burdens.
Sources: Statistics Iceland, Central Bank of Iceland.

Current account balance

In 2014, the underlying current account balance was positive by just under 81 b.kr., or 4.1% of GDP, exactly in line with the average of the past four years.[1] The goods account balance has contracted steadily since 2009 and was negative by 0.6% of GDP in 2014. The deterioration is due to a higher real exchange rate, increased exports, and declining exports. The main difference is that marine product exports contracted by 11% year-on-year in volume terms, primarily because of a poor capelin catch. The underlying services account surplus amounted to nearly 130 b.kr., or about 6.5% of GDP, close to

1. Excluding the effects of the DMBs in winding-up proceedings and other factors that do not reflect Iceland's financial burdens.

the record total from 2013 (136 b.kr.). In spite of the increase in the number of tourists visiting the country (discussed further in Section V), the surplus on services trade is virtually unchanged year-on-year.

The underlying balance on income for 2014 was similar to that in previous years. It has averaged about 2.2% of GDP since 2009. Net current transfers are included in factor income. As a result of changes in balance of payments presentation that were adopted in 2014, transfers and wage items in the balance on income are now measured in gross terms instead of net terms, and the source data are now more reliable. The surplus on wage items increased substantially in comparison with previous years, to nearly 0.9% of GDP in 2014, about four times the amount generated by older standard.

Income account deficit could be underestimated

Non-residents have large claims against residents through companies in winding-up proceedings, primarily the failed banks. The interest income and dividends on these companies' domestic assets that would revert to non-residents upon equal distribution of the estates' assets among all creditors are not included in the underlying balance on income, as the companies concerned are resident entities. This applies both to the estates' króna-denominated assets and to domestic assets denominated in foreign currency. The income account deficit could increase when the estates are wound up; however, this depends on how the winding-up is carried out.

The terms available to resident borrowers in foreign credit markets are poorer than they were before the banks failed, in part because the credit ratings on both the sovereign and the commercial banks are much lower now. As a result, interest expense could rise as foreign debt – pre-crisis debt in particular – is refinanced. This, together with rising interest rates abroad in coming years, could cause the income account deficit to grow. Residents have taken advantage of the recent trade surplus, however, and scaled down their debt significantly in the past few years.

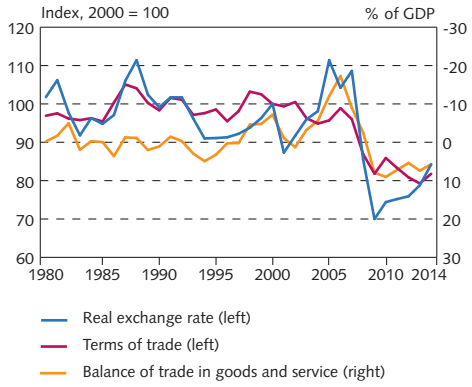
Terms of trade, real exchange rate, and trade balance

Overall, Iceland's terms of trade have developed unfavourably in recent years. From 2006 until 2013, they deteriorated by a total of some 20%. The trend changed in 2014, however, and terms of trade improved by over 3% between years. The forecast published by the Central Bank in *Monetary Bulletin* 2015/1 assumes that they will improve by 4.9% this year, due mainly to declining global commodity prices (oil prices in particular). Other things being equal, a 1% change in terms of trade will cause the trade surplus to change by roughly 0.5% of GDP.

The real exchange rate of the króna has risen ever since 2009, and by nearly 7% between 2013 and 2014. A low real exchange rate supports the trade surplus, as Chart II-2 illustrates. If the increase remains within moderate limits in the near term, the trade surplus could remain intact past the horizon of the Bank's most recent forecasts.[2] This would be in line with the experience of other countries

Chart II-2

Real exchange rate, terms of trade, and balance of trade in goods and services



1. Services account balance adjusted for FISIM of DMBs in winding-up proceedings.
Sources: Statistics Iceland, Central Bank of Iceland.

2. Central Bank forecast, published in *Monetary Bulletin* 2015/1.

that have been struck by deep financial crises. Consumption, investment, and the external trade balance will not trend towards the same long-term average as before the financial crisis, which facilitates the resolution of the balance of payments problem and the liberalisation of the capital controls.

In this context, it should be noted that the unsustainable historical averages of domestic demand and the current account balance are based on a much higher real exchange rate than is currently expected (other things being equal), much easier access to foreign credit markets, and massive indebtedness at a time when spending outpaced revenue generation. This is dependent, however, on the absence of major export shocks and domestic decisions that increase demand to unsustainable levels – for instance, excessive wage increases that raise the real exchange rate and stimulate consumption.

Box II-1

Underlying current account balance

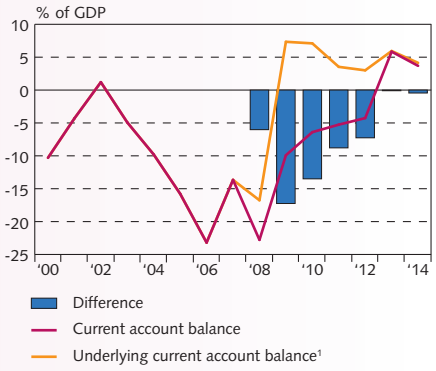
Iceland's official international investment position (IIP) and balance of payments (BoP) as published according to International Monetary Fund (IMF) standards are not fully illustrative of underlying conditions in the country. A large share of Icelandic residents' listed foreign assets are the assets of the failed banks' estates. The same is true of a large proportion of foreign liabilities, which are the estates' liabilities and will never be paid except in part. For this reason, the Central Bank has for some time published its quarterly IIP figures in two versions: including and excluding the failed banks. Furthermore, the Bank has published the underlying IIP, which presents the expected position after the banks' estates are wound up (other things being equal). What Iceland's external debt position actually turns out to be after settlement is concluded will be determined by future stages in the winding-up proceedings.

Official BoP statistics do not give a comprehensive view of the Icelandic economy's foreign debt burden. To compensate for this, the Bank publishes the underlying current account balance, in which the services account balance has been adjusted for the failed banks' financial intermediation services indirectly measured (FISIM) and the income account balance has been adjusted for the failed banks and other factors that do not reflect Iceland's financial burdens. After 2007, there is a significant difference between the official current account balance as published according to the above-mentioned standards and the underlying current account balance (Chart 1). The underlying current account balance turned positive as early as 2009, after the collapse of the króna and the banking system, and the trade balance has remained positive since then. The official current account balance was vastly different during the first years after the collapse of the banking system in 2008. It first turned positive in 2013, five years later.

The improvement in the official current account balance is attributable to two things. First of all, the income account deficit due to the failed banks' debts has declined rapidly because most of the bonds they issued prior to their collapse have now matured, and the debts now bear floating foreign interbank interest rates without premia instead of their coupon rates. There is a vast difference between the two. Second, other factors for which adjustments have been made, related to large international companies with cross-border operations, were strongly negative before 2013 but have been positive in the past two years. The theoretical difference between the two is still large, and the fact that the underlying current account balance and the official current account balance should all but converge in the past two years is therefore pure coincidence.

Chart 1

Current account balance and underlying current account balance

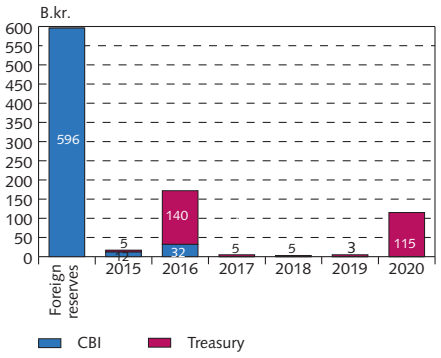


1. Services account balance adjusted for FISIM of DMBs in winding-up proceedings. Primary income account balance adjusted for the effects of DMBs in winding-up proceedings and other factors that do not reflect Iceland's financial burdens.

Sources: Statistics Iceland, Central Bank of Iceland.

Chart II-3

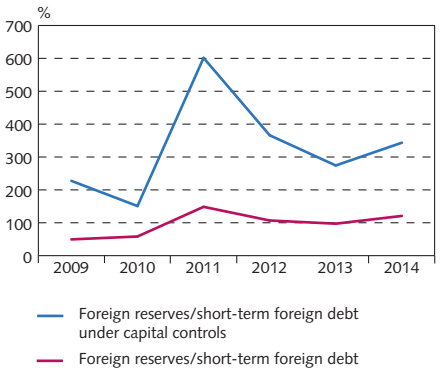
Foreign exchange reserves and estimated payments by Treasury and CBI on foreign loans and foreign-denominated debt to the failed banks[1]



1. Based on position as of 31 March 2015 and exchange rates as of 19 February 2015.
Source: Central Bank of Iceland.

Chart II-4

Foreign reserves/short-term foreign debt[1]

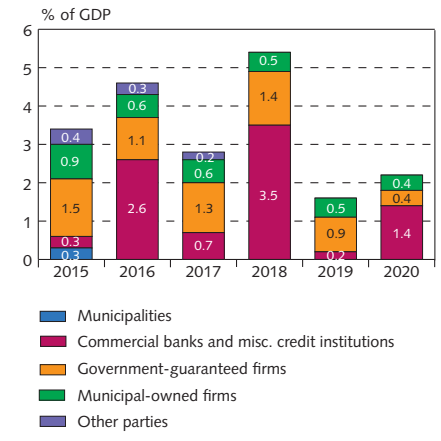


1. Guidotti-Greenspan rule. Short-term debt to underlying non-residents, in FX and ISK (excluding FX deposits, subject to 100% reserve requirements under CBI liquidity rules).
Source: Central Bank of Iceland.

Chart II-5

Contractual foreign-denominated deb[1, 2]

Instalments on foreign loans and foreign-denominated debt to the failed banks



1. Excluding the Treasury and the Central Bank. 2. Based on position as of 20 March 2015 and exchange rate as of 19 February 2015.
Sources: Statistics Iceland, Central Bank of Iceland.

Contractual foreign loan payments

Resident entities' need for foreign refinancing has diminished markedly in recent months, while access to the markets has eased. The three large commercial banks have all been assigned credit ratings of BB+ by rating agency Standard & Poor's, and the outlook on the ratings was changed to positive last autumn. In summer 2014, Standard & Poor's also changed the outlook on Iceland's sovereign rating to positive, and Fitch Ratings did the same in January 2015. Risk premia on the Treasury's foreign bond issues have continued to decline (for further discussion, see Section I).

As can be seen in Chart II-3, the Central Bank's foreign exchange reserves amounted to 596 b.kr. at the end of March 2015. In July 2014, the Republic of Iceland issued a six-year bond in the amount of 750 million euros, the equivalent of 116 b.kr. The bond bears fixed 2.5% interest. The proceeds of the issue were used to prepay the remaining balance of the bilateral loans taken from the Nordic countries in connection with the Stand-By Arrangement (SBA) between the authorities and the International Monetary Fund (IMF). At the end of December, the Central Bank also prepaid 50 b.kr. towards the loan taken from the IMF in connection with the SBA. Earlier in April 2015, the Treasury bought back 13 b.kr. worth of its own bonds maturing in 2016. As a result, the foreign funding profile of the foreign exchange reserves has been lengthened significantly in the past twelve months. Foreign loans maturing in the next three years totalled 150 b.kr. at year-end 2014, down from 245 b.kr. a year earlier. Furthermore, through its purchases in the interbank foreign exchange market, the Central Bank has bolstered the portion of the reserves not funded with foreign credit (for further discussion, see Section I and Box I-1).

Chart II-4 shows developments in the so-called Guidotti-Greenspan ratio; i.e., the ratio of reserves to foreign short-term liabilities. Two examples are shown. In one of them, the ratio is calculated so that non-residents' short-term assets locked in by the capital controls are deducted from short-term liabilities. The other example includes such assets with short-term liabilities, giving a much lower ratio. In general, it is assumed that the ratio should be at least 100% in order to enhance confidence and ensure access to credit markets. Iceland's foreign short-term liabilities – those maturing in the next twelve months – are estimated at just over 340 b.kr., but a about 2/3 of this amount represents ISK assets that are held by non-residents and the failed banks and are locked in by the capital controls. The vast majority of short-term debt is usually rolled over.

The commercial banks have both increased and lengthened their foreign-denominated funding in recent months. Both Arion Bank and Íslandsbanki have stepped up their foreign market funding, and Landsbankinn lengthened its bonds with LBI in December. Further discussion of the commercial banks' funding can be found in Section IV.

In recent months, residents have sought credit abroad to an increasing degree or have lengthened their outstanding maturities. In late December, for instance, ISAVIA took a 5 b.kr. loan from the Nordic Investment Bank (NIB) to finance construction at Keflavík Airport, and in March Reykjavík Energy (OR) announced that it had

amended the terms of its financing from Dexia, including lengthening the 5 b.kr. payment coming due next October. Furthermore, resident entities have received project financing abroad for purchases of both ships and machinery. This shows that foreign credit markets are gradually beginning to open up to Icelandic borrowers other than the Treasury, which already has access.

The repayment profile of foreign loans and foreign-denominated debt to DMBs in winding-up proceedings is shown in Chart II-5. A comparable profile has been shown in previous issues of Financial Stability. The main changes from the previously published profile, apart from the effects of exchange rate movements, are changes in the large commercial banks' foreign-denominated funding and non-residents' increased foreign market funding. Estimated instalments to be paid in 2015-2020 by entities other than the Treasury and the Central Bank total just under 500 b.kr., or an average of about 3.3% of GDP per year. Assuming that the commercial banks refinance all of their foreign-denominated debt, as must be considered likely in view of their increased access to foreign credit markets, and adjusting for resident borrowers that have set aside funds against upcoming payments, payments through 2020 are estimated at about 300 b.kr., or an average of 2.1% of GDP per year (Chart II-6).

In recent years, residents' heavy debt service profile and limited access to foreign capital markets have been considered one of the principal risks facing the financial system (Chart II-7). The lengthening of the Landsbankinn-LBI bonds makes it more likely that the trade surplus and residents' easier access to foreign credit will suffice to cover the unfinanced debt service burden on foreign loans. As such, the extension of the Landsbankinn-LBI bonds supports the króna and facilitates the resolution of Iceland's balance of payments problem.

Underlying international investment position

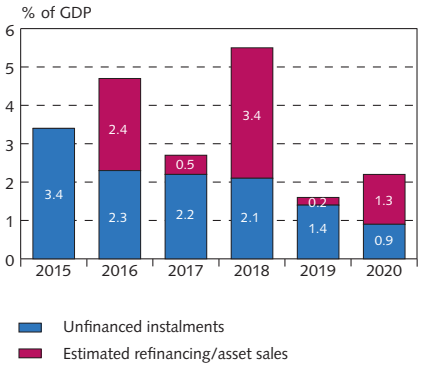
Iceland's international investment position (IIP) has improved steadily in recent years, owing to the current account surplus that provides the scope to pay down foreign debt, the write-down of debt owed by resident entities in winding-up proceedings, and rising prices in foreign asset markets, among other factors. The underlying IIP as of year-end 2014 is now estimated to have been negative by 45% of GDP, or 894 b.kr., as opposed to 999 b.kr., or 53% of GDP, at the end of 2013. Since year-end 2008, the position has improved by nearly half relative to GDP. This assumes that all of the failed banks' estates will be distributed equally to all creditors at book value. The IIP including the failed banks is negative in the amount of 393% of GDP. This figure includes the book value of debt that will not be paid except in part; therefore, it represents a substantial overestimation of Iceland's actual foreign debt burden. Excluding the failed banks, the position is negative by about 6% of GDP; therefore, the calculated settlement of their estates has a negative impact of about 39% of GDP. The underlying IIP is therefore negative by 45% of GDP. Ultimately, the underlying IIP will be determined by how the winding-up of the estates is handled.

Table II-1 and Chart II-9 give a breakdown of foreign assets and liabilities by type of entity. It should be noted that, because new

Chart II-6

Contractual foreign-denominated debt[1, 2]

Instalments on foreign loans and foreign-denominated debt to the failed banks

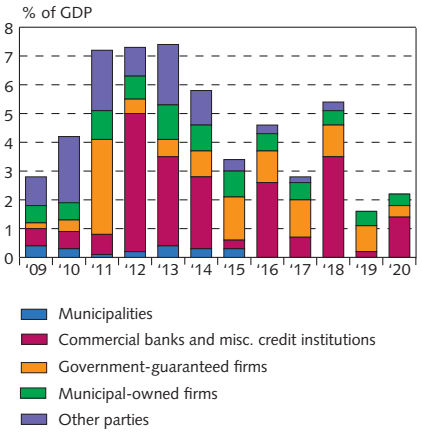


1. Excluding the Treasury and the Central Bank. 2. Based on position as of 20 March 2015 and exchange rates as of 19 February 2015.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart II-7

Foreign-denominated contractual debt service, past and future[1, 2]

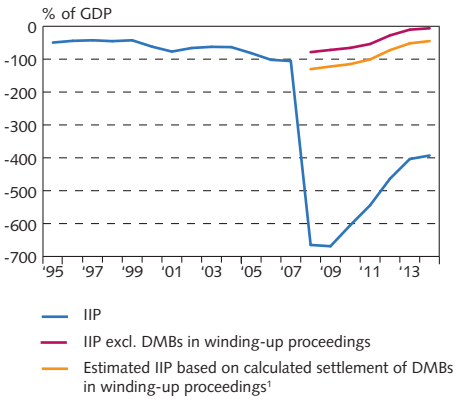
Instalments on foreign loans and foreign-denominated debt to the failed banks



1. Excluding the Treasury and the Central Bank. 2. Based on position as of 20 March 2015 and exchange rate as of 19 February 2015.
Sources: Statistics Iceland, Central Bank of Iceland.

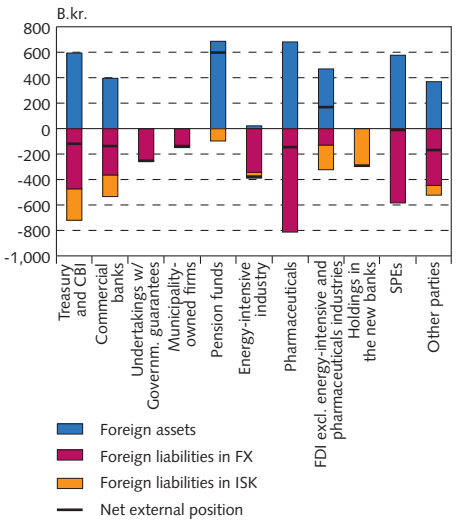
Chart II-8

International investment position



1. Assuming equal distribution of assets held by DMBs in winding-up proceedings assets to all creditors.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart II-9
Estimated foreign assets and liabilities in underlying IIP
Year-end 2014



Sources: Financial information from Glitnir, Kaupthing, and LBI; Central Bank of Iceland.

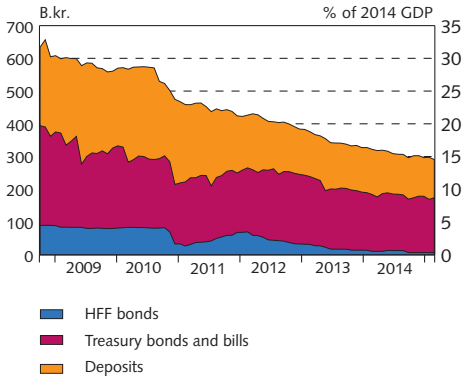
standards for the presentation of the IIP were adopted last year, this breakdown is not fully comparable with previously published data. Foreign assets held by the Treasury and the Central Bank consist of the Bank's foreign exchange reserves and the failed banks' foreign assets that are estimated to revert to the Central Bank of Iceland Assets Holding Company (ESÍ) upon settlement. The main changes from the prior year are that the net foreign-denominated position of the Treasury and the Central Bank has improved somewhat with the Bank's foreign exchange market purchases, and pension fund debt is now included for the first time because of the new standards. The debts in question are Icelandic pension funds' pension obligations to non-residents, both Icelanders residing abroad and foreign nationals. As before, the majority of foreign-denominated loans to resident entities is in the hands of the Treasury, the Central Bank, the commercial banks, Government-guaranteed firms, and municipal-owned firms. These parties' net position improved significantly between years, or by 83 b.kr. (4% of GDP).

Table II-1 Estimated underlying external assets and liabilities at year-end 2014

B.kr.	*Foreign assets*	*Foreign FX liabilities*	*Net FX position*	*Foreign ISK liabilities*	*Net position*	*% of 2014 GDP*
Treasury and Central Bank	594	-472	122	-247	-125	-6
Commercial banks	395	-363	32	-170	-138	-7
Government-guaranteed firms	0	-251	-251	-7	-258	-13
Municipality-owned firms	0	-148	-148	0	-148	-8
Pension funds	686	0	686	-96	590	30
Energy-intensive industry	22	-342	-320	-46	-366	-18
Pharmaceuticals	681	-812	-131	0	-131	-7
Direct investment excl. energy-intensive industry and pharmaceuticals	469	-128	341	-194	147	7
Holdings in the new banks	0	0	0	-297	-297	-15
Special-purpose entities (SPE)	577	-583	-6	0	-6	0
Other entities	369	-454	-85	-77	-162	-8
Total	3,793	-3,554	240	-1,134	-894	-45

Sources: Statistics Iceland, Central Bank of Iceland.

Chart II-10
Short-term ISK assets held by non-residents
October 2008 - February 2015



Sources: Statistics Iceland, Central Bank of Iceland.

Non-residents' short-term króna assets

Non-residents' short-term króna assets – offshore krónur – totalled 291 b.kr., or roughly 15% of GDP, at the end of February 2015 (Chart II-10), after having declined by 32 b.kr., or about 1.5% of GDP, over the previous twelve months. For the most part, the reduction is attributable to the foreign currency auctions held by the Central Bank, which acted as an intermediary in the transfer of 29 b.kr. in short-term króna assets over this period.

Non-residents' short-term ISK assets can be divided into two categories: deposits and bonds (including bills). Deposits now amount to 117 b.kr., or 6% of GDP, and have declined by about 21 b.kr. in the past twelve months, including some 11.5 b.kr. in February 2015, when foreign priority creditors were first permitted to use their ISK disbursements to participate in the Bank's foreign currency auctions. About 55 b.kr. are held in foreign financial undertakings' Vostro

accounts with Icelandic commercial banks. Other non-residents' deposits with the commercial banks total 40 b.kr., and non-residents' ISK deposits with the Central Bank total some 22 b.kr. These króna-denominated deposits are related to foreign settlement systems' settlement of transactions with Icelandic securities.

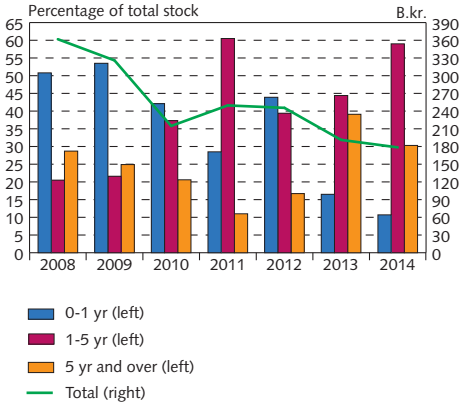
Most of non-residents' short-term assets are in Government-guaranteed bonds and bills, which totalled about 174 b.kr., or just under 9% of GDP, at the end of February 2015. They have declined by about 10 b.kr. in the past twelve months, as compared with a reduction of 55 b.kr. in the preceding year, which indicates that the owners' interest in exiting the Icelandic market diminished markedly in 2014. This can also be seen in the rise in the auction exchange rate during the year. This is because the most impatient investors have participated in auctions in recent years or have sold their claims to other non-residents, and the remaining investors are not completely locked in, as they are permitted to expatriate the interest payments on the assets in question. In recent years, non-resident owners of Treasury bonds have lengthened their bond holdings, as Chart II-11 indicates. This is due both to a more limited supply of short bonds and to increased interest in longer investments.

In the past few years, ownership of offshore krónur has become much more concentrated, as non-residents holding such assets are permitted to sell them to other non-residents, irrespective of the controls. Trading in the offshore market is sparse, the market is very shallow, and the bid-ask spread is wide. The offshore exchange rate shown in Chart II-12 is the mid-rate. Since last autumn, the offshore exchange rate has lost ground, owing in part to uncertainty about future auctions, as no further auctions were advertised after the one held in September. Furthermore, auctions under the Investment Programme have been discontinued, and the investment options available to owners of offshore krónur diminished greatly in early March, when reinvestment authorisations were narrowed to include only Treasury bills and deposits.

When the asset distribution from the DMBs winding-up proceedings, based on calculated settlement and the book value of assets, domestic króna-denominated assets in the amount of 478 b.kr. will revert to foreign creditors. About 105 b.kr. of that amount is already in liquid form, while another 74 b.kr. is in the form of claims against domestic entities, and 299 b.kr. represents the value of foreign creditors' stakes in the new banks. It is uncertain how these assets will be treated during final settlement, but if they are paid to foreign creditors in Icelandic krónur, they will, to the extent that they are converted to cash, be added to the stock of non-residents' short-term ISK assets in Iceland. Other things being equal, the total would rise from the current level of just under 15% of GDP to about 39% of GDP. This shows how much of an obstacle to capital account liberalisation these assets are unless some type of mitigating measures are undertaken. Further discussion of the DMBs in winding-up proceedings can be found in Chapter VII.

Chart II-11

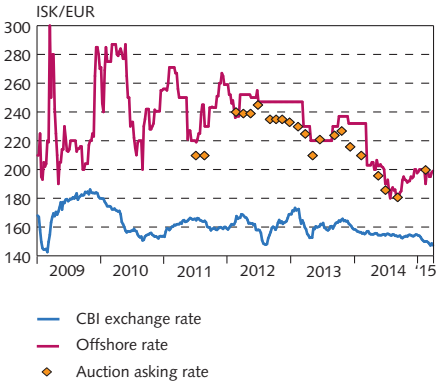
Maturities of bonds and bills held by non-residents



Source: Central Bank of Iceland.

Chart II-12

CBI exchange rate, offshore rate, and auction asking rate



Sources: Reuters, Central Bank of Iceland.

Residents´ foreign assets

The controls channel savings into the domestic market and interfere with domestic investors' risk diversification. The weight of Iceland's foreign assets is still close to the historical average, however. At year-end 2014, foreign securities accounted for some 25.1% of pension funds' assets, roughly the same as the period before the financial crisis. Consequently, given current market conditions, outflows undetaken by residents in order to diversify the risk on their asset portfolios once the capital controls have been lifted will probably be within manageable limits. GDP growth is weak and interest rates low among Iceland's main trading partners. Interest rates on central bank deposits and yields on short-term Treasury bonds are negative in many instances, and low interest rates have pushed prices in other asset markets sky-high. Iceland's ongoing interest rate differential with abroad also enhances the likelihood of inflows rather than outflows upon liberalisation. If the controls are not lifted in the near future, however, residents' need to diversify the risk in the asset portfolios will grow, particularly if conditions in foreign asset markets change in tandem with rising interest rates. Further discussion of domestic investments´ risk diversification can be found in Box II-2.

Prolonged capital controls

The capital controls have supported the domestic economic recovery and the restructuring of domestic balance sheets and have provided the shelter needed to recapitalise the financial system and the scope to restructure public sector finances. As progress is made in these areas, the capital controls become less necessary. The longer the controls remain in effect, the more the costs associated with them increase. The capital controls are likely to contribute to unsatisfactory factor utilisation, complicate the financing of profitable investments, and give rise to abnormal business practices. All of these factors combine over time to undermine Iceland's potential output. In the long run, the costs of the controls lies primarily in lost opportunities, which will surface in a lower standard of living than would otherwise have resulted.

Box II-2

Distribution of residents' assets

The foreign asset position of Icelandic households and firms, adjusted for their foreign liabilities, has improved markedly since the beginning of 2012. Although foreign assets have increased slightly, the change in the overall position has stemmed mainly from payments of foreign debt. In addition, the weight of exchange rate-linked loans from domestic credit institutions has been reduced significantly (see Chapter V).

The vast majority of Icelanders' savings is invested with pension funds. The pension funds' investments are therefore a major determinant of the distribution of Icelandic households' assets. The weight of foreign assets increased after the pension funds began investing abroad in the mid-1990s (Chart 1). The share of pension funds' foreign assets rose sharply between 2003 and 2010. Until 2008, the increase was due to actual accumulation of assets abroad, but in 2008 and 2009, much of the increased weight of foreign assets was due to the depreciation of the Icelandic króna and the collapse of the domestic equity market. Foreign securities accounted for about 25.1% of the pension funds' securities holdings at the end of 2014. This is broadly the same as during the pre-crisis period, when it ranged between 20% and 28%, averaging 23.2% in 2004-2006 and 26.1% in 2006-2007. The share of foreign assets rose by 5.8 percentage points in 2004-2007, slightly more than 1.4 percentage points per year.

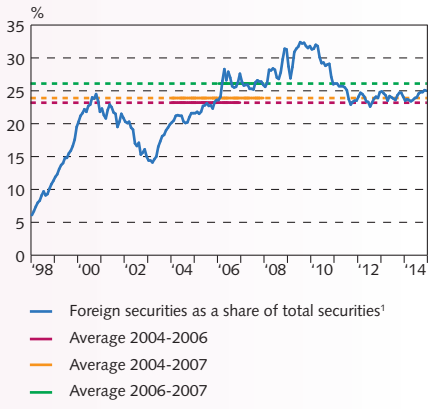
During the pre-crisis period, various pension funds elected to hedge against foreign exchange risk on their foreign investments with swap agreements. After adjusting for this, it can be said that their foreign assets have never weighed as heavily as they have in the recent past. The pension funds' foreign asset ratios ranged from 23% to 25% in 2012-2014. Since the financial crisis, the pension funds have added significantly to their holdings in Icelandic stocks and mutual fund shares. In this context, it is worth noting that some domestic firms in which the pension funds have invested could be classified as foreign, as their operations and revenue flows are almost entirely generated abroad.[1]

Because domestic assets account for over 70% of the pension funds' assets, they could choose to diversify their risk by swapping out some of their domestic assets for foreign assets when the capital controls are lifted. In view of the blow sustained by domestic assets in 2008-2009, they could even opt to expand their foreign assets beyond the previous maximum. The pension funds are not likely to export large amounts of money at once through the foreign exchange market, as this could erode the value of their asset portfolios. It can also be assumed that low interest rates and prospects of tepid GDP growth abroad will weaken their interest in foreign investments for now. Large-scale sales of domestic assets could also cut into asset values, thereby compromising the value of the pension funds' domestic portfolios. As a result, if the pension funds are interested in further diversification abroad, they will probably move in that direction slowly and carefully.

It could be desirable, however, to place restrictions on the pension funds' outflows – so-called speed limits – so as to temper outflows and contribute to successful liberalisation. This could resolve the potential problem of coordination among pension funds, which could result in excessive outflows over a short period of time.

Chart 1

Icelandic pension funds' foreign securities holdings



1. Deposits are not included.
Source: Central Bank of Iceland.

1. Ásgeir Jónsson and Hersir Sigurgeirsson (2014). *Risk diversification or isolation? On the connection between pension savings, the balance of payments, and foreign investment.* [In Icelandic: *Áhættudreifing eða einangrun? Um tengsl lífeyrissparnaðar, greiðslujafnaðar og erlendra fjárfestinga*]. Icelandic Pension Funds' Association.

Box II-3

Central Bank of Iceland foreign currency auctions

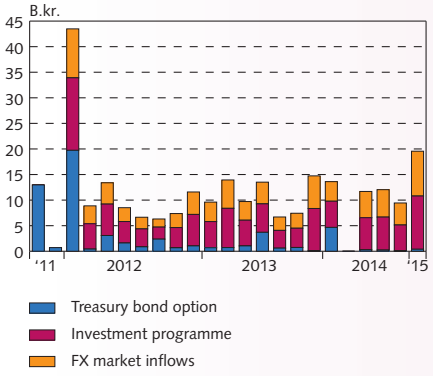
Since 2011, the Central Bank has held foreign currency auctions in connection with its capital account liberalisation strategy.[1] When the 10 February 2015 auction was advertised, it was stated that this would be the last auction held under the Bank's Investment Programme. No further auctions under the Treasury Bond Programme have been advertised. The auctions have given resident and non-resident owners of foreign currency not subject to repatriation requirements the option of investing in Iceland through two options: by buying indexed long-term Government bonds at the auction rate (the Treasury Bond Programme) and by undertaking investments in Iceland (the Investment Programme). In accordance with the Investment Programme, investors were permitted to purchase krónur at the auction exchange rate for 50% of the intended investment amount, provided that the other 50% was exchanged in the onshore foreign exchange market. Under both programmes, investors pledge to hold the investment for at least five years. Concurrent with these auctions, non-residents wishing to scale down or close out their króna positions have been given the chance to participate in auctions in which they offer to sell krónur in exchange for foreign currency not subject to repatriation requirements. In essence, the Bank acts as an intermediary between investors wishing to undertake long-term investment in Iceland and non-residents wishing to close out their króna positions.

The Bank began holding auctions under the Treasury Bond Programme in the summer of 2011, and the first auction according to the Investment Programme was held in February 2012. A total of 23 Treasury Bond Programme auctions and 21 Investment Programme auctions have been held to date. According to the exchange rate set for each auction and the Bank's central exchange rate on those same days, investors have brought nearly 57 b.kr. into the country through the Treasury Bond Programme and 205 b.kr. through the Investment Programme. This amounts to about 262 b.kr., or 13% of year-2014 GDP. About a third of the total amount has been imported through the domestic foreign exchange market in connection with the Investment Programme. Chart 1 shows all expected inflows that have been generated by the auctions, both through the auctions themselves and through the foreign exchange market. Most of the capital entering the country through the Investment Programme has been invested in bonds and equities (Chart 2).

In addition, 22 auctions have been held in which bids were solicited from parties wishing to sell their króna assets in exchange for foreign currency exempt from repatriation requirements. In all, nearly 460 b.kr. have been offered for sale, and the Bank has bought about 158 b.kr. (Chart 3). The auction exchange rate has usually been about 5% stronger than the last offshore market price. In the last auction, however, the auction exchange rate was the same as the offshore market price immediately preceding, 200 kr. per euro. This is because of the amendments made to the auction terms, authorising the commercial banks to collect bids based on non-residents' ISK assets deriving from payments made by domestic estates on approved priority claims. These were mainly foreign priority creditors of Glitnir and LBI, which had received some 25 b.kr. paid out in krónur. The expansion of the participant group may have affected price expectations in the auction.

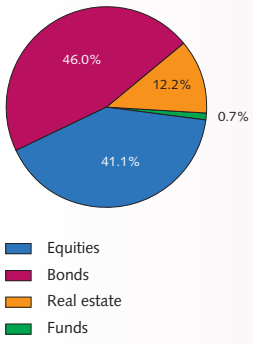
The foreign currency auctions have facilitated the transfer of short-term króna-denominated assets from non-residents to long-term investors. The stock of short-term ISK assets held by non-resi-

Chart 1
Central Bank of Iceland foreign currency auctions
Purchases of euros for krónur



Source: Central Bank of Iceland.

Chart 2
Breakdown of the Investment programme by investment type



Source: Central Bank of Iceland.

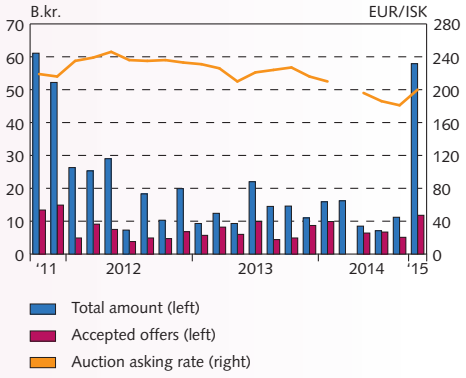
1. See http://www.sedlabanki.is/lisalib/getfile.aspx itemid=8672.

dents has shrunk from 25% of GDP at year-end 2011 to about 15% of GDP as of year-end 2014. It is therefore clear that the foreign currency auctions have been very successful and will facilitate the upcoming steps in the capital account liberalisation process.

Chart 3

Central Bank of Iceland foreign currency auctions

Purchases of krónur for euros



Source: Central Bank of Iceland.

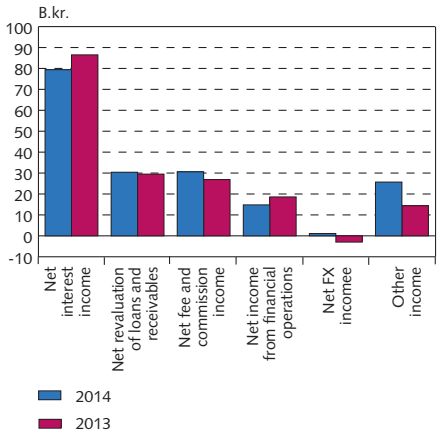
III Operations and equity[1]

Maintaining banking system resilience of pivotal importance

Iceland's large commercial banks generated solid profits in 2014. Their returns increased from the prior year, and their cost-to-assets ratios declined slightly. Their loan portfolios grew markedly in value, and a number of estimated and irregular items affected their operating performance. The valuation increase was equal to nearly all commission and fee income, and combined income from the sale and write-up of the largest holdings in firms and discontinued operations was only slightly less. Various scenarios for the banks' core operations indicate an overall improvement during the year. The large commercial banks continued to strengthen their capital position in 2014, and their capital ratios are strong. Under current conditions, it is important to avoid undermining banking system resilience, and ideas concerning sizeable dividend payments by the banks should be examined in this light.

Iceland's large commercial banks generated solid profits in 2014. Their combined after-tax profit totalled 81 b.kr., as opposed to 64 b.kr. in the prior year. A variety of estimated and irregular income items affected the banks' annual accounts, as is explained in greater detail below. These factors should be considered in any assessment of operating results and financial ratios.

Chart III-1
The three largest commercial banks' income[1]



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

Calculated interest rate spreads narrowed, while commission income grew

The large commercial banks' combined calculated return on equity was 14% in 2014, and their return on total assets was 2.7%, an increase from the previous year. Icelandic banks' return on total assets is high relative to Nordic banks, whose ratios commonly lie in the 0.4-0.8% range.[2] In 2014, net interest income totalled 79 b.kr., a decline of 7 b.kr. year-on-year. The combined calculated interest rate spread was 2.7%, a decrease of 0.3 percentage points. Interest rate spreads varied from one bank to another, in part due to differences in the composition of assets and liabilities, including differences in indexation imbalances. Inflation was somewhat lower in 2014 than in the prior year, and lower than the banks had projected, narrowing interest rate spreads. The increased share of mortgage loans in the banks' loan portfolios has narrowed them as well. The capitalised discounts on interest income due to purchased loan portfolios have all but disappeared. Icelandic banks' spreads are considerably larger than those of Nordic banks.

In 2014, the commercial banks' net commission and fee income totalled about 31 b.kr., an increase of 14% year-on-year. Commissions increased across all income-generating units: investment banking fees by 13%, asset management fees by 12%, lending fees by 16% (including those due to prepayments), and fees related to

1. The discussion in this chapter is based on the consolidated accounts of Iceland's three largest commercial banks for 2014 and comparison figures for 2013. Figures represent the aggregate position of the commercial banks unless otherwise stated. The aggregate position may diverge from that of individual financial companies

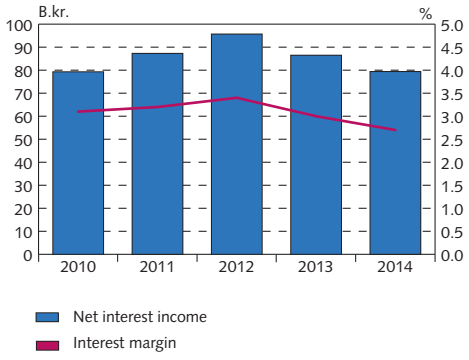
2. The Nordic comparison is based on data from Bankscope. See Appendix I.

payment intermediation and payment cards by 14%. Core income (net interest income and net commission and fee income) equalled 64% of operating income, down 4 percentage points from the prior year, due primarily to reduced net interest income.[3]

Chart III-2

The three largest commercial banks' net interest income and interest margin[1]

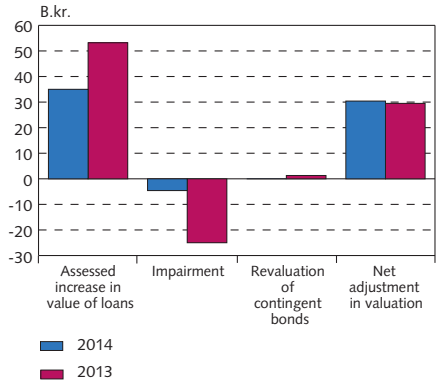
Ratio of net interest income to average total assets during the year



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

Chart III-3

The three largest commercial banks' income and expenses due to revaluation of loans and receivables[1]



1. Consolidated figures.
Sources: Commercial banks' annual financial statements.

Loan valuation increases still considerable

At 30.4 b.kr., the net increase in loan values was one of the banks' largest income items in 2014. The increase in loan values amounted to 35 b.kr., owing mainly to revaluation, prepayments in excess of book value, and reduced arrears, while impairment amounted to 4.6 b.kr. Net loan valuation increases rose to their highest since the establishment of the new banks, but at the same time there was a marked reduction in the gross amount of valuation changes, as the difference between claim value and book value of loans is constantly diminishing.

Net changes in loan values since 2009 total about 174 b.kr., excluding charges for contingent bonds and capitalisation through

Table III-1 The three large commercial banks' income and expenses in connection with loan revaluation

B.kr.	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*	*Total*
Landsbankinn hf.							
Increase in value of loans	23.772	49.702	58.489	37.320	19.440	20.010	208.733
Loan impairment	-6.577	-32.794	-47.760	-14.380	-7.706	118	-109.099
Revaluation of contingent bonds	-10.241	-16.269	-34.316	-27.331	1.319	0	-86.838
Total impact on income	6.954	639	-23.587	-4.391	13.053	20.128	12.796
Profit for the year	14.332	27.231	16.973	25.494	28.759	29.737	142.526
Íslandsbanki hf.							
Increase in value of loans	18.419	42.305	15.249	24.739	24.677	10.665	136.054
Loan impairment	-19.501	-28.312	-16.469	-19.029	-8.378	-1.855	-93.544
Revaluation of contingent bonds	0	0	0	0	0	0	0
Total impact on income	-1.082	13.993	-1.220	5.710	16.299	8.810	42.510
Profit for the year	23.982	29.369	1.866	23.418	23.069	22.750	124.454
Arion Bank hf.							
Increase in value of loans	20.199	40.269	38.368	12.824	9.099	4.355	125.114
Loan impairment	-9.939	-26.787	-27.424	-17.514	-8.940	-2.906	-93.510
Revaluation of contingent bonds	-10.556	-11.604	-19.593	0	0	0	-41.753
Total impact on income	-296	1.878	-8.649	-4.690	159	1.449	-10.149
Profit for the year	12.871	12.557	11.094	17.056	12.657	28.594	94.829
Large commercial banks							
Increase in value of loans	62.390	132.276	112.106	74.883	53.216	35.030	469.901
Loan impairment	-36.017	-87.893	-91.653	-50.923	-25.024	-4.643	-296.153
Revaluation of contingent bonds	-20.797	-27.873	-53.909	-27.331	1.319	0	-128.591
Total impact on income	5.576	16.510	-33.456	-3.371	29.511	30.387	45.157
Profit for the year	51.185	69.157	29.933	65.968	64.485	81.081	361.809

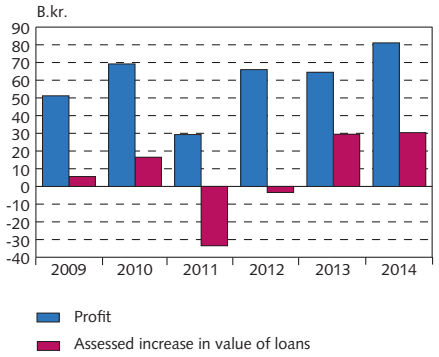
Sources: Commercial banks' annual accounts, Central Bank of Iceland, Financial Supervisory Authority.

3. Core income (net interest income and commission and fee income) as a share of operating income, excluding income from discontinued operations and adjusted for the largest irregular items.

interest income. In general, corporate loans have risen in value, while household loans have fallen. Due to differences in balance sheet structure from bank to bank, changes in loan portfolio values have remained within the banks to varying degrees. At the end of 2014, Íslandsbanki's combined net loan valuation increase since 2009 amounted to 42.5 b.kr., while Landsbankinn's increase (adjusted for contingent bonds) totalled 12.8 b.kr. and Arion Bank showed a decrease of 10.1 b.kr., also adjusted for contingent bonds (see Table III-1). Further ahead, loan valuation changes will flip from being positive, as they have been in recent years, to being negative in the amount of net loan impairment. In a normal operating environment, such impairment could amount to 0.7-1% of loans, depending on developments in the composition of the banks' balance sheets. Other things being equal, this will have a marked impact on the banks' operating results.

Chart III-4

The three largest commercial banks' profit and revaluation of loans and receivables[1]



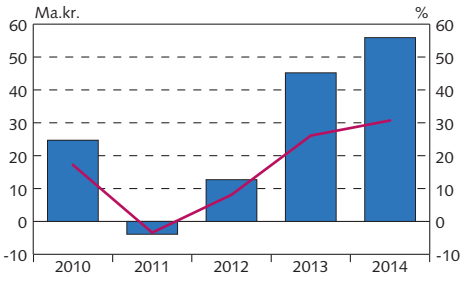
1. Consolidated figures.
Sources: Commercial banks' annual accounts, Financial Supervisory Authority, Central Bank of Iceland.

Strong income from shareholdings

The banks' income from financial activities declined between years, to 14.8 b.kr. Capital gains on shareholdings were sizeable, at 14.6 b.kr., and bonds and derivatives generated modest profits. The gains on shareholdings derived primarily from marking the holdings to up market value following market listing or sale. Profits on discontinued operations were considerable, at 11 b.kr. The largest contributor, however, was the gain on sales of restructured companies in unrelated operations. And finally, other income totalled 14.8 b.kr., including miscellaneous income from affiliates. Total income from the sale and write-up of the banks' largest holdings in companies and discontinued operations amounted to 29 b.kr. If this is added to the income from loan valuation increases, irregular and estimated income items total some 55% of total pre-tax profit for the year.

Chart III-5

Income from equity securities, discontinued operations, and valuation changes[1]



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

Developments in expense ratios

The banks' combined operating expenses totalled 75 b.kr. in 2014, a slight decline from the prior year.[4] Their expenses developed differently from one bank to another, however, as did their expense ratios. After accounting for the largest irregular items, expenses amounted to 53% of operating income, an increase from the prior year.[5] As a share of net interest income and commission and fee income, these expenses rose by about 2 percentage points year-on-year. Their expense ratios were affected in particular by the decline in interest income. After adjusting for the largest irregular items, expenses amounted to 2.5% of total assets, a slight decline year-on-year. Wage costs account for just over half of the banks' operating expenses. After adjusting for the charge due to Landsbankinn's disposal of equity securities in 2013, the banks' combined wage costs rose by just over 1.3 b.kr., or 3.4%, between years. Contractual wages rose 2.8% in Q1/2014, plus a one-

4. In 2014, the large commercial banks' operating expenses were adjusted in the total amount of 1.2 b.kr. In 2013, the large commercial banks' operating expenses were adjusted in the amount of 5.8 b.kr., including Landsbankinn's charge of 4.7 b.kr. for its obligation to allocate to employees the shares received in connection with the settlement with LBI.

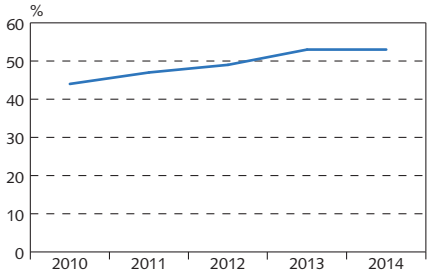
5. Operating income excluding income due to changes in loan values and discontinued operations.

time payment. In addition, two of the commercial banks' charges due to performance-based payments amounted to 900 m.kr. Offsetting this, the financial administration tax on wages declined between years (from 6.75% in 2013 to 5.5% in 2014), and the banks' staff declined in number. The banks have announced their intention to continue streamlining and cutting costs. Their operating expenses as a share of total assets are high in comparison with Nordic banks.

Chart III-6

The three largest commercial banks' cost-to-income ratios[1]

Operating expenses as a share of operating income, excl. loan revaluation changes and discontinued operations and adjusted for major irregular items



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

Core operations at the large commercial banks

Broadly speaking, the commercial banks' operating income can be divided into three categories: core income, income from financial activities, and other income. Core income includes net interest and commission income. Income from financial activities generally consists of the combined gains or losses on financial assets held for trading and financial assets at fair value, plus exchange rate gains or losses. Other income comprises the remaining income items. Expenses can be divided into regular expenses and irregular expense items, but this classification is always a matter of opinion. In recent years, the largest commercial banks' operating results have been coloured by an unusually large number of estimated items and calculated variables. For example, net interest income included transferred discounts due to transferred loans, and valuation changes in loans have fluctuated widely. The above has been reflected in the banks' returns and other key ratios. Under such circumstances, it can be difficult to assess the banks' core operations solely from the figures published in their annual accounts.

Various scenarios for core operations

The table shows the largest commercial banks' estimated core operations in 2014 and 2013, presented in two scenarios based on different assumptions. It is appropriate to note that scenarios for core operations will always be subject to debate, and it is impossible to assert that one scenario is more correct than another. Furthermore, narrower definitions apply rather to conventional banking activities because of the limited impact of income from financial activities and other income. The scenarios do not include tax payments. Therefore, the calculated profit is presented on a pre-tax basis and does not include discontinued operations.

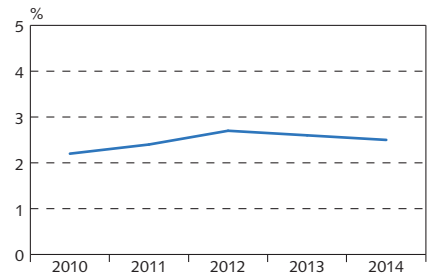
Scenario I:

Core income is based on the assumption of a 3% calculated interest rate spread, a 1% net loan valuation decrease, and commission and fee income according to the annual accounts, plus half of other operating income according to the annual accounts (excluding financial income and exchange rate gains or losses due to movements in the ISK exchange rate). Operating expenses for the year are adjusted for the largest irregular items.[6]

Chart III-7

The three largest commercial banks' cost-to-assets ratios[1]

Operating expenses as a share of total assets, adjusted for major irregular items



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

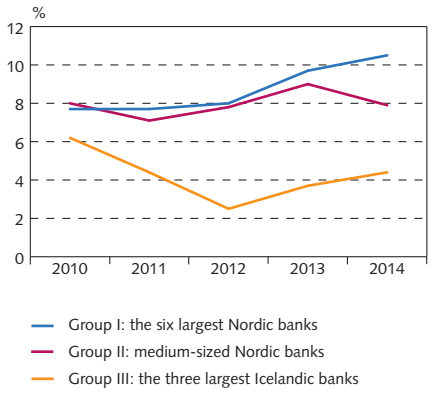
6. In 2014, the three large commercial banks' operating expenses were adjusted in the total amount of 1.2 b.kr. In 2013, the three large commercial banks' operating expenses were adjusted in the amount of 5.8 b.kr., including Landsbankinn's charge of 4.7 b.kr. for its obligation to allocate to employees the shares received in connection with the settlement with LBI.

Scenario II:

Core operations are based on a 2.8% calculated interest rate spread, 0.8% net loan impairment, and commission and fee income according to the annual accounts. As before, operating expenses for the year are adjusted for the largest irregular items. Scenario II is therefore considerably narrower than Scenario I.

The scenarios assume interest rate spreads of 3% and 2.8%, respectively, which is somewhat smaller than in recent years, as the spreads have derived in part from the redemption of discounts on appropriated assets and an increase in the share of capital in funding. The scenarios assume loan impairment of 1% and 0.8%, respectively. The lower percentage is based on the assumption that mortgage loans will constitute a larger share of total loans in the future, as impairment of such loans is generally lower than for general loans. According to Scenario I, the weight of income other than net interest income and net commission and fee income is 6% for 2014 (5% for 2013), whereas Scenario II does not assume any other income. It can be considered a given that, at some time, the banks will have some income other than net interest income and net commission and fee income. On the other hand, the scenarios do not assume exchange rate gains or losses on financial activities, but as experience has shown, losses on shareholdings and bonds can occur simultaneously under extraordinary external circumstances. The scenarios assume that total expenses are adjusted for the largest irregular items. They do ignore the fact that miscellaneous operating expenses are not directly related to the acquisition of core income but are related to the acquisition of income from financial activities and other income. In the case of the Icelandic banks, substantial expenses have stemmed from debt restructuring. Because restructuring is nearly complete, it is most appropriate that the banks should reduce their operating expenses and thereby increase their returns on core operations.

Chart III-8
Return on equity, core operations[1]
Nordic comparison



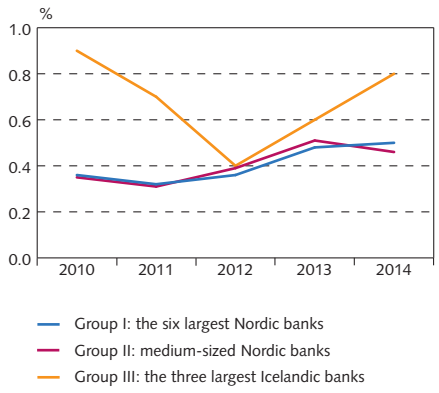
1. 22 Nordic banks. Group III contains the three largest Icelandic banks according to Scenario II.
Sources: Bankscope, banks' annual accounts, and Central Bank calculations.

Table III-2 Scenarios - the three largest commercial banks' core operations

Profit and loss account and financial ratios:	*2014*			*2013*		
M.kr.	*Accounts*	*Scenario I*	*Scenario II*	*Accounts*	*Scenario I*	*Scenario II*
Net interest income	79,398	88,497	82,597	86,544	86,478	80,713
Net change in loan values	30,387	-19,358	-15,487	29,511	-18,308	-14,646
Net commission income	30,628	30,628	30,628	26,947	26,947	26,947
Net income from financial operations	15,853	0	0	15,563	0	0
Other income	14,755	7,378	0	13,131	6,566	0
Operating expenses	-75,115	-73,915	-73,915	-80,052	-74,311	-74,311
Tax	-25,794	0	0	-28,485	0	0
Profit from discontinued operations	10,969	0	0	1,326	0	0
Profit	81,081	33,230	23,823	64,485	27,372	18,703
Return on equity, %	14.0	6.0	4.4	12.2	5.4	3.7
Return on total assets, %	2.7	1.1	0.8	2.2	0.9	0.6
Expenses as % of net interest and commission income, 5	68	62	65	71	66	69
Expenses as % of total assets, %	2.5	2.5	2.5	2.8	2.6	2.6

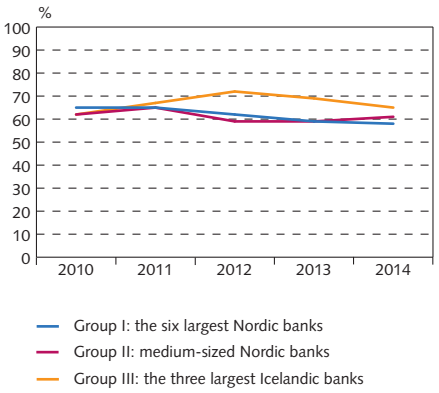
Sources: Commercial banks' annual accounts, Central Bank of Iceland calculations.

Chart III-9
Return on total assets, core operations[1]
Nordic comparison



1. 22 Nordic banks. Group III contains the three largest Icelandic banks according to Scenario II.
Sources: Bankscope, Banks' annual financial statements and Central bank calculations.

Chart III-10
Operating expenses as a share of core income[1]
Nordic comparison



1. 22 Nordic banks. Group III contains the three largest Icelandic banks according to Scenario II.
Sources: Bankscope, Banks' annual financial statements, and Central bank calculations.

Improvement in calculated returns on core operations

Calculated returns on core operations according to Scenario I would total 33.2 b.kr. for 2014, and the calculated return on equity and return on total assets would be 6% and 1.1%, respectively.[7] Calculated returns on core operations according to Scenario II would total 23.8 b.kr. for 2014, and the calculated return on equity and return on total assets would be 4.4% and 0.8%, respectively. For 2014, the difference between Scenarios I and II lies in higher interest income (by 5.9 b.kr.) and other income (by 7.4 b.kr.) according to Scenario I, as well as higher impairment in the amount of 3.9 b.kr.

A comparison of Scenario I between 2014 and 2013 reveals that core operations strengthened markedly in 2014, due in particular to higher commission and fee income; however, net interest income rose as a result of an increase in total assets, and other income increased as well. On the other hand, there were greater loan impairment reductions as a result of lending growth, whereas estimated operating expenses declined. Returns according to Scenario I were therefore higher in 2014 than in 2013. Comparing 2014 and 2013 in terms of Scenario II gives the same result. Because of an increase in the average stock of total assets, net interest income increased from the prior year, and commission and fee income rose sharply, as is stated above. On the other hand, there were greater loan impairment reductions, whereas operating expenses declined. It can therefore be concluded that the banks' core operations improved last year.

Scenario II and international comparison

The comparison of the Icelandic banks' core operations with those of Nordic banks is based on the above-described Scenario II for the Icelandic banks and comparable annual accounts items for other Nordic banks.[8] It is based on the narrower definition of core operations, which includes only net interest income and commission and fee income, as other income could prove uncertain. The large Nordic banks' (Group I) returns on equity from core operations lay in the 7.7-10.5% range during the period 2010-2014, as opposed to 7.1-9% for medium-sized Nordic banks (Group II). The Icelandic banks' calculated core returns according to Scenario II (Group III) ranged between 2.5% and 6.2% during the period. They declined through 2012 and then rose again in 2013 and 2014.

It should be noted that the Icelandic banks' return on equity is lower partly because they have higher capital ratios than their Nordic counterparts. The reverse is true if the banks' returns on total assets from core operations are examined: the Icelandic banks' calculated returns according to Scenario II are stronger than those of other Nordic banks. The large Nordic banks' (Group I) returns on core operations were 0.3-0.5% during the period, similar to those of medium-sized Nordic banks (Group II). The Icelandic banks' calculated core returns according to Scenario II (Group III) ranged between 0.4%

7. Profit and returns before tax and excluding discontinued operations.
8. Twenty-two Nordic banks were divided into two groups: Group I consisted of the six largest banks in the region, and Group II consisted of medium-sized banks. Source: Bankscope. Group III consisted of Iceland's three largest banks according to Scenario II.

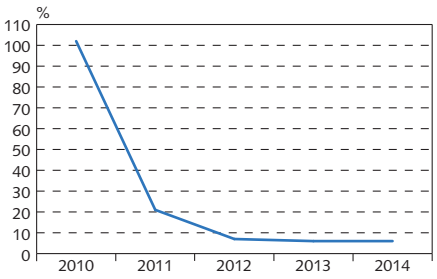
and 0.9% during the period. They declined through 2012 and then rose again in 2013 and 2014. One explanation for the Icelandic banks' higher returns on total assets may be the lower proportion of residential mortgage loans in their asset portfolios. In terms of either return on equity or return on total assets, the Icelandic banks' calculated core returns according to Scenario II declined in 2010-2012 and then rose in 2013 and 2014.

Among large Nordic banks (Group I), expenses as a share of income from core operations ranged between 59% and 65% during the period, and it was similar for medium-sized Nordic banks (Group II). For the Icelandic banks, costs relative to calculated income from core operations according to Scenario II (Group III) ranged between 62% and 72% during the period, rising through 2012 and then falling in 2013 and 2014. In 2013-2014, estimated core income rose by about 4-5% per year, and costs adjusted for major irregular expenses declined slightly.

Chart III-11

The three largest commercial banks' foreign exchange imbalances[1]

Mismatches in exchange rate-linked assets and liabilities as a share of the capital base



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

Foreign exchange and indexation imbalances

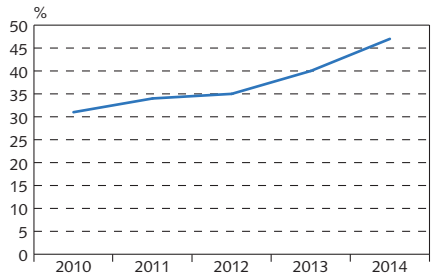
In 2014, the foreign exchange imbalances of the banks' parent companies remained broadly unchanged, whereas the FX imbalances of the consolidated entities declined marginally. A temporary provision in the Central Bank of Iceland Rules on Foreign Exchange Balance, which authorised the Bank to grant financial undertakings temporary exemptions from the Rules for periods of three months at a time, expired at the beginning of 2015.

The commercial banks' combined indexation imbalances grew still further in 2014. At the end of the year, the mismatch between their indexed assets and liabilities was positive by 300 b.kr., as opposed to 239 b.kr. at year-end 2013. As before, the banks' indexation imbalances vary: Landsbankinn stands out with a year-end mismatch of 63% of its capital base, while Arion's was 46% and Íslandsbanki's 28%. One of the main reasons for the continued year-on-year rise in indexation mismatches is the increase in indexed mortgage loans and the decrease in indexed long-term liabilities.

Chart III-12

The three largest commercial banks' indexation imbalances[1]

Mismatches in indexed assets and liabilities as a share of the capital base



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

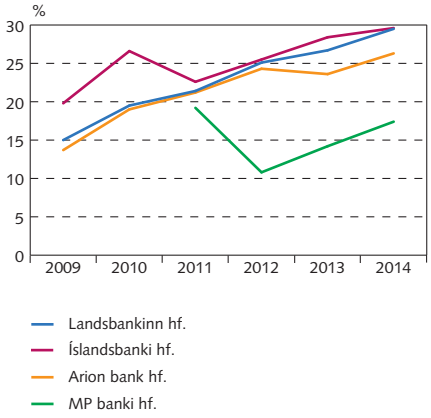
Strong capital position and high capital ratios

The large commercial banks' capital ratios continued to improve in 2014 and are currently at their highest since the banks were established. Their combined capital ratios rose by over 2.3 percentage points between years, to 28.5% as of end-2014, including a Tier I capital ratio of 26.2%.[9] The banks' capital ratios are well above the Financial Supervisory Authority's (FME) required minimum.[10] Their

9. The capital ratio is defined according to the Act on Financial Undertakings and the FME Rules on Capital Requirement and Risk-Weighted Assets of Financial Undertakings. Tier 1 capital consists of share capital, retained earnings, etc., and deductions; cf. Article 84 of the Act on Financial Undertakings.

10. The Act on Financial Undertakings, no. 161/2002, stipulates that a financial undertaking's capital base shall be at least 8% of its risk base; however, based on the authority contained in the Act, the Financial Supervisory Authority has set a higher minimum. The commercial banks have conducted their own internal capital adequacy assessment process (ICAAP) and the Financial Supervisory Authority has then conducted its supervisory review and evaluation process (SREP), after which it has determined the banks' minimum capital ratios. Landsbankinn is the only large commercial bank that has published the FME's SREP-based capital requirement, which stood at 15.8% as of year-end 2013. MP bank published the FME's SREP-based capital requirement, which stood at 11.8% as of year-end 2014.

Chart III-13
Commercial banks' capital adequacy ratios[1]



1. Consolidated figures. Capital base as % of risk-weighted base.
Sources: Commercial banks' annual accounts.

capital base totalled 639 b.kr. at the end of 2014, after increasing by 44 b.kr., or 7%, from the previous year. The capital base consists primarily of share capital and accumulated operating income, while subordinated loans amounted to only 8%. The banks' risk base was 2,237 b.kr. at year-end 2014, an increase of 33 b.kr., or 1.5%, year-on-year. The banks use the standardised approach to calculate their credit and market risks, but they use the basic indicator approach to calculate their operational risk. Credit risk is the banks' largest risk factor, at over 80% of the risk base. The credit risk base declined by about 4 b.kr. year-on-year, while the market risk base declined by 27 b.kr. and the operational risk base declined by 2 b.kr.

Some of the banks are working towards calculating their credit risk base according to the internal ratings-based (IRB) approach; however, the IRB approach generally gives a lower risk base as a share of total assets than the standardised approach does. The IRB approach is discussed in greater detail in Box III-2.

A strong capital position and sizeable operating profits in 2013 prompted the large commercial banks to pay out dividends totalling 32 b.kr., or 49% of the year's profit, in 2014. They now intend to pay dividends in the amount of 46 b.kr. on their year-2014 profit. Furthermore, Landsbankinn has been authorised by its shareholders' meeting to purchase up to 10% of its own shares, which is considered the equivalent of a dividend payment. MP Bank stands somewhat apart from the other commercial banks, with a capital ratio of 17.4% as of end-2014. The largest commercial banks' debt continued to decline relative to their net worth in 2014. At the year-end, their debt multiplier (debt relative to net worth) was 3.9, as opposed to 4.3 at year-end 2013.

Currently before Parliament is a bill of legislation amending the Act on Financial Undertakings, no. 161/2002. The bill provides for the introduction of four capital buffers. If a financial undertaking is required to maintain one or more capital buffers, that requirement creates an overall capital buffer requirement (for further discussion, see Box III-1).

The Financial Stability Council recently classified four financial undertakings or institutions as systemically important: Landsbankinn hf., Arion Bank hf., Íslandsbanki hf., and the Housing Financing Fund. This classification entails, among other things, that they will be subjected to more frequent and extensive supervision in line with their systemic importance.[11]

Maintaining banking system resilience of pivotal importance

Since their establishment, the new commercial banks have concentrated mainly on debt restructuring. By year-end 2014, that restructuring was nearly complete. The banks' operations now focus more on actual banking activities, and the tasks ahead include improving regular operations by cutting costs and boosting core income. As before, there is uncertainty concerning the planned liberalisation of the capital controls. The upcoming liberalisation process and the

11. See the press release from the Financial Stability Council, dated April 14, 2015.

prominence of estimated and irregular items in the banks' accounts highlight the importance of maintaining banking system resilience, and ideas concerning large dividend payments must be considered in this light. Maintaining a strong position is essential.

Box III-1

Capital buffers

Currently before Parliament is a bill of legislation amending the Act on Financial Undertakings, no. 161/2002.[1] With the bill, it is recommended, among other things, that the provisions on capital buffers introduced with the Basel III standards in 2010 be incorporated into the law. Council Directive 2013/36/EU incorporates capital buffers into European law. The bill provides for the legalisation of four capital buffers: the systemic risk buffer, the buffer for other systemically important institutions (O-SII), a countercyclical buffer, and a capital conservation buffer.[2]

Capital buffers: general information

The proposed capital buffers can be added to the minimum capital base and are in addition to the so-called Pillar II capital adequacy requirements of the Financial Supervisory Authority.[3] Capital buffers may only include Tier 1 capital. If a financial undertaking is required to maintain one or more capital buffers, that requirement creates an overall capital buffer requirement.[4] Therefore, the obligation to maintain capital to fulfil the requirement for the systemic risk develops first, followed by the buffer for systemically important financial undertakings, then the countercyclical buffer, and finally, the capital conservation buffer. It will be prohibited to pay out dividends, remit variable payments to employees, or remit any other payments that cause the undertaking not to fulfil the minimum requirements for capital buffers. The Financial Stability Council makes recommendations to the Financial Supervisory Authority concerning the value of the capital buffers apart from the capital conservation buffer, which is based on a fixed percentage. The Financial Stability Council publishes its recommendations and the rationale behind them. The Council's recommendations must be based primarily on the recommendations and analysis provided by the Systemic Risk Committee. The Financial Supervisory Authority then stipulates the capital buffers or publishes a written report explaining its decision if it does not abide by the recommendations.

Capital buffer due to systemic risk

The systemic risk buffer shall take account of non-cyclical risk in the financial system, either wholly or in part, that could jeopardise financial stability or have severe repercussions for the real economy. The systemic risk buffer may be determined as a percentage of the risk base or the exposures it is to address. Its value may range

1. Bill of legislation amending the Act on Financial Undertakings, no. 161/2002, with subsequent amendments (operating licences, risk management, large exposures, terms of employment, ownership shares, capital buffers, etc.). Submitted before Parliament at the 144th legislative session, 2014-2015.
2. Capital buffers for global systemically important institutions (G-SII) will probably be legalised next year. No such undertakings operate in Iceland.
3. Capital buffers are added to the minimum capital base pursuant to the first sentence of Article 84, Paragraph 1 of Act no. 161/2002, and to the capital requirement pursuant to Article 84, Paragraph 1, Item (a) of the same Act.
4. The capital buffers are added together, with the exception that if a financial undertaking must maintain both a systemic risk buffer and a buffer for a systemically important financial undertaking, the higher of the two shall apply unless the systemic risk buffer only covers domestic exposures. In that case, the two shall be added together.

upwards from 1% of the portion it addresses. If a systemic risk buffer is imposed, the Financial Stability Council shall review its recommendations within two years of the time they were implemented.

Capital buffer for systemically important institutions
Capital buffers for systemically important institutions (O-SII) are intended to combat moral hazard in the undertakings concerned. Systemically important financial undertakings are those that, due to their size and the nature of their activities, could have a significant negative impact on financial stability if they experience difficulties. The capital buffer may range up to 2% of the risk base. Decisions on which financial undertakings shall maintain such a buffer must be based on the Financial Stability Council's definition of systemically important entities. A decision to impose such a capital buffer shall be reviewed annually, as shall the value of the buffer.

Countercyclical buffer
Countercyclical buffers are designed to enhance financial system resilience and prevent lending from contracting excessively during the downward cycle. The Financial Stability Council shall make quarterly recommendations on whether there is reason for financial undertakings to maintain a countercyclical buffer and, if so, what its value shall be for each quarter. In determining the value of the countercyclical buffer, the Financial Stability Council shall consider specified risk factors, criteria, and risk indicators. If the risk factors give cause, the Council may recommend to the Financial Supervisory Authority that the countercyclical buffer exceed 2.5% of the risk base.

Capital conservation buffer
Financial undertakings shall maintain a buffer called a capital conservation buffer. The capital conservation buffer is fixed at 2.5% of the risk base.

Capital conservation plan and entry into force
If a financial undertaking does not maintain sufficient capital in accordance with its combined capital buffers, its board of directors shall prepare and submit to the Financial Supervisory Authority a capital conservation plan. The capital conservation plan shall include information and a timetable showing which measures the undertaking will adopt in order to increase its capital ratio.

The bill amending the Act on Financial Undertakings assumes that the capital buffer provisions will be implemented in stages from 1 January 2016 until 1 January 2017, as is shown in the table below.

Table 1. Implementation period and maximum capital buffer ratios pursuant to Article 45 of the bill of legislation amending Act no. 161/2002

	Maximum capital buffer		
Capital buffer	*1/1-31/5 2016*	*1/6-31/12 2016*	*1/1 2017-*
Capital buffer due to systemic risk	5%	none	none
Capital buffer for systemically important financial undertakings	2%	2%	2%
Countercyclical buffer	2.5%	2.5%	none
Capital conservation buffer	1%	1.75%	2.5%

Box III-2

Experience of the internal ratings-based approach to calculation of capital requirements

Icelandic banks use the so-called *standardised approach* under Basel I to calculate the risk base from which their capital adequacy ratios are determined. The risk base is obtained by assigning risk weights to the banks' assets according to the Basel I standards. However, European banks have increasingly adopted the *internal ratings-based approach* (IRB) to calculation of their capital requirements.

The IRB approach

Banks that use the IRB use their own estimates of credit risk to calculate their capital adequacy requirements, given supervisory approval. Banks using the foundation IRB determine borrowers' probability of default (PD), while those using the advanced IRB also use their own estimates of loss given default (LGD) and exposure at default (EAD).

These measures of risk are converted to risk weights and capital adequacy requirements using a risk weight formula issued by the Basel Committee on Banking Supervision (BCBS). The formula is based on the assumption that the default threshold and the borrower's PD are connected through the normal distribution function. Furthermore, the formula assumes that economic shocks are normally distributed, which could prove incorrect, particularly in the case of small economies that experience wide economic and financial fluctuations.

Declining risk weights

The transition from Basel I and standardised risk weights to the IRB approach under Basel II has generally led to a significant reduction in risk-weighted assets (RWA). As a result, capital ratios, including the Tier 1 ratio, have risen, as RWA is the denominator of these ratios. Most systemically important banks in Europe use the IRB approach. Banks that use the advanced IRB generally have risk weights more than 10% lower than banks using the foundation IRB, and about 40% lower than those using the standardised approach.[1]

Average risk weights[2] have declined in spite of the economic downturn and growing risk which is reflected in a surge in non-performing loans in the wake of the 2008 financial crisis. Reasons for the decline include changes in the banks' models and input data, a shift towards portfolios with lower risk profiles, and provisioning against expected losses. Under Basel II, banks are only required to hold capital against unexpected losses, which may explain a decline in RWA when losses are reclassified as expected losses. This should be viewed in light of the fact that banks generally have an incentive to reduce their RWA and capital in order to increase their return on equity (RoE), which in turn could result in higher dividend payments.

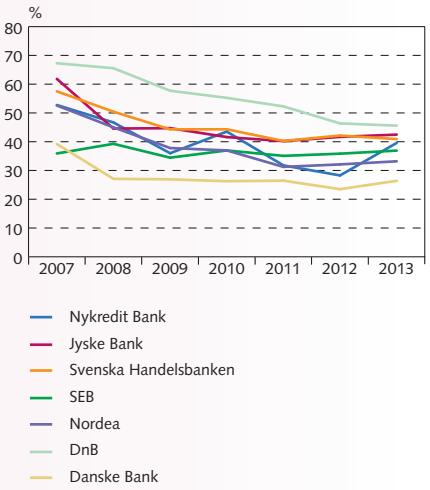
Increased mortgage lending

Banks have an incentive to choose assets that look attractive under their regulatory regime. In the US, where banks have broadly continued to report under Basel I, they have focused more on assets that generate strong returns, whereas European banks have shifted towards assets that carry lower risk weights.[3] As a result, the share of the banks' exposures to assets with lower risk weights (Treasury securities and loans to individuals) has risen relative to the share of

1. Vanessa Le Leslé and Sofiya Avramova, International Monetary Fund. *IMF Working Paper*, "Revisiting Risk-Weighted Assets: 'Why do RWAs Differ Across Countries and What Can Be Done About It?' ", 2012.
2. The average risk weight is measured here as the ratio of RWA to total assets.
3. Vanessa Le Leslé and Sofiya Avramova, Alþjóðagjaldeyrissjóðurinn. IMF Working Paper, "Revisiting Risk-Weighted Assets: 'Why do RWAs Differ Across Countries and What Can Be Done About It?' ", 2012.

Chart 1

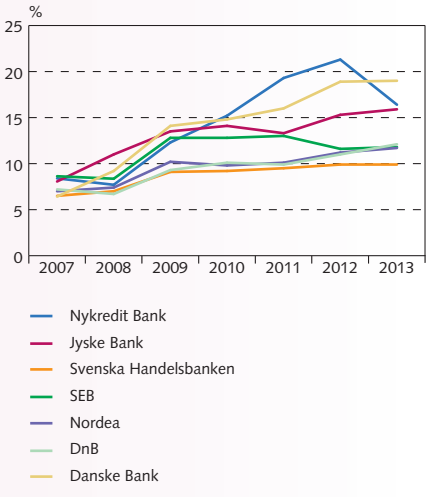
Average risk weight[1] of Nordic banks



1. Average risk weights estimated as RWA/Total Assets.
Source: Bankscope.

Chart 2

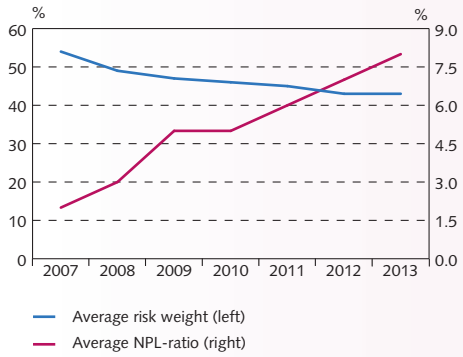
Tier 1 ratio of selected Nordic banks



Source: Bankscope.

Chart 3

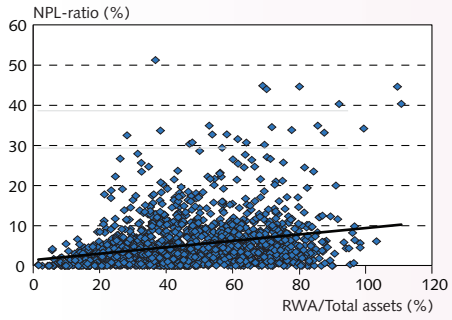
Development of average risk weights[1] and NPLs of 308 European banks



1. Average risk weights estimated as RWA/Total Assets.
Source: Bankscope.

Chart 4

NPL-ratios and average risk weights of 308 European banks



Source: Bankscope.

exposures to riskier assets (such as corporate loans).[4] For instance, at Nordea, the largest bank in the Nordic countries, corporate loans declined from 55% of the total loan portfolio in 2009 to 49% in 2013, while residential mortgages rose from 34% to 43%.[5]

According to IRB models, risk weights for mortgages are typically low, even as low as 5%, whereas with the standardised approach, the risk weight for a mortgage loan with a loan-to-value ratio below 80% is currently 35%.[6] Although risk weights are generally lower according to the IRB approach, they are strikingly low for mortgage loans.

Large difference in risk weights across IRB banks

According to the BCBS, the use of internal models and banks' freedom of choice in defining risk parameters have contributed to material differences in RWA from one bank to another (Chart 4).[7] According to an analysis carried out by the BCBS, about a fourth of the variation in risk weights for credit risk stemmed from practice-based causes, such as differences in internal models and parameters, rather than from an actual difference in risk.[8] The same analysis revealed that banks estimated PD and LGD differently within the same portfolio. This variability, which could derive from a lack of appropriate input data, led to a difference of up to 20% in the capital ratio.

Concerns about the IRB approach

In recent years, the reliability and comparability of the IRB approach have been subject to criticism. The IRB approach and the use of the approach to minimise risk weights (thereby reducing capital requirements) is even said to have contributed to the global financial crisis.[9] The BCBS is considering possible responses to this criticism, including placing constraints on IRB parameter estimates. Furthermore, the European Banking Authority (EBA) has recently proposed changes in IRB parameter estimation that are planned to be implemented by the end of 2018. The EBA also considers it necessary to evaluate the need for a comprehensive review of the IRB approach.[10] Authorities in Denmark, Sweden, and Norway have already placed restrictions on the risk estimates made by IRB banks; e.g., by setting risk weight floors for specified asset classes.

Iceland and the IRB approach

Internal rating-based models where banks themselves estimate credit risk are a useful tool for risk management and for pricing customer loans. However, in view of the capital controls and the uncertainty prevailing in the supervisory environment, it could be prudent to exercise caution in implementing the IRB approach to calculate Icelandic banks' capital requirements at this juncture. Development of the necessary models requires robust data that reflect normal operating conditions, and such data are lacking in Iceland. Furthermore, banks that use the standardised approach, as the Icelandic banks do, are without exception less heavily leveraged, and it is extremely important that the banks maintain their resilience through the capital account liberalisation process.

4. European Banking Authority. EBA Report on the Pro-Cyclicality of Capital Requirements under the Internal Ratings-Based Approach, 2013.
5. Source: Bankscope.
6. The BCBS is considering revisions to the standardised approach; e.g., exposures secured by residential real estate would receive risk weights ranging from 25% to 100%, depending on LTV and debt service coverage ratios.
7. Basel Committee on Banking Supervision. BCBS Discussion Paper, "The Regulatory Framework: Balancing Risk Sensitivity, Simplicity and Comparability", 2013.
8. Basel Committee on Banking Supervision. "RCAP – Analysis of Risk-Weighted Assets for Credit Risk in the Banking Book", 2013.
9. International Monetary Fund. IMF Global Financial Stability Report, October 2014.
10. European Banking Authority. EBA Discussion Paper, "Future of the IRB Approach", March 2015.

IV Funding and liquidity

Liquidity strong, but increased market funding needed

The Icelandic banks and savings banks are funded primarily with deposits, although their market funding has increased in recent years. Both Íslandsbanki and Arion Bank have tapped foreign credit markets in the past few years, and interest premia on their issues have been on the decline. In the first half of 2014, the three large commercial banks received credit ratings of BB+ with a stable outlook from international rating agency Standard & Poor's. In October 2014, the outlook was changed from stable to positive. The terms of the settlement bonds between Landsbankinn and LBI hf. were amended in December. The outstanding balance of the bond will be paid with ten debt instruments maturing every two years, with the final payment in October 2026 instead of October 2018. The Central Bank's new rules on commercial banks' foreign currency funding ratios took effect in December. The rules, which were drafted according to international models, are intended to ensure minimum net stable funding in foreign currencies for a period of one year.

Banks funded chiefly through deposits

Capital and customer deposits rise year-on-year

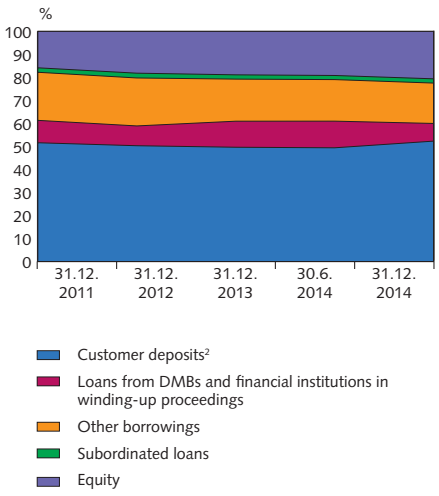
Icelandic banks and savings banks are funded primarily with deposits. Customer deposits accounted for some 52% of total commercial bank funding at year-end 2014, as opposed to just over 49% at the end of 2013. Customer deposits increased in nominal terms by over 60 b.kr. during the year. Deposits owned by financial undertakings in winding-up proceedings accounted for just over 7% of the commercial banks' funding at the end of 2014, after declining by 1 percentage point year-on-year. The decrease was due mainly to LBI's withdrawal of foreign-denominated deposits to make payment to priority creditors in December.

Non-residents' deposits contracted by just over 10 b.kr. in 2014, after increasing slightly in the prior year. The decline is due almost entirely to withdrawals of Icelandic krónur. Non-residents' deposits now constitute about 7% of bank deposits, nearly 6% in Icelandic krónur and about 1% in foreign currencies.

The three largest banks' combined ratio of customer deposits to lending is similar to that among Nordic commercial banks of comparable size (Chart IV-3). Landsbankinn's ratio rose by 11 percentage points in 2014, in part because of the bank's prepayment of the settlement bonds with LBI.

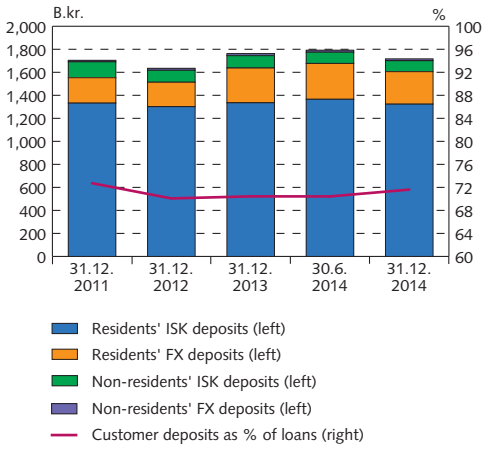
The commercial banks' capital amounts to nearly 600 b.kr., having increased by 44 b.kr. in 2014. At the end of the year, it accounted for just under 21% of their funding and subordinated loans about 2%. Arion bank paid 7.8 b.kr. in dividends last autumn, Íslandsbanki 4 b.kr., and Landsbankinn 20 b.kr. The three banks have announced plans to pay dividends in the amount of 46 b.kr. this year. In addition, Landsbankinn's Annual General Meeting authorised the bank to buy up to 10% of its own share capital. Such purchases are considered equivalent to dividend payments. The authorisation could amount to as much as 25 b.kr., based on the book value of the bank.

Chart IV-1
Commercial banks' funding[1]



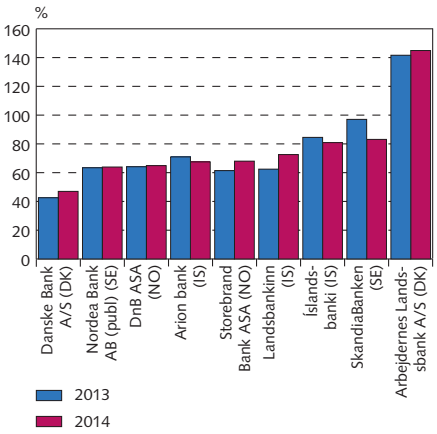
1. Parent companies. 2. Including pension fund deposits.
Sources: Central Bank of Iceland.

Chart IV-2
FX and ISK deposits with commercial banks[1]



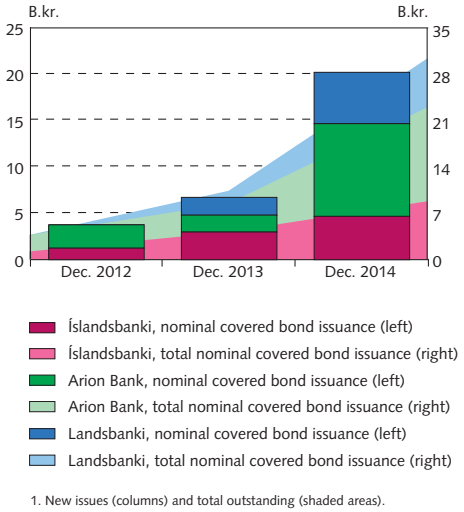
1. Parent companies. Deposits of customers and financial institutions.
Source: Central Bank of Iceland.

Chart IV-3
Deposit-to-loan ratios
Nordic banks



Source: Bankscope.

Chart IV-4
Commercial banks' nominal covered bond issuance[1]



1. New issues (columns) and total outstanding (shaded areas).
Source: Nasdaq Iceland.

Market funding and other borrowing

Borrowings other than deposits account for a small portion of the banks' funding; however, securities issuance has grown apace in recent years, and funding is more diverse. All of the large commercial banks issued covered bonds to fund mortgage lending during the year. Total issuance in 2014 amounted to 30.9 b.kr., including 10.7 b.kr. in indexed bonds and 20.2 b.kr. in nominal bonds. Landsbankinn issued three nominal bonds in the total amount of 5.5 b.kr. Arion Bank issued two indexed bonds amounting to 6.6 b.kr., plus a 10.0 b.kr. nominal bond. The bank also bought back a portion of the covered bonds it took over from Kaupthing when it acquired Kaupthing's mortgage loan portfolio in 2011. Íslandsbanki issued three indexed bonds totalling 4.1 b.kr. and three nominal bonds amounting to 4.7 b.kr. Nominal bond issuance has surged in recent years, with 2014 issuance amounting to three times that in 2013. Indexed issuance has held stable on the whole, although it has fluctuated somewhat from one bank to another. The outstanding covered bonds issued by the three large commercial banks amounted to 72.4 b.kr. in March, or 2.6% of their total funding.

Íslandsbanki began issuing bills in March 2013. The total outstanding stock of bills was 3 b.kr. at the end of March 2015. Arion Bank first issued six-month bills in October 2014, and the outstanding balance as of March 2015 was 4.5 b.kr. The first issues mature in April 2015. MP Bank issued four-month bills in the amount of 0.42 b.kr. in March 2015.

Íslandsbanki was the only bank to issue bonds abroad in 2014, including issues in Swedish kronor and in euros. In March 2014, the bank issued a bond in the amount of SEK 300 million, or 5.3 b.kr., to supplement its issue from the previous December. The bonds bore a four-year maturity, with a 330-bp premium on STIBOR rates, or 70 points lower than in December 2013. In February, the bank issued a new bond in the amount of 300 million Swedish kronur. The bond matures in four years and bears STIBOR interest plus a 310 point premium. The bank expanded in April, with a bond amount to 150 million Swedis kronur, at the same terms as the February issue. The eurobond, issued in the amount of EUR 100 million, or roughly 15 b.kr., in May 2014, has a two-year maturity and bears 3% fixed interest. During the year, Landsbankinn announced a forthcoming eurobond issue and listed the base prospectus for a Euro Medium-Term Note (EMTN) programme allowing the bank to issue bonds for the equivalent of up to EUR 1 billion. In March 2015, Arion Bank issued a three-year eurobond in the amount of EUR 300 million, or around 45 b.kr. The bond bore 3.125% fixed interest and was sold at terms equivalent to a 310-point premium. Secondary market yields on the banks' issues have been rising in recent weeks, after having fallen slightly in the second half of 2014. In January 2015, Arion Bank bought back 1 b.kr. worth of the bond it issued in Norwegian kroner in 2013.

In the first half of 2014, the three large commercial banks all received credit ratings of BB+ with a stable outlook from international rating agency Standard & Poor's. In October 2014, the outlook was changed from stable to positive. The change in outlook came in the

wake of S&P's decision to change the outlook on Iceland's sovereign rating from stable to positive, representing an important step towards further borrowing in foreign markets.

Landsbankinn's foreign-denominated bonds with LBI

Of the commercial banks, Landsbankinn has the largest proportion of non-deposit funding, owing primarily to the secured debt instruments it issued to its predecessor, Landsbanki Íslands (LBI), as reimbursement for the difference between the value of assets and domestic deposits transferred from LBI to Landsbankinn upon its establishment. The bonds are issued in foreign currency and were originally structured with quarterly payments to be remitted from 2014 to 2018. In December 2014, however, LBI and Landsbankinn entered into an agreement providing for the issue of new bonds from Landsbankinn hf., together with a new collateral agreement. Concurrent with the new issue, Landsbankinn prepaid the equivalent of 30 b.kr. in foreign currency towards its debt to the old bank.

According to the amended terms, the outstanding balance of the debt is to be paid in more or less equal instalments at two-year intervals between 2016 and 2020 – or sooner, if the bank so chooses. Furthermore, upon fulfilling specified conditions, Landsbankinn may choose to extend a portion of the payments that are due in 2018 and 2020. The bonds bear a 290-point premium through 2018, after which time the interest rate will rise incrementally, depending on duration. According to the amended bond terms, over 120 b.kr. of the debt originally to be paid before end-2018 is now payable between 2020 and 2026. Residents' contractual instalments on foreign debt will decline commensurably (for further discussion, see Section II). At year-end 2014, the total outstanding balance of the Landsbankinn-LBI bond was just under 200 b.kr., as opposed to nearly 238 b.kr. at the end of 2013. In spite of the lengthening and prepayment, Landsbankinn's debt to LBI still constitutes the majority of the three banks' outstanding debt.

Encumbrance ratios

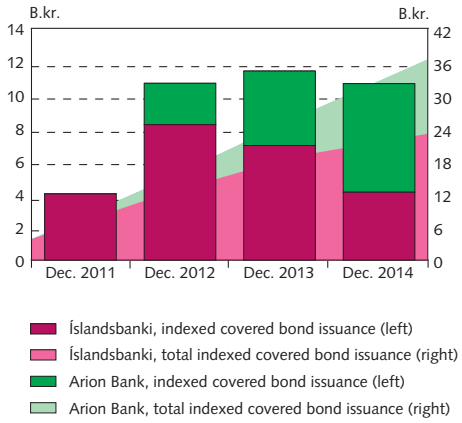
The commercial banks' encumbrance ratios – i.e., the percentage of their assets pledged as collateral for funding, etc.[1] – declined year-on-year in 2014. Landsbankinn's encumbrance ratio fell by 5 percentage points, to 24%, partly because of the 44 b.kr. prepayment on the bond to the old bank and reduced encumbrance requirements in connection with the new bonds with LBI. Íslandsbanki's encumbrance ratio is broadly unchanged between years, at just over 11%. At the end of 2014, Arion Bank's ratio had declined by 3 percentage points between years, to 27%. Arion's high encumbrance ratio is due largely to the mortgage loan portfolio used to back its covered bonds.

Commercial banks' FX refinancing need manageable

As of end-2014, the three largest commercial banks' foreign-denominated debt consisted primarily of 350 b.kr. in customer and financial

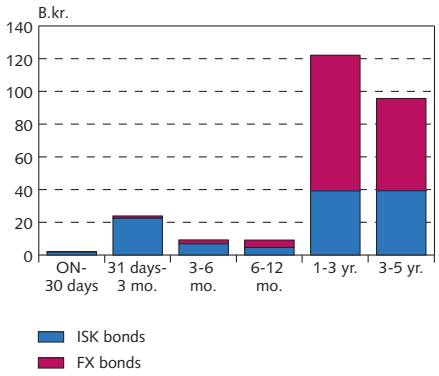
1. Assets pledged as collateral for loans, swap agreements, and so forth.

Chart IV-5
Commercial banks' indexed covered bond issuance[1]



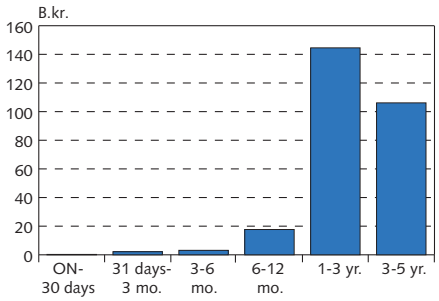
1. New issues (columns) and total outstanding (shaded areas).
Source: Nasdaq Iceland.

Chart IV-6
Bond maturities[1]
The three largest commercial banks[2] as of 28 February 2015



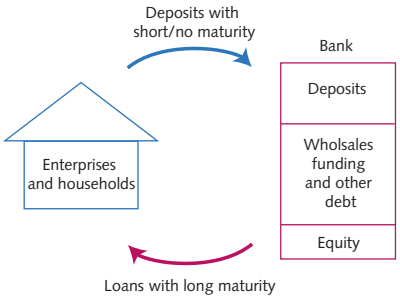
1. Instalments and interest. 2. Parent companies.
Source: Central Bank of Iceland.

Chart IV-7
Instalments and interest in foreign currency[1]
The three largest commercial banks[2] as of 28 February 2015



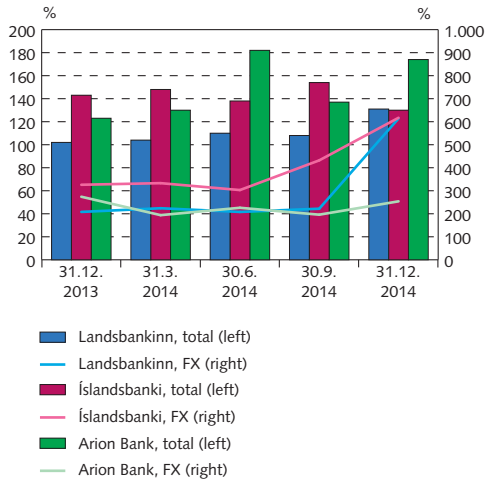
1. Includes instalments and interest on all FX funding. 2. Parent companies.
Source: Central Bank of Iceland.

Chart IV-8
Illustration of maturity transformation



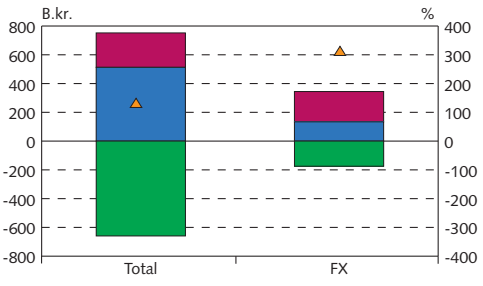
Source: Norges bank.

Chart IV-9
Commercial banks' liquidity coverage ratios[1]



1. Consolidated figures.
Source: Commercial banks' annual reports.

Chart IV-10
Item weighting according to liquidity rules[1]
Commercial banks[2] as of 28 february 2015



1. The chart is based on the position during the 0- to 30-day period, and the items are weighted as is specified in the Central Bank's liquidity rules. In calculating the LCR, inflows may only be included up to 75% of outflows. 2. Consolidated figures.
Source: Central Bank of Iceland.

institution deposits and 417 b.kr. in other borrowings, including 405 b.kr. maturing in more than one year. The banks' foreign-denominated assets totalled 772 b.kr. at the end of 2014. Of that total, foreign-denominated loans amounted to 443 b.kr., and liquid assets and deposits with other banks totalled 311 b.kr.[2] The next five years' instalments and interest on these foreign-denominated loans total about 274 b.kr. According to this, the banks' refinancing need is approximately 30 b.kr. per year, or 1% of total assets, other things being equal.

New foreign funding rules

Maturity transformation between assets and liabilities is one of banks' key contributions to the economy; however, refinancing debt upon maturity involves some risk. The Central Bank mitigates this risk by providing ISK liquidity to the banking system, but its ability to provide such liquidity in foreign currencies is limited. As a result, the Bank has adopted rules on one-year funding ratios in foreign currencies so as to limit the maturity mismatches between foreign-denominated assets and liabilities. The rules took effect on 1 December 2014.[3] They are based on the recommendations of the Basel Committee for Banking Supervision (BCBS) and are designed to promote stable long-term funding in foreign currencies and prevent the banks from depending unduly on unsecured short-term funding to cover long-term foreign-denominated lending. This reduces their refinancing risk in foreign currencies.

The implementation of the net stable funding ratio (NSFR) in Iceland is further advanced than the BCBS recommendations provide for. The BCBS stipulates that the total net stable funding ratio shall be used as a minimum standard by 1 January 2018, at which time the ratio may not be lower than 100%. The Central Bank of Iceland's rules require that this ratio be achieved in foreign currencies by 1 January 2017. The currently applicable rules require that it be at least 80% as of 1 December 2014. It will rise to 90% on 1 January 2016 and then to 100% a year later. The intention is to comply with the BCBS' recommendations regarding the implementation of the total funding ratio, which will be in addition to the minimum funding ratio in foreign currency.

The NSFR is calculated as the amount of available stable funding (ASF) relative to the amount of required stable funding (RFS).[4]

$$\text{Funding rate (FX)} = \frac{\text{ASF - Calculated negative foreign exchange imbalance}}{\text{RSF - Calculated positive foreign exchange imbalance}}$$

The NSFR is an important supplement to the liquidity coverage ratio (LCR), which is designed to ensure a sound liquidity position

2. Assets and inflows according to the Central Bank Rules on Liquidity Ratio, no. 1031/2014.
3. Rules no. 1032/2014.
4. Credit institutions' capital is in krónur and is not included in the calculation of available stable funding; however, it is considered if the institution in question has foreign exchange imbalances. If foreign assets exceed foreign liabilities, the difference is deducted from required stable funding, whereas a positive foreign exchange imbalance is deducted from available stable funding.

for periods of less than one month. The currently applicable funding ratio takes account of funding for one year at a time, but in 2015 it is planned to implement a funding ratio covering up to three years. As is stated in the Central Bank's 2012 publication entitled "Prudential Rules Following Capital Controls", domestic financial institutions should be able to withstand closure of foreign credit markets for up to three years. At the end of 2014, the commercial banks' one-year funding ratio in foreign currencies was 136%, well above the Central Bank's minimum requirement.

Liquidity and stress tests

Liquidity position strong

The Bank's current liquidity rules, which took effect on 1 December 2014, are based on international criteria issued by the BCBS.[5] The rules assume that financial undertakings will always have enough high-quality liquid assets to enable them to withstand net capital outflows for a period of 30 days under stressed conditions. Icelandic financial undertakings now submit monthly reports in which they calculate their liquidity coverage ratio (LCR), which is the ratio of high-quality liquid assets to net outflows. In 2015, the LCR for foreign currencies shall not fall below 100% and the total ratio shall not fall below 80%. The minimum total ratio will rise to 100% over the next two years.

The commercial banks all meet the Central Bank's liquidity requirements, and their foreign liquidity position is strong. Their foreign liquid assets equal 45% of their total liquid assets, and they have enough liquid assets in foreign currency to pay out nearly all of their foreign-denominated deposits, which is somewhat in excess of the Bank's liquidity rules.

Increased liquidity requirements

As is mentioned above, the commercial banks are funded primarily with deposits, nearly 73% of which are liquid within a month. Some 85% are liquid within three months, and over 90% are liquid within six months. The Central Bank of Iceland's new liquidity rules set stringent requirements for liquid assets to offset liquid deposits, providing an increased incentive for term deposits. According to the liquidity rules, the banks should generally have liquid assets amounting to nearly 45% of their one-month deposits, or 18% of their balance sheets and 32% of all deposits, according to the deposit classification from end-February 2015.

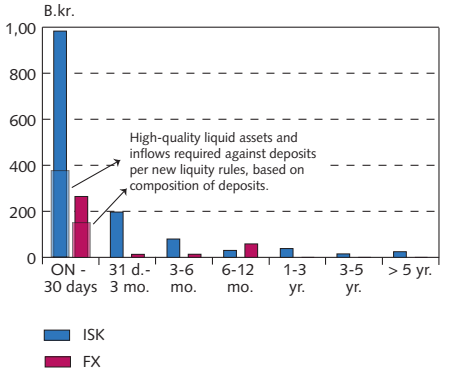
The deposit classes that the banks are required to offset in full with liquid assets generally include risky deposits, specifically those held by financial institutions in winding-up proceedings. In general, there is considerable concentration of ownership within these deposit classes. The largest 10 depositors in these classes hold up to 100% of total deposits. This is the case for deposits held by the financial institutions in winding-up proceedings and is very nearly the case

5. Bank for International Settlements. "Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools", January 2013.

Chart IV-11

Term deposit maturities and liquidity requirements[1]

The three largest commercial banks[2] as of 28 february 2015

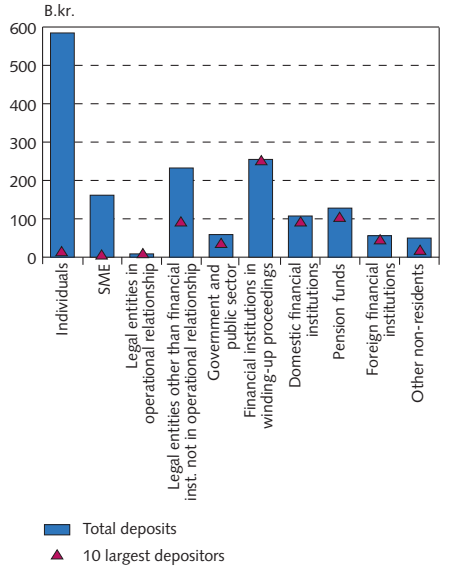


1. Liquidity requirements in FX take account of the amendments made to the Rules in December 2014. It is required that assets be held to offset the deposits in the old banks with maturities of up to 6 months. 2. Consolidated figures.
Source: Central Bank of Iceland.

Chart IV-12

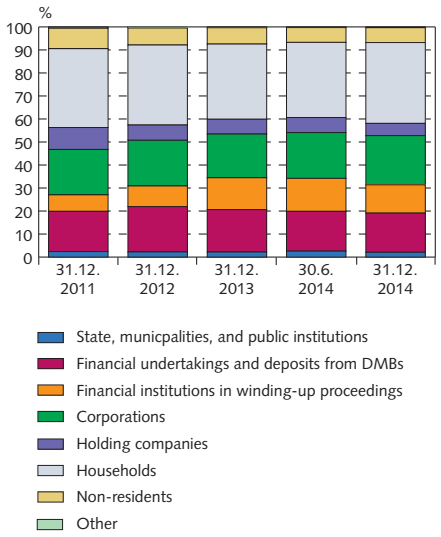
Breakdown of deposits and share of the 10 largest depositors[1]

The three largest commercial banks[2] as of 28 february 2015



1. Total deposits, irrespective of maturity. The 10 largest depositors in each commercial bank. 2. Consolidated figures.
Source: Central Bank of Iceland.

Chart IV-13
Depositors[1]



1. Parent companies, commercial banks.
Source: Central Bank of Iceland.

for pension fund deposits. In other classes – for instance, individuals' deposits and SMEs' deposits – the concentration is much less: the 10 largest depositors in those classes hold about 3% of the deposits in their class, or about 1.4% of total commercial bank deposits.

Liquidity stress testing

The Central Bank's liquidity rules entail a certain stress test, in that they require that the banks be able to withstand a period of difficulty in liquidity markets. It is assumed that the banks can depend only on high-quality liquid assets; furthermore, consideration is given to risk related to derivatives contracts, and no inflows are assumed except for loans that are performing in full. The banks must at all times be able to pay out all one-month deposits held by certain parties. The liquidity rules also take account of the three-month period in assessing liquidity risk.

In addition, the Central Bank performs stress tests in order to assess the impact of various shocks on the largest commercial banks. These include system-wide stress tests – such as the impact of potential deposit flight upon liberalisation of the capital controls – and more specific stress tests involving targeted assumptions for each individual bank. The stress tests that have been carried out on the large commercial banks' liquidity in order to assess the impact of potential withdrawals during capital account liberalisation have included a scenario featuring escalating pressure on all of each bank's deposits.

Maturity profile must be lengthened

The banks are well funded, and their foreign refinancing risk is not substantial. They fulfil the requirements set forth in the Central Bank of Iceland's rules on liquidity ratios and funding ratios with room to spare. The banks' funding consists mainly of deposits, which are generally considered a source of stable funding for commercial banks. In the past year, their market funding has grown more diverse – with foreign bond issues, for example – reflecting increased confidence in the Icelandic banking system. The banks must continue on this path and increase their market funding, particularly to include longer-term funding.

V DMB assets and borrowers' position

Private sector financial conditions have improved

Deposit money banks' (DMB) total assets declined year-on-year in nominal terms, for the first time since 2010. Concentration of the banks' large exposures diminished in 2014, as in 2013. Household and corporate debt continued to fall in 2014, reaching 2004 levels by the end of the year in terms of the ratio of debt to GDP. Rising asset prices and increased will to deleverage have therefore led to an increase in net private sector wealth. Households' position has therefore improved markedly, and has seldom been better. Strong rises in real wages and reduced household arrears have also contributed to the situation. Signs of the financial crisis are still visible, however, as can be seen in the number of individuals on the default register and the number of personal bankruptcies. Firms' position is better as well, as their economic environment has improved. Default on corporate debt is falling gradually, and bankruptcies have diminished markedly in number. Furthermore, there are now signs of a reduction in the number of firms on the default register. The equity position of Iceland's 500 largest firms continues to improve, and overleveraging has diminished.

Deposit institutions

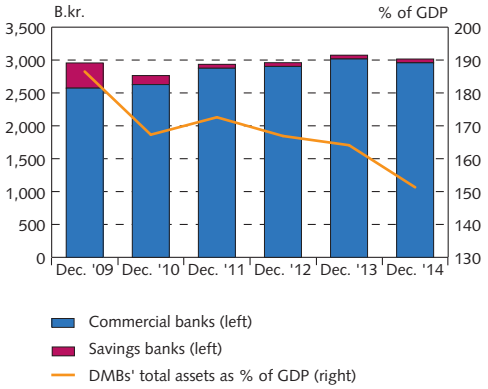
Total DMB assets decline year-on-year

At present there are four commercial banks and six savings banks in operation in Iceland. These institutions' assets amounted to 3,016 b.kr. at the end of December 2014, having fallen in nominal terms by 58 b.kr. year-on-year. It was the first nominal decline since 2010. In real terms, assets declined by 2.7% in 2014 and have fallen by a total of 13.5% since end-2009. DMB assets have declined as a share of GDP as well, from 187% in 2009 to 151% at the end of 2014.

At year-end 2014, the three large commercial banks' risk base – that is, their risk-weighted assets – amounted to 76% of their total assets. For the three banks, the ratio ranged from a low of 74.5% to a high of 76.3%. The higher the risk base and the smaller the difference between risk-weighted assets and total assets, the more offsetting capital a bank must maintain. All of the Icelandic banks use the standardised approach in calculating their risk base, and the ratio of risk-weighted assets to total assets is high in comparison with banks that use the internal ratings-based (IRB) approach. Among large Nordic banks that use the IRB approach, the ratio is closer to 30% (see Box III-2).

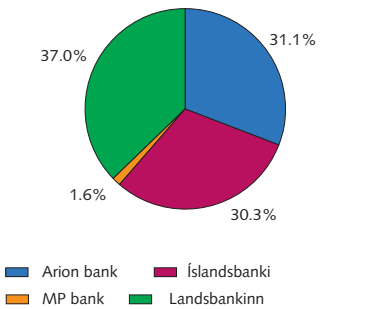
Since the banks failed in autumn 2008, Landsbankinn has been Iceland's largest commercial bank in terms of balance sheet size. At the end of 2014, its total assets constituted about 37% of total commercial bank assets, having fallen by 1.7 percentage points from year-end 2013, due partly to the 30 b.kr. prepayment of the bank's debt to LBI hf., the payment of dividends, and the sale of affiliated companies. Íslandsbanki's total assets amounted to 30.3% of total commercial bank assets as of end-2014, an increase of 2.3 percentage points year-on-year, owing mainly to an increase in lending. Arion Bank's total assets accounted for 31.1% of the total, which is broadly unchanged from the prior year, and MP Bank's ratio was 1.6%, having declined 0.4 percentage points between years.

Chart V-1
DMBs' total assets, % of GDP[1]



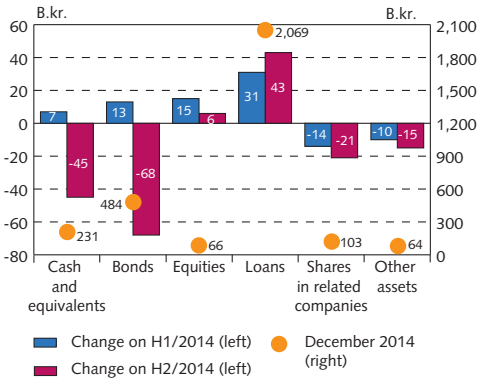
1. Parent companies.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart V-2
Commercial banks share of total assets[1]
End of year 2014



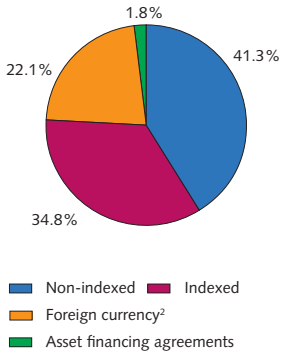
1. Parent companies.
Sources: Banks annual accounts.

Chart V-3
DMBs' total assets[1]



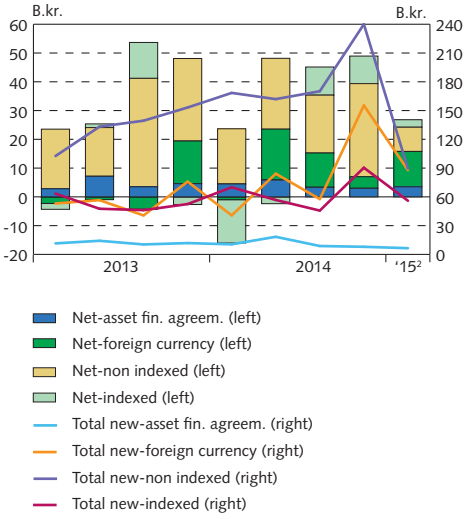
1. Parent companies.
Source: Central Bank of Iceland.

Chart V-4
DMBs' loans[1]
End of year 2014



1. Parent companies. 2. Foreign currency loans include exchange rate-linked loans.
Source: Central Bank of Iceland.

Chart V-5
Net new and total new DMB lending[1]
January 2013 - February 2015[2]



1. Commercial banks and savings banks. 2. Q1 in year 2015 contains the first two months of the year.
Source: Central Bankf of Iceland.

Loans constitute the lion's share of the DMBs' asset portfolios, at 69% of the total, or 2,069 b.kr., as of end-2014. Loans as a share of total assets rose by about 4 percentage points in the latter half of 2014 but remained unchanged in the first half of the year. The book value of loans rose by 74 b.kr. in 2014. In real terms, the increase measured 2.8%. Excluding changes in loan write-downs and valuation changes, the increase is only about 19 b.kr., or just under 1%. Prepayments and regular loan payments therefore developed more or less in tandem in 2014, and commercial bank lending declined as a share of GDP (see Chapter VI). Bonds were the DMBs' second-largest asset class, at about 16% of total assets. This percentage fell by 1.5 percentage points in 2014, owing to the reduction in Landsbankinn's bond holdings. Íslandsbanki and Arion Bank's bond holdings increased during the year. Cash is the third-largest asset class, at about 7.7% of the total, after declining by about 1 percentage point, or 38 b.kr. nominal value, in 2014. Shares in related companies amounted to 103 b.kr. at year-end 2014, a reduction of 35 b.kr. A company is considered an affiliate if it is not a subsidiary and the banks own 20% or more of its total share capital. The reduction in shares in related companies is due primarily to Landsbankinn's sale of affiliates, as is mentioned above in the discussion of Landsbankinn's total assets, and due to the fact that assets previously classified as affiliates are now considered general shareholdings because of a reduction in the banks' holdings in the companies concerned. The banks' general shareholdings rose by 21 b.kr. In this context, it is worth noting that Landsbankinn's stake in the Enterprise Investment Fund (EIF) is now classified under general shareholdings following the bank's 2014 sale of a 9.9% stake in the Fund. Overall, the banks have been scaling down their positions in stock and related companies. About 5.5% of DMB assets fall into this category; therefore, the market risk attached to share prices is now insignificant in the banks' balance sheets. Claims against non-residents totalled 396 b.kr. at the end of 2014, having declined by 61 b.kr. year-on-year. The reduction is due in large part to Landsbankinn's sale of foreign market securities to offset LBI's withdrawals to cover payments to priority creditors.

The book value of nominal loans rose by 68 b.kr. in 2014, to 889 b.kr. by the year-end. As a share of total loans, nominal loans rose by 2.3 percentage points during the year, to 41.3%. Indexed loans declined by 41 b.kr., however, to a year-end percentage of 34.8%. The share of foreign-denominated loans[1] and asset financing agreements was virtually unchanged between years.

New DMB lending outpaces prepayments

New loans granted by DMBs to resident borrowers totalled 1,387 b.kr. in year 2014, as opposed to 1,012 b.kr. in 2013. New loans net of prepayments totalled 148 b.kr. during the year, up from 139 b.kr. in 2013. As these figures show, growth in net new lending was

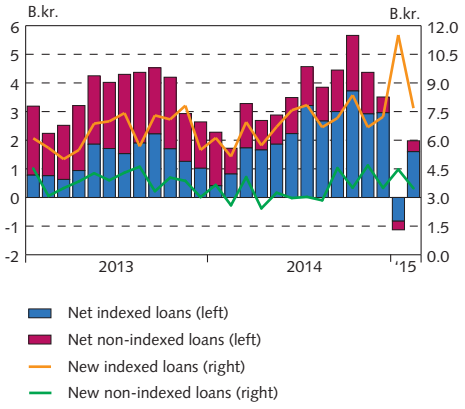
1. For the purposes of this report, the term *foreign-denominated* loans refers both to loans disbursed in currencies other than the Icelandic króna and to those that are exchange rate-linked, so that the principal changes with movements in either foreign currency exchange rates or the exchange rate index.

insignificant, with prepayments offsetting most of the increase. An examination of new loan types reveals that demand is greatest for nominal loans, particularly in view of the fact that 66% of new loans net of prepayments are non-indexed. About 22% of net new loans were foreign-denominated, 11% were asset financing agreements, and only 1% were indexed loans. These figures are in line with the increased weight of nominal loans and decreased weight of indexed loans relative to the total DMB loan stock in 2014.

An examination of DMBs' mortgage loans to households reveals a different situation, however; in 2014, there was much more demand for indexed than for nominal mortgages, in terms of both new loans and new loans net of prepayments. New mortgage loans totalled 123.3 b.kr. in 2014, and new loans net of prepayments amounted to 42.8 b.kr. Both figures are virtually unchanged from 2013. In 2014, about 64% of net new mortgage loans were indexed, a dramatic increase from the 2013 figure of 38%. Early in the year, real interest was lower on indexed loans than on nominal loans, perhaps explaining the increased demand for indexed mortgages. On the other hand, the differential between real rates on indexed and nominal loans has narrowed in recent months, although it does not appear to have dampened the demand for indexed loans. In addition, real estate prices have risen in excess of wages and disposable income in the recent term, and because debt service on indexed loans is lower at the beginning of the loan period, individuals tend to prefer them. For example, the weight of 40-year indexed annuity loans has increased. This could be viewed as a way for households to respond to rising house prices, but it is also likely that the increased popularity of these loans has contributed to housing inflation, as they provide greater scope for borrowing.

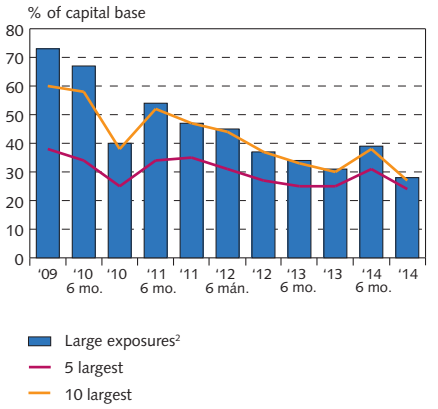
Towards the end of 2014, allocations of third-pillar pension savings towards mortgage principal began, in accordance with the Government's debt relief package. In addition, loan write-downs in connection with the indexed mortgage adjustment began at the turn of the year. The effects are illustrated clearly in Chart V-6. In January 2015, mortgage prepayments exceeded new loans by over 1 b.kr., even though the amount of new indexed loans rose markedly. It is unclear whether the Government's mortgage relief measures affect demand for indexed loans, as the write-downs affect both indexed and non-indexed loans. Those who have opted to use their third-pillar pension savings to reduce their mortgage debt can choose which loan to have written down. In cases involving a direct write-down, the reduction is entered to the loan with the highest lien priority, which could be either indexed or non-indexed. It is clear, however, that mortgage debt write-downs will reduce leveraging and increase households' scope for borrowing.

Chart V-6
New DMB's mortage lending[1]
January 2013 - February 2015



1. Commercial banks and savings banks.
Source: Central Bankf of Iceland.

Chart V-7
Large exposures[1]

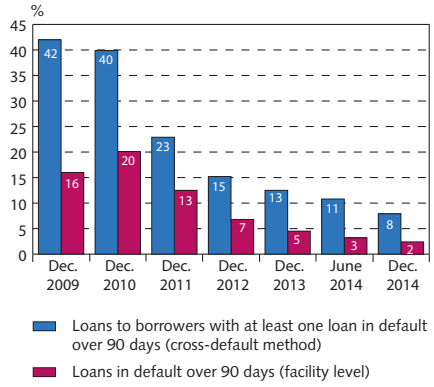


1. Consolidated figures. Large exposures to a client or group of clients may not exceed 25% of a financial undertakings capital base. The total amount of large exposures may not exceed 400% of a financial undertakings capital base. 2. An exposure incurred by a financial undertaking to a client or a group of connected clients the value of which amounts to 10% or more of the capital base of the undertaking.
Source: Financial Supervisory Authority.

Large exposures

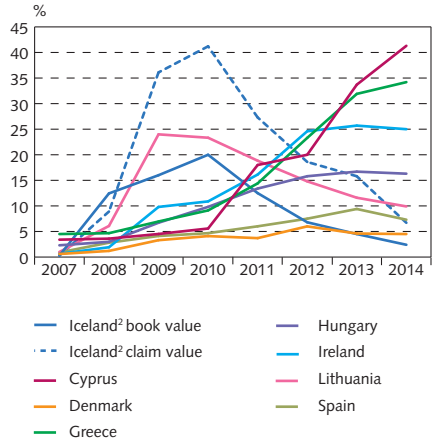
The commercial banks' capital base was 643.2 b.kr. at year-end 2014. It rose by 7.4% during the year. The amount of the ten largest exposures declined by 3 percentage points as a share of the commercial banks' combined capital base in 2014, and the amount of the five

Chart V-8
Default ratios of the three largest commercial banks[1]



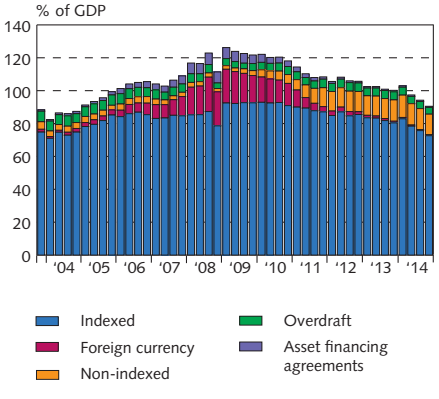
1. Parent companies, book value.
Sources: Financial Supervisory Authority, Central Bank of Iceland.

Chart V-9
Default ratios in European comparison[1]



1. Year-end figures 2007-2013. 2014: 3rd quarter unless otherwise stated. Banks' non-performing loans as a percentage of gross loan portfolio w/o write-downs. 2. 2007: Figures estimated from the annual accounts of the failed banks. 2008: Central Bank estimates. 2014: Q4 figures.
Sources: International Monetary Fund, World Bank, Financial Supervisory Authority, Central Bank of Iceland.

Chart V-10
Household debt as % of GDP
Q4/2003 - Q4/2014



Sources: Statistics Iceland, Central Bank of Iceland.

largest exposures was unchanged as a share of the commercial banks' combined capital base. As Chart V-7 indicates, large exposures have declined sharply since 2009. By end-2014 they amounted to 28% of the capital base, having declined by about 3 percentage points year-on-year.

Default ratios continue to fall

Private sector debt restructuring continued in 2014, as can be seen in the three large commercial banks' declining default ratios, from 12.5% at year-end 2012 to 7.9% at the end of 2014. These figures are based on the very conservative cross-default method, which assumes that all of a customer's loans are in default if one is in arrears or payment is deemed unlikely (Chart V-8). In 2014, the share of non-performing previously restructured loans fell most, or by 2 percentage points. It can be seen from this that progress has been made on previously restructured loans that have fallen into arrears again. It could also be that restructuring is being handled more carefully, thereby reducing the likelihood that the borrowers will end up in arrears again.

According to the facility level method of measuring default, 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. By that criterion, 2.4% of the banks' loans were in default at year-end 2014, after declining by 2.1 percentage points between years. Other things being equal, a bank with a sound loan portfolio generally has a default ratio of 1-2% in a normal operating environment. The calculation of private sector default has been based on the book value of the loans. In terms of the claim value, the rate is 6.7%. Internationally, references to default are based on claim value. Following the reconstruction of the Icelandic banking system, however, book value has been used, as the loan portfolios were transferred to the new banks at a discount, which generated a difference between book value and claim value. It was clear that a portion of the new banks' loans were worthless and repayment highly unlikely. Among such loans are those backed by shares of stock that became worthless when the banks failed. Furthermore, the claim value of non-performing loans is often not written down until restructuring is complete. As a result, it can be said that, in terms of post-reconstruction claim value, the loans were worthless and that it was obvious from the outset that they would be written down. For this reason, it has thus far been considered more accurate to base analyses of non-performing loans on book value. As Chart V-9 shows, the default ratio rose to about 40% in 2010 in terms of claim value but has fallen rapidly since then. The difference between the default ratio in terms of claim value, on the one hand, and book value, on the other, is now only 4 percentage points and, in all probability, will continue to narrow.

Households

Household balance sheets have improved

Household debt totalled just over 90.5% of GDP at year-end 2014 and declined by 1.5% in real terms during the year. As a share of GDP, it fell nearly 10 percentage points, after declining by 5 percent-

age points in 2013 and 3.5 percentage points in 2012. It was the largest year-on-year drop in household debt relative to GDP since the financial crisis, yielding the lowest ratio since 2004. The decline is due both to a reduction in nominal debt and to increased GDP. The reduction in nominal debt is due in turn to low inflation in 2014 and to the Government's indexed mortgage relief measures.

All loan classes declined relative to GDP in 2014, but the non-indexed loan ratio has not fallen since non-indexed mortgages became available in 2009. In real terms, non-indexed debt increased by over 5% year-on-year, while indexed debt declined by nearly 2%. As a share of GDP, indexed debt declined by a record 8 percentage points.

The rise in non-indexed debt is due primarily to mortgage financing. Non-indexed mortgage debt rose from 0.1% of GDP at the beginning of 2010 to 12.4% as of end-2014 (see Chart V-11). In 2014, non-indexed mortgage debt rose 10% in real terms, whereas indexed mortgages fell by 1.5%. At first glance, these figures appear at odds with the discussion of new mortgage loans at the beginning of the section on DMB assets, as the amount of new indexed mortgages was about twice the amount of new non-indexed mortgages in 2014. But the amount of net new mortgage loans was low in comparison with total mortgage loans, and because nearly 90% of mortgages are indexed, the amount paid on them is much greater than the amount paid on non-indexed mortgages. While inflation remains moderate, the share of indexed mortgages will decline, even if more new indexed mortgages are granted, provided that credit growth remains broadly unchanged from recent levels.

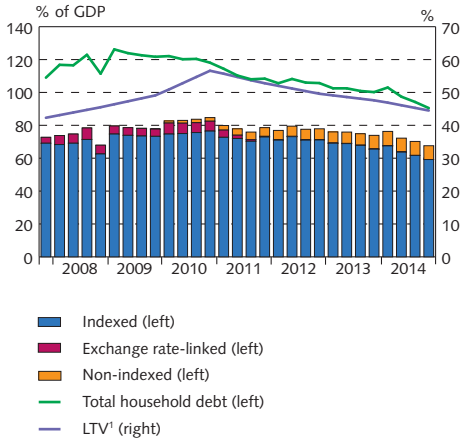
The nearly 10% increase in house prices during the year and the real decline in mortgages lowered households' loan-to-value (LTV) ratios by over 3 percentage points, to 44.5% at the end of 2014. Households' LTV ratios have improved markedly in the recent past, topping out at 56.6% at the beginning of 2011 and falling by some 12 percentage points in just four years. Households' housing equity has therefore increased substantially.

It can be assumed that households' LTV ratios and total debt relative to GDP will continue to decline in the near term, both because only a portion of the Government's write-down of indexed household debt has been implemented and because strong GDP growth is projected for this year and the following two years, at least. Furthermore, Central Bank of Iceland data show that households are making extra payments on their loans, as there is a large spread between lending rates and deposit rates. It could also be that households are more hesitant to take on debt in the wake of the financial crisis. This will support a reduction in household debt in coming quarters.

Icelandic households' debt position has changed markedly in international context

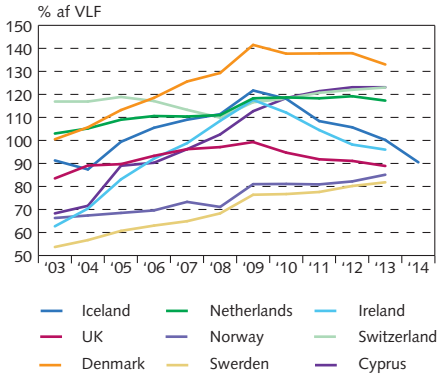
Household debt skyrocketed in Iceland in the latter half of the 2000s, as it did in countries such as Ireland, Cyprus, and Denmark. At mid-year 2009, Iceland's ratio of household debt to GDP was 126%, second only to Denmark's. Since then, debt has declined rapidly, or by 35

Chart V-11
Household mortgage debt as % of GDP and real estate value
Q4/2007 - Q4/2014



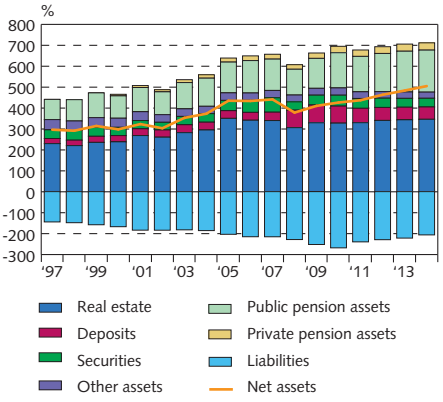
1. Household mortgage debt as % of total assets of households in real estate.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart V-12
Household debt by European comparison
2003-2014



Sources: Eurostat, Statistics Iceland, Central Bank of Iceland.

Chart V-13
Household assets and liabilities as a share of disposable income[1]
1997-2014

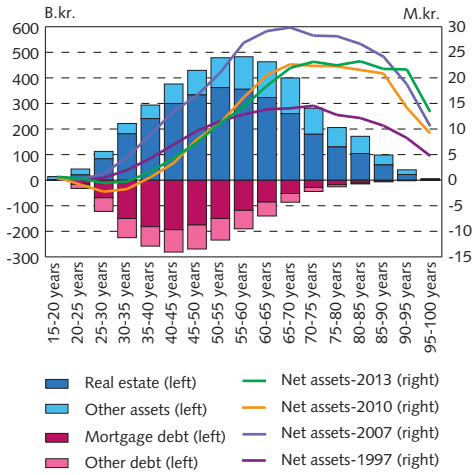


1. Pension fund assets are based on payouts after deduction of 30% income tax.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart V-14

Assets, debt and net asset position by age group[1]

Year 2013

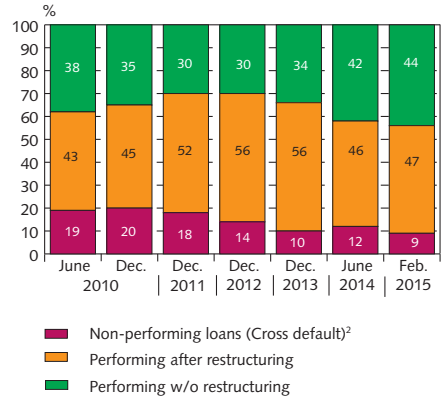


1. Left axis shows total assets and debt of each age group in 2013 and right axis shows net asset position in 2013 price levels.

Sources: Statistics Iceland, Central Bank of Iceland.

Chart V-15

Status of loans to households from the Housing Financing Fund and the three largest commercial banks[1]



1. Parent companies, book value. 2. Non-performing loans are defined as loans in default for over 90 days, frozen or deemed unlikely to be paid. The cross-default method is used; i.e., if one loan taken by a c ustomer is non-performing, all of that customer's loans are considered non-performing.

Source: Financial Supervisory Authority.

percentage points of GDP, and of the countries with heavily leveraged households, Iceland has been most successful in reducing debt. Only Ireland has achieved results similar to Iceland's, and according to the Central Bank of Ireland, it is much more common than before that households with the financial room for manoeuvre make extra payments on their loans. Iceland and Ireland are among the countries that fared worst in the 2008 financial crisis, and it is noteworthy that they are also the countries that have made the most progress in reducing household debt.

If the current trend continues, Iceland will have the lowest household debt ratio of all of the countries included in Chart V-12. Early on, Icelandic households were much more heavily leveraged, for instance, than those in Norway and Sweden, where debt has risen steadily since the turn of the century. In order to mitigate the systemic risk that can accompany excessive household debt, these countries have adopted rules on maximum LTV ratios for new loans. Furthermore, Sweden has announced rules requiring a minimum annual payment of principal on new high-LTV loans (see Appendix). When conducting an international comparison, it is important to remember that Iceland's rate of home ownership is very high, at 70-80%, well above that in the other Nordic countries. Moreover, debt related to residential construction in other Nordic countries is often held by leasing companies and the public sector rather than households, and if adjustments were made for this factor in the comparison made here, Iceland might well come out with the lowest debt ratio of the countries included in Chart V-12.

Households' equity position seldom better

Households' financial position improved markedly in 2014 and early 2015. Nearly all statistics of importance for households have developed favourably in the recent term and appear likely to continue in that vein. GDP growth has been relatively robust, the real exchange rate has risen, unemployment is down, asset prices have risen, and indebtedness is on the wane. Disposable income and real wages rose markedly in 2014; for instance, the real wage index hit an all-time high of 121.9 in January, breaking its previous record of 120.1, which dates from July 2007. Households' position has now improved uninterrupted for four years – a pattern that could also be seen before the crisis. But the premises for the improvements are more sustainable than they were during the pre-crisis period, when household indebtedness skyrocketed and other factors – such as a large current account deficit and strong capital inflows – were detrimental to their position. The current improvement in households' position has taken place concurrent with declining debt and a lasting current account surplus. Although households' economic situation has improved overall, there are still groups that are vulnerable. Chief among them are renters and low-income families with children. For example, nearly half of those now applying for debt mitigation are renters, although a much larger number own their homes.

Net household wealth relative to disposable income was also at an all-time high and is estimated at 505 percentage points at year-end 2014. In comparison, this same ratio was 380 percentage points

at year-end 2008 and about 300 at the end of 1997. The increase in net household wealth in 2014 is due mainly to rising house prices and debt reduction. It is estimated that the ratio of household debt to disposable income was about 207% at the end of 2014, down from its 2010 peak of almost 270%. It is estimated to have fallen by about 15 percentage points last year. Household debt relative to disposable income is now broadly at 2005 levels.

The authorisation for third-pillar pension savings withdrawals increased substantially in 2014, when the maximum monthly withdrawal rose from 416,667 kr. to 600,000 kr. Withdrawals increased sharply as a result, totalling 13.7 b.kr. in 2014, as opposed to 9.9 b.kr. in 2013. The withdrawal authorisation expired at the end of last year, and information from pension funds suggests that withdrawals applied for in 2014 and due for payment this year will total about 1.9 b.kr. The effects of this early withdrawal of third-pillar pension savings are therefore tapering off. Since the measure was introduced in 2009, it has increased households' disposable income and public revenues by a total of 104 b.kr., or roughly 3% of total pension fund assets.

Younger individuals more sensitive to volatility

Chart V-14 shows that real estate assets constitute a higher share of total assets for young individuals than for those who are older. At year-end 2013, real estate accounted for about 82% of total assets in the 30-40 age group, as compared with 65% for the 65-70 group. Younger people are also more heavily leveraged and have a lower net asset position. Young individuals are therefore much more vulnerable to external shocks such as fluctuations in asset prices or income. For instance, changes in property prices have a much stronger impact on this group's net asset position, and young individuals have fewer other assets that they can tap if shocks do occur. Older people generally have both a stronger asset position and more liquid assets to cushion them against shocks.

Default ratios continue to decline

The percentage of loans in default continues to fall. Using book value and the cross-default method, about 9% of total loans granted to households by the three largest banks and the Housing Financing Fund (HFF) were in default at the end of February 2015.[2] The same ratio was 10% at year-end 2013 but rose to 13.4% in January 2014 after the Housing Financing Fund made improvements to its loan portfolio reports. It has therefore fallen 4.4 percentage points in the past 13 months. The main reason for the decline in default ratios is that the monetary amount of loans classified as *in restructuring, other types of non-fulfilment,* and *frozen* has fallen.

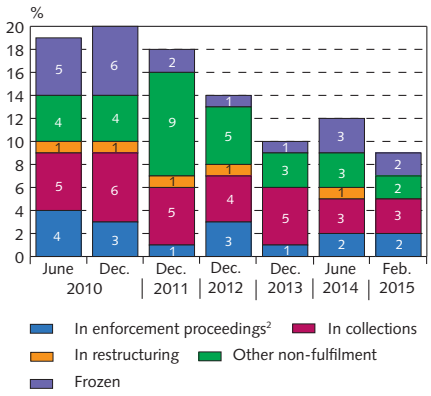
Slow reduction in individuals on default register

Developments in the number of individuals on the default register differ from developments in default. While household default to the

2. According to the cross-default method, if one loan taken by a customer is non-performing, all of that customer's loans are considered non-performing..

Chart V-16

Status of household non-performing loans from the large commercial banks and the Housing Financing Fund[1]

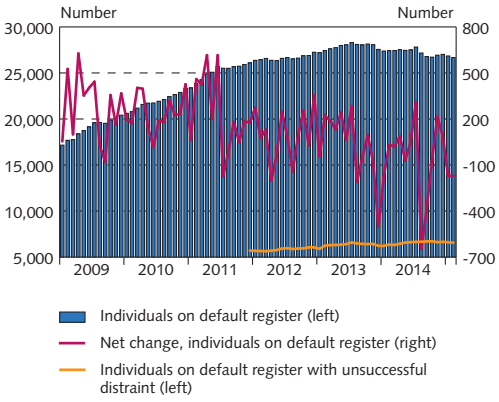


1. Parent companies, book value. Non-performing loans are defined as loans in default for over 90 days, frozen or deemed unlikely to be paid. The cross-default method is used; i.e., if one loan taken by a customer is non-performing, all of that customer's loans are considered non-performing. 2. The share of loans in enforcement proceedings and collections declined in December 2011 because the HFF did not send out dunning letters or forced sale requests in the latter half of the month.
Source: Financial Supervisory Authority.

Chart V-17

Individuals on default register, bankruptcy, and unsuccessful distraint

Monthly data, January 2009 - February 2015

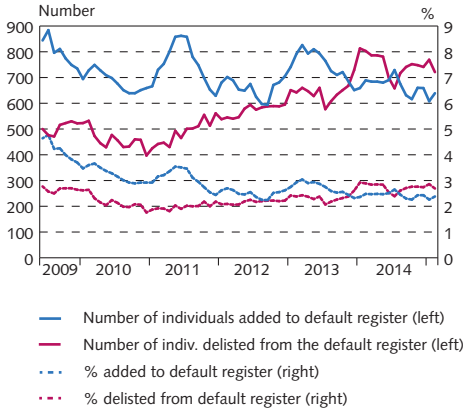


Source: CreditInfo.

Chart V-18

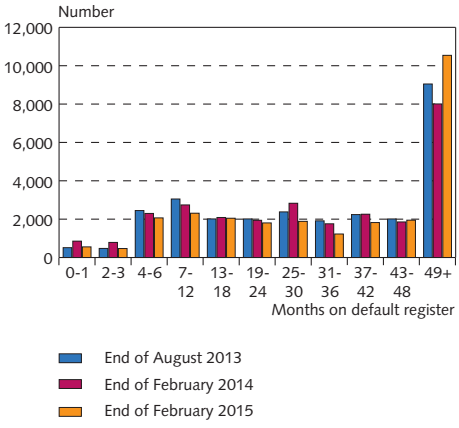
Number and % of individuals added to or removed from the default register

6 month average, June 2009 - February 2015



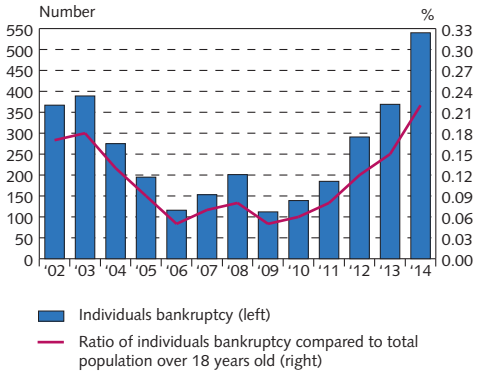
Source: Creditinfo.

Chart V-19
Individuals on default register[1]



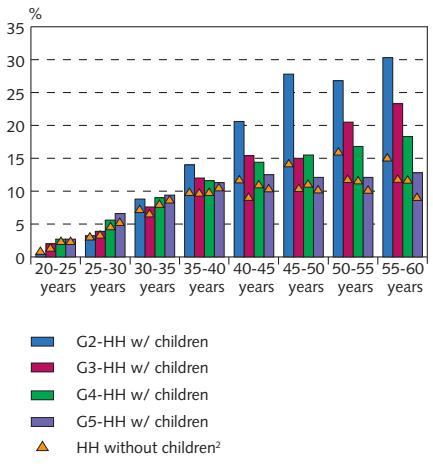
1. By number of months on default register.
Source: Creditinfo.

Chart V-20
Individuals bankruptcy[1]



1. Total for entire year.
Sources: Council of District Court Administration, Statistics Iceland.

Chart V-21
Interest burden classified after income, age group and family structure[1]
Year 2013



1. Net interest payments as share of after tax income (interest subsidies have been considered). The lowest income group G1 is not shown.
2. Can be married or individuals in cohabitation.
Sources: Statistics Iceland, Central Bank of Iceland.

large commercial banks and the HFF declined from 20% at year-end 2010 to 12% in June 2013, the number of individuals on the default register rose by 5,000. As has been discussed in previous issues of *Financial Stability*, there can be a considerable time lag between reductions in credit institutions' default figures and the number of individuals on the default register. The number on the default register has declined since mid-2013, and at the end of February 2015, there were 26,675 individuals on the default register, a decline of 1,632 from the end-July 2013 peak. The current number is similar to that in July 2012.

Chart V-18 shows the number and percentage of individuals added to and taken off the CreditInfo default register, based on a six-month average. The chart shows that the number of individuals added to and removed from the register was more or less in balance in November 2013. In the first half of 2014, the difference between the two groups narrowed, but the trend has turned around again. The number of individuals delisted from the default register has increased rather steadily in recent years, which is a positive sign. Given households' current position and the developments of recent years, it could be assumed that default register listings would fall more rapidly, particularly the number of new additions to it. In terms of the six-month average, there are still about 600 individuals added to the default register each month, about the same as at year-end 2010. No explanation has been found for this.

Chart V-19 shows that, between February 2014 and February 2015, there was a change in the length of time that individuals currently on the default register had been there. For all of the nine categories belonging to the 0- to 42-month period on the default register, the number of listed individuals has declined. The number is broadly unchanged for the 43- 48-month period, but for those on the default register for 49 months or more, the number has risen from 8,007 in February 2014 to 10,541 in February 2015. Just over 9,000 were in this category in August 2013; therefore, the current situation deserves further consideration. No explanation has been found for the increase, but based on expiry rules, it can be assumed that the number of individuals on the register for 49 months or more will decline in the near future.

The number of individuals declared bankrupt rose sharply in last year, from 369 in 2013 to 540 in 2014. According to the Central Bank's sources, this increase in personal bankruptcies is due to many individuals' expectations that the two-year expiry of claims in bankruptcy cases, which was passed into law in December 2010, would be revoked before the end of 2014, as the statutory amendment of 2010 stated that the provision should be reviewed in four years' time (December 2014). As a result, many requested bankruptcy proceedings in autumn 2014. The expiry provision has not been revoked. It is unlikely that personal bankruptcies will prove as numerous in 2015; for instance, in the first two months of the year they had declined markedly in comparison with the final months of 2014.

Renters prominent among debt mitigation applicants

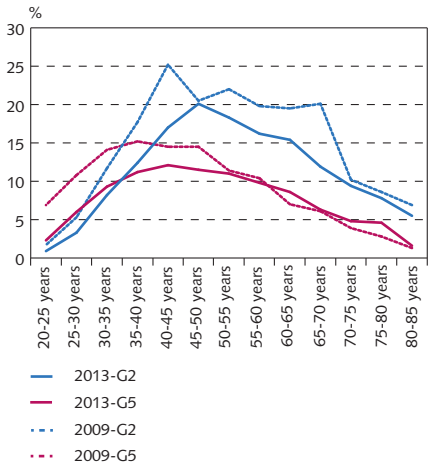
A total of 5,440 borrowers had applied to the Debtors' Ombudsman for debt mitigation by the end of February 2015. Of that total, 75 applications were in processing at the Ombudsman's Office, 282 were in the hands of supervisors, and 5,083 cases had been concluded. Of the concluded cases, 2,682 had been resolved through voluntary agreements. The debt mitigation period for these voluntary agreements has been on the decline: it averaged 20 months in 2011 and had fallen to 14 months last year. On average, 88% of contractual claims are cancelled, all of them unsecured.[3]

A total of 435 debt mitigation applications were filed in 2014, a decline of 12% from the 2013 total of 494. The proportion of renters among applicants has risen from 40% in 2012 to 47% in 2014. The large share of renters is noteworthy, as renters accounted for about 26% of applications in 2011. Applicants who own their own homes have fallen by half over the same period, from 60% to 30%. Applicants' asset and liability position has changed radically as well. In 2010, their average assets and liabilities were valued at 15.8 m.kr. and 33.6 m.kr., respectively, as opposed to 8.2 m.kr. and 17.4 m.kr., respectively, in 2014. Their average debt service capacity (before loan principal and interest expense) has changed even more – from 81,300 kr. per month in 2010 to 18,500 kr. per month in 2014.

Chart V-22

Interest burden classified after income and age group[1]

Years 2009 and 2013



1. Net interest payments as share of after tax income (interest subsidies have been considered).
Sources: Statistics Iceland, Central Bank of Iceland.

Interest burden heaviest for low-income families with children

According to income tax return data from the Director of Internal Revenue, which Statistics Iceland has processed for the Bank, families with children have a much heavier interest burden on their loans than individuals or couples without children (Chart V-21). In 2013, the interest burden of debtors aged 30-60 years with children averaged 15.7% of their disposable income, as opposed to 10.8% for those without children. However, the situation has improved greatly since it bottomed out in 2009, when the interest burden of debtors aged 30-60 with children averaged 21.9%, as compared with 13.9% for childless debtors.

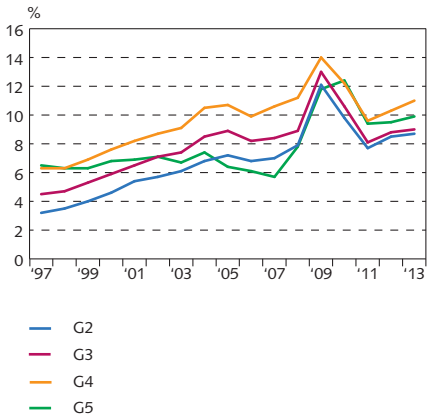
It is among low-income debtors that the difference between those with children and without is greatest: the debt burden of low-income borrowers with children can be up to twice that of their childless counterparts. Older borrowers with children – those in the 45-60 age group – have the heaviest interest burden across all income quintiles. All indicators imply that this age group took on substantial debt in 2004-2008, when credit was readily available, in order to acquire roomier housing.

As is mentioned above, the situation has improved dramatically from the low point in 2009. Chart V-22 illustrates developments among the lowest- and highest-income borrowers in all age groups.[4]

Chart V-23

Interest burden classified after income group[1]

1997-2013



1. Net interest payments as share of after tax income (interest subsidies have been considered). The lowest income group G1 is not shown.
Sources: Statistics Iceland, Central Bank of Iceland.

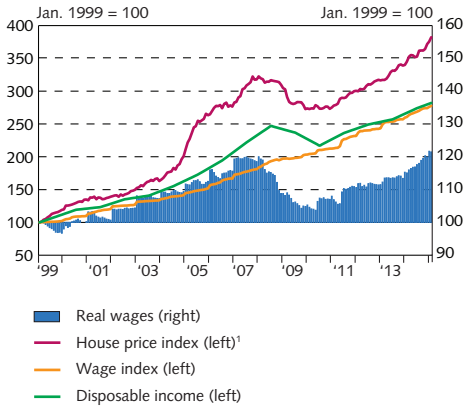
3. Contractual claims are unsecured claims negotiated between creditor and debtor. Claims are prioritised as follows: public claims such as the Student Loan Fund, tax liabilities, accumulated alimony and child support, etc., have priority; these are followed by statutory liens such as property tax and fire insurance. Next in priority are real estate-backed claims, followed by unsecured contractual claims.

4. Income quintiles 3 and 4 are not shown in the chart, but for the 20-35 age group, Quintile 3's interest burden was similar to that for Quintile 2, and Quintile 4's burden was similar to that for Quintile 5. For other age groups (35 and over), the curves for Quintiles 3 and 4 lay between those for Quintiles 2 and 5.

Chart V-24

Greater Reykjavík real estate prices, wage index and per capita disposable income [1]

January 1999 - February 2015



1. Greater Reykjavík house price index.
Sources: Registers Iceland, Statistics Iceland.

Among the youngest borrowers (20-35 years), the top income quintile has the heaviest interest burden, while the opposite is true for older individuals. Between 2009 and 2013, the interest burden of the bottom quintile has declined more than that of the top group. For example, the interest burden of high-income borrowers aged 50 and over changed very little over this period.

Between 1997 and 2004, the interest burden of income quintiles 2 through 4 increased steadily, while it remained unchanged for the top quintile. Interest expense grew well in excess of disposable income during this period. In 2006, interest burdens declined, as disposable income grew more rapidly than interest expense. In 2008 and 2009, however, interest burdens soared for all groups, particularly the highest-income group, owing partly to exchange rate-linked loans. They declined sharply in 2010 and 2011, as a result of debt restructuring and court judgments deeming exchange rate linkage unlawful. Data show as well that the special interest write-down totalling 6 b.kr. per year in 2010 and 2011 had a strong effect. When the write-down expired, interest expense rose again in 2012-2013, as the write-down was granted irrespective of income. It is noteworthy that the second-highest income quintile had the heaviest debt service burden for the entire period covered by the data (back to 1997).

Companies

Positive developments in businesses' economic environment

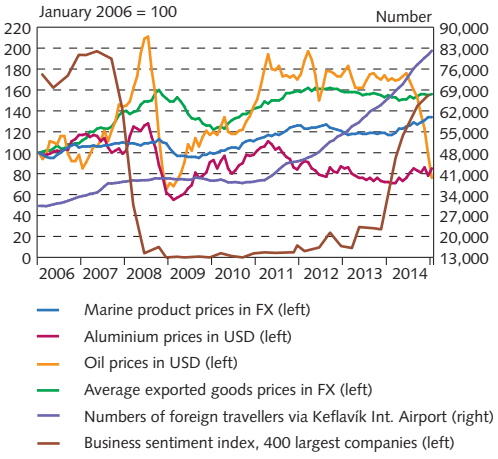
Terms of trade have improved somewhat in the recent past (by 1.9% in 2014) and look set to continue doing so through 2015. The improvement is due in large part to the steep drop in global oil prices and increased aluminium and marine product prices.[5]

The stream of foreign tourists to Iceland shows no signs of abating. A total of 1.1 million tourists came to the country in 2014, a year-on-year increase of almost 23%.[6] Analysts have forecast a continuation of this trend in coming years, with an increase of around 20% in 2015.

Firms' economic environment improved somewhat in 2014, and there are signs that the improvement will continue. According to the Capacent Gallup survey carried out among executives from Iceland's 400 largest firms in March 2015, respondents' assessment of the current situation and the outlook six months ahead has improved markedly in the past year.

Chart V-25

Developments in exported goods prices, number of foreign visitors via Keflavík Airport, and the business sentiment index[1]



1. The average price for export products and the price for marine products in foreign currency are calculated by dividing their prices in Icelandic krónur by the export-weighted trade basket. Monthly data are used for marine products, and 12-month averages are used for export products and the number of foreign visitors. Aluminium prices are in US dollars and show monthly averages. Oil prices are prices per barrel of Brent crude in US dollars. The business sentiment index indicates the 400 largest companies' assessment of the state of the economy.
Sources: Capacent Gallup, Icelandic Tourist Board, London Metal Exchange, Statistics Iceland, World bank, Central Bank of Iceland.

Debt-to-GDP ratio back to mid-2004 level

Icelandic firms' debt to domestic and foreign financial institutions and issued marketable bonds totalled about 111% of GDP at year-end 2014. The ratio fell by 17 percentage points during the year, but the pace of firms' post-crisis deleveraging has eased. In comparison, corporate debt declined by an average of 25 percentage points in 2012-2013. In real terms, it declined by about 6% in 2014, as opposed to nearly 15% in 2013. Icelandic companies' debt-to-GDP ratio was similar to that of Swedish companies in 2013.

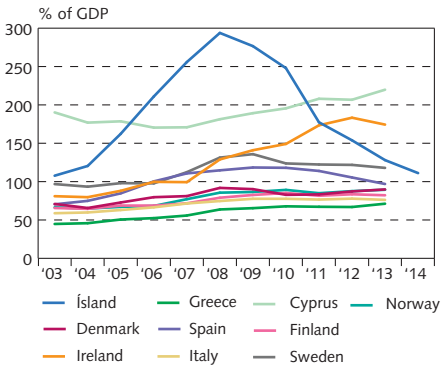
5. For further discussion, see *Monetary Bulletin* 2015/1.
6. The total number of tourists arriving by sea and by air, plus cruise ship passengers.

Corporate restructuring is well advanced; therefore, it is appropriate that debt reduction should lose pace. On the other hand, the decline in recent years has stemmed also from firms' desire to scale down their debt. According to a November 2014 survey carried out by Deloitte among the chief financial officers of the country's 300 largest firms, the outlook is for this trend to continue in the near future. It appears that firms are focused primarily on deleveraging and are using internal rather than external funds to finance investments.

At the end of 2014, the ratio of corporate debt to GDP was similar to that in mid-2004, and the weight of foreign-denominated loans has decreased markedly in recent years. Foreign-denominated loans accounted for 37% of corporate debt at year-end 2014, as opposed to 50% in 2007. The share of foreign marketable bonds has increased over the same period, however, from 4% of corporate debt to about 8%. In 2014, the ratio of foreign-denominated loans to GDP declined most, or by 8 percentage points, followed by indexed loans, which declined by 6 points. Only domestic marketable bonds increased in real value between years, rising by nearly 19%.

Chart V-26

Corporate debt as percentage of GDP in international comparison[1]

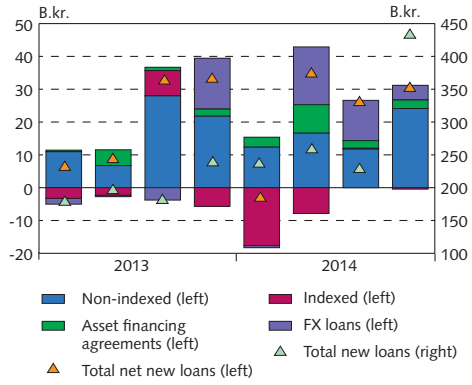


1. Data on Icelandic corporate debt include debt owed to domestic and foreign financial undertakings and issued market bonds. They are overestimated in this international comparison because they include financial holding company debt. Work is in progress to exclude financial holding companies from the data.
Sources: Eurostat, Statistics Iceland, Central Bank of Iceland.

Chart V-27

Net new lending from the three commercial banks to firms, by loan form[1]

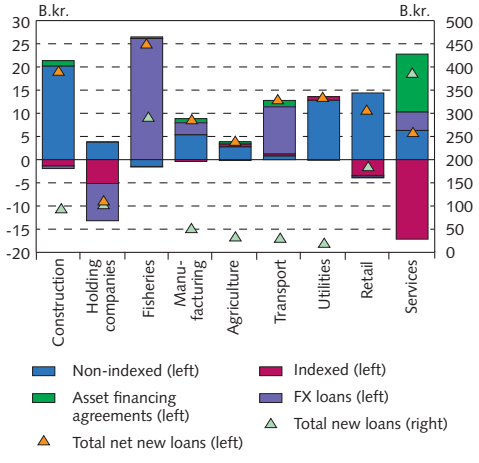
Q1/2013 - Q4/2014



1. New loans net of prepayments. Prepayments are payments in excess of contractual payments.
Source: Central Bank of Iceland.

Chart V-28

Net and total new corporate lending from the three commercial banks in 2014, by industry and loan form[1]



1. New loans net of prepayments. Prepayments are payments in excess of contractual payments.
Source: Central Bank of Iceland.

Increased bank lending

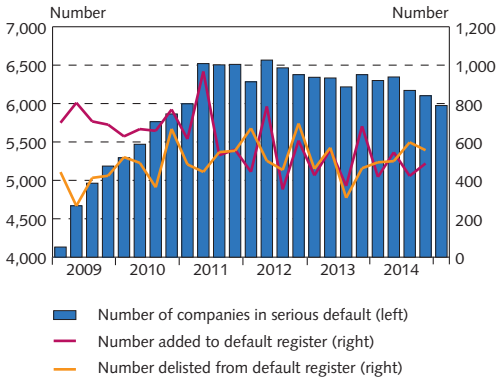
Net new loans from the three large commercial banks to firms – that is, new loans net of prepayments in excess of contractual requirements – totalled about 90 b.kr. in 2014, an increase of 7% year-on-year in real terms. Net new non-indexed loans totalled 65 b.kr., whereas net new indexed lending was negative by 26 b.kr. Net new foreign-denominated loans totalled 34 b.kr., and asset financing agreements totalled 17 b.kr. There was significant activity in the fourth quarter of 2014, with new loans totalling 434 b.kr., a large portion of it to service companies. Presumably, some part of it was due to refinancing, as prepayments were substantial; however, net new loans to service companies amounted to 6 b.kr. This includes net new indexed loans, which were negative in the amount of 17 b.kr.

Most loans were granted to fishing companies in 2014, with new lending to the sector, net of prepayments, totalling 25 b.kr. It was reported in *Financial Stability* 2014/1 that fishing companies had significant accumulated investment need, and this increase in lending indicates that some of that need is now being met. Icelandic fishing companies have also acquired capital from foreign financial undertakings, according to press releases from the Nasdaq Iceland exchange. Lending to construction companies was substantial as well during the year, at about 19 b.kr.

First signs of downturn in companies on the default register

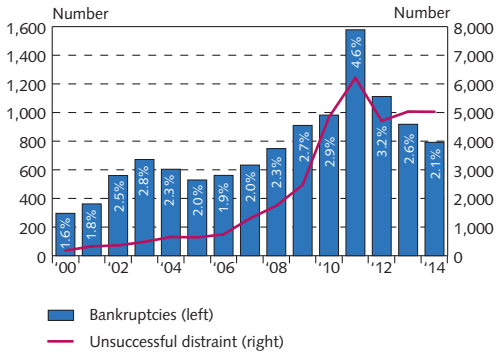
The number of companies on the CreditInfo default register began to decline in the latter half of 2014, after remaining virtually unchanged since the beginning of 2013. In February 2015, there were 5,974 firms on the register, or 15.2% of companies in Iceland. This number had fallen by 372 since mid-2014 and by 592 from the peak in mid-2012. The number of firms added to and dropping off the register has fluctuated widely over the years, however, therefore there remains uncertainty that the aforementioned development will continue. The

Chart V-29
Companies in default[1]
Q1/2009 - Q1/2015[2]



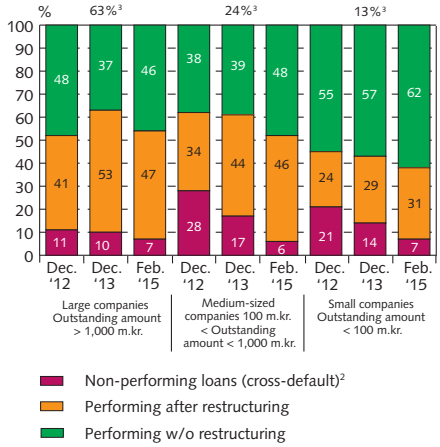
1. In February 2015, a total of 5,974 firms, or about 15.2% of the total, were listed on the CreditInfo default register. 2. Q1/2015 based on Febr. figures.
Source: CreditInfo.

Chart V-30
Corporate bankruptcies and unsuccessful distraint
Total for entire year, 2000-2014[1]



1. The percentages show bankruptcies as a share of the total number of firms.
Sources: Registers Iceland, Statistics Iceland.

Chart V-31
Status of the three largest commercial banks' corporate loans, by claim amount[1]



1. Parent companies, book value. 2. Non-performing loans are defined as loans in arrears for more than 90 days, those that are frozen, or those deemed unlikely to be paid. The cross-default method is used; that is, if one loan taken by a customer is non-performing, all of that customer's loans are considered non-performing. 3. Percentage of total loans.
Source: Financial Supervisory Authority.

six-month average of new listings, which has fluctuated between 150 and 200 over the past two years, fell below 150 in January 2015, for the first time since 2009. A continuing decline in the number of firms on the default register would be in line with other indicators of their position, as default register number have changed little in recent years, even though there have been significant changes in arrears in the banks' corporate loan portfolios, as well as in corporate debt and corporate bankruptcies.[7]

Bankruptcies down from the post-crisis peak

A total of 792 firms, or 2.1% of all companies in Iceland, were declared bankrupt in 2014. This was half the number at the peak in 2011, when nearly 1,600 firms were declared bankrupt. Most of the bankruptcies were among construction companies (150, or 19% of the total) and among companies in retail and wholesale and motor vehicle repair (144, or 18% of the total). This is similar to the pattern in recent years. A total of 3,057 new firms were established during the year, 2,047 of them private limited companies. The number of companies with actual commercial activities increased by 3.6% year-on-year. There was little or no year-on-year change in unsuccessful distraint measures by financial undertakings, which is at odds with the decline in corporate bankruptcies.

Default on DMB loans continues to decline

Using book value and the cross-default method, about 7% of corporate loans from the three large banks were in default in February 2015, a decline of just over five percentage points year-on-year.[8, 9] Non-performing loans to large firms, with a claim value of over 1 b.kr., accounted for about 7% of total lending to these firms, and for smaller companies, the ratio of non-performing loans to total loans was about 6-7%. In 2014, large firms' non-performing loans declined by just over 3 percentage point year-on-year. Large companies account for about 63% of the banks' loan books. Medium-sized firms' non-performing loan ratios declined most, or by 9 percentage point year-on-year, as opposed to 5 percentage points for small companies.

An examination of the reasons for corporate default reveals that a large portion (52%) of the loans in arrears in February 2015 were frozen loans; that is, loans that borrowers are not servicing in full according to the agreement with the lender. This percentage has risen significantly in recent years, from 21% at year-end 2012. Frozen loans were particularly prominent among large firms' non-performing loans, accounting for some 65%. A large proportion of small firms' non-performing loans (about 58%) were either in collections or in enforcement proceedings. Loans in enforcement proceedings include

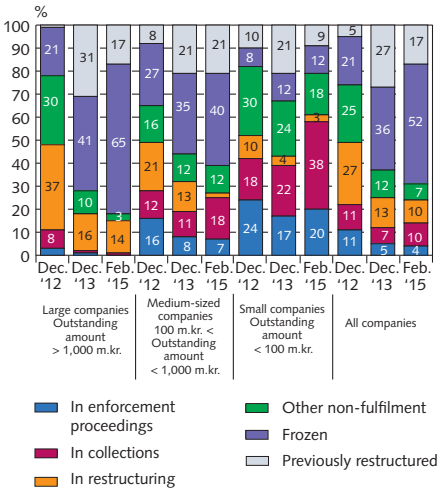
7. For further discussion of differing developments in corporate bankruptcy and unsuccessful distraint measures, see *Financial Stability* 2014/2.
8. According to the cross-default method, if one loan taken by a customer is in arrears, all of that party's loans are considered non-performing.
9. Corporate default ratios would be somewhat higher if non-performing loans from the Housing Financing Fund were included. These are primarily loans to construction companies.

those that the bank does not intend to restructure and for which it is planning to appropriate the collateral; for instance, by winding the company up. Loans in collections and enforcement are among the categories subject to the greatest change, and the large share of such loans relative to total arrears among small and medium-sized companies indicates that a further decline in arrears is likely in coming quarters. Future developments in large companies' non-performing loans are less clear, however.

The distribution of non-performing corporate loans across sectors has been relatively stable in recent years. The share of arrears among fishing companies has generally been rather high, at about 25%.[10] But in terms of total lending to the sector, the percentage of non-performing loans is similar to that for other sectors. The share of non-performing loans to firms in retail and services relative to total non-performing loans has also been high, at about 15%. In all sectors, however, non-performing loans have declined relative to total lending to the sector concerned. But this is not true of holding companies, whose non-performing loans more than doubled year-on-year, to 32% of total corporate arrears in February 2015. Real estate companies' arrears declined the most during the year, as property price rose somewhat during the period and real estate market turnover has been on the rise, which should improve companies' position. Further discussion of real estate prices can be found in Chapter I.

Chart V-32

Status of the three largest commercial banks' non-performing corporate loans, by claim amount[1]



1. Parent companies, book value. 2. Non-performing loans are defined as loans in arrears for more than 90 days, those that are frozen, or those deemed unlikely to be paid. The cross-default method is used; that is, if one loan taken by a customer is non-performing, all of that customer's loans are considered non-performing.

Source: Financial Supervisory Authority.

Improved position among the 500 largest firms[11]

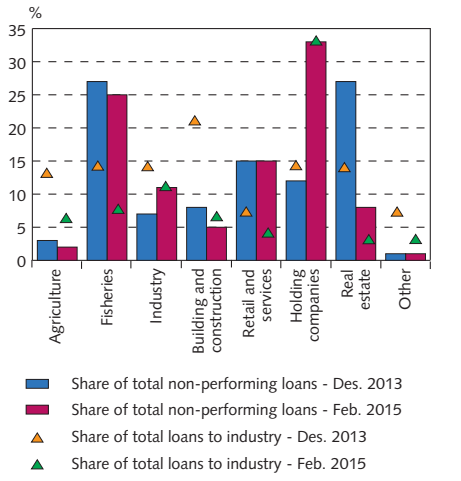
The financial position of Iceland's 500 largest firms in terms of operating revenues improved markedly in 2013 (for information on firms' position, see Table V-1). Their equity ratios rose by 3 percentage points between years, to just under 40% in 2013. By the same token, the ratio of long-term debt to capital (the sum of long-term debt and equity) fell by about 4.5 percentage points year-on-year, to 51.9% in 2013. The 500 largest firms' leverage is therefore at its lowest in the period covered by the data, which extends back to 1997.[12] The share of foreign-denominated debt fell by nearly 5 percentage points between years, to about 13% of total corporate debt at year-end 2013, as opposed to 18% in 2012 and an average of 25% during the 2000-2007 period.

Furthermore, firms' position appears stronger if their debts are examined in the context of their operating performance for the year. For example, the ratio of net debt to EBITDA was 4.7, similar to that in 2004, before the pre-crisis upswing.[13] The median figure was some-

Chart V-33

Status of the three largest commercial banks' non-performing corporate loans, by sector[1]

Share of non-performing loans and total loans to each industry



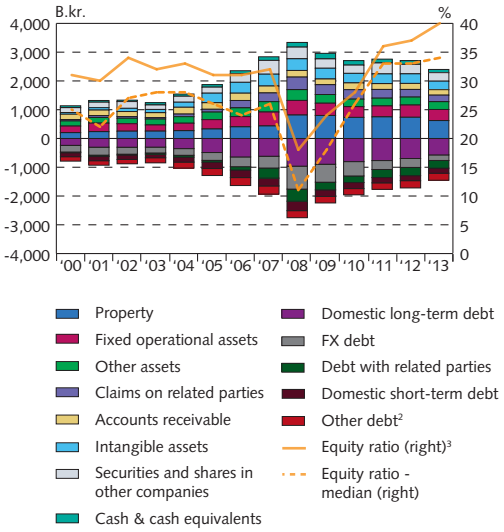
1. Parent companies, book value. 2. Non-performing loans are defined as loans in arrears for more than 90 days, those that are frozen, or those deemed unlikely to be paid. The cross-default method is used; that is, if one loan taken by a customer is non-performing, all of that customer's loans are considered non-performing.

Source: Financial Supervisory Authority.

10. Information on the number of firms in default in each sector is not available. It is therefore possible that this represents a small number of firms with relatively large balance sheets.
11. Only firms with actual commercial activities were included. Financial companies and utilities were also omitted, as were holding companies. The data were taken from corporate income tax returns.
12. For further information on the position of the 500 largest firms in recent years, see *Economic Affairs* no. 7: The capital structure and financial position of Iceland's 500 largest firms [In Icelandic: Fjármagnsskipan og fjárhagsleg staða 500 stærstu fyrirtækja landsins].
13. Net debt is an estimation of debt to creditors net of cash and short-term securities. Net debt therefore does not include liabilities such as pension obligations, income tax liabilities, accounts payable, accrued income, and unpaid value-added tax. EBITDA is a firm's profit before financial items, taxes, depreciation and amortisation.

Chart V-34

Assets and liabilities in 2013 prices and equity ratio[1]



1. The 500 firms with the highest turnover in terms of operating revenues. 2. Other debt comprise pension obligations, deferred taxes, accounts payable, accrued income, unpaid VAT. 3. Sum of combined equity for all 500 firms divided by the sum of their combined assets.

Sources: Statistics Iceland, Central Bank of Iceland.

what lower, or 3.6. In addition, the debt overhang of firms whose net debt exceeded four times EBITDA fell by over 7 percentage points between 2012 and 2013, to about 35% of total assets.[14] The greatest difference is debt reduction among companies with negative EBITDA and the most heavily leveraged companies. The number of overleveraged firms has declined since the financial crisis.

Table V-1 Financial ratios for selected years

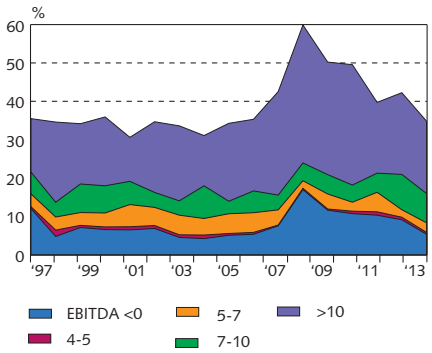
	1997	*2000*	*2004*	*2007*	*2008*	*2012*	*2013*
Equity ratio, %	30.4	30.8	33.5	31.9	17.5	36.5	39.5
Long-term debt/Capital, %	53.7	56.4	54.7	59.6	78.5	56.4	51.9
Total debt/EBITDA	6.7	10.5	6.8	9.3	12.0	7.1	6.3
Net debt/EBITDA	4.4	7.3	4.8	7.2	10.2	5.5	4.7
Long-term debt/EBITDA	3.4	6.0	4.1	6.4	9.3	5.3	4.4
Current ratio	1.18	1.21	1.26	1.09	0.87	1.12	1.10
Liquid ratio	0.79	0.86	0.89	0.70	0.60	0.75	0.73
EBIT/Interest expense	1.42	0.49	1.93	1.40	0.69	1.90	1.80
Number of firms with negative EBITDA or a net debt-to-EBITDA ratio > 4	221	273	227	247	264	242	217
Number of firms with a current ratio < 1	185	203	156	164	209	157	155
Number of firms with a ratio of EBIT to interest expense < 1	182	239	142	179	208	134	144

Sources: Statistics Iceland, Central Bank of Iceland.

Chart V-35

Debt overhang according to net debt-to-EBITDA ratio[1]

(Net debt - 4*EBITDA)/Total assets[2]



1. The 500 firms with the highest turnover in terms of operating revenues which had either negative EBITDA or a net debt-to-EBITDA ratio greater than four. 2. The sum of net debt in excess of EBITDA times four and net debt of firms with negative EBITDA is divided by the sum of total assets. Net debt is an estimate of debt to creditors less cash and short-term securities and does not include pension obligations, deferred taxes, accounts payable, accrued income, and unpaid VAT.

Sources: Statistics Iceland, Central Bank of Iceland.

14. Debt overhang = net debt – 4*EBITDA.

Box V-1

Review of interest rates on private sector loans

The past decade has seen significant changes in household debt (Chart V-10), beginning with a surge in the early part of the decade, when for example exchange rate-linked loans soared as a share of the total. In the latter half of the decade, debt declined and its composition changed, in that exchange rate-linked loans all but disappeared, and the share of non-indexed loans rose markedly. The increased share of non-indexed loans is due both to growth in demand from households and to the Supreme Court judgments finding exchange rate linkage unlawful, after which some of the affected loans were converted to non-indexed debt. In 2012, for example, 80% new mortgage loans from deposit money banks (DMB) were non-indexed.

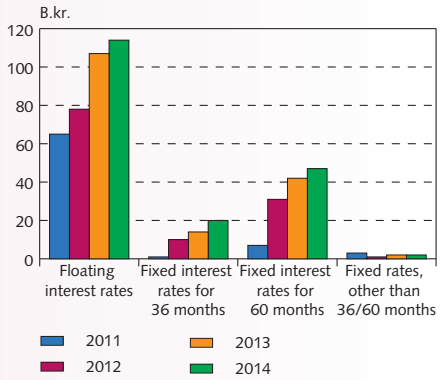
Most DMBs offer either fixed or variable interest rates on both indexed and non-indexed loans. After non-indexed loans became more common, there was a strong increase in the use of fixed lending rates, particularly for non-indexed loans with fixed lending rates for 36- or 60-months. It is important for financial stability to keep track of the risk accompanying variable interest rates and reviews of interest rates on non-indexed loans. Overall developments in interest rates can strongly affect interest terms and debt service, and the change can be abrupt when loans are subjected to interest rate review. If this does happen and rates on a large majority of non-indexed loans are reviewed at roughly the same time, consumption, financial stability, and the position of a large number of households could be affected.

In terms of the book value of the three large commercial banks' non-indexed mortgage loans, 62% of the loans, or 114 b.kr., had variable interest rates at year-end 2014 and 69 b.kr. had fixed rates, usually for 36- or 60-months. In comparison, the book value of non-indexed fixed-rate mortgages was only 11 b.kr. at the end of 2011. The increase is therefore substantial. Chart 1 shows the surge in the use of fixed rates in 2012, when about 70% net new non-indexed mortgages bore fixed interest. A study carried out by the Central Bank's Financial Stability Department shows that non-indexed mortgage rates have tracked the Bank's policy rate; furthermore, the difference between variable and fixed mortgage rates has remained broadly unchanged since 2011.

Chart 2 shows that, based on the position at year-end 2014, the fixed period will expire on just under 14 b.kr. of non-indexed loans in the next two years. The amount is considerably higher in 2017 and 2017, or just over 18 b.kr. each year. The amounts of money involved are not large enough relative to the total stock of household mortgages to cause interest rate review of non-indexed loans to make a significant impact on financial stability. Some uncertainty lies ahead, however, in the form of capital account liberalisation and wage negotiations, and it is therefore wise to keep abreast of the situation as regards the use of fixed interest rate periods.

Chart 1

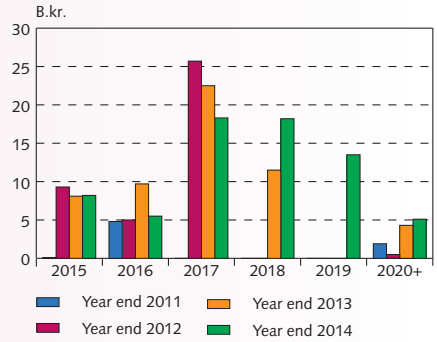
Interest rate terms of non-indexed mortgage debt[1]



1. Book value of the three largest commercial banks.
Source: Central Bank of Iceland.

Chart 2

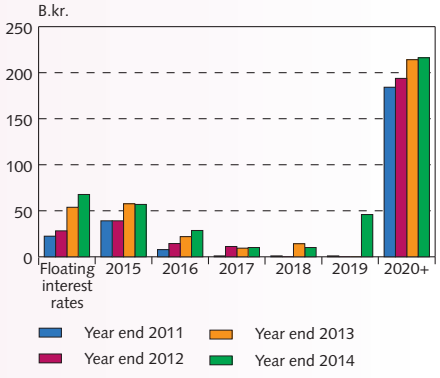
Interest rate review of fixed-rate non-indexed mortgage debt[1]



1. Book value of the three largest commercial banks.
Source: Central Bank of Iceland.

Chart 3

Interest rate review of indexed mortgage debt[1]



1. Book value of the three largest commercial banks.
Source: Central Bank of Iceland.

VI Financial market entities

Future of HFF and savings banks still under discussion

Total financial system assets grew in real terms year-on-year. Even though the equity market has grown in recent years, the pension funds' investment options are still limited, and there is the risk that, over time, their investment need could lead to a systemic distortion of asset prices and possibly riskier investments. Individuals' and legal entities' arrears with the Housing Financing Fund (HFF) have diminished, but the Fund's prepayment problem will probably escalate in the wake of the Government's indexed mortgage adjustment measures and the allocation of third-pillar pension savings towards mortgage principal. According to the savings banks' annual accounts, three of them recorded operating losses in 2014. Sparisjóður Vestmannaeyja (SpV) loss totalled nearly 1 b.kr., and its capital ratio was negative at the end of the year. At the end of March 2015, the boards of SpV and Landsbankinn reached an agreement on a merger, and the board of the Financial Supervisory Authority (FME) handed down a decision entailing merger without settlement of debt. Both Sparisjóður Norðurlands and AFL Sparisjóður were operated at a loss in 2014 and have capital ratios below FME requirements. Other savings banks generated a profit and had capital ratios somewhat above the FME threshold. Insurance companies are stepping up their investment in domestic equity securities.

Financial system structure broadly unchanged between years

At the end of 2014, four commercial banks and seven savings banks[1] were in operation in Iceland, comprising just over a third of the financial system.[2] According to year-end 2014 figures, the assets of these deposit money banks (DMB)[3] totalled just under 3,016 b.kr., or about one-and-a-half times GDP. Since 2013, DMB assets have contracted by nearly 2.7% in real terms (for a more detailed analysis, see Chapter V "DMB assets and borrowers' position").

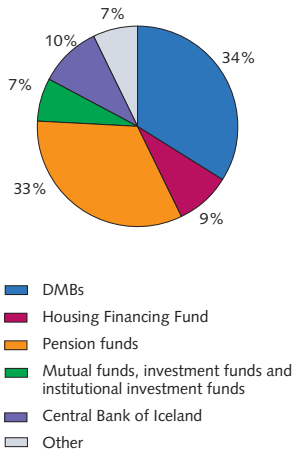
Table VI-1 Financial system assets

Assets, b.kr	*31.12. 2010*	*31.12. 2011*	*31.12. 2012*	*31.12 2013*	*31.12 2014*	*Change from 31.12 .'13*
Banking system[1]	3,878	4,402	3,862	3,888	3,857	-31
- Central bank of Iceland	1,114	1,466	902	815	841	26
- Commercial banks	2,627	2,875	2,903	3,015	2,958	-57
- Savings banks	137	60	57	58	58	0
Other credit institutions	1,129	1,097	1,076	1,067	1,031	-36
- Housing Financing Fund	836	864	876	863	824	-39
Pension funds	1,989	2,169	2,437	2,696	2,939	243
Insurance companies	138	145	155	165	168	3
Mutual funds, investment and institutional funds	284	516	583	618	636	18
State loan funds	161	171	192	210	221	11
Total assets	7,579	8,500	8,304	8,643	8,852	209

1. The banking system consists of commercial banks, saving banks, and the Central Bank of Iceland. Internal trades between the Central Bank of Iceland and other parties within the financial system are excluded.

Source: Central Bank of Iceland.

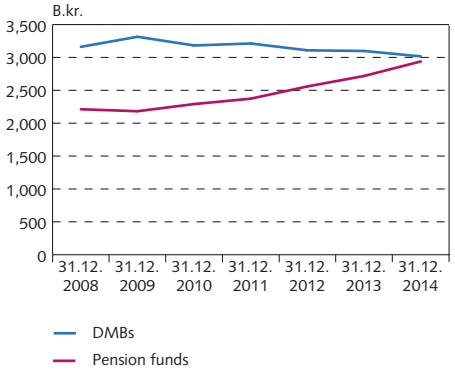
Chart VI-1
Distribution of financial system assets[1]
Year-end 2014



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

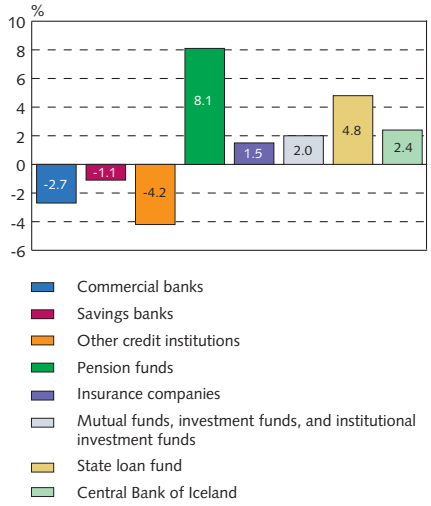
1. The number of savings banks fell to six in late March, when Sparisjóður Vestmannaeyja ses. was merged into Landsbankinn hf. with a takeover of assets and liabilities and the savings bank wound up.
2. The financial system consists of the banking system, miscellaneous credit undertakings (including the Housing Financing Fund), pension funds, insurance companies, mutual funds, investment funds, and institutional investment funds, and Government credit funds.
3. Deposit money banks (DMBs) are commercial banks and savings banks.

Chart VI-2
DMBs' and pension funds' total assets[1]
At constant year-2014 prices



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

Chart VI-3
Changes in financial system assets real terms[1]
December 2014, year-on-year change



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

The pension funds account for another third of the financial system. After increasing by 33% in real terms since 2008, pension fund assets amounted to almost 2,939 b.kr. at year-end 2014, roughly on par with the DMBs in terms of size relative to the system as a whole. The final third of the financial system consists of other financial institutions, predominantly miscellaneous credit[4] undertakings. The assets of the Housing Financing Fund (HFF), which account for about 80% of this segment, totalled some 824 b.kr. at the end of 2014.

The commercial banks' assets amounted to 148% of GDP as of end-2014. An analysis of their operations, assets, and liabilities can be found earlier in this publication. This chapter focuses on financial system structure and other financial system entities, particularly pension funds, the HFF, savings banks, and insurance companies, whose combined assets amounted to about twice GDP at the end of 2014.

Financial system assets

At the end of 2014, total financial system assets amounted to 8,852 b.kr., after increasing in real terms by nearly 140 b.kr., or 1.6%. Total assets relative to GDP declined by 15 percentage points year-on-year, to a year-end 2014 total of 444%. Pension fund assets increased most, or more than 8% in real terms, while HFF assets declined by 5.2%, also in real terms. The assets of miscellaneous credit undertakings other than the HFF remained virtually unchanged between years. Total savings bank assets continued to contract year-on-year, declining by 620 m.kr. in real terms.

According to end-2014 figures, total assets of credit undertakings[5] amounted to nearly 4,050 b.kr., with the commercial banks accounting for the vast majority, or over 73%, as in past years. Second in line is the HFF, with just over 20% of credit undertakings' total assets. The share held by miscellaneous credit undertakings other than the HFF was about 5%. Of this sub-group, Municipality Credit Iceland Plc was largest, with 77 b.kr. in assets. The savings banks' share is just over 1%.

At the end of 2014, the stock of loans granted by resident entities to households and businesses was 3,626 b.kr., or 182% of GDP, after declining 16 percentage points since year-end 2013. In real terms, it declined by 3% during the year and by 12% over the past two years. Private sector debt is therefore still declining, although there is a discernible increase in net DMB lending.

Pension funds[6]

Pension fund assets grew by 8% in real terms in 2014, to a year-end total of 2,939 b.kr., or 147% of GDP, up from 143% of GDP at the end of 2013.[7] About 90% of pension fund assets are held by coin-

4. Miscellaneous credit institutions are the Borgun hf., the Icelandic Regional Development Institute, Housing Financing Fund, Municipality Credit Iceland Plc., Lýsing hf., Straumur Investment Bank and Valitor hf.
5. Credit undertakings are DMBs and miscellaneous credit institutions.
6. Based on pension funds' balance sheet summaries, collected by the Central Bank of Iceland. Monthly data are compiled from samples from the largest pension funds in Iceland and total assets are estimated from these data. Based on preliminary figures.
7. In addition, assets held by custodians of pension savings are estimated at 136 b.kr. as of end-2014.

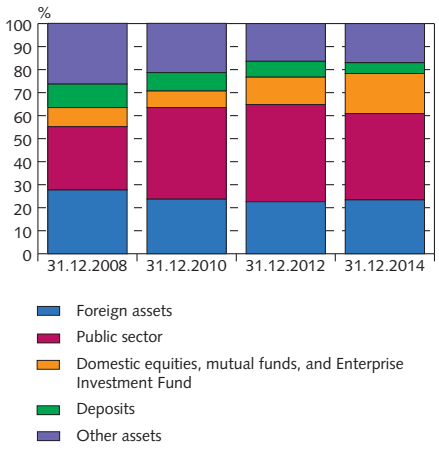
surance divisions, and about 10% of that total consists of third-pillar pension savings held in custody by them. The pension funds' bond holdings relative to total assets declined by 1.8 percentage points year-on-year, to 54% as of end-2014. Equity securities accounted for 16% of assets, an increase of 2.9 percentage points between years. The share of assets other than bonds and equities remained relatively constant year-on-year. Deposits in banks and savings banks accounted for 5%, unit shares 23%, holdings in the Enterprise Investment Fund (EIF)[8] about 1%, and other assets 1%. About ¾ of total pension fund assets are domestic (2,204 b.kr.) and about a fourth foreign (735 b.kr.). The proportion of foreign assets has increased slightly since 2013, as returns abroad have kept pace with domestic returns plus net contributions from fund members. Foreign saving by resident entities and pension funds is discussed in Box II-2.

Marketable bonds are the largest single asset item held by the pension funds, accounting for 44% of the total. The pension funds' marketable bond holdings increased by nearly 79 b.kr. in 2014, to a year-end total of 1,306 b.kr. HFF bonds account for just under half of marketable bond holdings, but they declined relative to total holdings by 1.8 percentage points during the year. HFF14 matured on 15 September 2014, but the pension funds were not large owners of that bond; however, they continued to increase their holdings in HFF24, HFF34, and HFF44 during the year. At the end of 2014, they held 55.6% of HFF24, 73.7% of HFF34, and 88.1% of HFF44. Just over a fifth of the marketable bonds are Treasury instruments, some 69% of them nominal bonds and 31% indexed. The largest proportional year-on-year change in marketable bond holdings was in bonds issued by investment and institutional investment funds, which nearly doubled, rising from the end-2013 balance of just under 27 b.kr. to almost 51 b.kr. at year-end 2014. Institutional investment fund issues enable pension funds to lend money for real estate projects, even in excess of levels that would be possible via direct investment, because of restrictions in the pension funds' investment authorisations. A review of statutory provisions on pension funds' investment authorisations is currently underway. At year-end 2014, unlisted bonds totalled just under 283 b.kr., or about 10% of total pension fund assets.

Just under a fourth of total assets are unit shares, the vast majority of them (83%) in mutual funds. Holdings in mutual fund units increased by 82 b.kr. year-on-year, including just under 71 b.kr. in foreign mutual funds. The króna appreciated somewhat in 2014, and therefore this increase is due mainly to investment abroad. Corporate equity securities amounted to 470 b.kr., or 16% of total pension fund assets, at the end of 2014. Equities increased by just over 117 b.kr., including 101 b.kr. due to domestic shares. N1 shares were admitted for trading on the Nasdaq Iceland exchange at the end of 2013, followed by Sjóvá-Almennra shares in April 2014. The 20 largest owners of shares in Icelandic companies listed on the exchange held over

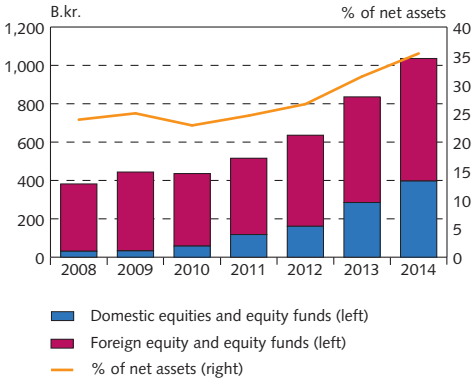
8. The Enterprise Investment Fund (EIF) was established at the end of 2009 by 16 pension funds that control about 64% of total pension fund assets in Iceland. Since then, Landsbankinn and VÍS have joined the group of owners. The EIF's role is to promote the reconstruction of the Icelandic economy in the wake of the financial crisis.

Chart VI-4
Pension funds' assets[1]



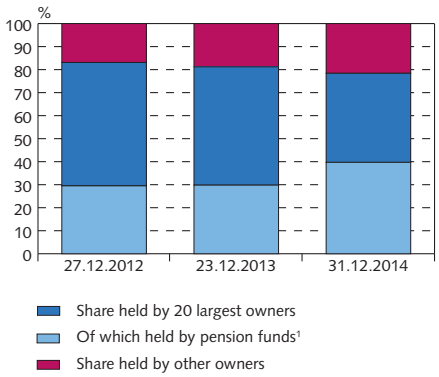
1. Figures are based on the pension funds' summaries of assets and liabilities, which are gathered by the Central Bank of Iceland. Monthly data are collected from a sample of the largest Icelandic pension funds, and total pension fund assets are estimated on this basis. Based on provisional figures.
Source: Central Bank of Iceland.

Chart VI-5
Pension funds' equity holdings[1]



1. Figures are based on the pension funds' summaries of assets and liabilities, which are gathered by the Central Bank of Iceland. Monthly data are collected from a sample of the largest Icelandic pension funds, and total pension fund assets are estimated on this basis. Based on provisional figures.
Source: Central Bank of Iceland.

Chart VI-6
Listed companies' 20 largest shareholders
Year-end 2014



1. Direct ownership; i.e., excluding assets held by pension funds through mutual funds and the Enterprise Investment Fund.
Source: Nasdaq Iceland.

74% of all share capital at the end of 2014. Of that total, the pension funds' direct holdings (excluding assets held via mutual funds or the EIF) accounted for just under 40%. The pension funds' investment options have expanded in recent years as the domestic equity market has grown. Their investment need remains significant, however. According to the annual accounts summary prepared by the Financial Supervisory Authority (FME), the pension funds' investment need could be approaching two hundred billion króna in 2015. Their real returns in 2014 are estimated at 7.2%, well above the 3.5% actuarial threshold.[9]

Housing Financing Fund

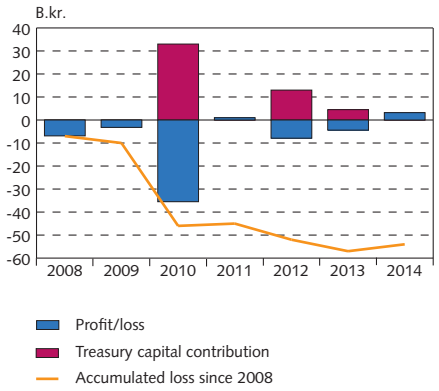
The HFF's total assets amounted to 824 b.kr. at year-end 2014, about 39 b.kr. below the end-2013 total of 863 b.kr. The main cause of the reduction was a 40 b.kr. downturn in lending, as loans account for 88% of the Fund's assets, or 728 b.kr.

The HFF generated a profit of 3.2 b.kr. in 2014, as opposed to a 4.4 b.kr. loss in 2013. In 2014, net interest income did not cover the Fund's operating expenses, however, and the profit is due to settlement and negotiated settlement of claims against the failed banks in connection with bonds and derivatives, on the one hand, and income from investment assets, on the other. Capitalised entries relating to these irregular items amounted to just under 5.1 b.kr. The Fund's capital totalled just over 18 b.kr. at the end of the year, and the capital ratio was 4.5%, up from 3.4% at the end of 2013. The capital ratio is still below the long-term target of 5%, however.

At the end of 2014, outstanding securities issued by the HFF totalled just under 799 b.kr., having decreased by 36 b.kr. during the year. The HFF has not issued any bonds since January 2012. The Fund's future is highly uncertain, and the Ministry of Welfare is currently preparing recommendations concerning its future role. Bills of legislation on housing affairs submitted by the Minister of Social Affairs and Housing were considered at a Cabinet meeting before Easter. The Minister hopes that Parliament will complete its consideration of the bills before the end of the spring session or that a summer session will be convened.

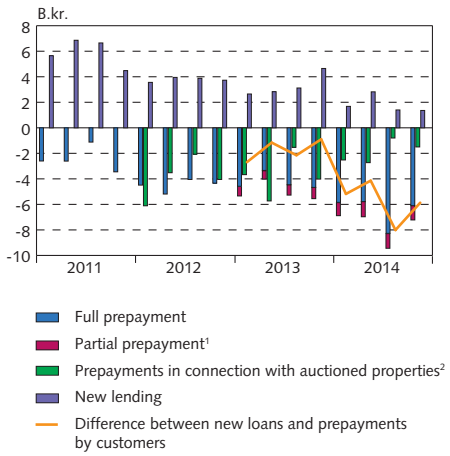
Prepayments and extra payments by HFF customers totalled just under 30.5 b.kr. in 2014, as opposed to just over 20.1 b.kr. in 2013. The Fund's prepayment problem is therefore still growing. The HFF is not authorised to pay its debt before maturity, although it can buy its own bonds in the market. The HFF's loan portfolio continues to shrink as a result of increased prepayments and reduced new lending. The total amount of new loans declined by nearly 5 b.kr. in 2014. The Fund's social assistance loans at 3.5% interest have increased as a share of its total lending in recent years.[10] The number of new loans fell between years, from 1,302 in 2013 to 636 in 2014.

Chart VI-7
HFF profit/loss and Treasury capital contribution



Sources: HFF annual accounts.

Chart VI-8
Prepayments by HFF customers and new loans



1. Data for 2011 and 2012 not available. 2. Data for 2011 not available.
Source: Housing Financing Fund.

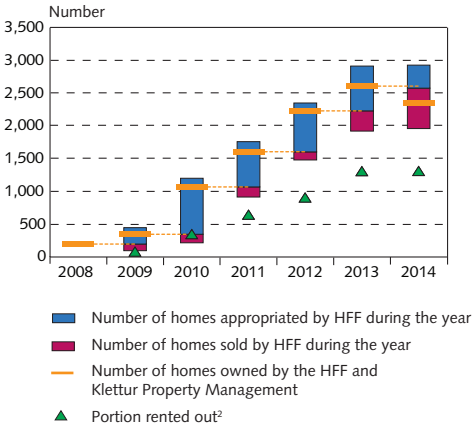
9. Icelandic Pension Funds Association, news report 12 February 2015: Pension funds' real returns in 2014 estimated at 7.2%.

10. The Treasury pays a contribution due to loan interest subsidies. Loan interest subsidies are due to subsidised rental housing for municipalities and non-governmental organisations, such as student associations and associations for the disabled.

The Government's indexed mortgage debt adjustment plan and the allocation of third-pillar pension savings, which authorise extra payments towards mortgage without the penalty provided for in the terms of the HFF bonds, have exacerbated the Fund's prepayment problem still further. By law, full compensation will be made to the Fund for the adjustment of principal, but not for payments made with third-pillar pension savings. It is not clear how the HFF will be compensated for these losses, and the Fund and the authorities have yet to finalise a solution. On 19 December 2014, an agreement was signed between the Housing Financing Fund and the Ministry of Finance and Economic Affairs concerning the purchase of the adjusted portion of the loans in connection with the Government's indexed mortgage debt adjustment plan. The estimated book value of the loss on the purchase is 433 m.kr., as the purchase price of the adjusted portion is somewhat below its book value. The HFF's estimates also assume that the write-down will reduce the Fund's loan portfolio by 34-36 b.kr., thereby lowering its net interest income by some 600-900 m.kr. per year. Furthermore, the Fund estimates that about 15-17 b.kr. will be paid on loans using third-pillar pension savings, reducing net interest income by some 300-450 m.kr. on an annualised basis, after adjusting for lost prepayment income. The Government's measures could have a significant effect on the HFF's interest income, particularly in view of the fact that the average duration of its financial assets was nine years as of end-2014. On the other hand, developments in investments and inflation also affect interest payments; therefore, the loss ultimately sustained by the Fund is somewhat uncertain.

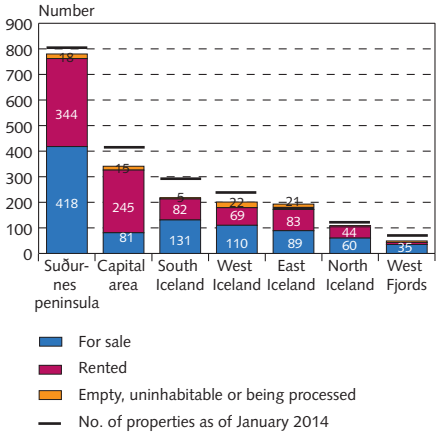
A Property Management company called Klettur was established at the beginning of 2014 as a subsidiary of the HFF. According to an agreement between Klettur and the Fund, Klettur will purchase 450 flats that the HFF has acquired in connection with settlement of debt. The agreement separated the operation of the 450 rental properties from other HFF operations. Finalisation of Klettur's financing has been delayed, pending a statement from the EFTA Surveillance Authority on contract provisions permitting the HFF to loan money to Klettur for the purchase. Net income on Klettur's operations amounted to just over 1 b.kr. in its first operating year, although the majority of the income, 650 m.kr., derives from the revaluation of investment assets. At the group level, the HFF sold 616 flats in 2014, about twice the number in 2013, and appropriated 351, about half as many as in the prior year. Because of increased sales and the decline in the number of properties appropriated by the Fund, the number of HFF-owned flats declined for the first time since 2008. At year-end 2014, the HFF and its subsidiaries owned 2,341 flats. Just under 56% of these properties were being rented out at the end of the year, as the HFF rents out property in areas where rental housing is lacking and the Fund does not dominate the market. About 41% of its properties are located in the Suðurnes peninsula region, another 18% are in the capital area, and the remainder are scattered around the country. In 2014, the HFF's property holdings decreased most in the greater Reykjavík area and in South Iceland, where the Fund sold a multi-family building with 22 flats, among other properties.

Chart VI-9
Residential properties owned by the Housing Financing Fund[1]



1. Consolidated accounts. 2. The Housing Financing Fund began renting out residential property in March 2009. Klettur Property Management began renting out residential property in the beginning of 2014.
Sources: HFF annual financial statements and monthly reports, Klettur Property Management.

Chart VI-10
HFF-Owned property, by region
Year-end 2014



Source: Housing Financing Fund.

Non-performing and frozen loans[11] taken by individuals totalled 49.8 b.kr. at the end of 2014, a reduction of 17.5 b.kr. year-on-year. The ratio of non-performing loans to total HFF loans to individuals was 8.2% at the end of 2014, a reduction of 2.2 percentage points since end-2013. The number of households in default declined by 980 in 2014, to a year-end total of 2,563.[12] Non-performing corporate loans also declined in 2014. The non-performing corporate loan ratio fell by 4.7 percentage points during the year, to 17.6% by the year-end. At the end of 2014, legal entities' arrears totalled 26.1 b.kr., as opposed to 33.7 b.kr. a year earlier. Non-performing and frozen HFF loans accounted for just over 10% of the Fund's total loan portfolio at the end of 2014, a reduction of 2.6 percentage points since end-2013. Arrears declined by 9.4 b.kr. in the first two months of 2015, owing to the Government's debt relief measures. Further analysis of individuals' arrears, including to the HFF, can be found in Section V "DMB assets and borrowers' position".

Savings banks

The total assets of the seven savings banks in operation at the end of 2014 amounted to just under 58 b.kr. According to their annual accounts, three savings banks recorded operating losses in 2014. Sparisjóður Vestmannaeyja's (SpV) loss was greatest, at just over 957 m.kr., and its capital ratio was negative by 1.1% at the year-end. Substantial impairment of Sparisjóður Vestmannaeyja's (SpV) loan portfolio came to light in mid-March 2015, it stemmed primarily from the portfolio of the bank's branch in Selfoss. It was clear that SpV's capital ratio did not meet the capital adequacy requirements according to the Act on Financial Undertakings, no. 161/2002, at the end of 2014. At the end of February 2015, its liquidity ratio was well above the minimum provided for in the Central Bank of Iceland Rules on Liquidity Ratio, etc., no. 1031/2014, but as soon as news of its difficulties began to spread, depositors began to withdraw cash or transfer their money to other DMBs. SpV was unable to guarantee access to enough liquid assets to withstand continued outflows of this magnitude, and following efforts by its board of directors to revitalise it, the bank sought a merger with Landsbankinn. The boards of Landsbankinn and SpV reached an agreement on a merger, whereupon the board of the Financial Supervisory Authority took a decision entailing merger without settlement, so that Sparisjóður Vestmannaeyja was merged into Landsbankinn with a takeover of assets and liabilities and the savings bank wound up. Landsbankinn has therefore taken over all of SpV's assets and liabilities, including customer loans and deposits.

Sparisjóður Norðurlands recorded a loss of just over 672 m.kr. in 2014, and its year-end capital ratio was 8.2%, just above the minimum provided for by law but below the threshold set by the FME. The bank is now working towards ensuring that it satisfies the FME's requirements. Its operating loss derives in part from the write-down

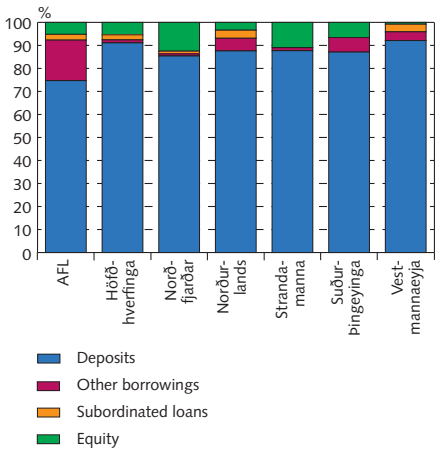
11. Includes loans in arrears by more than 90 days and those for which payments have been frozen.

12. Housing Financing Fund monthly reports.

of Sparisjóður Bolungarvíkur's loan portfolio, which had not been determined at the time of the merger between the two last summer. The third savings bank to generate a loss in 2014 is AFL Sparisjóður, which turned in a loss of just under 189 m.kr., mainly due to a 454 m.kr. entry to its credit provisioning account during the year, owing to uncertainty about the bank's loans. AFL's year-end capital ratio was 7.3%, which is below the statutory minimum. It has been decided that AFL will be put up for sale. Other savings banks were operated at a profit, and their capital ratios were somewhat above the 8% statutory minimum. Based on the operating results from 2014, the boards of three of these savings banks have proposed that dividends be paid out.

The Annual General Meeting of Sparisjóður Norðfjarðar, held on 14 April, approved the board's recommendation to change the operational form of the bank to a limited-liability company, which entailed winding up the savings bank. Guarantee capital owners acquired shares in Sparisjóður Austurlands hf., which took over all rights and responsibilities of Sparisjóður Norðfjarðar as of 1 January 2015. Sparisjóður Austurlands' share capital totals just over 700 m.kr. and is divided among guarantee capital owners *pro rata*. The main purpose of the change is to support the continued growth and development of the bank.

Chart VI-11
Saving banks' funding[1]
Year-end 2014



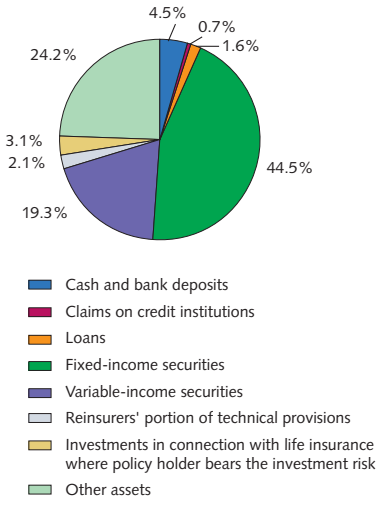
1. Consolidated figures.
Sources: Savings banks annual financial statements.

Insurance companies

Insurance company assets increased in real terms by just over 2.5 b.kr., or 1.5%, in 2014, to a year-end total of 168.5 b.kr. About 64% of assets held by insurance companies are marketable securities; some 44.5% are fixed-income securities[13] and just under 19.5% are variable-income instruments.[14]

The largest single asset item is indexed market bonds, which increased by 2.4 b.kr. during the year, to a total of 63.6 b.kr. at the year-end. The largest year-on-year increase, however, was in equity securities, which rose by over 8.4 b.kr., or 92%, to an end-2014 total of more than 17.5 b.kr. This substantial rise was attributable, among other things, to market returns and to the insurance companies' increased investment in domestic equities.

Chart VI-12
Insurance companies' assets[1]
Year-end 2014



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

13. Indexed, exchange rate-linked, and nominal marketable bonds, plus marketable bills.
14. Equities and unit shares.

VII Settlement of the failed banks' estates

Winding up the estates could entail a balance of payments problem

All of the priority claims against the Kaupthing and Glitnir estates have been paid, and the LBI estate has paid about 85% of its priority claims. The estates' total assets now have a book value of 112% of GDP. Assets that revert to general creditors have a book value roughly equal to GDP. Domestic assets currently account for 41% of the estates' total assets and domestic claims about 6%. Other things being equal, substantial domestic assets will revert to foreign creditors, a large portion of them ISK-denominated assets with a book value amounting to roughly a fourth of GDP.

Settlement of Glitnir, Kaupthing, and LBI

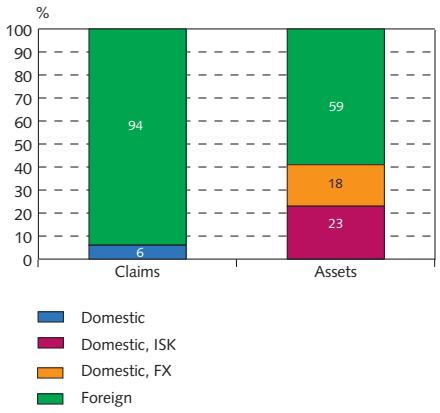
More than two-and-a-half years ago, the Glitnir and Kaupthing winding-up boards requested exemptions from the Foreign Exchange Act, no. 87/1992, in order to conclude composition agreements. The LBI winding-up board aims to conclude a composition agreement once its priority claims have been paid in full. According to the current legal framework, payments to general creditors cannot take place without either a composition agreement or bankruptcy proceedings. Because of uncertainty about the arrangements for and timing of disbursements to general creditors and the fact that returns on the estates' liquid assets are very low, the Glitnir and Kaupthing winding-up boards are hesitant to sell fixed assets.

Classification of claims as domestic or foreign

The amount creditors recover on their claims can never exceed the value of the estates' assets. As a result, the majority of the claims will be written off. Obligations can develop between residents and non-residents during the winding-up process, however, as the ratio of domestic to foreign assets differs from the ratio of domestic to foreign claims. Nevertheless, this depends on how the distribution of the estates' domestic assets is financed.

Table VII-1 shows the classification of approved claims according to the estates' claim registers as of year-end 2014. It is estimated that about 6.1% of the underlying claims are actually domestic and the other 93.9% foreign.[1] The share of domestic assets has increased by 0.4% from year-end 2013. This is mainly because LBI's outstanding priority claims have declined due to disbursements, as domestic priority claims are insignificant. On the other hand, some residents have sold their claims to non-residents in recent months. It should be noted that this analysis is still subject to some uncertainty. About 2% of outstanding claims against the estates are still in dispute. Domestic

Chart VII-1
Estimated domestic/foreign breakdown of assets and claims of DMBs in winding-up proceedings
Book value of assets 31.12.2014



Sources: Claims lists and financial information from Glitnir, Kaupthing, and LBI; Central Bank of Iceland.

1. Adjusted for LBI priority claims and weighted in terms of the size of the estates. It is assumed that SPB's (ICEBANK) claims will be divided between residents and non-residents in the same proportion as the distribution of SPB creditors.

claims constitute a larger share of disputed claims than of approved ones; therefore, extrapolating the share of total domestic claims based those that have been approved produces a cautious estimate. Further netting of debt could also distort the proportions. The greatest uncertainty, however, lies in potential transfers of claims prior to disbursement, as claims are bought and sold like other assets. Such transfers could change the ratio of domestic to foreign claims still further before disbursements are made.[2]

Table VII-1 Classification of approved Glitnir, Kaupthing, and LBI claims according to claims registers at year-end 2014

	Share of domestic claims[1] (%)	*Share of foreign claims (%)*
Glitnir	4.8	95.2
Kaupthing	8.9	91.1
LBI, priority claims	0.1	99.9
LBI, general claims	7.5	92.5
Weighted total	6.1	93.9

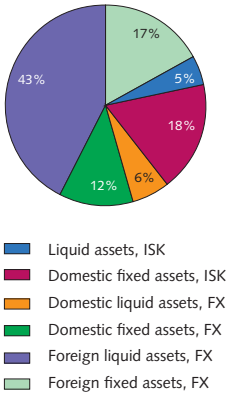
1. A portion of domestic claims are from DMBs in winding-up proceedings. The analysis examines the underlying and actual owners of those claims.
Sources: Glitnir, Kaupthing, and LBI claims lists; Central Bank of Iceland.

The failed banks' assets

About 59% of the failed banks' assets are foreign and 41% domestic. The bulk of these are claims against the new banks, both deposits and bonds, and ownership shares in them. The share of domestic claims rose in 2014, due to ongoing payments to priority creditors (most of them financed with foreign assets), exchange rate movements, and increases in domestic asset values. The value of both domestic and foreign assets is still highly uncertain. After adjusting for payouts, the estates' assets have increased as recoveries have improved and assets have been sold.[3] Table VII-2 summarises the end-2014 book value of the estates' assets as recognised by the winding-up boards. Total assets are estimated at 2,214 b.kr., plus another 27 b.kr. held in suspense accounts to pay disputed priority claims. The assets plus suspense account balances are therefore entered at 2,241 b.kr., or 112% of GDP. This is considerably less than the previous year's total of 2,552 b.kr., mainly because of LBI's 403 b.kr. payment to priority creditors last December. Offsetting it somewhat are valuation increases in the estates' domestic and foreign assets.

Approved special claims, estate claims, and collateralised claims are paid as they accrue during winding-up proceedings. This includes the estates' operating expenses. In addition, the estates have paid priority creditors with approved claims according to Article 112 of the Act on Bankruptcy, etc., a total of 1,355 b.kr. LBI has made five partial payments totalling 1,132 b.kr., leaving 210 b.kr. still unpaid. Glitnir paid all of its priority claims in 2012. About 79 b.kr. have been paid to creditors, and another 8 b.kr. are still in dispute. Kaupthing paid all of its priority claims in 2013. About 14 b.kr. has been paid to creditors,

Chart VII-2
Assets of DMBs in winding-up proceedings
Book value 31.12.2014



Sources: Financial information from Glitnir, Kaupthing, and LBI; Central Bank of Iceland.

2. Residents are prohibited from selling their claims to non-residents without an exemption from the Foreign Exchange Act, no. 87/1992.
3. The estates recognise asset values using different methods; therefore, it is not a given that book values are comparable.

and just over 19 b.kr. are still disputed. In addition, before the claim filing deadline in 2009, Kaupthing paid about 130 b.kr. to depositors abroad, in connection with deposits for which the parent company was deemed liable.

Table VII-2 Book value of Glitnir, Kaupthing, and LBI assets at year-end 2014

	Domestic assets			*Foreign assets*	*Total*
B.kr.	*In ISK*	*In FX*	*Total*	*in FX*[1]	*assets*
Liquid assets	109	138	247	933	1,180
Loans to customers	27	4	31	195	226
Loans to financial institutions	1	0	1	41	42
Securities	36	41	77	102	179
Derivatives	6	0	6	14	20
Compensation bonds from new banks for asset transfer	0	200	200	0	200
Holdings in subsidiaries and affiliates	316	10	326	12	338
- thereof stakes in the new banks	*316*	*0*	*316*	*0*	*316*
Other assets	10	10	20	9	29
Total	505	403	908	1,306	2,214
Position in escrow accounts	2	0	2	25	27
Assets and position in escrow accounts	507	403	910	1,331	2,241
Domestic assets backed by foreign collateral	12	17	29	0	29

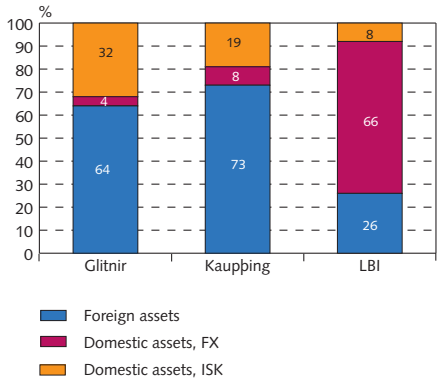
1. An insignificant portion of foreign assets are in ISK.
Sources: Financial information from Glitnir, Kaupthing, and LBI; Central Bank of Iceland.

Domestic assets now total 910 b.kr., including 507 b.kr. listed in Icelandic krónur and 403 b.kr. in foreign currencies. About 29 b.kr. worth of domestic assets are backed directly by foreign collateral. Domestic assets listed in krónur have risen in price by 10 b.kr. year-on-year, due almost solely to a valuation increase of 36 b.kr. in the holdings in the new banks. Offsetting this are tax payments, including payment of the bank tax last autumn. Domestic assets in foreign currencies declined between years by about 65 b.kr., due mainly to a reduction in liquid funds, which LBI used to pay priority creditors in December 2014.[4] Foreign assets declined by 256 b.kr. year-on-year. The disbursement from LBI had a downward effect, and valuation increases had an upward effect.

The estates' liquid funds and the suspense account balances, which are the equivalent of liquid funds, total 1,207 b.kr., or 54% of their total assets. Excluding the LBI disbursement in 2014, the estates' liquid assets increased by 288 b.kr. in 2014. Kaupthing and LBI's liquid funds are invested in deposits in Iceland and abroad, while Glitnir keeps a portion of its liquid assets in domestic and foreign short-term Treasury bonds and bills. Ownership of the estates' fixed assets has grown significantly more concentrated. The estates' holdings in Arion Bank and Íslandsbanki and the Landsbankinn-LBI bonds are entered at about half of the book value of total fixed assets. The estates' foreign fixed assets also consist to a large degree of a few large assets.

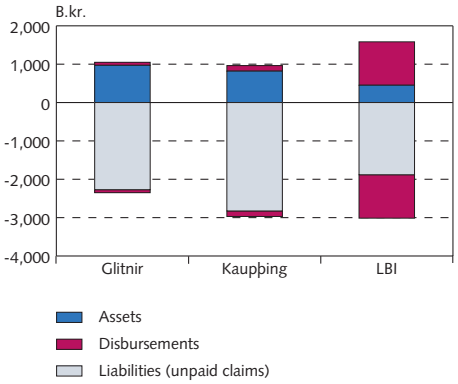
4. The classification of domestic assets listed in foreign currencies is not fully comparable from one estate to another. A portion of the estates' foreign-denominated deposits in Iceland could stem from recoveries on foreign assets, and recoveries on domestic assets recognised in foreign currency could be held abroad.

Chart VII-3
Estimated % of domestic/foreign assets of DMBs in winding-up proceedings
Book value 31.12.2014



Sources: Financial information from Glitnir, Kaupthing, and LBI; Central Bank of Iceland.

Chart VII-4
Assets, claims, and disbursements of DMBs in winding-up proceedings
Book value 31.12.2014



Sources: Financial information from Glitnir, Kaupthing, and LBI; Central Bank of Iceland.

The share of domestic versus foreign assets varies somewhat from one estate to another. LBI has the largest share of domestic assets, at just under ¾, and Kaupthing the smallest, at about 27% (Chart VII-3). It should be borne in mind that LBI has paid more from its estate than the other two have, and in proportional terms it has paid substantially more foreign than domestic assets. About 8% of LBI's assets are denominated in krónur. The other estates have a larger proportion in ISK, Glitnir's share the largest, at about a third. The largest ISK assets are the holdings in Arion Bank and Íslandsbanki. The difference in the proportion of the three estates' domestic assets is due primarily to the original division of assets between the new and old banks.

The failed banks' liabilities

Net outstanding claims against the failed banks' estates, adjusted for netting of debt, that have been declared pursuant to Articles 109-113 of the Act on Bankruptcy, etc., totalled 6,979 b.kr. as of end-2014 (Table VII-3). It should be noted, though, that the presentation of outstanding claims is not fully comparable from one estate to another, and it is still possible to declare priority claims. Disputed claims that have been paid into escrow accounts are not listed as outstanding in Table VII-3. General claims amount to 6,766 b.kr. and guaranteed and priority claims total 213 b.kr. Almost all of these are priority claims against the LBI estate. There is some uncertainty about the ultimate amount of outstanding claims, which has fallen markedly during the winding-up proceedings as claims are netted, agreements reached, and court judgments handed down. About 2% of Glitnir's outstanding claims are in dispute, about 3% of Kaupthing's and less than 1% of LBI's.

Table VII-3 Outstanding claims against the Glitnir, Kaupthing, and LBI estates at year-end 2014[1]

B.kr.	*Glitnir*	*Kaupþing*	*LBI*	*Total*
Special claims (Article 109)	1	0	0	1
Estate claims (Article 110)	0	0	0	0
Collateralised claims (Article 111)	2	0	0	2
Priority claims (Article 112)	0	0	210	210
General claims (Article 113)	2,268	2,826	1,672	6,766
Total	2,271	2,826	1,882	6,979

1. The presentation of outstanding claims may differ from one estate to another.
Sources: Glitnir, Kaupthing, and LBI balance sheet summaries.

The balance of payments problem

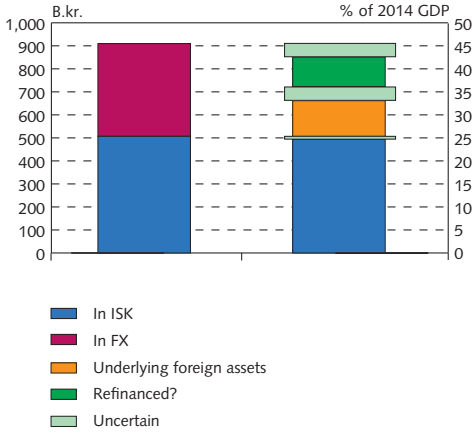
Iceland's underlying international investment position (IIP) is sustainable in the sense that the economy generates enough foreign currency to pay interest on its debt. Nonetheless, individual borrowers' debt service could put pressure on the exchange rate or the Central Bank's foreign exchange reserves if the borrowers concerned cannot refinance or renegotiate their foreign debt. This is referred to in common parlance as a balance of payments problem.

Iceland's balance of payments problem has primarily been of two kinds. First of all, the expected repayment profile on foreign debt

has been heavy since the crash. At the same time, resident borrowers other than the Treasury and the Central Bank have had extremely limited access to credit for refinancing. Second, domestic ISK assets are held by non-residents – both owners of offshore krónur and the failed banks – and the economy's foreign-denominated revenues are insufficient to release them at short notice.

The duration of a portion of the foreign debt has been lengthened in recent months, and resident borrowers' access to foreign credit markets is easing. It remains to resolve the balance of payments problem stemming from the estates' domestic assets and the stock of offshore krónur in a manner that does not put excessive pressure on the exchange rate or deplete the Central Bank's foreign exchange reserves.

Chart VII-5
Domestic assets of DMBs in winding-up proceedings
Bókfært virði eigna 31.12.2014



Sources: Claims lists and financial information from Glitnir, Kaupthing, and LBI; Statistics Iceland; Central Bank of Iceland.

The effect of the estates' payments to creditors

The failed banks' assets can broadly be divided into three categories: domestic assets denominated in krónur, domestic assets in foreign currencies, and foreign assets. The payments from the estates as such will not affect the króna or the foreign reserves if they are not accompanied by capital outflows from Iceland. For example, it does not matter whether foreign creditors have claims against the estates or the payments are disbursed to an account with domestic commercial banks. The problem surfaces when the foreign creditors withdraw their deposits in krónur, convert them in the foreign exchange market, and export the foreign currency.

Disbursements of ISK assets to foreign creditors could adversely affect the exchange rate or the foreign exchange reserves. Conversely, disbursement of foreign assets to domestic creditors could have a positive effect if the creditors choose to move their assets to Iceland and convert them to krónur in the foreign exchange market.

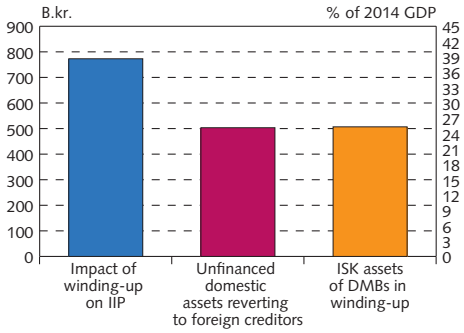
The failed banks' domsetic assets denominated in foreign currency fall broadly into two categories: assets with direct or indirect underlying foreign assets and those for which financing is needed in order to pay them out in foreign currency. Assets in the former category could have a negative effect on the exchange rate and the foreign reserves when domestic ownership of the underlying foreign asset is created. That effect, however, may emerge in connection with assets in the latter category. In essence, then, paying out foreign-denominated domestic assets with underlying foreign ownership to domestic creditors could have a positive effect on the exchange rate and foreign reserves, while paying out foreign-denominated domestic assets without foreign collateral to foreign creditors could have a negative effect. It cannot be ignored, however, that foreign-denominated lending to resident borrowers is an element of a normal business relationship between bank and borrower. For example, a portion of the investment that generates Iceland's export revenues was financed with foreign borrowing. Repaying these loan facilities, even from the current account balance, could therefore be deemed appropriate when looking at the big picture.

The actual effect of disbursements from the estates will depend primarily on three things: how the next steps in the winding-up of the

Chart VII-6

Impact of calculated settlement of DMBs in winding-up proceedings on the IIP, unfinanced domestic assets reverting to foreign creditors and ISK assets[1]

Book value of assets 31.12.2014

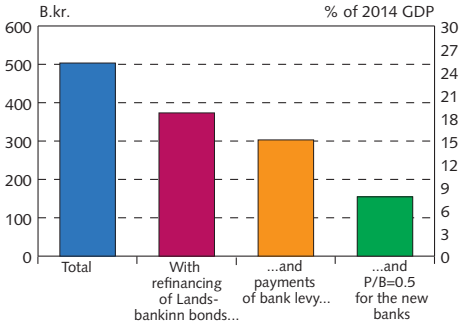


1. Assuming equal distribution of assets among creditors; no consideration is given to future tax payments or other issues pertaining to the settlement of the estates.
Sources: Claims lists and financial informations Glitnir, Kaupthing and LBI; Statistics Iceland, Central Bank of Iceland.

Chart VII-7

Unfinanced domestic assets reverting to foreign creditors, various scenarios[1]

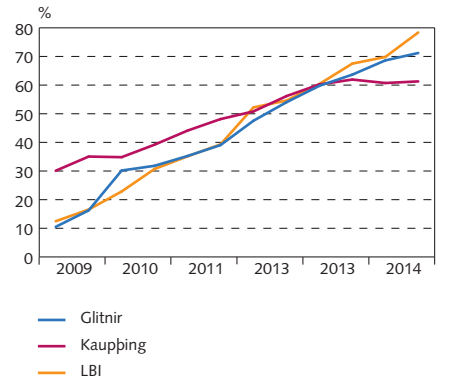
Book value of assets 31.12.2014



1. Assuming equal distribution of assets among creditors.
Sources: Claims lists and financial information from Glitnir, Kaupthing, and LBI; Statistics Iceland; Central Bank of Iceland.

Chart VII-8

Estimated ratio of liquid assets to total assets, adjusted for payments to creditors[1]



1. The estates' financial statements are not fully comparable between periods or estates. Early in the period, estimated set-offs were not included in the financial statements. No consideration is given to changes in exchange rate of payments after disbursement.
Sources: Financial information from Glitnir, Kaupthing, and LBI; Central Bank of Iceland.

estates are handled; to what extent foreign creditors expatriate the disbursements on domestic assets not financed in foreign currency; and to what extent domestic creditors transfer foreign assets and domestic assets financed in foreign currency back to Iceland.

The estates' unfinanced domestic assets

Assuming that the estates' fixed assets are sold for book value as shown in Table VII-2 and that the division of claims shown in Table VII-1 remains unchanged until disbursement, and excluding other factors such as tax payments, the calculated settlement based on equal distribution of all assets among all creditors shows that the effect on the IIP is negative by nearly 775 b.kr., or about 39% of GDP. This is equivalent to the difference between the value of domestic assets that will revert to foreign creditors, on the one hand, and foreign assets that will revert to domestic creditors, on the other. Based on the same methodology, unfinanced domestic assets reverting to foreign creditors amount to just over 500 b.kr., or about 25% of GDP. Paying out these assets in foreign currency to foreign creditors will put pressure on the exchange rate and/or the foreign exchange reserves. The effect on the IIP and the amount of unfinanced domestic assets reverting to foreign creditors differs because some of the estates' foreign-denominated domestic assets are offset by foreign assets; in other words, these assets are backed directly or indirectly by foreign assets. If Landsbankinn refinances the LBI bonds in foreign credit markets, the unfinanced domestic assets will decline still further, to about 370 b.kr., or roughly 19% of GDP. If Landsbankinn does not refinance, the stock of unfinanced domestic assets is about the same size as the estates' domestic assets in krónur (Chart VII-6). All of the above amounts will decline in the amount of the proposed taxes on the estates and if domestic assets are sold at a deviation from book value (Chart VII-7).

Composition of estates' assets

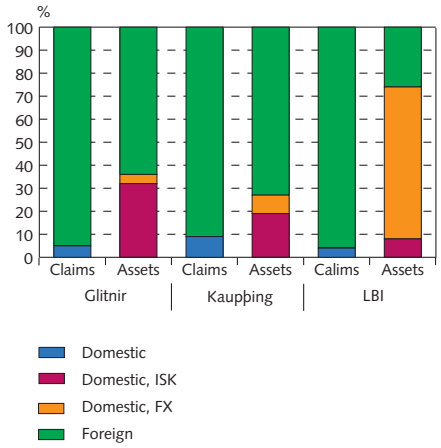
The winding-up of the estates centres on maximising the value of assets and then distributing them to creditors, through either a composition agreement or bankruptcy proceedings. Chart VII-8 shows the estimated ratio of liquid assets to total assets, adjusted for disbursements. The estates have now converted some 70% of their total assets to liquid funds. All of the estates did so at a relatively steady pace until mid-2013, when inflows of liquid funds to Kaupthing slowed down. The same has happened with Glitnir in recent months. LBI has now converted about 80% of its original asset portfolio to liquid funds, Glitnir about 70% and Kaupthing roughly 60%. As the winding-up proceedings advance, it will become more difficult to convert the remaining assets to liquid funds, as the most salable assets are divested first. The estates' equity holdings apart from subsidiaries and affiliates have remained virtually unchanged since year-end 2012. This, plus the limited inflows of liquid funds in recent months, indicates that Glitnir and Kaupthing are waiting to sell fixed assets, both because returns on liquid funds are low and because it is uncertain how disbursements to general creditors will be handled.

As is mentioned above, the composition of assets and the ratio of domestic to foreign claims differ from one estate to another. Kaupthing's estate features the highest proportion of domestic claims and the lowest proportion of ISK assets. Glitnir and Kaupthing's króna-denominated assets constitute a somewhat larger share than the share of domestic claims, as the estates' holdings in Arion Bank and Íslandsbanki are recognised in krónur (Chart VII-9).

Chart VII-9

Estimated domestic/foreign breakdown of assets and claims of DMBs in winding-up proceedings

Book value of assets 31.12.2014



Sources: Claims lists and financial informations Glitnir, Kaupthing and LBI; Central Bank of Iceland.

Appendix I

The macroprudential policy in Iceland and the Nordic and Baltic countries

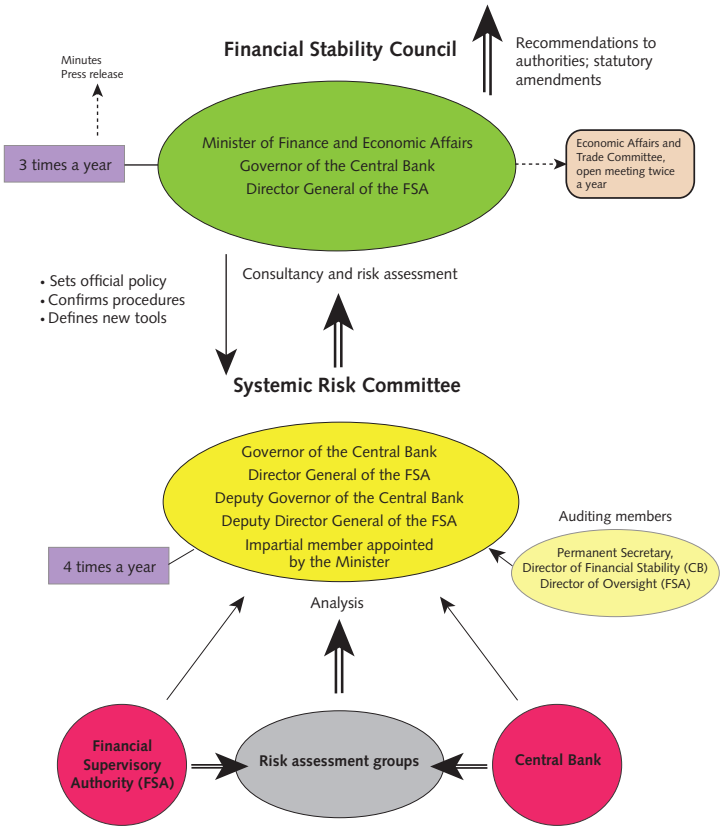
Iceland's macroprudential framework was enshrined in law with the Act on the Financial Stability Council, no. 66/2014, passed in May 2014. The Act defines the Financial Stability Council and the Systemic Risk Committee as the authorities' official forum for collaboration on financial stability.

Members of the Financial Stability Council are the Minister of Finance and Economic Affairs, who acts as chair, the Governor of the Central Bank, and the Director General of the Financial Supervisory Authority. The Council has three scheduled meetings per year and may meet more often if necessary. Administrative matters related to the Council are handled by the Ministry of Finance. The Systemic Risk Committee, which works for the Financial Stability Council, has five members: the Governor of the Central Bank, who acts as chair; the Director General of the Financial Supervisory Authority, who acts as vice chair; the Deputy Governor of the Central Bank; the Deputy Director General of the Financial Supervisory Authority; and an outside expert appointed by the Minister. The Systemic Risk Committee meets at least four times a year, and more often if necessary. Administrative matters relating to the Committee are handled by the Central Bank.

The Systemic Risk Committee evaluates the current situation and outlook for the financial system, systemic risk, and financial stability. Its assessments are based on analysis carried out by the Central Bank and Financial Supervisory Authority's joint risk assessment groups. The risk assessment groups prepare written analytical reports that the Committee's secretariat summarises, in collaboration with the Financial Supervisory Authority, to produce the foundation for the Committee's comprehensive assessment of systemic risk. In its work, the Systemic Risk Committee takes account of the official policy on financial stability laid down by the Financial Stability Council. The official policy sets out six intermediate objectives that are conducive to financial stability:

1. mitigate and prevent excessive credit growth and leverage, and imbalances in asset markets;
2. mitigate and prevent excessive maturity mismatch and market illiquidity, particularly in foreign currency;
3. limit direct and indirect exposure concentration;
4. limit the systemic impact of misaligned incentives with a view to reducing moral hazard, particularly in systemically important institutions;
5. limit the deleterious effects of excessive procyclical capital flows to and from the country;
6. strengthen the resilience of financial infrastructures.

Based on the assessment of systemic risk and with a view to the above-specified intermediate objectives, the Systemic Risk Committee can recommend measures to promote and safeguard financial stability. The Systemic Risk Committee submits its assessment and recommendations to the Financial Stability Council.[1] The Financial Stability Council uses the available data, the assessment and recommendations of the Systemic Risk Committee, to assess the factors that could pose a threat to financial stability and defines measures to combat them.[2] The Council submits the recommended measures to the relevant authorities. If the authorities do not act on the Council's recommendations, they must submit a written report explaining the grounds for the decision. The Financial Stability Council shall publish its recommendation and the rationale behind them unless such publication is considered to have a negative impact on financial stability. The Council shall report to Parliament on its activities at least once a year and shall keep the Cabinet informed of its activities and of official contingency measures adopted under extraordinary circumstances.[3]



In the other Nordic countries and the Baltic countries, the macroprudential framework has been passed into law. The macroprudential authority in these countries is either the central bank, the financial supervisor, the ministry of finance, or a cooperative macroprudential and financial stability council. This Appendix explores the application

1. For further information, see the Systemic Risk Committee Rules of Procedure.
2. For further information, see the public policy on financial stability.
3. For further information, see the Financial Stability Council Rules of Procedure.

of key macroprudential tools in the Nordic and Baltic region in recent months.

Norway

In Norway, both lending to households and house prices have increased markedly in recent years. In response to the high level of household indebtedness, the Norwegian Ministry of Finance announced in December 2013 that a 1% countercyclical buffer would be applied as of 1 July 2015. The ministry's decision is based on recommendations from Norges Bank, although the effective date of the capital buffer was postponed by half a year (Finansdepartmentet, 2013a). Since then, the Ministry has announced the capital buffer value each quarter. It is still 1% (Finansdepartmentet, 2014). Mortgage lending recommendations from the Financial Supervisory Authority of Norway have been in place since 2010, but they have been tightened and now specify, among other things, that loan-to-value (LTV) ratios must be below 85% (Finanstilsynet, 2011). In March, the Authority recommended to the Ministry of Finance that formal rules be adopted instead of the recommendations (Finanstilsynet, 2015). The Ministry of Finance imposed a 3% capital buffer for systemic risk on all banks, and a capital buffer for systemically important institutions will be imposed in stages (Finansdepartmentet, 2013b).

Sweden

Households are heavily leveraged in Sweden. Growth in lending to households has slowed, but it still exceeds GDP growth and disposable income growth. Based on this, the Swedish Financial Supervisory Authority announced in September that a countercyclical buffer of 1% would take effect a year later (Finansinspektionen, 2014b). Since then, the Authority has announced the capital buffer value twice, both times keeping it unchanged at 1% (Finansinspektionen, 2015b). The authority has not specified which financial institutions are considered systemically important but applied a systemic risk buffer to the four largest banks in the country, in addition to increased capital adequacy requirements under Pillar II. In addition, the minimum risk weight for mortgage loans has been increased to 25% in an attempt to counteract household indebtedness (Finansinspektionen, 2014a). In March, the Authority announced even further restrictions on new mortgage lending. According to the new regulation, borrowers must pay down at least 2% of their loans per year if the LTV ratio exceeds 70%, and at least 1% if the LTV exceeds 50% (Finansinspektionen, 2015a). This is in addition to the maximum LTV ratio of 85% (Finansinspektionen, 2010).

Denmark

At the end of December 2014, the Danish Ministry of Economic and Business Affairs imposed a countercyclical buffer with a value of 0% as of 1 January 2016, upon the recommendation of the Danish Systemic Risk Council. The Council was of the view that systemic risk was not accumulating, in part because the ratio of lending to GDP has fallen, even though indebtedness levels are high (Erhvervs- og væk-

Table 1 Capital buffer utilisation

	Capital buffer	*Value*	*Effective date*
Denmark	Countercyclical	0%	1.1.2016
	Systemic risk[1]	1-3%	1.1.2015
Estonia	Systemic risk	2%	1.8.2014
Finland	Countercyclical	0%	
Latvia	Countercyclical	0%	1.2.2016
Norway	Countercyclical	1%	1.7.2015
	Systemic risk	3%	1.7.2014
	O-SII[2]	1%	1.7.2015
	O-SII[2]	2%	1.7.2016
Sweden	Countercyclical[3]	1%	13.9.2015
	Systemic risk[4]	3%	1.1.2015

1. The systemic risk buffer is imposed only on systemically important financial institutions in Denmark.
2. O-SII: other systemically important institutions.
3. Small and medium-sized financial undertakings are exempt from the cyclical capital buffer in Sweden.
4. The systemic risk buffer is imposed only on the four largest banks in Sweden.

stministeriet, 2014a). In June 2014, the Danish Financial Supervisory Authority classified six financial institutions as systemically important (Finanstilsynet, 2014). Thereafter, the ministry imposed a systemic risk buffer of 1-3% on the institutions. The requirement will depend on their systemic importance and will be imposed in stages from 2015-2019 (Erhvervs- og vækstministeriet, 2014b).

Finland

In March 2015, the board of the Finnish Financial Supervisory Authority issued its first announcement on the application of macro-prudential tools. Finland is undergoing an economic contraction, lending growth is moderate, and there is outlook for declining house prices. As a result, the board announced that the countercyclical buffer would not be utilised; i.e., its value would be 0%. In addition, other capital buffers will not be applied at present (Finanssivalvonta, 2015a). Furthermore, the Financial Supervisory Authority decided to impose a 90-95% ceiling on LTV ratios. This is done to combat overheating in the real estate market, household indebtedness, and financial undertakings' risk related to households (Finanssivalvonta, 2015b).

Estonia

The Estonian economy is less stable than many others in Europe, in part because of how small and open it is. For this reason, and because of concentration in the financial market, the Bank of Estonia decided to impose a systemic risk buffer of 2%, effective 1 August 2014 (Eesti Pank, 2014b). Even though demand for credit has been modest and lending standards of banks appropriate in recent years, the bank considered it appropriate to introduce prudential rules on mortgage lending to forestall excessive credit growth in the future. Financial undertakings are permitted to allow 15% of loans granted within each quarter to exceed the limits defined in the prudential rules (Eesti Pank, 2014a).

Latvia

In late January 2015, the Latvian Financial and Capital Market Commission decided that the countercyclical buffer would be 0% as of February 2016, as indebtedness has declined and house prices have risen modestly in the recent past (Finanšu un kapitāla tirgus komisija, 2015).

Lithuania

In Lithuania, the central bank is the macroprudential and microprudential authority (Lietuvos bankas, 2014a). No capital buffers have taken effect in Lithuania, but prudential rules on mortgage lending have been in effect since 2011. The objectives of the rules are to encourage responsible lending, maintain market discipline, reduce systemic risk, and enhance consumer protection (Lietuvos bankas, 2014b).

Table 2 Prudential rules on mortgage lending

	Type of requirement	*Maximun*	*Effective date*
Estonia	LTV[1]	85-90%	1.3.2015
	DSTI[2]	50%	
	Maturity	30 yr	
Finland	LTV[1]	90-95%	1.7.2016
Latvia	LTV[1]	90-95%	July 2007
Lithuania	LTV[1]	85%	1.9.2011
	DSTI[2]	40%	
	Maturity	40 yr	
Norway	LTV[1]	85%	1.12.2011
Sweden	LTV[1]	85%	1.10.2010

1. Loan-to-value ratio.
2. Debt service-to-income ratio.

Box 1

Prudential rules following capital controls

After the capital controls are lifted, prudential rules should be in place so as to reduce the risk accompanying unrestricted capital flows. In August 2012, the Central Bank issued a report entitled "Prudential Rules Following Capital Controls", which among other things focused on regulatory framework reforms through prudential rules aimed at reducing this risk.[1] The principal reforms mentioned in the report are as follows: rules on liquidity and funding, rules on foreign exchange balance, restrictions on deposit collection abroad, restrictions on foreign-denominated lending to unhedged borrowers, and policy instruments to temper capital inflows.

Rules on liquidity and funding

Among the aims of rules on funding and liquidity is the reduction of maturity mismatches in foreign currencies. Liquidity rules are supposed to ensure that financial undertakings have enough foreign-denominated liquid assets to cover up to a month under highly distressed conditions. Funding rules, on the other hand, are supposed to enable banks to withstand capital market closure for up to three years without depleting the country's foreign exchange reserves. In Iceland, new liquidity rules were adopted in December 2013 and updated in December 2014.[2] Rules on one-year funding in foreign currencies were adopted in December 2014, and there are plans to expand the funding period in the rules to up to three years sometime in 2015.[3]

Rules on foreign exchange balance

Consideration must be given to the classification of foreign assets and liabilities so as to limit financial undertakings' opportunities to borrow abroad in order to fund foreign-denominated lending to resident borrowers without assets or income in foreign currencies. Because of the interrelationship between liquidity rules and funding rules, the Rules on Foreign Exchange Balance have not been updated. It is also possible that the above-described objectives can be achieved through other means: either through rules on liquidity and funding or through explicit restrictions on foreign-denominated lending to unprotected borrowers.

Restrictions on deposit collection abroad

The new funding and liquidity rules greatly limit domestic financial undertakings' opportunities to collect foreign-denominated deposits from non-residents. The European regulatory instruments that are to be implemented in Iceland in the near future – the Capital Requirements Regulation and Directive (CRR / CRD IV) – expand authorisations to respond to risks developing from, for instance, overseas deposit collection.

Foreign-denominated lending to unprotected borrowers

In order to safeguard financial stability and mitigate systemic risk, it is of vital importance to restrict foreign-denominated lending to unhedged borrowers. Lending in foreign currencies to borrowers without assets or income in those currencies tends to magnify capital inflows during upswings and, conversely, magnify outflows during downward swings. Furthermore, studies show that loan losses and arrears are much more pronounced among such borrowers. In its comments on a bill of legislation on interest and indexation, the

1. See: Central Bank of Iceland, *Special Publication* no. 6: "Prudential Rules Following Capital Controls".
2. Central Bank of Iceland, Rules on Liquidity Ratio, no. 1031/2014.
3. Central Bank of Iceland, Rules on Funding Ratios in Foreign Currencies, no. 1032/2014.

Central Bank recommended that individuals be required to undergo a credit assessment in the currency of the prospective loan, and that a provision to this effect be included in legislation on consumer loans. The bill authorises the Central Bank to set rules on foreign-denominated lending, upon receiving recommendations from the Financial Stability Council.[4] Concurrent with this, it is important to limit municipalities' foreign exchange risk. One way of doing so might be to permit municipalities to take foreign loans if they have foreign-denominated revenues or if the loans concerned are long-term bonds payable in equal instalments.[5]

Policy instruments to temper capital inflows

According to its official policy, the Financial Stability Council's purpose and objectives include working to counteract the detrimental effects of excessive procyclical capital flows to and from the country. The Financial Stability Council is therefore responsible for this function and may recommend measures to the relevant authorities if necessary.

Prudential rules are constantly being reviewed, and it is not possible to eliminate all risk attached to free flow of capital. However, the reforms that have been made mitigate the risks accompanying unrestricted capital flows, particularly those entailed in foreign exchange imbalances and maturity mismatches in foreign currency.

4. Bill of legislation amending the Act on Interest and Price Indexation, no. 38/2001.
5. This would be provided for in the Local Government Act, no. 138/2011.

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Appendix II

FSI core indicators for the three largest commercial banks (FSI)[1]

	2011		*2012*		*2013*		*2014*	
%	*Q2*	*Q4*	*Q2*	*Q4*	*Q2*	*Q4*	*Q2*	*Q4*
Regulatory capital to risk-weighted assets[2]	23.5	21.6	23.1	25.0	25.9	26.2	27.2	28.5
Regulatory Tier 1 capital to risk-weighted assets[2]	21.0	19.4	20.9	22.6	23.6	24.0	25.0	26.2
Retur on assest[2]	3.3	1.1	2.5	2.4	2.3	2.2	3.2	1.3
Return on equity[2]	20.2	6.7	15.5	13.8	13.0	12.1	17.5	7.0
Interest margin to gross income[2]	47.1	53.9	50.3	48.8	41.7	45.2	46.5	43.1
Non interest expenses to gross income[2]	88.8	108.1	79.0	79.9	77.2	77.5	66.4	58.0
Liquid assets to total assets[3]							24.3	21.3
Net open position in foreign exchange to capital[3]	61.1	22.6	18.2	7.7	3.6	6.3	4.1	6.1

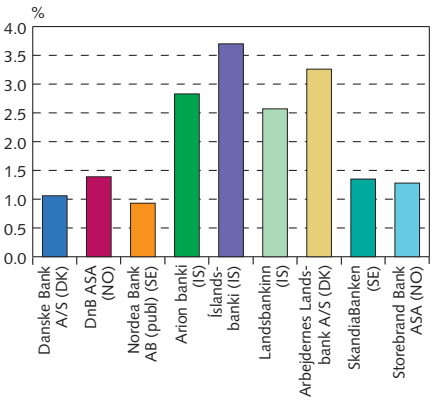
1. The Central Bank intends to publixh core indicators of financial stability in collaboration with the IMF. All definitions used by the Central Bank accord with IMF definitions or have been approved by the IMF. These are still provisional figures, which could change, and comprise only part of the indicators. 2. Consolidation, operating expenses and net operating income calculated in accordance with definitions of the European Banking Authority (EBA). 3. Parent company, definitions differ from those in the Central Bank's rules.
Sources: Financial Supervisory Authority, Central Bank of Iceland.

Appendix III

Nordic comparison

Chart 1

Net interest margin 2014[1]

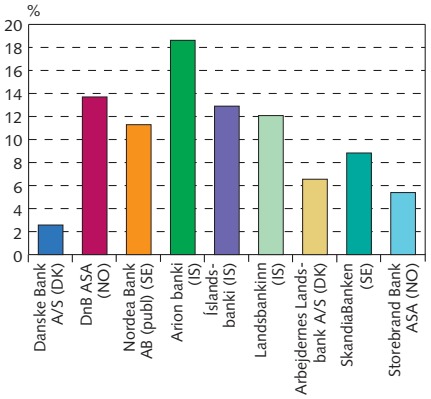


1. Íslandsbanki's large net interest margin is due largly to a difference in financial reporting methods used by the banks; Íslandsbanki uses a different method for redemption of interest income from transferred loans.

Source: Bankscope.

Chart 2

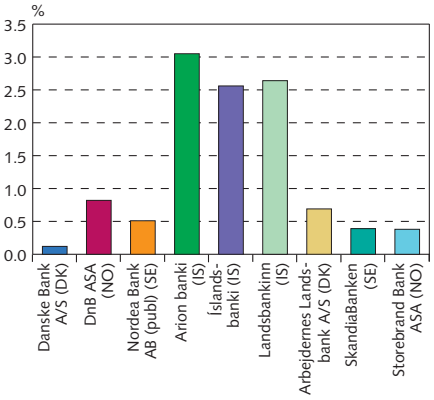
Return on equity 2014



Source: Bankscope.

Chart 3

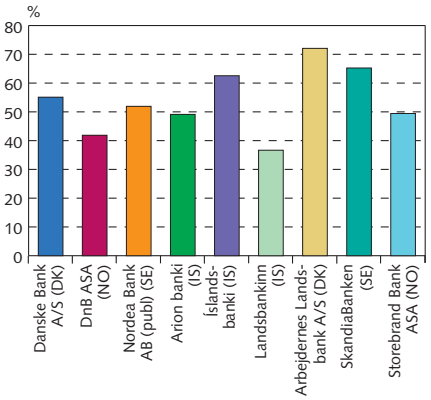
Return on total assets 2014



Source: Bankscope.

Chart 4

Cost-to-income 2014

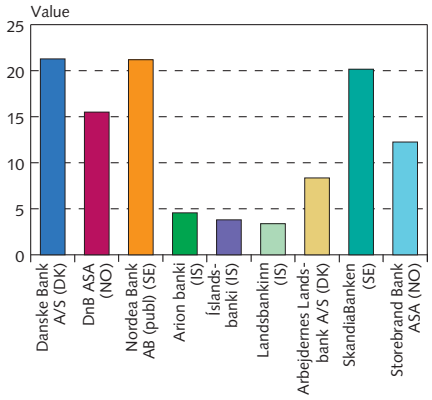


Source: Bankscope.

Chart 5

Leverage 2014

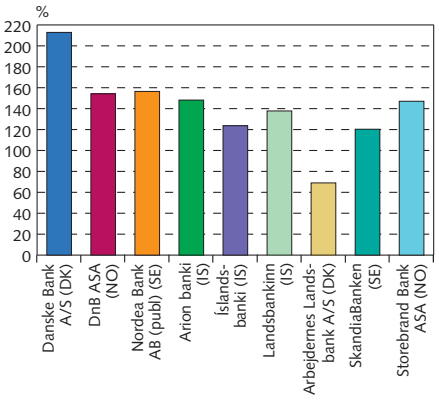
Debt as proportion of equity



Source: Bankscope.

Chart 6

Loans/ customer deposits 2014



Source: Bankscope.