FINANCIAL STABILITY

2010•2

Contents

25 November 2010

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

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

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

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Icelandic letters:
ð/Ð (pronounced like th in English this)
þ/Þ (pronounced like th in English think)
In *Financial Stability*, *ð* is transliterated as *d* and *þ* as *th* in personal names, for consistency with international references, but otherwise the Icelandic letters are retained.

Foreword by the Governor

Milestones on the road to a sound financial system

In the international arena, important steps have been taken towards formulating a financial regulatory framework based on the lessons learnt from the financial crisis. A milestone was reached in Basel on 12 September when a meeting of the central bank governors and directors of financial supervisory bodies (the Group of Central Bank Governors and Heads of Supervision (GHOS)) from the countries that are members of the Basel Committee on Banking Supervision ratified new international guidelines for banking institutions, which had been prepared by the Basel Committee. In addition, it has been agreed to implement new references for banks' liquidity and maximum debt ratio. The new guidelines, called Basel III, will take effect in the next few years and will supplant the current Basel II rules.

According to the new references, the minimum capital adequacy requirement for banks will increase significantly, and the composition of capital is improved by increasing the weight of common equity. With a so-called capital conservation buffer, the common equity requirement increases from 2% to 7%, and the entire risk-weighted capital base rises from 8% to 10.5%. The main lesson to be drawn from the international financial crisis is that the responses to mounting systemic risk during the upswing and the liquidity problems that emerged after the crisis struck were inadequate. The increased capital adequacy requirement is aimed at ensuring that financial institutions will be better able to withstand shocks in the future. In addition to the above minimum requirements, the new guidelines provide for a flexible capital requirement ranging between 0% and 2.5% for each country's banking system, with reference to general lending trends and other factors that could affect systemic risk. Such a flexible capital requirement would be classified as macroprudential regulation rather than microprudential regulation because it tends to reduce lending and asset price volatility and thus has a countercyclical effect. The use of macroprudential instruments must be based on both a macroeconomic analysis and a comprehensive analysis of financial system risk. This involves more than the simple sum of the risk of individual financial institutions. Furthermore, it is necessary to coordinate such financial stability policy with monetary policy. This should be borne in mind when decisions are made on how and by whom these requirements are applied, but such matters are in the hands of the countries concerned. Icelanders must acquaint themselves fully with the new Basel III guidelines, which will be incorporated into the EU regulatory framework and then into the Icelandic regulatory framework via the EEA Agreement.[1] This will

1. Further information on the Basel III measures can be found on the website of the Bank for International Settlements: http://www.bis.org/bcbs/basel3.htm.

take a while, however, as individual elements of the Basel III rules will be implemented in stages during the period 2013-2019. But there is no reason why individual countries cannot implement them sooner. Furthermore, Icelanders must not forget that which blindsided them in the run-up to the financial crisis: the fact that international criteria for banks' capital and liquidity are only minimum requirements, and they may be inadequate for supervision and management of the domestic financial system.

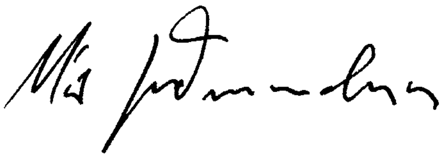
Iceland has been engaged in a variety of tasks aimed at improving the regulatory framework and supervision of its financial operations. Statutory amendments have been passed in order to address various weaknesses in the regulatory framework for domestic financial institutions, such as lending against collateral in the banks' own shares, loans to owners, and large exposures. Work remains to be done in order to address the flaws in the structure and tools used to preserve financial stability. In this context, it has been proposed that the Act on the Central Bank of Iceland and the Act on Official Supervision of Financial Activities be reviewed. Such a review would also take account of international experience and the re-evaluation taking place around the globe, with respect to macroprudential considerations, the structure of financial supervision, and the role of central banks in both. The Central Bank of Iceland has been examining these factors in recent months and will publish a report on this topic in the near future.

In the past few months, the Financial Supervisory Authority and the Central Bank of Iceland have worked together to formulate proposals for collaboration between the two institutions on assessments of systemic risk in the financial system, reciprocal exchange of information, and joint databases. The results of this work will appear in the near future as a revised collaboration agreement between the two institutions. With this, two of Iceland's chief financial system supervisors are joining forces in order to address, insofar as is possible in the current legal framework, the weaknesses in task allocation and information exchange that existed before the crisis.

Work aimed at improving the efficacy and security of payment intermediation systems is still in progress. On 15 November, the owners of the Icelandic Banks' Data Centre and Fjölgreiðslumiðlun hf. signed a framework agreement aimed at separating payment intermediation infrastructure from competitive operations. The Central Bank of Iceland will withdraw from the Icelandic Banks' Data Centre but will take over the operations of Fjölgreiðslumiðlun. In the future, the Bank will own and operate the system infrastructure. Work has also been done on payment system testing and development, with the aim of increasing security, as is discussed more fully in Chapter III of this report.

There is still uncertainty about financial institutions' capital position and households' and businesses' debt. It is important to reduce this uncertainty so as to create confidence in financial institutions, so that investment and the general economy can recover. The decision handed down by the Supreme Court in September created a floor for the negative effects of illegal exchange rate linkage on financial institutions' capital, although the scope of the problem remains uncertain. The Minister of Economic Affairs' bill of legislation on exchange rate-linked loans is therefore an important way to expedite a conclusion and contribute to more rapid restructuring of private sector debt.

In the next few months, it will become clear whether the financial institutions' owners will have to contribute more capital to them because of the illegality of exchange rate linkage. But this alone will not suffice to give the financial institutions the clean bill of health needed in order for the capital controls to be lifted. The financial institutions' capitalisation is currently protected by the capital controls and the Government's declaration of deposit guarantee. The financial system must generate enough confidence that its capitalisation can stand alone, without such a protective structure. In this context, it is also important to build up Iceland's financial markets, which previously played a leading role in funding and risk diversification, and to provide financial institutions and other entities with renewed access to foreign credit markets. These will be the tasks of the near future, together with the development of regulatory framework and supervision that are more effective than the pre-crisis structure in reducing the likelihood of financial shocks.



Main vulnerabilities and resilience

The tables below indicate the main risk and resilience factors in the current situation, as has been done in previous Central Bank reports, although this presentation is more limited in scope than that in *Financial Stability* 2010/1. The global financial market situation is delicate, due in part to the funding difficulties faced by banks and some of the smaller euro area countries. The Icelandic financial system is working through a range of problems stemming primarily from the banks' and savings banks' capitalisation and poor asset quality. In addition, activity in key financial markets is limited, which means that the markets in question cannot adequately carry out their role of distributing risk and channelling equity and borrowed funds. On the other hand, the Government's economic programme and monetary policy have supported the króna in 2010, reduced inflation and strengthened public sector finances. Continuing work is being done in the public sector framework, as well as in supervision and payment system infrastructure.

Table 1 Main vulnerabilities

Risk	*Explanation*
DMBs' asset quality	The assessment of the banks' and savings banks' assets is still subject to considerable uncertainty, and balance sheet mismatches remain. Uncertainty related to exchange rate-linked items has been reduced. The economic contraction was prolonged, and the position of businesses and households is weak.
Funding and limited market activity	Deposits are the backbone of the banks' and savings banks' funding. They are usually a more reliable source of funding than short-term borrowings in the market, but transfers between institutions can take place. Funding is now protected by the capital controls and by Government declarations of guarantee. The interbank, bond, equity, and currency markets are weak. Foreign direct investment and access to foreign credit markets remain limited.
Flaws in regulatory framework and supervision	The collapse revealed a number of flaws in regulatory instruments and financial supervision. Correcting them will take time. A strategy to combat systemic risk has yet to be formulated, as has the institutional framework for such a strategy.

Table 2 Resilience

Resilience	*Explanation*
Economic outlook	The Government's economic programme and monetary policy have strengthened the currency, reduced inflation, and fortified public sector finances. The Treasury has taken on substantial financial burdens as a result of the collapse, but its debt is manageable. An external trade surplus is the foundation of exchange rate stability in the years to come.
Financial system reconstrution	The reconstruction of the financial system is well advanced. The banks' operations now centre on service to domestic firms, institutions, and households. The sphere of activity of banks and savings banks is small in comparison with pre-crisis levels, but the system is still too large. It will be necessary to streamline further, with mergers and other actions, in order to reduce costs.
Institutional and supervisory framework and payment systems	Work is being done to improve the international regulatory framework, as well as that in the EU/EEA, in the near future. Corresponding improvements will be implemented in Iceland, including more effective monitoring of systemic risk and authorisations for mitigation action. The Financial Supervisory Authority has formulated a new policy, and a review of legislation pertaining to supervisory activity and financial system stability is in the offing. It is hoped that new core and support structure for payment intermediation will be implemented at the end of the current year.

I. Financial markets

Markets inactive and fragile

Financial markets are an important aspect of financial stability in two senses. They play an important role in intermediating credit from those who save to those who need capital for consumption or investment in excess of their own savings. Both the bond market and the equity market have an important effect on financial undertakings' funding, income, and balance sheets. Consequently, it is important for the stability of the financial system as a whole that these markets be sufficiently deep and that price formation not be overly volatile. Iceland's markets are still severely impaired following the shock of the financial crisis. Effectiveness and depth are still lacking. The number of companies in the equity market has plunged, turnover in the foreign exchange market has fallen still farther, and trading in the interbank market for krónur is still low, although it is broadly stable and somewhat more evenly distributed than it was in 2009. Bond market turnover is more or less unchanged year-on-year, and the bond market is the deepest and more effective market due to increased Treasury issuance, a shortage of other attractive investment options, and the fact that non-residents own sizeable Treasury bond holdings that they cannot sell because of the capital controls. This forced position-taking represents a risk that must be reduced or eliminated before the capital controls can be lifted.

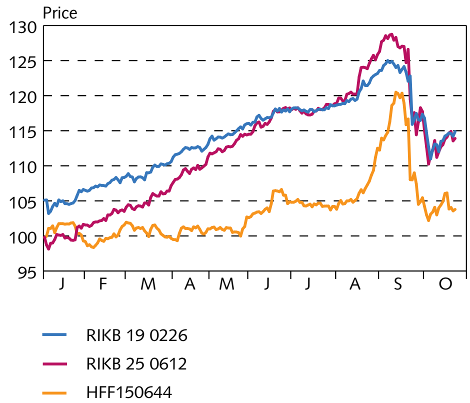
The bond market

For the first nine months of 2010, bond market turnover has averaged 225 b.kr. per month, as opposed to 229 b.kr. in 2009. September stood out, with 487 b.kr., the highest turnover since September 2008, just before the banks failed. Demand for safe Government-guaranteed securities surged after the collapse. As Chart 1 shows, Treasury bonds prices spiked over a three-week period from late August through mid-September. They began tapering off shortly before the Monetary Policy Committee (MPC) announcement of 22 September and then fell sharply afterwards. A number of factors suggest that this episode of volatility occurred in part because market participants misunderstood the MPC's August statement, assuming that the removal of the capital controls had been postponed. This misunderstanding was then corrected when the MPC issued its September statement. Leveraged position-taking and conventional bubble behaviour then exacerbated the situation. Short-term bonds fell less markedly in price than longer bonds. This is probably due to the capital account liberalisation strategy published in August 2009, which assumed that controls would first be lifted from longer bonds. Many owners of Government bonds thought it likely that this would generate selling pressure on the longest series, and they decided to sell beforehand in order to avoid losses. Uncertainty among investors about the timing and structure of the liberalisation process appears to be a major uncertainty factor affecting domestic bond pricing at present.

Chart I-1

Prices of nominal Treasury bonds maturing in 2019 and 2025 and HFF bonds maturing in 2004 in the bond market

Daily data 1 January 2010 - 22 October 2010

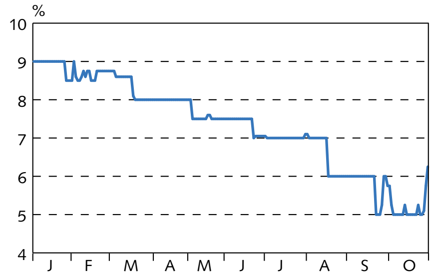


Source: Central Bank of Iceland.

Interbank market for krónur broadly unchanged since last year

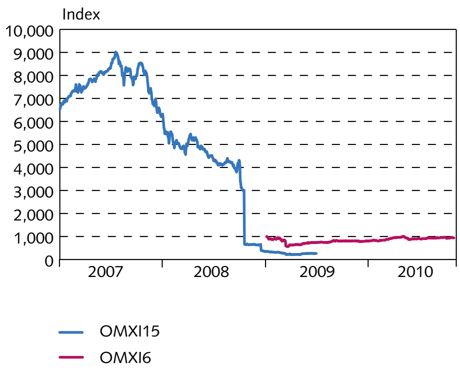
Interbank market turnover declined in the run-up to the banks' collapse. Trust between financial institutions dwindled, prompting the

Chart I-2
Overnight REIBOR interest rates
Daily data 1 January 2010 - 27 October 2010



Source: Central Bank of Iceland.

Chart I-3
Equity market indices
Daily data 1 January 2007 - 22 October 2010



Source: Nasdaq OMX Exchange Iceland.

banks to seek out Central Bank facilities in greater measure. Similar trends could be seen abroad. In the wake of the crash, the number of market markets in the interbank market for krónur fell from six to the current three, which are the large commercial banks. Turnover declined still further in 2009, and there was no trading at all in five of the 12 months of the year. So far in 2010, market turnover is approaching that for 2009 as a whole. Turnover is more evenly distributed than before, and there is a less marked difference between the high and low months of the year. The total trade count for 2010 will probably be similar to that for 2009. Turnover for 2010 could end up being slightly higher, however, and more equally distributed throughout the year.

The interbank market for krónur is used primarily to equalise financial undertakings' payment flows from day to day. Interest rate formation in the market follows Central Bank interest rate decisions, although REIBOR interest is also used as a reference for other transactions. In general, REIBOR rates move very little between Central Bank interest rate decision dates, even though transactions occur. The REIBOR market is an important liquidity management channel for the banking system. There are limited credit lines in the market, and not all commercial banks participate in it. In spite of certain downsides, the market has become slightly more active.

Table I-1 The interbank króna market

	2007	*2008*	*2009*	*2010*[1]
Turnover (m.kr.)	1,355,570	700,102	301,530	292,500
Monthly turnover (m.kr.)	112,964	58,342	25,128	23,667
Monthly turnover range[2] (b.kr.)	49-158	1.5-250	0-128	2-65
Number of market makers	6	6	3	3
Number of trades	1480	502	161	140

1. 2 January - 27 October. 2. Shows the highest and lowest monthly turnover.
Source: Central Bank of Iceland.

Equity market

The collapse of Iceland's three commercial banks – Landsbanki, Glitnir, and Kaupthing – in October 2008 dealt a heavy blow to the Icelandic equity market, as the three banks' combined pre-crisis market value was more than 60% of the total value of exchange-listed companies. By year-end 2007, the market value of listed shares on the exchange had risen to 2,570 b.kr., or 196% of GDP. The Main List index (OMXI 15), which measured changes in the value of the 15 largest and most-traded companies on the exchange at any given time, soared to a peak of 9,016 points in July 2007. Following the crash, the number of listed companies plunged, and post-crisis turnover has been limited. By the end of 2009, the market value of exchange-listed equities had fallen to 208 b.kr., or just under 14% of GDP. The Main List comprised only 10 companies at that time. There were no new listings during the year, and five companies were delisted from the exchange.

In view of changed market circumstances, a new Main List Index – the OMXI6 – took effect in January 2009. The new index included six companies instead of the previous 15, and it was assigned an original value of 1000. The index has been quite volatile, dropping to 563 in March 2008 and then rising to 920 in September 2010. At the end of April 2010, Bakkavör shares were delisted from the exchange, reducing the number of listed companies by one. As of end-September 2010, the total market value of listed companies on the main market was just over 234 b.kr., and turnover for the first nine months of the year was 15.3 b.kr., as opposed to 44 b.kr. at the same time in 2009. It is safe to say that the domestic equity market has been calm since the collapse. Trust is in short supply, and trading has shifted for the most part to the bond market, which is dominated by Government-guaranteed bonds. Of the nine companies currently on the main list, four of them are Faroese, and trading has been suspended in one of the latter, Eik Bank. Obviously, there is a great need for new companies in the stock market. This would increase investors' choices, enhance confidence, and make the equity market more effective.

Table I-2 Equity market

	2007	*2008*	*2009*	*End Sep. 2010*[1]
Year-end market value of companies (m.kr.)	2,570,611	737,054	207,978	234,103
Market value of KB, GLB, LÍ (m.kr.)	1,375,573	483,516	-	-
Number of listed companies[2]	30	18	13	12
OMXI15 index	6,318.0	352.2	-	-
OMXI6 index	-	-	815.0	920.1
Equity market trading volume (b.kr.)	3,122	1,222	50.5	15.3

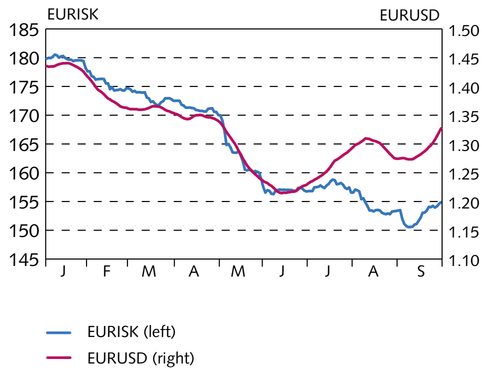
1. 1 January - 30 September. 2. First North and Main List.
Source: Nasdaq OMX Nordic Exchange Iceland.

Foreign exchange market

Over the first nine months of 2010, the króna appreciated by over 16% against the euro and by 12.4% in trade-weighted terms. In 2009, however, the króna depreciated by 5.5% against the euro. Turnover in the interbank foreign exchange market has been very low, and financial institutions have netted out their foreign exchange transactions internally to a large degree. Because the market is so shallow, very limited activity can affect it. Trading volumes have been much lower than they were in 2009. For example, interbank foreign exchange market transactions for the first nine months of 2010 amounted to 12.8 b.kr., including Central Bank transactions for 2.4 b.kr., or 18% of the total. In 2009, the total volume for the year was 62 b.kr., with the Central Bank accounting for 24%. The Bank sold foreign currency in the market from time to time until November 2009. At the end of August 2010, the Central Bank began making regular foreign exchange purchases in order to increase its non-borrowed reserves. The Bank purchases 1.5 million euros from market makers once a week. This amount was chosen with the aim of minimising the impact on the exchange rate, and it has proven effective.

Offshore market transactions with krónur have been limited so far this year. Since loopholes in the enforcement of the capital controls were closed in October 2009, possibilities for importing offshore krónur have diminished greatly, and offshore market trading has declined as a result.

Chart I-4
Exchange rate of the króna against the euro and the euro against the US dollar
Daily data 1 January - 30 September 2010



Source: Central Bank of Iceland.

Table I-3 Interbank foreign exchange market

	2009	2010[1]
Turnover (m.kr.)	62,427	12,834
Central Bank turnover (m.kr.)	14,937	2,364
-Depreciation/+Appreciation against euro, %	-5.5	16.15
-Depreciation/+Appreciation in trade-weighted terms, %	-7.03	12.4
Number of trades	1,179	180

1. 1 January - 30 September.
Source: Central Bank of Iceland.

II Financial companies[1]

The problem-solving process

Iceland's financial institutions are still faced with extremely challenging and intricate tasks. Significant capital has been invested in their reconstruction, and their ownership structure is now clear. Household and business debt restructuring is still in progress, and difficulties are being addressed through, among other things, the recent Supreme Court judgments on the illegality of exchange rate linkage and the interest rate references to be used for exchange rate-linked loans. There are sizeable mismatches in the financial institutions' foreign-denominated assets and liabilities, and the Central Bank is considering ways to assist in solving this problem. The above-mentioned Supreme Court judgments will probably reduce these mismatches somewhat, however. The commercial banks' and savings banks' liquidity risk centres in large part on the possibility of large-scale withdrawals, as well as uncertain inflows from their loan portfolios. Non-residents and the estates of the old commercial banks have sizeable deposits in the banks. Consequently, the banks must be prepared for the expatriation of a portion of these deposits, with the accompanying impact on their liquidity and on foreign exchange market flows. At the end of June 2010, the largest commercial banks met the Financial Supervisory Authority's (FME) 16% capital adequacy requirement, and it has emerged that they will be able to tolerate the impact of the recent Supreme Court judgments on exchange rate linkage and interest rate references. Savings bank restructuring has been underway for some time and will soon be complete. It is clear that the Housing Financing Fund will need a sizeable capital injection in the near future.

The financial system

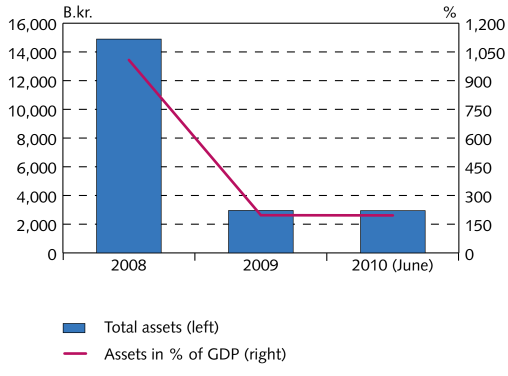
The total assets of the financial system amounted to 7,600 b.kr. at end-June 2010. Banks and savings banks, collectively referred to as deposit institutions or deposit money banks (DMBs), are the largest entity in the financial system. Their assets amounted to nearly 3,000 b.kr., or about two times GDP, after having risen marginally since the

Table II-1 Financial system assets[1]

Assets (b.kr.)	*31.12.2009*	*30.06.2010*
Banking system	3,910	3,994
– commercial banks	2,573	2,796
– savings banks	383	150
Miscellaneous credit institutions	1,194	1,145
– Housing Financing Fund	795	833
Pension funds	1,848	1,900
Insurance companies	129	137
Undertakings for Collective Investment in Transferable Securities (UCITS) and investment funds	200	264
Government credit funds	148	157
Total assets	7,430	7,597

1. Internal transactions are not included. Non-resident entities are not included.
Source: Central Bank of Iceland.

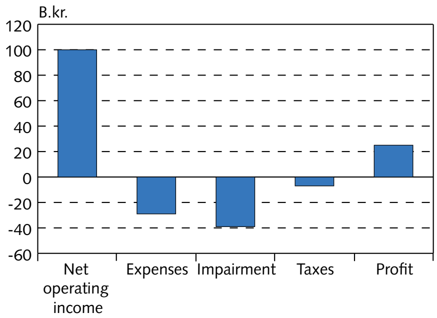
Chart II-1
DMBs´ total assets, % of GDP[1]



1. DMBs´, September 2008, December 2009 and June 2010.
Sources: Central Bank of Iceland.

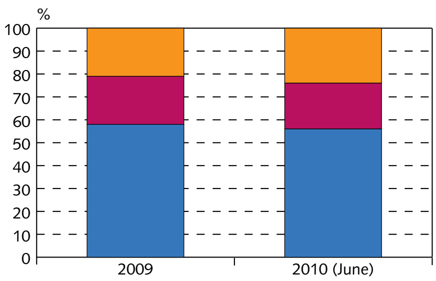
1. This chapter discusses currently operating commercial banks and savings banks, as well as miscellaneous credit institutions. The Appendix presents a balance sheet summary for DMBs as of end-October 2010. There could be errors or omissions in data received by the Central Bank from financial undertakings and the Financial Supervisory Authority. The Central Bank assumes no responsibility for the presentation of data or conclusions drawn on the reliability of external data, nor does it assume responsibility for any legal uncertainty that may arise.

Chart II-2
Commercial banks income og expenses[1]



1. Commercial banks' consolidated accounts.
Sources: Commercial banks' semi annual reports.

Chart II-3
Commercial banks loans and advances[1]



1. Commercial banks', parent companies.
Sources: Central Bank of Iceland.

beginning of the year. When Byr Savings Bank failed in April 2010, its assets were transferred to a new commercial bank, Byr hf. With that transaction, the savings bank system contracted sharply, and by end-June the total assets of currently operating savings banks amounted to only about 5% of total DMB assets. The assets of credit institutions other than commercial and savings banks totalled 1,145 b.kr. The vast majority of these are Housing Financing Fund (HFF) assets.

Commercial banks

The combined return on equity of the largest commercial banking groups was 16% in the first half of 2010.[2] During the period, net interest income totalled 44 b.kr., and the combined interest rate differential was 3.5%.[3] The interest rate differential has therefore risen from its 2009 level of 2.4%. Because of possible loan losses in excess of write-downs on purchases of the old banks' assets, the interest rate differential must be large enough to prevent the erosion of equity in the near future. The banks' assets are funded largely through debt at non-indexed interest rates, particularly deposits. The reduction in deposit interest in the first half of 2010 increased the interest rate spread. In the first half of the year, income from commissions and fees totalled 8 b.kr., and income from financial operations was about 6 b.kr. There were gains on marketable bonds and losses on equities and derivatives. In spite of the appreciation of the króna during the period, exchange rate gains totalled 5 b.kr., due in particular to the financial structure of NBI hf., which funds its operations largely through a foreign loan from Landsbanki Íslands hf. During this same period, there was considerable income from the appraised rise in value of the loan portfolios the banks took over from their predecessors. The commercial banks' combined capitalisation of the appraised increase in loan portfolio values totalled 33 b.kr., or 33% of net operating income.[4] Excluding income from financial operations and other sources, including write-ups of appropriated loans, their operating expenses constituted 55% of their total regular income. Loan impairment amounted to 39 b.kr. during the period. A portion of that impairment is due to the write-down of exchange rate-linked loans that the Supreme Court has deemed unlawful. The ratio of impairment of loans and advances to net interest income was 88%. Massive impairment is associated with debt restructuring and widespread customer default.

At the end of June 2010, the book value of the commercial banks' total lending was just under 2,000 b.kr. Slightly over half of the banks' loans are exchange rate-linked, and about one-fourth are inflation-linked. The commercial banks' loans to companies represented about 59% of total lending, while some 24% of loans were to individuals and 5% to non-residents. Since the banks failed in the autumn of 2008, demand for new loans has been negligible. In June,

2. The largest commercial banks are Arion Bank hf., Íslandsbanki hf., and NBI hf.
3. Net interest income and interest rate differential after adjusting for appraised net increases in value of the appropriated loan portfolio.
4. Income due to appraised increase in value of appropriated loan portfolios after adjusting for charges due to changes in the value of asset-linked bonds.

the book value of the three largest commercial banking groups' total lending amounted to 1,765 b.kr., slightly more than at the beginning of the year. At the same time, loan loss provisioning amounted to just over 128 b.kr., or about 7.3% of total lending. The balance of the banks' credit provisioning accounts reflects loan impairment after the establishment of the new banks.

When the new banks were established, a portion of the loans from the old banks was transferred to the new ones at a substantial discount, as it was clear that impairment would be significant and, in many cases, the likelihood of full recovery negligible. In recent months, more debts have been restructured, and at present just over 39% of the new banks' loans are in default or full repayment is considered unlikely.[5] Clearly, a large portion of these loans need restructuring. As the banks complete the restructuring of non-performing loans, the status of the loans becomes clearer, and the banks' scope to assist distressed households and businesses increases.

Table II-2 Percentage of total performing and non-performing loans[1]

All loan categories	*31.12.2009*	*31.08.2010*
Performing loans, w/o restructuring	44%	35%
Performing loans, after restructuring	14%	26%
In default by 90 days or payment unlikely	42%	39%
Total	100%	100%

1. The three largest commercial banking groups. Book value.
Source: Financial Supervisory Authority.

The effect of the Supreme Court judgments on exchange rate-linked loans on the banks' loan portfolios remains unclear. The Minister of Economic Affairs has presented to Parliament a bill of legislation amending the Act on Interest and Price Indexation, no. 38/2001. The bill may well be modified during treatment by Parliament; therefore, it is uncertain to what degree uncertainty about this class of loans will be eliminated if and when the statutory amendments are passed.

The following table shows the loan-to-value (LTV) ratios for mortgage loans in Iceland's three largest commercial banks. As the table illustrates, about 22% of the total amount loaned has an LTV ratio above 90%. Governmental authorities in many other countries have set maximum limits for LTV ratios, including Norway (90%) and Sweden (85%).

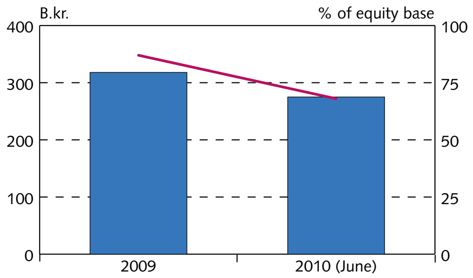
Table II-3 Mortgage loan-to-value ratios[1]

	30 June 2010
LTV ratio 0-50	33%
LTV ratio 50-70	19%
LTV ratio 70-90	22%
LTV ratio 90-100	8%
LTV ratio over 100	14%
LTV ratio unknown	3%
Total	100%

1. Parent companies of the three largest commercial banks. Mortgage loans as a percentage of property values.
Source: Financial Supervisory Authority.

5. A large share of non-performing loans had already been written down at the time the new banks were established.

Chart II-4
Large exposures[1]



1. Commercial banks' consolidated accounts.
Sources: The Financial Supervisory Authority.

According to FME data, the total large exposures of the largest commercial banks amounted to 275 b.kr. at the end of June 2010, the equivalent of 68% of their capital base.[6, 7] A total of 19 exposures equalled or exceeded 10% of the capital base, and three exceeded the 25% regulatory maximum.[8] Both the numbers of large exposures and the amounts involved have declined since the beginning of the year. The Central Bank is of the opinion that the limit should not be fully utilised. The large exposures of the largest customers should not exceed 20% of the capital base, let alone exceed the statutory maximum. Furthermore, it is important to prevent facilities granted to individual customers and parties connected to them from creating large exposures in the accounts of more than one bank. Such a development would be cause for concern from the standpoint of financial stability.

When the new banks were established, sizeable imbalances between foreign-denominated assets and liabilities resulted. A large majority of the old banks' assets took the form of foreign-denominated loans, while the corresponding liabilities remained in the estates of the old banks. The imbalance far exceeds the limits set forth in Central Bank rules and therefore increases financial undertakings' reserve requirements. The market for hedging instruments is virtually non-functional in Iceland, and the capital controls limit domestic financial undertakings' access to foreign hedging options. Consequently, the banks have few options for correcting the situation while confidence in the Icelandic financial markets is limited and risk aversion is significant.

Ever since the banking system collapsed, the commercial banks have worked towards reducing their foreign currency imbalances, and their efforts have borne some fruit. In the three largest commercial banks' interim financial statements, the foreign currency mismatches in their books are corrected with reference to the sensitivity of changes in the book value of assets to exchange rate movements. As can be seen in Table 4, foreign currency imbalances in the banking system have been reduced somewhat since the beginning of the year.

Table II-4 Mismatches in assets and liabilities in foreign currency[1]

	31.12.2009	*30.06.2010*
Recorded foreign currency imbalance	144%	116%
Adjusted foreign currency imbalance	27%	13%

1. The three largest commercial banking groups. Imbalances as a percentage of the capital base.
Source: Commercial banks' annual and semi annual accounts.

In recent months, the Central Bank has sought ways to assist the banks and savings banks temporarily in reducing these imbalances. This will be done through cross-currency interest rate swaps,

6. Large exposures are exposures (lending, securities holdings, shares, guarantees granted, etc.) incurred by a financial undertaking with respect to a client or a group of financially connected clients, the value of which amounts to 10% or more of the own funds of the undertaking. According to the Act on Financial Undertakings, no. 161/2002, exposure resulting from one or more customers that are internally linked to one another may not exceed 25% of a financial undertaking's own funds, and the sum of large exposures may not exceed 800% of the undertaking's own funds.
7. Commercial banks excluding Byr hf.
8. Amounts, number, and nature/type of large exposure may vary from one commercial bank to another.

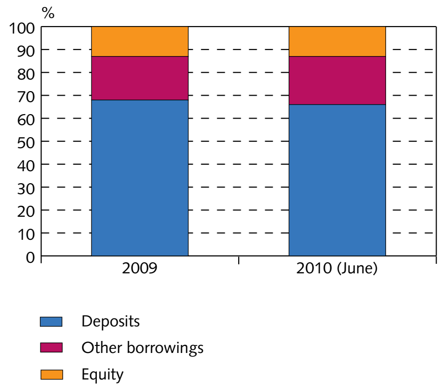
whose purpose is to reduce the imbalances that can be traced to foreign-denominated assets generating foreign exchange revenues to operations. A letter to this effect was sent to financial institutions on 6 October 2010.

In all likelihood, the Supreme Court judgments on exchange rate-linked loans will affect the book value of the imbalances between assets and liabilities denominated in foreign currency. It can be assumed that loan contracts containing non-binding exchange rate linkage clauses will henceforth be specified in Icelandic krónur. The book value of the imbalance will then be reduced by an amount equivalent to the change, reducing the institution's need for economic capital.

With the establishment of the new commercial banks, the indexation imbalances in the banking system grew substantially, as indexed loans were transferred to the new banks, while corresponding funding remained in the estates of the old banks. The new banks' have had limited opportunity to issue indexed bonds. The largest commercial banks' indexed assets in excess of indexed liabilities totalled nearly 130 b.kr. as of 30 June 2010, after having increased somewhat since the beginning of the year. It can be assumed that a portion of the loan contracts containing non-binding exchange rate linkage clauses will be specified in Icelandic krónur, with indexation. Similarly, it can be assumed that a portion of loans in foreign currencies will be converted to indexed króna-denominated loans. This will inevitably exacerbate the banking system's indexation imbalances.

Considerable interest rate risk is in the banking system, as most of the system's assets (in the form of loans) have considerably longer maturities than its liabilities (the vast majority of which are deposits). Fixed interest risk has increased somewhat since the beginning of the year and, as of 30 June 2010, the largest commercial banks potential loss could have totalled nearly 11.9 b.kr. in the event of a 1% increase in market interest rates.

Chart II-5
Commercial banks funding[1]



1. Commercial banks', parent companies.
Sources: Central Bank of Iceland.

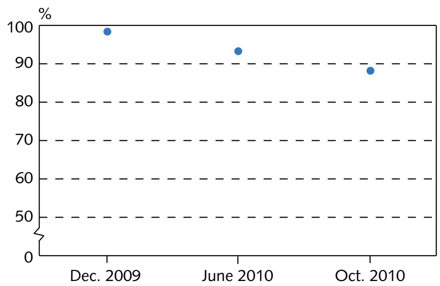
Table II-5 Fixed interest risk[1]

M.kr.	*Non-indexed items*	*Indexed items*	*Foreign-denominated items*	*Total*
1% interest rate increase	-1,650	-9,288	-943	-11,882

1. Parent companies of the three largest commercial banks, end-June 2010.
Source: Financial Supervisory Authority.

The vast majority of the commercial banks' funding comes from deposits. The banks' other borrowings remain limited, with the exception of a foreign-denominated 10-year bond issued by NBI to Landsbanki Íslands hf. in connection with remuneration for the difference between appropriated assets and liabilities. Consequently, the banks' liquidity risk centres in large part on the possibility of large-scale withdrawals, as well as uncertain inflows from their loan portfolios. Many customers are in genuine financial distress, which reduces payment flows from loans and thus affects inflows of liquid assets. Nearly 80% of the banks' deposits are sight deposits; therefore, the banks must be prepared for large-scale withdrawals at any given time. Once investment options increase in number and risk aversion diminishes, the banks can expect a share of their deposits to shift over to other investment forms. It is also likely that a possible

Chart II-6
Commercial banks deposits as % of loans[1]



1. Commercial banks', parent companies.
Sources: Central Bank of Iceland.

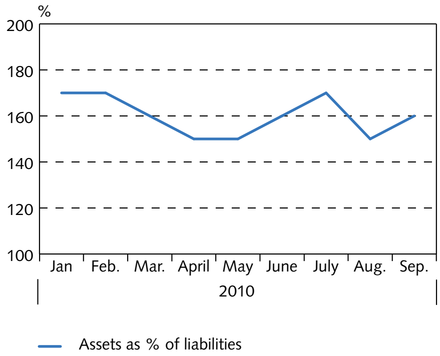
change in the blanket Government guarantee of deposits – cf. official declarations that deposits in Icelandic banks are guaranteed in full – will affect investors' choices. Moreover, non-residents hold about 16% of commercial bank deposits, and the old banks hold about 6%. Consequently, the banks must be prepared for the expatriation of a portion of these deposits, with the accompanying impact on their liquidity and on foreign exchange market flows.

Table II-6 Commercial banks deposits[1]

Deposits (b.kr.)	*31.12.2009*	*30.06.2010*	*Percentage of deposits*
Residents	1,487	1,537	84%
- in Icelandic krónur	1,229	1,332	87%
- in foreign currency	257	205	13%
Non-residents	259	296	16%
- in Icelandic krónur	199	238	80%
- in foreign currency	60	58	20%
Total deposits	1,746	1,833	100%

1. Commercial banks, parent companies. Byr hf. deposits included as of June 2010.
Source: Central Bank of Iceland.

Chart II-7
Liquidity position of commercial banks, 0-3 months[1]
According to Central Bank of Iceland liquidity rules



1. Biggest commercial banks, parent companies.
Sources: Central Bank of Iceland.

The Central Bank sets rules governing credit institutions' liquidity. According to those rules, liquid assets and liabilities are classified by time periods and weighted in terms of risk. Assets and liabilities are classified in terms of four periods of time: those that are liquid within one month, from one to three months, from three to six months, and from six to twelve months. According to the rules, credit institutions shall have liquid assets in excess of liabilities in the first two periods. The rules entail a certain stress test where a discount is applied to various equity items, but where it is assumed that all obligations must be paid upon maturity, as well as a portion of other obligations such as deposits. In addition to the Central Bank rules, the Financial Supervisory Authority has demanded that the largest commercial banks hold liquid assets equal to at least 20% of all deposits and cash equivalent to at least 5% of sight deposits. The commercial banks have met the Central Bank's liquidity requirements and the Financial Supervisory Authority's requirements for deposit payout ratios.

The capital base of the largest commercial banking groups totalled 400 b.kr. as of end-June 2010, including subordinated loans amounting to just under 50 b.kr. The capital base therefore consists of share capital and accumulated operating revenues. The banks' capital ratio, according to the pertinent provisions of the Act on Financial Undertakings, was 17.8% at the end of the period, after rising by 1.9 percentage points since the beginning of the year. At the end of June, Arion Bank, Íslandsbanki, and NBI met the Financial Supervisory Authority's 16% minimum capital adequacy requirement.[9] Byr was undergoing financial restructuring but has now reached agreements with its creditors. MP Bank has assessed its economic capital and is attempting to strengthen its capital position in consultation with the Financial Supervisory Authority.[10]

9. The effect of unlawful exchange rate linkage of loan agreements on the capital ratios of the banks is discussed in the section on exchange rate-linked loans.

10. ICAAP and SREP, according to Basel II: Pillar 2.

Table II-7 Capital adequacy ratios[1]

	31.12.2009	30.06.2010
Arion Bank	13.7%	16.4%
Íslandsbanki	19.8%	21.5%
NBI	15.0%	16.7%
Total	15.9%	17.8%

1. The largest commercial banking groups.
Sources: Commercial banks' semi annual and annual accounts.

Savings banks and the Housing Financing Fund

The restructuring of the savings banks has been underway for some time. The Central Bank of Iceland was the principal creditor of five of them. This situation stems from the March 2009 collapse of Sparisjóðabanki Íslands (SPB), after which the Central Bank was forced to take over all savings bank deposits with SPB. In order for the Central Bank to be able to meet those obligations, claims against the savings banks were transferred to the Central Bank with a decision by the Financial Supervisory Authority on the disposal of SPB's assets and liabilities. Two savings banks have completed their financial restructuring: Sparisjóður Norðfjarðar and Sparisjóður Bolungarvíkur. In all likelihood, Sparisjóður Svarfdæla, Sparisjóður Vestmannaeyja, and Sparisjóður Þórshafnar og nágrennis will follow suit in coming weeks. When that has been accomplished, the restructuring of the five smaller savings banks that did not meet the statutory requirements for minimum capital adequacy in the wake of the banking crisis will be complete. With the restructuring of the above-mentioned savings banks, the Central Bank of Iceland and the Institute of Regional Development acquire a large share of their guarantee capital. The guarantee capital shares acquired by the Central Bank will subsequently be transferred to Icelandic State Financial Investments (ISFI), which will administer the holding on behalf of the State. Following restructuring, the savings banks will withdraw their applications for capital injections from the State on the basis of Article 2 of Act no. 125/2008. The EFTA Surveillance Authority (ESA) approved the restructuring plans presented by the Government and the Central Bank on 21 June 2010.

On 14 October 2010, the Ministry of Finance, the Byr Savings Bank winding-up committee, and Byr hf., which is a commercial bank, reached an agreement on the settlement and ownership of Byr hf. The State's holding in Byr hf. will be 5.2%, while the share held by Byr Savings Bank will be 94.8%. Byr Savings Bank's holding will nonetheless remain in the custody and administration of the Ministry of Finance, in cooperation with the Byr Savings Bank winding-up committee, until the winding-up committee requests the transfer of the holding. It is assumed that this will take place within two years. With that agreement, Byr hf. will be fully capitalised and will have a new initial balance sheet that meets the capital and liquidity requirements of the Financial Supervisory Authority and the Central Bank of Iceland. The Treasury will extend to Byr hf. a subordinated loan of up to 5 b.kr. at market rates for a period of 10 years, which Byr hf. is assumed to pay in full in five years' time. Byr Savings Bank's claims against Byr hf. will be converted to share capital in Byr hf. Issued share capital in the bank will total 17.2 b.kr., and the statutory capital adequacy ratio will be 16.4%.

On 5 November 2010, the winding-up committee of Sparisjóðurinn í Keflavík (Keflavík Savings Bank) and SpKef Savings Bank reached an agreement on settlement due to SpKef's takeover of Keflavík Savings Bank's deposits and operations. The agreement involves the payment of 300 m.kr. to Keflavík Savings Bank. It is assumed that recapitalisation will be complete soon and that the savings bank will then meet the capital adequacy and liquidity requirements of the Financial Supervisory Authority and the Central Bank of Iceland.

The Housing Financing Fund's (HFF) assets totalled 833 b.kr. as of end-June 2010. Some 95% of HFF's assets are loans, which increased by 4% from year-end 2009. At end-June 2010, the Fund owned 739 residential properties appropriated in satisfaction of claims, as opposed to 347 properties at year-end 2009. The HFF finances mortgage lending by issuing HFF bonds. The Fund's bond issues totalled 809 b.kr. as of end-June, after increasing 4% since the beginning of the year. The Housing Financing Fund's operations generated a loss of approximately 1.7 b.kr. in the first half of 2010. In comparison with the same period in 2009, net interest income fell sharply, deposit interest on liquid assets declined, and freezing of interest payments increased. It is clear that the HFF must increase its interest rate differential in order to cover operating expenses and increased impairment. In the first half of 2010, loan impairment rose in line with default ratios, which increased from 5.3% at year-end 2009 to 6.3% at end-June 2010. The Fund's equity totalled 8.4 b.kr. as of end-June, and its capital adequacy ratio was only 2.1%, down from 3% at year-end 2009.[11] The Fund's long-term goal is to maintain an equity ratio over 5.0%. A work group operating on behalf of the Ministry of Social Affairs and Social Security has the task of focusing on the Fund's capital ratio and making recommendations to its Board in this regard. The work group will submit findings in late 2010. Further impairment of loans can be expected in coming months, and it is clear that the Fund will need a substantial capital injection in the near future.

Exchange rate-linked loans

On 16 June, the Supreme Court of Iceland ruled that two asset leasing agreements were actually loan agreements. Because the principal, disbursed loan amount, and repayments according to the contracts were specified in Icelandic krónur, the contracts were considered loan agreements in Icelandic krónur.[12] According to the Supreme Court's interpretation of the Act on Interest and Price Indexation, no.

11. The Housing Financing Fund's equity ratio is calculated in accordance with the provisions of the Regulation on the Financial Position and Risk Management of the Housing Financing Fund, no. 544/2004. The percentage is calculated in the same manner as the capital adequacy ratio of financial undertakings.

12. Cases no. 92/2010 and 153/2010.

38/2001, it is unlawful to link obligations in Icelandic krónur to the exchange rate of foreign currencies. The Supreme Court therefore ruled that the exchange rate linkage provisions of the loan agreements were not binding. In the wake of these Supreme Court judgments, disputes arose concerning whether the interest rates specified in loan agreements with non-binding exchange rate linkage clauses were binding. On 16 September 2010,[13] the Supreme Court ruled that the interest rate provisions of the above-specified agreements should be set aside and the general, non-indexed interest rate published by the Central Bank should prevail, in accordance with the Act on Interest and Price Indexation, no. 38/2001.[14] The Supreme Court's conclusion was in line with the guidelines issued by the Central Bank and the Financial Supervisory Authority on 30 June 2010. The Supreme Court judgments state explicitly that loans in foreign currency do not fall under the rules governing indexation of loans in Icelandic krónur.

All of Iceland's financial undertakings have concluded a large number of exchange rate-linked loan agreements, and a variety of contract forms have been used. The number of legal foreign currency loan agreements vs. the number of illegal exchange rate-linked loan agreements is uncertain. Conclusions concerning the legality of individual contract forms will probably require the intervention of the courts.

The Central Bank worked with the Financial Supervisory Authority on contingency measures aimed at assessing the potential impact of unlawful exchange rate linkage on the financial system. On four occasions beginning early in 2010, the parties concerned compiled information on exchange rate-linked loans from Iceland's main financial undertakings. Prior to the Supreme Court judgements of 16 June 2010, such data were compiled on exchange rate-linked loans on three occasions. The June 2010 Supreme Court decisions clarified which points should be emphasised concerning exchange rate-linked loans, and more detailed information gathering ensued. Financial undertakings were required to classify loan agreements with exchange rate linkage clauses into six categories, from A to F. Three factors were given particular consideration: principal, disbursed loan amount, and instalment payments. Category A contained loan agreements in which all three were in foreign currency. Categories B-E included loan agreements with various combinations of these factors, and Category F was reserved for agreements in which all three were in Icelandic krónur. The loan agreements that have been deemed unlawful fall into Category F. Based on the results of the contingency work done by the Central Bank and the Financial Supervisory Authority, where one of the premises were that all loans in Categories B-F contain unlawful exchange rate linkage clauses, the impact on the three largest commercial banks' capital ratios is manageable. The impact on the capital ratios of smaller financial companies could be greater, although the financial system as a whole would not be threatened. Furthermore, it is not highly likely that all loans in Categories B-F contain unlawful exchange rate linkage clauses.

13. Case no. 471/2010.

14. According to the Act on Interest and Price Indexation, no. 38/2001, the Central Bank determines non-indexed interest rates with reference to the lowest interest on new, general, non-indexed loan agreements with credit institutions.

Table II-8 Loans and asset financing agreements in the financial system[1]

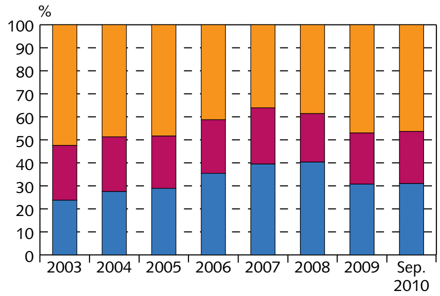
Lending and asset financing agreements (b.kr.)	*30 June 2010*	*Percentage of total*
Credit institutions	2,924	89%
– DMBs	1,936	59%
– commercial banks	1,810	55%
– savings banks	126	4%
– Miscellaneous credit institutions	988	30%
– Housing Financing Fund	797	24%
– Other miscellaneous credit institutions	190	6%
Pension funds	177	5%
Insurance companies	17	1%
Government credit funds	146	4%
Loans and asset financing agreements in the financial system	3,265	100%

1. Book value of loans to residents and non-residents (excluding financial undertakings), parent company figures.
Source: Central Bank of Iceland.

Chart II-8

Financial system lending to domestic households and businesses, by type[1]

Descember 2003 - September 2010

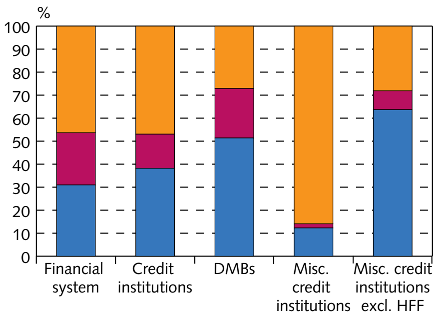


1. Parent company, book value.
Source: Central Bank of Iceland.

Chart II-9

Financial system lending, by loan type and operations[1]

30 June 2010



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

Table 8 shows the book value of parent companies' loans and asset financing agreements with residents and non-residents (hereinafter referred to as loans) as of 30 June 2010. The book value of loans rose slightly between 30 June and 30 September. The main changes in the financial market during that period took place on 13 July 2010, when the Board of Askar Capital hf. requested winding-up proceedings and the Financial Supervisory Authority appointed Avant hf. (a subsidiary of Askar Capital hf.) an interim Board of Directors at Avant hf.'s request. The Supreme Court's 16 June judgments on exchange rate-linked loans had a dramatic effect on these companies' balance sheets.

Chart 8 illustrates developments in the currency composition of financial system loans to the private sector (domestic businesses and households) from 2003 to the present. From 2003 until the collapse in the autumn of 2008, financial system lending to the private sector increased dramatically, and the currency composition of the loans granted changed markedly as well. The proportion of exchange rate-linked loans almost doubled during that period, and by 2008 nearly 40% of loans to domestic borrowers were exchange rate-linked. The proportion of indexed loans fell accordingly, while the proportion of non-indexed loans remained relatively unchanged. The proportion of exchange rate-linked loans declined from the collapse until the present. The main explanations for this are the currency composition of financial companies in winding-up proceedings[15] and the new banks' purchase price of loans in krónur as compared with the purchase price of loans in foreign currency. As of the end of June 2010, the book value of financial system loans to the Icelandic private sector totalled 2,754 b.kr., or 84% of financial system lending.[16]

At end-June 2010, 31% of financial system loans were exchange rate-linked, 23% were non-indexed, and 46% were indexed (see Chart 9). Loans from credit institutions[17] are classified as follows: exchange

15. Central Bank data consist of the book value of currently operating financial undertakings.
16. Borrowings between financial undertakings are excluded.
17. DMBs and miscellaneous credit institutions.

rate-linked loans, 38%; non-indexed loans, 15%; and indexed loans, 47%. Among DMBs, 51% of loans were exchange rate-linked, 22% were non-indexed, and 27% were indexed. Miscellaneous credit institutions (credit institutions excluding DMBs) had the smallest percentage of exchange rate-linked loans, at 12%. About 86% of miscellaneous credit institutions' loans were indexed, with the Housing Financing Fund (HFF) accounting for the largest proportion. Among miscellaneous credit institutions excluding the HFF, 64% of loans were exchange rate-linked.

Loans from credit institutions constituted 89% of total lending in the financial market at end-June (Table 8), and over 90% of these loans are to households and businesses. Chart 10 illustrates credit institutions lending to households and businesses, with exchange rate-linked loans accounting for 40%. Loans to households were 45% of total lending to households and businesses. About 13% of loans to households were exchange rate-linked, and 87% were in krónur, most of them indexed. Some 61% of loans to businesses were exchange rate-linked, and 39% were in krónur.

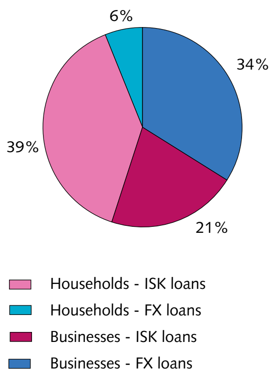
DMBs' loans accounted for 59% of total lending in the financial market at end-June (Table 8), virtually all of it to households and businesses. Exchange rate-linked loans accounted for about 54% of loans to households and businesses (Chart 11). Loans to households accounted for 28% of loans to the private sector, with 23% exchange rate-linked and 77% in krónur. About 67% of loans to businesses were exchange rate-linked, while 33% were in krónur.

The majority of DMBs' loans to fisheries, industrial firms, and companies in transport and communications were exchange rate-linked, as opposed to about half of loans in other sectors.

The Minister of Economic Affairs has sponsored a bill of legislation amending the Act on Interest and Price Indexation, no. 38/2001. The aim of the bill is to guarantee non-discrimination among individuals who took exchange rate-linked mortgages and motor vehicle loans, irrespective of whether the form of the loan agreement in question was deemed unlawful or not. An estimated 37,000 households have exchange rate-linked loans. If the bill of legislation is passed, households' debt will decline by 40-50 b.kr. nominal value, and the uncertainty about exchange rate-linked loans to households will have been eliminated for the most part. The bill contains a general provision stating that, if an agreement has been reached concerning unlawful interest or indexation, both shall be reviewed, and the interest at any given time shall be equal to the interest rate published by the Central Bank in accordance with Act no. 38/2001, with reference to the lowest non-indexed or indexed interest rate on new loans granted by credit institutions. According to the bill, this interest shall be calculated from the date the monetary claim was established. This eliminates the uncertainty concerning the interest rate on unlawful exchange rate-linked loan agreements. What remains is the uncertainty concerning the scope of exchange rate-linked loans to legal entities.

Chart II-10

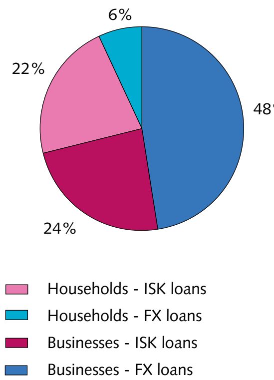
Credit institutions' loans to households and businesses, classified by domestic and foreign currency[1]



1. Parent company, book value 30 Jun 2010.
Sources: Financial Supervisory Authority, Central Bank of Iceland.

Chart II-11

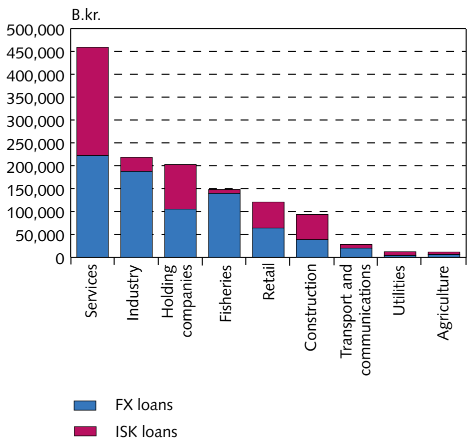
DMBs' lending to households and businesses, classified by domestic and foreign currency[1]



1. Parent company, book value 30 Jun 2010.
Sources: Financial Supervisory Authority, Central Bank of Iceland.

Chart II-12

DMBs' loans to domestic companies by sector, classified by domestic and foreign currency[1]



1. Parent company, book value 30 Jun 2010.
Source: Central Bank of Iceland.

Appendix

DMBs' balance sheets[1]

Table 1 Balance sheet summary, deposit money banks, 31 October 3010

Assets	*Balance in m.kr.*	*Liabilities*	*Balance in m.kr.*
Cash and deposit balances with the Central Bank of Iceland	*98,713*	*Debt with the Central Bank*	*49,234*
Banknotes and coin	3,874	Collateral loans	48,156
Foreign banknotes and coin	2,932	Overnight loans	1,078
Current account with Central Bank	23,532		
FX account with Central Bank	8,089		
Certificates of deposit	60,286	*Financial liabilities held for trading*	*29,227*
		Derivatives held for trading	2,907
Financial assets held for trading	*137,776*	Short positions	26,320
Derivatives held for trading	10,615	Instruments of debt	0
Equity < 10% shareholdings	4,357	Other liabilities held for trading	1
Debt instruments	122,804		
		Financial liabilities designated at fair value through P&L	*1,205*
Financial assets at fair value through P&L	*170,153*	Bond issue	236
Equity < 10% shareholdings	11,337	Subordinated loans	405
Debt instruments	158,816	Direct borrowings	564
Financial assets available for sale	*120,929*	*Financial liabilities measured at amortised cost*	*2,290,567*
Equity < 10% shareholdings	456	Deposits from credit institutions	340,511
Debt instruments	120,474	Deposits from others than credit institutions	1,495,312
		Bond issue	7,686
Loans and accounts receivable	*2,074,030*	Subordinated loans	48,596
Receivables	281,668	Other direct borrowings	398,461
Lending – write-offs	1,792,362		
		Financial liabilities associated with transferred financial assets	*0*
Investments held to maturity	*111*		
Debt instruments	111	*Derivatives - Hedge accounting*	*0*
Derivatives - Hedge accounting	*0*	*Other liabilities*	*64,643*
Shares in associates, subsidiaries, and joint ventures ≥ 10% shareholdings	*106,416*	*Liabilities, total*	*2,434,875*
Associated companies share in associates	12,510		
Shares in affiliated companies	93,907		
Other assets	*124,973*	*Equity and minority interest*	*398,225*
Assets, total	*2,833,101*	*Total liabilities and equity*	*2,833,101*

1. Monthly figures on the banking system, taken from Central Bank data.

III Payment intermediation

New payment systems infrastructure on the horizon

In the winter of 2008-2009, after the collapse of Iceland's banking system, emergency measures were undertaken to ensure the continuation of secure cross-border and domestic payment intermediation. When these measures were in place, the restructuring of systemic elements that did not withstand the pressure of the crisis ensued. At the same time, a review of current organisation and infrastructure was carried out in order to enhance security and efficacy. At mid-year 2010, the RTGS system was appraised in light of international requirements. Changes were proposed based on the appraisal results, for those points deviating from regulatory criteria. The division of tasks within the Central Bank has been clarified, and work has been invested in defining and better formulating important procedures pertaining to contingency and the operation of the RTGS system. In recent months, the Central Bank has collaborated with financial institutions and supervisory bodies in reorganising important payment intermediation infrastructure administered by the Icelandic Banks' Data Centre (RB) and Fjölgreiðslumiðlun (FGM). It is assumed that the Central Bank will withdraw from ownership of RB and will instead lead projects related to systemically important payment systems infrastructure. RB specialises in value-added services for the banking system. Systems pertaining to financial system infrastructure will be merged under the leadership of the Central Bank.

The Icelandic Banks' Data Centre and Fjölgreiðslumiðlun hf.

For several decades, there has been successful collaboration on the joint operation of payment intermediation and information technology infrastructure, not least as regards the Icelandic Banks' Data Centre. In many ways, the arrangements have been sound and economical. The current systemic payment intermediation infrastructure proved its worth when Iceland's three commercial banks failed in early October 2008 and other financial institutions followed suit in March 2009 and thereafter. Virtually without exception, all domestic payment intermediation proceeded without difficulty, and depositors had full and unlimited access to their accounts and deposits during this turbulent period.

Nonetheless, changes are needed because of changed circumstances. It is necessary to define different tasks more specifically, increase transparency and credibility, create premises for increase efficiency, and ensure that payment intermediation arrangements are in line with best practice and fulfil the provisions of the Competition Act to the maximum extent possible.

Streamlining in information technology has been discussed among the owners of RB and FGM for some time. On 30 April 2010, Arion Bank, Íslandsbanki, NBI, the Icelandic Savings Banks' Association, and the Central Bank of Iceland signed a statement of plans for changes in collaboration on payment intermediation and information technology. On the basis of that statement, work has been done in the past few months to finalise these changes, which are to take effect at year-end 2010. The main changes according to the framework agreement signed by the owners of RB and FGM on 15 November 2010 will be:

Chart III-1

Legislation: According to Article 4 of the Act on the Central Bank of Iceland, the Bank shall promote an efficient and secure financial system, including payment intermediation domestically and with foreign countries.

The Central Bank's goals in the field of payment intermediation: *Systemically important payment and settlement systems shall be transparent, efficient, and secure.*

Execution: The systems shall be structured with reference to financial stability and general requirements. Chief among these are the 10 Core Principles for Systemically Important Payment Systems, the CPSS/IOSCO recommendations for securities settlement systems, European Union law and directives on payment intermediation, and the Icelandic regulatory framework.

- RB will be converted to a limited liability company. RB's operations have hitherto been based on a collaboration agreement, and its activities have been viewed as a part of its owners' infrastructure. The change entails making the new company independent of its customers.
- From the outset, the Central Bank of Iceland has been one of the owners of RB, but it will not be an owner of the new Icelandic Banks' Data Centre hf.
- The system and related payment intermediation elements will be separated from other RB services and transferred to FGM.
- The Central Bank of Iceland will acquire FGM in full. The company's operations will be incorporated into the Central Bank of Iceland as an element in separating the ownership and management of important core infrastructure from users in a competitive market. Financial institutions must have access to the infrastructure concerned in order to be able to function in the domestic financial market. All financial institutions that have operating licences from the Financial Supervisory Authority and meet participation requirements have the option of using the company's services. The main payment intermediation systems under FGM/Central Bank of Iceland management are:
  - the RTGS system
  - the netting system
  - the RÁS payment card authorisation system
  - the payables pool and related systems
  - the SWIFT Alliance system

Appraisal of the Central Bank of Iceland Real-Time Gross Settlement System (the RTGS system)

The RTGS system is a part of financial system infrastructure and is supervised by the Central Bank. The Bank is the owner and operator of the RTGS system, but its technical operation is outsourced to RB.

The RTGS system must comply with the 10 Core Principles set by the Bank for International Settlements (BIS). Every five years, the RTGS system is appraised and its ability to meet BIS standards evaluated. Three formal appraisals have been made to date, the first in 2000 and the third and last in mid-2010.[1] Furthermore, on two occasions an assessment was made of how RTGS system appraisals have been followed up (in 2003 and 2008). These three appraisals are described briefly later in this section.

Appraisals of the RTGS system are based on the following 10 Core Principles for systemically important payment systems:[2]

Core Principle 1: The system should have a well-founded legal basis under all relevant jurisdictions.

Core Principle 2: The system's rules and procedures should enable participants to have a clear understanding of the system's impact on each of the financial risks they incur through participation in it.

1. 19 July - 20 August.
2. See the BIS website (Core Principles for Systemically Important Payment Systems).

Core Principle 3: The system should have clearly defined procedures for the management of credit risks and liquidity risks, which specify the respective responsibilities of the system operator and the participants and which provide appropriate incentives to manage and contain those risks.

Core Principle 4: The system should provide prompt final settlement on the day of value, preferably during the day and at a minimum at the end of the day.

Core Principle 5: A system in which multilateral netting takes place should, at a minimum, be capable of ensuring the timely completion of daily settlements in the event of an inability to settle by the participant with the largest single settlement obligation.

Core Principle 6: Assets used for settlement should preferably be a claim on the central bank; where other assets are used, they should carry little or no credit risk and little or no liquidity risk.

Core Principle 7: The system should ensure a high degree of security and operational reliability and should have contingency arrangements for timely completion of daily processing.

Core Principle 8: The system should provide a means of making payments which is practical for its users and efficient for the economy.

Core Principle 9: The system should have objective and publicly disclosed criteria for participation, which permit fair and open access

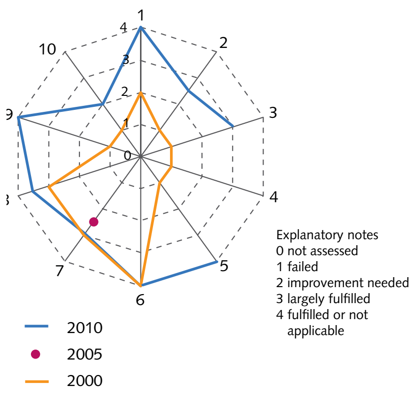
Core Principle 10: The system's governance arrangements should be effective, accountable and transparent.

The result of the first overall appraisal of the RTGS system, carried out in 2000, was that Core Principle 6 was fulfilled and Core Principles 7 and 8 were largely fulfilled, while other elements received weaker scores. In the appraisal results, the assessment of Core Principle 7 was made with reservations because testing of the contingency system was limited. It was decided to re-evaluate the system with regard to Core Principle 7 and assess the arrangements for security and contingency in greater detail. In 2005, an appraisal focusing on Core Principle 7 was carried out. The result was that requirements were met in part. A number of elements needing review were pointed out, and changes were recommended. The third appraisal took place in July and August 2010. The appraisal was comprehensive in nature and revealed significant improvements from earlier appraisals, although it also shed light on elements that required change. Some of the changes have been in preparation for some time and are being carried out, while others need further preparation. Most of the comments from the appraisal are similar in nature and involve the need to refine procedures and improve record-keeping, formal elements, and accountability.

The results of the three above-mentioned appraisals of the RTGS system vis-à-vis the 10 Core Principles for systemically important payment systems are shown in Chart 2. The scale on the chart ranges from 0 to 4 where 4 is the highest possible score and 1 is the lowest. A score of 0 means that the Core Principle was not assessed.

The next appraisal of the RTGS system is to be carried out before year-end 2011. It is intended as a follow-up to the previous appraisal.

Based on BIS' 10 Core Principles



Source: Central Bank of Iceland.

The objectives are, among other things, to follow up on the comments made during the previous appraisal and to re-evaluate the system with respect to the changes that are currently in preparation or being implemented.

Contingency and stress testing

The Central Bank's contingency centre has been improved, and state-of-the-art facilities for 16 employees have been set up. The facilities can be used if the main employee facilities at Kalkofnsvegur become partially or totally non-functional. The contingency centre is connected to contingency procedures and to the Bank's main and back-up facilities. Employee equipment at the contingency centre is designed to guarantee that employees have the necessary facilities to provide uninterrupted systemically important services and to carry out the necessary monitoring and supervision.

Regular contingency exercises focusing on various systemically important services have been organised. It is assumed that certain processing tasks will be transferred to the contingency centre in a structured manner so as to promote continuous operation and to ensure that employees are accustomed to the contingency centre environment. Furthermore, unannounced exercises will be carried out with and without the participation of financial institutions so as to test contingency plans, participants' knowledge and expertise, and the quality of alternate routes.

The last internal contingency exercise took place on 18 November 2010. During the exercise, peripheral equipment and procedures were tested in accordance with the contingency plans for the RTGS system and cross-border payment intermediation, and the Central Bank's internal procedures were tested as well.

In the autumn of 2010, the Central Bank of Iceland concluded an agreement with the Bank of Finland, under which the latter will perform a contingency analysis of the Icelandic RTGS system and carry out benchmarking with respect to the European Central Bank's TARGET2 system. This is an element in better defining the need for changes in the system and identifying the points that should be examined more closely in the event that the Icelandic RTGS system becomes a participant in the new centralised European securities settlement system, T2S.

The TARGET2-Securities securities settlement system

The European Central Bank (ECB) has decided to develop a new, centralised, multi-currency securities settlement system called TARGET2-Securities, or T2S. The system will be owned by the ECB and, according to current plans, is to be implemented in the latter half of 2014.

The Central Bank of Iceland, the Icelandic Securities Depository, and other European central banks and securities depositories, are engaged in discussions with the ECB concerning possible participation in this new securities settlement system. The results of these discussions should be finalised by mid-2011. At the same time, an assessment of the potential impact of this new system and its possible advantages and disadvantages for the Icelandic financial market is underway.

According to current plans, electronic securities that are currently registered with securities depositories all over Europe will be stored in the T2S system but will remain under the administration of their original depositories. Monetary settlement of securities transactions will take place in the ECB's TARGET2 settlement system for all countries in the euro area. For other currencies, the ECB's T2S system is granted access to the RTGS systems of the central banks concerned, so that monetary settlement can take place in the respective central banks.

Rebuilding and refinement after the banking collapse

Since Sparisjóðabankinn (SPB) collapsed some 18 months ago, payment intermediation for Iceland's savings banks has been supervised and guaranteed by the Central Bank of Iceland. This arrangement was implemented in order to ensure reliable payment intermediation for the savings banks upon the collapse of SPB. On 29 October, the Central Bank's guarantee expired. On that date, the services and responsibility for them were transferred to the savings bank system and Byr. Byr oversees the operation of the payment system on behalf of the savings banks and manages their required reserves.

The Central Bank of Iceland took on a number of extra functions in the wake of the financial crisis, partly to ensure uninterrupted service. Thereafter, work began on connecting the RTGS system to the SWIFT communications standard so as to increase the system's ability to service foreign participants. This work concluded in early 2010. Clearstream began participating in the system through SWIFT 1 February, and the launch was successful. Further improvements to the SWIFT connection are underway, with the aim of enhancing system security and efficacy. A new SWIFT interface with the RTGS system is expected to become available in 2011, whereupon a greater number of foreign participants will gain access.

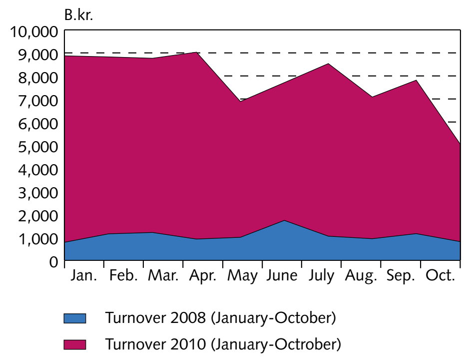
The Central Bank of Iceland is currently reorganising its internal procedures and methods related to the RTGS system and contingency exercises with respect to participants, on the basis of the above-discussed appraisals. This reorganisation is not yet complete but is well advanced.

Payment and settlement system operations during the year

RTGS system turnover for the first 10 months of the year totalled just over 10,732 b.kr. in nearly 66,000 transactions.[3] System activity contracted sharply in the wake of the banks' collapse. Turnover fell by 86% between January-October 2008 and January-October 2010, and the number of transaction fell by 65% (Chart 3). The contraction is due in particular to the fact that the banks' cross-border transactions were separated from their domestic business.

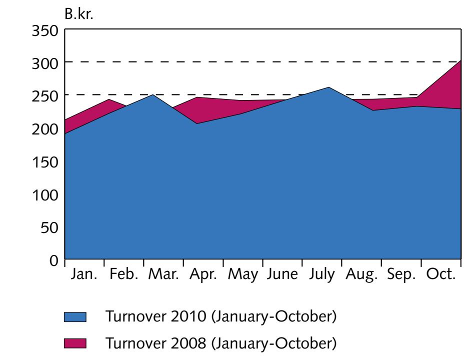
3. Payment orders; that is, disbursements.

Chart III-3
RTGS system turnover 2008/2010[1]



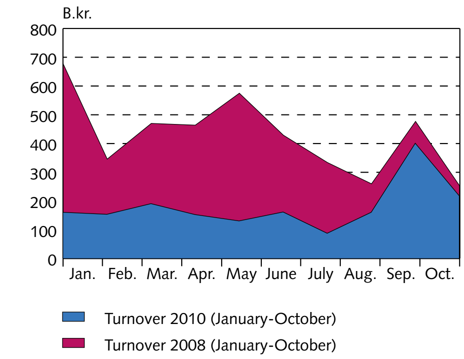
1. Comparison between years 2008-2010.
Source: Central Bank of Iceland.

Chart III-4
Netting system turnover 2008/2010[1]



1. Comparison between years 2008-2010.
Source: Fjölgreiðslumiðlun hf.

Chart III-5
Securities settlement system turnover 2008/2010[1]

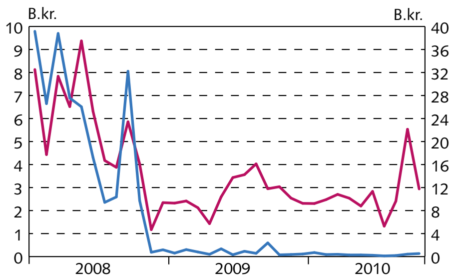


1. Comparison between years 2008-2010.
Source: Iceland Securities Depository hf.

Chart III-6

Average daily trading volume, Nasdaq OMX Iceland

Monthly data, January 2008 - October 2010



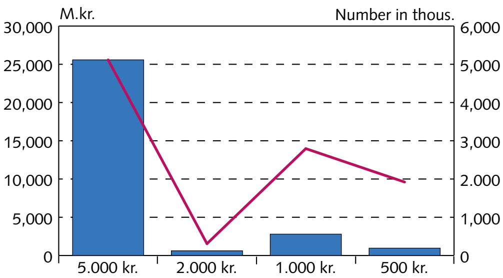
Equity market, average daily volume (left)

Bond market, average daily volume (right)

Source: Nasdaq OMX Iceland Exchange.

Chart III-7

Banknotes in circulation, end-October 2010[1]



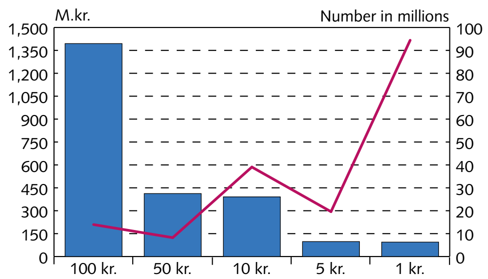
Amount (left)

Number (right)

1. Outside the Central Bank and DMBs.
Source: Central Bank of Iceland.

Chart III-8

Coins in circulation, end-October 2010[1]



Amount (left)

Number (right)

1. Outside the Central Bank and DMBs.
Source: Central Bank of Iceland.

So far in 2010,[4] netting system turnover has totalled 2,279 b.kr. in just under 60 million transactions (Chart 4). Both turnover and the number of transactions have declined, particularly if turnover is adjusted for price level changes. However, the number of transactions rose slightly year-on-year during the first 10 months of 2010. The average payment order amount increased 4.4% year-on-year, to 38,000 kr. in 2010. The netting system handles payment orders for amounts up to 10 million Icelandic krónur.

Securities settlement system turnover in the first 10 months of the year amounted to 1,819 b.kr. in just under 18,000 transactions (Chart 5). Some 41,000 off-exchange transactions took place during the period. The number of settled transactions in the first 10 months of the year was just under 18% of the total for the same period in 2008. A comparison of OMX ICE transactions in the first 10 months of 2008 and 2010 reveals that equity market turnover in 2010 was under 2% of that in 2008. Over the same period, the contraction in bond market trading is about 45% (Chart 6). A comparison of the number of different securities traded during the two periods under scrutiny reveals that a total of 132 classes of securities were traded in 2008 (27 equity securities and 105 bond series), as opposed to 61 in 2010 (10 equity securities and 51 bond series).

Payment instruments and service centres

Use of banknotes and coin in Iceland is limited in comparison with that in other Western countries. After the financial system collapsed in October 2008, the amount of cash in circulation[5] almost doubled, and it has yet to return to pre-crisis levels. The number of 5000 kr. banknotes in circulation has increased dramatically. At end-October 2010, the supply of money in circulation totalled 32 b.kr., and half of all banknotes in circulation were 5000 kr. notes with a total value of 26 b.kr. The Central Bank also issues banknotes in 2000 kr., 1000 kr., and 500 kr. denominations.

In September 2010, payment card turnover totalled 57 b.kr. in just over 9 million transactions, with turnover virtually unchanged from the same period in 2009 in spite of rising price levels. The contraction in chequing activity continued to fall, with total turnover in September amounting to just under 5 b.kr. in 10,000 transactions.

As of 1 November 2010, five commercial banks and 11 savings banks were in operation in Iceland. These institutions operated a total of 128 branches or service locations and 195 bank automats (ATMs) nationwide. The savings banks operated some 32% of all service locations. Their service locations, 41 in all, were all located in regional Iceland. The commercial banks operated 87 service locations, including 40 in the greater Reykjavík area and 47 in regional Iceland. Since year-end 2008, a total of 59 AMTs and 24 service locations have been closed. Most of the closures took place in 2009. The strain on service locations varies, with an average of 1,600 inhabitants per AMT and 2,400 per service location.

4. The first 10 months of the year: January to November 2010.

5. Money "n circulation" refers to that circulated outside the Central Bank and the DMBs.