Financial stability[1]

Macroeconomic conditions for financial stability have improved even further since the last study was published in Monetary Bulletin 2002/4 in November. Low inflation, moderate interest rates and a sustainable external balance ought to contribute to a favourable environment for households and businesses. Unemployment is still on the increase but is unlikely to prove persistent. Some risk is posed by real estate prices, which are high in historical terms, but a price collapse seems unlikely over the next few years. However, some vulnerabilities may emerge due to the side-effects of planned investment projects. The position of commercial banks and savings banks has strengthened. Profitability is strong, their cost-income ratio has come down and defaults appear to be on the decline, but non-performing loans are still increasing. The banks' capital ratio rose in 2002 for the second consecutive year. Work on strengthening risk management in payment systems has improved the credit institutions' liquidity management. Credit ratings of the Republic of Iceland and rated banks have been upgraded. The programme to privatise state-owned commercial banks has been completed and restructuring has begun in its wake. All in all, the position is well acceptable.

The economic fundamentals for financial stability improved substantially last year. Lower inflation, better macroeconomic balance which has supported the exchange rate, cuts in the policy interest rate and some recovery in private consumption – all these factors contribute to a more favourable operating environment for businesses and households and reduce the likelihood that financial problems on their part could undermine the financial system. Unemployment is still on the increase, although it is not likely to become persistent given the large-scale construction programmes which will inject considerable capital into the Icelandic economy in the years to come. On the other hand, these projects will create significant strain on resources and conceivably macroeconomic instability, which could produce various vulnerabilities in the longer term.

On the whole, the position of the commercial banks and savings banks has improved since the last study in November 2002. Profitability was strong, although part of the upturn in profits derives from capital gains on the sale of assets and other activities rather than from traditional deposit and lending operations. Judging from the results of the banks that have published their interim statements for the first quarter[2], profitability has been very comfortable. The overall cost-income ratio of commercial banks and savings banks decreased last year, and following the privatisation of state-owned commercial banks and the planned merger of Búnaðarbanki Íslands hf. and Kaupþing banki hf., operating efficiency can be expected to improve even further in the next few years, since financial companies' have much scope for achieving economies of scale. Defaults in the banking system decreased last year, but the ratio of defaults to total lending during the first quarter of this year was similar to that at the end of 2002. However, serious defaults have clearly been increasing as a proportion of total defaults, which could lead to a further increase in unsuccessful distraint actions

1. This article uses data available on May 9, 2003.

2. Íslandsbanki hf., Landsbanki Íslands hf. and Kaupþing banki hf.

and bankruptcies this year before a peak is reached. Commercial banks and savings banks have responded by stepping up provisions for loan losses relative to total lending over the past two years. The ratio of non-performing loans to the total loan portfolio has also risen, partly because of a tighter redefinition of non-performance. Credit ratings of rated commercial banks were upgraded in the first half of this year but the maturities of foreign borrowing by commercial banks and savings banks have been visibly shortening in recent years, for reasons including the greater weight of MTN issues in their financing. The capital ratio of commercial banks and savings banks at the end of 2002 was at its highest since 1996, giving them more leeway for meeting unexpected shocks.

A mission from the International Monetary Fund visited Iceland in April this year. The purpose of the visit was to review Iceland's financial stability and compliance with international standards concerning supervision and related tasks. The IMF's previous study, published on June 12, 2001, was discussed in the Central Bank of Iceland's annual report for that year. Known as the Financial Sector Assessment Program (FSAP), this work aims to strengthen the financial systems of member countries in cooperation with their governments.

The Central Bank and Financial Supervisory Authority (FME) worked with the mission, which also obtained data from the Ministry of Commerce, commercial banks, savings banks, the Housing Financing Fund, pension funds, Iceland Stock Exchange, the National Debt Management Agency and auditors. At the conclusion of its visit the mission presented a draft report which is scheduled to be discussed by the IMF Executive Board later this summer and subsequently published.

At the present stage it can certainly be said that the IMF's review was constructive and will hopefully affirm the successes that have been achieved in consolidating financial stability and the financial sector's operational and supervisory frameworks. Scope for improvement will also presumably be identified in various areas. When the IMF report has been published it will be discussed in more detail in *Monetary Bulletin*.

The next section addresses macroeconomic indicators and developments since the last study of financial stability in *Monetary Bulletin* 2002/4. It is followed by a discussion of the main microprudential indicators and changes in the position of financial companies since the last study was made, and an outline of the main changes made in the field of payment and settlement systems in recent months.

Macroeconomic indicators

Lower inflation and interest rates have eased the household and corporate debt burden

Inflation has not posed any serious problems for the financial system in recent years. Financial institutions can even be said to have profited from it due to the favourable balance of their indexed and non-indexed assets and liabilities. However, this is not true of the businesses and households behind the financial institutions' assets – this is where the risk lies. In the long run, a high and volatile rate of inflation exacerbates the risk of loan losses. Widespread indexation makes price stability no less important than moderate interest rates or a stable exchange rate as a fundamental for the stable operation of households and businesses.[3] Inflation also eroded real wages and contributed to a contraction in private consumption in 2001 and 2002. The contraction is apparently over, which reduces the risk of shocks from financial weaknesses among households and domestic-orientated businesses. From the perspective of financial stability, an important consideration is that last year's reduction of the inflation rate by 8 percentage points was achieved without the contraction in real disposable income which has often occurred in the past.

The Central Bank's policy interest rate was lowered by 4.7 percentage points last year, and the real policy rate, measured in terms of the inflation premium four years ahead, has been roughly 4½ percentage points lower than twelve months before. Indexed lending rates of the deposit money banks (DMBs) have recently been around 1 percentage point lower than a year before and so have yields on housing bonds. Foreign interest rates have been at a low at the same time, and the appreciation of the króna has reduced external debt service even further.

3. A successfully implemented inflation target, however, should as a rule make inflation less volatile than the exchange rate. Thus it is important to encourage businesses which do not have substantial foreign exchange revenues to arrange their exchange rate risks accordingly.

Box 1 IMF Global Financial Stability Report

In March 2003 the IMF published its latest Global Financial Stability Report (GFSR) which “provides a regular assessment of global financial markets and identifies potential systemic weaknesses that could lead to crises. By calling attention to potential fault lines in the global financial system, the report seeks to play a role in preventing crises before they erupt, thereby contributing to global financial stability and to the sustained economic growth of the IMF’s member countries.”

Addressing key developments in major financial centres, the GFSR describes how in the current situation the adjustment in financial markets and the real economy following the bursting of the asset price bubble continues to influence developments. This is reflected in the hesitant and uneven pace of global economic growth and the reluctance of corporations to boost capital expenditure, curtailed risk appetite and a buildup of cash positions. There are signs of more positive developments ahead.

Financial conditions in mature markets have been improving since they hit a low in September 2002 but anxieties were expressed about geopolitical tensions as war loomed in Iraq. In the US, the household sector’s balance sheet appears to have stabilised and balance sheets of corporations to be improving. Large internationally active banks remain reasonably well capitalised and liquid and do not seem likely to pose systemic risks, according to the GFSR. The financial condition of most European banks appears to be well supported by the underlying earnings power in their home markets. However, German wholesale banks and the Japanese banking system face problems at home. As a result of equity and corporate bond price declines, partly caused by rising yield spreads, some European insurance companies have been weakened. Problems are particularly acute in the UK, German, Dutch and Swiss insurance sectors.

The report points out the potentially destabilising consequences of a precipitous fall in the dollar, given the buildup of large holdings by foreigners of US financial assets. Over time, the composition of these holdings has changed from equity and foreign direct investment to fixed-income securities. The decline in US yields to levels below those in Europe has reduced the attractiveness of the US fixed-income market and thereby contributed to the dollar’s decline. When interest in equities was at a high, growth potential and technological innovation were key driving forces for investments in them and still may be favourable for the United States, but interest rate differentials have now become more important.

Monetary easing in the major economies and the accumulation of cash balances by households and institutions have contributed to improved balance sheet strength. Yet even in this positive scenario, caution is needed, the report says. Short-term and long-term interest rates are likely to rise, creating an interest rate risk as financial institutions have invested substantially in long-term fixed-interest securities but been tempted to fund these positions with short-term money. The potential for sizeable losses could exist for some market participants, on top of losses experienced since the bursting of the equity price bubble and the ensuing flight from corporate risk.

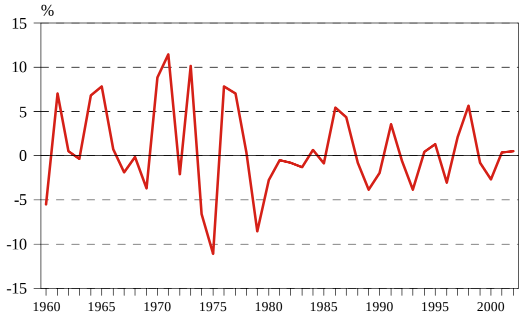
Emerging market financing is in a state of “feast or famine”, the GFSR found. Countries at the low end of the credit rating spectrum, especially in Latin America, experienced difficult access to capital markets and high funding costs last year. Easing global financial market conditions in the fourth quarter of last year led to a reopening of capital markets to many, but not to all, issuers. Markets continue to differentiate borrowers by perceived credit rating. Some countries in Latin America continue to face high yield spreads while Asian and Eastern European borrowers benefited from near-record low credit spreads. Most Asian markets are supported by strong growth and macroeconomic fundamentals, regional liquidity and a strong investor base. Eastern European countries have attracted investor interest in anticipation of further credit upgrades stemming in part from progress on their accession to the European Union. Investors’ confidence in Russia has continued to improve based on its strong fiscal position and growth performance, both of which have been supported by high oil prices.

External macroeconomic balance reinforces the exchange rate
The dramatic reversal of Iceland's current account balance greatly strengthened the króna. Pending large-scale investment projects have recently contributed to even further appreciation. Although some weakening cannot be ruled out if the terms of trade deteriorate, strengthening of the króna would seem to pose more of a risk at present.

As pointed out above, the external balance rests on fundamentals that could easily change. The terms of trade have been favourable and private consumption in trading partner countries fairly robust despite their sluggish growth, with foreign interest rates remaining low at the same time. While a severe turn for the worse is hardly foreseeable in the immediate future, foreign interest rates could begin to rise over the next 2-3 years, coinciding with a probable widening of the current account deficit due to investment in aluminium and hydropower facilities. In the current climate, however, the scale or speed of such changes seems unlikely to undermine the króna. Furthermore, there is substantially less risk that a simultaneous scenario of higher oil prices, weaker private consumption in trading partner countries, higher inflation and higher interest rates could provoke a chain reaction of the type described in the Box on pp. 8-9.

Mixed outlook for the terms of trade
Given the ongoing low in the global economy and recent price trends, the outlook for marine export prices must be considered rather negative. On the other hand, the rise in oil prices proved short-lived and, if anything, a downward trend is more likely. Thus the current outlook is fairly mixed but there is no particular reason to expect a sudden deterioration in the terms of trade which could cause a sharp recession or weaken the króna.

Chart 1
The terms of trade 1960-2002
Trade in goods and services, change on previous year in %



Source: Statistics Iceland.

Box 2 The impact of interest rate changes, inflation and exchange rate changes on household and business finances

Economic instability can imply volatility in GDP growth, inflation, interest rates, the exchange rate and other economic variables. The sensitivity of households and businesses to such swings varies according to the nature of their activities and the predominant form of their liabilities. Balance sheets of businesses and households with heavy short-term debt may be particularly vulnerable to changes in short-term borrowing rates. Companies with high foreign-denominated debt, which is not matched by currency revenues, are most sensitive to changes in the exchange rate, while for households and businesses with a large share of inflation-indexed domestic debt the biggest risk is from an unexpected increase in inflation. Analysis of the macroeconomic conditions for financial stability involves anticipating not only the most probable scenario at any time, but also the consequences of potential unexpected negative shocks. The following discussion should be seen in that context.

Households are relatively insensitive to short-term interest rate changes ...
Households are relatively insensitive to short-term interest rate changes. Only around 100 b.kr. of their 760 b.kr. debt at the end of last year consisted of non-indexed loans. A 1% rise in short-term interest rates would therefore add as much as 1 b.kr. to household debt service a year, assuming that the hike is ultimately transmitted across the entire interest rate spectrum for non-indexed loans. Actually, the short-term impact

would be smaller, considering the proportion of non-indexed loans which bear fixed interest, but as their share of household debt is small means the difference would be slight. However, short-term interest rates are much more volatile than long-term ones.[1] Over time the impact would be transmitted to long-term real interest rates on indexed loans. Here it should be borne in mind that changes in yields on, for example, housing bonds, which carry fixed interest, primarily affect current homebuyers. Since homebuyers have the option of postponing transactions when facing unfavourable interest rate terms, higher yields are less likely to cause a financial shock. Pension funds, on the other hand, generally lend to their members at floating rates defined in terms of a premium on the yield on housing bonds. To some extent the same applies to credit from insurance and leasing companies. Credit of this type and indexed bank lending to households amounted to at least 200 b.kr. at the end of 2002. At a rough estimate, a rise in long-term interest rates by half a percentage point would have the same impact on household sector debt as a 1 percentage point rise in short-term rates, i.e. raise it by 1 b.kr., or the equivalent of 0.14% of disposable income. Over the past 12 months market yields on housing bonds and real interest rates of commercial banks and savings banks have fallen by around 1% and short-term DMB interest rates by some 5 percentage points. Total household debt burden should therefore have eased, all things being equal, by around 7 b.kr., or the equivalent of 1½% of disposable income.[2]

Given the large-scale investment projects that lie ahead, it is not unreasonable to assume that the fall in interest rates over the past year could at least be reversed. On the other hand, the investment is also likely to fuel disposable income growth and further debt accumulation, initially at least. Thus the impact of a heavier debt service burden might not be felt until the end of the growth episode when the rate of increase in disposable income begins to slow down, especially in the case of a failure to contain inflation which would result in a tighter monetary stance and last over a longer period than would otherwise be needed.

... but shocks could arise if inflation erodes real disposable income

The conceivable increase in debt service caused by higher interest rates can be compared with the impact of higher inflation caused by a lax monetary stance. Let us assume that inflation increases from 2% to 10%, i.e. to broadly the same level as during the last surge. Since the bulk of household borrowing is indexed, debt service would increase by roughly 50 b.kr., which is equivalent to 12% of initial disposable income.[3] Households need not experience serious problems as long as disposable income increases at a faster pace than prices, which is likely to be the case during an upswing. However, troubles could mount on the downswing if wage growth does not keep pace with inflation. This scenario is not simply hypothetical, given that real disposable income contracted by 9½% in 1992 and 1993 and household indebtedness has burgeoned since that time. A decline in real wages in the future, for example in a process of adjustment following a high inflation period, would therefore have much more serious consequences for household finances than during the previous episodes, especially considering that real interest rates are likely to be relatively high during disinflation periods. The best way to avoid such a situation is never to allow inflation to get out of control. High interest rates designed to prevent inflation will be easier for households to bear than an episode of temporarily high real interest rates that might be required to bring it back under control.

Exchange rate changes and inflation are in close correlation. Accordingly, exchange rate volatility has a strong effect on household balance sheets – i.e. through indexation of financial obligations and conceivably its effect on real wages. Foreign-denominated household debt is negligible, however.

1. Naturally it will make a difference whether interest rates increase in excess of inflation, i.e. whether the rise involves a change in real as well as nominal rates. In the long run, higher interest rates should not be detrimental to household or corporate balance sheets if they remain unchanged in real terms. Nonetheless, short-term liquidity could tighten if nominal interest rates rise sharply when access to borrowing is limited, for example due to a deteriorating credit rating. High interest rates and inflation imply faster debt retirement in real terms, which the borrower's cash flow might not be able to sustain unless new credit is available.
2. Not allowing for any further increase in debt accumulation.
3. Because indexation is compounded to the principal and spread over the duration of the loan, amortisation is more level when measured in terms of real interest rates than nominal interest rates.

Some businesses are highly vulnerable to exchange rate changes

Businesses are much more heterogeneous than households in terms of debt composition. Around 40% of the estimated 975 b.kr. total corporate debt at the end of last year was denominated in foreign currencies. In some sectors this ratio is much higher, for example 80-100% in fisheries, energy production and transportation. Almost 60% of manufacturing industry debt is denominated in foreign currencies and around one-third or more in the service sector. The bulk of revenues of fisheries and transportation companies is either in foreign currencies or subject to foreign competition. It would therefore be natural to regard foreign real interest rates (relative to foreign prices) as the determinant factor of the direct risk affecting these companies' ability to service their foreign debt, while exchange rate risk mostly involves changes in domestic wage costs relative to product prices.[4] Businesses that do not earn a substantial share of their revenues in foreign currency are much more vulnerable to exchange rate risk. More than one-third of retail sector debt, for example, is denominated in foreign currency. Insofar as the through-pass of exchange rate changes to domestic prices is relatively rapid – perhaps the result of oligopoly or little competition from domestic producers – this risk is perhaps not always as large as it may seem.[5]

Since exchange rate changes affect businesses on both the income and expense side, but to varying extents, the most effective way to assess the overall impact would be on a sector-by-sector basis. For example, the effect of an exchange rate appreciation is likely to be positive for certain service sectors, but negative for fisheries and other export sectors. All things being equal, a 10% appreciation of the króna would cut a typical fisheries company's EBITDA from 20% of turnover to 14%.[6] Cost structure data for other sectors is less clear and the impact correspondingly difficult to evaluate.

In light of the substantial proportion of their debt that is denominated in foreign currencies, Icelandic businesses are no less sensitive to changes in foreign interest rates than in domestic rates. Foreign interest rates were favourable for the Icelandic economy in 2002, as reflected in the sizeable reduction in net interest payments to abroad that year. It is uncertain exactly how much domestic businesses, the financial system and public sector benefited from these low interest rates. The effective interest rate paid by residents to abroad in 2002 was roughly 1½ percentage points lower than on average over the past six years, and lower still in the second half of that year. According to international forecasts these low rates can be expected to revert to a normal level in the next two to three years. A rise of 2 percentage points in foreign interest rates, which may be considered fairly probable in the years to come, would push total business costs in Iceland up by around 9 b.kr., or the equivalent of 0.7% of their extrapolated operating income in 2000.[7]

Businesses are much less sensitive towards changes in domestic short-term interest rates, but these are likely to be much more volatile. Non-indexed corporate domestic debt can be roughly estimated at 130 b.kr. at the end of last year, or less than 15% of their total stock of debt. An interest rate rise of one percentage point would add around 1.3 b.kr. to their costs. Real interest rate volatility could be substantial. A rise of 4 to 5 percentage points in short-term real interest rates must be conceivable in the case of inadequate fiscal stance. Interest rate changes on such a scale could trigger cost increases equivalent to as much as 2.5% of business operating income.

The share of inflation-indexed liabilities in corporate debt is lower than in the case of household debt. Furthermore, relative changes in wages and prices affect businesses and households in opposite directions. Lower product prices relative to the general price level can have a comparable effect to a drop in real wages. On the other hand, a company's performance is left hardly untouched if its revenues increase in pace with inflation.

4. Assuming that product prices broadly keep pace with foreign price changes.
5. For example, revenues from fuel sales are in krónur, but exchange rate changes are transmitted to domestic prices with a minimal lag. Accordingly, oil companies do not face a significant risk from their foreign borrowing exposures.
6. An estimated 40% of fisheries companies' costs are external in origin and therefore directly affected by the exchange rate. The segmental impact varies, however, with the highest foreign-denominated costs in on-board freezing where the crew's catch shares are linked to sales prices in foreign currencies. The lowest are in saltfish and shrimp processing.
7. Estimated total operating costs in 2000 plus the GDP growth until 2002.

Exchange rate appreciation and upcoming industrial investment projects may weaken the position of sectors that have been strong until now

A bigger cause for concern is the impact that a conceivable appreciation of the króna could have on the profitability of exporters and competing industries in the years to come, when capital inflows begin to be felt. Likewise, a weakening of the króna with diminishing capital inflows at the end of the industrial activity could pose problems for businesses with foreign-denominated debts. Higher interest rates, which are inevitable if price stability is to be preserved, would be a potential burden for businesses and individuals with heavy debt at variable interest rates. On the other hand, an insufficiently tight monetary stance could allow inflation to rise and call for even tougher measures later. In this respect it is worth examining the respective sensitivities of households and businesses towards changes in interest rates and the exchange rate, as is done in Box 2.

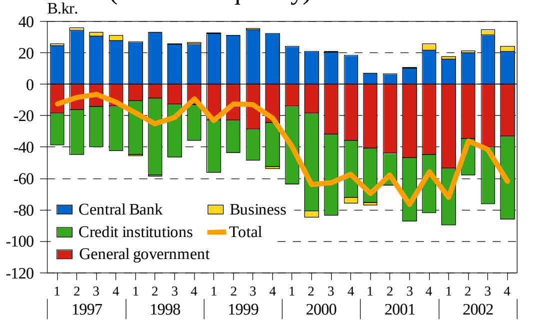
Iceland's short-term debt entails a risk

External liquidity[4] deteriorated over Q4/2002 and was negative by just over 61.7 b.kr. The largest factor at work was a deterioration of almost 17 b.kr. in the liquidity position of DMBs during the quarter. It can be attributed to growth in short-term financing, including the banks' MTN programmes, since certain commercial banks did not manage to complete long-term financing agreements until the first half of this year. Accordingly, external liquidity can be expected to ease in Q2/2003. External liquidity as defined here does not include access by the Central Bank, Treasury and certain credit institutions to foreign borrowing through committed longer-term loan agreements, which have only been tapped in part or not at all. These facilities can be drawn on if refinancing of shorter-term borrowing proves sluggish. It is debatable whether short-term borrowing taken under a committed agreement for a longer term than one year should be classified as liquid or not. Classifying these loans as long-term would give a more favourable picture of external liquidity than presented above.

4. External liquidity is defined as monetary assets less current liabilities (with a shorter original maturity than one year). Monetary assets are defined as assets with a maturity shorter than one year or liquid listed securities.

Chart 2

Quarterly net short-term foreign asset position (external liquidity) 1997-2002



Source: Central Bank of Iceland.

Short-term borrowing is generally defined as a loan with an original maturity of one year or less. However, it should be pointed out that the term of longer loans, i.e. those with an original maturity of more than one year, seems to have been shortening. With relatively easier access to shorter-term capital and lower rates of interest on it, credit institutions at present seem to prefer to borrow for shorter period periods than before.[5] Short-term financing can generate a refinancing risk which it is important for credit institutions to be aware of.

Business profitability is still satisfactory

Profitability of many export companies worsened over 2002 (see p. 13). On the whole, however, it can be deemed acceptable. The financial position of service companies with heavy foreign-denominated liabilities has improved significantly. Nonetheless, so far this year the stronger króna has clearly constricted many fisheries companies, especially because product prices declined somewhat in the second half of 2002 and the current price outlook is rather bleak.

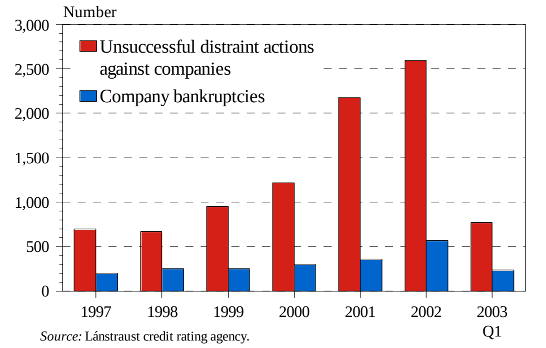
Substantial increase in unsuccessful distraint actions and bankruptcies in 2002, but these may be approaching a peak

Figures for unsuccessful distraint actions and company bankruptcies show that many businesses experienced a difficult year in 2002, favourable as it may have been for others. Unsuccessful distraint actions

5. Generally loans with a maturity of three years or less.

Chart 3

Unsuccessful distraint actions and company bankruptcies 1997-2003



Source: Lánstraust credit rating agency.

against businesses increased by more than 19% in 2002, on the heels of an increase of almost 80% between 2000 and 2001. The increase in unsuccessful distraint in 2001 is reflected in 57% growth in business bankruptcy rulings the following year. Data for Q1/2003 do not paint a bright picture. More unsuccessful distraint actions were made then than in the first quarter of any year since 1996. Although this may represent a backlog from last year, developments deserve to be watched closely. As discussed later in this article, the ratio of defaults to lending in the banking system has decreased recently, but the ratio of serious defaults has increased.

Unsuccessful distraint actions against individuals increased sharply in 2002 to the highest figure over the period for which data are available (i.e. since 1996). Since the figure for Q1/2003 was close to that for the quarter period last year, distraint actions may be reaching a peak, even though they are not heading downwards. First-quarter household bankruptcies have increased markedly in 2003 compared with the preceding two years, which must be seen as a normal consequence of the growth in unsuccessful distraint actions in 2002.

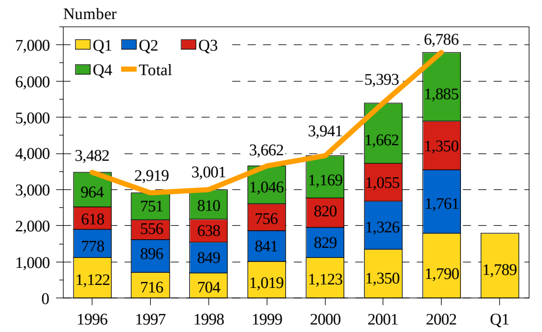
Household debt accumulation continues and housing prices rise ...

The growth rate of lending within the credit system slowed down significantly last year. Growth in lending to households outpaced that to business, at 7%. In particular, this is explained by substantial demand for housing loans. Lending by the Housing Financing Fund increased by 11½% and pension fund loans, which are largely deployed on private housing purchases, by 12½%. Household debt therefore continued to grow and reached an estimated 176% of disposable income at the end of 2002. Demand for housing loans has continued to increase in the first months of this year and housing prices have risen rapidly. In March, housing prices in the Greater Reykjavík Area had risen by almost 10% in the space of a year and in real terms they surpassed the previous peak in 2001.

The consequences of this trend for financial stability are ambiguous. After rapid rises in 1999 and 2000, a considerable risk of a housing price slump could be expected if GDP growth halted or real disposable income contracted, as happened in 1988-1990 and 1992-1993. The overheating of 1998-2000

Chart 4

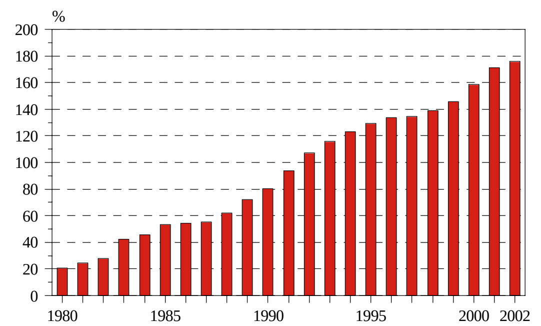
Unsuccessful distraint actions against individuals 1996-2003



Source: Lánstraust credit rating agency.

Chart 5

Household debt as a ratio of disposable income 1980-2002

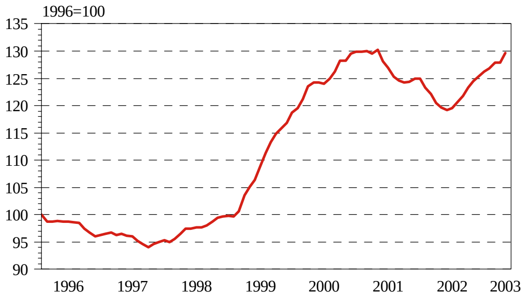


Source: Central Bank of Iceland.

Chart 6

Housing prices in real terms[1] 1996-2003

Deflated by the building cost index



1. In Greater Reykjavík Area.
Sources: Land Registry of Iceland, Statistics Iceland and Central Bank of Iceland.

was followed by a fairly hard landing in some respects but in other ways the adjustment was softer than those in previous periods. For example, disposable income did not contract in real terms and the likelihood of this happening in the near future appears minimal. On a short-term view, the risk of a substantial drop in housing prices has therefore abated compared to the preceding two years. Housing prices have in fact been surging in recent months. However, the greater the price-cost gap for housing and the longer that such a situation prevails, the more likely that the resulting increase in housing supply will force prices down, especially in the event of a shock to the economy. All the same, this will probably not occur for at least another four years, at the end of the wave of industrial construction investments that is now commencing. Should prices keep rising until then, a sharp reversal could follow, in particular if countercyclical measures prove insufficient.

Recent reforms to the housing loan system exacerbate the risk to some extent. In certain cases mortgages are available for a far higher proportion of the market price of housing than before, up to 90%. Admittedly most of the lending behind it is from the Housing Financing Fund and backed by Treasury guarantees, but if financial institutions step up their competition with the Fund the risk will obviously grow correspondingly. When housing carries a 90% mortgage against what is historically a high price, the market value could easily drop below that of the loans secured against it, leading to losses on housing loans which hitherto have been very safe.

... but corporate debt accumulation has come to a halt for the time being ...

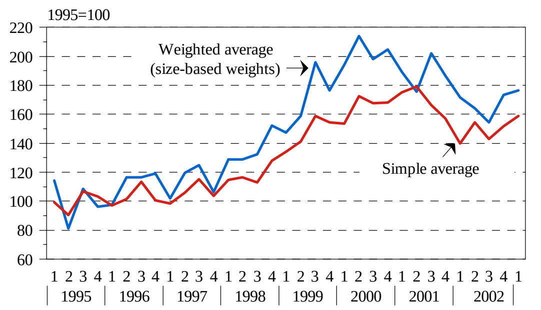
Lending by the credit system to businesses remained virtually unchanged in 2002 after growing by one-fifth the year before. Business debt was equivalent to 124% of estimated GDP for the year. Since this figure includes listed securities in the portfolios of financial companies, proper debt is the equivalent of around 6% of GDP lower. The slowdown in credit growth is partly explained by the strengthening of the króna, but also reflects last year's contraction in business investment.[6]

... and prices of business premises appear at least to have stopped falling for the time being

Prices of business premises are currently lower than 1-2 years ago, but the downturn appears to have halted for the time being, or even reversed. Nonetheless, prices are still around 10% under their peak in the second half of 2000, as Chart 7 shows. It should be borne in mind that these data reflect the price changes of a small number of heterogeneous properties and should therefore be interpreted with caution. Prices are still high in historical terms and can be expected to decline in the long run. Given that commercial real estate prices are more volatile than residential housing prices, this high level must be seen as a sizeable risk, albeit probably not as great as before,

Chart 7

Commercial real estate prices in real terms[1] 1995-2003



1. In Greater Reykjavík Area.
Sources: Land Registry of Iceland and Central Bank of Iceland.

6. At a rough estimate, the appreciation of the króna from November 2001 to May 2003 has wiped around 7% off total business debt, all other things being equal.

and expectations of intensifying economic activity in coming years reduces the likelihood of a sudden adjustment in the near future.

Surge in equity prices last year, while the P/E ratio generally seems moderate

At end-2002, the credit institutions held domestic equity portfolios to the value 42.9 b.kr. and foreign equities to the value 11.4 b.kr. In general, domestic share prices rose last year and financial institutions benefited from this trend. Volatile equity prices have been known to cause financial institutions considerable trouble. The weak footing of Japanese financial institutions, for example, can partly be attributed to a dive in the value of their equity portfolios. Financial institutions' equity portfolio risk can be assessed in terms of the weight of equities in their balance sheets, their prices relative to realistic assessments of future returns and growth, the risk of external shocks which could affect share prices, and the diversification of the portfolio. By international standards equities probably do not weigh very heavily in Icelandic financial institutions' balance sheets and the P/E-ratios of listed companies are not noticeably high compared with similar countries. However, it should be remembered that the Icelandic equity market is comprised of few companies, most of which are linked either directly to fisheries or to financial institutions that lend to the fisheries sector. Fisheries is a volatile sector, prone to swings in catches and export prices and to uncertainties in the operating environment.

Swings in the fisheries sector are also difficult to predict. However, like other export sectors it probably faces several tough years ahead due to the crowding-out effect of aluminium-related investments. Prices of shares in fisheries and other export companies may fall if their operations are squeezed by a temporary appreciation of the króna.

Aggregate microprudential indicators

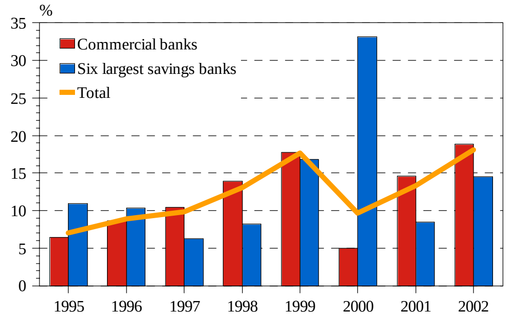
Profitability grew for second consecutive year

The return on equity[7] of the commercial banks[8] and the six largest savings banks[9] increased further in 2002 after the low of 2000. While the financial companies included in this analysis[10] did not all produce satisfactory six-month results, they all recorded profits for 2002 as a whole, although performance varied among them. They all discontinued inflationary accounting last year, so that the headline return on equity is now a nominal figure, not stated in real terms as in the past. Nominal ROE for the commercial banks and six largest savings banks was 18.1% last year compared with 17% nominal ROE in 2001 including Kaupþing banki and 16.6% excluding it.[11]

As a rule, commercial bank profitability has outstripped that of the six savings banks in recent years, apart from 2000.[12] Various factors boosted profitability last year, as discussed below. However, one striking feature is that part of their profits derived from gains on the sale of assets which could be classified as irregular income.[13] Eliminating this impact would have left ROE down by more than three percentage points at 15%.

Chart 8

Return on equity 1995-2002



In real terms 1995-2001. In nominal terms 2002. Kaupþing banki included from 2002.
Source: The Financial Supervisory Authority.

7. The ratio of net profit to the average between equity at the start and end of the period, less profit for the period.

8. i.e. Búnaðarbanki Íslands, Íslandsbanki, Kaupþing banki (licensed as a commercial bank from the beginning of 2002), Landsbanki Íslands and Sparisjóðabanki Íslands.

9. Sparisjóður Reykjavíkur og nágrennis (SPRON), Sparisjóður Hafnarfjarðar, Sparisjóður vélstjóra, Sparisjóður Keflavíkur, Sparisjóður Kópavogs and Sparisjóður Mýrasýslu.

10. Unless otherwise stated, the following analysis refers to the commercial banks and savings banks specified in footnotes 8 and 9. However, Kaupþing banki was only included in statistics for 2002. Major differences in certain aggregates that may result between 2001 and 2002 are pointed out in the analysis where possible.

11. Real return on equity in 2001 was 13.4%.

12. The reasons are discussed in previous articles on financial stability.

13. No financial company posted gains on the sale of assets under the item

Less profit on deposit and lending activities …

Net interest earnings of commercial banks and the six largest savings banks remained virtually unchanged between 2001 and 2002.[14] Overall, interest income decreased by 20% year-on-year but interest expenses by 27% over the same period.[15] Lower inflation and interest rates in 2002 led to lower interest income and expenses, and the discontinuation of inflation accounting adjustments also reduced the interest expense figure.[16] The ratio of net interest earnings to net operating income fell from 74% in 2001 to 61% last year. This figure excludes Kaupþing banki in 2002; including it brings the ratio down to 51.5%. Thus the importance of traditional deposit and lending activities for licensed commercial banks is steadily waning.

The interest margin[17] of financial companies narrowed overall last year and was 2.9% (excluding Kaupþing banki)[18] in 2002 compared with 3.3% in 2001.[19] On the whole, the interest margin has been shrinking in recent years; the five-year average appears to have been around 3% and it is not unlikely to be in the range 2.5%-3% this year.[20]

Irregular income in 2002 but it may well be argued that asset trading indeed constitutes one of their activities.

14. Kaupþing banki is only included inthe item figures for 2002. However, its net interest earnings amounted to only 575 b.kr. compared with more than 30 b.kr. among other commercial banks and the six largest savings banks last year. Furthermore, financial expenses on account of securities positions are posted as interest expenses, so the figure does not represent solely the net profit on deposit and lending activities.
15. Including Kaupþing banki in the data for 2002 would have shown a smaller contraction: 12% in interest income and 17% in interest income.
16. Interest expenses decreased, other things being equal, but in annual accounts up to and including 2001 the impact of price changes on monetary assets and liabilities generally resulted in an expense item. Another factor at work was increased foreign on-lending, because low foreign interest rates automatically narrow the spread between deposit and lending rates.
17. The ratio of interest income less interest expenses to the average between equity at the start and end of the period.
18. Or 2.6% including Kaupþing banki.
19. One reason for the increase in 2001 was the surge in inflation then.
20. When Íslandsbanki merged with FBA in 2000, the interest margin of the merged bank was considerably lower than that of Íslandsbanki byitself. This is not represented on Chart 9 since Íslandsbanki's figureshave been adjusted there to include FBA in 1998-1999 and the Fisheries Investment Fund and Industrial Loan Fund in 1995-1997. Similarly, the pending merger between Kaupþing banki and Búnaðarbanki is likely to result in a lower interest margin for the merged bank than for Búnaðarbanki by itself. In fact this is shown on the chart, which includes Kaupþing banki in the figures for 2002. This should be borne in mind in all interpretations of interest margin trends.

… while profit on other activities grew …

As usual, net commissions[21] were the financial companies' second-largest income item after interest income, and were virtually unchanged year-on-year if Kaupþing banki is not included in the 2002 figures.[22] This item includes commissions for asset management, securities transactions, counselling, payment transactions, guarantees and interbank market transactions. Similar commissions can be expected again this year, although some growth is possible with increased economic activity and Icelandic banks' ideas for expanding their operations overseas.

Higher prices in the domestic equity market and lower yields in the domestic bond market in 2002 were instrumental in the turnaround in Gain/loss on other financial activities, which was negative in 2001 but positive in 2002.[23,24] More specifically, financial companies excluding Kaupþing banki generated a loss on trading shares of 3.7 b.kr. in 2001 but gains of 450 b.kr. in 2002, or a turnaround of more than 4 b.kr.[25] The largest gain was on trading bonds in 2002, at 1.8 b.kr. excluding Kaupþing banki, compared with 460 m.kr. in 2001.[26]

This year has witnessed even lower domestic bond yields and higher domestic share prices. Similar or higher gains can therefore be expected on financial activities in 2003 if the favourable trend in domestic markets continues.

Income from equities and other assets was similar year-on-year, but the item Other operating income

21. Commissions receivable less commissions payable. A more detailed definition is given in Arts. 38 and 39 of Rules no. 692/2001 on the Annual Accounts of Credit Institutions, with later amendments.
22. Including Kaupþing banki, net commissions amounted to 15.1 b.kr. in 2001 and 15.5 b.kr. in 2002.
23. Adjustments not made for financing costs.
24. Gain/loss on other financial activities specify into: 1) Gain/loss on trading bonds, 2) Gain/loss on trading shares, 3) Gain/loss on foreign exchange trading and 4) Gain/loss on other financial instruments. A more detailed description is given in Art. 40. of Rules no. 692/2001 on the Annual Accounts of Credit Institutions, with later amendments.
25. Including Kaupþing banki, there was a loss of more than 4.3 b.kr. in 2001 and gains of 1.3 b.kr. in 2002.
26. Including Kaupþing banki, the gain was 1.5 b.kr. in 2001 and more than 5 b.kr. in 2002.

increased in 2002, largely through gains on the sale of assets. In 2002 more than 4.4 b.kr. was posted to Other operating income, of which gains on the sale of assets accounted for 3.3 b.kr. Examples are Landsbanki's 900 m.kr. gain last year on the sale of its holding in Vátryggingafélag Íslands hf. insurance company[27] and Kaupþing banki's 1.5 b.kr. gain on the sale of its holding in Frjálsi fjárfestingarbankinn investment bank. Divestment has apparently generated a growing share of financial companies' profits in recent years[28] although their scope has probably diminished again and if anything a reduction is rather more likely this year.[29]

On the basis of the above, the income base of the commercial banks and six largest savings banks can be deemed fairly solid. However, the growing share of their income which derives from investment banking encourages volatility between the years. Diversifying activities creates both more opportunities for risk-spreading and greater risk exposure.

… and the cost-income ratio decreased

The cost-income ratio, i.e. operating expenses as a proportion of net operating revenue, decreased from the previous year to its lowest ever overall level. At the commercial banks the cost-income ratio fell below 60% while it was 67% at the largest savings banks.

As pointed out in previous financial stability reports, the drawback to using cost-income ratio as a measure is that operating income volatility may cause it to change sharply from one year to the next. The ratio of operating expenses to net interest earnings and commissions[30] (cost-income ratio 2) gives a different picture. Cost-income ratio 2 rose overall from 2001 to 2002, but Kaupþing banki was a major factor at work there. Overall cost-income ratio 2 was 76.6% including Kaupþing banki, but 69.1% excluding it.[31]

The last phase in the privatisation of Landsbanki and Búnaðarbanki, concluded in the first part of this year, and the pending merger between Búnaðarbanki and Kaupþing banki, can be expected to enable further cost-cutting and an even lower cost-income ratio.

Fewer defaults, but more serious defaults …

According to data compiled from DMBs' liquidity statements, defaults defined as arrears of thirty days or more have decreased in recent months after peaking in September last year. This drop in a leading indicator of final loan losses implies that financial companies might have less need to make loan loss provisions in the forthcoming term, all things being equal. However, bearing in mind that the macroeconomic indicators discussed above point to a probable increase in defaults in other sectors, a new phase of defaults cannot be ruled out.

The Financial Supervisory Authority (FSA) compiles quarterly data on the age composition of defaults. Chart 15 shows that the ratio of defaults to total outstanding lending went down in Q4/2002[32], which is consistent with the data collected by the Central Bank. What is interesting to note is that the proportion of serious defaults, i.e. older than twelve months, increased until the end of 2002. Data for Q1 implied a fractional increase in defaults, but this was hardly significant. However, the trend towards a growing proportion of serious defaults can still be seen.

… and provisions for loan losses were similar between the years …

Overall, specific and general provisions for loan losses as a proportion of average lending were similar in 2001 and 2002. The ratio went down at the six largest savings banks but rose at the commercial banks. It was 1.22% at the end of 2002 excluding Kaupþing banki and 1.19% including it. A similar

27. A gain of 461 m.kr. on this sale was also posted to the income in the first quarter of this year.

28. Most of the savings banks that held shares in Kaupþing banki have either sold them or entered them in their accounts at market value in recent years, which largely explains the peak in their figures for 1999 and 2000.

29. Profit for the year in the accounts of SPRON and Sparisjóður vélstjóra included an income entry reflecting a realised income tax liability on account of gains on the sale of shares which was allocated to match investment in subsidiaries. At SPRON, this income entry amounted to just over 468 m.kr. while profit for the year after tax was 734 m.kr. At Sparisjóður vélstjóra the income entry was just over 168 m.kr. and profit for the year after tax just over 703 m.kr.

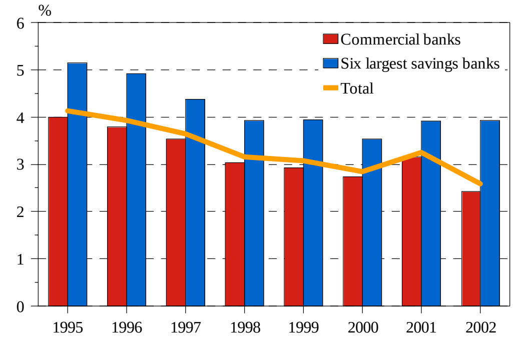
30. The items that should be least volatile from one year to the next.

31. However, the surge in inflation in 2001 led to a sizeable reduction in cost-income ratio 2 that year.

32. Generally there are fewer defaults in the final quarter of the year.

Chart 9

Interest margin 1995-2002

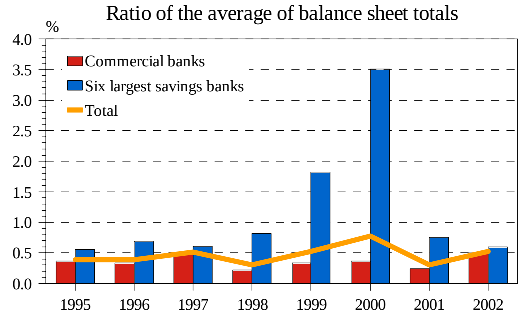


Kaupþing banki included from 2002. *Source:* The Financial Supervisory Authority.

Chart 12

Income from equities and other assets and other operating income 1995-2002

Ratio of the average of balance sheet totals

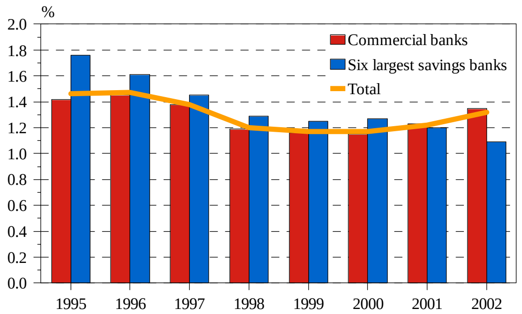


Kaupþing banki included from 2002. *Source:* The Financial Supervisory Authority.

Chart 10

Net commissions 1995-2002

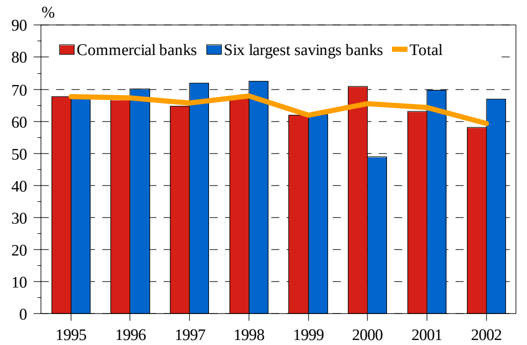
Ratio of the average of balance sheet totals



Kaupþing banki included from 2002. *Source:* The Financial Supervisory Authority.

Chart 13

Cost-income ratio 1995-2002

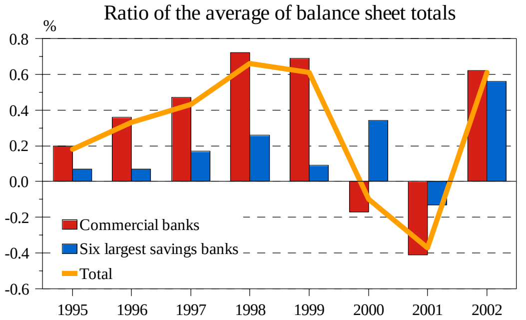


Kaupþing banki included from 2002. *Source:* The Financial Supervisory Authority.

Chart 11

Gain/loss on other financial activities 1995-2002

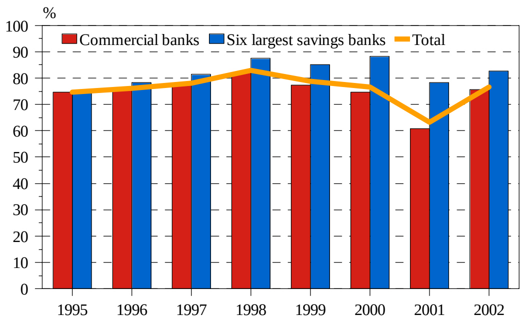
Ratio of the average of balance sheet totals



Kaupþing banki included from 2002. *Source:* The Financial Supervisory Authority.

Chart 14

Ratio of operating expenses to net interest earnings and commissions 1995-2002



Kaupþing banki included from 2002. *Source:* The Financial Supervisory Authority.

Box 3 Changes in ownership of financial companies

A year ago the privatisation process for the state banks was relaunched with the government's decision to make a public offering for 20% of shares in Landsbanki Íslands hf., thereby diluting the treasury's share from just over 68% to just over 48%. The sale went smoothly. On July 10, the Executive Committee on Privatisation, on behalf of the Minister of Commerce, requested notification from parties interested in acquiring a shareholding of at least 25% in Landsbanki and Búnaðarbanki respectively.

Five groups of investors submitted notification of their interest in acquiring an anchor holding in the two banks and at the end of July it was decided to begin talks with three parties concerning the sale of shares in Landsbanki. In September the Executive Committee on Privatisation announced its decision to begin talks with Samson eignarhaldsfélag ehf. holding company on the acquisition of a substantial shareholding in Landsbanki and also decided to continue the sales process for Búnaðarbanki. Late in October it was announced that the committee and Samson had reached an agreement on the latter's acquisition of a 45.8% holding in Landsbanki and two investor groups were selected for talks on acquisition of a large share in Búnaðarbanki. In the beginning of November the Executive Committee on Privatisation announced its decision to hold further talks on the acquisition of a substantial shareholding in Búnaðarbanki with a group of investors.

In the beginning of 2003 the Ministers of Finance and Commerce, on behalf of the Treasury, signed an agreement with Samson on the latter's acquisition of a 45.8% shareholding in Landsbanki. In mid January 2003 the ministers then signed an agreement with Egla hf., Vátryggingafélag Íslands hf. insurance company, Samvinnulífeyrissjóðurinn pension fund and Eignarhaldsfélagið Samvinnutryggingar holding company on their acquisition of 45.8% of the shares in Búnaðarbanki. Egla hf. is a holding company owned by the German bank Hauck & Aufhäuser Privatbankiers KGaA, Ker hf. holding company and Vátryggingafélag Íslands hf.

At the end of February this year the Treasury sold its remaining 2.5% holding in Landsbanki and shortly afterwards, in the beginning of March, its remaining 9.11% in Búnaðarbanki. These two sales marked the end of state ownership of commercial banks in Iceland.

Kaupþing banki hf. acquired the Swedish financial company JP Nordiska at the end of 2002. JP Nordiska was subsequently delisted from Stockholm Stock Exchange and Kaupþing banki listed in its place. Trading in its shares began on December 20, on the Stockholm O List. This was the first listing of an Icelandic financial company on a stock exchange outside Iceland.

Just before the end of the year Eignarhaldsfélagið Bakkabræður Holding s.a.r.l. acquired a majority holding in Meiður ehf. investment company, the largest shareholder in Kaupþing banki. Sellers of the shares were Kaupþing banki hf., Sparisjóður Reykjavíkur og nágrennis, Sparisjóðurinn í Keflavík, Sparisjóðabanki Íslands hf., Sparisjóður Mýrasýslu, Sparisjóður Húnaþings og Stranda, Sparisjóður Siglufjarðar, Sparisjóður Svarfdæla and Sparisjóður Vestfirðinga. Kaupþing owned a 43.8% share in Meiður prior to the sale, but 18.8% afterwards. Total shares in Meiður owned by the savings banks went down from 56.2% to 26.2% after the sale.

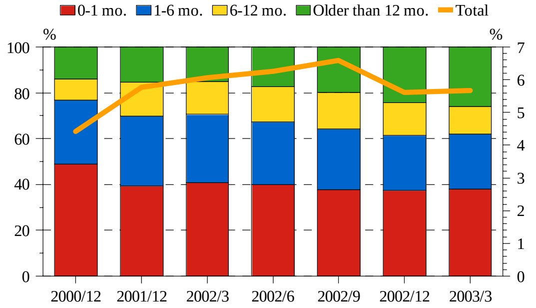
On March 27 this year, Búnaðarbanki Íslands hf. announced the receipt of a letter from Kaupþing banki hf., dated March 25, requesting talks between the boards of these two banks on cooperation or a merger. Búnaðarbanki's board of directors decided to begin talks with Kaupþing banki. On April 12 the banks issued a joint announcement in which their boards of directors agreed to propose to shareholders' meetings that the companies be merged. These meetings are scheduled for May 26 and the merged bank's first day of operation for May 27.

Major changes have taken place in Iceland's financial environment in 2002 and the beginning of this year. Although mergers and takeovers will lead to more concentration, it is uncertain that competition will diminish in Icelandic financial markets, which are open to foreign competition. On the other hand, the large scope for economies of scale in financial companies' operation means that the efficiency of the Icelandic banking system will increase, and presumably also its stability.

Chart 15

Defaults 2000-2003/3

Columns: Defaults as ratio of total defaults in period (left-hand axis).
Line: Defaults as ratio of total outstanding lending at period-end (right-hand axis).



5 commercial banks and 24 savings banks. *Source:* The Financial Supervisory Authority.

ratio can be expected this year, trending downwards in the years to come.

The ratio of the loan loss reserve to total outstanding lending[33] has been heading upwards after reaching a low (for the period under examination) in 2000. At the end of 2002 the ratio was 2.7% excluding Kaupþing banki and 2.6% including it.

…while write-offs rose sharply …

Loan write-offs by the commercial banks and six largest savings banks, excluding Kaupþing banki, amounted to 6.2 b.kr. during 2002 as against 3.6 b.kr. in 2001. Write-offs increased most at the commercial banks.[34] As a proportion of average lending, write-offs fell to a low in 2000 but have been heading upwards since. A noticeable feature of this ratio is that for the savings banks it was much higher in the past two years than the average over 1995-2000, while for the commercial banks it has fallen considerably since the start of the same period.[35]

… and so did non-performing loans

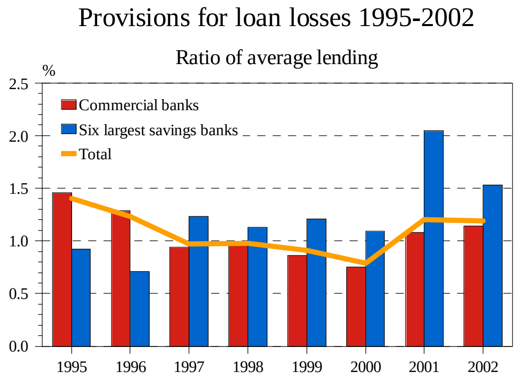
The ratio of non-performing loans[36] to total outstanding lending was 2.8% at the end of last year excluding Kaupþing banki and 2.6% including it. After continuing to grow last year this ratio reached 5.7% at the six largest savings banks at the end of 2002.[37] This is an interesting trend, given that defaults of thirty days and more have been falling in recent months. However, as pointed out above the ratio of serious defaults to total defaults has been increasing, which appears to have caused the loan stock for which specific provisions were made, plus other interest-frozen loans, to grow by more than allocations to the reserve, thereby increasing the non-performing ratio.

A similar trend is revealed by the ratio of non-performing loans to total capital. As an indicator of the possible impact of loan losses on total capital, this ratio provides a further gauge for asset quality. It has been growing in recent years and at the end of 2002 was above 20% for the whole sample. For the six largest savings banks the ratio was much higher, at 45%. However, the above qualification also applies to the increase last year. Furthermore, the impact of non-performing loans on capital is unclear since it cannot be ascertained that they will actually be lost.

The ratio of specific and general provisions for loan losses to the total of non-performing loans, loan loss reserves and appropriated assets indicates how well the provisions actually cover loans that are assessed as being at risk. For financial companies as a whole this ratio has been declining over the past two years and stood at 43% at the end of 2002 excluding Kaupþing banki, and 43.7% including it. The ratio has been strikingly lower for the six largest savings banks than for commercial banks in recent years and reached at least an eight-year low of 28.9% at the end of 2002. Thus the increase in loan loss reserves over the past two years has been outpaced by the growth of loans at risk. However, it should be pointed out that the commercial banks' ratio was higher at the end of 2002 than over the period 1995-1997.

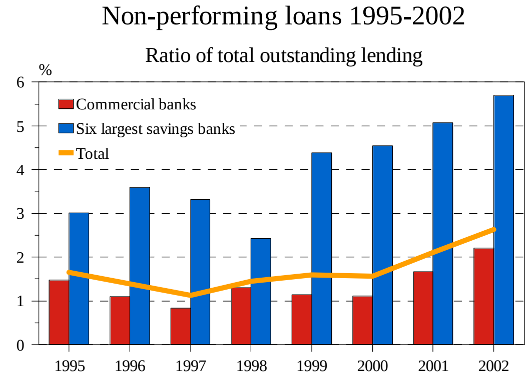
33. Including the loan loss reserve itself.
34. Including Kaupþing banki would leave the figure for final write-offs in 2002 at 6.4 b.kr.
35. A more detailed analysis is given in *Monetary Bulletin* 2002/4.
36. Loans for which specific provisions have been posted, less specific loan loss reserves, but including other interest-frozen loans. Other interest-frozen loans are deemed potentially at risk, i.e. it will temporarily not be possible to collect interest on them but the principal will be retrieved. No provision is therefore made for such loans.
37. As discussed in *Monetary Bulletin* 2002/4 the Financial Supervisory Authority issued Rules no. 51/2002 amending Rules no. 692/2001 on Annual Accounts of Credit Institutions. The new rules tightened provisions on which borrowers should be examined in assessing specific loan loss reserve provisions and interest-frozen loans. These changes could have played some part in the growth in non-performing loans.

Chart 16



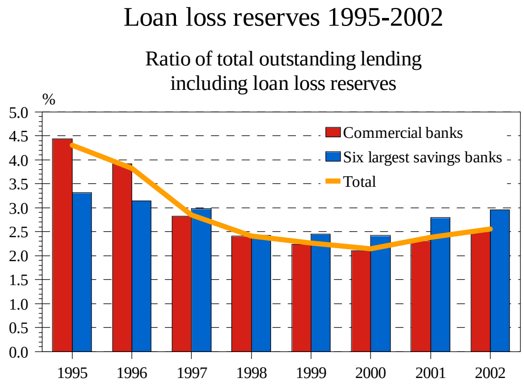
Kaupþing banki included from 2002. *Source:* The Financial Supervisory Authority.

Chart 19



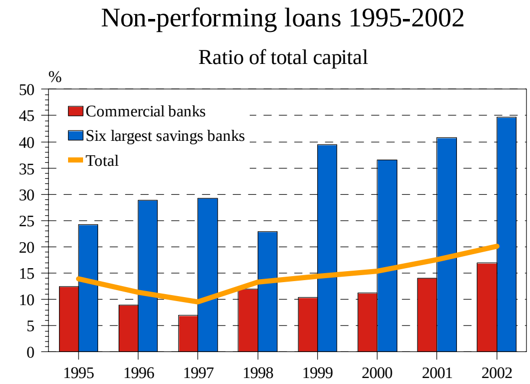
Kaupþing banki included from 2002. *Source:* The Financial Supervisory Authority.

Chart 17



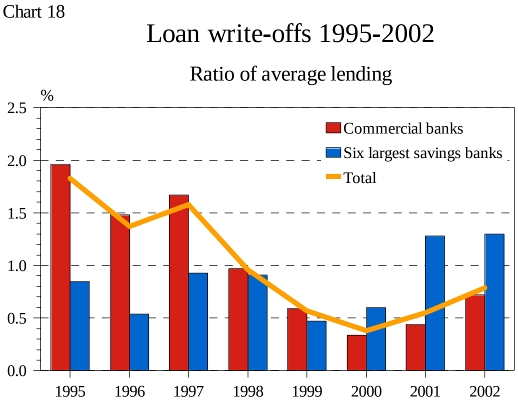
Kaupþing banki included from 2002. *Source:* The Financial Supervisory Authority.

Chart 20



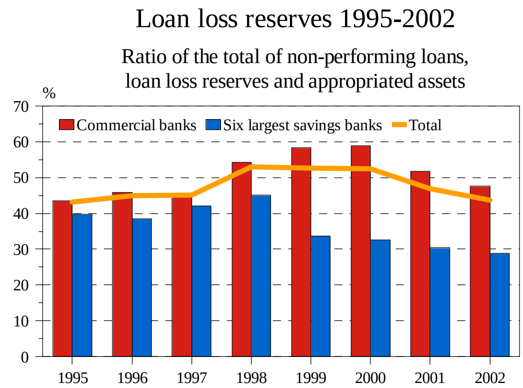
Kaupþing banki included from 2002. *Source:* The Financial Supervisory Authority.

Chart 18



Kaupþing banki included from 2002. *Source:* The Financial Supervisory Authority.

Chart 21



Kaupþing banki included from 2002. *Source:* The Financial Supervisory Authority.

Credit growth continued to slow down

At the end of 2002 the balance sheet totals of the commercial banks and six largest savings banks amounted to just over 1,205 b.kr. compared with 1,113 b.kr. at the end of 2001, including Kaupþing banki for both years, and had grown by 8.3%, a relatively slow rate compared with previous years.

Total lending by these banks[38], excluding loans to other credit institutions, grew by 10.5% over 2002 although five[39] out of eleven experienced a contraction. This is considerably slower lending growth than in the preceding years. Twelve-month nominal growth in lending by DMBs[40] until end-2002 was 1.5%[41], but more than 7% if price and exchange rate changes are eliminated. Credit growth has been speeding up again this year and at the end of March the twelve-month nominal increase was 4.8%, or more than 9.5% if price and exchange rate changes are eliminated.

The value of bonds and other fixed-income securities on trading and investment books increased by 22 b.kr. over 2002 among financial companies including Kaupþing banki, but by only 2.3 b.kr. if it is excluded. The bulk of exposures at the end of the year was on trading books, but part of this consisted of counterpositions against derivative agreements.

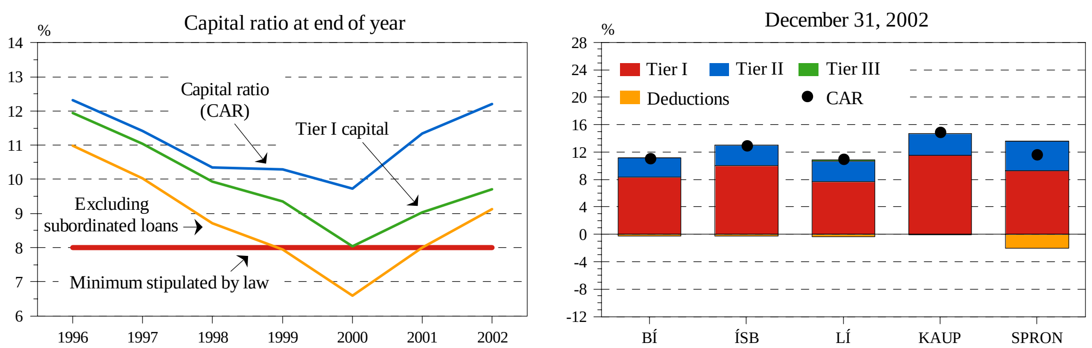
The value of equities and other variable-income securities on trading and investment books shrank by 12.2 b.kr. including Kaupþing banki and by 10.4 b.kr. excluding it. The bulk of exposures at the end of 2002 were on trading books.

Financial companies' funding and credit ratings

Little change has taken place in funding by DMBs since the last study was published in November in *Monetary Bulletin* 2002/4. Some 43% of their total financing at the end of 2002 was procured outside Iceland and has been broadly the same in the first months of this year despite the strengthening of the króna, which implies some increase in foreign credit in real terms.

Chart 22

Capital ratio of the commercial banks and six largest savings banks 1996-2002



Kaupþing banki included from 2002. *Source:* The Financial Supervisory Authority.

Moody's upgraded its credit ratings for Búnaðarbanki, Íslandsbanki and Landsbanki in April this year and this should facilitate them further in procuring foreign credit, which has already been going smoothly for them, especially through MTN programmes. At the end of 2002 the Central Bank introduced a more detailed format for the data it collects on the outstanding balance of foreign liabilities, whereby maturities are divided up into more time intervals. This has revealed among other things that maturities have been shortening in recent times: at the end of 2002 around 50% of liabilities had a shorter lifetime than one year, 80% less than two years and over 90%

38. Based on the consolidated accounts of the financial companies included in the sample.

39. Íslandsbanki hf. (-2%), Sparisjóðabanki Íslands (-18%), Sparisjóður Hafnarfjarðar (-5.7%), Sparisjóður vélstjóra (-6.6%) and Sparisjóður Kópavogs (-5.6%).

40. Parent companies only.

41. Including lending by Kaupþing banki, even though it was not licensed to operate as a commercial bank until the beginning of 2002.

Box 4 Credit ratings

International agencies assign credit ratings to the Republic of Iceland, Landsvirkjun (the National Power Company) and the three major commercial banks, Búnaðarbanki Íslands hf., Íslandsbanki hf. and Landsbanki Íslands hf. Credit ratings become increasingly crucial, the more that banks fund their operations in the markets rather than with deposits. The following is a summary of the most recent changes; the ratings of the Republic and the banks were upgraded at the end of 2002 and early in 2003.[1]

The short-term ratings of Landsbanki Íslands and Búnaðarbanki Íslands were also upgraded from P-2 to P-1 in April. Moody's upgraded the short-term ratings of several commercial banks after a study which showed that it is natural for the short-term rating P-1 and long-term rating A3 to be in tandem under certain conditions. Fitch also assesses Íslandsbanki and Landsbanki and its ratings for them were unchanged in 2002 and the first part of this year.

Credit ratings for Íslandsbanki, Landsbanki Íslands and Búnaðarbanki Íslands

	Moody's			*Fitch*		
	Foreign currency			*Foreign currency*		
	Long-term	*Short-term*	*Financial strength*	*Long-term*	*Short-term*	*Financial strength*
Íslandsbanki hf.	A1	P-1	B-	A	F1	C
Landsbanki Íslands hf.	A3	P-1	C	A	F1	C
Búnaðarbanki Íslands hf.	A3	P-1	C			

The Republic of Iceland is assessed by three agencies: Moody's, Standard & Poor's and Fitch. In October last year Moody's was the first to upgrade the Republic's rating for long-term foreign obligations from Aa3 to Aaa.[2] This upgrade followed a review of Moody's assessment methodologies. In November Standard & Poor's upgraded its outlook for the Republic from negative to stable, and affirmed its other ratings. At the end of March 2003 Fitch also upgraded the Republic's outlook from negative to stable.

Moody's also assesses the three commercial banks and upgraded the ratings of them all in April this year. Íslandsbanki's long-term deposit and debt rating was upgraded from A2 to A1 and its financial strength from C+ to B-. Its short-term rating of P-1 was affirmed.

Credit ratings for the Republic of Iceland

	Foreign currency		*Domestic currency*		
	Long-term	*Short-term*	*Long-term*	*Short term*	*Outlook*
Moody's	Aaa	P-1	Aaa	P-1	Stable
Standard & Poor's	A+	A-1+	AA+	A-1+	Stable
Fitch	AA-	F1+	AAA	–	Stable

The recent upgrading of ratings for the Republic and commercial banks is the result of both revised methodologies and an improvement in the economic situation and outlook in Iceland. Furthermore, the new bank formed by the pending merger between Búnaðarbanki Íslands and Kaupþing will require a rating, which is expected to be made as soon as it begins operation. Moody's has already issued a statement that the planned merger will not have any effect on Búnaðarbanki's current rating.

1. For a discussion of the methodologies of credit rating agencies, see Ólafur Ísleifsson: "Iceland's international credit ratings", *Monetary Bulletin* 2001/3.
2. The credit ratings of Australia and New Zealand were raised from Aa2 to Aaa at the same time.

Table 1 The ratio of subordinated debt to total capital 2000-2002

%	2000	2001	2002
Commercial banks	32.7	37.2	31.2
Six largest savings banks	29.5	35.9	34.2
Total	32.2	37.0	31.4

Including Kaupþing banki from 2002.
Source: The Financial Supervisory Authority.

less than three years. In part this is a consequence of increased MTN issues, which are rarely for a longer term than three years.

Capital ratio rises for second consecutive year

The commercial banks and savings banks' capital ratios strengthened in 2002 to reach the highest figure since 1996.

Last year the ratio of subordinated debt to total capital declined even further, and the sale of investments in other financial institutions reduced capital deductions on this account.

Financial companies clearly have a higher capital adequacy than in recent years, which is welcome development that strengthens the financial system as a whole.

At the end of April the Basel Committee on Banking Supervision issued its third consultative paper on the New Basel Capital Accord. The goal of the Committee is to complete the New Accord by the fourth quarter of this year, with implementation to take effect in member countries by year-end 2006. It is important for Icelandic financial companies to monitor this work closely and prepare to adjust to new requirements. When the accord has been finalised it will be discussed in detail in *Monetary Bulletin*.

Payment and settlement systems

The Central Bank has announced its policy on payment systems and security settlement systems

The Central Bank has a major role to perform in promoting efficient and safe payment systems in Iceland. This applies equally to securities settlement systems. Its duties may be divided into policy-making, regulatory, catalyst, operational and oversight roles. The Central Bank is also represented on the boards of companies involved in payment and settlement system implementation, i.e. the Banks' Data Centre (RB), a netting service provider (FGM) and the holding company for Iceland Stock Exchange, to work on advancing implementation of its policy in these areas.

In its annual report for 2002, the Central Bank published its policy aimed at tailoring Iceland's systems to international requirements. In doing so it has taken particular account of a study made by the International Monetary Fund in 2000, on the extent to which Iceland's payment intermediation system fulfils international standards. The reference standards are the Core Principles for Systemically Important Payment Systems and the CPSS/IOSCO recommendations for securities settlement systems.

Development of the netting system

The FGM netting system handles netting of accumulated payment orders between participants lower than 25 m.kr. Settlements are made through the participants' RTGS accounts with the Central Bank. FGM is jointly owned by the commercial banks, payment card companies and the Central Bank.

Development of the netting system was a Central Bank initiative. In 2001 the FGM Board approved proposals for reforms to the system with the aim of bringing it into line with international standards. The system description produced then was used as the basis for RB's software design, which was largely completed in December 2002.

Real-time netting positions between system participants will thereby be made visible so that they can monitor and manage payment intermediation risks. Customers will continue to have access to money deposited in accounts as soon as payment is made. Once experience of the system has been obtained, participants will negotiate authorisations for netting positions between them and put forward collateral securities for the highest individual authorisation. Towards the end of 2002, collateral security amounts were estimated and participants deposited these sums with the Central Bank on January 1, 2003. A system will also be set up where participants can deposit liquid funds in dedicated accounts to meet temporary imbalances in payment positions between them.

Netting system tasks that need to be addressed in 2003 include completion of software development, adoption of rules for the system, approval of the system in accordance with Act no. 90/1999, development of a payment position information system and reassessment of collateral security for settlements.

Risk management in the RTGS system

The Central Bank's RTGS system entered service in December 2000. It handles final settlement of individual payment orders of 25 m.kr. or above as soon as the deposit in the payer's account allows this to be done. The system thereby transfers payment orders which are above the minimum needed to qualify for the RTGS system directly to or from participants' current accounts with the Central Bank.

In 2002 the Central Bank's main focus was on strengthening risk management for the RTGS system. Statements of the lowest position within each day were produced for each participant in the system from mid 2002. In October, the findings of this analysis were announced at meetings with all the participants, where the Central Bank also outlined its policy for risk management in the system. Among the assumptions in it are active monitoring of the position of each participant within the day, agreements on collateral security for settlements and enhanced access to funding during the system's business hours. Further meetings in December evaluated the findings of the analysis and set collateral security amounts for each participant. Agreements were subsequently reached with all participants concerning collateral security, in the form of either a required reserve in a separate blocked account or securities which fulfil collateral requirements. When pending changes in the reserve ratios and reserve base go into effect, it is expected that securities will be the sole form of collateral for settlements.

The agreements provide for exposure limits and collateral security for settlements in both the RTGS and netting systems. They are based on the Central Bank's respective rules for payments systems, required reserves and transactions with the Central Bank by credit institutions which are subject to required reserves. In the agreements, the term "exposure limit" means the authorisation of participants to meet intraday fluctuations in the negative position on their RTGS accounts, to a specified maximum, until the time that the account is settled and the debt position cleared at the end of each business day. Each institution undertakes to provide sufficient collateral security to cover its payment position in the system at all times and not to exceed the exposure limit. The Central Bank may reject payment orders which would lead a credit institution to exceed its limit. Institutions may request changes in their limits on condition that they provide collateral security to match the new amount. If an institution defaults on its settlement obligations, the Central Bank may dispose of deposits in the blocked reserve account, or redeem hypothecated securities, without advance notice or notification, for settlement and clearance of a debt position in the system.

The agreements outlined above can be seen as representing a major step towards bringing arrangements for the credit institutions' transactions with the Central Bank into line with best international practices. Automatic Central Bank guarantees for settlements in the RTGS system are a thing of the past. The first steps have been taken towards implementing risk management in the RTGS system. The changes made have already led to an improvement in the credit institutions' liquidity management.

In order to enable credit institutions and the Central Bank to monitor payment positions, collateral securities and exposure limits in the RTGS system, proposals were announced in 2002 to develop an information system that provides an overview of all transactions by each institution with the Bank. Development of this system is planned to commence in 2003. Such a system would serve to provide important information for assessing the liquidity position of credit institutions and financial stability. Further tasks in 2003 will aim to review the rules governing the system, increase its independence, reassess collateral security amounts for settlements, shorten handling times and lower the gross settlement limits.

Cooperation agreement on supervision and oversight of payment and settlement systems

On March 28, 2003 the Central Bank and Financial Supervisory Authority (FME) signed an agreement on supervision and monitoring of payment and settlement systems. The agreement is made pursuant to Art. 15 of Act no. 87/1998, on Official Supervision of Financial Operations, and Art. 35 of Act no. 36/2001, on the Central Bank of Iceland, and is intended to expand on the general agreement made between them the same day concerning supervision and oversight of payment transfers and payment systems. It aims to promote safe and efficient payment and settlement systems, clarify the division of duties and responsibility of parties to the agreement, prevent overlapping of tasks and establish undiminished responsibility of payment and settlement system operators for ensuring that the systems fulfil the requirements made towards them. Duties are shared out whereby the Central Bank oversees the safety, efficiency and cost-effectiveness of payment and settlement systems, while the FME supervises individual participants' implementation of the rules governing the system.

Development of a European single payments area

Under the Agreement on the European Economic Area, Iceland has undertaken to establish free movement of capital and payments within the EEA. However, the divergent evolution of payment systems in individual countries makes cross-border payments both difficult and costly to execute. With the establishment of the internal market and introduction of the euro, the EU has emphasised the development of a European single payments area for the benefit of consumers and businesses alike. The Commission and European Central Bank have promoted development of legal and technical issues in this field.

EFTA countries consider that it follows from the EEA Agreement that they participate in cooperation on the development of a single payments area which will cover the entire European Economic Area. Iceland has participated in cooperation with the Commission to this end. However, it has had limited opportunity to cooperate in the important work being conducted in this field by the European Central Bank and European credit institutions.

In 2002, the Central Bank of Iceland held talks with the ECB concerning closer cooperation on European payment systems and securities settlement systems. Subsequently it was agreed to enhance the cooperation at central bank level with the aim of ensuring comparable conditions for Icelandic credit institutions regarding participation in pan-European payment systems that are currently being developed.

Foreign exchange settlement risk

Foreign exchange transactions involve a wide range of risks for credit institutions that are active in the foreign exchange market. An important risk factor in foreign exchange transactions concerns their settlement. The financial system relies heavily on the secure and efficient settlement of foreign exchange transactions. There is a risk that disruptions in foreign exchange settlements could cause a chain reaction in the financial system and spread to those of other countries.

Central banks have focused on the security of foreign exchange transactions as part of their function of promoting financial stability. In recent years, central banks and market participants have jointly worked on enhancing the security of settlement implementation. An important milestone in this respect was achieved with the establishment of CLS Bank.

In Iceland, credit institutions have been considered to enjoy an acceptable degree of security with respect to settlement risk. However, there is reason to pay closer attention to the nature of the risk and its possible impact on the Icelandic financial system. Generally speaking, no specific measures have been taken to incorporate systematic and formal settlement risk management into Icelandic credit institutions' risk management strategies. There is scope for improvement both by credit institutions and the authorities. Particular attention should be paid to the Supervisory Guidance issued by the Basel Committee on Bank Supervision in 2000.

Most Icelandic commercial banks are considering indirect participation in CLS settlements as third-party customers. Thorough preparations need to be made for such participation, including an evaluation of its effect on risk management and internal work processes, and careful selection of the party to negotiate with and the service on offer. Broadly speaking, such participation must be seen as contributing to more systematic management of settlement risk by Icelandic credit institutions and conducive to financial stability in Iceland.

Risk management in foreign exchange settlements is discussed in more detailed in an article by Hallgrímur Ásgeirsson in this issue of *Monetary Bulletin*.