Financial markets and Central Bank measures[1]

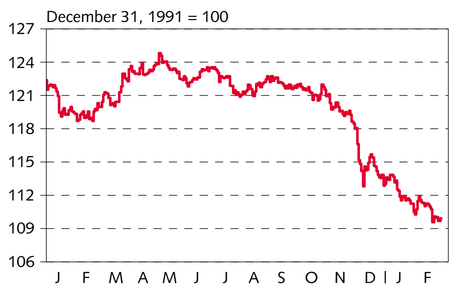
Interest rate rises and appreciation of the króna

The Central Bank of Iceland raised its policy interest rate by one percentage point in the beginning of December and by a further half a percentage point in February. As a result, the króna appreciated and the exchange rate index dropped below 110 in February after being close to 120 in the second half of November. Other interest rates followed suit apart from T-bill yields, which appear to be on a different track for the time being at least. At the end of the year the Central Bank ceased buying currency with the specific aim of boosting its foreign reserves, but continued to make purchases for meeting Treasury debt service requirements. Equity prices picked up in the New Year. The bond market was lively in December, then quietened down in January but perked up again around mid-February.

The króna strengthened following the December policy rate hike ...

The Central Bank announced a one percentage-point rise in its policy interest rate on December 2, 2004. The main reasons for such a sharp hike were a massive expansion in the housing market driven by increased competition for mortgage lending, and also rescheduling of investments for the aluminium industry which has brought forward and stepped up construction activity. As a result, the inflation outlook had deteriorated. Although the FX market had been expecting a policy rate increase on the day before the announcement, its scope came as something of a surprise. The króna appreciated sharply after the hike, then settled back a little before strengthening again. In January and February the króna continued to appreciate. Besides the widening interest-rate differential with abroad, the appreciation was also driven by positive reports about the fish catch, foreign investment and upgraded international credit ratings, while down-beat news such as the merchandise account deficit had no discernible effect. At the beginning of February the trend was briefly reversed but soon continued as before. At the end of that month the exchange rate index broadly matched its position in early June 2000, i.e. shortly before it peaked. Chart 1 shows the development of the exchange rate index.

Chart 1
Exchange rate index of the króna
Daily data January 5, 2004 - March 1, 2005

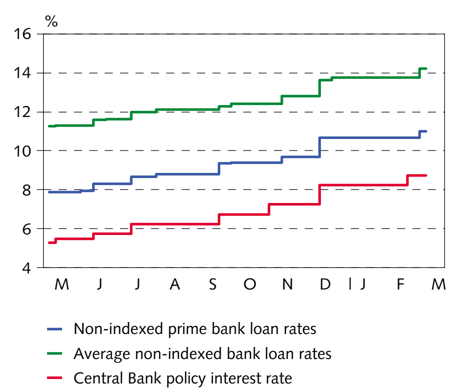


Source: Central Bank of Iceland.

... and again in February

The policy rate was raised again by half a percentage point on February 18, at the same time as the Central Bank published its report to the Government of Iceland after inflation moved above the tolerance limit which was set in the joint declaration by the Bank and the Government in March 2001. The hike had an immediate impact on the exchange rate, even though forecasts by banking sector research departments indicated that the market was expecting a policy rate rise. Over the period from November 24, 2004 to February

Chart 2
Policy rate and bank rate rises
May 1, 2004 - March 1, 2005



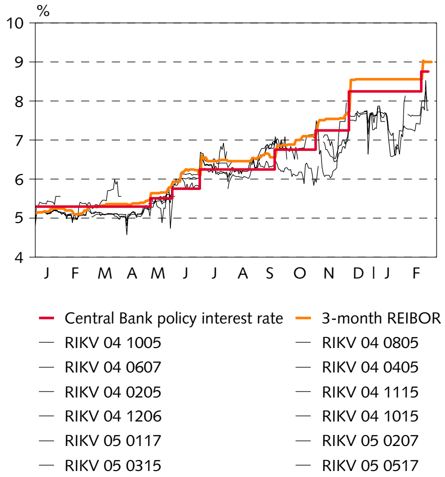
Source: Central Bank of Iceland.

1. This article uses data available on March 4, 2005.

Chart 3

Yields on 3-month T-bills and 3-month REIBOR and Central Bank policy rate

Daily data January 5, 2004 - March 1, 2005



Source: Central Bank of Iceland.

28, 2005, the foreign exchange index went down (i.e. the króna strengthened) by more than 8%. An appreciation of the króna had been expected for some while in connection with investments in the aluminium and hydropower sectors in east Iceland and the Norðurál smelter expansion. Consequently, Icelandic businesses have been able to prepare themselves to face this situation and the largest companies have made extensive hedges which appear to have held. More difficult to foresee, however, was the slide of the US dollar in global markets towards the end of the year and first days of January. The euro-dollar exchange rate hit 1.3667 on December 30, having been around 1.3 on November 20. In January and February this trend unwound slightly, but on March 4 the rate had risen to 1.32 again. The main reasons are the heavy US fiscal and current account deficits. Sluggish growth in the euro area can be expected to have forestalled an even further slide in the dollar, and many Asian central banks which have been building up large dollar reserves in recent years have not turned their back on it in spite of its falling value.

Interest rates also rose following the Central Bank's measures

Interbank market interest rates rose following the Central Bank's policy rate hikes and bank rates also went up largely in step. However, since the Central Bank began the present cycle of interest rate rises in May 2004, bank lending rates have not risen by as much the policy rate, as shown on Chart 2. T-bill yields have not risen in step with the policy rate since the Central Bank hike in December. Treasury bonds were left in short supply after the minimum amount was not reached in an auction on December 30, 2004, which pushed up market prices

Box 1

Foreign exchange market highlights 2004

Table 1 presents highlights from the FX market for 2001-2004. The exchange rate of the króna has fluctuated in both directions over these years, with fairly long periods of stability in between. Reflecting its slide in international markets, the US dollar has weakened sharply against the króna since it reached a high towards the end of 2001. The Central Bank made net sales of foreign currency to market agents in 2001 but net purchases from 2002 to 2004.

Table 1 FX market highlights 2001-2004

				Exchange rate index				
	Turnover (m.kr.)	Central Bank turnover (m.kr.)	Average daily turnover (m.kr.)	End of year	Change over year (%)	Appreciation/ depreciation (%)	Euro/ króna at end of year	USD/ króna at end of year
2001	1,218,045	29,538	4,892	141.7985	17.35	-14.78	91.33	103.20
2002	834,444	4,528	3,378	124.8994	-11.92	13.53	84.71	80.77
2003	1,185,566	43,208	4,781	123.4179	-1.19	1.20	89.76	71.16
2004	948,249	27,228	3,763	113.0158	-8.43	9.20	83.51	61.19

Turnover and trading

Total turnover in the FX market in 2004 was just over 948 b.kr., a decrease of 237 b.kr. year-on-year. Monthly turnover peaked in December at 173.6 b.kr. Turnover was low in April, May and June – below 50 b.kr. in all three months – and lowest in May at 41.9 b.kr.

Average daily turnover for these three months was 2.3 b.kr. Daily turnover for the year was 3.8 b.kr., down by 1 b.kr. from 2003 and 2002 but 400 m.kr. higher than in 2002. The most turnover in a single day, excluding Central Bank trading, was 19.3 b.kr. on December 3. Including a Central Bank purchase of 80 m. US dollars, total daily turnover was marginally higher on January 19 at 19.6 b.kr.

No changes were made to the market framework in 2004. Regulations and market agents' obligations have remained unchanged for the past two years.

Exchange rate developments

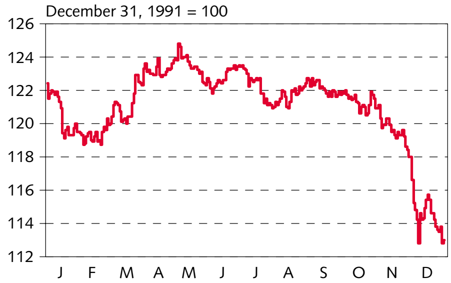
In 2004, the exchange rate index decreased by 8.43% and the króna appreciated by 9.2%, which is a marked change in trend from the preceding year. The highest exchange rate index value was registered on May 5 at 124.7766. For the first eleven months of the year the index value was above 118, and lay in the range 120 to 123 for most of that period. The lowest index value was on December 8 at 112.7771. In the course of the year the Central Bank raised its policy interest rate by 2.95 percentage points, which had an effect on the FX market. At the end of November the exchange rate index was registered at 117.96 and it strengthened sharply after the Central Bank raised the policy rate by 1 percentage point.

Chart 1

Exchange rate index of the króna

Daily data January 5 - December 31, 2004

December 31, 1991 = 100



Source: Central Bank of Iceland.

Table 2 Exchange rate volatility 2001-2004

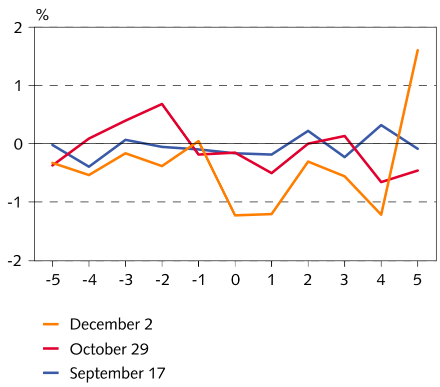
Standard deviation of day-on-day changes against the króna

Standard deviation (%)	*Exchange rate index*	*USD*	*Euro*
2001	0.72	0.84	0.77
2002	0.46	0.56	0.54
2003	0.50	0.69	0.56
2004	0.35	0.58	0.39

On the whole, 2004 was a calm year in the FX market. This is shown by turnover figures for most of the year and in very low exchange rate volatility compared with preceding years. Measured as the standard deviation in day-on-day changes, volatility has declined since 2003 and was less than in 2002 relative to the exchange rate index and euro, but similar against the US dollar. The high volatility of the dollar in international markets in recent months is reflected in these figures.

Chart 2

Day-on-day changes in the exchange rate index 5 days before and 5 days after announced policy interest rate changes



Source: Central Bank of Iceland.

Interest rate changes and the FX market

The Central Bank raised its policy interest rate six times in 2004. Pending interest rate hikes could be inferred from the Central Bank's published inflation forecasts that indicated growing inflationary pressures. An increase of 0.50 percentage points was announced in September and again in October, neither of them surprising. However, there was a stronger response to the 1 percentage-point hike at the beginning of December, when a number of market agents had predicted a rise of 0.5 percentage points.

Chart 2 shows day-on-day changes in the exchange rate index 5 days before and 5 days after announcements of policy interest rate changes in September, October and December.

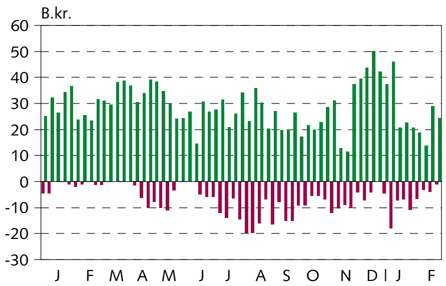
Only a muted response to policy rate changes can be discerned from exchange rate index movements in September and October. Fluctuations in December were rather more marked and the exchange rate index went down in the build-up to the hike, as can be seen between day -1 and day 0 on Chart 2. A few days later, the appreciation unwound in part.

somewhat. This created a spread between T-bill yields and interbank market yields, which generally have been closely aligned, as shown in Chart 3. Interbank market interest rates for loans in domestic currency have developed in line with the Central Bank's policy rate changes, as could be expected. In December there was a hint of unrest in the market prompted by movements connected with the Housing Financing Fund's (HFF) liquidity management. Reflecting a certain lack of transparency, unexpected movements took place in the market and the jumpy interest rate formation was difficult to explain.

Foreign currency purchases to meet Treasury debt service requirements

The Central Bank cut back its purchases of foreign currency at the end of the year and ceased to buy currency with the sole aim of boosting its reserves. It has continued to purchase foreign currency, but only to meet the Treasury's requirements for foreign debt service, as explained in the last *Monetary Bulletin* in December. The Treasury's net deposit with the Central Bank increased in February and for a while stayed at the unusually high level of almost 30 b.kr.. Explanations include an increase in Treasury revenues generated by expanding activity in the economy and the HFF's partial prepayment of a Treasury loan. The Treasury has used part of this ample position to retire its foreign debt, as it had announced it would when the budget was being debated by parliament. The Central Bank's foreign reserves have been temporarily depleted as a result, but in all probability will strengthen again in the course of the year.

Chart 4
Outstanding stock of Central Bank repos and CDs
Weekly data December 30, 2003 - February 22, 2005

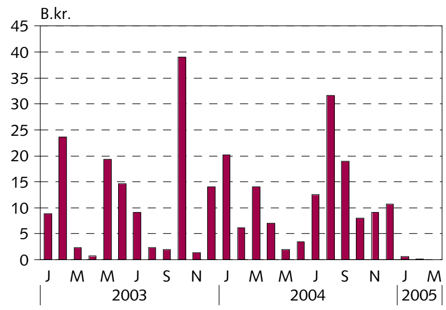


Source: Central Bank of Iceland.

Decline in Central Bank facilities

The credit institutions' need for Central Bank facilities has diminished as their liquidity has eased. Repo transactions have decreased and sales of certificates of deposits (CDs) have also declined, in particular after the HFF resumed transactions with the Central Bank. To some extent the contraction in repos and CDs can be attributed to greater stability in the domestic currency market, where agents increasingly appear to be settling their positions through transactions with each other. For a while some imbalances developed between institutions that looked impossible to settle by such arrangements. Chart 4 shows the development of repo and CD transactions in recent months. Overnight lending has contracted sharply, largely due to improved cash management and the decision to combine required reserves and current accounts in the Central Bank towards the end of 2003. In January and February this year, total overnight lending amounted to 800 m.kr., compared with a monthly average of 11.7 b.kr. for 2003 and 2004. Chart 5 shows the development of O/N lending since the beginning of 2003.

Chart 5
Central Bank overnight lending
Monthly turnover January 2003 - February 2005



Source: Central Bank of Iceland.

Lively equities market

After taking a dive near the end of October, equity prices rallied in January, driven by expectations of strong profits by listed companies which were realised in most cases. Profits of financial companies were particularly robust but most other listed companies also performed

Box 2

Domestic currency and swap markets

Turnover in the interbank market for loans denominated in Icelandic currency (króna market) amounted to 1,073 b.kr. in 2004, almost doubling year-on-year. This sharp increase was the result of a number of interacting factors, including Central Bank purchases of foreign currency, the lowering of the minimum reserve requirement and, not least, changes in the mortgage loan market. Table 1 shows turnover in the króna market and swap market from their respective years of establishment to the end of 2004. Increased turnover in the domestic currency market tracks the general growth in króna positions in the market, but the opposite seems to apply in the swap market. Since swaps have primarily been used as a liquidity management instrument, this development should not come as a surprise.

In the króna market, market makers make indicative bids for trades with a maturity from one day to one year. The market is regulated by Central Bank rules set on March 16, 2000 stating the maximum bid-ask spread for specified principal amounts. Although the rules have not been amended, the spread has narrowed to 15 points for all maturities. Trading volume has grown in line with improving market efficiency and easier liquidity among market agents.

When the swap market was set up, the specified principal amount was set at 3 m. US dollars, but most trades are now made for 5 m. US dollars. Once a day the Central Bank registers forward points in the swap market, based on the average of market makers' bids. Although it is not the most efficient of the interbank markets, the swap market supports price formation in both the króna and FX markets, and in the forward markets which are necessary for corporations in their hedging against foreign exchange risk.

Table 1 Annual turnover in the króna market and swap market

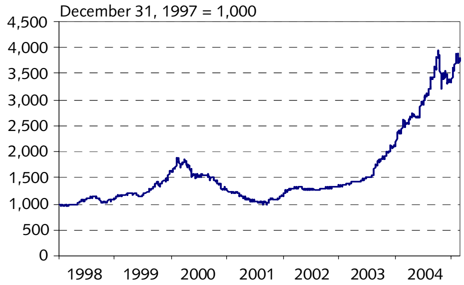
B.kr.	*Króna market*	*Swap market*
1998	434.3	.
1999	500.3	.
2000	524.3	.
2001	426.1	.
2002	420.8	177.9
2003	585.0	112.1
2004	1,073.3	95.5

The króna market (domestic currency market) commenced operation on March 3, 1998.
The swap market commenced operation on November 26, 2001.

Trading in the króna market is primarily at the shortest end of the market, with maturities from one day to one week. Other maturities are rarely traded. Trading at the shortest end was also most common in the swap market, but an increasing number of agreements are now being made for maturities of one month or more.

well – including exporters who appear to have hedged against exchange rate changes with considerable success. However, the market seems more sensitive to news than it has been for some time – for example, announcements of results that were below market expectations drove equity prices down, which has not always been the case. Since mid-2001, the rise in the ICEX-15 index corresponds to a 40% annual return; its development is shown in Chart 6.

Chart 6
The ICEX-15 equity price index
Daily data January 6, 1998 - March 1, 2005
December 31, 1997 = 1,000

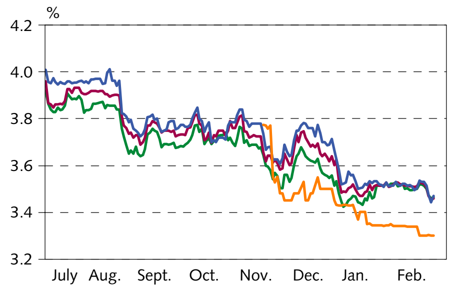


Source: Iceland Stock Exchange (ICEX).

Bond market calms down

After the Central Bank raised its policy rate in December the bond market perked up with activity by both domestic and foreign investors. Yields on HFF bonds rose as a result and it is likely that non-residents were closing positions for profit-taking. However, the increase was not sustained. Interest in HFF bonds picked up again in the New Year and yields began to slide. Yields fell most for the shortest HFF bonds (maturing in 2014), although this is a small class (around 20 b.kr.). Swaps of longer bonds for this class have not gone according to plan and two auctions have failed. Three longer HFF bond class yields hovered just above 3.5% in real terms for some time – pension funds were alleged to be using this figure as a benchmark for their returns and would lose interest in investing in these bonds if yields fell below it. This happened nonetheless in the middle of February, when a yield at the longer end reached a low of 3.42% in real terms. It is probable that the reduction was connected with Standard & Poor's upgraded rating for the Republic of Iceland's long-term foreign obligations from A+ AA- in February. The same change was made to the HFF's rating, although its outlook was negative while the Treasury's was stable. Chart 7 shows the development of HFF bond yields.

Chart 7
HFF bond yields
Daily data July 8, 2004 - March 1, 2005



HFF150914 HFF150224
HFF150434 HFF150644

Source: Central Bank of Iceland.

Prepayments and cancellation of market making

Prepayments of HFF loans from September to the end of the year amounted to 70 b.kr., but new mortgage lending by the banks amounted to 120 b.kr. over the same period. At the same time, the largest pension funds' lending to members contracted by 6 b.kr. In January, the HFF cancelled market making for the classes of housing bonds and housing authority bonds that had been under such arrangements, effective as of May 2005. Trades with bonds covered by market making agreements had shrunk to the point where they are now so rare that they definitely cannot be considered as benchmarks for the classes in question. Continued market making was therefore no longer felt to serve its original purpose. In December the HFF raised its maximum mortgage loan amount for homebuyers to 14.9 b.kr. and its loan-to-value ratio to 90%. Bonds issued by the Government of the Faroe Islands were listed on ICEX in November, the first listing since Icelandic and Faroese stock exchange cooperation exchange began.

Widening interest-rate differential with abroad

In the wake of the Central Bank's policy rate hikes, the interest-rate differential widened between Iceland and its main trading partner countries from 4.26% to 5.55% based on T-bill yields and from 4.94% to 6.29% for three-month interbank market rates.[2]

Table 1 Policy rates of selected central banks

%	*Policy rate (%) before and after last change*		*Date of policy rate change announcement*
	Before	*After*	
US Federal Reserve System	2.25	2.50	February 2, 2005
Bank of Japan	0.15	0.00	March 19, 2001
European Central Bank	2.50	2.00	June 5, 2003
Bank of England	4.50	4.75	August 5, 2004
Bank of Canada	2.25	2.50	October 19, 2004
Swiss National Bank	0.00-1.00	0.25-1.25	September 16, 2004
Sveriges Riksbank	2.50	2.00	April 1, 2004
Reserve Bank of Australia	5.25	5.50	March 2, 2005
Reserve Bank of New Zealand	6.25	6.50	October 28, 2004
Danmarks Nationalbank	2.50	2.00	June 6, 2003
Norges Bank	2.00	1.75	March 11, 2004
Central Bank of Iceland	8.25	8.75	February 18, 2005

Source: Central Bank of Iceland.

Few changes have been made to central bank policy rates outside Iceland in the past few months. The US Federal Reserve raised its funds rate on December 14 and again on February 2, by 0.25 percentage points on each occasion, and the Reserve Bank of Australia increased its cash rate by 0.25 percentage points on March 2. Table 1 shows policy rates in selected countries.

2. Based on trade-weighted foreign interest rates.