

Financial markets and Central Bank measures¹

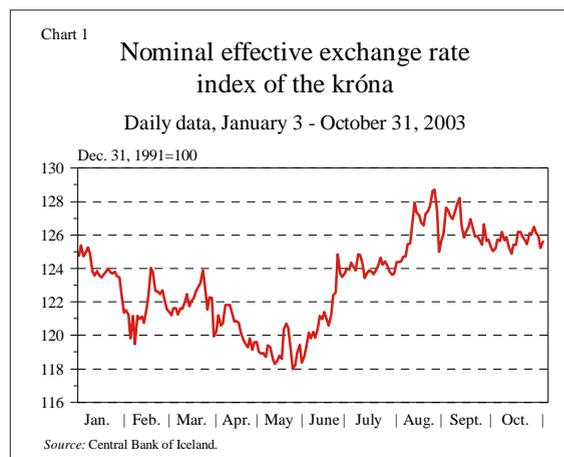
Exchange rate less volatile

After fairly brisk trading at the end of August and beginning of September, the foreign exchange market calmed down. Volatility has diminished in recent weeks and the exchange rate index has been in the range 125 to 127 since mid-September. A change in market makers' behaviour explains part of this trend, while currency inflows and outflows also appear to have been in reasonable balance. The Central Bank has purchased currency in the market for roughly 40 b.kr. since it began doing so on a regular basis in September 2002. Purchases will be scaled down next year. The policy interest rate has been unchanged since February, but the banks have lowered their lending rates twice over the same period. Interbank market interest rates on loans denominated in domestic currency have shown some fluctuations, but converge towards the policy rate. Liquidity is ample in the financial system. The equity market picked up vigorously in September when heavy trading took place resulting in changes in the ownership of long-established companies. The ICEX-15 index hit a new peak. Bond yields have been inching upwards in recent weeks after a fairly lengthy downward trend.

Pressure built up in the foreign exchange market towards the end of August ...

From the end of July the króna depreciated somewhat. Reasons may have included uncertainty about whether the Norðurál aluminium smelter would go ahead and profit-taking by investors who sold currency. Towards the end of August the króna dipped quite sharply, to some extent due to purchases of foreign securities and stop-loss provisions which were triggered by the currency weakening. This movement was reversed following reports that there would be no change for the time being to the US military presence at the Keflavík base, which has generated currency inflows into Iceland. Another cause of weakening was reports of the decision by one of the local authorities to take a stance against Landsvirkjun's plans for a hydropower facility at Norðlingaalda, which had been earmarked to supply the Norðurál expansion. Deteriorating terms of trade were reported as well. As September wore on the

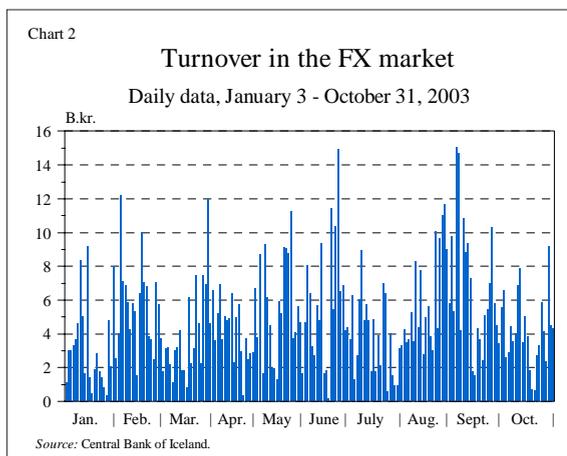
market calmed down and the króna began moving within a narrower range. This situation lasted more or less until the end of October. The exchange rate index was close to 124 at the end of July but it moved above 127 in mid-August and 128 for two days of that month. Subsequently it slipped below 125, as shown on Chart 1.



1. This article uses data available on October 31, 2003.

... but waned again in mid-September

At the beginning of September the exchange rate index rose again, passing 128 for one day, but since the middle of that month it has fluctuated in the range 125 to 127. Weekly turnover in the FX market varied. It was low during the last week of July at 10 b.kr. – less than half the average weekly turnover for the year which is 22 b.kr. In the last week of August and first two weeks of September, on the other hand, turnover was in the range 40 to 50 b.kr. Daily turnover in the FX market is shown on Chart 2. Currency flows seem to have smoothed out. The speculators who left the market when the króna weakened at the end of August reappeared when new ideas were reported for power facilities for the proposed Norðurál expansion, but they were noticeably more cautious than before.



Changed market maker behaviour improves market functioning

When Kaupping hf. and Búnaðarbanki Íslands hf. merged at the end of May, FX market makers decided to raise the indicative bid for individual transactions from 1.5 to 2.5 million US dollars. This was done in order to keep each round of buying or selling as close as possible to 5 million US dollars following the reduction in the number of market makers. A notable change took place in market maker behaviour amid the unease and hefty trading in August and the beginning of September. One market maker temporarily raised the indicative bid spread to 0.1 króna but did not seem to manage to calm the market by doing so. In mid-September a market maker unilaterally

lowered the indicative bid amount. This move proved effective and the market turned notably less volatile afterwards. The Central Bank saw no reason to change its Rules on the FX market at the end of May when the market makers altered their indicative bid amount, since it advocates a freer market that the market makers will shape on their own initiative.

Central Bank's foreign reserve

The Central Bank has maintained its foreign reserve above a specified minimum for many years. When the foreign reserve appeared to be heading below the defined minimum, the Bank funded it with short-term foreign borrowing. Since the latter part of 2001 the minimum foreign reserve, as decided by the Board of Governors, has been 36 b.kr. The rationale for this policy was that it had been considered necessary for the Central Bank to have a specific amount available in order to ensure smooth foreign trading and to reinforce the credit ratings and creditworthiness of the Republic of Iceland and other Icelandic borrowers abroad, and their access to international finance markets.

As has been reported, the Central Bank purchased large amounts of foreign currency to counter the depreciation of the króna from mid-2000 until the end of 2001. The Bank took short-term foreign loans in order to maintain the foreign reserve above the stipulated minimum, and its external position deteriorated when short-term liabilities increased at the same time as the foreign reserve remained minimal. It reached a low of 7 b.kr. in mid-2001, corresponding at that time to roughly 1% of GDP for the year. In comparison, the figure for the second half of 1997 was 6½%. In response to the deterioration in the Central Bank's foreign reserve, the Treasury took a foreign loan towards the end of 2001 and allocated part of it to the Central Bank as a capital contribution. The Central Bank regarded the foreign exchange position as unacceptably low. The same view was repeatedly expressed by international rating agencies in their announcements on Iceland's credit rating, and by the IMF. Thus it was natural for the Central Bank to take advantage of opportunities that arose to rebuild its foreign reserve and retire its short-term debt.

Regular currency purchases in the domestic interbank market

Towards the end of summer 2002, in consultation with foreign exchange market makers, the Central Bank decided that conditions were ripe for making regular, moderate purchases of foreign currency in the domestic FX market. Accordingly, the Central Bank began purchasing 1½ million US dollars twice a week from the beginning of September 2002.² The decisions later that winter to go ahead with aluminium and hydropower investments in East Iceland created scope for stepping up currency purchases. At first, the Central Bank increased the number of days on which currency was purchased, to three a week in January 2003 and then to five a week in February. In *Monetary Bulletin* 2003/2 in May, the Central Bank announced that it had decided to step up purchases even further, to 2½ million US dollars a day until the end of 2003. Furthermore, the Bank stated that once the foreign reserve had reached the necessary minimum size, it would aim to continue to buy currency in the interbank market in order to meet the Treasury's requirements for debt service. Thus the foreign reserve would not be depleted as a result of the Treasury's requirements.

From the beginning of September 2002 until the end of October this year the Central Bank bought the equivalent of 40 b.kr. in foreign currency in the interbank market. These purchases enabled the Bank to retire all its short-term debt by the end of July 2003. Since then, all the currency purchased has led to a corresponding increase in the foreign reserve which, other things being equal, will stand at 55 b.kr. at the end of this year. In other words, by the end of this year the Bank's foreign reserve will have improved by almost 50 b.kr. from the low in mid-2001 and by 40 b.kr. since the Bank began buying currency in the market in September 2002.

The need for a foreign reserve

It can be argued that there is little need for a foreign reserve under a floating currency regime. However, there is also a strong case in favour of maintaining one, even when the currency is floating. A variety of

arguments apply in Iceland's case. Firstly, it is a small and fairly volatile economy which is prone to shocks of various kinds. Hence a foreign reserve provides a certain measure of security and would play an important role if foreign credit suddenly dried up or unexpected fluctuations took place in the current account. In this sense the foreign reserve has an important function in preserving economic and financial stability. Secondly, a reserve ensures the availability of funds for servicing the Treasury's liabilities. Thirdly, the Icelandic economy is heavily indebted and substantial growth in foreign short-term liabilities makes it particularly dependent on smooth access to international credit markets. The confidence that current and prospective lenders have shown towards Icelandic borrowers undoubtedly hinges in part upon the Central Bank having a sizeable foreign reserve at its disposal. This has been clearly stated by international ratings agencies, as mentioned earlier. They have repeatedly pointed out the importance of an ample Central Bank foreign reserve, and so has the IMF. In this way, the foreign reserve can directly affect Iceland's creditworthiness and credit ratings.

How large should the foreign reserve be?

The Central Bank has recently been attempting to assess how large the foreign reserve should be. In doing so it has consulted international agencies and central banks for information and details of their policies.

Broadly speaking, the Central Bank has identified the optimum foreign reserve as amounting to the equivalent of 50 b.kr., corresponding to roughly three months' goods imports, which has been the normal reference. However, the Central Bank considers that, given Iceland's external debt level and the importance of creditworthiness and access to credit markets, there are grounds for maintaining a larger reserve in the long run. For this reason, it would be desirable to build it up even further in the coming years. Of course, external and internal conditions will largely determine how quickly this can be achieved, and at the present time it is impossible to state outright how large a foreign reserve should be aimed for. The Bank will take care to ensure that the strengthening of the foreign reserve will not undermine the tight monetary stance which will be needed in the medium term.

2. In order to minimise the effect of the Bank's currency purchases on price formation in the interbank FX market, they are made in the mornings, before trading opens.

Currency purchases will continue, but on a much smaller scale than before

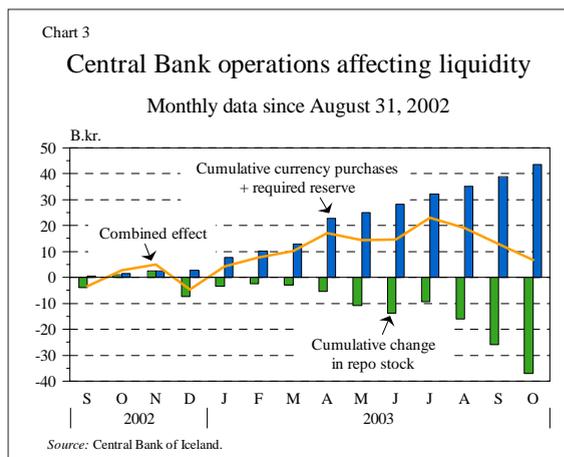
When the Central Bank announced its stepped-up currency purchases in the FX market in *Monetary Bulletin* in May 2003, it also stated that once the foreign reserve had been built up to what the Bank considers to be the necessary minimum it would aim to procure currency regularly in the domestic interbank market in order to meet the Treasury's foreign debt service requirements. In the draft budget for 2004, these payments are estimated at around 10 b.kr.

In the Central Bank's view there is an opportunity for strengthening the reserve further, although at a much slower pace than has been maintained since May 2003. Accordingly, in 2004 the Bank will aim to make regular weekly purchases of 2½ million US dollars in the domestic interbank market, in addition to the Treasury's requirements. From the beginning of 2004 the Bank will therefore aim to purchase 2½ million US dollars twice a week, on Mondays and Wednesdays. This represents a reduction of regular purchases by three-fifths compared with May, from 12½ million US dollars to 5 million. Furthermore, the Bank remains prepared to take part in FX market trading on the initiative of market makers if large amounts are involved.

Measures to counteract the effect of currency purchases

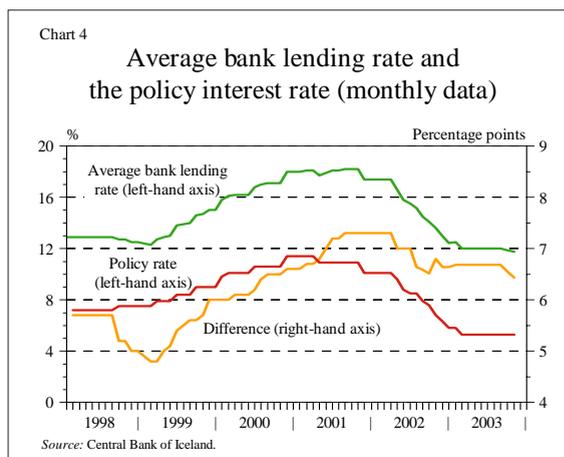
The effect of Central Bank transactions can be either to increase liquidity in the domestic money markets, or to tighten it. Its currency purchases inject liquidity, and so does the phased reduction in minimum reserve requirements in 2003. Offsetting this, there has been a decline in Central Bank repo transactions recently. Chart 3 shows the development of these three factors since September 2002, i.e. the Bank's accumulated currency purchases, the impact of the lower minimum reserve requirement and the counter-effect of the decrease in the repo stock. The combined effect of these trends over the period entails an increase in liquidity supply of 7 b.kr., a much lower amount than that of the currency purchases alone (40 b.kr.) However, experience shows that such counteraction is not perfect, which is part of the reason that money market interest rates (at the shorter end) have diverged away from the Central Bank's policy rate for some time. The Bank has a number of options for

mopping up the liquidity created by its currency purchases. For example, it can offer to sell certificates of deposit, or make reverse repos or currency swaps. If necessary, the Bank will take such action in the coming months in order to prevent its currency purchases from causing domestic monetary expansion.



The banks lowered their interest rates ...

In mid-September and the beginning of October, the commercial banks and savings banks reduced their deposit and lending rates. The scale of the cuts depended on the deposit and loan categories involved, and whether or not they were indexed. The main explanation for the commercial banks' and savings banks' lower indexed interest rates lies in interest rate trends in the bond market, while lower non-indexed rates are the product of ample liquidity. Bank interest rates (based on the spread between

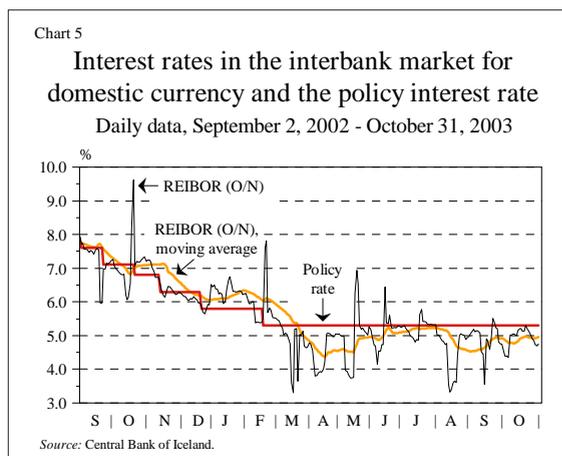


average lending rates and the policy rate) have therefore crept closer to the level seen before the Central Bank began raising its policy rate in 1999, when it was at a low of 4.8 percentage points. Nonetheless, the interest rate margin remains substantial at 6.4 percentage points. Chart 4 shows the development of average lending rates and the policy rate in recent years, with a line showing the differential between them. Liquidity in the banking system has increased somewhat as a result of the Central Bank measures described above.

... and interest rates have been fluctuating in the krónur market

The interbank market for krónur has been gaining importance in recent months, and by channelling more liquidity between institutions it has contributed to a reduction in repo transactions with the Central Bank. A pattern can be discerned in the market whereby institutions have switched away from repos when interest rates in the króna market have gone down below a certain level, then switched back with the inevitable rise in rates caused by the greater demand. Chart 5 shows the development of the Central Bank policy rate, overnight rates in the króna market and a floating average which largely adjusts for fluctuations connected with the maintenance period. Liquidity was tight in the banking system until March 2003, but supply increased when the minimum reserve requirement was changed. Interest rates in the interbank market then trended towards the policy rate, but diverged again in August and the beginning of September, presumably because at the beginning of August the Treasury took short-term loans which it sold to the Central Bank and used part of the proceeds to pay out mortgage relief to taxpayers. These funds went more or less straight into the banking system and added to liquidity there. The Treasury then mopped up domestic currency from the market when it bought the foreign currency back from the Central Bank and paid a short-term foreign loan at the end of September. Credit lines in the interbank króna market are clearly very flexible at present, but apparently no foundation has yet been established for institutions to make repo contracts among themselves without Central Bank intermediation, even though the inherent risk in this lending format ought to be lower than using the interbank krónur market.

As pointed out in *Monetary Bulletin* in August, a possible option might be to convert the interbank market for the króna into an interbank repo market, but there has been little discussion of this question.



Rules brought closer to ECB practices

In March this year, the Central Bank changed its rules on minimum reserve requirements as the first of two phases to bring them closer to the practices of the European Central Bank. The second phase will be implemented shortly. Changes in the timing of overnight loan clearance also need to be prepared, to reflect recent and prospective changes in payment system operations.

Little change in global interest rates

Global interest rates have not changed much since the end of July and the interest rate differential with abroad has largely moved in pace with domestic interest rates. The Central Bank of Norway (Norges Bank) lowered its sight deposit rate by one percentage point on August 14, and by a further half a percentage point on September 18. The Bank of Canada lowered its key policy rate by 0.25 percentage point at the beginning of September. Iceland's interest rate differential with abroad, measured by three-month T-bills, was 3.20% at the end of July but by the end of October it had narrowed to 2.64% due to lower rates on Icelandic T-bills. The differential with interbank market rates abroad was 2.96% at the end of July and 2.74% at the end of October. Optimism has been growing in most markets around the world and equity prices have climbed in the main ones. Technology

sector shares in the US, for example, had risen by 40% since the beginning of the year, while the average rise for all US equities was roughly 20%. The US dollar has weakened against most currencies in recent weeks. In the course of time this will contribute to reducing the US current account deficit, which has recently been unsustainable in the long term. On the other hand, a depreciation of the dollar weakens the position of export industries in the euro area.

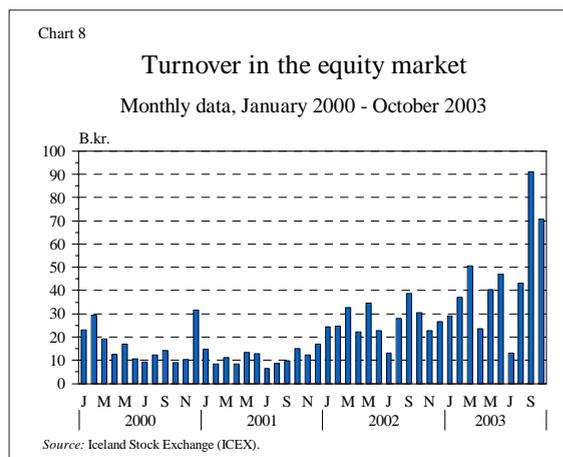
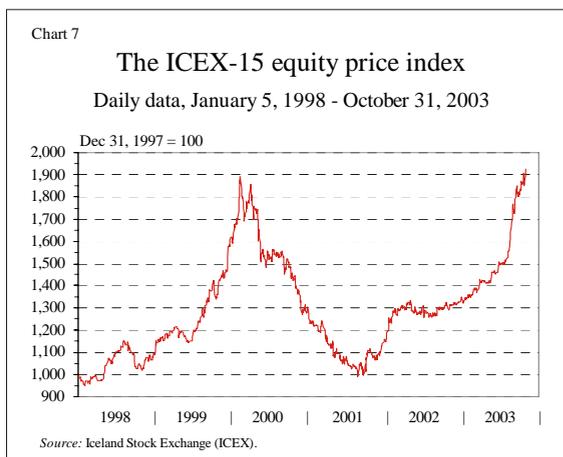
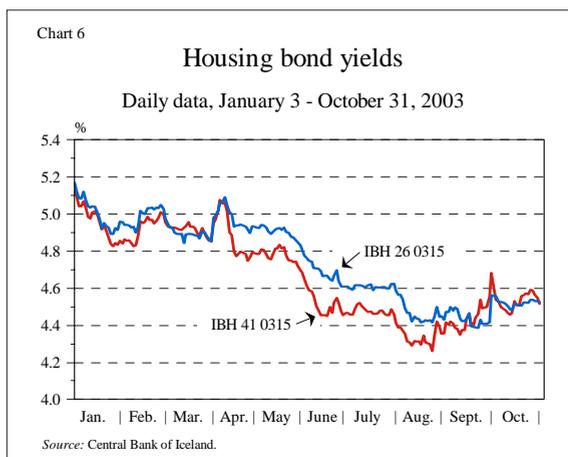
Slowdown in the bond market ...

The bond market has slowed down somewhat in recent months after a fairly rapid drop in yields during the first months of the year. Yields on 25-year housing bonds, for example, went down by 0.07 to 0.08 percentage points from the end of July to the end of October, while on 40-year bonds they rose by 0.10 to 0.12 percentage points. In part this reflects uncertainties in connection with plans to introduce a 90% loan-to-value ratio for housing loans, but foreign investor activity also seems to have been slightly more subdued. Housing bond yields are shown on Chart 6. Demand has been buoyant for loans from the Housing Financing Fund, which raised its estimate for issuance in 2003 by 5.4 b.kr. at the end of October. Estimated total issuance of housing bonds and housing authority bonds for the year is now 65.4 b.kr., almost 11 b.kr. higher than the original forecast. The figure for 2004 is currently estimated at 68 b.kr. On October 10 a Treasury bond class matured for a total settlement amount of 11 b.kr. Inflation expectations, as measured by the premium on non-indexed

instruments, fluctuated quite sharply in pace with market movements. Expected inflation 5 years ahead was 3.24% at the end of October, and two years ahead it was 2.0%.

... but the equity market surged

At the beginning of August the equity market rallied again after a fairly long period of relatively modest price increases. The ICEX-15 index stood around 1,500 for all of July, but by the end of August it had climbed to 1,750. On October 17 it passed 1,900, eclipsing the previous record set in February 2000. On October 31 the index showed 1.921.6 and was up by more than 42% since the beginning of the year. The development of the ICEX-15 index since the beginning of 1998 is shown on Chart 7. Turnover in the equity market was heavy in September and fairly



substantial in October, connected with changes in the ownership of several major corporations. Trading since 2000 is shown on Chart 8. Interest in listings on

Iceland Stock Exchange appears to be reviving; over the past three years, only two new companies have been added to the ICEX Main List.