



Capital account liberalisation strategy

Report to the minister of economic affairs
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This report contains a new strategy for liberalisation of capital controls. The experience with the previous strategy is discussed, the development of the various conditions for lifting capital controls are described, the two main phases of the strategy are explained in broad terms, and the individual steps of the first phase are outlined in some detail (see Sections III and IV). It is concluded that the conditions are in place for gradual relaxation of some parts of the controls, although more fundamental steps will have to wait until the Treasury has demonstrated through borrowing that it has the ability to refinance foreign loans. This has been delayed, partly as a result of the still-unresolved Icesave dispute. If the Icesave bill is rejected in the upcoming referendum, Phase II and part of Phase I of the strategy could be delayed. Hence, to begin with, the focus will be on steps that will not place strain on the foreign exchange reserves; i.e., auctions whose aim is to direct unstable króna holdings into the hands of long-term investors.

I. Introduction

Foreign exchange transactions have been subject to capital controls ever since the banking system collapsed in the autumn of 2008. Before the capital controls took effect, the Central Bank issued guidelines instructing the banks to limit foreign currency sales to essential transactions involving trade in goods and services. On 28 November 2008, the Rules on Foreign Exchange were adopted in accordance with temporary provisions in the Foreign Exchange Act. When the Rules took effect, all controls on current account foreign exchange transactions were lifted, but more stringent controls on cross-border movement of capital and related foreign exchange transactions were imposed. The Rules have been reviewed and amended several times. The amendments have aimed primarily at closing loopholes in the original Rules. One of the most important changes in this regard was made in late October 2009, when it was stated unequivocally that the unilateral importation of offshore krónur was prohibited.¹ Importation of offshore krónur had been a common means of circumventing the controls. At the same time, the controls were relaxed in other ways; for example, controls on inflows of foreign capital were lifted. Most likely, these actions played a role in stopping the virtually uninterrupted slide in the exchange rate of the króna, which had begun in March 2009.

¹ *Offshore krónur* are defined in this report as valuables (or a certificate for such valuables) that are denominated in domestic currency but owned or held in custody by non-residents and are subject to particular restrictions according to the Rules on Foreign Exchange. While most holders of off-shore krónur are probably non-residents, residents hold some as well, either directly or indirectly.

On 5 August 2009, the Central Bank of Iceland presented a capital account liberalisation strategy that it had prepared with technical assistance from the International Monetary Fund. It was quite unclear at the time whether it would be possible in the near future to fulfil the requirements necessary to lift the controls without jeopardising foreign exchange market stability. Consequently, the strategy was not set forth in terms of a timetable; instead, its progress would be subject to the fulfilment of stated conditions. Emphasis was placed on avoiding discrimination to the extent possible. The main feature of the strategy prepared in the summer of 2009 was that controls on capital inflows should be lifted first. This first phase of the strategy was implemented in late October 2009, but at the same time a strengthening of the regulatory framework was aimed at prohibiting inflows of offshore krónur, which were the main channel for circumvention until that time and had greatly undermined the foreign currency repatriation requirement. Subsequently, controls on long-term holdings – which were already held to a large extent by long-term investors or would soon find their way into the hands of such investors (such as domestic pension funds) – were to be lifted gradually. Finally, controls on short-term assets would be lifted, in part through auctions where market prices would determine which investors could convert ISK assets to foreign currency first. The strategy assumed that this problem would not be addressed until late in the liberalisation process, as a vast amount of highly liquid assets were owned by non-residents likely to want to or be forced to sell them at the first opportunity. It was also assumed that the offshore krónur problem would eventually diminish to some extent through internal trading by non-residents, where investors with a longer horizon and more tolerance for distress would acquire ISK assets from distressed investors willing to sell at lower prices.

Clearly, it has taken longer than originally estimated to create the conditions required to lift the capital controls without causing significant instability. There are a number of reasons for this. Disbursements under the IMF-supported programme were delayed markedly, in part because the Icesave dispute held up the disbursement of the bilateral Nordic loans. Furthermore, it took much longer than originally assumed to finalise the balance sheets of the new banks; the preparation of private sector debt restructuring measures proved a lengthy process; and substantial uncertainty was created by the Supreme Court decisions that deemed exchange rate linkage of loans illegal and non-binding. Moreover, conditions in foreign credit markets have been extremely adverse for a long period of time. Adverse market conditions and Iceland's lower credit ratings have obstructed the Treasury's access to foreign credit markets. For a number of reasons, the offshore krónur problem has not resolved itself sufficiently with the advent of new long-term investors.

Although disbursements under the Stand-by Arrangement have been delayed, the economic programme has progressed significantly, not least as regards exchange rate stability and accumulation of foreign exchange reserves, general macroeconomic equilibrium, and an improved fiscal balance. Moreover, non-residents' ISK holdings have been downsized

through the Avens agreement. External confidence in the economic programme has increased as progress has been made, which can be seen in the dramatic decline in Iceland's sovereign CDS spread since the original strategy on liberalising capital controls was published.

In spite of increased confidence on many fronts, confidence that the króna would preserve its onshore value in the absence of controls remains limited, at least among those investors that are trading offshore. This is reflected by the fact that the limited offshore trading in krónur still takes place at an exchange rate far below the onshore rate. The capital controls permit only internal trading in offshore krónur among non-residents, while they restrict capital transactions between residents and non-residents. Because of the controls, the foreign exchange markets do not converge to a joint equilibrium. A substantial portion of liquid ISK assets – for example, deposits in domestic banks and short-term Government bonds – remain in the hands of parties that are unable or unwilling to own them after the controls are lifted. As long as attempts to shift a large share of these unstable assets to long-term investors are unsuccessful, it is difficult to see how the controls can be removed without the risk of generating instability in the foreign exchange and bond markets.

The main problem with the previous liberalisation strategy lay in its lack of measures to channel these unstable assets into long-term investments before other controls were lifted. Holders have been given the chance to invest in only a relatively limited selection of assets, and various investor groups (such as domestic pension funds) have not been given the opportunity to acquire offshore krónur. Consequently, efforts to put these assets into the hands of long-term investors have made only slow progress.

The strategy described below deviates in many important respects from the August 2009 strategy. However, it retains its gradualist approach and continues to emphasise avoiding discrimination. The strategy is designed so that it can be adapted easily to a variety of outcomes, mainly through adjusting the speed of implementation. In addition to the measures that have already been taken to relax parts of the controls, such as those on capital inflow, the strategy comprises two main phases, each incorporating smaller steps. This report describes the conditions that are considered prerequisites for the completion of each phase and step. The phases and steps are not pinpointed in terms of dates, as it is impossible to state precisely when the conditions for implementing any given step will be in place; moreover, important information on when and how it is best to proceed will be obtained in each phase and step completed.

It is highly unlikely, to say the least, that the capital controls will have been lifted in full by the time the current statutory authority expires on 31 August 2011, without assuming unacceptable risk of financial and exchange rate stability. How rapidly the controls can be lifted will be determined by the development of the various conditions. The existence of forceful prudential rules to limit foreign exchange risk and other risks stemming from cross-

border banking operations is also extremely important. Hence it is recommended that the statutory authority be extended by approximately four years, which should ensure that it is possible to lift the controls at a pace warranted by circumstances without generating instability, given appropriate prudential regulation. Nevertheless, every effort should be made to lift the controls earlier if conditions permit.

It is proposed that the currently operating committee comprising representatives of the Ministry of Economic Affairs, the Ministry of Finance, the Prime Minister's Office, the Financial Supervisory Authority, and the Central Bank continue working and that it supervise the implementation, pace and adaptation of the strategy. The same applies to the task force headed by the Minister of Economic Affairs, which also includes the Minister of Finance, the Director General of the Financial Supervisory Authority, and the Governor of the Central Bank.

The next section of this report provides a general description of the structure and phases of the new strategy and the conditions that must be fulfilled before each phase is implemented.² Section III examines the means by which offshore krónur can be channelled into the hands of long-term investors, for the benefit of the domestic economy. Section IV discusses the liberalisation of onshore krónur and the prudential rules pertaining to exchange rate risk and cross-border activities in domestic financial undertakings after controls on movement of capital have been lifted in other respects. Section V contains the conclusion.

II. Structure and phases of the new strategy

The current strategy deviates from the previous one in that it focuses on systematic measures aimed at transferring unstable ISK assets into the hands of long-term investors at an early stage. As with the previous strategy, it does not pinpoint times and dates, except that the next phase, which can actually be divided into as many smaller steps as is necessary, will begin after the publication of this strategy. However, it retains a gradualist approach towards removing controls. A key objective is to lift the capital controls in stages without jeopardising foreign exchange market stability.

The strategy is divided into two main phases. The Central Bank is of the view that the preconditions for taking the initial steps of Phase I have been met, but before the latter steps of Phase I are taken and before Phase II is implemented, additional conditions must be met (see Sections III and IV). As is discussed in Appendix I, the macroeconomic conditions for removal of the controls have been moving strongly in the right direction since the August 2009 liberalisation strategy was published. The same is true of the increased level of foreign

² Appendix I contains a more detailed discussion of the macroeconomic, financial, and other conditions that must be fulfilled if capital controls are to be lifted without triggering instability.

exchange reserves (Appendix III). One of the principal obstacles to removing the controls is the potential instability of non-residents' deposits with domestic banks (Appendix II). That being the case, any new strategy for removing the controls must focus on reducing uncertainty associated with the large stock of short-term offshore assets by allowing them to exit in stages or by channelling them into the hands of parties (domestic or foreign) that wish to invest them in the domestic economy for the long term. The Central Bank is of the view that the prerequisites for taking steps in that direction have now been met, provided that such steps are taken cautiously. The measures described below should not deplete the foreign exchange reserves. On the contrary: some of them should induce net inflow of foreign exchange in the short term (purchases of operating companies) or at least in the long term via export expansion (green field investment in export industries). They do not depend on full recovery of confidence in the Treasury because the measures will be directed in large part towards the private sector and will, to an extent, enable the Treasury to finance its activities on more favourable terms than would otherwise be possible. Consequently, the Treasury's financing needs should be secured, even though some of the capital that has previously funded the Treasury should be channelled elsewhere – for example, into business investment – thus underpinning public sector finances indirectly. Moreover, the gradualist approach towards releasing off-shore krónur makes it possible to moderate the process should any problems emerge. Throughout this process, the existing controls will be enforced. Should circumvention arise, it will be dealt with by closing loopholes or, if needed, by modifying the strategy.

Phase I – reduction of offshore króna positions

Phase I of the liberalisation strategy provides for measures to reduce distressed investors' offshore króna holdings and channel offshore krónur into the Icelandic economy and the Treasury's long-term funding. The range of investment opportunities involving offshore króna will be expanded in a controlled way while the present controls remain in effect and are fully enforced.

To begin with, action will be taken to reduce non-residents' offshore króna holdings by authorising the exchange of such holdings, in two steps, for residents' FX holdings, without depleting the Central Bank's foreign exchange reserves, and then directing those holdings into long-term investments in Icelandic Treasury bonds, domestic corporate equity, real estate, and other long-term assets. The strategy lists the various options that will be authorised in this area and outlines the requirements that must be met, but without describing the technical implementation in minute detail. The guiding principle in the strategy is to create conditions so that distressed investors can sell their ISK assets to investors with a longer investment horizon and the capacity to invest in a greater range of assets; for example, through direct investment in the domestic economy. The steps will be implemented with an eye to minimising the risk of foreign exchange market instability, which could place excessive strain on the foreign exchange reserves and cause financial

stability concerns (notably, liquidity problems in the banking system). Finally, the remaining owners of offshore krónur will be offered the chance to sell their ISK deposits for foreign exchange, subject to an exit levy, or to swap króna-denominated Treasury bonds for eurobonds issued by the Treasury. It is difficult to state when this phase will be concluded; this will be determined by the interplay of internal and external factors.

Phase II – removal of controls on onshore krónur

When sufficient progress has been made under Phase I – that is, when the stock of offshore ISK assets held by distressed investors has been reduced to a level the CBI deems manageable in terms of external reserves, and when the offshore exchange rate has approached the onshore rate – Phase II (the liberalisation of onshore króna holdings) can begin, provided that an assessment of the balance of payment outlook indicates that reserves will be adequate and other preconditions have been met. It is also possible that onshore króna holders' options for foreign direct investment will be expanded to some extent before measures to tie up offshore krónur are complete. The risk of foreign exchange market instability is much greater here than in Phase I. The likelihood that such a risk will materialise, however, diminishes with increased success in Phase I and with greater success in fulfilling the preconditions for liberalisation, which are described in Appendix I. The main requirement is that the Treasury and the banks engaged in foreign exchange transactions have adequate access to foreign credit markets. Consequently, before Phase II of the strategy commences, a careful analysis will be conducted so as to determine whether i) the banks are sufficiently liquid and will remain liquid as measured by liquidity ratios presently enforced by the Financial Supervisory Authority and the Central Bank and the envisaged revised prudential liquidity requirements in line with the Basel III framework (LCR, NSFR)³ and can withstand volatility of capital flows and the exchange rate, ii) reserves are adequate to sustain reasonable foreign currency outflows, and iii) the Treasury finances are strong enough to sustain temporary volatility in demand for Government debt. The Treasury must also have confirmed its access to foreign credit markets by borrowing at acceptable terms.

Before the Phase II begins, prudential rules aimed at limiting financial institutions' exchange rate risk will be strengthened. Some further regulations on cross-border operations of banks headquartered in Iceland will also be considered, as long as Iceland remains outside the European Monetary Union (EMU) and a satisfactory pan-European safety net for such operations has not been established. A satisfactory long-term solution to this problem requires an international or EU-wide settlement, however. Furthermore, prudential rules that play a consumer protection role while possibly reducing risk in the financial sector (such as controls on foreign-denominated borrowings by households) will also be explored. Such prudential rules and restrictions could be seen as restricting capital movements and therefore must be discussed in due time with the parties to the EEA Agreement in order to

³ In addition, the Central Bank is ready to take the action necessary to respond to negative effects on the liquidity of individual financial institutions and the system as a whole while liberalisation is underway.

investigate how they could be assimilated into the framework of the Agreement. Moreover, before Phase II begins, it is necessary to decide Iceland's future monetary policy framework, which will be put in place and could serve Iceland as long as it remains outside the EMU – or longer, if EU membership is voted down in the planned referendum.

If the above conditions are met, if efforts to reduce offshore ISK positions are successful, and if the financial institutions' liquidity and balance sheets are sound, it may be possible to lift the remaining controls rather quickly, which could be desirable because it may prove more difficult to enforce the controls once more exit paths are opened up. Whether this is indeed possible will depend on circumstances, however, and it could prove necessary to limit the risk associated with the impact of liberalisation on the exchange rate and the foreign exchange reserves by dividing the phase into several steps; for example, by easing rules on foreign direct investment before other steps are taken. The need for an even more gradualist approach will be assessed on the basis of the above-mentioned criteria.

III. Phase I – ways to reduce offshore króna positions

In this report, *offshore krónur* are defined as valuables (or a certificate for such valuables) that are denominated in domestic currency but owned or held in custody by non-residents and are subject to particular controls according to the Rules on Foreign Exchange.

At the present time, non-residents' króna-denominated bonds and ISK deposits in domestic banks total around 465 b.kr., which is equivalent to 30% of Iceland's GDP. Behind deposits held in domestic banks by non-residents, particularly foreign banks are end investors that own ISK deposits in foreign financial institutions. Information on the ultimate owners of these funds is limited, but it is known that they include banks, various institutional investors, hedge funds, and individuals. Presumably, most of them are non-residents, but there are some residents or non-resident corporations with links to residents. Because the interests and behaviour of these groups can vary greatly, it can be useful for analytical purposes to classify offshore owners into three categories:

- First, a significant group of distressed investors must (or wants to) sell at the first opportunity.
- Second, it is known that some non-residents ISK holders own krónur with the aim of investing in the domestic economy when the opportunity presents itself. In some instances, these are investors that purchased the krónur before the capital controls were imposed but have not been able to invest them domestically because of the controls. In addition, there could be parties that are interested in investing in Iceland but purchased their krónur after the controls were imposed. These investors are not likely to liquidate their positions when the controls are lifted.

- Third, a significant group of investors, perhaps the largest group, will easily adapt their behaviour to circumstances.

Apart from these three groups, it is appropriate to mention another group that will play a key role in the new strategy: investors that do not currently own offshore krónur but would like to buy them so as to invest in the domestic economy or in long-term Government-guaranteed bonds. This group is also quite diverse and includes both non-resident and resident holders of substantial foreign-denominated assets, such as pension funds. The key to successfully enhancing the stability of short-term ISK owners is channelling the krónur held by the first group into the hands of the second and fourth groups. If this is successful, there is a good chance that a considerable share of the investors that would otherwise sell their krónur when the controls are lifted will decide to hold them for the long term because, if the specified conditions exist, the risk of ISK appreciation or depreciation after the controls are lifted should be broadly balanced.

The strategy presented here aims to define the conditions that must be fulfilled by those wishing to import offshore krónur to Iceland or to take receipt of them. The first phase of the liberalisation strategy aims at authorising the sequenced importation of all *legally acquired offshore krónur*, according to terms and conditions described below. Legally acquired offshore krónur are defined as those held by the following parties:

- Residents or non-residents that can demonstrate continuous ownership of the offshore krónur from before the Rules on Foreign Exchange took effect (28 November 2008);
- Non-residents that acquired offshore krónur after the capital controls were imposed; and
- Residents and non-residents that meet the requirements for participation in the Central Bank's foreign exchange auctions, which are described further below. The Central Bank reserves the right to refuse participation to parties that have violated the Rules on Foreign Exchange or are being investigated for alleged violations of the Rules.

Described below are the main methods that will be deemed permissible for importing offshore krónur to Iceland and investing them in long-term Treasury bonds, in Icelandic corporate debt or equity, or in real estate. It is appropriate to note that the rules pertaining to repatriation of foreign currency, as well as parts of Rules on Foreign Exchange, no. 370/2010, will remain in effect as long as the capital controls are in place, and careful monitored will take place to ensure that those offering foreign currency in return for offshore krónur are not violating the repatriation rules. Investors that choose to participate in auctions but have previously liquidated investments according to Article 13 (on new domestic investment) will have to bring in additional foreign currency equivalent to the repatriated proceeds of the investment. The methods include a series of auctions and other

measures that will be sequenced in order to control risk, although they can be implemented simultaneously to some extent.

Foreign exchange auctions of offshore krónur

Over the coming months, the Central Bank will conduct a series of foreign exchange auctions, with the objective of pairing foreign currency owners wishing to buy offshore krónur for investment in long-term Treasury bonds or Icelandic enterprises with owners of offshore krónur wishing to sell their krónur for foreign currency. The auctions are described in general terms below:⁴

- *Auctions of foreign currency for the purchase of offshore krónur, for investment in long-term Treasury bonds*
 - *Target group:* i) Residents that own foreign currency held in custody by a non-resident entity and wish to purchase long Treasury bonds to hold for the long term provided that they can enhance their returns through purchases of offshore krónur; ii) Non-residents owners of offshore krónur that wish to sell their krónur for foreign currency.⁵
 - *Objectives:* i) To release distressed investors so as to reduce pressure on the króna; ii) To give pension funds and others the opportunity to reduce their foreign exchange exposure and invest their portfolios effectively; and iii) To provide the Treasury with low-cost, long-term funding, thus reducing its re-financing need while the controls are being lifted.
 - *Execution:* The auctions will be carried out in two steps. i) Financial institutions, on behalf of the Central Bank, will offer owners of offshore krónur the chance to sell, in an auction, a specified amount of krónur against payment in foreign currency. ii) Financial institutions, on behalf of the Central Bank, invites owners of foreign currency held in the custody of non-resident entities to bid on Government bonds in an amount equivalent to the krónur bought in the previous auction, in exchange for foreign currency. The investment will be restricted to long-term Treasury bonds and will be locked in for a period of five years, but normal returns on the investment can be paid out during that period.
 - *Conditions:* The banks' liquidity position should be strong enough to sustain transfers of krónur between financial institutions and out of circulation if the Treasury increases its deposits with the Central Bank, or if special measures should be adopted to address this issue.⁶ The Central Bank is ready to take the action necessary to respond to negative effects on the liquidity of individual financial institutions and the system as a whole while liberalisation is underway.

⁴ The terms and conditions of a tender will be described in more detail at later stage.

⁵ While residents that hold foreign currency abroad and non-residents that hold offshore krónur are the *target groups*, the auctions will be open equally to residents and non-residents.

⁶ Regular surveys of the banks' liquidity will be conducted.

- *Foreign exchange auctions for the purchase of offshore krónur, for investment in Icelandic corporate equity or debt or other domestic assets*
 - *Target group:* i) Non-residents planning to invest in Iceland and interested in purchasing offshore krónur in order to enhance their return on those investments;⁷ ii) Non-residents owner of offshore krónur wishing to sell them in exchange for foreign currency.⁸
 - *Objectives:* i) To allow distressed owners of offshore krónur to sell them; and ii) To stimulate investment in the domestic economy, especially export activity.
 - *Execution:* The auction(s) will be structured as is described above, but with two differences:
 - It will also be permissible to invest in special closed funds (see the requirements for the establishment of such funds in Box 1) that invest in one or more domestic enterprises, properties, or specified bond series.⁹
 - The requirement for participation is that the investor contribute foreign currency equivalent to 50% of the value of the investment, according to terms and conditions described below.
 - *Conditions:* i) The financial institutions' liquidity should be strong enough to tolerate transfers of deposits, or special measures will be adopted in order to ensure that such transfers can be absorbed. ii) A sufficient number of auctions dedicated solely to investors in long-term Government bonds should have been carried out so as to minimise the risk of an abrupt increase in yields, depending on the outlook for Government access to credit markets.

If demand for offshore krónur for investment declines, the Central Bank may nonetheless conduct intermittent auctions of limited amounts of foreign currency in order to release ISK owners wishing to sell. The primary purpose of the auctions will be to gauge, on a regular basis, selling pressure on the króna from owners of offshore krónur. The amount of foreign currency auctioned on each occasion would be low, and the number of auctions would be determined by developments in the foreign exchange reserves and other economic conditions. Because these limited auctions will be held even in the absence of proven demand for these krónur from owners of foreign currency, the number and amounts of auctions of this type would depend on assessments of reserve adequacy and other economic conditions; i.e., whether the Treasury has demonstrated access to foreign capital markets.

⁷ While residents that hold foreign currency abroad and non-residents that hold off-shore krónur are the *target groups*, the auctions will be open equally to residents and non-residents.

⁸ As before, residents will not be excluded but are not expected to participate in great numbers.

⁹ Amendments to existing legislation will be obtained as needed.

Repatriation of offshore krónur owned by parties wishing to invest in Iceland

As is mentioned above, some owners of offshore krónur have held them since before 28 November 2008, when the capital controls were imposed, because they planned to invest in Iceland. Others have acquired offshore krónur legally since the Rules on Foreign Exchange were tightened because of future plans to invest domestically. These parties will be permitted to transfer these krónur into domestic financial institutions so as to invest them *after one or more auctions are over (or simultaneous with subsequent auctions)*, subject to requirements described below:

- *Target group:* Residents and non-residents that have held offshore krónur since before the controls were imposed or non-residents that have acquired them since (prior to the publication of the new strategy or in an auction afterwards), intend to invest them in Icelandic businesses, and are willing to contribute foreign currency amounting to 50% of the value of the investment, in the manner applicable to those acquiring them in auctions. Rules on foreign borrowings will be eased, in part with the objective of allowing residents that are adequately hedged against foreign exchange risk and own offshore krónur (or will be able to acquire them in auctions) to borrow abroad in order to buy offshore krónur for 50% of the value of domestic investments. Investors that have held offshore krónur since before 28 November 2008 will enjoy priority if there is need to increase steps in this phase.
- *Objectives:* To stimulate investment in the domestic economy and diminish the appearance of an offshore króna problem, which can contribute to undermining confidence, even though the holders of the offshore krónur that are likely to participate in this operation are long-term investors.
- *Execution:* A domestic financial institution, bank, pension fund or other financial institution subject to supervision by the Financial Supervisory Authority can apply to the Central Bank for authorisation to receive offshore krónur and deposit them to a closed investment fund that is tied for a period of five years (see Box 1).
- *Conditions:* i) The banks' liquidity position should be strong enough to sustain transfers of krónur between financial institutions.¹⁰ ii) To ensure stability in the Government bond market, it would be desirable at this stage if the Treasury could demonstrate access to foreign credit markets. The number of auctions dedicated solely to investors in long-term Government bonds will be expanded as needed to avoid abrupt increases in yields.

The measures described above rely on the initiative of those that have information on investors and investment opportunities and are able to execute the measures that apply. Financial institutions can establish funds in various ways, provided that the structure of such funds meets the general requirements set by the Central Bank. The rules requiring that new inflows of foreign currency constitute 50% of the value of the investment should ensure that

¹⁰ Regular surveys of the banks' liquidity will be conducted.

the króna will not be adversely affected in the short run, and if the measures stimulate investment in export-related business activities, the medium-term impact should be positive. In some instances, the share of imported inputs into the investment may exceed 50% of its value, but in cases involving the acquisition of a currently operating company, half of the value of the investment will be a net inflow of foreign currency. Domestic companies that own foreign currency exempt from repatriation requirements can acquire offshore krónur by participating in the auction.¹¹

Box 1. Closed-end funds

A domestic financial institution, bank, or pension fund subject to supervision by the Financial Supervisory Authority can apply to the Central Bank for authorisation to receive offshore krónur and deposit them to a closed investment fund that is tied for a period of five years. It is possible to establish such a fund around one or more specific investments, and with the participation of a single party or several. The application shall state how the financial institution intends to meet the following requirements:

- That it be ascertained that the offshore krónur received by the financial undertaking were acquired legally.
- That the financial institution inform the Central Bank Capital Controls Surveillance Unit (CCSU) of the manner in which it intends to disclose information to the CCSU (monthly or more frequently), that it report on developments in the investment, and that it receive the CCSU's approval of its information disclosure plan.
- That account be given of the investment policy of the fund in question and the Central Bank's approval be received.
- That the fund be structured so as, in the opinion of the CCSU, to minimise the risk that it will be used to circumvent the Rules on Foreign Exchange.
- If authorised by the CCSU, foreign financial undertakings can establish corresponding funds in cooperation with domestic a financial undertaking that is authorised to receive offshore krónur and is responsible for ensuring that the investment can be supervised adequately.

Bond swaps and exit levy

When the above measures have produced the desired results and there is less probability of channelling the bulk of the remaining stock of offshore krónur into domestic long-term investment, the remaining owners of those krónur will be offered two different exit opportunities for a limited period of time:

¹¹ See Article 14 of the Rules on Foreign Exchange. This includes companies with 80% of revenue and expense from abroad.

- *Target group:* All owners of offshore krónur that, for any reason, have not participated in auctions but may wish to liquidate their ISK positions before the controls are lifted.
- *Objectives:* To reduce, to the extent possible, the risk of capital flight before the controls are lifted, while simultaneously providing offshore krónur owners the incentive to unwind their positions in increments.
- *Execution:* i) Owners of off-shore ISK-denominated Treasury bonds will be permitted to exchange them for foreign currency denominated bonds. The maturity and price of the eurobonds will be determined by market conditions at the time. ii) All owners of offshore króna deposits in domestic banks will be authorised to exchange them for foreign currency upon payment of a levy determined by the spread between the offshore and onshore ISK exchange rates in the preceding weeks, or by the price in the most recent auctions. The exit levy will taper off in monthly increments until it disappears entirely within a given period (for example, one year) of being imposed. iii) The phased removal of the remaining capital controls may start before the exit levy has declined to zero, provided that a comprehensive assessment of the macroeconomic situation, medium-term balance of payments outlook, and stability of the financial sector indicate that this can be done safely.
- *Conditions:* That the Treasury and Iceland's leading financial institutions have demonstrated access to foreign credit markets by borrowing there at acceptable rates. Banks' liquidity positions and balance sheets should be strong enough to withstand deposit outflows.¹² Reserves should be sufficient to tolerate potential drains on reserves during the exit levy phase, given the estimated remaining stock of potentially unstable offshore krónur.

Although the main emphasis in Phase I is on tying up offshore krónur, authorisations for medium- and long-term foreign borrowing by residents that are adequately hedged against foreign exchange risk will also be expanded so as to support this measure. Non-residents that own foreign currency in domestic financial institutions will also be authorised to expatriate that currency before this period is over.

IV. Liberalisation of onshore króna holdings

When the offshore króna problem has been resolved to a sufficient degree, controls on other krónur holdings will be liberalised in at least two phases and several gradual steps. The main prerequisites for the initiation of this phase are as follows:

- That the medium-term balance of payments position be sufficiently strong to withstand potential drains on reserves.

¹² Regular surveys of the banks' liquidity will be conducted.

- That the Treasury and Icelandic financial institutions have demonstrated that they have access to foreign capital markets on acceptable terms.
- That the financial sector be able to withstand volatile flows.
- That non-residents' positions in krónur and other highly liquid assets be significantly reduced.
- That the offshore ISK exchange rate not deviate substantially from the onshore rate.
- That sufficiently robust prudential rules on financial institutions' foreign exchange risk be in place, which limit the size of foreign currency balance sheets of domestic banks and the currency and maturity mismatches contained in them. These rules should also have the effect of reducing the risk that these institutions will resort to measures that may appear to be in their own narrow interests but are detrimental to their collective interests and those of the public at large. Those rules should be in place well in advance of Phase I.
- That other prudential rules have been set that are deemed necessary before the capital controls have been fully lifted. Controls on foreign-denominated borrowings by households might be included.
- Prudential rules that limit foreign exchange risk of pension funds will temporarily be tightened and subsequently eased in stages.¹³
- That a decision has been made regarding the future monetary policy framework, either in the context of potential membership of EMU or a reformed inflation-targeting framework.

The aim is therefore to lift all controls relatively quickly if conditions permit. This could be desirable because it may prove more difficult to enforce the controls once more exit paths are opened. Whether this is indeed possible will depend on circumstances, however, and it could prove necessary to limit the risk associated with the impact of liberalisation on the exchange rate and the foreign exchange reserves by dividing the phase into several steps; for example, by easing rules on foreign direct investment before other steps are taken. The need for an even more gradualist approach will be assessed on the basis of the above-mentioned criteria.

V. Conclusion

The discussion above describes the capital account liberalisation strategy that is to replace the one published on 5 August 2009. The strategy has been prepared by the Central Bank, in close cooperation with the Ministry of Economic Affairs, Ministry of Finance, and Financial

¹³ If the pension funds build their foreign exchange assets rapidly after reducing their foreign currency assets by participating in the auctions, this could lead to instability of the króna which could harm the funds and the economy as a whole. Hence, it is in the interest of the pension funds and the economy as a whole that such rebuilding of assets takes place at an appropriate pace.

Supervisory Authority. The IMF and a foreign consultant with experience in capital controls surveillance and the removal of capital controls rendered useful advice.

The core of the strategy is that offshore krónur will be gradually released before onshore krónur. In particular, authorisations to invest offshore krónur in the domestic economy will be expanded substantially, concurrent with measures to facilitate transactions between owners of offshore krónur wishing to sell and parties wishing to buy them for foreign currency that they own or can obtain. Emphasis is placed on executing the strategy in moderate steps that allow for adaptation in view of experience. The participation level in the auctions, financial stability (including the liquidity position of domestic banks), reserve adequacy, the Treasury's access to foreign credit markets, and the balance of payment outlook will be carefully monitored throughout the process in order to assess whether the strategy needs to be modified or the speed of the liberalisation process adjusted. It is assumed that these measures will gradually reduce the positions of parties wishing to sell ISK assets at low exchange rates. At the same time, the spread between offshore and onshore ISK exchange rates should narrow considerably. This and progress on other preconditions mentioned above will create the conditions for the removal of controls on onshore ISK holders. At the same time, these measures should stimulate investment in the domestic economy. The time it will take to fulfil all the preconditions is highly uncertain, however. The strategy may also need to be adjusted in line with experience gained throughout the process. Before Phase II of the strategy begins, a major review of the preconditions will be carried out and the sequencing of that phase will, if needed, be spelt out in more detail.

A committee comprising representatives from the Central Bank, the Financial Supervisory Authority, and the aforementioned Government ministries will supervise the implementation, pace, and adaptation of the strategy, and a task force led by the Minister of Economic Affairs and including the Minister of Finance, Director General of the Financial Supervisory Authority, and Governor of the Central Bank will assess the progress made and determine whether the strategy needs revision. Before Phase II begins, it will be necessary to set stricter prudential rules for financial institutions than those currently in effect, including those pertaining to foreign exchange risk and cross-border operations. The first phase of the new strategy begins with an auction that will be announced soon after the strategy is publicised.

Appendices

1. Appendix on reassessment of the requirements for removal of capital controls
2. Appendix on banking system liquidity
3. Appendix on the foreign exchange reserves
4. Appendix on ISK assets of non-residents

Appendix I: Reassessment of the requirements for removal of capital controls

In spite of delays, Iceland's IMF-supported programme has progressed apace since the previous liberalisation strategy was issued. In general terms, the conditions that must exist before the controls can be lifted in full involve macroeconomic stability, financial stability, and foreign exchange reserves. However, the three are interconnected.

Macroeconomic stability

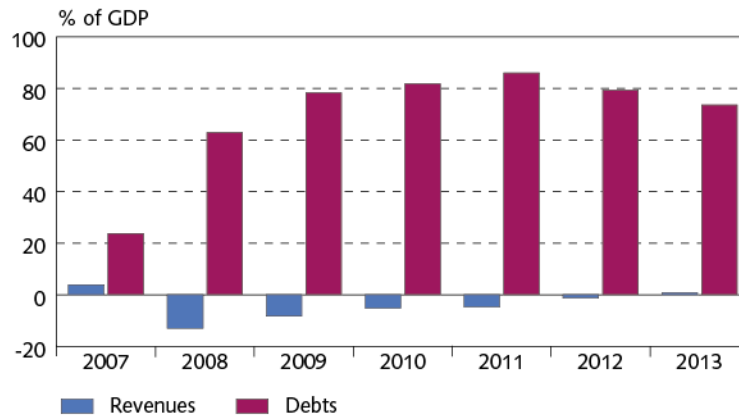
A great deal of progress has been made in terms of the macroeconomic conditions required to lift the controls. For example, a significant underlying current account surplus has developed, the króna has appreciated without foreign exchange market intervention, and inflation has subsided to the Central Bank inflation target. According to the National Budget, the Treasury's primary balance will be close to zero in 2011 and will show a significant surplus in 2012. One of the fundamental conditions necessary for liberalisation is that the Treasury enjoy confidence, both domestically and in foreign markets, and that it be able to fund the remaining deficit and refinance maturing obligations. This is necessary for obvious reasons. If investors are not confident that the Treasury will be able to service its debt, they will sell their Treasury bonds at the first opportunity and convert the proceeds into foreign currency.

The Treasury will have to demonstrate its access to foreign capital markets by issuing foreign-denominated bonds in international markets before any step is taken that could temporarily disrupt its source of funding, as is described below. The outlook for Iceland's sovereign credit ratings must improve, and ideally, the ratings themselves should rise from current levels. This is because Iceland's credit ratings are currently lower than is consistent with the investment criteria of various funds that hold Treasury bonds. These funds may therefore be forced to sell the bonds as soon as they can. If the Icesave agreements are approved in the upcoming referendum, an uncertainty factor will be eliminated in the view of many investors and credit rating agencies. This, in turn, could be an important step in facilitating the Treasury's access to foreign credit, which is a prerequisite for any major liberalisation steps in the strategy except the very first steps of Phase I, as is described below.

The Treasury plans to borrow funds abroad in 2011, and the outlook is for Iceland's sovereign credit rating to begin rising as the Treasury's position grows stronger, particularly if the Icesave dispute is resolved by negotiation. But it should be noted that the existence of the capital controls in and of itself could hinder the restoration of Iceland's credit rating. Thus there is no reason to delay starting the liberalisation process until the pre-crisis credit rating has been fully restored, although it is important that Iceland's credit ratings be comfortably above speculative grade before the exchange of ISK bonds for eurobonds is

offered and Phase II begins. The steps that will be taken first towards removing the capital controls – that is, auctions aimed at foreign currency owners wishing to invest in long-term Treasury bonds and offshore króna owners wishing to sell – should facilitate long-term Treasury funding rather than causing complications.

Treasury operating balance and liabilities 2007 - 2013¹

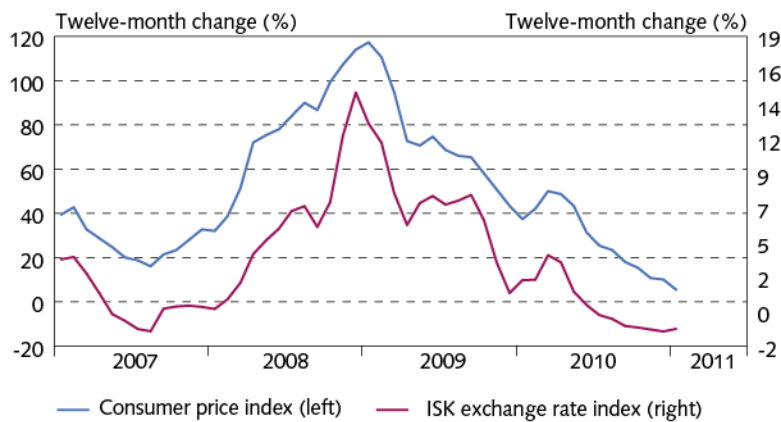


1. Central Bank forecast 2011 - 2013.

Sources: Ministry of Finance, Statistics Iceland, Central Bank of Iceland.

Inflation is a general indicator of the health of the economy and plays an important part in shaping investors' expectations concerning exchange rate movements and general economic developments. Other things being equal, high and volatile inflation leads to higher bond market yields and generally higher interest rate levels in the country, which slows down the economy and ultimately undermines confidence in the currency. In August 2009, when the previous liberalisation strategy was published, inflation measured just under 11%, whereas it is now below the Central Bank's inflation target.

Inflation and exchange rate developments 2007 - 2011



Sources: Statistics Iceland, Central Bank of Iceland.

An important premise for this success in reducing inflation is the fact that the króna has been relatively stable and has appreciated since November 2009. The Central Bank managed to prevent large-scale circumvention of the capital controls through increased supervision and tighter regulation, when it stopped the repatriation of offshore krónur. Furthermore, it is clear that Iceland's external trade situation has changed radically and will support the exchange rate over the longer term. Iceland's underlying current account surplus – that is, after adjusting for the balance on income that can be assumed to remain when the failed financial institutions and holding companies have been settled, and excluding the debt of a single multinational company with headquarters in Iceland (Actavis Group) to its owners – probably exceeded 1/10 of GDP in 2010. The outlook is for a similar surplus in 2011 and the years to come. When all is said and done, Iceland's net international investment position in coming years will probably be more favourable than it has been in decades, although payment flow problems of various types could cause temporary instability.¹⁴

Breakdown of current account balance

% of GDP	2010	2011	2012	2013
Current account balance	-3.7	-1.9	-1.4	-2.0
- underlying balance based on calculated settlement of estates	6.4	7.4	7.4	5.4
- underlying balance based on calculated settlement of estates, but excl. Actavis	12.8	12.3	12.0	9.8

Sources: Statistics Iceland, Central Bank of Iceland.

However, a current account that is in balance or in surplus is a necessary but by no means sufficient precondition for removing the capital controls without causing instability. While the Treasury, the financial system, or corporations have limited access to foreign credit, outgoing capital flows will largely offset the impact of foreign exchange inflows resulting from trade in goods and services. Export-driven GDP growth and investment could change this situation radically. Increased investment is accompanied by inflows of foreign capital. Although export-driven growth has been slow in coming, the recession appears to have reached its trough. Thus significant progress has been made since the capital account liberalisation strategy was published in August 2009.

It might be possible to lift the capital controls under current conditions without prolonged instability if non-residents did not hold sizeable ISK positions and if the financial system were not so vulnerable to large movements in offshore krónur. Only about third of non-residents' ISK holdings, or 142 b.kr., is invested in long-term bonds. Should a large share of non-resident owners of short-term assets sell out of their positions after the controls are

¹⁴ See the report by Arnór Sighvatsson, Ásgeir Daniélsson, Daníel Svavarsson, Freyr Hermannsson, Gunnar Gunnarsson, Hrönn Helgadóttir, Regína Bjarnadóttir, and Ríkarður Bergstad Ríkarðsson, entitled "What Does Iceland Owe?" *Economic Affairs* no. 4, February 2011.

lifted, residents could follow suit, causing the króna to depreciate more than is acceptable, albeit temporarily. At this stage, the offshore króna problem is the largest impediment to liberalisation of controls on residents' capital outflows. But at the same time, this situation represents an opportunity to stimulate investment and export-driven growth, as is discussed further below. Before these options are explored, however, it is necessary to examine two factors that are closely linked to the resolution of the offshore króna problem: the stability of the financial system, on the one hand, and the expansion of the foreign exchange reserves, on the other.

Financial stability

Financial stability matters have progressed significantly since the original strategy was issued in the summer of 2009, in spite of the setback following the 2010 Supreme Court judgments on the legality of exchange rate-linked loans.¹⁵ The recapitalisation of the three major banks is complete, and measures to address private sector debt are now finalised. The financial restructuring of the companies controlled temporarily by the banks is an important premise for recovery of investment, which in turn may be one of the keys to channelling offshore krónur into domestic business investment. One of the main risks that capital account liberalisation poses to the financial system lies in the substantial ISK assets held by non-residents in domestic financial institutions. Króna deposits on non-resident banks' Vostro accounts account for 164 b.kr.¹⁶ A sudden outflow of all of these deposits would have an adverse impact on the banks' liquidity, particularly if residents' deposits and other short-term assets followed suit. Thus it is important to channel these deposits into long-term investments in stages, as is described more fully in Section IV (see also Appendix II on banking system liquidity). The financial system should already be in a position to tolerate relatively modest foreign exchange outflows. Before major steps towards lifting capital controls are taken, however, the banking system must have unrestricted access to foreign credit.

Foreign exchange reserves

Although the objective is to lift the capital controls in stages without jeopardising foreign exchange market stability, the possibility of some fluctuation in the exchange rate of the króna cannot be ruled out. In order to reduce the likelihood of prolonged exchange rate instability in connection with liberalisation, the Central Bank must have sufficient reserves to reduce foreign exchange market volatility and eliminate all doubt about the Treasury's ability to fulfil its obligations.

¹⁵ These judgements dented the capital ratios of financial companies but helped to reduce the foreign-exchange imbalances in their accounts.

¹⁶ Some of the end investors that are counterparties to the deposits of non-resident banks may be residents, but there are no data to verify to what extent this is so. Consequently, the analysis is based on the available data on non-resident ISK positions.

The foreign exchange reserves have never been larger in Iceland's history. In August 2009, the Central Bank's foreign exchange reserves net of the Bank and the Treasury's current liabilities¹⁷ totalled ISK 250 b.kr., or 17% of year-2009 GDP. At end-January 2011, the same reserves totalled 303 b.kr., or 19% of GDP. The portion of the reserves that the Central Bank has at its disposal has therefore remained relatively stable since the last strategy was published, even though Treasury foreign obligations amounting to 13% of year-2010 GDP are set to mature in 2011. Three main factors have contributed to the stability of the disposable foreign exchange reserves in spite of large maturities in the coming year. First of all, the Treasury has bought back debt on advantageous terms, so that its current liabilities now amount to just under 8% of year-2010 GDP. Second, the Treasury and the Central Bank have refinanced debt with long-term loans from the Nordic countries, Poland, and the IMF. Third, the Central Bank has purchased a sizeable amount of foreign currency from the pension funds (in connection with the Avens bonds) and the commercial banks, and they receive foreign currency from collateralised loans granted in the fall of 2008. Other things being equal, the current reserves will suffice to pay down all of the Treasury's debt until 2015. However, in order to prepare for the removal of capital controls, it may be necessary to build up the reserves further by drawing on IMF and bilateral programme financing and through other Treasury foreign borrowing.

Although the foreign exchange reserves are sizeable, which ensures that the Treasury can service its debt for the next several years, even in the unlikely event that it could not borrow money in foreign capital markets, it is desirable that they be funded to a lesser degree with foreign debt. Since August 2010, the Central Bank has begun regular foreign exchange purchases in order to bolster its non-borrowed reserves. However, significantly raising the proportion of non-borrowed reserves will take time. The Central Bank is of the opinion that the foreign exchange reserves are large enough to support the start of phased removal of the capital controls. Further reserve build-up required for subsequent steps will be subject to the success in channelling krónur owned by distressed investors into the hands of long-term investors such as pension funds and other like parties. This would funnel a considerable share of short-term krónur into the domestic economy or into long-term Treasury funding without depleting the reserves. Over the medium term, after the removal of capital controls, there may be pent-up demand for foreign assets among residents, which could put strain on the reserves. While this will be addressed in part by prudential regulation, a comprehensive assessment will be made to determine whether the medium-term balance of payments and reserves outlook is sufficiently strong before an attempt is made to move to the final steps of Phase I and into Phase II. Developments in the foreign exchange reserves and in Government debt management are discussed in Appendix III.

¹⁷ See Appendix III for further discussion of the foreign exchange reserves.

Appendix II: Banking system liquidity position

Both the Central Bank of Iceland and the Financial Supervisory Authority (FME) carry out off-site monitoring of liquidity positions. The FME also conducts on-site inspections. The FME's monitoring is part of its supervision of risk assessment and internal controls of supervised entities.

Liquidity according to the Central Bank of Iceland Rules on Liquidity Ratio

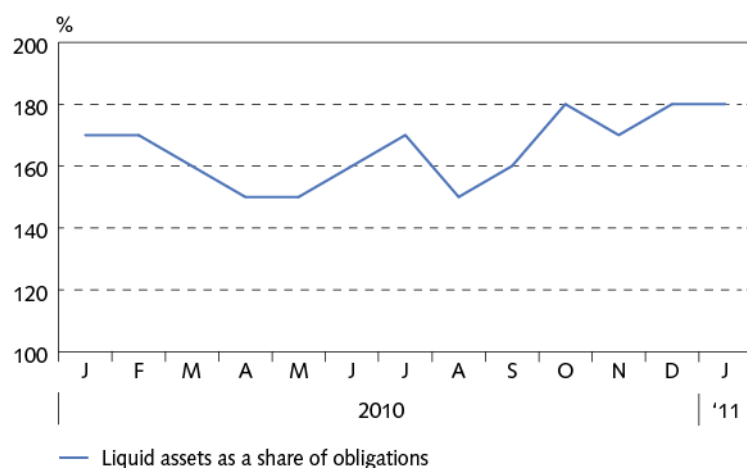
The Central Bank of Iceland sets rules on credit institutions' liquidity ratio; cf. Article 12 of the Central Bank Act, no. 36/2001.¹⁸ The aim of the Rules is to ensure that credit institutions always have sufficient liquidity to meet foreseeable and potential payment obligations over a specified period of time.¹⁹ In terms of the Central Bank Rules, the commercial banks' liquidity position has been ample in the recent term (see the chart below). In 2011, the Central Bank, in co-operation with the FME, plans to review its liquidity rules with regard to international developments, such as Basel III liquidity (LCR, NSFR).

The Rules entail a certain stress test where a discount is applied to various assets, but where it is assumed that all obligations must be paid upon maturity, as well as a portion of other obligations such as deposits. Because the commercial banks are now funded primarily with deposits, their liquidity risk is concentrated in the risk of withdrawal. A large share of deposits are demand deposits (sight deposits), and it is likely that depositors will move their funds when the capital controls are lifted or when investment options become more numerous. For this reason, the Central Bank has made regular assessments of the banks' liquidity ratios based on various assumptions concerning withdrawals of demand deposits. The commercial banks can tolerate substantial withdrawals without falling below the minimum specified in the Central Bank Rules. Because of the importance of deposit-based funding, the Financial Supervisory Authority has required that the new commercial banks have sufficient liquidity to address possible withdrawals at all times.

¹⁸ Rules on Liquidity Ratio, no. 317/2006.

¹⁹ Credit institutions are obliged to send the Central Bank monthly reports providing information underlying the calculation of their liquidity ratios. Claims and obligations that are included in the calculations are classified by type, maturity, and risk. The reports also specify what proportion in each category is included in the calculation. The liquidity ratio is calculated for four periods: < 1 month; 1–3 months; 3–6 months; and 6–12 months. The ratio of assets and liabilities that mature or can be converted to cash within one month and within three months shall not be lower than 1, or 100%. If the credit institution cannot fulfil this requirement, the Rules provide for sanctions in the form of per diem fines on the shortfall. Credit institutions shall disclose their liquidity ratios for other periods as well, even though there are no requirements concerning specific ratios for those periods.

Commercial banks' liquidity, 0-3 months¹
According to Central Bank liquidity rules 2010



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

Liquidity according to the Financial Supervisory Authority's liquidity requirements

The Financial Supervisory Authority (FME) requires monthly liquidity reports from the three large commercial banks.²⁰

The liquidity reports that the banks submit to the FME can be viewed as a sort of stress test. They reveal whether the banks are equipped to tolerate outflows of at least 20% of their deposits, as well as paying out at least 5% of demand deposits in cash. The banks have all been well above these thresholds, from the outset until the present time.

The FME liquidity reports include the sum of secure liquid assets at each month-end as a percentage of total deposits and the sum of cash as a percentage of demand deposits. The reports also reveal the balance of total deposits and their distribution among non-residents, households and smaller businesses, and larger businesses. They contain a time analysis of deposits as well.

²⁰ The liquidity report originates in the reconstruction of the banks and the Financial Supervisory Authority's requirements for their operating licences. The banks were subjected to a variety of requirements upon their reconstruction. The principal financial requirements were these: The minimum capital adequacy (CAD) ratio was raised to 16% and the ratio of Tier 1 capital to 12%. Because of uncertainty about capital flows, quality and recovery of loans, and developments in deposits, the banks were required to maintain secure liquid assets corresponding to at least 20% of total deposits, plus cash and cash equivalents corresponding to at least 5% of demand deposits. In addition to financial requirements, the banks were subjected to a number of requirements related to governance and risk management.

Liquidity and Deposits

Total numbers for Arion, Íslandsbanki and Landsbanki

Total 31 Jan. 2011	ISK	FX (in ISK)	Total
Liquidity			
Liquid assets, cash, etc.	52,216	150,846	203,062
Repurchase agreements, etc.	329,270	30,145	359,415
Secure liquidity, total	381,486	180,991	562,477
Total deposits			
Deposits of non-residents	176,197	9,339	185,536
Dep. of individuals and small businesses	593,297	44,604	637,901
Deposits of large businesses	500,104	148,136	648,240
Total	1,269,598	202,079	1,471,677
Demand deposits	1,232,886	84%	

Source: Financial Supervision Authority.

The summary shows that the total of the three banks' secure liquidity was just over 562 b.kr. as of 31 January 2011. Liquidity is specified as liquid assets totalling 203 b.kr., which comprise cash, Central Bank deposits, and deposits with domestic and foreign financial institutions, on the one hand; and repurchase agreements and other secure liquidity lines totalling 359 b.kr., on the other. The summary shows that the three banks' total deposits amount to 1,472 b.kr., 13% of which, or 185 b.kr., are held by non-residents. Demand deposits account for 84% of total deposits.²¹

Stress tests by FME

In order to assess the impact of capital account liberalisation on deposits – and therefore on the banks' liquidity – several scenarios have been prepared using various assumptions concerning what could happen if the capital controls were lifted entirely. All of these scenarios are simplified calculations at best, as actual responses to removal of the controls are extremely uncertain.

The first scenario assumes that all non-residents' deposits and all FX deposits will be withdrawn, together with 15% of other deposits. As things stood at end-January, such outflows would exhaust all liquidity and the banks' access to liquidity.²²

The second scenario explores the simultaneous withdrawal of all non-residents' deposits, with no other withdrawals. The banks could handle withdrawals of this magnitude and still fulfil the FME's minimum requirements, although their liquidity would deteriorate.

²¹ As of end-January, the FME liquidity ratios for the three banks combined were, on the one hand, secure liquidity/total deposits, 38% (20% minimum); and, on the other hand, liquid assets/demand deposits, 16% (5% minimum). These ratios differ for individual banks and thus have different effects. The three banks are all well above the minimum requirements, however.

²² The definition of non-resident entities is set forth in Article 1 of Act no. 87/1992. All other entities are classified as residents. The old banks are thus classified as resident entities and have not been treated separately in this very simple stress test. The general outflow of deposits (other than non-resident investors) of 15% and 10%, as assumed in the stress test, would thus include the old banks.

The third scenario shows a milder effect than the first one: it assumes the withdrawal of half of non-residents' deposits, half of FX deposits, and 10% of other deposits. This would erode the three banks' liquidity significantly but not render it extremely weak.

In all of these scenarios, the banks' liquidity deteriorates substantially. The considerable uncertainty in the banks' post-crisis operating environment calls for a strong liquidity position. Lifting the capital controls in suitable increments so as to control the strain on banking system liquidity is consistent with this policy. Significant uncertainty remains in areas other than those related to capital account liberalisation; therefore, there is still a need for relatively high liquidity requirements, although with potential outflows of non-residents' deposits, uncertainty is reduced. Liberalisation of capital controls could have a varying effect on the banks' need for short- or long-term liquidity facilities. The Central Bank is ready to take the action necessary to respond to negative effects on the liquidity of individual financial institutions and the system as a whole while liberalisation is underway, consistent with its conventional liquidity management role and its role as a lender of last resort.

Possible effects of liberalisation on liquid assets and liquidity ratios

At the beginning of February 2011, the Central Bank of Iceland asked the largest commercial banks to estimate the effects of capital account liberalisation on their liquid assets and liquidity ratios. In preparing their estimates, they were to assume that the capital controls would be lifted in full, in a single action, and without any prior notice. They were also to assume that capital markets were closed and that all obligations would be paid when due. The banks were asked to estimate outflows of liquid assets due to withdrawals of deposits 10 days after the removal of the controls. They have substantial secure liquid assets that can be used to pay out deposits, but if withdrawals were at the upper end of the range of likely outcomes, the majority of the banks' liquidity ratios according to Central Bank of Iceland and Financial Supervisory Authority rules would fall below minimum levels, although secure liquid assets would be sufficient to cover outflows. The banks' responses illustrate the importance of keeping the size of the liberalisation steps appropriate, so that it will be possible to reassess liquidity ratios after the most volatile deposits have been withdrawn from the system.

The Central Bank has made an independent assessment of the banks' responses. If it is assumed that nearly all non-residents withdraw their deposits but that the majority of residents do not, the banks' secure liquid assets should suffice to pay out deposits. Their liquidity ratios according to Central Bank of Iceland and Financial Supervisory Authority rules may fall below minimum levels, however. If non-residents and a significant proportion of residents withdraw their deposits, however, the banking system will not be able to tolerate it. Nonetheless, these findings indicate that the banking system can well tolerate measures designed to channel offshore krónur into the Icelandic economy if such measures are executed in suitable increments, as is described in the new capital account liberalisation

strategy. The bank's liquidity positions will be monitored closely throughout the liberalisation process, particularly in advance of any major liberalisation steps.

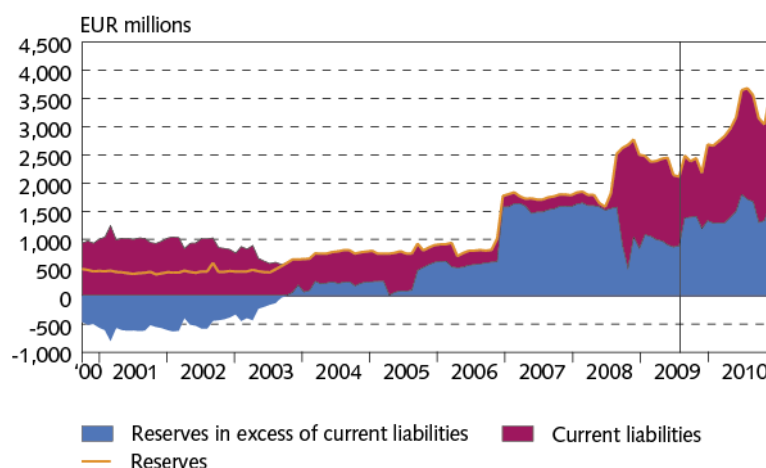
Appendix III – Foreign exchange reserves

While the basic aim of the current strategy for lifting capital controls is to increase reserve adequacy and minimise the risk of reserve outflow, some risk of turbulence during the liberalisation process is unavoidable. Hence adequate FX reserves are a precondition for any major steps. This appendix provides background on the developments in the foreign exchange reserves over the last decade, the composition of their funding, and the present size. Further, it describes the results of reserve adequacy tests performed on the strategy. Finally, the appendix explores how the reserves will develop given a baseline macro scenario based on current FX assets and accessible foreign borrowings, with consideration given to the maturity profile of the Treasury and the Central Bank's foreign debt.

Since the banking system collapsed in the fall of 2008, the Central Bank of Iceland's foreign exchange reserves have changed significantly in size and composition. Historically, the minimum size of the Bank's foreign exchange reserves has been determined by the country's need to import goods and services. In 2006, the reserves were augmented through foreign borrowing, due to the expansion of the banking system and the increase in foreign exchange transactions. In the fall of 2008, significant reserves were used to provide FX liquidity facilities to banks in distress and to ensure continued cross-border payment intermediation following the crash. One of the main objectives of the economic programme pursued by the Government in collaboration with the International Monetary Fund has been to strengthen the foreign exchange reserves in order to promote exchange rate stability and generate confidence in the Treasury's ability to fulfil its foreign obligations without causing instability in the foreign exchange market. The main text discusses the principal changes in the composition of the reserves from the time the original capital account liberalisation strategy was published in August 2009 until the publication of the new strategy.

The Central Bank's net foreign exchange reserves can be defined as the total reserves less the Central Bank and Treasury's current liabilities (debt maturing within 12 months). The net reserves can change quite rapidly, particularly as long-term debts approach maturity and begin to be viewed as current liabilities.

Distribution of FX reserves by funding source



Source: Central Bank of Iceland.

Shortly after the beginning of this century, the foreign exchange reserves were funded with short-term debt, and in 2001 the Central Bank sold a substantial amount of foreign currency in order to arrest the fall of the króna. By 2003, however, net reserves were positive once again, following foreign exchange purchases the year before. Foreign exchange inflows in 2003-2006 were used primarily to service the Treasury's foreign debt. In 2006, the reserves were expanded considerably with a five-year loan of one billion euros. By that time, then, the reserves were funded largely with long-term debt. Since the fall of 2008, they have been expanded further with long-term loans from the IMF, the Nordic countries, and Poland; transactions related to Avens B.V. bonds; foreign exchange transactions with the commercial banks; and recovery of loans associated with the banking collapse. Since that time, the foreign-denominated deposits of the resolution committees and of other domestic financial institutions have constituted a large share of the reserves. These deposits are considered current liabilities and do not change the net reserves, even though gross reserves may increase. As of January 2011, deposits comprised the vast majority of current liabilities; however, added to them are Treasury bonds maturing on 1 December 2011, the outstanding balance of a loan from Bayerische Landesbank, and other obligations such as interest expense.²³

²³ Interest expense is included with current liabilities – that is, payments due in the next 12 months – but future interest income is not included in foreign reserves figures. To this extent, the figures on net reserves are underestimated.

Foreign reserves

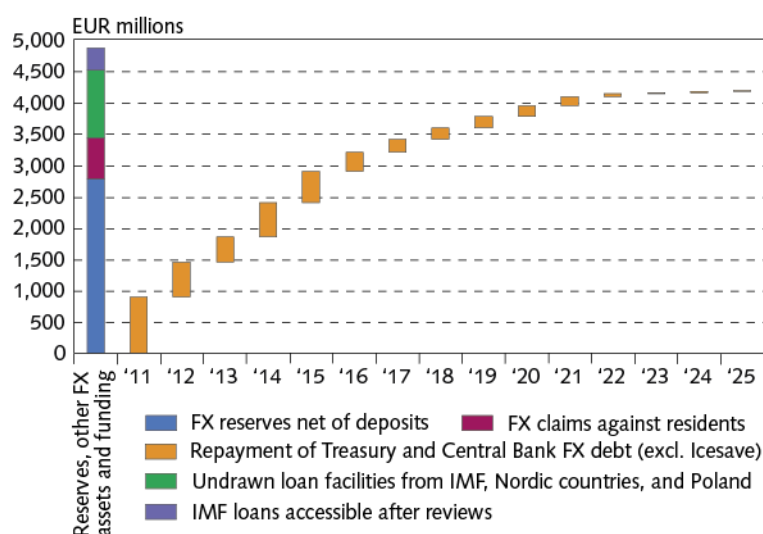
	Bn. ISK	January 2011 % GDP 2010
Foreign Reserves ¹	733	47
Current liabilities	-430	-27
- FX accounts of resolution committees and DMB's	-291	-19
- Treasury EMTN bonds (Dec 2011)	-103	-7
- Syndicated loan (Sep 2011)	-12	-1
- Other	-24	-2
Foreign reserves net of current liabilities	303	19

1. Data on the Central Bank of Iceland's total foreign exchange reserves and the Central Bank and Treasury's current liabilities can be found on the Central Bank website under *Statistics > International reserves and related items*: <http://www.seclabanki.is/?PageID=291>.

Source: Central Bank of Iceland.

The Central Bank's foreign exchange reserves are now at a historical high in terms of size, at 47% of year-2010 GDP, but can be expected to contract once the winding-up committees begin making payment to the banks' creditors. However, the Central Bank has claims against resident entities that will bring in foreign currency in coming years but are not considered part of the reserves. These include the FX swap agreements with the commercial banks and the assets held by the Central Bank of Iceland Holding Company ehf. (ESÍ). Moreover, the Treasury and the Central Bank have negotiated loan facilities with the Nordic countries, Poland, and the IMF, and they can draw on those credit lines in order to expand the reserves. At their current size, the reserves suffice to pay interest and principal on the Treasury and Central Bank's FX debt through 2015. Several large loans taken by the Treasury are scheduled to mature in the near future. The aim is to refinance Treasury foreign debt when the opportunity presents itself and to maintain strong foreign exchange reserves over the next several years.

Developments in FX reserves and repayment profile for foreign loans



Source: Central Bank of Iceland.

The strategy for liberalising capital controls is designed to address reserve adequacy going forward. To stress test the strategy, two main measures of reserve adequacy are used, the ratio of reserves to short term external debt and the ratio of reserves to broad money. The tests were time-independent but sequenced in such a way that their interaction strengthens the overall implementation.

in the baseline macro scenario, reserve adequacy as measured by the ratio of reserves to short-term external debt is projected not to exceed 100%, the level according to the Greenspan-Guidotti rule of thumb, until 2015. As is described above, reserves have been growing and are at historically high levels. Building reserves to meet short-term liabilities can be expensive when the cost of funds is high and interest expense has a negative effect on the balance of payments. Hence the strategy addresses Iceland's short-term liabilities directly by converting them to long-term liabilities via market mechanisms. With the implementation of the liberalisation strategy, reserve adequacy will improve compared to the baseline, and the ratio of reserves to short-term external debt will exceed 100% early in the sequencing of the strategy. Throughout the implementation of the strategy, steps will be taken so as to maintain adequate reserves.

Reserve adequacy as measured by the ratio of reserves to broad money has been significantly above the 10-20% range, a rule-of-thumb range, and is high in international comparison. Potential capital flight may justify the need for a higher reserve level as measured by this metric but, as is mentioned above, building reserves can be costly. By allowing distressed investors to exit and by supporting direct investment in export generating investments, the strategy aims to contribute to sustainable growth and reduce the risk of capital flight. As the liberalisation process progresses, the projected ratio of reserves to broad money is gradually reduced but remains adequately above 20% throughout the process.

Balance of payment outlook and reserves

As is discussed above, capital account liberalisation may affect the level of the reserves. For example, there may be pent-up demand for foreign assets among residents, and some speculative outflows cannot be ruled out, although the strategy is designed to minimize this risk. Assuming some pent-up demand for foreign assets and the rather extreme assumption that the Treasury and the Central Bank do not roll over any debt or take on new loans, the full removal of the capital controls will have a significant effect on the reserves in 2014, and the ratio of reserves to short-term debt becomes very low. This ratio starts to decline as soon as 2013, and by 2015 the reserves have been depleted, despite a continued surplus on the current account, conservative assumptions concerning further FDI inflows, declining foreign debt, and a continuously improving international investment position (IIP).

Given another extreme assumption – i.e., that the Treasury and the Central Bank roll over all of their foreign debt from 2011 onward, which implies that their foreign debt is declining in

relation to both GDP and the tax base of the government – reserves will be more than adequate to face the full liberalisation of the capital controls. In this case, the reserves as a percentage of short-term debt will be over 200% in 2012 and 2013 and remain well over 100% until 2016. If this reserve ratio is deemed more than adequate, the Treasury and the Central Bank could lower their foreign debt over the next few years. While both of the above assumptions are unrealistic, they mark the outer contour of possible outcomes.

A basic assumption in the rollover scenario is that the Treasury regains acceptable access to foreign capital markets. The Ministry of Finance's debt management strategy foresees significant reduction of debt in the years ahead. However, the foreign debt stock should only be reduced gradually to withhold an adequate reserve balance for removal of the capital controls. With the basic assumption that the Treasury has regained access to foreign capital markets, it can be assumed that the Treasury would seek to roll over or refinance around 85% of the foreign debt stock over the medium term. This would provide an ample reserve balance for removal of the capital controls, provided that preconditions are met. In this case, the reserves as a percentage of short-term debt will be between 150-200% in 2012 to 2014 but close to 100% by 2016.

The medium-term balance of payments outlook is obviously highly uncertain and must be reassessed before steps can be taken that could place significant strain on reserves.

Appendix IV: Non-residents' ISK assets

One of the main obstacles to relatively rapid removal of the capital controls is the large share of highly liquid ISK assets held by non-residents that, for a variety of reasons, either wish to sell them or must sell them as soon as the controls are lifted. For some investment funds, owning Icelandic Treasury bonds is no longer consistent with their investment policy because Iceland's sovereign credit rating has fallen below the minimum required rating. It is also possible that some residents want to sell their króna-denominated assets and would follow suit or will try to sell their assets ahead of non-residents if the controls are lifted, but in general, substantial home-bias makes them less likely to do so, particularly if attempts to channel distressed non-resident investors' short-term assets into the hands of investors with a longer investment horizon (which is the objective of the new liberalisation strategy) are successful.²⁴ It should be borne in mind, however, that resident investors or offshore companies owned by them may be the parties behind some portion of deposits held in foreign banks or króna-denominated bonds held in custody by non-residents.

Non-residents' ISK holdings, which total about 465 b.kr, are considered to give a reasonably good measure of offshore króna holdings.²⁵ They can be divided into three main categories:

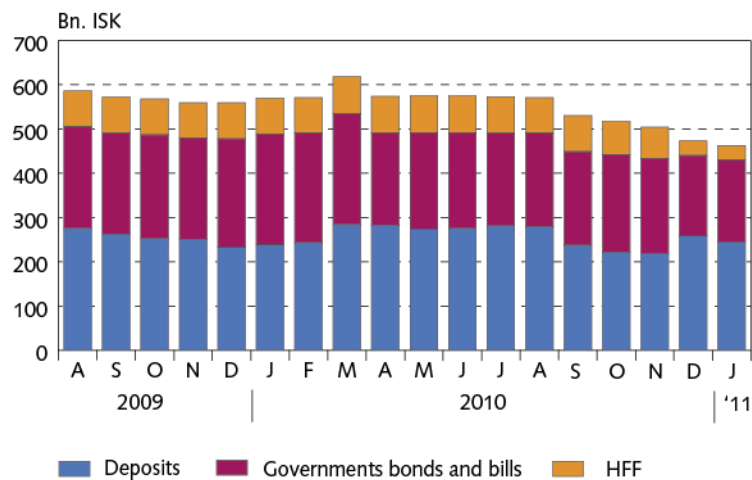
- Deposits in financial institutions total approximately 185 b.kr.²⁶ Nearly all deposits held by non-residents in Icelandic financial institutions are in accounts in the three largest commercial banks: NBI, Íslandsbanki, and Arion Banki.
- Deposits with the Central Bank total 60 b.kr. These are related to foreign settlement systems' settlement of Icelandic securities.
- Bonds total 220 b.kr. Chief among them are long Treasury bonds and Treasury bills valued at 190 b.kr. and Housing Financing Fund (HFF) bonds in the amount of 30 b.kr.

²⁴ Investors that, for regulatory reasons (e.g., as a result of Iceland's low credit ratings), because of economic conditions, or for some other reasons are forced to sell their ISK assets at a depressed value are referred to as *distressed investors*. Those can be distinguished from short-term investors that may take short-term speculative positions.

²⁵ In this report, data on non-resident ISK positions are used as a proxy for offshore króna positions. Information on the residence of the end investor is actually rather limited, although it is understood that a vast majority of them are non-residents. As the counterparty is typically a non-resident financial institution, for analytical purposes, end investors are treated as non-residents in this report. In some cases, a non-resident financial institution may have an unhedged ISK position. Hence the true size of non-resident retail investors' offshore króna positions may be somewhat smaller, but the difference is unlikely to be large enough to change major conclusions.

²⁶ Figures are as of January 2011.

Estimated non-resident ISK holdings



Source: Central Bank of Iceland.

It can be said that non-resident holders of (offshore) króna assets are funding the domestic banking system and the Treasury in an amount corresponding to their deposits in Icelandic financial institutions, on the one hand, and their bond holdings, on the other. Consequently, removal of the capital controls will have implications for the liquidity positions of these two entities. Movements that may take place in deposits with the Central Bank will not affect the liquidity of the financial institutions or the Treasury, however.

Deposits with financial institutions

In all likelihood, deposits are the most volatile ISK assets held by non-residents. Behind them are funds, banks, and individuals that participated actively in carry trading with the Icelandic banks before the crisis and found themselves locked out when the domestic foreign exchange market collapsed in October 2008. The Central Bank has been in contact with large depositors that are waiting for the opportunity to expatriate their assets. Many of them are not authorised to buy interest-bearing securities because of Iceland's low sovereign credit rating and are therefore waiting until the controls are lifted. A rough estimate of the characteristics of ISK asset owners indicates that 65-75% of them (representing 155-185 b.kr.) may want to exit at the earliest opportunity. A sizeable number of investors appear to be interested in using their offshore krónur to invest domestically. It is difficult to quantify this exactly, however.

Massive outflows of deposits will have an effect on the banks' liquidity positions (see Appendix II). On the other hand, in the Central Bank's assessment, the banks are relatively well prepared in terms of liquidity holdings to face a release of deposits for investment in long-term Government bonds provided that the auctions are of a suitable size. In this context, it is important to bear in mind the following:

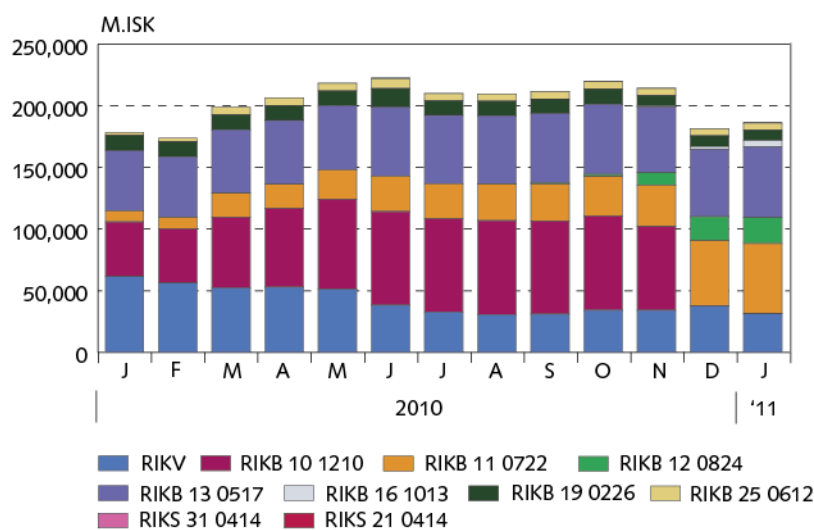
- The distribution of non-residents' deposits among financial institutions reflects their liquidity position.

- Withdrawals of deposits reduce the banks' need for liquidity, as a large share of them are demand deposits, which are the main focus of the liquidity requirements set by the Central Bank, the Financial Supervisory Authority, and the Basel III framework.
- The banks' possibilities of boosting their liquidity through collateralised loans from the Central Bank are substantial, should the need arise, but this facility is currently fairly little used by the banks.
- The króna system is a "closed" one in that the banks' liquidity will suffer only if the krónur end up in the Central Bank of Iceland and are not recycled back to the banks through the Central Bank's market operations. Foreign exchange interventions will only affect bank liquidity to the extent that they are not sterilised. However, it is current policy of the Central Bank to sterilise its interventions in order to prevent them from making liquidity conditions inconsistent with the monetary policy stance as decided by the Monetary Policy Committee. The same applies to Treasury debt transactions that affect bank liquidity. Krónur that will be used for investments other than the purchase of Government bonds will still be in the financial system and will therefore not affect the banks' liquidity.

Bonds

Non-residents own nearly 220 b.kr. worth of domestic bonds issued by the Treasury and the HFF. The majority of this capital, 190 b.kr., is invested in Government bonds, and the largest part is due to mature before mid-2013. The part that is invested in HFF bonds, around 30 b.kr., is relatively evenly distributed among all four HFF bond series.

Developments in estimated non-resident Treasury bond holdings



Source: Central Bank of Iceland.

From the previous discussion, it is clear that removal of the capital controls will affect demand for Government bonds, particularly short ones. The Treasury's cash balance with the Central Bank is strong, however, and the State is well prepared for fluctuations in demand. In order to support the Treasury still further, long-term investors will first be authorised to purchase krónur for foreign exchange and use them to purchase long-term Treasury bonds. This will provide the Treasury with long-term funding that paves the way for lifting capital controls. However, it is conceivable that demand for short-term bonds will diminish.

There is no danger of significant impact on the HFF during the first steps of the strategy, as non-residents own a limited amount in each series. Moreover, the HFF's financing need is negligible at the present time.

Conclusion

To summarise, the impact of measures to channel offshore krónur into domestic long-term investment can be divided into four categories:

- The transfer of investors from short Treasury bonds to long ones will not affect the banks' liquidity positions and will improve the Treasury's liquidity position because it will reduce short-term liabilities.
- Investments in long Treasury bonds that are funded with deposits will reduce the banks' liquidity. However, it also reduces their liquidity need somewhat because the banks have been required to maintain strong liquidity positions precisely because of the potential volatility of these deposits (see appendix II).
- Investment of non-residents' ISK assets in the domestic economy does not affect banking system liquidity position overall, but it could affect the status of individual banks and reduce demand for short Treasury bonds.
- Using the Central Bank's foreign exchange reserves for FX market intervention will not affect the system's overall liquidity position to the extent that the Bank sterilises its operations. The same applies to Treasury bond sales funded with deposits within the Central Bank, which the Bank will offset through its conventional market operations.

The core principle behind this proposal for the removal of capital controls is that the reduction in the size of the stock of offshore krónur takes place in several small steps. This methodology should ensure that the impact on Treasury and financial system liquidity and on the foreign exchange market remains manageable at all times. This also enables the Central Bank and the Government to respond to risks that surface during the process.