

Medium-Term Debt Management Strategy

2018 - 2022



FJÁRMÁLA- OG EFNAHAGSRÁÐUNEYTIÐ

Medium-Term Debt Management Strategy 2018 - 2022

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Table of Contents

Summary	5
1 Debt management objectives and guidelines.....	6
1.1 Debt management guidelines.....	6
1.2 Quantitative targets.....	7
2 Domestic bond issuance	8
2.1 Financing need.....	8
2.2 Deposits	8
2.3 Structure of Government securities	9
2.3.1 Structure of benchmark series	9
2.3.2 Treasury bond issuance from 2018 onwards	10
2.3.3 Redemption profile.....	11
3 Foreign bond issuance	13
3.1 Deposits	13
3.2 Redemption profile	13
4 Treasury debt position	15
4.1 Treasury debt statistics	15
4.1.1 Domestic borrowing	16
4.1.2 Foreign loans	16
4.1.3 Treasury debt structure.....	17
4.1.4 Redemption profile.....	17
4.1.5 Average time to maturity.....	18
4.2 Investors in domestic Treasury securities.....	18
4.3 Stability contributions and allocations towards reduction of debt.....	19
5 Risk management	21
5.1 Market risk.....	21
5.1.1 Interest rate risk.....	21
5.1.1.1 Interest rate swaps	22
5.1.2 Exchange rate risk	22
5.1.3 Inflation risk	23
5.2 Refinancing risk.....	23
5.3 Contingent liabilities.....	23
5.3.1 State guarantees.....	23
5.3.2 Municipalities.....	25
5.3.3 Public-private partnerships.....	25
6 Institutional structure.....	26
6.1 Ministry of Finance and Economic Affairs	26
6.2 Central Bank of Iceland.....	26
6.3 Consultative Committee on Debt Management.....	26
7 Information disclosure to the market.....	28
7.1 Medium-Term Debt Management Strategy.....	28
7.2 Annual Government Debt Management Prospect	28
7.3 Quarterly Government Debt Management Prospect.....	28
7.4 Auction announcements.....	29
7.5 Planned auction dates	29
7.6 Market Information.....	29
7.7 Government Debt Management website.....	29
7.8 Primary dealers in Treasury securities.....	30
7.9 Investors.....	30

Summary

This strategy, which lays down objectives and criteria for Government debt management during the period 2018-2022, is presented on the basis of the fiscal plan in accordance with the Article 38 of the Act on Public Sector Finances, no. 123/2015. The strategy is to be presented annually. The Medium-Term Debt Management Strategy is presented over a horizon of five years and is based on the previous Strategy, issued in autumn 2016.

The Medium-Term Debt Management Strategy 2018-2022 (MTDS) lays down the government's plans for financing its activities during this period. The aim is to map out a clear debt management policy with quantitative targets. The strategy thereby creates a framework for debt management measures, and its principal objective is to ensure that the Treasury's financing need and payment obligations are met at the lowest possible cost that is consistent with a prudent risk policy. It is also intended to encourage further development of efficient primary and secondary markets for domestic Government securities.

The strategy describes debt management objectives and guidelines, the current composition of the debt portfolio, inherent risk factors, and contingent liabilities. It also describes the institutional structure of debt management and explains how information disclosure to market agents and investors is carried out.

The Ministry of Finance and Economic Affairs is responsible for the central government's debt management, formulates its debt management strategy, and makes decisions regarding securities issuance. Government Debt Management, a special department within the Central Bank of Iceland, is responsible for executing the Treasury's debt management strategy in accordance with an agreement between the two parties.

Benchmark issues of Treasury bonds are structured so that each series is large enough to ensure effective price formation in the secondary market. Each year it will be ensured that there is effective price formation with two-, five-, and ten-year benchmark Treasury bonds. In order to reduce refinancing risk, the aim is to keep the redemption profile of Treasury securities as even as possible. The average time to maturity should be at least five years and no longer than seven years.

The Treasury has borrowed in foreign currencies in order to expand the Central Bank's foreign exchange reserves. The foreign borrowing strategy is aimed at securing regular access to international capital markets and appealing to a diversified investor base. Attempts shall be made to maintain 1-2 benchmarks in market issues at any given time so as to facilitate domestic firms' access to foreign credit if market conditions and the Treasury debt position permits.

At year-end 2016, gross Treasury debt was equivalent to 46% of GDP. The aim is to reduce total debt over the period to approximately 25% of GDP by end-2022. Net debt – that is, debt net of interest-bearing assets, excluding stability contributions – amounted to 32% of GDP at the end of 2016. The aim is to reduce it to below 15% of GDP by year-end 2022. Fiscal policy formation assumes that total general government debt – that is, debt excluding pension obligations and accounts payable, and net of cash and bank deposits – will fall from 50% of GDP at the end of 2015 to 23% of GDP by the end of 2022.

1 Debt management objectives and guidelines

The Government's overall debt management objectives are as follows:

1. To ensure that the Treasury's financing need and payment obligations are met at the lowest possible long-term cost that is consistent with a prudent risk policy;
2. To establish a sustainable debt service profile that is consistent with the Government's medium-term debt service capacity and minimises refinancing risk;
3. To maintain and encourage further development of efficient primary and secondary markets for domestic Government securities;
4. To broaden the Government's investor base and diversify funding sources.

In order to meet the demand for new Treasury issues and to increase the liquidity of benchmark series, efforts will be made to exchange non-marketable Treasury debt for benchmark series insofar as market conditions permit. Such exchanges must be consistent with the objective of minimising the Treasury's interest expense in the long run, while ensuring a prudent degree of risk.

1.1 Debt management guidelines

The debt portfolio is structured so as to minimise overall risk and encourage the development of a well-functioning market that can attract a diverse group of investors and set pricing benchmarks for other financial products.

The Treasury emphasises the issuance of nominal debt, as nominal Treasury bonds form the basis of an effective domestic bond market. Issuance of indexed Treasury bonds is irregular and is determined by the financing need and the circumstances prevailing at any given time. New Treasury loans taken in foreign currencies are used primarily to expand the Central Bank's foreign exchange reserves or to refinance outstanding market issues.

The guidelines for the composition of the Treasury's debt portfolio are as follows:

Non-indexed debt	60-80%
Indexed debt	10-20%
Foreign loans	10-20%

Benchmark issues will be structured so that each series is large enough to ensure effective price formation in the secondary market. The number and size of the series shall take account of Treasury debt. The goal is for each series to have a final size of ISK 40-70 bn, except for two-year bonds, whose minimum final size will be ISK 15 bn.

The average time to maturity of the debt portfolio shall be at least five years and no longer than seven years.

The Government's domestic deposits with the Central Bank of Iceland shall average about ISK 40 bn.

1.2 Quantitative targets

Clear, quantitative targets for debt management demonstrate the sustainability of Treasury debt. The targets are based on the fiscal plan for 2018-2022, the outlook for Treasury performance, the economic outlook, and the overall state of the economy. In accordance with the fiscal plan for 2018-2022, the targets are as follows:

- The ratio of Treasury debt to GDP shall be about 25% by 2022,
- Total general government debt according to the debt rule shall be 23% by year-end 2022.

These targets are subject to revision of macroeconomic and fiscal assumptions. They will be updated as necessary.

2 Domestic bond issuance

The Treasury's financing need will be met through issuance of Government securities in the domestic market and a reduction in the Treasury's deposits with the Central Bank of Iceland. This section focuses on medium-term financing needs and Treasury deposits. It also discusses Treasury securities issuance, including the redemption profile policy, average duration, and the build-up of benchmark issues.

2.1 Financing need

The Treasury's estimated financing need is based on the assumptions in the National Budget for 2017 and on the assumptions presented by the Ministry of Finance and Economic Affairs in Fiscal Policy 2018-2022 [Icelandic: Ríkisfjármálaáætlun 2018-2022.]

The net borrowing requirement is either positive or negative. A positive balance indicates a surplus on Treasury operations and financial activities, which can be utilised to reduce debt. A negative balance reflects a deficit on Treasury operations and financial activities, which must be financed through borrowing or a decrease in cash and cash equivalents.

Table 1 shows the net financing balance according to Treasury estimates for 2018-2022. According to the estimates, the net financing balance will be positive in the next few years.

Net borrowing requirement (ISK m)

2018	2019	2020	2021	2022
34,600	23,600	34,100	38,700	25,800

Table 1

2.2 Deposits

The Medium-Term Debt Management Strategy for 2017-2021 introduced the concept of active liquidity management and noted that the objective was to adopt it in Q4/2016. Active liquidity management entails allowing the Treasury to take and grant short-term loans in the market so as to smooth out fluctuations in its deposit accounts. The aim is that deposit balances should average as close to ISK 40 bn as possible, instead of the previous reference balance of ISK 60-70 bn. Conditions could arise that necessitate higher balances for a short period – for instance, when large Treasury bond maturities are drawing near – and with active liquidity management, it is possible to lend a portion of the deposits while building them up so as to earn interest income on them.

The first loan agreements were made in Q1/2017, and the frequency of such agreements has been gradually increasing. At the same time, estimates of the Treasury's liquidity position have become more accurate, as they are based on estimated daily revenues and expenses, together with payment flows from revenues and loans granted. The loan agreements to date have been for amounts ranging from ISK 1 bn to ISK 7 bn, with maturities of 1-26 days, and as many as five contracts have been in effect simultaneously.

Treasury deposits with and without liquidity management

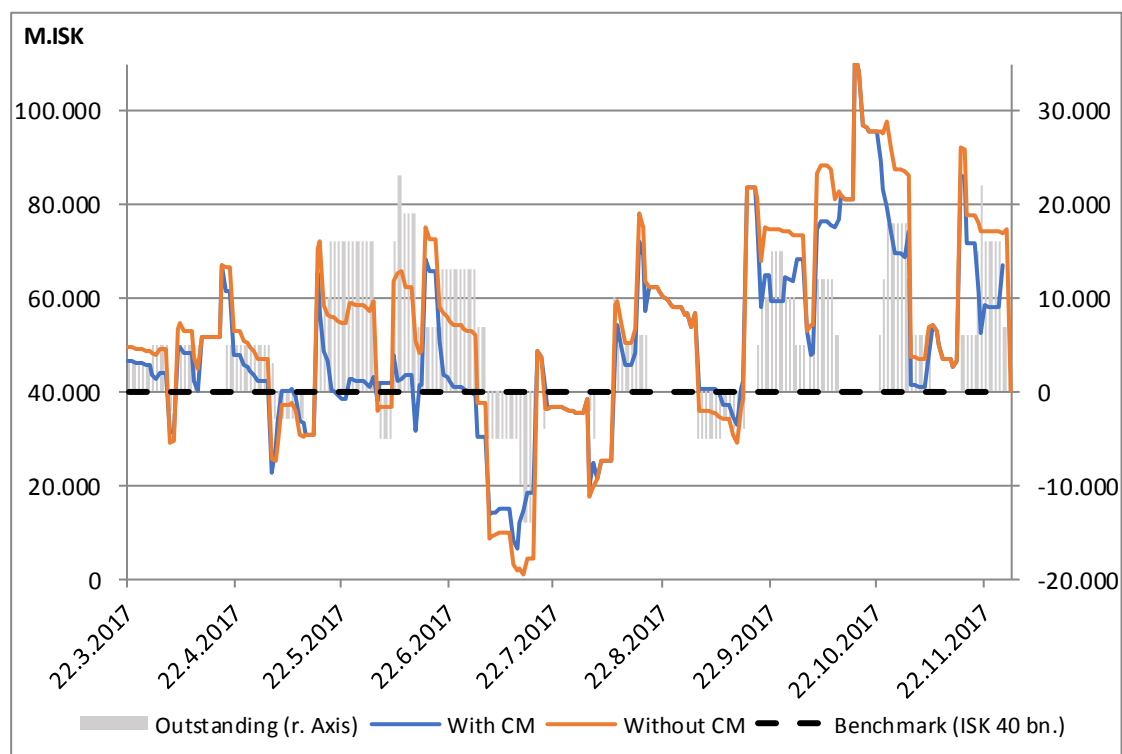


Chart 1

There is much to be gained by developing methods to achieve more efficient use of capital, and at the same time, there is increased security in being able to take short-term loans if the cash balance is too low.

2.3 Structure of Government securities

This section focuses on the structure and set-up for issuance of Government securities in the domestic market.

2.3.1 Structure of benchmark series

Benchmark series will be structured so that each series is large enough to ensure effective price formation in the secondary market. The number and size of the series shall take account of Treasury debt. Each year, effective price formation for two-, five-, and ten-year benchmark bonds will be ensured.

By definition, when a ten-year series is first auctioned, it will mature after approximately eleven years. Bonds will be sold in the series until nine years remain to maturity, whereupon issuance is suspended. The bond is reopened at about six years to maturity and is offered for sale until about four years remain to maturity (five-year series). Finally, the bond is reopened at two years

to maturity (two-year series). Effective price formation will be ensured in series falling under the two-, five-, and ten-year benchmark series categories each year, and each year's issuance in each series will be determined by current financing needs and the size of the series concerned. Nominal and inflation-indexed Treasury bonds with other maturities will be issued irregularly, depending on the Treasury's financing need and the conditions prevailing at the time.

The goal is for each series to have a final size of ISK 40-70 bn, except for two-year bonds, whose minimum final size will be ISK 15 bn. Attempts will be made to expedite the build-up of the series until they reach a size sufficient to ensure effective price formation in the secondary market. The size of bond series will also be determined by the Treasury's financing need at any given time. This goal pertains primarily to issuance of new series, although efforts will be made in coming years to adapt outstanding series to it if the opportunity presents itself.

Treasury bills will be issued for up to six months, with the final maturity to be announced in the issuance calendar for each year. Monthly issuance of Treasury bills will vary, depending on investor demand and the Treasury's financing need at any given time. With more active liquidity management, there is the possibility that the Treasury will issue shorter bills in order to address fluctuations in its current account.

Benchmark issuance

Series	Maturity	Issuing amount	Frequency of issue
Treasury bills	Up to 6 months	Variable	Variable
Nominal Treasury bonds	2 years	ISK 40-70 billion if initially issued with a longer maturity; ISK 15-70 billion if issued for only 2 years	Annually
Nominal Treasury bonds	5 years	ISK 40-70 billion	Annually
Nominal Treasury bonds	10 years	ISK 40-70 billion	Annually
Nominal Treasury bonds	Other	ISK 40-70 billion	Irregular
Inflation-linked Treasury bonds	Other	ISK 40-70 billion	Irregular

Table 2

2.3.2 Treasury bond issuance from 2018 onwards

According to the National Budget, issuance for 2017 was estimated at ISK 45 bn. An example of Treasury bond issuance in coming years is shown in Table 3. It should be noted that the table is only for illustrative purposes, and actual issuance plans may be subject to change. The table includes Treasury securities already issued, with the identifier codes of the series concerned. The identifier RB 17 0206 means that the bond is a nominal bond maturing on 6 February 2017. For Treasury bonds that have not yet been issued, the first number indicates the maturity year and the second number indicates the length of the bond; i.e., two-, five-, or ten-year benchmark series. The shaded cells show when the series are open. Issuance in series with other maturities will be irregular, depending on the Treasury's financing need and investor demand.

Sample issuance calendar

Year	2017	2018	2019	2020	2021	2022	2023	2024	2025
	RB	RB	RB	RB	RB	RB	RB	RB	RB
0	17 0206	18-2 yr	19 0226	20 0205	21-2 yr	22 1026	23-2 yr	24-2 yr	25-2 yr
1	18-2 yr	19 0226	20 0205	21-2 yr	22 1026	23-2 yr	24-2 yr	25 0612	26 0612
2	19 0226	20 0205	21-2 yr	22 1026	23-2 yr	24-2 yr	25 0612	26 0612	26 0612
3	20 0205		22 1026			25 0612			28-5 yr
4		22 1026			25 0612			28-5 yr	
5	22 1026			25 0612			28-5 yr		
6			25 0612			28-5 yr			31 0124
7		25 0612			28-10 yr			31 0124	
8	25 0612			28-10 yr			31 0124		
9			28-10 yr			31 0124			34 - 10 yr
10		28-10 yr			31 0124			34 - 10 yr	
11	28-10 yr			31 0124			34 - 10 yr		

Treasury bond 2 yr
 Treasury bond 5 yr
 Treasury bond 10 yr

Table 3

2.3.3 Redemption profile

One of the objectives of Treasury debt management is to ensure that the redemption profile of Treasury securities is as even as possible. In order to reduce refinancing risk, the aim is to keep the size of each series at or below ISK 70 bn upon maturity. Until 2016, the maximum size of each series was set at ISK 100 bn. In view of the significant reduction in the Treasury’s domestic issuance need, which stems both from improved performance and from irregular revenues that will be used to pay down debt, the maximum size of each series has been lowered to ISK 70 bn; instead, the emphasis on ensuring price formation with two-, five-, and ten-year benchmark series will continue. The new maximum size applies primarily to new benchmark series, although attempts will be made in coming years to reduce the size of outstanding bonds with buybacks and exchange auctions to the extent that market conditions permit. Figure 2 shows the redemption profile of domestic liabilities at year-end 2016, excluding Treasury bills.

Domestic redemption profile

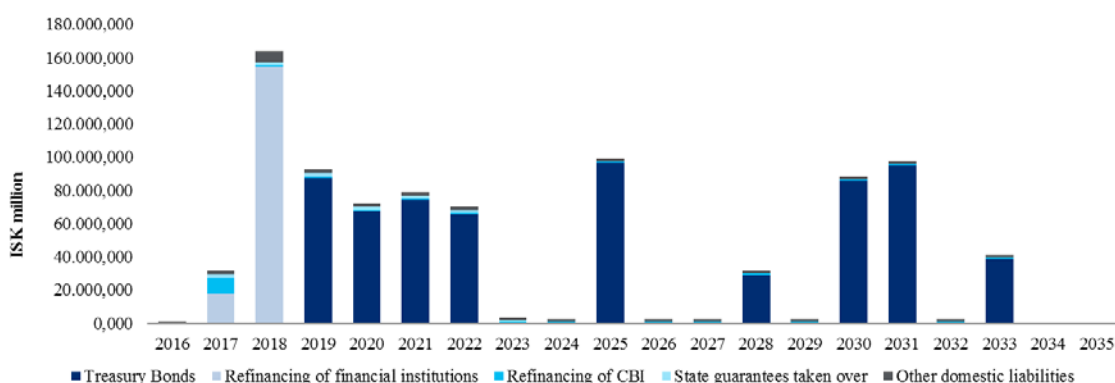


Chart 2

In 2008, the Treasury issued a five-year inflation-indexed bond to recapitalise the Central Bank of Iceland after the collapse of the banks. The bond was later converted to a nominal amortisation bond. The outstanding balance was ISK 28.5 bn at the end of 2016 and ISK 18.5 bn at the time the spring plan was issued. The bond was paid off in full at the end of May.

The Treasury's largest single maturity is in 2018, when RIKH 18 1009 matures. The series, a special issue undertaken to capitalise the financial institutions, is offset by share capital. The outstanding balance of the bond was ISK 171.7 bn at the end of 2016. In the coming term, it is planned to continue reducing it prior to maturity so as to reduce refinancing risk.

3 Foreign bond issuance

New Treasury loans taken in foreign currencies are used primarily to expand the Central Bank's foreign exchange reserves or to refinance outstanding market issues. The structure of Treasury debt provides the flexibility to borrow funds in foreign currencies and requires that foreign debt constitute 10-20% of the loan portfolio. The need for foreign borrowings is met as it occurs, and when decisions are made, it is important to consider exchange rate risk, but also the Treasury's role in ensuring that Iceland has access to foreign capital markets.

The strategy for foreign debt financing aims at maintaining regular access to international credit markets and facilitating access to a diverse investor group. To this end, the Treasury aims to issue bonds in foreign markets on a regular basis. The main purpose of such issuance is to refinance outstanding marketable instruments. However, the flexibility for foreign borrowing provides an opportunity to finance specific projects in the future or to use the funds for a specific purpose. Government issuance in foreign markets facilitates domestic firms' access to foreign credit and provides an important benchmark for borrowing terms. The aim is to maintain 1-2 such benchmarks in foreign bond issues if market conditions and the Treasury debt position permit. Regular issuance of marketable bonds in the international capital markets is also intended to enhance name recognition of the Republic of Iceland as an issuer.

At the beginning of this year, there were two outstanding foreign Treasury bonds: a USD 1 bn bond maturing in 2022 and a EUR 750m bond maturing in 2020.

3.1 Deposits

The Treasury's foreign deposits amounted to ISK 186 bn at the end of 2015. They are part of the Central Bank's foreign exchange reserves. It has been considered necessary to maintain large reserves in view of the risk that could accompany liberalisation of the capital controls. The Central Bank's non-borrowed reserves have grown substantially in the recent past, and foreign capital inflows have been strong. Because of this, it was possible to take the next step in liberalising the capital controls; i.e., lifting controls on residents. Since that step was taken in March 2017, there has been no significant pressure on the capital account in the form of sizeable outflows of foreign currency. With the liberalisation of the capital controls, the need for sizeable foreign exchange reserves will diminish in the coming term.

3.2 Redemption profile

Figure 2 shows the redemption profile of Treasury foreign debt as of end-2016. The largest maturities in coming years are in 2020 and 2022. The Government's foreign loans consist of two market issues, one in US dollars (from 2012) and the other in euros (from 2014). The Treasury buyback of US dollar bonds, which took place after the publication of the fiscal plan, is discussed in Section 4.1.2.

Foreign redemption profile

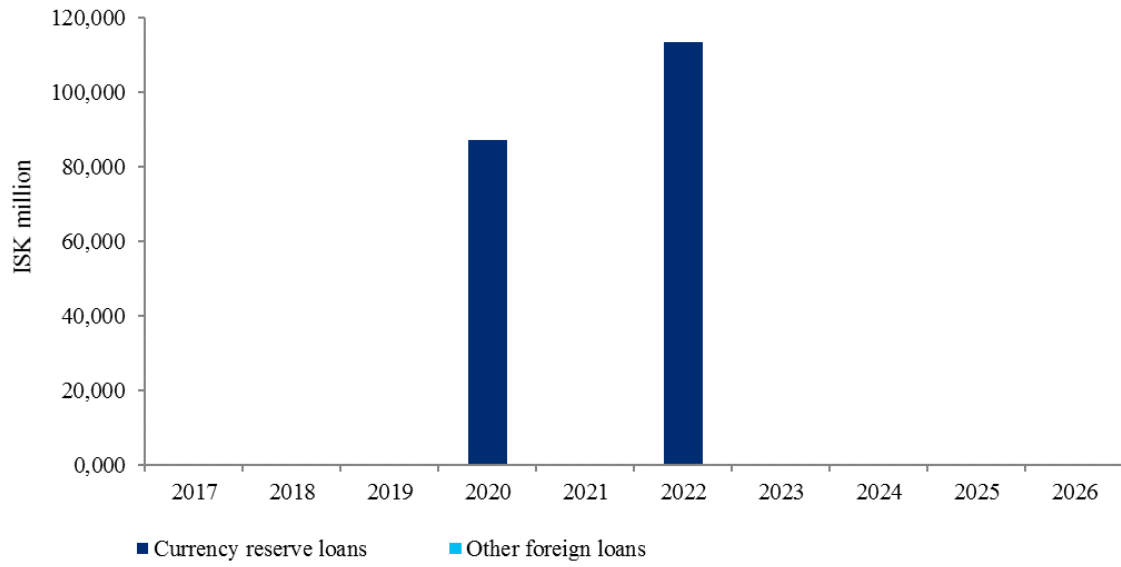


Chart 3

4 Treasury debt position

This section describes the Treasury debt position and loan portfolio structure as of end-2016. It also reviews the debt repayment profile and provides information on the Treasury's investor base. Figure 3 shows developments in the Treasury's debt and debt ratio, net of pension liabilities, from 2009-2016, and outlines expected developments through 2022. It closes with a discussion of deviations from the fiscal plan presented this past spring.



Chart 4

4.1 Treasury debt statistics

Treasury debt totalled ISK 1,128 bn at year-end 2016, or about 46% of GDP. The aim is to reduce it in stages to less than 30% of GDP by year-end 2021. The long-term target is to keep it below 25% of GDP. Table 4 gives a breakdown of Treasury debt at year-end 2016.

Net debt amounted to 25% of GDP at end-2016. The aim is to reduce it to below 20% of GDP in the next few years. Net debt consists of total debt excluding interest-bearing assets, receivables, and cash.

Article 7 of the Act on Public Sector Finances, no. 123/2015, stipulates that the objectives of fiscal policy and fiscal planning concerning the public sector's performance and balance sheet shall satisfy certain conditions. One of them is that total debt, excluding pension obligations and accounts payable and net of cash balances and deposits, may not exceed 30% of GDP. If the debt ratio according to the fiscal rule rises above 30%, the excess portion must decline by an average of at least 5% ($1/20$) per year over each three-year period. At the end of 2016, the general government debt ratio was 41%. It is assumed that it will fall rapidly in coming years, however, as Treasury debt is paid down. According to the fiscal plan, the 30% target will be reached by year-end 2019.

Treasury debt at year-end 2016

		<i>Amounts in ISK m</i>
Domestic		
<i>Marketable bonds</i>		
Treasury bills		19,440
Treasury bonds, inflation-linked		202,523
Treasury bonds, nominal		454,411
Recapitalisation of financial institutions		171,714
 <i>Non-marketable debt</i>		
Recapitalisation of Central Bank		28,500
Other domestic liabilities		49,934
Domestic liabilities, total		926,522
 Foreign loans		
<i>Foreign reserve loans</i>		
Foreign reserve loans		201,949
Other foreign loans		
Foreign liabilities, total		201,949
		Total liabilities
		1,128,471

Table 4

4.1.1 Domestic borrowing

Marketable securities include Treasury bills, indexed and nominal Treasury bonds, and a special benchmark bond issued to finance capital injections and subordinated loans to financial institutions. The special issue matures in 2018, and the outstanding amount at year-end 2016 was approximately ISK 172 bn. This series bears variable interest in order to reduce the interest rate risk on the banks' liabilities. As of year-end 2016, outstanding marketable securities totalled ISK 668 bn.

Non-marketable securities include the five-year inflation-indexed Treasury bond issued to recapitalise the Central Bank of Iceland after the collapse of the banks in 2008. The outstanding balance of the bond was ISK 28.5 bn at year-end 2016, and the bond was paid off in full in spring 2017. In addition to these loans is other non-marketable debt, which is due in large part to the Treasury's acquisition of Reykjavik and Akureyri's stakes in the National Power Company of Iceland (Landsvirkjun). The Treasury's issue in connection with the acquisition of Landsvirkjun is an indexed annuity bond maturing in 2034. At year-end 2016, other outstanding non-marketable securities totalled ISK 50 bn.

4.1.2 Foreign loans

At the time the fiscal plan was issued, foreign loans taken by the Treasury to strengthen the Central Bank's foreign exchange reserves consisted of two market issues, one in US dollars and the other in euros. In 2014, the Treasury issued a foreign-denominated bond in the amount of EUR 750 m. The proceeds of the issue were used to prepay the outstanding balance of the bilateral loans from the Nordic countries. About 60% of the principal had been paid in 2012.

In 2011, the Treasury re-established its access to foreign credit markets with the issuance of a USD 1 bn bond with a five-year maturity. That bond matured in 2016 and has been paid in full. In 2012 it reconfirmed its market access with another issue, also for USD 1 bn, but with a ten-year maturity. This past spring, following the issuance of the fiscal plan, the Treasury bought back a large share of the 2012 issue, or USD 877 m nominal value. In the autumn, the Treasury bought an additional USD 31 m, leaving the outstanding balance of the bond at USD 92 m as of end-2017.

4.1.3 Treasury debt structure

Figure 4 shows marketable and non-marketable Treasury debt as of year-end 2016, including loans taken to expand the foreign exchange reserves. The debt falls into three categories: nominal (59%), inflation-indexed (18%), and foreign-denominated (23%). As is discussed in Section 4.1.2, the Treasury paid off a large share of its foreign debt during the spring; therefore, the share of foreign debt has fallen and will be 11% at the end of the year.

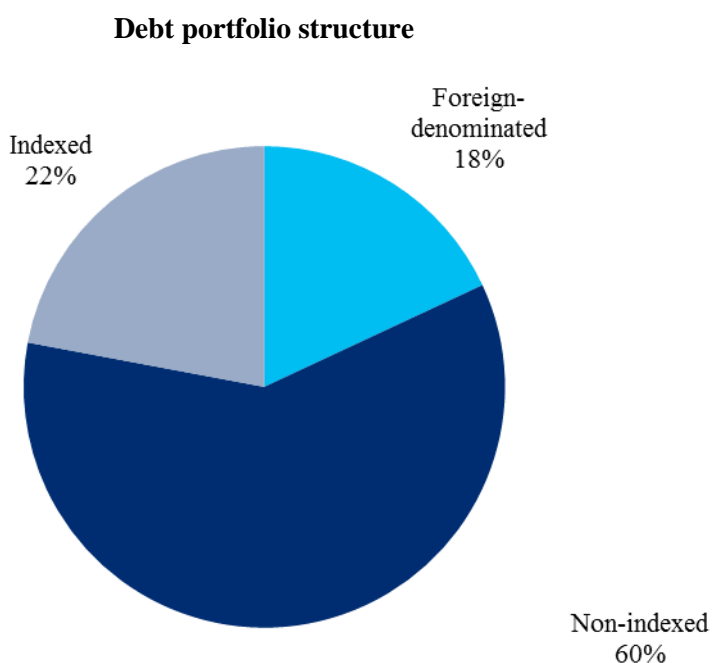


Chart 5

4.1.4 Redemption profile

Figure 5 shows the redemption profile for Treasury debt as of year-end 2016, together with assumptions in the National Budget for 2017. The largest maturity dates are in 2018, 2020, and 2022.

Redemption profile, Government loans

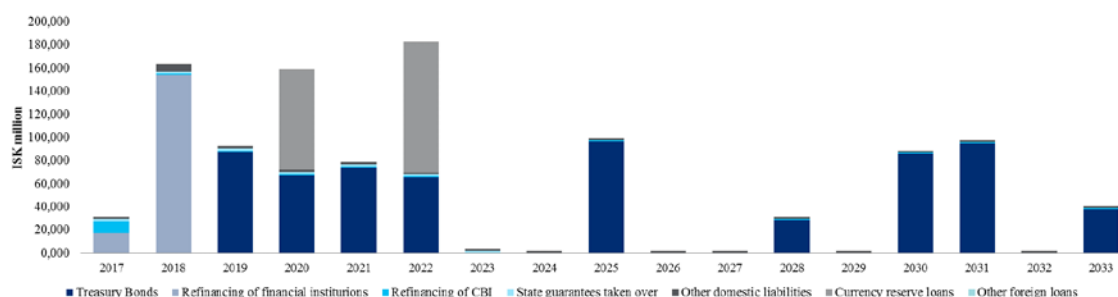


Chart 6

4.1.5 Average time to maturity

The aim is to maintain an average weighted time to maturity of five to seven years for Treasury securities. The average duration is managed with issuance of securities of varying maturities. If domestic market conditions permit, it is also possible to use interest rate swaps and buybacks and/or hold exchange auctions to ensure that the average time to maturity remains within the defined guidelines. As of year-end 2016, the average time to maturity was 6.3 years.

4.2 Investors in domestic Treasury securities

The Treasury issues Government securities with various maturities. The objective is to appeal to a broad base of investors and minimise financing costs. Figures 6 and 7 give a breakdown of the holders of domestic Treasury bonds and bills as of year-end 2016.¹

Owners of Treasury securities

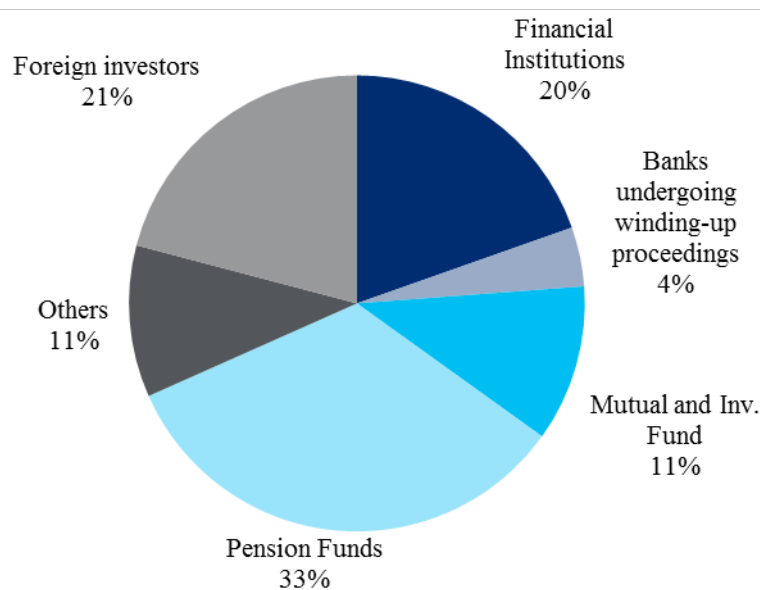


Chart 7

¹ The breakdown of Treasury bond owners includes securities loans.

Chart 6

Pension funds, foreign entities, and financial institutions owned four-fifths of domestic Treasury securities, holding 33%, 21%, and 20%, respectively, of outstanding Treasury securities at the end of 2016. The pension funds' holdings were largely in longer securities: RIKB 25, RIKB 31, and RIKS 30. Foreign investors' holdings are mainly in RIKB 19, RIKB 25, and Treasury bills. The financial institutions' largest asset is RIKH 18 1009, the bond issued to recapitalise the new banks. Mutual funds and investment funds own about 11% of domestic Government securities, and other investors own about 11%.

Owners of Treasury securities

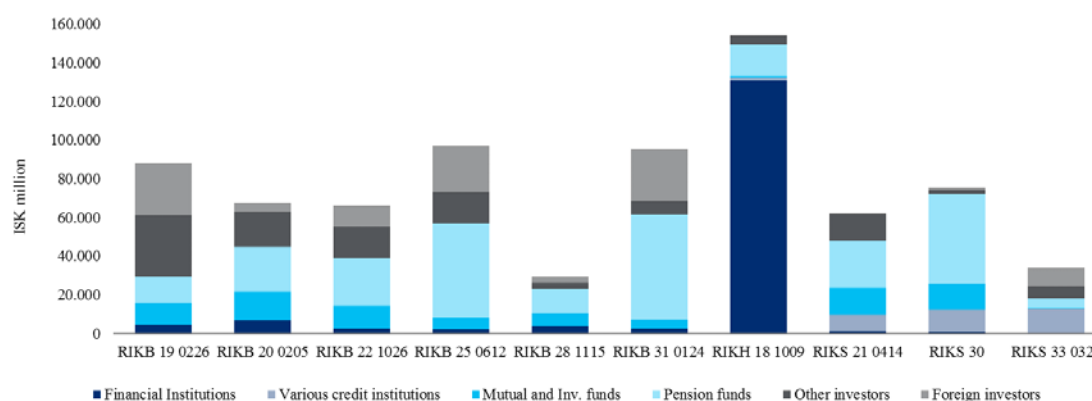


Chart 8

4.3 Stability contributions and allocations towards reduction of debt

The composition agreements of the failed banks' estates were all confirmed at the end of 2015 and in early 2016, and in all instances the conditions for the stability contributions were satisfied. An agreement was made with five estates for the payment of a stability contribution to the Treasury. The stability contributions made by the estates can be classified broadly as liquid assets, transferred assets, and cash sweep assets, plus the holding in Íslandsbanki and a bond with collateral in Arion Bank. Lindarhvoll ehf., a company established by the Ministry of Finance and Economic Affairs, oversees the administration, appropriation, and sale of assets other than the holding in Íslandsbanki. The assets must be processed by end-2018, but estimates are that Lindarhvoll's activities will be largely completed by the end of 2017. Revenues from the stability contributions are used to reduce Treasury debt, upon consultation with the Central Bank, as the measures taken must not increase the money supply or jeopardise financial stability. Transferred assets are assets that the Treasury received upon confirmation of the composition agreements. They include listed and unlisted equity and debt securities, loan assets, and other financial claims. Cash sweep assets will be in the custody and administration of the estates. As these assets are processed and sold, the proceeds will revert in cash to the Treasury's account with the Central Bank.

The stability contributions are assessed at ISK 384 bn. The largest single asset is the holding in Íslandsbanki, with an assessed value of 185 bn. The bond issued by Kaupthing to the Treasury, with collateral in shares in Arion Bank, is valued at ISK 84 bn. By law, the stability contributions are intended first to cover the revoked bank tax, which would otherwise have been levied on the estates, in the amount of ISK 34 bn for 2016 and 2017. The remainder, together with other revenues that accrue from assets in coming years, will be used to pay down Treasury debt, as is provided for in the Act on a Stability Tax, no. 60/2015. Deposits to the Treasury's stability account have totalled just over ISK 140 bn since the beginning of 2016. Of that total,

ISK 34 bn have been used to cover lost bank tax and another ISK 110 bn to pay down Treasury debt. The Central Bank of Iceland bond was paid off in the spring, and just over ISK 80 bn have been used to buy back RIKH 18.

With the allocation of stability contributions towards debt reduction, the Treasury's debt ratio will improve markedly in coming years. Other things being equal, this can be assumed to have a positive impact on credit ratings. Moody's upgraded the sovereign by two notches in early September 2016. Other credit rating agencies have also upgraded the sovereign this year. The reduction of debt will also have a favourable impact on the Treasury's interest expense, which is still onerous, although it will decline in coming years, according to the fiscal plan. Reducing interest expense will provide the scope to allocate funds differently in the future.

The objectives of the fiscal plan assume that all irregular Treasury revenues will be used to reduce debt. If additional irregular revenues should accrue – such as from asset sales – this will provide even greater scope to reduce debt, thereby reducing interest expense.

5 Risk management

The debt portfolio has certain inherent risks related to market volatility, such as changes in the interest rate, exchange rate, and inflation, and additional risks related to contingent liabilities. There is also substantial refinancing risk in the current portfolio. The management of these risks is covered in this section.

5.1 Market risk

Financial market volatility, whether due to fluctuations in interest rates, exchange rate movements, or changes in inflation, results in fluctuations in the market value of the debt portfolio. These risks, generally referred to collectively as market risk, are discussed in greater detail in the following sections.

Effective risk management aims to reduce risk while simultaneously minimising the interest expense of the portfolio. These goals can be achieved through effective Treasury debt management and targeted use of derivative products.

5.1.1 Interest rate risk

Interest rate risk is the risk that the Treasury's financing costs will rise due to changes in interest rate terms. Interest rate risk depends on the structure of the debt portfolio. Variable interest rates create the risk that interest rates will rise, thus increasing the Treasury's interest expense. Fixed interest rates on long-term loans create the risk that the Treasury will not benefit from the savings that would accrue in the event of a reduction in market rates.

Figure 9 shows the interest rate composition of the debt portfolio as of end-2016. The majority of domestic and foreign Treasury bonds (about 72%) bear fixed interest rates, and their payment flows are known throughout their duration. Approximately 28% of the total debt portfolio bears variable rates; therefore, payment flows will change in line with changes in the base interest rate on the loans concerned. Interest rate swaps can be used in order to manage the Treasury's interest rate risk and, for instance, increase the weight of variable-rate debt.

Interest rate composition – year-end 2016

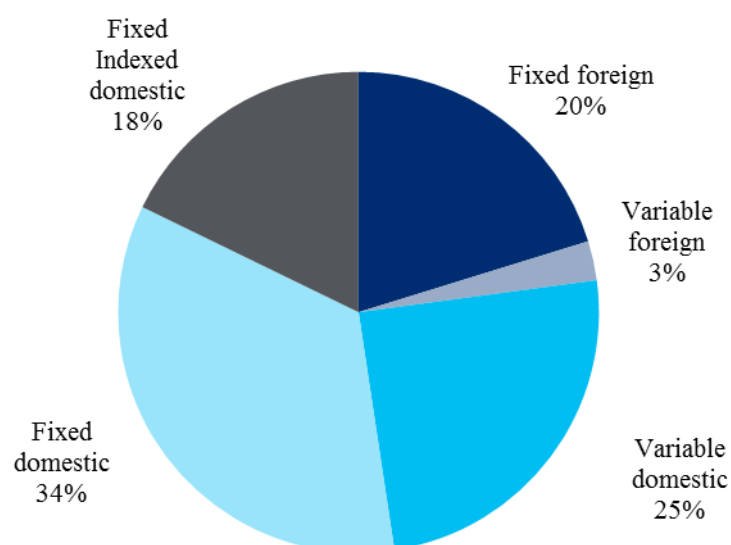


Chart 9

5.1.1.1 Interest rate swaps

The objective of Treasury debt management is to minimise long-term interest expense while pursuing a prudent risk policy. Interest rate swaps can serve as a means of minimising interest expense. Domestic market agents have shown some interest in having the Treasury take the initiative in this area, as it would enable them to diversify their offerings to individuals and companies to include non-indexed interest rates on longer-term products.

Given that the intention is to retire the Central Bank of Iceland bond and RIKH 18 in coming years, the need to issue interest rate swaps has increased significantly. With the retirement of these loans, the share of variable interest rates in the Treasury portfolio falls from 28% to 3%. With interest rate swaps, it is possible to affect the Treasury's interest expense, the ratio of variable to fixed interest rates, and the weight of indexation in the portfolio, as well as steering the duration of the portfolio. In MTDSs issued in recent years, it has been stated that the Treasury may use such swaps if it is considered beneficial for the Treasury. The Treasury concluded a swap agreement for fixed versus variable interest in connection with the eurobond issue in summer 2014, but this is its only outstanding interest rate swap agreement. In view of recent developments in foreign interest rates, this has proven to be a success.

It has been decided to begin preparations for the issuance of interest rate swap agreements in the domestic market in coming months. The agreements will be managed by Government Debt Management. The Treasury will be authorised to conclude such agreements for up to ISK 20-40 bn per year. The main objective with the agreements is to manage the Treasury's interest rate risk. Decisions on issuance will be determined by market conditions at any given time.

5.1.2 Exchange rate risk

Exchange rate risk is the risk that the Treasury's debt position will deteriorate due to changes in the exchange rate of the Icelandic króna versus other currencies. The Treasury's direct exchange

rate risk is limited because the foreign currency and foreign-denominated bonds it owns offset foreign Treasury debt. The foreign exchange reserves are actively managed according to set currency composition guidelines. The Central Bank attempts to minimise the exchange rate risk attached to the reserves.

5.1.3 Inflation risk

Inflation risk is the risk that indexation on index-linked Treasury bonds will raise the Treasury's financing costs as a result of increased inflation. At year-end 2016, the Treasury's indexed debt amounted to ISK 203 bn, or around 18% of its debt portfolio.

Inflation risk can be managed with derivatives. The share of inflation-indexed debt in the overall portfolio is deliberately kept low due to the risk that inflation will rise if the króna should depreciate when the capital controls are lifted. It should be borne in mind, however, that the Treasury holds a number of inflation-indexed assets, such as loans to the Icelandic Student Loan Fund. This mitigates inflation risk to some extent.

5.2 Refinancing risk

One of the greatest risks to the debt portfolio centres on refinancing. To reduce refinancing risk, the Ministry of Finance and Economic Affairs aims to keep the redemption profile of Government securities as smooth as possible over the long term.

The largest Treasury bond maturities in the years to come – and therefore the greatest refinancing risk in the portfolio – will be in 2018, 2020, and 2022, as is mentioned above. Work will be done to reduce refinancing risk with buybacks or exchange auctions prior to maturity.

5.3 Contingent liabilities

Contingent liabilities are financial obligations that could fall on the Treasury; for example, due to State guarantees or administrative decisions that entail involvement in the financing of municipalities or corporations that are of key importance in Icelandic society. The scope of this risk is discussed in Sections 7.3.1 – 7.3.3.

5.3.1 State guarantees

State guarantees represent the Treasury's greatest indirect liability. State guarantees are governed by Act no. 121/1997. The Treasury may not grant State guarantees without statutory authorisation from Parliament.

State guarantees and related matters are administered by the State Guarantee Fund, which compiles information on the position of the undertakings benefiting from guarantees and assesses the risk attached to the guarantees. The Central Bank oversees State guarantees according to an agreement with the Ministry of Finance and Economic Affairs. The State

Guarantee Fund notifies the Ministry of Finance and Economic Affairs if a guarantee is likely to fall on the Treasury. Table 5 shows the status of State guarantees at the end of December 2016.²

State guarantees, year-end 2016

Year end 2015	ISK million	%
Housing Finance Fund (HFF)	821.180	79%
Landsvirkjun	195.048	19%
Others	22.949	2%
Total	1.039.177	

Table 5

5.3.1.1 Housing Financing Fund (HFF)

The Housing Financing Fund (HFF) operates in accordance with the Act on Housing Affairs, no. 44/1998. With statutory amendments and changes in the authorities' focus, the Fund's role was changed from being primarily a lending institution to being an agency responsible for administering housing affairs. The Fund was in severe difficulties during the aftermath of the financial crisis, and the Treasury had to contribute ISK 52 bn in capital to strengthen its capital ratio. The HFF's operating performance has improved vastly with improved economic conditions, and its capital ratio is now at an all-time high of 7.3%, well above the targeted minimum. If the capital ratio is low, the HFF has more difficulty responding to risks in its operations, and the Treasury's financial risk will be greater as a result. The risks facing the HFF are credit risk, prepayment risk, liquidity risk, interest rate risk, inflation risk, refinancing risk, and operational risk. Of these, credit risk is the most important, owing to the risk of default. In the recent term, prepayments of outstanding loans from the Fund have subsided. The Fund cannot pay off the debt offsetting these prepayments; therefore, the risk lies in investing liquid assets in order to generate acceptable returns. In most instances, prepayment of HFF loans has a negative impact on the Fund's interest rate differential, and therefore on its performance. The HFF's operating results for 2016 were positive in the amount of ISK 4.2 bn. Total assets amounted to ISK 787 bn at the end of the period, including issued loans amounting to ISK 578 bn. Its capital totalled ISK 23.5 bn at the end of June. Interest-bearing assets outside the loan portfolio, including liquid assets, increased between years, to ISK 197 bn at the end of 2016. The HFF's position has been improving in recent years, and it is not deemed likely that the Fund will need further capital contributions in the years to come.

5.3.1.2 Landsvirkjun

Landsvirkjun's operations have been successful in the recent term. The company's equity ratio has strengthened in recent years and is now close to a historical high, at 45.4%. Its net liabilities have declined significantly since 2012, and this, together with improved borrowing terms, have had a positive impact on its performance. Its net debt totalled USD 1,960 million at the end of 2016. In recent years, Landsvirkjun's financing has been without a Treasury guarantee, and its older debt, which does still bear a guarantee, is rapidly declining as debt is paid off. The company's profit before depreciation and financial items totalled USD 302 m in 2016, and cash

² Market Information, February 2017. (<http://www.lanamal.is/en/news/market-information>)

from operations amounted to USD 230 m. Landsvirkjun's financial risk consists of market risk, liquidity risk, and counterparty risk. Its market risk is primarily of three types, relating to developments in aluminium prices, interest rates, and currency exchange rates. The company has worked systematically to reduce its market risk through derivatives contracts, modifications to the loan portfolio, and amendments to electrical energy contracts. Its counterparty risk is primarily due to electrical energy contracts with manufacturers and derivatives contracts entered into for hedging purposes. The risk is limited by the company's requirements concerning counterparty quality.

5.3.2 Municipalities

While there is no legally mandated State guarantee on local authorities' debt, their financial position could generally threaten individual their ability to carry out their tasks, and their overall debt level poses a risk to the economy and the Treasury. The high level of indebtedness and weak financial position of some municipalities therefore gives cause for concern.

In 2011, Parliament passed the Local Government Act, which provides for increased discipline and sets clearer rules for local authorities' finances, as well as requiring increased supervision and information disclosure on financial affairs. First of all, the new legislation stipulates that municipal consolidations' combined Part A and Part B revenues and expenditures must be in balance over each three-year period. Second, total debt and obligations may not exceed 150% of revenues. It is clear that many municipalities will need several years to adapt their debt position to this maximum. The Act provides for a maximum adaptation period of ten years. It is important that the municipalities use this time well so that their finances become sustainable as soon as possible. According to the Act, decisions on municipal investment, development, or other contractual obligations exceeding 20% of the current year's tax revenues are subject to an impartial appraisal of the impact on the municipality's financial position.

The aim of the Act on Public Sector Finances, no. 123/2015, is to promote sound economic policy and strong, responsible management of public sector finances. The Act entails significant changes, and the public sector must comply with a fiscal rule that applies to both the overall balance and public sector debt.

5.3.3 Public-private partnerships

Public-private partnerships can entail financial risk for the Treasury, even in the absence of a State guarantee. Public-private partnerships are governed by the Regulation on Service Agreements, no. 343/2006. The purpose of the Regulation is to define the role and responsibilities of entities that manage long-term projects for individual ministries and public institutions. According to the Government Financial Reporting Act, agreements of this kind must be approved by Parliament. While such partnerships usually represent little direct financial risk for the Treasury, circumstances can develop where the projects need capital in excess of current budgetary allocations. The main public-private partnerships currently underway are the operation of the Harpa Concert and Conference Centre and the construction of the Vaðlaheiðargöng tunnel.

6 Institutional structure

In each year's National Budget, Parliament authorises the Ministry of Finance and Economic Affairs to borrow funds and issue State guarantees. The Act on Government Debt Management stipulates that the Ministry is responsible for and implements debt management and State guarantees. The Ministry has also concluded an agreement with the Central Bank of Iceland, providing for specified advisory services and execution in connection with Treasury debt management. The agreement contains explicit provisions on division of tasks and responsibilities so as to ensure that debt management decisions are taken independent of the Central Bank's monetary policy.

6.1 Ministry of Finance and Economic Affairs

The Ministry of Finance and Economic Affairs oversees Treasury debt management. It takes decisions on issuance volume, planned bond auctions, and liquidity management. It also determines yields and amounts of accepted bids in Treasury auctions. Moreover, the Ministry determines the structure, maturity, and characteristics of new issues, as well as deciding on buybacks and/or swap agreements.

6.2 Central Bank of Iceland

The Ministry of Finance and Economic Affairs and the Central Bank of Iceland have concluded an agreement providing for specified advisory services and execution in connection with Treasury debt management.³ The purpose of the agreement is to promote more economical, efficient, and effective debt management based on the Ministry's debt management strategy.

A special department within the Central Bank of Iceland, Government Debt Management, is mandated by the Ministry of Finance and Economic Affairs to handle Treasury debt management in accordance with guidelines adopted by the Ministry. Government Debt Management is responsible for ensuring that borrowing and debt management are in compliance with the strategy set out by the Ministry.

Government Debt Management also administers State guarantees and assesses the Treasury's risk due to such guarantees. It provides the Ministry with opinions on State guarantees and grants them if authorised by Parliament.

On behalf of the Ministry of Finance and Economic Affairs, Government Debt Management handles the regular disclosure of information on the Treasury's domestic and foreign liabilities to market agents, and publishes information on auction dates and planned issuance volume for the year based on the Treasury's estimated financing need. It also issues press releases on debt management on behalf of the Ministry of Finance and Economic Affairs.

6.3 Consultative Committee on Debt Management

The Ministry of Finance and Economic Affairs appoints a Consultative Committee on Debt Management whose members represent the Ministry and the Central Bank.

³ The Government Debt Management Agreement of 18 October 2010, based on the agreement of 4 September 2007.

The Consultative Committee serves as a forum for the exchange of views on the situation and outlook for capital markets, and on the Treasury's domestic and foreign borrowing and borrowing plans. It is intended to encourage improvements in the domestic credit market as it deems appropriate.

The Committee makes proposals to the Ministry of Finance and Economic Affairs on the structure of individual bond series and their maturity and volume, as well as arrangements for market making and auctions. It also proposes risk management guidelines for the Treasury's domestic and foreign debt portfolios. The Committee discusses and adopts proposals for the Treasury's issuance schedule in domestic and foreign markets. The schedule specifies the issuance volume, issuance dates, and planned borrowing actions for the year. It must be approved by the Ministry of Finance and Economic Affairs and is then announced to market agents. The Committee meets on a regular basis, or as often as is deemed necessary.

7 Information disclosure to the market

The Ministry of Finance and Economic Affairs and Government Debt Management attempt to maintain effective communication with market participants through regular information disclosure and meetings with primary dealers and investors. All news releases are published on the NASDAQ Iceland Exchange and Bloomberg and are distributed to the media and market agents. The exchange uses the data vendor GlobeNewsWire to distribute press releases to foreign media and market participants.

Publications on debt management issued by the Ministry of Finance and Economic Affairs and Government Debt Management include the following:

- Medium-Term Debt Management Strategy
- Annual Government Debt Management Prospect
- Quarterly Government Debt Management Prospect
- Auction announcements
- Planned auction dates
- Market Information

7.1 Medium-Term Debt Management Strategy

The Ministry of Finance and Economic Affairs prepares the Medium-Term Debt Management Strategy (MTDS), which is revised and published annually. It includes the following topics:

- Debt management objectives
- Debt management guidelines
- Issuance policy
- Structure of Treasury debt
- Risk management
- Contingent liabilities

7.2 Annual Government Debt Management Prospect

The Annual Government Debt Management Prospect is designed to provide market participants with general information on Treasury issuance for the upcoming year. It is published following parliamentary approval of the National Budget and includes the following information:

- Total issuance volume for the year
- Issuance policy for the year
- Buybacks
- Bond swap auctions

7.3 Quarterly Government Debt Management Prospect

At the end of each quarter, Government Debt Management issues the Prospect for the upcoming quarter. The Quarterly Prospect includes the following information:

- Planned Treasury bond issuance for the quarter

- Planned Treasury bill issuance
- Summary of issuance in the previous quarter
- Actions to be taken in the upcoming quarter

7.4 Auction announcements

Press releases on individual auctions are published by the Nasdaq Iceland exchange at least one business day in advance. The press releases state which series are to be auctioned each time. The results are published after each auction, on that same day.

7.5 Planned auction dates

The planned dates for Treasury bill and Treasury bond auctions are published on the Government Debt Management website each December. This information is also distributed directly to market participants.

7.6 Market Information

Government Debt Management publishes a monthly newsletter entitled Market Information. The newsletter contains important information on Treasury debt and State guarantees. Market Information is distributed to the media and to market participants and is published on the Government Debt Management website. It includes the following information:

- Highlights from the previous month
- Results of Treasury auctions
- Treasury debt statistics
- Position of Treasury benchmark securities
- Structure of Treasury debt
- Redemption profile for Government debt
- Owners of Treasury securities
- Securities loans
- State guarantees

7.7 Government Debt Management website

Government Debt Management publishes a website, www.lanamal.is, which includes information on Treasury debt management, market prices, yields, and historical statistics on Treasury securities, as well as issue prospectuses. The following information can also be found there:

- Medium-Term Debt Management Strategy
- Annual Government Debt Management Prospect
- Quarterly Government Debt Management Prospect
- Auction announcements
- Market Information
- Press releases
- The Republic of Iceland's sovereign credit ratings

Information on Government debt can also be found on the Ministry of Finance and Economic Affairs website: www.fjr.is.

7.8 Primary dealers in Treasury securities

Government Debt Management monitors primary dealers on a daily basis to ensure that they fulfil their market-making obligations in the secondary market. Meetings are held with them at least quarterly, and more often if necessary.

7.9 Investors

Representatives from Government Debt Management and the Ministry of Finance and Economic Affairs meet regularly with investors to acquaint them with points of emphasis in Treasury debt management.