



FJÁRMÁLA- OG
EFNAHAGSRÁÐUNEYTIÐ

MEDIUM-TERM DEBT MANAGEMENT STRATEGY

2019 — 2023

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Medium-Term Debt Management Strategy 2019-2023
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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 Treasury securities | 9 |
| 2.3.1 Structure of benchmark series..... | 9 |
| 2.3.2 Treasury bond issuance from 2019 onwards | 10 |
| 2.3.3 Repayment profile..... | 11 |
| 3 Foreign bond issuance..... | 13 |
| 3.1 Deposits..... | 13 |
| 3.2 Repayment profile | 13 |
| 4 Treasury debt | 14 |
| 4.1 Treasury debt statistics..... | 14 |
| 4.1.1 Domestic borrowing..... | 15 |
| 4.1.2 Foreign debt..... | 15 |
| 4.1.3 Treasury debt structure | 16 |
| 4.1.4 Repayment profile..... | 16 |
| 4.1.5 Average time to maturity | 17 |
| 4.2 Investors in domestic Treasury securities | 17 |
| 4.3 Estates' stability contributions | 18 |
| 4.4 Allocations during the horizon of the fiscal plan | 19 |
| 5 Risk management..... | 20 |
| 5.1 Market risk | 20 |
| 5.1.1 Interest rate risk | 20 |
| 5.1.1.1 Interest rate swaps | 21 |
| 5.1.2 Exchange rate risk | 21 |
| 5.1.3 Inflation risk..... | 21 |
| 5.2 Refinancing risk | 22 |
| 5.3 Contingent liabilities | 22 |
| 5.3.1 State guarantees..... | 22 |
| 5.3.2 Housing Financing Fund | 23 |
| 5.3.3 Landsvirkjun..... | 23 |
| 5.3.4 Municipalities | 24 |
| 5.3.5 Public-private partnerships..... | 24 |
| 6 Institutional structure | 25 |
| 6.1 Ministry of Finance and Economic Affairs | 25 |
| 6.2 Central Bank of Iceland..... | 25 |
| 6.3 Consultative Committee on Debt Management | 26 |
| 7 Disclosure of information to market participants | 27 |
| 7.1 Medium-Term Debt Management Strategy | 27 |

| | | |
|-----|---|----|
| 7.2 | Annual Government Debt Management Prospect | 27 |
| 7.3 | Quarterly Government Debt Management Prospect | 27 |
| 7.4 | Auction announcements | 28 |
| 7.5 | Planned auction dates | 28 |
| 7.6 | Market Information | 28 |
| 7.7 | Government Debt Management website | 28 |
| 7.8 | Primary dealers in Treasury securities | 29 |
| 7.9 | Investors | 29 |

SUMMARY

This Medium-Term Debt Management Strategy for the period 2019-2023 is presented on the basis of the fiscal plan, in accordance with Article 38 of the Act on Public Finances, no. 123/2015. The strategy is to be updated annually. The Medium-Term Debt Management Strategy is set forward over a horizon of five years and is based on the previous Strategy, issued in December 2017.

The Medium-Term Debt Management Strategy 2019-2023 (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 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 2017, gross Treasury debt was equivalent to just under 36% of GDP. The aim is to reduce total debt over the period to approximately 20% of GDP by end-2023. The Treasury's net position — i.e., liabilities net of interest-bearing assets, excluding stability contributions — was negative by about 23% of GDP at the end of 2017. The objective is to reduce the deficit still further during the period, to about -12% of GDP by end-2023. 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 36% of GDP at the end of 2017 to less than 22% of GDP by the end of 2023.

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 replace non-marketable Treasury debt with 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. Treasury loans taken in foreign currencies have been used primarily to expand the Central Bank's foreign exchange reserves or to refinance outstanding market issues.

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

| | |
|------------------|--------|
| Non-indexed debt | 60-80% |
| Indexed debt | 10-20% |
| Foreign debt | 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 2019-2023, the outlook for Treasury performance and economic outlook. In accordance with the fiscal plan for 2019-2023, the targets are as follows:

- The ratio of Treasury debt to GDP shall be around 20% by 2023.
- Total general government debt according to the debt rule in the Act on Public Finances shall be around 22% by the end of 2023.

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, Treasury deposits, 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 premises laid down in the 2018 National Budget for this year and on premises presented by the Ministry of Finance and Economic Affairs in the fiscal plan for 2019-2023.

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 2019-2023. According to the estimates, the net financing balance will be positive in the next few years.

Net borrowing requirement (ISK m)

| 2019 | 2020 | 2021 | 2022 | 2023 |
|--------|--------|--------|-------|--------|
| 11,000 | 11,700 | 78,800 | 5,200 | 10,800 |

Table 1

2.2 Deposits

The Treasury adopted an active liquidity management programme at the beginning of 2017. 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 to maintain a deposit balance of as close to ISK 40 bn as possible at any given time. 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 in connection with liquidity management were made in Q1/2017. Their frequency increased gradually in 2017 but then diminished in 2018 due to market conditions. 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 bills are also issued for liquidity management purposes.

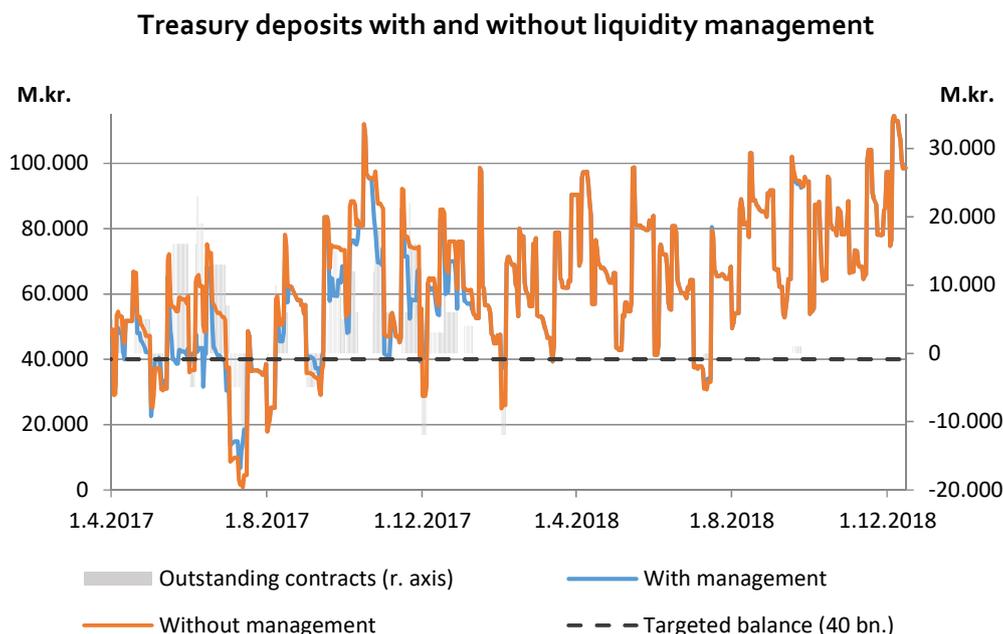


Figure 1

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 Treasury 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 2-, 5-, and 10-year benchmark series categories each year, and each year's issuance in each

series will be determined by current funding 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.

Monthly issuance of Treasury bills will vary, depending on investor demand and the Treasury's financing need at any given time. Treasury bills are used in part for Treasury liquidity management and can be issued at maturities ranging from 1 month to 12 months.

Benchmark issuance

| Category | Maturity | Amount issued | Frequency of issuance |
|------------------------------|------------------|---|-----------------------|
| Treasury bills | up to 12 months | Variable *, depending on current market conditions | Variable |
| Treasury bonds, nominal | 2 yr | ISK 40-70 bn if previously issued for a longer period; otherwise, ISK 15-17 bn if issued for only 2 years | Annually |
| Treasury bonds, nominal | 5 yr | ISK 40-70 bn | Annually |
| Treasury bonds, nominal | 10 yr | ISK 40-70 bn | Annually |
| Treasury bonds, nominal | Other maturities | ISK 40-70 bn | Irregular |
| Treasury bonds, index-linked | Other maturities | ISK 40-70 bn | Irregular |

Table 2

2.3.2 Treasury bond issuance from 2019 onwards

According to the National Budget, issuance for 2018 was estimated at ISK 40 bn. An example of Treasury bond issuance in coming years is shown in Table 3.

Sample issuance calendar

| Year | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
|------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | RB |
| 0 | 18-2 yr | 19 0226 | 20 0205 | 21 0414 | 22 1026 | 23-2 yr | 24-2 yr | 25 0612 | 26-2 yr |
| 1 | 19 0226 | 20 0205 | 21 0414 | 22 1026 | 23-2 yr | 24-2 yr | 25 0612 | 26-2 yr | 27-2 yr |
| 2 | 20 0205 | 21 0414 | 22 1026 | 23-2 yr | 24-2 yr | 25 0612 | 26-2 yr | 27-2 yr | 28 1115 |
| 3 | | 22 1026 | | | 25 0612 | | | 28-5 yr | |
| 4 | 22 1026 | | | 25 0612 | | | 28 1115 | | |
| 5 | | | 25 0612 | | | 28 1115 | | | 31 0124 |
| 6 | | 25 0612 | | | | 28 1115 | | 31 0124 | |
| 7 | 25 0612 | | | 28 1115 | | | 31 0124 | | 33 0321 |
| 8 | | | 28 1115 | | | 31 0124 | | 33 0321 | |
| 9 | | 28 1115 | | | 31 0124 | | 33 0321 | | |
| 10 | 28 1115 | | | 31 0124 | | 33 0321 | | | 36-2 yr |
| 11 | | | 31 0124 | | 33 0321 | | | 36-2 yr | |

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

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 19 0226 means that the bond is a nominal bond maturing on 26 February 2019. 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.

2.3.3 Repayment 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 billion 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, attempts will be made to lower the maximum size of each series to approximately ISK 70 bn; instead, the emphasis on ensuring price formation with two-, five-, and ten-year benchmark series will continue. The new targeted maximum applies mainly to new benchmark series, but in coming years the size of outstanding series will be reduced with buybacks or switch auctions, as market conditions allow. Figure 2 shows the redemption profile of domestic liabilities at year-end 2017, excluding Treasury bills.

Domestic redemption profile

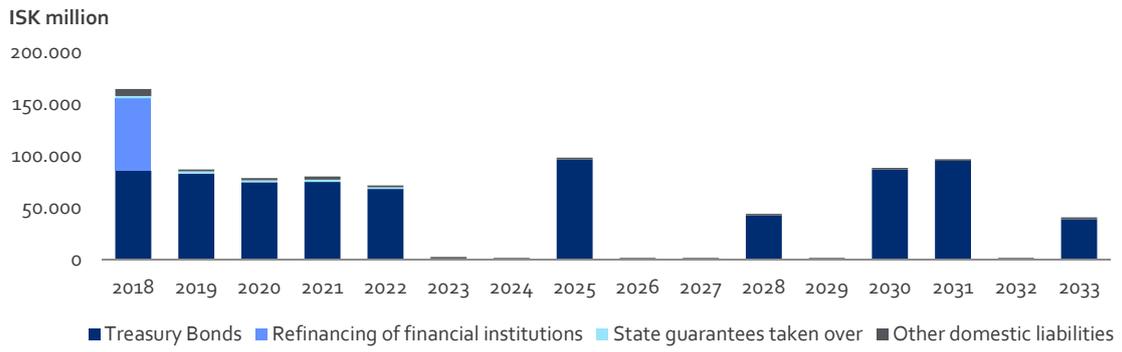


Figure 2

3 FOREIGN BOND ISSUANCE

New Treasury loans taken in foreign currencies have been 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 plans 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 at least one such benchmark 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.

3.1 Deposits

The Treasury's foreign deposits amounted to ISK 81 bn at the end of 2017. They are part of the Central Bank's foreign exchange reserves. 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 in March of last year to take the next step in liberalising the capital controls; i.e., lifting controls on residents. The process of lifting the capital controls on owners of offshore krónur is underway.

3.2 Repayment profile

Figure 2 shows the redemption profile of Treasury foreign debt as of end-2017. The largest maturities in coming years are in 2020 and 2022. The Government's foreign loans consist of market issues, one in US dollars (from 2012) and the others in euros (from 2014 and 2017).

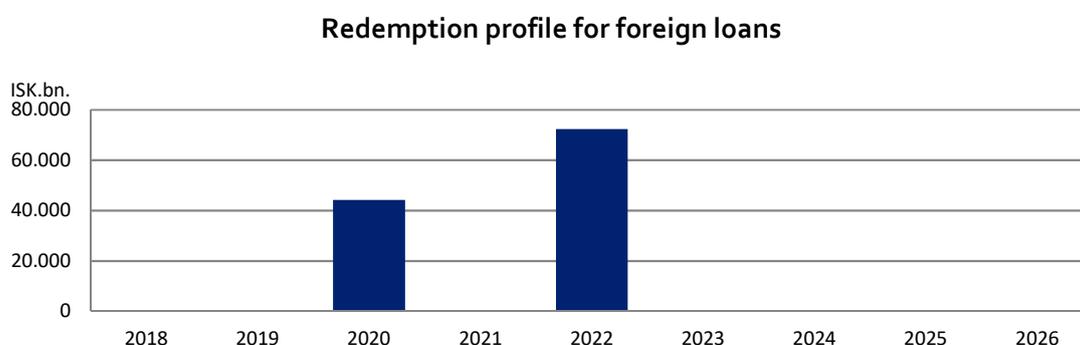


Figure 3

4 TREASURY DEBT

This section describes the Treasury debt position and loan portfolio structure as of end-2017. It also reviews the debt repayment profile and provides information on the Treasury's investor base. Figure 4 shows developments in the Treasury's debt and debt ratio, net of pension liabilities, from 2009-2017, and outlines expected developments through 2023. It closes with a discussion of deviations from the fiscal plan presented this past spring.

Developments in Treasury debt

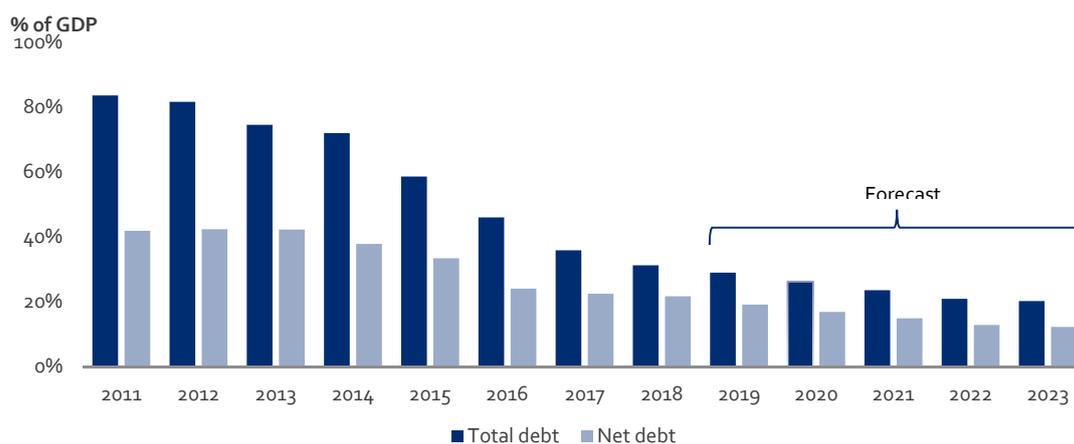


Chart 4

4.1 Treasury debt statistics

Treasury debt totalled ISK 917 bn at year-end 2017, or about 36% of GDP. The aim is to reduce it in stages to about 20% of GDP by year-end 2023. Table 4 gives a breakdown of Treasury debt at year-end 2017.

The Treasury's net position — i.e., liabilities net of interest-bearing assets, excluding stability contributions — was negative by about 23% of GDP at the end of 2017. The objective is to reduce the deficit still further during the period, to about -12% of GDP by end-2023.

Article 7 of the Act on Public Finances, no. 123/2015, stipulates that the objectives in the fiscal plan and fiscal strategy concerning public sector performance and balance sheets shall comply with several requirements. 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 2017, the general government debt ratio was 36%. It is assumed that it will fall 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. At the end of the period, general government debt according to the debt rule laid down in the Act on Public Finances is estimated at 22% of GDP.

Treasury debt at year-end 2017

| | | <i>Amounts in ISK m</i> |
|--|-----------------------------|---|
| Domestic | | |
| <i>Marketable bonds</i> | | |
| Treasury bills | | 15,800 |
| Treasury bonds, index-linked | | 201,300 |
| Treasury bonds, nominal | | 460,800 |
| Recapitalisation of financial institutions | | 70,000 |
| <i>Non-marketable debt</i> | | |
| Domestic liabilities | | 52,500 |
| | Domestic liabilities, total | 800,400 |
| Foreign debt | | |
| <i>Foreign reserve loans</i> | | |
| Foreign reserve loans | | 116,100 |
| | Foreign liabilities, total | 116,100 |
| | | Total liabilities 917,000 |

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 recapitalization bond matured in October 2018, and its retirement represented a milestone in that it was the last loan directly related to the financial crisis. As of year-end 2017, outstanding marketable domestic securities totalled ISK 748 bn.

Non-marketable Treasury liabilities include bonds issued in connection with the Treasury's purchase of Reykjavík and Akureyri's holdings in Landsvirkjun. The Treasury's issue in connection with the acquisition of Landsvirkjun is an indexed annuity bond maturing in 2034. At year-end 2017, other outstanding non-marketable securities totalled ISK 52,5 bn.

4.1.2 Foreign debt

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 three market issues, one in US dollars and two 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 December 2017, the Treasury made an offer to owners of those bonds for the entire outstanding amount of the series, and owners holding a nominal amount of about 400 million euros accepted the offer. Alongside that buyback, the Treasury issued a new five-year Eurobond amounting to 500 million euros, maturing in 2022.

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. In spring 2017, the Treasury bought back a large share of the 2012 issue, or USD 877 m nominal value. In autumn 2017, 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 5 shows marketable and non-marketable Treasury debt as of year-end 2017, including loans taken to expand the foreign exchange reserves. Domestic loans are classified as non-indexed Treasury bonds (58%), indexed Treasury bonds (22%), Treasury bills (2%), and other loans (5%). As is discussed in Section 4.1.2, the Treasury bought back a large share of its foreign debt in 2017; therefore, the share of foreign debt fell to about 13% by the end of that year.

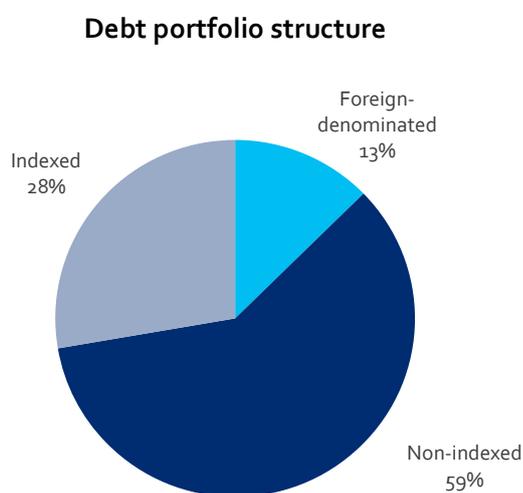


Chart 5

4.1.4 Repayment profile

Figure 6 shows the redemption profile for Treasury debt as of year-end 2017, together with assumptions in the National Budget for 2018. The largest maturities are in 2019, 2020, 2021, 2022, 2025 and 2031.

Redemption profile, Government loans

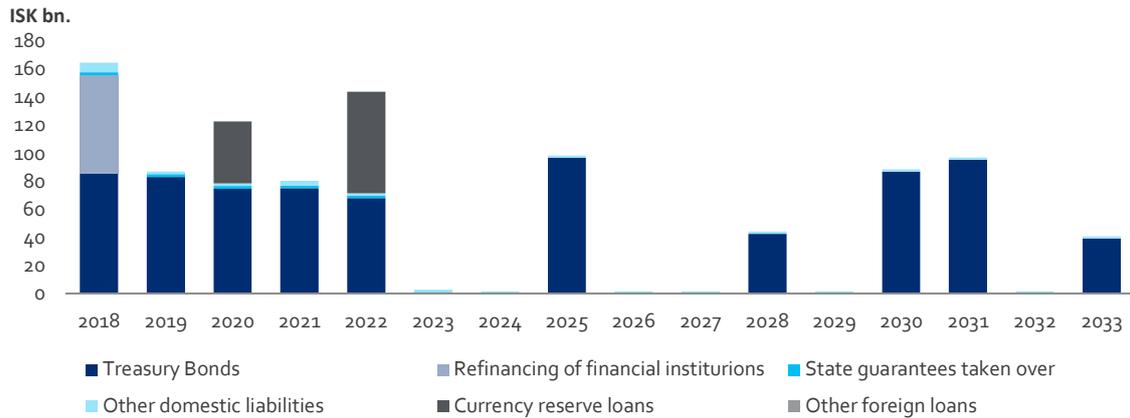


Chart 6

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 2017, 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 7 and 8 give a breakdown of the holders of domestic Treasury bonds and bills as of year-end 2017.¹

¹The breakdown of Treasury bond owners includes securities loans.

Owners of Treasury securities

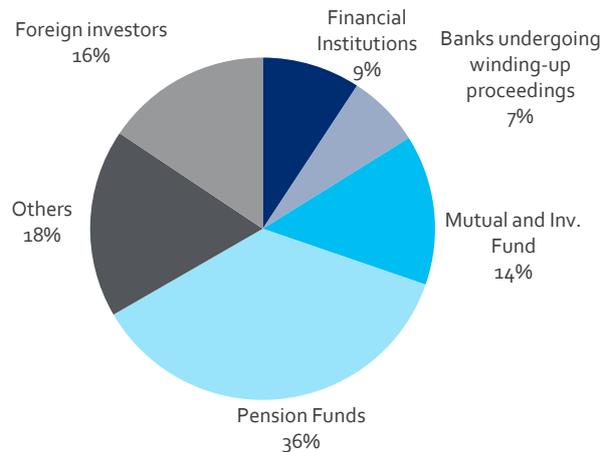


Chart 7

Pension funds, foreign entities, and financial institutions owned just over 60% of domestic Treasury securities as of end-2017. Pension funds accounted for 36% of outstanding Treasury bonds, and they consist mainly of longer-term securities such as RIKB 25, RIKB 31, and RIKS 30. Foreign investors' holdings are mainly in RIKB 19, RIKB 25, and RIKB 31. The financial institutions' largest asset was RIKH 18 1009, the bond issued to recapitalize the new banks. Mutual funds and investment funds own about 14% of domestic Government securities, and other investors own about 18%.

Owners of Treasury securities

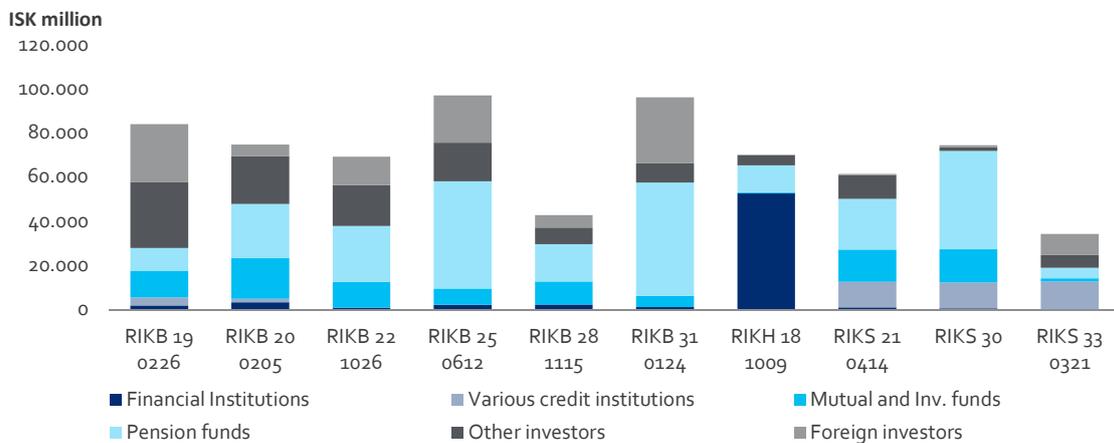


Figure 8

4.3 Estates' stability contributions

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 met. An agreement was made with five estates for the payment of a stability contribution to the Treasury. The stability contributions made by the estates amounted to ISK 384 bn and can be classified broadly as liquid assets, transferred assets, and retained assets, plus the holding in Íslandsbanki and a bond with collateral in Arion Bank. Lindarhvoll ehf. was established by the

Ministry of Finance and Economic Affairs to oversee the administration and sale of assets other than the holding in Íslandsbanki. The processing of the assets was largely complete by the beginning of 2018, and as a result, the agreement between the company and the Ministry of Finance and Economic Affairs was terminated at the beginning of February. Revenues from stability contributions have been allocated to reduction of Treasury debt in the amount of ISK 150 bn. In addition, the Treasury has prepaid pension obligations to the Pension Fund for State Employees, mainly with unsold assets administered by Lindarhvoll ehf. , total value of ISK 40 bn.

4.4 Allocations during the horizon of the fiscal plan

After rapid deleveraging in recent years and large-scale buybacks of Treasury bonds, these measures will slow down markedly, and in coming years debt reduction will mostly occur when servicing debt on payment due dates. RIKB 19 will mature in February 2019, in the total amount of ISK 52 bn, adjusted for measures taken in 2018. In 2020, the 2014 Eurobond will mature in the amount of EUR 350 m, as will RIKB 20, in the amount of ISK 76 bn. In April 2021, the indexed RIKS 21 will mature in the amount of ISK 77 bn. Maturing in 2022 are the nominal Treasury bond RIKB 22, in the amount of ISK 81 bn, and the remainder of the US dollar bond issued in 2012, in the amount of USD 92 m, or ISK 11 bn. No loans mature in 2023, although instalments will fall due on domestic loans in connection with the acquisition of Landsvirkjun and assumed Government guarantees.

The fiscal plan for 2019-2023 assumes that Treasury bond issuance will total about ISK 40 bn per year. After adjusting for the instalments falling due each year, the Treasury's net issuance will be negative by ISK 30-40 bn per year. Loan repayments will be financed with surpluses on Treasury operations, plus irregular revenues that could take the form of dividend payments or sales proceeds of holdings in financial institutions.

Positive economic and fiscal policy outcomes in recent years, together with rapid deleveraging, have had a positive impact on Iceland's sovereign credit ratings. Moody's upgraded the sovereign by two notches in the beginning of September 2016, and in summer 2018 it changed the outlook on Iceland's ratings from stable to positive. Other credit rating agencies have also upgraded the sovereign in the recent past.

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 targets in the fiscal plan assume that irregular Treasury revenues will be used to pay down debt. If additional irregular revenues should accrue – such as from asset sales – this will provide even greater scope to reduce debt or reduce Treasury obligations.

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 on 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. In cases involving variable interest rates, the risk is 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-2017. The majority of domestic and foreign Treasury bonds (about 84%) bear fixed interest rates, and their payment flows are known throughout their duration. Approximately 16% 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, as is discussed in Section 5.1.1.1.

Interest rate composition – year-end 2017

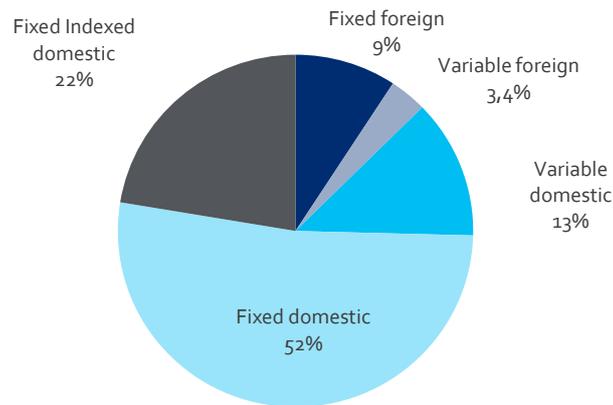


Figure 9

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 managing the Treasury's interest rate risk. The Treasury will be authorised to conclude such agreements for up to ISK 50 bn per year. Decisions on issuance will be determined by market conditions at any given time.

In autumn 2018, the first steps were taken in issuing interest rate swaps aimed at mitigating the Treasury's indexation imbalances.

With interest rate swaps, it is possible to affect the ratio of variable to fixed interest rates, as well as steering the duration of the portfolio. The Treasury concluded a swap agreement for fixed versus variable interest in connection with the Eurobond issue in summer 2014. If market conditions allow, the aim is to conclude variable versus fixed interest rate swap agreements in the domestic market in coming years, thereby increasing the weight of variable rates in the loan portfolio.

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 assets it owns offset foreign Treasury debt. The Treasury's foreign-denominated assets are a part of the Central Bank's foreign reserves. The 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 2017, the Treasury's indexed debt

amounted to ISK 248 bn, or around 27% of its debt portfolio. With buybacks of non-indexed bonds in 2018, the share of indexed bonds has risen further. According to Treasury debt management criteria, the aim should be to keep the ratio at or below 20%. As is discussed in Section 5.1.1.1, the Treasury began issuing interest rate swaps in the autumn with the aim of reducing its indexation imbalances. The Treasury holds a number of inflation-indexed assets, such as loans to the Icelandic Student Loan Fund. This mitigates inflation risk. The Treasury's indexation balance is still negative, however, but efforts to reduce the imbalance will continue in coming years.

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 2019, 2020, 2021, 2022, 2025 and 2031 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 contingent liabilities. 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 2017.²

Market Information, February 2018. (<http://www.lanamal.is/en/news/market-information>)

State guarantees, year-end 2017

| | Amounts in ISK millions | Percentage |
|------------------------|-------------------------------|-------------|
| Housing Financing Fund | 794,068 | 82% |
| Landsvirkjun | 152,567 | 16% |
| Other institutions | 23,618 | 2% |
| Total | 970,253 | 100% |

Table 5

5.3.2 Housing Financing Fund

The Housing Financing Fund (HFF) operates in accordance with the Act on Housing Affairs, no. 44/1998. With amendments to legislation and changes in the authorities' priorities, the fund's role changed from being primarily a lending institution to a body responsible for administration of housing affairs. The Fund experienced significant difficulties during the post-crisis years, and the Treasury had to contribute ISK 52 bn in order to strengthen its capital ratio. The HFF's operating performance has improved vastly with improved economic conditions, and by end-2017 its capital ratio reached an all-time high of 8.5%. If the capital ratio is low, the Fund has greater difficulty in addressing operational risks, and the Treasury's financial risk increases accordingly.

Risks in HFF operations are concentrated in prepayment risk, as well as in interest and inflation risks. Loan prepayments have been significant in recent years and have had a strongly negative impact on the Fund's position. The Fund cannot pay off the debt offsetting these prepayments; therefore, its 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. A large share of assets outside the loan portfolio are invested in non-indexed holdings, and the Fund's inflation risk has therefore increased. In coming years, the HFF assumes that its performance will deteriorate because of the mismatch between assets and liabilities. If this materialises, there may be a need for further capital contributions from the Treasury during the latter part of the fiscal plan.

5.3.3 Landsvirkjun

Landsvirkjun's operations have been successful in the recent term. The company's equity ratio has strengthened in recent years and as of end-2018 it was close to its all-time high, at 45.8%. 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 2,043 m at the end of 2017. 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 interest and depreciation totalled USD 346 m in 2017, and the profit for the period amounted to USD 108 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.

5.3.4 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 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.

5.3.5 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 often 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.

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

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.

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 DISCLOSURE OF INFORMATION TO MARKET PARTICIPANTS

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 Treasury 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 Quarterly 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 coming year
- Issuance policy for the coming years
- Buybacks
- Swap auction

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.