



GOVERNMENT OF THE REPUBLIC OF NORTH MACEDONIA

**2024-2026 PUBLIC DEBT MANAGEMENT
STRATEGY OF THE REPUBLIC OF NORTH
MACEDONIA
(with 2028 prospects)**

Skopje, May 2023

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Pursuant to paragraph (5), Article 7 of the Law on Public Debt ("Official Gazette of the Republic of Macedonia", nos. 62/05, 88/08, 35/11 and 139/14 and "Official Gazette of the Republic of North Macedonia", nos. 98/19 and 151/21), Government of the Republic of North Macedonia, at its session held on _____ 2023, adopted the 2024-2026 Public Debt Management Strategy of the Republic of North Macedonia (with 2028 prospects):

1. Introduction

Article 7 of the Law on Public Debt ("Official Gazette of the Republic of Macedonia", nos. 62/05, 88/08, 35/11, 139/14 and "Official Gazette of the Republic of North Macedonia", nos. 98/19 and 151/21) sets out the preparation and the implementation of a medium-term Public Debt Management Strategy, covering a period of three years and being adopted by the Government of the Republic of North Macedonia. Despite the legal obligation for three-year projections for the debt level and the debt structure, Ministry of Finance increases the transparency when managing public finances by including two additional years, i.e. projections for public debt trend in the period 2024-2028. Projections on debt stock and structure are in line with the projections in the 2024-2026 Fiscal Strategy (with 2028 prospects).

Pursuant to the Law on Public Debt, Public Debt Management Strategy sets out the amount of public debt in the medium term, the maximum amount of net borrowing in the first year covered by the Strategy, the maximum amount of newly issued sovereign guarantees in the first year covered by the Strategy, as well as the debt structure.

Public Debt Management Strategy sets the framework for the Government of the Republic of North Macedonia to act towards prudent public debt management in the medium term. Objectives of public debt management policy set in the Law on Public Debt ("Official Gazette of the Republic of Macedonia", nos. 62/05, 88/08, 35/11, 139/14 and "Official Gazette of the Republic of North Macedonia", nos. 98/19 and 151/21) are the following:

- financing the needs of the government with the lowest cost possible, in the medium and the long run, with sustainable level of risk;
- identifying, monitoring and managing the risks which public debt portfolio is susceptible to, and
- developing and maintaining efficient domestic financial market.

Above-mentioned objectives will be attained by defining short- and medium-term limits of certain debt portfolio indicators.

2. Public Debt of the Republic of North Macedonia

Main principles taken into account when managing public debt portfolio, i.e. when preparing and implementing the Public Debt Management Strategy, are the following:

- determining the optimal structure of debt portfolio;
- aligning the debt portfolio-related costs with the costs set in the state Budget for each year separately and in the medium term;
- limiting and eliminating the effect of the risks on public debt sustainability in both the medium and the long run, and
- ensuring transparency in the process of debt incurrence.

At the end of Q4 2022, general government debt¹ amounted to EUR 6,581.1 million, i.e. 51.0% of the projected GDP. Total public debt, which includes the general government debt and the debt of public enterprises established by the state or by the municipalities, the municipalities in the City of Skopje and the City of Skopje, amounted to EUR 7,702.9 million, accounting for 59.7% of the projected GDP at the end of Q4 2022.

Table 1: Public Debt Trend

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
GENERAL GOVERNMENT DEBT	2,771.6	3,262.5	3,453.3	3,851.5	3,958.5	4,344.4	4,556.8	5,516.0	6,080.2	6,497.4
General Government debt as % of GDP	34.0	38.1	38.1	39.9	39.4	40.4	40.5	50.8	52.0	51.0
Guaranteed debt	509.8	658.9	774.0	859.9	828.4	857.7	942.2	929.5	1,007.4	1,075.2
Non-guaranteed debt	N/A	N/A	N/A	N/A	N/A	N/A	41.9	37.8	47.7	71.0
TOTAL PUBLIC DEBT	3,281.4	3,921.3	4,227.2	4,711.4	4,786.9	5,202.2	5,540.9	6,483.3	7,135.3	7,643.6
External public debt	2,078.7	2,725.1	2,847.5	3,286.0	3,187.5	3,537.8	3,709.3	4,323.7	4,668.9	4,989.2
Domestic public debt	1,202.7	1,196.2	1,379.7	1,425.4	1,599.4	1,664.4	1,831.6	2,159.6	2,466.4	2,654.4
Total public debt as % of GDP	40.3	45.8	46.6	48.8	47.7	48.4	49.2	59.7	61.0	59.7

Pursuant to the May 2019 amendments to the Public Debt Law, non-guaranteed debt of public enterprises and joint stock companies established by the state or by the municipalities, the municipalities in the City of Skopje and the City of Skopje is included in the public debt.

Source: Ministry of Finance and NBRNM

From the point of view of the general government debt interest structure, fixed-variable interest rate ratio was 73.7:26.3 respectively at the end of the fourth quarter in 2022. As regards currency composition of general government debt, debt denominated in domestic currency accounted for 24.1%, while share of foreign currency denominated debt was 75.8%. Euro-denominated debt accounted for the most with 68.8% of the total general government debt, share of SDR was 6.6%, Japanese yen-denominated debt accounted for 0.3% and US dollar-denominated debt accounted for 0.1%.

¹General government debt comprises financial liabilities incurred on the basis of borrowing by the Republic of North Macedonia, the public institutions established by the Republic of North Macedonia and the municipalities, the municipalities within the City of Skopje and the City of Skopje. Public debt comprises the general government debt and the debt of public enterprises and joint stock companies established by the state or by the municipalities, the municipalities in the City of Skopje and the City of Skopje.

Transparency of public debt data has improved with the latest amendments to the Law on Public Debt in 2019, including the non-guaranteed debt in the public debt definition. In addition, starting June 2017, detailed data on the stock of general government debt, its interest and currency structure, debt repayment, guaranteed public debt, interest rates on government securities, their auctions and stock by maturity and ownership, are published on regular basis within the statistical review of the Ministry of Finance². In February 2020, Ministry of Finance upgraded the “Open Finance” portal, comprising data on public debt, not previously published, by thoroughly presenting trends by years, repayment, forecasted payments throughout the current year, as well as the manner of financing. In line with the strong commitment of the Ministry of Finance to full fiscal transparency, new transparency tool Fiscal Counter has been introduced on Ministry of Finance website, showing the general government debt on monthly basis.

3. Public Debt Risk Management

Risk management policy is of crucial importance for public debt management, being the main link between the proposing, designing, adopting and implementing the public debt management policy. Development of this policy is a challenge for the debt managers and it comprises identifying, measuring and managing the risks, taking into account risk-cost trade-off.

Main objective of public debt management is to ensure that government financing needs and liabilities are covered with the lowest costs in the medium and long run with an acceptable risk level. From the point of view of the risks the debt portfolio of the general government debt of the Republic of North Macedonia faces, certain improvement in measuring the re-financing risk and the interest rate risk indicators can be observed. In fact, as a result of the commitment of the Ministry of Finance to develop the domestic government securities market, process of restructuring the government securities portfolio has commenced since 2012, when securities with longer maturity were issued, while issue of short-term instruments was gradually reduced. Such strategy resulted in significant improvement in terms of re-financing risk and interest rate risk regarding the domestic debt portfolio. As regards the other risks, debt management in the medium term will be focused on maintaining the lowest cost possible under optimal level of risk.

Following appear as main risks identified while managing the debt portfolio of the Republic of North Macedonia:

1. re-financing risk;
2. market risk, involving the following risks:
 - interest rate risk and
 - exchange rate risk.
3. risk associated with the contingent liabilities and
4. operational risk.

1. Refinancing risk is managed by preventing major part of the liabilities to fall due at once at any time and providing evenly distributed maturity of debt-related liabilities. Exposure of public debt portfolio to re-financing risk is measured by the debt repayment profile and the “average time to maturity” indicator. The greater the value of this indicator, the lesser the uncertainty, i.e. the re-financing risk.

In the period 2024-2028, average time to maturity of central government debt is expected to slightly decrease as a result of amortizing the loans under concessional terms, while most of the new borrowing is under commercial terms. With respect to domestic debt, advancement in deepening the domestic securities market and extended maturity thereto was observed in the past years. In fact, special emphasis was put on increased issuance of long-term securities, as well as extending the maturity and increasing the volume of the existing government securities portfolio.

² <http://finance.gov.mk/mk/node/6449>

Table 2. Average Time to Maturity - ATM (years)

	2023	2024	2025	2026	2027	2028
Central Government debt	5.2	4.9	5.1	5.3	5.1	5.1
Domestic debt	7.4	7.0	6.8	6.6	6.3	6.2
External debt	3.7	3.5	3.8	4.3	4.2	4.2

Source: Simulations of the Ministry of finance

2. Market risk is determined by the exposure of debt portfolio to economic variables, especially the variation of interest rates on the domestic and the international capital market and the trends in foreign exchange rates. Identifying and managing market risks in the Republic of North Macedonia is crucial for the public debt portfolio since these risks are determined mainly by external factors, i.e. variations in interest rates on the international financial markets where, due to their constant oscillations, medium- and long-term trend is very difficult to project.

Measuring and managing interest rate risk is especially important in the countries in which domestic financial markets are underdeveloped and the financing needs are covered from external sources under non-concessional terms, whereby exposure to interest rate risk is greater. Variation of interest rates on both the domestic and the international markets affects the debt-related costs, especially when fixed interest rate debt should be refinanced or when the interest on variable interest rate debt is re-set. Hence, close connection between the interest rate risk and the debt re-financing risk is evident.

ATR (average time to re-fixing) indicator measures the average time to re-fixing. Higher value of this indicator shows that larger portion of the debt portfolio will not be subject to significant interest rate re-fixing and such portfolio is a lower-risk portfolio. In the period 2024-2028, moderate level of interest rate risk is expected, with ATR indicator of around 4.5 years. These projections point out that average time to re-fixing in the period 2024-2028 is significantly above the set limit on the minimum threshold for 2024, which is 3 years.

Table 3. Average Time to Re-Fixing (years)

	2023	2024	2025	2026	2027	2028
Central Government debt	4.7	4.5	4.8	5.1	4.9	4.8
Domestic debt	7.4	7.0	6.8	6.6	6.2	5.6
External debt	2.8	2.8	3.3	3.8	3.8	4.0

Source: Simulations of the Ministry of finance

Exchange rate risk refers to debt indexed or denominated in foreign currency. Major portion of the debt denominated in foreign currency points out to higher exchange rate risk. This risk is crucial for the developing countries in which external debt is fully indexed and major portion of the domestic debt is denominated in foreign currency.

Changes in the foreign exchange rate may largely affect, i.e. increase, the envisaged costs for repayment of public debt denominated in foreign currency. However, taking into account the fact that the Republic of North Macedonia applies de facto fixed exchange rate of the denar in relation to the euro, the exposure to such risk would be also measured as a share of the euro in the total general government debt portfolio which, according to the latest data on the fourth quarter of 2022, was actually prevalent currency with 68.8% share in the total debt structure.

3. Risk related to contingent liabilities - for the purpose of ensuring more favourable financing terms and conditions by the creditors, the government issues a sovereign guarantee.

In order for the Budget of the Republic of North Macedonia not to be exposed to a risk of calling-up guarantees, process of issuance of new guarantees is strictly regulated and is subject to certain criteria the public debt issuers should fulfill. According to the latest amendments to the Law on Public Debt in May 2019, management of contingent liabilities was improved by strengthening the capacities as regards issuance of borrowing consents. This activity was realized in cooperation with the World Bank under the Government Debt and Risk Management Program. In fact, Ministry of Finance performs credit analysis and assess the creditworthiness of public debt issuers when issuing sovereign guarantee in line with the prescribed assessment

methodology. Such approach provides for harmonization with the international practice on issuance of sovereign guarantees.

4. Operational risk includes the settlement risk and the error risk. Settlement risk occurs if numerous non-automated activities are used during data processing, while error risk is closely related to the manner of segregating the tasks related to execution of transactions and their settlement across the units within the institution in charge of debt management. Public debt management is carried out by an IT system and adequate software platform, thus significantly reducing the risk of human errors. Measures to apply the "four eyes" principle are being undertaken in a timely manner, so as to avoid the risk from untimely performance of the tasks in case the responsible person is prevented from fulfilling the working tasks due to whatever reason. For the purpose of reducing the operational risks, and by following the digitalization trends, it is necessary to introduce digitalized payments towards foreign creditors, by introducing electronic banking with NBRNM, by which foreign repayments are being made.

4. Development of Government Securities Market

One of the main objectives of public debt management is to provide for development of the domestic government securities market, thus creating conditions for reducing the re-financing risk, ensuring resistance to external shocks and long-term sustainability of debt.

To the end of more efficient financing of the budget needs, Ministry of Finance will continue to regularly issue government securities (GS) in the coming period as well, thus ensuring additional financing under favourable terms, depending on the interest of the market participants.

The purpose is to issue, on regular basis, treasury bills and government bonds with medium- and long-term maturities depending on the market conditions.

Taking into account the so-far experience in issuance of GS, frequency of issuance of securities corresponds to the market needs. To that end, Ministry of Finance will continue the so-far pace of issuance of GS set by the market.

In line with the Denarization Strategy, Ministry of Finance will focus on issuance of Denar government securities in the coming period.

In the past period, Ministry of Finance worked on considering the possibility to transit to other modern auction platform for primary issue of GS, for the purpose of keeping pace with the global practice. Thus, the existing investors' base will be expanded, while GS would be issued by using the most contemporary trading platform, reaping the benefits of all advantages, data and analytical possibilities it offers. In the period to come, activities will be undertaken for the purpose of testing and transiting the overall process towards more contemporary auction platform.

At the same time, Ministry of Finance will also continue with promotional activities for expanding the base of investors in GS by carrying out marketing campaign before different target groups of investors and by maintaining regular dialogue with all participants in the government securities market.

In order to continuously strengthen the government securities financial market and pursue the worldwide practice, Ministry of Finance undertakes activities aimed at diversifying the sources of financing and introducing new types of financing instruments, which will be differently applied, as follows:

4.1. Green Bonds

Green bonds are instruments, which will be used for financing new and/or existing green projects. These bonds will be intended to stimulate and support environment improvement and protection projects, designed specifically to support eco projects. Unlike the existing bonds, green bonds will be used solely for investment projects or

green development, with the proceeds used for covering the capital expenditures. Introduction of such instrument will provide for the development of the financial market in the medium term.

4.2. Project Bonds

Project bonds are debt securities intended for capital investments, by which investors will invest their financial resources in capital and infrastructure projects. Ministry of Finance's purpose, as regards the introduction of this instrument, is much greater involvement of domestic and foreign investors in boosting the economic growth and development. These bonds will be alternative way of financing infrastructure-related projects. Project bonds will offer an opportunity for institutional investors to participate in infrastructure projects through listed, tradable securities that can offer superior risk-adjusted returns.

4.3 Development Bonds for Citizens

Development bonds for citizens have the same features as the typical bonds, however, they are exclusively intended for the citizens. By investing in development bonds for citizens, citizens acquire a long-term investment instrument with a fixed interest rate. Development bond for the citizens will be issued for the purpose of mobilizing capital, in the form of citizens' cash savings. They will provide for attaining triple effects, i.e. lower amount of the cash as one of the measures aimed at reducing informal economy, thereby citizens generating yields from their savings, with these funds being geared towards economic development of the country.

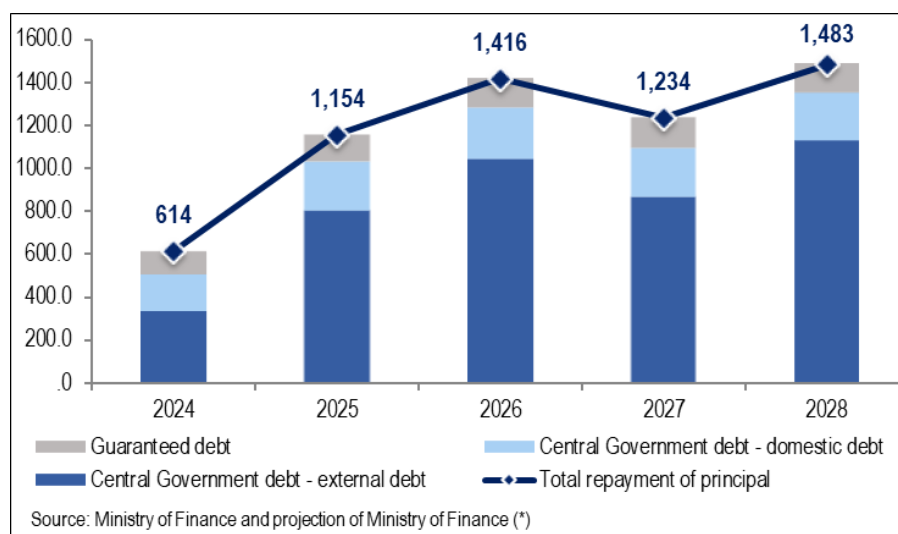
5. Public Debt Limits

Limits on debt amount and structure can serve as prudent fiscal policy anchor to ensure fiscal sustainability.

Public debt level is considered sustainable if it provides for timely servicing of the debt liabilities in the longer run, which depends on several factors, as follows: level of development of the domestic financial market, liquidity of the international capital market, rate of economic growth, inflation rate, level of budget deficit/surplus, etc.

In the period 2024-2028, implementation of investments, which were launched in the previous period by the public debt issuers, is expected to continue, with a strong commitment not to disrupt the long-term sustainability of the country's indebtedness level. In addition, part of the borrowing is determined to be used for covering the budget deficits, i.e. uninterrupted payments from the Budget, while part of the borrowing will also be intended for refinancing prior debts as they fall due in the coming period. Larger repayment amounts falling due in the coming medium-term period, EUR 450 million out of which in July 2023 for the Eurobond issued in 2016, EUR 500 million to be provided in 2025, for the purpose of refinancing the Eurobond issued in 2018, EUR 700 million falling due in 2026 stemming from the Eurobond issued in 2020, EUR 500 million in 2027 for the Eurobond issued in March 2023 and EUR 700 million, falling due in 2028 resulting from the Eurobond issued in 2021. In order to ensure sources of financing the needs of the Government with the lowest costs in the medium and the long run, accompanied by a sustainable level of risk, public debt management policy defines several medium-term limits and short-term limits, in line with the Law on Public Debt.

Figure 1. Repayment Profile of Central Government Debt and Guaranteed Debt (EUR million)



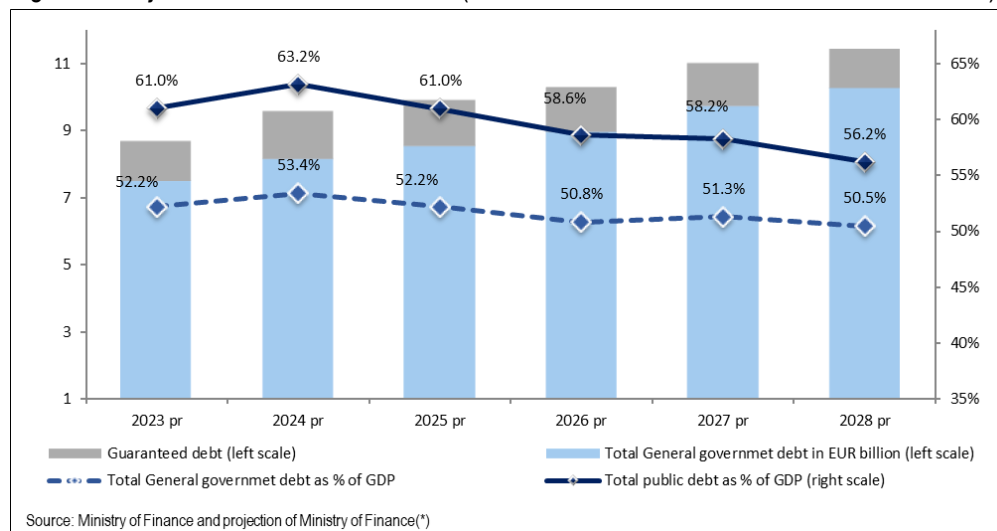
5.1. Limits on Public Debt and Guaranteed Debt Amounts

Medium-term limits are used to compile the framework for the trends of public debt in the period 2024–2028. Such limits define the maximum sustainable level of total public debt in relation to GDP and the level of guaranteed public debt in relation to GDP. In addition, in order to reduce the risk factors affecting the total public debt portfolio, medium-term limits on currency and interest structure of the general government debt are also determined.

In order to keep level of public debt sustainable, without thereby disrupting the fiscal sustainability, **limit on the total public debt level in medium and long run is determined, which is not to exceed 60% of GDP.** As a result of the economic crisis induced by COVID-19, most of the European Union countries, as well as the countries in the region, were forced to widen their budget deficits all to the end of ensuring funds for managing the pandemic. At most of the economies, this resulted in increased level of public debt by more than 10 percentage points. Due to the severity of the crisis induced by the pandemic, fiscal rules in the European Union are temporarily suspended by the end of 2023.

Medium-term projections presented in this Strategy show that public debt will exceed the maximum threshold of 60% in the period 2023-2025, however, as a result of the fiscal consolidation measures, it is expected to again return to the stipulated limit below 60% of GDP in the period 2026 - 2028. On the basis of the medium-term budget framework determining the need for budget deficit financing in the medium term, repayments of previously incurred debts, as well as implementation of projects beyond the central government, public debt will experience moderate upward trend in the medium term by 2024, as a result of the crisis consequences. Afterwards, in the period following 2025, debt level is expected to decline through the fiscal consolidation measures.

Figure 2: Projections on Total Public Debt (General Government Debt and Guaranteed Debt)



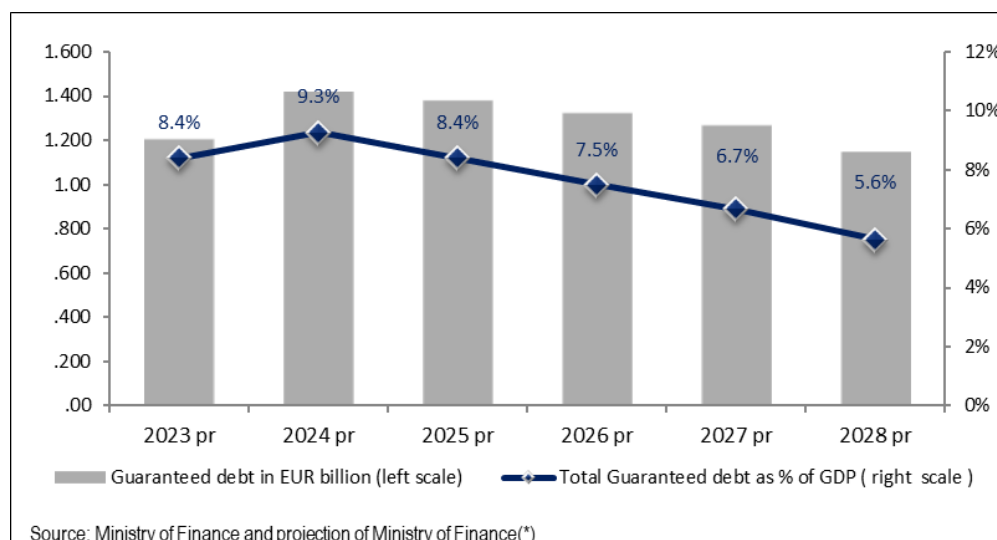
Net borrowing in 2024 includes the planned borrowing within the general government debt, reduced by the repayments therefore. **Short-term maximum limit on net borrowing (domestic and external) on the basis of general government debt in 2024 is set at EUR 800 million.**

Issued sovereign guarantees are a contingent liability in the State Budget, i.e. there is a risk of increased costs related to servicing in case the guarantees are called up. Therefore, sustainable level of issued guarantees in the medium term is of great importance for the Ministry of Finance. Hence, when selecting the projects to be issued a sovereign guarantee for, special emphasis is put on self-sustaining projects, which generate revenues, support the economic growth and provide for boosted competitiveness of the domestic economy in the medium term, which are in line with the strategic priorities of the Government of the Republic of North Macedonia, and justify the purpose which the funds are used for. **To that end, it is determined for the limit on the level of guaranteed public debt not to exceed 15% of GDP in the period 2024-2028.**

In line with the projections, in the period 2024-2028, the guaranteed public debt is expected to moderately increase in 2024, to be followed by its stabilization in 2025 and reduction to 5.6% of GDP in 2028. Thereby, level of guaranteed debt throughout the whole period is below the set maximum limit.

In the period 2024-2028, projects in the field of road infrastructure, financed with sovereign guarantee loans, are expected to be implemented, whereby the **limit on maximum net borrowing on the basis of guaranteed debt in 2024 is set up to EUR 250 million.**

Figure 3: Guaranteed Public Debt

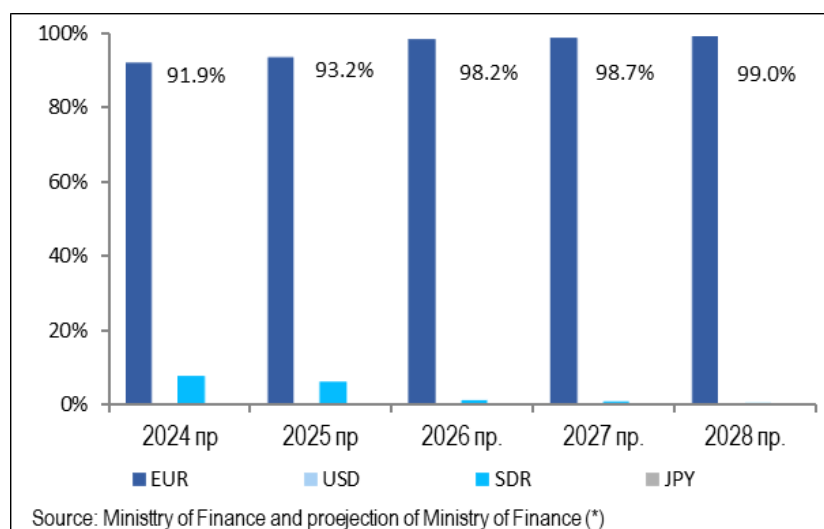


5.2. Limits on Debt Structure

Changes in the exchange rate could largely affect, i.e. increase, the envisaged costs for repayment of the debt denominated in foreign currency. However, give the fact that as of 1995, Republic of North Macedonia applied de facto fixed exchange rate of the denar in relation to the German mark, and since 2002 onwards, it applies de facto fixed exchange rate of the denar in relation to the euro, whereby such policy will continue in future, exposure to such risk would be measured as a share of the euro in the total public debt portfolio. **Thereby, limit on the general government debt denominated in foreign currency - minimum threshold of euro-denominated debt in the total general government debt portfolio denominated in foreign currency is determined to be 80% in the period 2024-2028.**

Dominant share of euro-denominated debt is evident in the currency structure projections, experiencing moderate increase in the medium term as a result of the commitment of the Ministry of Finance to the new external borrowing to be denominated in euros. Thereby, in the period 2024-2028, share of euro-denominated debt in the total general government debt portfolio denominated in foreign currency is significantly below the minimum threshold. In addition, share of other currencies refers to loans denominated in US dollars, Japanese yen and SDR for credit lines concluded mainly in the past, being amortized in the period which the projections refer to.

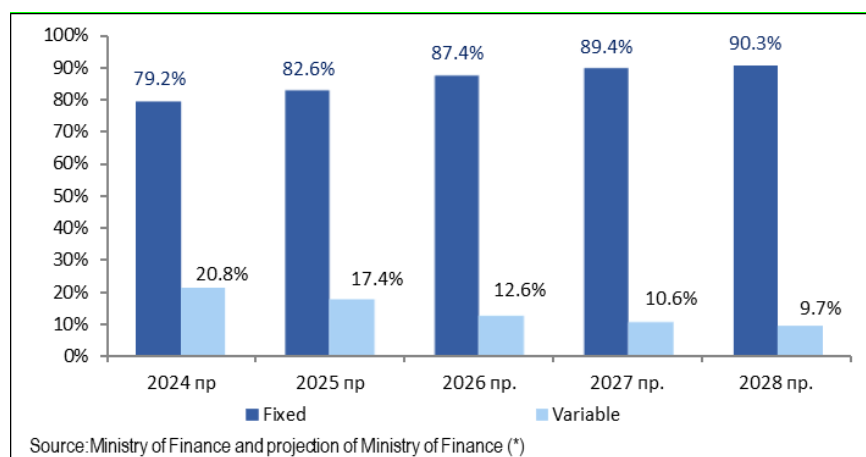
Figure 4: Currency Structure of General Government Debt Denominated in Foreign Currency



In order to protect general government debt portfolio against possible future market shocks, i.e. unfavourable changes of interest rates that directly lead to increase of the costs to the Budget of the Republic of North Macedonia, maintaining optimal interest rate structure of general government debt portfolio is one of the objectives debt managers aim at. Hence, **limit on interest rate structure of general government debt - minimum threshold of debt with fixed interest rate is determined to be 60% for the period 2024-2028.**

Taking into account the current structure of general government debt portfolio, as well as the medium-term projections, in the period 2024-2028, fixed-interest rate debt is significantly higher than the set minimum threshold. This reflects the commitment of the Ministry of Finance to issue long-term securities on the domestic market, as well as the commitment to borrowing on the basis of instruments with fixed interest rate on the international capital market.

Figure 5: Interest Rate Structure of General Government Debt



Threshold on debt refinancing indicator - showing the average time for re-financing the debt is calculated within this Strategy. This indicator also shows the portion of central government debt portfolio falling due in the course of the next year. In addition, indicator of average time to re-fixing (showing the average time for re-setting the interest rates on the debt portfolio) is also calculated. More precisely, in order to protect the central government debt portfolio against the re-financing risk, limit on re-financing risk - **minimum threshold of "average time to maturity" indicator in 2024 is determined to be 4 years**. Moreover, in order to protect the central government debt portfolio against the interest rate risk, **minimum threshold of "average time to re-fixing" indicator in 2024 is determined to be 3 years**.

6. Analysis of the Scenario on Effects of Interest Rate Risk and Currency Risk on the External General Government Debt

In order to analyze the exposure of debt portfolio of the Republic of North Macedonia to the market risk, short simulation is prepared regarding the effects of the interest rate re-fixing and changes in foreign exchange rate on the costs related to servicing the external general government debt (Table 4). Sensitivity analysis of the trends at the servicing-related costs in the Budget of the Republic of North Macedonia on the basis of external debt is based on the following assumptions:

- by changing one variable, all other variables remain the same, i.e. ceteris paribus;
- in conditions of possible currency movements in relation to the euro, denar exchange rate in relation to the euro retains the stable value;
- non-correlation between interest rate movements and exchange rate movements.

Table 4: Sensitivity analysis of costs related to servicing the external general government debt in cases of interest rate re-fixing and changes in foreign exchange rates

Main conclusions that may arise from this analysis are the following:

1. servicing-related costs on the basis of interest on external general government debt are sensitive to the interest rate trends. Should interest rates in 2024 surge by 1 percentage point in relation to the baseline projection, it would cause for interest-related costs to increase by 6.9%, i.e. by EUR 12.5 million, with similar effects in the period 2025-2028. Such sensitivity could be explained as exposure of debt portfolio to interest rate risk.

2. potential euro depreciation in relation to the other currencies in the portfolio (US dollar, Japanese yen and Special Drawing Rights) by 10% will cause an increase of servicing-related costs by 0.7% in 2024, i.e. by EUR 3.5 million. Given the obtained results, it may be concluded that possible unfavourable trends at exchange rates of other currencies in relation to the euro will not cause any significant increase of the servicing-related costs, as a result of the fact that most of the external general government debt is euro-denominated.

7. Alternative Financing Strategies

To the end of improving the decision-making process related to financing the government needs, aimed at successful fulfillment of the goals set in the public debt management policy, quantitative analysis is prepared within this Strategy by applying the MTDS (Medium-Term Debt Strategy) analytical tool. This tool is developed by the World Bank and the IMF, aimed at determining the costs and the risks related to the potential financing strategies.

MTDS model uses the following as an input data:

- principal and interest flows on the existing debt portfolio;
- projections on macroeconomic and financial variables,
- financial variables shocks (interest rate and exchange rate), and
- alternative strategies for financing the government needs.

Alternatives that could be used as sources of financing the government needs are the following:

1. treasury bills and government bonds on the domestic government securities (GS) market;
2. Eurobond on the international capital market;
3. funds from international financial institutions intended for budget support, as well as financial support for the anti-crisis measures in conditions of global pandemic induced by COVID-19, the effects of which are still present in Macedonian economy, as well as for coping with the energy crisis, occurring at the beginning of 2022;
4. funds for project financing from international financial institutions and private creditors.

Goal of MTDS analytical tool is to quantify the costs and the risks and to find out the optimal ratio between them in line with the priorities set in the public debt management policy. The model compares the potential alternatives for financing the government needs, by analyzing the costs and the risks resulting from the different debt portfolios and cash flows. In addition, the tool provides for observing the different features of the debt portfolio at each of the determined alternatives, thereby taking into account the effects of the shocks on the financial variables. MTDS model analyzes four alternative financing strategies, elaborated below. The analysis covers a five-year (2024-2028) timeframe. Alternative ways of financing differ among themselves mainly in the structure of domestic financing through government securities and foreign financing.

The first alternative envisages provisioning of the financing needs of the government through the domestic GS market, the international capital market, budget-support funds and financial assistance for the anti-crisis measures from international financial institutions, as well as withdrawal of funds for project financing from the international financial institutions. Feature of this alternative is that most of the net financing within the domestic financing (GS with and without FX clause) is realized through treasury bills and 15-year bonds.

The alternative excels, above all, in reducing the exposure to refinancing risk, mainly by reducing the share of the debt falling due within 1 year in relation to the total debt, as well as by increasing the ATM indicator.

Second alternative, compared to the first one, foresees amount greater than the foreign financing, and lower net financing via GS. Refinancing risk is the most considerable at this alternative.

Third alternative incorporates financing with greater amount by issuing treasury bills and long-term bonds, i.e. 15-year bonds, and lower amount with Eurobonds or foreign financing. As regards third alternative, highest amounts are seen at the indicator for a debt falling due within 1 year and a debt to GDP ratio.

Fourth alternative foresees the same level of external financing as the third alternative, if the financing through GS is a combination of medium-term and long-term government bonds. The alternative excels, above all, due to the reduction of the exposure to refinancing risk, as well as increase of the ATM indicator. The fourth alternative is accompanied by the highest ATM on debt in domestic currency, with the lowest interest rate risk.

Thus, according to the analysis of the results from the application of the alternative approaches, the first and the fourth alternative are considered the most favourable in terms of the debt portfolio riskiness (as per the refinancing risk, the interest rate risk and the currency risk indicators), although it is a slightly more expensive option than the other alternatives. The second and the third alternatives, as regards the costs, generate better results, but are less favourable in terms of the refinancing risk and the interest rate risk indicators. In addition, the first alternative contributes to further development, and provides for maintenance of an efficient and liquid

domestic government securities market, as well as market deepening, to the end of meeting the needs of the government, at the same time supporting the Denarization Strategy. The alternative excels, above all, in reducing the exposure to refinancing risk, mainly by reducing the share of the debt falling due within 1 year in relation to the total debt, as well as by increasing the ATM indicator.

8. Debt Portfolio Optimization

For the purpose of further smoothening the redemption profile and reducing the re-financing risk, as well as generating additional interest savings, in the coming period, Ministry of Finance will continue considering the possibilities and the conditions for optimization of debt-servicing costs by actively managing the debt portfolio.