Ministry of finance of the Republic of Macedonia

Public Debt Management Department

PUBLIC DEBT MANAGEMENT STRATEGY OF THE REPUBLIC OF MACEDONIA "FOR THE PERIOD 2010-2012

Skopje, March 2010

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Pursuant to Article 7 paragraph 2 of the Law on Public Debt („Official Gazette of the Republic of Macedonia“, nos. 62/05 and 88/08), the Parliament of the Republic of Macedonia, at its session held on June 3, 2010, adopted the following:

Public Debt Management Strategy of the Republic of Macedonia for the period 2010-2012

I. INTRODUCTION

According to the adoption of the Public Debt Management Strategy, Parliament of the Republic of Macedonia provides framework for the Government of the Republic of Macedonia, and above all, the Ministry of Finance, to act focusing on prudent public debt management on medium term, i.e. in the next three years.

Basic principles taken into account when managing the public debt portfolio, and thus during the drafting and the implementation of the Public Debt Management Strategy, are the following:

- establishing optimum structure of debt portfolio and its harmonisation with the national macroeconomic policy;
- harmonising debt portfolio costs set in the state budget for each year individually and on medium term; and
- restricting and eliminating the effect of the risks on public debt sustainability in both the medium and the long run.

Data presented in the Public Debt Management Strategy are based on actual 2009 data, while projections for the period to come are subject to changes, depending on the priorities for financing and development of government securities market.

II. MACROECONOMIC TRENDS, FISCAL INDICATORS AND PUBLIC DEBT IN THE REPUBLIC OF MACEDONIA

II.1 Current macroeconomic climate and expected medium-term macroeconomic trends

Global economic crisis, which emerged in the USA, later spilling over from Western Europe to Eastern Europe, did not circumvent the Republic of Macedonia. Despite the fact that the crisis did not spread over the Macedonian financial system, its negative effects still reflected on the real sector, mainly through decline in both foreign and domestic demand for products. Although 4.8% GDP growth on annual basis was realised in 2008, being among the highest growth rates in Europe during this crisis year, in Q4 2008 already negative effects of the global economic crisis spread in the Republic of Macedonia as well.

Real GDP declined by 0.7% in 2009. However, compared to other European countries, where in certain cases two-digit negative growth rates were seen (up to 18% in some Baltic countries), Macedonian economy performed relatively well in 2009. That was due to the good condition of the Macedonian economy before the crisis, on the basis of the undertaken reforms in the last three years (low flat taxes, reduced social contribution rates, improved business climate through the Regulatory Guillotine Project, and other measures), as well as the anti-crisis measures undertaken by the Government even in the early stage of the crisis and during 2009.

Economic activity in 2009, analysed by branches, declined the most in the industry, which was hit by the reduced export demand. In addition, decline was seen in the transport and communications sector as a result of the drop in transport of export goods. On the other hand, construction, agriculture, financial mediation, trade and public administration are sectors the growth of which mitigated GDP decline. First signs of stabilization of the economy were evident at the end of the year, when GDP showed positive growth rate of 1.2%, and industrial production grew annually by 4.3% in November and by 20% in December.

Like other small and open economies with relatively non-differentiated production structure, Macedonian export suffered negative consequences from reduced demand by foreign partners, above all companies from the euro zone. Export declined by 28.4% in 2009, while import decline was lower, accounting for 21.7%. Therefore, trade deficit in 2009 dropped by 11.4% compared to the previous year, accounting for 23.4% of GDP. In conditions of lower trade deficit and almost the same level of private transfers like in 2008, current account deficit was relatively low in 2009, accounting for 7.3% of GDP.

Inflation, measured through CPI, was -0.8% in 2009, i.e. the economy underwent deflation.

Despite the economic challenges Macedonian economy faces, positive results were registered on the labour market. Statistical data for 2009 showed increase in the number of employees by 20,886 persons compared to 2008, or by 3.4% of the total employment. Thus, employment rate surged to 38.4% in 2009. Unemployment rate was 32.2%. In fact, such rate shows the lowest level of unemployment in the last 7 years in the Republic of Macedonia. Gross salary concept significantly contributed to better registration of employment. In 2009, average net salary grew by 24% in nominal terms and by 25% in real terms, above all due to the one-off effect of the introduction of the gross salary concept and the negative inflation rate.

Successful implementation of gross salary reform provided for improvement of financial discipline, as well as regular payment of salaries and contributions to employees. Hence, in December 2009, only 2.9% of the employees did not receive salary, which was by 4.6 percentage points less compared to the same period in 2008.

As for public finances, counter-cyclical fiscal policy was conducted in 2009, aimed at mitigating the consequences of the global economic crisis on the Macedonian economy, at the same time maintaining macroeconomic stability. Budget deficit in 2009 was 2.8% of GDP, being among the lowest budget deficits in Europe in 2009.

In 2010, as post-crisis year, it is expected for the economy to recover and for positive economic growth to be restored, envisaging for GDP to grow by 2%. Inflation is projected at 2%. Projected economic growth in 2010 will be achieved through increased export demand for Macedonian products on the basis of recovery of European economies. Moderate improvement of the conditions on the financial and credit market is expected to contribute to this. On the medium run, higher GDP growth rates are expected in 2011 (3.5%) and 2012 (5% projected growth). Such projections are based on the expectation for overcoming global economic crisis in the EU Member States – major trade partners to the Republic of Macedonia, as well as the expected increased of prices of most important export products on the global stock markets. Global recovery will allow for realisation of most of the previously announced investment projects in the Republic of Macedonia, which will provide for intensification of the economic activity.

Such positive growth rates are expected to be realised in conditions of moderate inflation rate, projected to range between 2% and 3% in the period 2010-2012.

As for the labour market, employment growth in 2009 is expected to continue. In fact, according to 2010 projections, employment is expected to increase by 3%, unemployment to decline by 3,2%, thus unemployment in the Republic of Macedonia will account for around 30% of the labour force by the end of 2010.

III.2 Medium-Term Fiscal Framework

According to strategic commitments of the Government for gradual reduction of share of public sector in GDP, projections for the revenues of the *consolidated government budget* in the next three-year period show relative decline, from 35.8% of GDP in 2010 to 35.3% in 2012. This is a result of the policies for reduction of taxes, contributions and customs duties, which will provide room to free available resources to the private sector and their focus on higher investments and new jobs, which will directly accelerate the development of the domestic economy.

Accordingly, reduction of public spending is envisaged on the medium term. Total expenditures in the period 2010-2012, in conditions of rational management of public finances at all government levels, according to the planned policies and low level of budget deficit, decline as a share of GDP from 38.3% in 2010 to 37.3% in 2012.

Table 1 Consolidated General Government Budget

Consolidated General Government Budget	2010	2011	2012
(millions MKD)			
Consolidate Government Budget-Revenue	151.474	159.188	169.610
% of GDP	35,8	35,6	35,3
Consolidate Government Budget--Expenditure	161.927	170.259	179.214
% of GDP	38,3	38,1	37,3
Consolidate Government Budget- Deficit	-10.453	-11.071	-9.604
% of GDP	-2,5	-2,5	-2,0
Central Budget - revenues	85.350	92.294	102.149
% of GDP	20,2	20,7	21,2
Central Budget - expenditures	94.547	101.628	109.378
% of GDP	22,3	22,8	22,8
Central Budget - deficit	-9.197	-9.334	-7.229
% of GDP	-2,2	-2,1	-1,5
Extrabudgetary funds - revenues	44.459	44.417	44.397
% of GDP	10,5	9,9	9,2
Extrabudgetary funds - expenditures	45.715	46.154	46.772
% of GDP	10,8	10,3	9,7
Extrabudgetary funds - deficit	-1.256	-1.737	-2.375
% of GDP	-0,3	-0,4	-0,5
Local government budget - revenues	21.665	22.477	23.064
% of GDP	5,1	5,0	4,8
Local government budget - expenditures	21.665	22.477	23.064
% of GDP	5,1	5,0	4,8
Local government budget - deficit	0	0	0
% of GDP	0,0	0,0	0,0
GDP	423.080	446.654	480.702

Source: Ministry of Finance

Such determined main postulates of the fiscal policy provide for optimal level of budget deficit of around 2% of projected GDP on the medium term. This level of budget deficit ensures sustainable level of both general government and public debt on the medium run, without jeopardizing the ability of the country to timely and regularly service its liabilities.

Projected Deficit and its Financing According to budget revenue and expenditure projections, sustainable level of budget deficit of 2.0-2.5% of the planned GDP is envisaged in the next medium-term period, including the central budget deficit and the deficit of the Agency for State Roads. Central budget deficit in the period 2010-2012 is planned at around 1.5% - 2.2% of the planned GDP (including credit disbursements by budget users to their own accounts creating deficit of around 0.3% of GDP), while deficit of the Agency for State Roads is envisaged to be 0.4%.

Financing the budget deficit will be mainly provided from external sources, in line with the policy on lower domestic borrowing. External sources include credits from international financial institutions (among which budget support from the World Bank in the amount of US$ 60 million), credit lines for financing certain projects, as well as borrowing on the capital market. The intention is to gradually reduce domestic borrowing through government securities. Foreign borrowing, as a source of financing, will be used by budget users for specific projects and by the Agency for State Roads for construction of national, regional and local roads.

Table 2 Deficit and sources for its financing

Deficit and sources for its financing (Denar million)	2010	2011	2012
Budget balance	-10,453	-11,071	-9,604
Financing	-10,453	-11,071	-9,604
Inflows	**18.391**	**18.985**	**14.956**
Domestic borrowing	2.500	2,500	2,000
Foreign borrowing	15.891	16.485	12.956
Outflows	**7.938**	**7.914**	**5.352**
Repayment of domestic debt	5.446	5.063	2.014
Repayment of foreign debt	2.492	2.851	3.338

Source: Ministry of Finance

Possible risks during the implementation of medium-term fiscal policy

Planned medium-term fiscal policy will generally depend on the successful realization of the following assumptions and challenges:

1. Realization of projected macroeconomic indicators in conditions of global economic crisis, on which directly depends the realization of projected revenues and expenditures in the coming medium-term period;

2. Successful implementation of tax reforms through further harmonization of the national legislation with the Acquis, especially in the field of indirect taxes and application of low tax rates, as well as introduction of favorable conditions and incentives for foreign investments, especially investments in economic zones, which will stimulate the economic development;

3. Successful implementation of the policy of reduced social contribution rates by 10 p.p. which, together with the integrated collection of all contributions and personal income tax, will enable further reduction of overall costs of companies, improvement of their competitiveness, as well as reduction of unemployment and grey economy.

4. Realization of capital investments, in particular in road and railway infrastructure, which should provide for fiscal stimulation of the expected slowdown of the economic development and absorption of excess of labor force;

5. Efficient utilization of credit funds earmarked for cadastre reforms, reforms in the judiciary, social protection, health and education, municipal development, irrigation rehabilitation and improvement of business environment, as well as the available resources from EU pre-accession funds.

III. TRENDS OF PUBLIC DEBT OF THE REPUBLIC OF MACEDONIA

In line with the national methodology, public debt of the Republic of Macedonia comprises general government debt, debt of both public enterprises and companies being fully or predominantly owned by the state, municipalities, municipalities in the City of Skopje and the City of Skopje as well as debt of the National Bank of the Republic of Macedonia. However, debt of the National Bank of the Republic of Macedonia, pursuant to the Law on Public Debt, is only used for statistical purposes, not being subject-matter of the Public Debt Management Strategy.

General government debt includes all financial obligations created via borrowing by the Republic of Macedonia, including the debt of the municipalities, the municipalities in the City of Skopje and the City of Skopje, not including the debt of public enterprises and companies being fully or predominantly owned by the state, the municipalities, the municipalities in the City of Skopje and the City of Skopje and of the National Bank of the Republic of Macedonia.

Total public debt of the Republic of Macedonia amounted to EUR 2,128.8 million at the end of December 2009, accounting for 32.1% of GDP. Compared to 31st December 2008, total public debt increased by EUR 258.7 million, or by 3.3 percentage points in relation to GDP. Such increase of total public debt was mainly result of the new issued Eurobond in the amount of EUR 175 million and increased net issuance of government securities by EUR 87.2 million. At the same time, in addition to the new VIII issue of denationalisation bonds in the amount of EUR 19.3 million, debt on the basis of structural bonds dropped by EUR 61 million. External public debt, as a result of the issuance of Eurobond, as well as the withdrawal of general allocation of special drawing rights in the IMF, increased by EUR 258.1 million, amounting to EUR 1,373.8 million, while domestic public debt amounted to EUR 755 million, keeping the level from 2008.

General government debt, compared to 31st December 2008, increased by EUR 210.2 million and, by end-2009, it amounted to EUR 1,597.2 million, i.e. 24.1% of GDP. Accordingly, general government debt at the end of 2009 was much lower than the Maastricht criteria, according to which general government debt must not exceed 60% of GDP.

Taking into account the low level of both public and general government debt, allows the Government, in the period 2010-2012, to project moderate increase of the investment activity by using credit support from abroad, without jeopardizing the long-term sustainability of debt level of the country.

Therefore, in the period 2010-2012, increase in the general government debt by 2.7 percentage points, i.e. from 26.5% to 29.2% in relation to GDP, is projected. Such increase in the general government debt was result of the new investments in the road and the railway infrastructure, water supply and sewerage, sports facilities, construction of social flats, as well as investments in the field of education, to be implemented by the state administration bodies.

In addition, projections for total public debt for the same period show increase by 3.1 percentage points, i.e. from 30.4% to 33.5% in relation to GDP. This increase is result of the above-mentioned investments and the additional investments that will be realised via borrowing by public enterprises for projects in the filed of energy sector and railway infrastructure, and the state will issue sovereign guarantee therefore.

Table 3 Projection for trends in public debt and key parameters[1]

	2010 projection	2011 projection	2012 projection
Total public debt (million EUR)*	2.096,5	2.381,4	2.622,9
Total public debt as % of GDP	30,4%	32,7%	33,5%
Target for total public debt as % od GDP	**40,0%**	**40,0%**	**40,0%**
General government debt (million EUR)	1.827,1	2.066,6	2.286,8
General government debt as % of GDP	26,5%	28,4%	29,2%
Target for general government debt as % of GDP	**30,0%**	**30,0%**	**30,0%**
Guaranteed public debt (million EUR)	247,9	298,2	321,9
Guaranteed public debt as % of GDP	3,6%	4,1%	4,1%
Target for guarenteed public debt	**10,0%**	**10,0%**	**10,0%**

** Total public debt includes general government debt, guaranteed debt of public enterprises, as well as debt of public enterprises, for which, sovereign guarantee was not issued.*

Source: Ministry of Finance

1 *Projections for different categories of public debt are based on:*

- *data from concluded partnerships, framework agreements and contracts on future cooperation between Republic of Macedonia and international financial institutions, envisaging framework for future borrowing;*
- *dynamics of disbursement of funds on the basis of awarded credits;*
- *projection of issue of government securities and*
- *projection of future issues of denationalisation bonds*

IV. TARGETS FOR TRENDS IN TOTAL PUBLIC DEBT PORTFOLIO

To the end of providing sources for financing the needs of the state with lowest cost in the medium and the long run, at the same time maintaining sustainable level of risk, pursuant to the Law on Public Debt, several medium-term targets, as well as the targets referring only to the next year, were defined.

IV.1 Medium-term targets

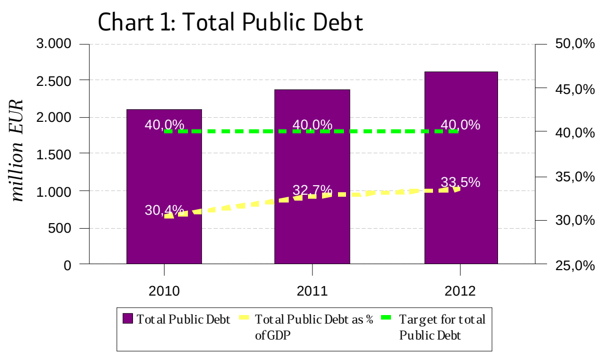
Medium-term targets are used for creating framework for public debt trends for the period 2010-2012. Medium-term targets define the maximum sustainable level of the total public debt in relation to GDP, the level of government public debt in relation to GDP and the level of guaranteed public debt in relation to GDP. In addition, to the end of reducing the risk factors affecting the total public debt portfolio, the currency debt structure, i.e. the share of euro-denominated debt, is also determined.

IV.1.1 Public debt to GDP ratio

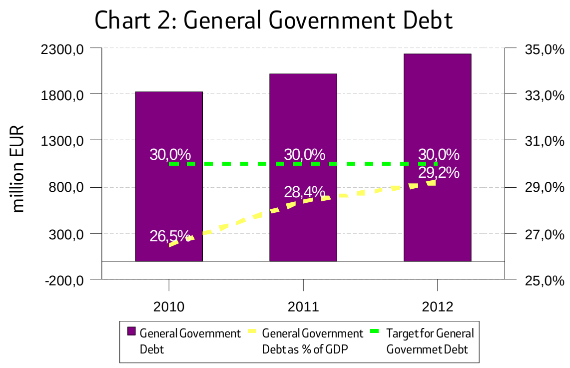
Public debt level is considered sustainable if it enables timely servicing and refinancing on the long run. Sustainable level of public debt in relation to GDP depends on many factors, such as economic development rate, inflation rate, development of domestic financial market, etc.

In order to retain the level of public debt within macroeconomic and fiscal sustainability, following targets are defined:

- **Level of general government debt not to exceed 30% of GDP in the coming three years.**
- **Level of total public debt not to exceed 40% of GDP in the coming three years.**



Source: *Ministry of Finance*



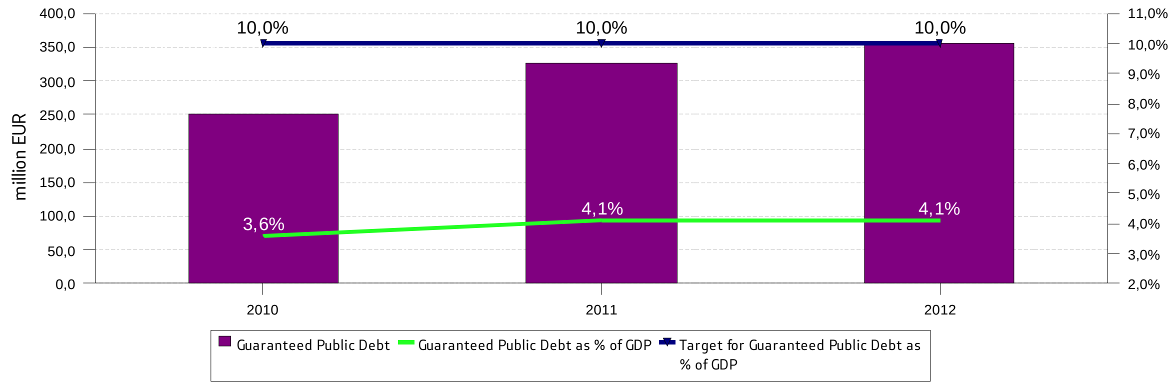
Source: *Ministry of Finance*

IV.1.2 Guaranteed public debt to GDP ratio

Issuance of sovereign guarantees is a contingent liability for the Budget of the Republic of Macedonia to call the guarantees up. Therefore, financing of public projects by issuing guarantees entails additional risks, thus entailing additional costs to the Budget of the Republic of Macedonia. According to the analysis on the trends of guaranteed public debt, it is expected to slightly increase in the period 2010 – 2012. Thereby, what is of huge importance is the determination of sustainable level of issued guarantees during the next three years so as to prevent greater negative consequences over the Budget of the Republic of Macedonia in case the guarantees are called-up. Thus, future policy of the state will still be aimed at applying restrictive approach in extending the guarantees, especially to the public enterprises that often face liquidity problems.

●**Level of guaranteed public debt not to exceed 10% of GDP in the coming three years.**

Chart 3:Guaranteed Public Debt



Source: Ministry of Finance

IV.1.3 Currency structure of total public debt

In order to reduce exchange rate risk and thus interest rate risk, it is necessary to determine the optimum currency structure of total public debt portfolio that will also contribute to reduction of the costs for its servicing. Therefore, euro- denominated debt should have dominant share in the public debt structure due to the strategy for targeting the Denar exchange rate towards the euro, as well as the domestic currency debt.

With regard to total public debt portfolio, in line with the projections and analyses for the future trends in the currency structure of the public debt, the focus will be put on gradual increase of the share of euro-denominated and domestic currency -denominated debt for the account of the other currencies in the public debt portfolio.

●**Share of euro-denominated debt in total public debt not to be below 70%.**

IV.2 Targets pertaining only to 2010

In line with medium-term targets for determining the optimum level and public debt portfolio structure, targets pertaining only to 2010 are also defined. These targets determine the maximum amount of net borrowing in 2010, as well as the maximum amount of net borrowing on the basis of issued guarantees in the course of the same year.

IV.2.1 Net borrowing in 2010

In the course of 2010, net borrowing includes the planned disbursement of funds on the basis of total public debt, including issued guarantees, reduced for the planned repayments on the basis thereof.

- **In the course of 2010, net borrowing on the basis of total debt must not exceed EUR 350 million.**

IV.2.2 Net borrowing on the basis of guaranteed debt in 2010

In order to reduce the risk from the contingent liabilities in public debt portfolio, annual amount of net borrowing on the basis of guaranteed debt of the public enterprises is defined.

- **In the course of 2010, maximum amount of net borrowing on the basis of guaranteed debt must not exceed EUR 150 million.**

V. MEASURES TO IMPLEMENT PUBLIC DEBT MANAGEMENT STRATEGY

V.1. Development of government securities market

Ministry of Finance continues to regularly issue government securities (GS) in the coming period. The intention is to maintain regular frequency of auctions of treasury bills (TB) with the existing maturity of 3, 6 and 12 months, as well as issuance of longer-term government bonds (GB) depending on the market conditions (Annex II – Calendar of Issue of Government Securities).

In fact, so-far experience in issuing GS pointed out to the conclusion that frequency of issuing securities corresponds to the market needs and the Ministry of Finance will continue the auction frequency in line with the market conditions. Net issuance of GS will be reduced in the coming years, due to the reduced needs to finance the Budget. Thus, net issue in 2010 and 2011 is projected to amount up to Denar 2.5 billion, while in 2011, in the amount of up to Denar 2 billion.

By introducing non-competitive bids when applying interest rate tender, investors are enabled to bid in the government securities auction only with amounts, while the interest rate to be awarded will be the average weighted interest rate achieved at the auction. In 2010, it is envisaged for the existing base of investors, being provided access to the auctions, to be expanded, i.e. instead of the existing access only to natural persons, in the coming period access will be provided to the legal (non-banking) entities as well. Non-competitive bids provide for huge advantage, especially for the smaller investors, as well as for increasing the popularity of government securities, being of great importance for further development of government securities market in the Republic of Macedonia.

In addition to the promotion of this novelty, Ministry of Finance will also continue with promotional activities for extending the base of investors in GS by carrying out marketing campaign in front of different target groups of investors and by maintaining dialogue with all participants in the government securities market.

In line with the modifications to the Rulebook on the Manner and the Procedure of Issuance and Payment of Government Securities, starting June 2009, Ministry of Finance has also introduced government securities with foreign exchange clause. Introduction of such financial instrument was stimulated by many reasons, among which the following: response to the needs of potential investors on the government securities market, reduction of interest costs of financing, continuation of portfolio maturity and sending clear signals for domestic currency stability. Practice of issuance of government securities with foreign exchange clause continues in 2010 as well, aimed at issuing government securities with foreign exchange clause with longer maturity and lower interest rate.

V.2 Development of cash management function

In the course of 2010, Ministry of Finance will undertake many activities for developing the cash management, for the purpose of better management of the single treasury account.

Efforts of the Ministry of Finance will be aimed at determining the optimal daily single treasury account balance and the spread regarding the optimal level. Determining the optimal single treasury account balance can be made after certain period of monitoring the cash flows and analysis of the projections for future cash inflows and outflows by the budget users. To the end of efficient performance of the cash management function, it is necessary for the budget users to be familiar with the importance of accurate projections, as well as possible introduction of system of awards and penalties for realisation of the determined projections.

Once the optimum daily level is determined, activities for development of appropriate instruments for cash management, i.e. placement of the excess of cash resources in different market instruments, will be undertaken, which would generate additional inflows of funds, as well as usage of instruments for collecting funds so as to cover the shortage of cash. Therefore, it is necessary to prepare appropriate cash management regulations. In addition, it is planned for market determination of interest rates on Denar and foreign exchange deposits to be provided within the cash management. To the end of efficient cash management, appropriate training of the staff to be included in this process will be also provided.

VI. RISKS IN PUBLIC DEBT MANAGEMENT

Uncertainty arising from future trends of macroeconomic variables on international and the domestic capital market has significant influence when reaching decisions for efficient debt portfolio management of the country. In conditions of large fluctuations of the economic variables, need arises for active management of risks to which public debt portfolio of the Republic of Macedonia is exposed.

Main risks, identified when managing this portfolio are the following:

- Refinancing risk:
- Market risk including the following risks:
    1. Interest rate risk
    2. Exchange rate risk.
- Liquidity risk
- Risk associated with contingent liabilities and
- Operational risk

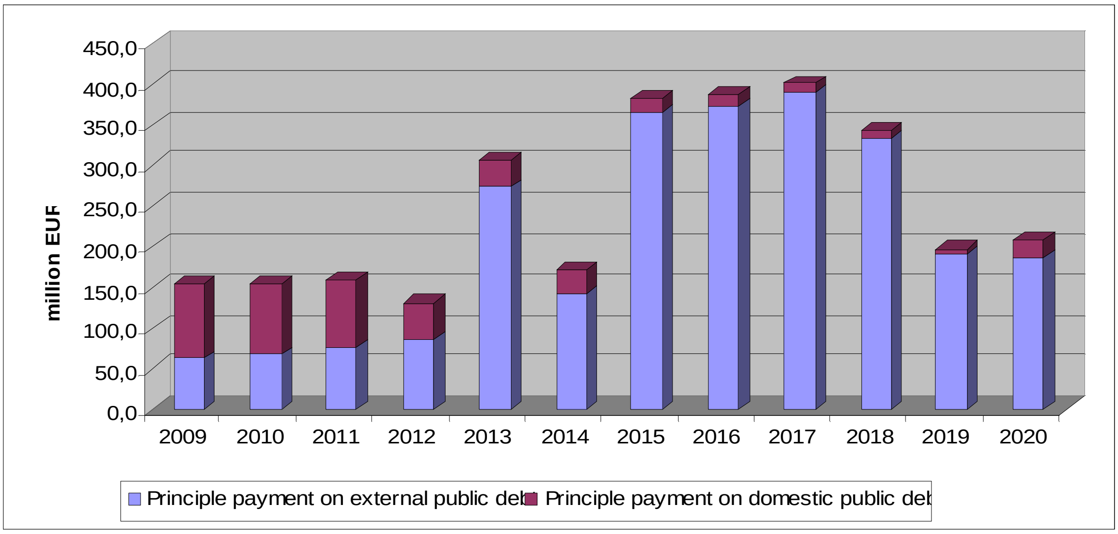
VI.1 Refinancing risk

Need to monitor the refinancing risk arises in the countries having high level of debt, instable macroeconomic conditions and underdeveloped (shallow) financial markets, whereas such risk in the developed countries is of marginal significance.

Refinancing risk is managed by preventing major part of the financial liabilities to fall due at once at any time and providing evenly distributed maturity of debt-related liabilities. Exposure of public debt portfolio to refinancing risk is measured by the debt repayment profile and the indicator average time to maturity

Taking into consideration the projections for the repayment profile in the coming years, one can conclude that the liabilities for repayment of the external debt increase, while with regard to the domestic debt they decline. Special challenge for efficient management of the refinancing risk is expected in 2013 and 2015, when the first and the second Eurobond issued in 2005 and 2009 in the amount of EUR 150 million and EUR 175 million respectively will fall due. Another reason for increase of the volume of repayments in the coming period are the repayments on the basis of the projected capital investments in the field of energy and infrastructure.

Chart 4: Repayment profile of the total public debt



Source: Ministry of Finance

From the point of view of repayment of the domestic public debt, certain stable profile of the principal repayment is also noticed. As a result of the maturity of the last installment of the bonds for old foreign currency savings in 2011, certain relaxation of the repayment profile in the coming years is obvious.

VI.1.1. *Average time to maturity - ATM*

In the period 2010-2012, moderate decrease of the average time to maturity of the total public debt is expected, from 5.5 years at the end of 2009 to 4.9 years in 2012.

Table 4 Average time to maturity (years)

	2009	2010	2011	2012
Structural bonds	2,8	3,0	3,6	3,3
Continuos government securities	0,3	0,5	0,6	0,7
External debt with fixed interest rate	8,0	7,2	6,8	6,5
External debt with floating interest rate	5,0	4,6	4,2	3,9
Total	5,5	5,1	5,0	4,9

Source: Ministry of Finance

Relative share of the individual components in the total debt is changing, whereby by 2012, share of components having shorter average time to maturity will gradually increase, while share of components with longer average time to maturity will decrease. Reason for such developments is the fact that Republic of Macedonia does no longer belong in the group of countries eligible to borrow under concessional terms with low interest rates and long maturity deadlines, such as the credits from the International Development Agency (IDA- the World Bank affiliate).

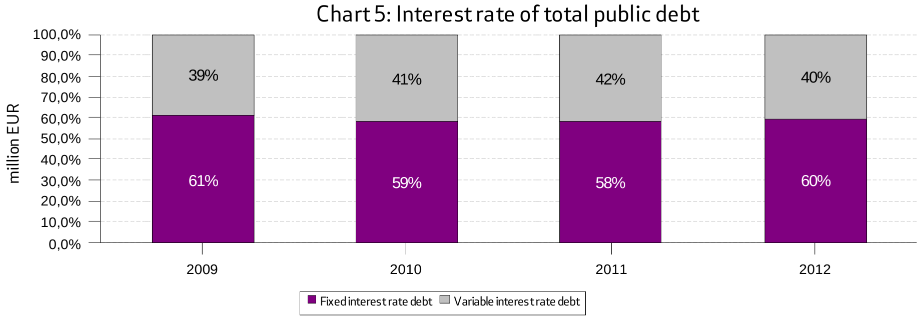
VI.2 Market risk

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

VI.2.1 Interest rate risk

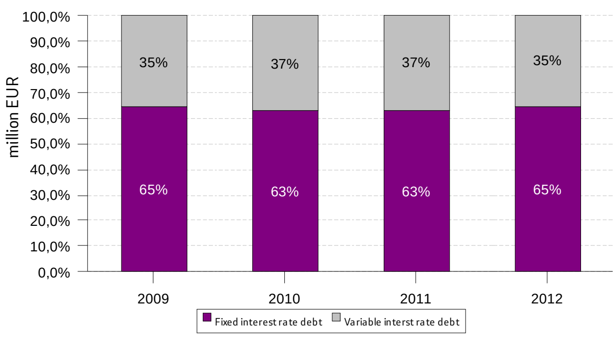
Measuring and managing interest rate risk is especially important in the countries where domestic financial markets are underdeveloped and the need to borrow is covered from external sources under non-concessional terms, where exposure to interest rate risk is greater. Variations of interest rates on the domestic and international markets affects the debt-related costs, especially when the fixed interest rate debt should be refinanced or on the day when the interest is re-set for the variable interest rate debt. Hence, close connection between the interest rate risk and the debt re-financing risk is evident. Taking into account the projected interest rate structure of total public debt portfolio from the point of view of the relation between the fixed interest rate debt and the variable interest rate debt, one may conclude that sensitivity of the portfolio to the variations of interest rates in the coming three years is relatively stable as e result of keeping the existing structure of the interest rates. Sensitivity to the variations of interest rates is especially evident at the domestic debt due to the increased share of the variable interest rate debt, while the foreign external debt is relatively stable.

Chart 5: Interest rate of total public debt



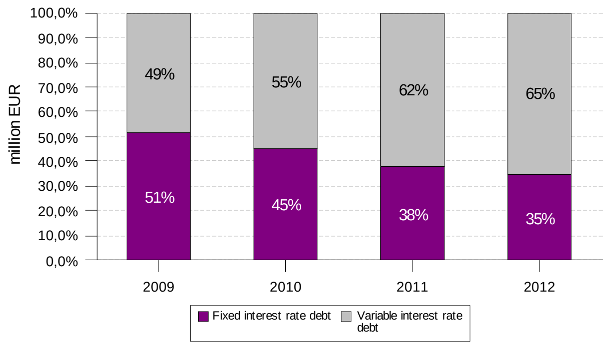
Source: Ministry of Finance

Chart 6: Interst rate of external public debt



Source: Ministry of Finance

Chart 7:Interest rate of domestic public debt



Source: Ministry of Finance

VI.2.2 Average time to re-fixing - ATR

ATR 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 interest rate re-fixing and such portfolio is a lower risk one.

Table.5 Average time to re-fixing (years)

	2009	2010	2011	2012
Structural bonds	2,5	2,7	3,0	3,0
Continuos government securities	0,3	0,5	0,6	0,7
External debt with fixed interest rate	8,0	7,2	6,8	6,5
External debt with floating interest rate	0,2	0,2	0,2	0,2
Total	4,6	4,2	4,2	4,0

Source: Ministry of Finance

In line with the projections of the public debt structure in the period 2010-2012, further slight decline of the average time to re-fixing is expected. Thus, public debt portfolio of the Republic of Macedonia would be more exposed to interest rate risk, which in conditions of possible increase of interest rates can lead to increase of interest-related costs. Decrease of the average time to re-fixing is mainly due to the decrease of the fixed interest rate debt, as well as the average depreciation of the structural bonds for old foreign currency savings and denationalisation.

VI.2.3 Duration

This indicator shows how much interest rate variations would affect the debt-related cost, i.e. what is the change in the value of securities resulting from 1 percent variation in interest rates. Higher value of this indicator means that the interest rate has not fluctuated during a longer period for the major portion of the debt. This indicator takes into account the net present value of money flows, meaning its calculation includes the interest-related cost when repaying the debt.

Table 6 Duration (years)

	2009	2010	2011	2012
Structural bonds	2,0	2,1	2,6	2,6
Continuos government securities	0,3	0,5	0,6	0,6
Total:	1,3	1,2	1,2	1,0

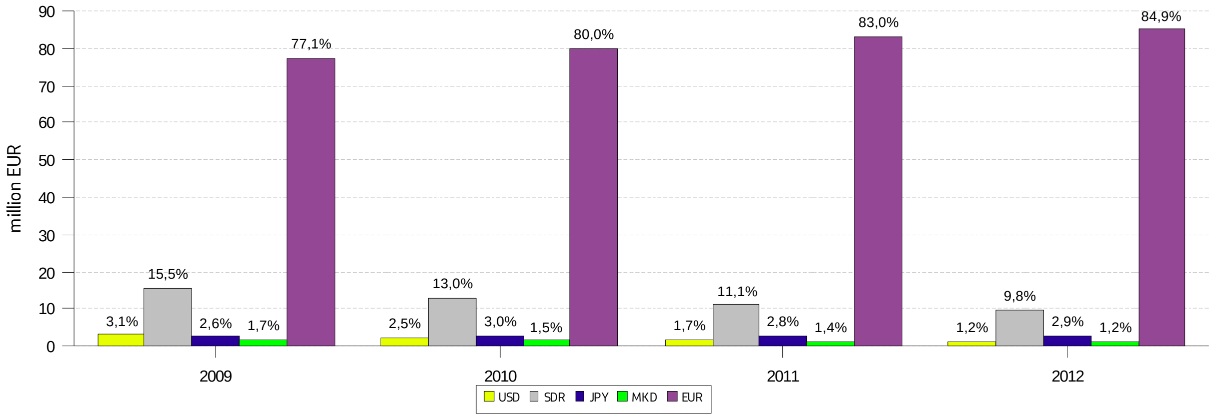
Source: Ministry of Finance

Calculations for this indicator and its monitoring refer only to domestic public debt, since it is market debt and it is traded on secondary market, while foreign public debt is predominated by the credits, being non-market debt. Future decrease of this indicator is a result of the maturity of structural bonds, not being accompanied by appropriate increase of the maturity of continuous securities. Mitigation of this risk means policy of gradual increase of maturity of treasury bills, which Government of the Republic of Macedonia is committed to.

VI.2.2 Exchange rate risk

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

Chart 8: Currency structure of total public debt



Source: Ministry of Finance

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 since 1995, Republic of Macedonia applies de facto fixed exchange rate of the denar in relation to the Deutch Mark, and since 2002 onwards, in relation to the euro, exposure to such risk would be measured also as a share of the euro in the total public debt portfolio, which is actually prevalent currency with 77% share in the total debt structure at the end of 2009. Share of euro-denominated debt is planned to increase to 84,9% by the end of 2012, being mainly due to the new projected borrowing that will be denominated in euro currency, as well as the gradual maturity of the debt denominated in other currencies (Special Drawing Rights and the US dollar).

VI.3 Liquidity risk

Liquidity risk may result from the inability of the country to service its due liabilities, with the funds necessary for their financing. Objective of liquidity risk management is to ensure optimum amount of liquid assets so as to be able to pay the liabilities falling due. The country uses its denar and foreign currency accounts with the National Bank of the Republic of Macedonia as main instrument for liquidity management. Macedonia. Level of these deposits guarantees safe financing of the country's needs and it protects the budget from financial crises, which would prevent or decrease the raising of funds by borrowing on the financial market.

Table 7 Public Debt Servicing

	2010	2011	2012
Public debt servicing in million EUR	220,06	241,86	231,91
Public debt servicing as % of general government revenue	8,9%	9,3%	8,4%

Source: Ministry of Finance

Liquidity risk management comprises keeping liquid assets at optimum level by improving the process of planning and monitoring the government budget execution, as well as by managing the surplus of liquid assets. From the point of view of the liabilities falling due within a year in relation to the budget revenues, upward trend of this share (lower risk) can be observed, thus this indicator accounts for 8.9% in 2010 and it will reduce to 8.4% in 2012.

VI.4 Risk associated with contingent liabilities

Guaranteed public debt, being contingent liability of the state, in addition to increasing the volume of government debt, is also a risk to increasing the costs for its servicing in case it is called-up and thus it may lead to facing with serious liquidity problems.

As a result of the projected investments being very important for the further development of the energy sector and the infrastructure, moderate increase of the level of guaranteed public debt is projected in the coming period. Strategic projects to be implemented by public enterprises will be financed by domestic and foreign creditors for the purpose of obtaining better conditions for their financing and the state plans to issue sovereign guarantee. Taking into account the risk the state may face in future in case the issued guarantees are called-up, analysis for the possible increase of the costs for servicing the due liabilities was made.

Table 8 Servicing the liabilities on the basis of guaranteed public debt

	2010	2011	2012
Guaranteed public debt servicing in million EUR	23,89	28,21	30,07
Guaranteed public debt servicing as % of GDP	0,3%	0,4%	0,4%

Source: Ministry of Finance

Liabilities on the basis of guaranteed debt, falling due in 2010 and 2011 are at low level, showing stable trend on medium term.

Therefore and in order for the Budget of the Republic of Macedonia not to be exposed to high risk of calling-up guarantees, the process of issuance of new guarantees is strictly regulated and it is subject to certain criteria the claimants of guarantees should fulfill, as well as to assessment of risks to which they are subject. To the end of mitigating this risk, the Government, when negotiating with financial institutions, will strive for providing financial resources for implementation of the projects though public enterprises and joint stock companies owned by the state, without being obliged to issue sovereign guarantee, wherever possible.

VI.5 Operational risk

Operational risk includes the settlement risk and the error risk. Settlement risk appears if a number of non-automated activities is used during data processing, while error risk often refers to the manner of segregation, division in executing the transactions and functions related to settlement across the units, within the institution in charge of the public debt management.

Public debt management in the Republic of Macedonia is carried out within the Ministry of Finance, by the Public Debt Management Department. Department consists of three units carrying out the activities related to borrowing and investing (Front Office), creating public debt management policy and risk analysis (Middle Office) as well as public debt recording, servicing and monitoring (Back Office).

Taking into consideration the fact that operational risk can be reduced by applying formal procedures, clearly specifying the individual tasks and responsibilities of the persons involved in carrying out debt management function, Public Debt Management Department prepared and begun to apply procedures, determining in details the manner and procedure of carrying out the working tasks related to public debt. The procedures also determine presented specific tasks for each employee in the department, being directly responsible for their execution, and a deputy is appointed to carry out these activities in case of his/her absence. Thus, the possibility for occurrence of error due to the insufficiently precise procedure or responsibility when performing certain task or the absence of the responsible persons is largely decreased.

From the technical assistance point of view, when carrying out public debt management function, it is important to emphasise the activities the Department undertakes to the end of implementing public debt management IT system so as to create and keep central registry of the public debt, i.e. comprehensive records and simple and fast access to data on public debt, which will provide for successful public debt management, without room for errors, as well as saving both time and human resources. Therefore, in 2008 and 2009, Public Debt Management Department undertook intensive activities for procurement and implementation of such IT system, and its full implementation is expected to be completed by mid-2010.

Annex I: Active credits* in the public sector as of 31st December 2009

Table 9

	Original currency	Total amount according to the agreement	Disbursed amount as of December 31, 2009 (in EUR)	Undisbursed amount as of December 31, 2009 (in EUR)
Total		418.731.264	175.786.604	330.478.889
IBRD		221.229.921	74.896.776	146.333.145
SPIL	USD	7.203.759	5.221.120	1.982.639
Health Sector Management Project	USD	7.350.775	4.860.598	2.490.177
Judicial Reform/Court Administration	EUR	10.000.000	2.971.882	7.028.118
Macedonian Railways Restructuring	EUR	15.000.000	11.051.245	3.948.755
Real Estate Cadastre&Registration Project	EUR	10.300.000	8.846.169	1.453.831
BERIS	EUR	8.800.000	1.094.000	7.706.000
Project for AD MEPSO	EUR	20.700.000	10.708.214	9.991.786
Education Modernization Project	USD	3.675.387	2.411.838	1.263.549
TTFSE II - Customs Administration	EUR	1.400.000	3.611	1.396.389
TTFSE II - Roads Fund	EUR	11.000.000	4.732.668	6.267.332
TTFSE II - Macedonian Railways	EUR	2.600.000	777.762	1.822.238
Project for agriculture	EUR	15.000.000	7.608.421	7.391.579
Project for local and regional rouds	EUR	70.000.000	13.013.748	56.986.252
Municipal Service Improvement Project-MSIP	EUR	18.900.000	547.250	18.352.750
Conditional Cash Transfers Project-CCT	EUR	19.300.000	1.048.250	18.251.750
EBRD		90.470.600	28.291.910	62.178.690
Power Transmission (400 kV interconnection Macedonia-Bulgaria)	EUR	40.470.600	28.041.910	12.428.690
Project for local and regional rouds	EUR	50.000.000	250.000	49.750.000
CEDB		12.500.000	5.000.000	7.500.000
Physical education facilities ("PEFs")	EUR	12.500.000	5.000.000	7.500.000
EIB		100.000.000	12.465.771	87.534.229
Small-And Medium-Sized Enterprises and other Priority Lending	EUR	100.000.000	12.465.771	87.534.229
Bilateral creditors		94.530.742	67.597.917	26.932.825
Irrigation Programme Southern Vardar Valley	EUR	6.646.794	6.545.759	101.036
JICA-Zletovica Project	JPY	68.701.663	44.626.532	24.075.131
Rationalization of management system and modernization of biomedical equipment in health sector	EUR	2.582.285	1.582.285	1.000.000
ELEM-Brod Gneotino I	EUR	16.600.000	14.843.342	1.756.658

*Active credits mean credits concluded in certain previous year, however the period of their disbursement of funds is still not completed.

Source: Ministry of Finance

Annex II: Calendar of issuance of government securities in 2010

Table. 10

Calendar of issuance of government securities in 2010

Quarter	Month	Auction code	Date of auction	Auction date	Payment date	Maturity in days/years
I	January	Д32010/01-180	05.01.2010	08.01.2010	07.07.2010	180
	February	Д32010/02-182	02.02.2010	03.02.2010	04.08.2010	182
	March	Д32010/03-189	02.03.2010	03.03.2010	08.09.2010	189
II	April	Д32010/04-182	06.04.2010	07.04.2010	06.10.2010	182
	May	Д32010/05-182	04.05.2010	05.05.2010	03.11.2010	182
	June	Д32010/06-175	15.06.2010	16.06.2010	08.12.2010	175
III	July	Д32010/07-182	06.07.2010	07.07.2010	05.01.2011	182
	August	Д32010/08-182	03.08.2010	04.08.2010	02.02.2011	182
	September	Д32010/09-174	07.09.2010	09.09.2010	02.03.2011	174
IV	October	Д32010/10-182	05.10.2010	06.10.2010	06.04.2011	182
	November	Д32010/11-182	02.11.2010	03.11.2010	04.05.2011	182
	December	Д32010/12-182	07.12.2010	08.12.2010	08.06.2011	182
		Д32010/01-364	21.12.2010	22.12.2010	21.12.2011	364

The 2010 calendar is indicative and it can be subject to changes, taking into account the shifts that might occur due to the religious and national holidays.

Source: Ministry of Finance

Annex III: Sensitivity analysis of servicing-related costs

In order to examine the sensitivity of public debt portfolio of the Republic of Macedonia to exposure to market risk i.e. interest rate risk and exchange rate risk, influence of variations of interest rates and exchange rate over the general government external debt was analysed.

Table 11 Sensitivity analysis of servicing costs of general government external debt as a result of changes in interst rate and foreign exchange rate

	2010	2011	2012
Base line	100,0	100,0	100,0
Scenario I – increasing the level of interets rate for 1% points	104,4	103,9	103,6
Scenario II – increasing the level of interets rate for 2% points	108,8	107,7	107,2
Scenario III-appreciation of other currencies in the portfolio against EUR for 10%.	101,8	101,7	101,6
Scenario IV-depreciation of other currencies in the portfolio against EUR for 10%.	98,2	98,3	98,4

Source: Ministry of Finance

This sensitivity analysis on the trends in interest-related costs in the Budget of the Republic of Macedonia on the basis of external debt is based upon the following **assumptions**:

–According to the change of one variable, all other variables remain unchanged, i.e. ceteris paribus.

–During possible trends in the other currencies in relation to the euro, Denar exchange rate in relation to euro retains the stable value;

•Non-existence of correlation between interest trends and trends in the foreign exchange rate;

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

1. **Servicing-related costs** on the basis of the general government external debt are **highly sensitive** to trends in the interest rates. If interest rates increase by only 1 p.p. in 2010, it would cause increase of servicing-related costs by 4.4%. This sensitivity may be explained as a result of the high exposure of debt portfolio to interest rate risk, being a result of the relatively high share of the debt with variable interest rates.

2. **Downward trend** of the sensitivity of servicing-related costs to variations of interest rates in 2011 and 2012 can be noticed from the results presented under the sensitivity analysis.

3. Future **appreciation/depreciation of the euro** in relation to t other currencies in

the portfolio (the US dollar, the Japanese Yen and the Special Drawing Rights) by 10% will cause decrease/increase of servicing-related costs due to the fixed exchange rate regime of the domestic currency, the denar in relation to the euro. However, the possible unfavourable trends in the foreign exchange rates of other currencies in relation to the euro **will not be strongly felt over the servicing-related costs**, due to the fact that the major portion of the general government external debt is denominated in euro currency.

* * *

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