III. Public Debt Management Strategy for the Period 2018 to 2020

According to the Public Debt Law, the legal basis for the borrowing of the Republic of Serbia, the public debt shall include all the direct liabilities of the Republic, based on borrowings, as well as the guarantees issued by the Republic of Serbia for public enterprises', local governments' and other legal persons` borrowings. The Republic may borrow in domestic or foreign currency, in order to finance budget deficit, current liquidity ratio deficit, to refinance an outstanding debt, to finance investment projects, and to assume liabilities based on the issued guarantees. The provisions of the Public Debt Law indicate that the public debt shall be an unconditional and и irrevocable liability of the Republic of Serbia with regard to the repayment of the principal, the interest and the remaining costs.

The basic principle of public debt management is the provision of regular servicing of the budgetary needs at the lowest possible costs and an acceptable level of risk.

For the purpose of formulation of the Public Debt Management Strategy a quantitative approach was used, by identifying possible restrictions through macroeconomic indicators, analysis of costs and risks and market conditions which affect the management of public debt. The analysis involved the use of financing instruments available in the domestic and international financial markets. The Public Debt Management Strategy is based on the principles that define the need for transparent and predictable process of borrowing with the permanent development of the government securities market and acceptable level of exposure to financial risks.

By analysing possible borrowing strategies, the World Bank model MTDS indicates that the borrowing structure that is based on dinar-denominated and euro-denominated securities issue represents the best option in terms of costs (risks). The borrowing strategy of the Republic of Serbia, applied in the last five years and based on the combination of financing from current resources and funds, mostly or partially from concessionary financing sources, showed that in situations when concessionary financing sources may be ensured, these funds should be used, because in this way, financing costs are reduced with an acceptable risk, which achieves the primary objective of public debt management. The situation on domestic and international financial market, successful implementation of fiscal consolidation measures, along with good coordination between fiscal and monetary policy in the last two years led to the significant decline in the borrowing in dinar-denominated and euro-denominated securities, as well as to the reduction of the risk premium for Serbian securities to the historical minimum. New framework of the analysis of possible borrowing strategies is based on the comparison between the strategy applied during the last five years and the strategies exclusively based on the market financial instruments denominated in dinars and in euros.

The fiscal strategy envisages the reduction of public debt of the general government level in the next period by 2020 at the level of 56.3% of GDP, in which case, in accordance with the Public Debt Management Guidelines defined by the World Bank and IMF, within the Public Debt Management Strategy, the stress-scenario analysis of the effects of the foreign currency exchange rate of the domestic currency (RSD) against the currencies in which the public debt of the Republic of Serbia is denominated, was conducted.

Significant progress has been made in the last five years in terms of increase in the average maturity of dinar-denominated securities and reduction of the costs of financing on the basis of this form of borrowing, which reduced the exposure to the refinancing risk. The Public Debt Management Strategy defines basic measures for further development of dinar-denominated securities market, because the development of this market shall create one of the necessary preconditions for raising the credit rating of the Republic of Serbia and reducing the exposure of the public debt to the foreign exchange risk. It is important to mention that in the mentioned period, the average coupon rate of dinar-denominated securities was reduced from 12.4% to 6.9%. Public Debt Management Strategy defines the basic measures for further continuing development of the market of dinar-denominated securities, since the development of this market shall create one of the necessary preconditions for increasing the credit rating of the Republic of Serbia and the reduction of the exposure of public debt to the foreign exchange risk.

1. Public Debt Balance and Structure in the period from 2014 to 30 September 2017

At the end of September 2017, the total public debt of general government level was RSD 2,913.2 billion, i.e. 65.2% of GDP. That included RSD 2,651.7 billion of direct liabilities, RSD 220.1 billion of indirect liabilities, whereas RSD 41.0 billion referred to the non-guaranteed debt of local government units and RSD 389.6 million to non-guaranteed debt of PE „Roads of Serbia".

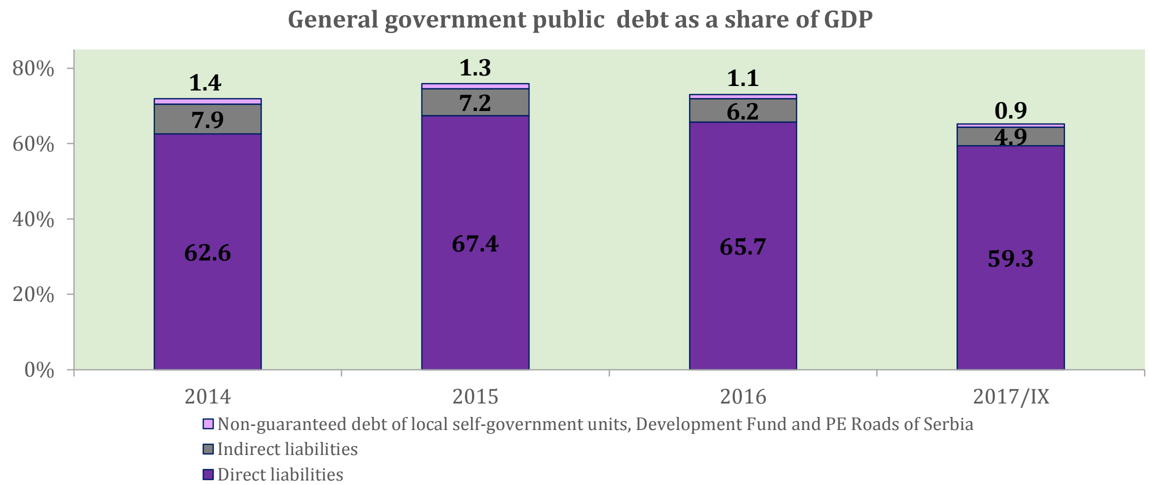


Table 21. General government public debt of the Republic of Serbia in the period from the end of 2014 to 30 September 2017

	2014	2015	2016	2017/IX
Public debt (in billion RSD)	2,808.2	3,072.3	3,110.8	2,913.2
Public debt (in million EUR)	23,216.0	25,260.1	25,194.3	24,405.2
Public debt (in million USD)	28,233.0	27,616.9	26,557.3	28,749.4

The source: Ministry of Finance, Public Debt Administration

In the first nine months in 2017 the decline in central government public share was noticeable on the grounds of almost all currencies it had initially been denominated in. Dollar-denominated public debt in the first nine months remained almost unchanged, whereas euro-denominated public debt reduced by EUR 25.0 million, and dinar-denominated public debt by RSD 6.3 billion in comparison to the end of 2016.

Table 22. Central government debt balance per original currencies in the period 2014 - 30 September, 2017, in millions

	2014	2015	2016	2017/IX
EUR	9,493.4	9,885.4	9,862.6	9,837.6
USD	8,717.8	8,934.6	8,861.4	8,864.9
RSD	588,570.0	668,939.4	639,844.1	633,572.7
CHF	199.1	173.2	146.4	138.6
Special drawing rights	801.2	760.2	713.1	673.8

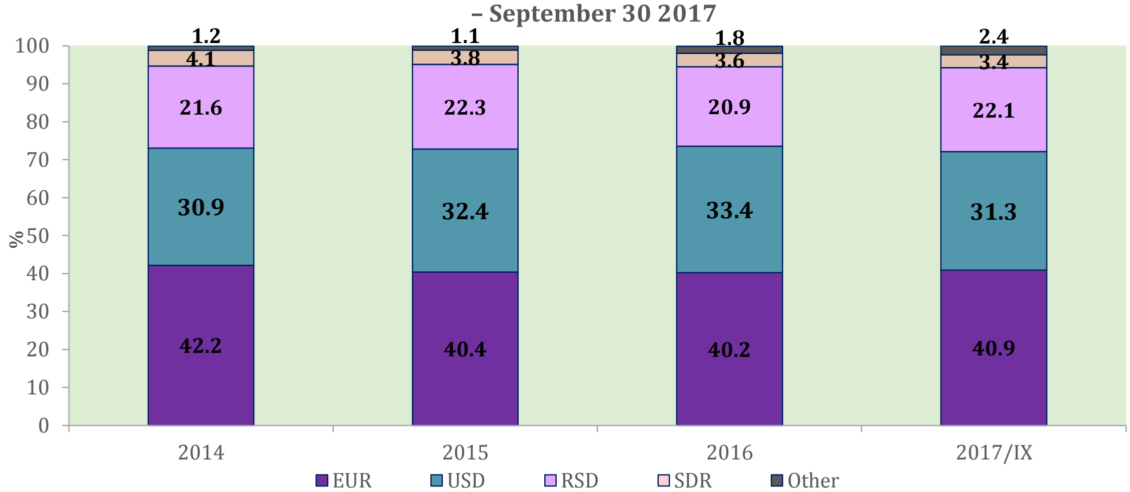
Other currencies (in RSD)	13,776.4	16,613.5	40,270.4	54,836.7

The source: Ministry of Finance, Public Debt Administration

In accordance with the tendency to drop the exposure to currency risk, to expand maturity and continue development of new borrowing instruments in the domestic financial market, the basic source of financing in the period 2014 - 2017 is issues of dinar-denominated securities, which affected the increase of public debt share in dinars from 21.4% at the end of 2014 to 22.1% of public debt of the Republic of Serbia at the end of September 2017, i.e. from RSD 588.6 billion, which was the amount of public debt at the end of 2014 to RSD 633.6 billion at the end of September 2017.

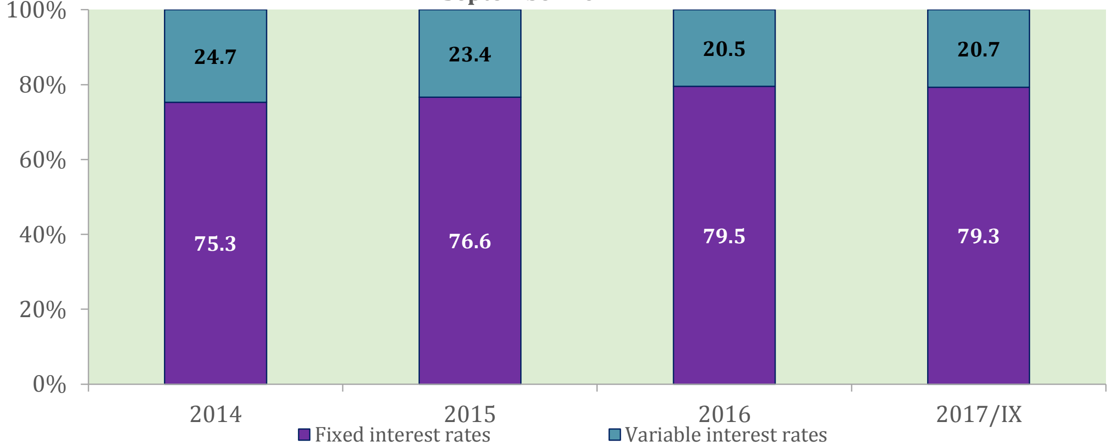
According to data from 30 September, 2017, the largest part of the public debt of the Republic of Serbia is still euro-denominated debt and it amounts to 41.5%. It is followed by dollar-denominated debt whose part is 30.8% and dinar-denominated debt in the amount of 22%. The remaining debt is denominated in special drawing rights (3.3%) and other currencies (2.4%). Due to the realized budget surplus during 2017, the maturity of Serbian Eurobond 2017 in November 2017 will be financed from current liquidity, without any new borrowings, which will result in the drop of debt share in the public debt structure and the increase of share of dinar and euro.

Currency structure of the general government public debt in the period 2012 – September 30 2017



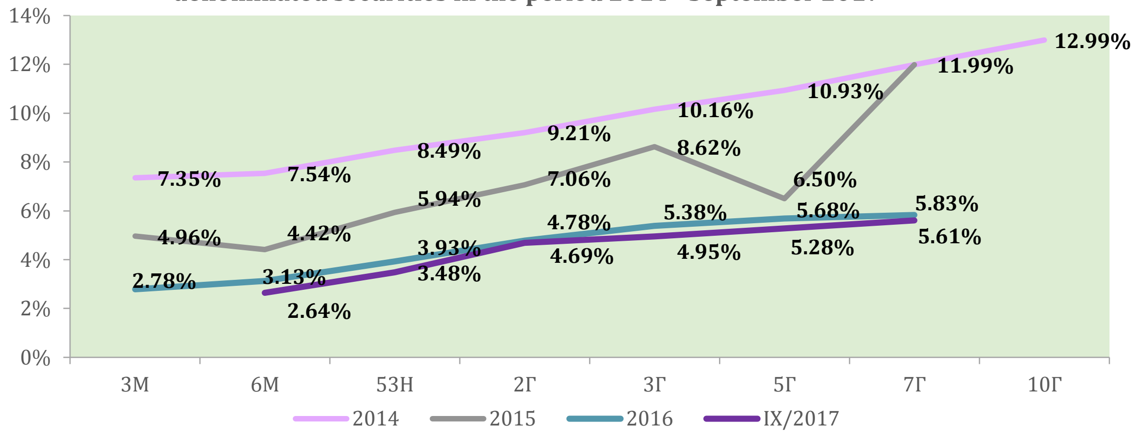
As of 30 September 2017, the majority of the general level public debt of the Republic of Serbia was with the fixed interest rate - 79.3%, whereas the public debt with the floating interest rate made 20.7% of the total public debt. Among the floating interest rates, the highest share hold EURIBOR and LIBOR interest rates in EUR which in total make 74.4%, then LIBOR interest rates in USD which made 8.9%, 2.8%referred to the liabilities tied to the reference interest rate of the NBS, and 14% referred to the rest of the liabilities (mainly the floating interest rate for special drawing rights).

Interest rate structure of the government public debt in the period 2014 - 30 September 2017

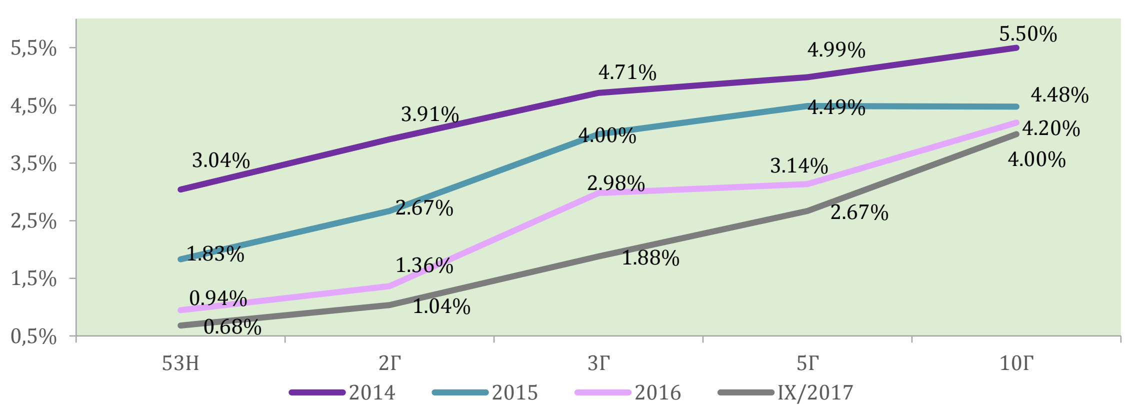


During 2017, the further drop of borrowing costs of the Republic of Serbia in terms of dinar- and euro-denominated securities occurred due to the reduced credit risk in the country, i.e. reduced risk premium, low inflation rate and reference interest rate of the NBS, which is currently 3.5%, thus continuing the trend that began in the last quarter in 2012.

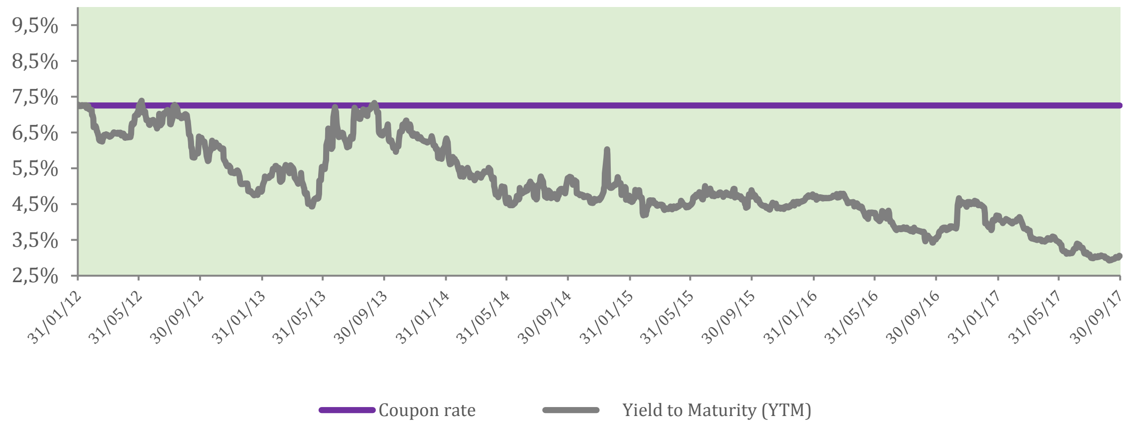
Overview of the trend of average effective interest rates in dinar-denominated securities in the period 2014 - September 2017



Overview of the trend of average effective interest rates in euro-denominated securities in the period 2014 - September 2017



Overview of yield rates trend for Serbian Eurobond 2021



Servicing the public debt of the Republic of Serbia (central government[1]) in the period 2017 - 2020

Table 23. Interests and principals repayment projections by 2020, in RSD billion

	2017p	2018p	2019p	2020p
Principal	554.0	453.0	406.4	446.2
Interest	119.0	117.8	111.9	111.3
Total	673.0	570.8	518.3	557.5
Share in the public debt as of 30 September 2017, %	23.4	19.9	18.0	19.4

The source: Ministry of Finance, Public Debt Administration

Table 24. Interests and principals repayment projections by 2020

	2017p	2018p	2019p	2020p
Principal, % GDP	12.4	9.5	8.0	8.2
Interest, % GDP	2.7	2.5	2.2	2.1
Total, %GDP	15.1	12.0	10.2	10.3

The source: Ministry of Finance, Public Debt Administration

Projection of General Government public debt balance in the period 2017 - 2020

Considering the projected primary budget deficit of the Republic of Serbia for the period 2017 - 2020, including the withdrawal of loan instruments for project financing of budget beneficiaries, the effects of foreign currency exchange rate of RSD against EUR and USD in the basic macroeconomic scenario, the central government debt balance at the end of 2020 should amount to 55.2 % of GDP.

Table 25. Basic projection of general government public debt balance by 2020

	2017p	2018p	2019p	2020p
Primary surplus (central government level), in RSD billion	142.1	84.2	88.5	89.6
Interests (central government level), in RSD billion	119.0	117.8	111.9	111.3
Public debt (central government level), in RSD billion	2,807.5	2,938.7	2,979.7	2,995.1

[1] Central government level includes the budget of the Republic of Serbia, mandatory social security funds and PE „Roads of Serbia".

	2017p	2018p	2019p	2020p
Central government debt, as % of GDP	62.8	61.8	58.8	55.2
Non-guaranteed local government debt, as % of GDP	0.9	1.0	1.0	1.1
General government debt, as % of GDP	63.7	62.8	59.8	56.3

The source: Ministry of Finance, Public Debt Administration

The ratio indicating the share of the general government public debt in GDP in 2017 is expected to drop to 63.7%, whereas in 2018, the further drop is expected to 62.8%, and in 2020, after several years of constant drop, this ratio is predicted at the relatively same level at about 56.3%. Non-guaranteed local government debt in the following period is predicted to be at the relative level from about 0.9% of GDP in 2017 to 1.1% of GDP in 2020.

Public debt stock according to the Maastricht criteria

It is important to mention that, according to the national methodology, public debt stock includes direct liabilities of central government as well as all indirect liabilities, i.e. guaranteed debt for public enterprises, local governments and other legal entities founded by the Republic of Serbia. This stock encompasses all the guarantees regardless of whether payment will be activated in the following period or not.

Considering the fact that one of the major economic and political objectives of the Republic of Serbia is EU accession, compliance of domestic methodology and European standards arises as a prerequisite. For that reason, the public debt stock is regularly analysed based on the criteria of the Maastricht Treaty, which are the systematic guidelines with the goal to maintain the public debt and the fiscal system, i.e. macroeconomic stability. According to these criteria, apart from the direct liabilities of central government, the public debt stock should also include non-guaranteed debt of local government, and exclude the debt based on direct and indirect liabilities that the Republic of Serbia (central government) does not pay for.

This debt is measured at the nominal value equal to the agreed amount of debt the Government must repay the creditors at maturity. That means that public debt is not influenced by the market yield changes and it excludes the unpaid accrued interest.

Table 26. Public debt structure and projection until 2020 according to Maastricht criterion

	2016	30 Sep 2017	2017p	2018p	2019p	2020p
						in RSD billion
Total direct liabilities	2,700.8	2,567.2	2,510.2	2,615.4	2,651.9	2,665.6
Guaranteed debt	145.3	114.0	114.6	103.9	100.1	105.2
Remaining debt of the government sector	0.8	0.4	0.4	0.4	0.4	0.0
Local government debt	75.7	69.6	70.0	87.8	104.4	127.1
Social insurance institutions debt	0.0	0.0	0.0	0.0	0.0	0.0
Public debt of the Republic of Serbia	2,922.6	2,751.2	2,695.2	2,807.5	2,856.8	2,898.3
Public debt of the Republic of Serbia in % GDP	68.6	61.6	60.3	59.0	56.4	53.4

The source: Ministry of Finance, Public Debt Administration

Public debt management principles

According to the Public Debt Law, the primary goal of Serbia's borrowing and public debt management is to ensure the funds necessary to finance budget expenditures, with medium-term and long-term minimal financial costs and acceptable risk level. Reduction of long-term public debt servicing costs to a minimum is restricted by the debt structure and costs reduction will be influenced by a number of factors and risks. With this in mind, the Public Debt Management Strategy of the Republic of Serbia defines the following general objectives and principles:

1) It is necessary to ensure the financing of the fiscal deficit and regular financing of liabilities based on the public debt of the Republic of Serbia;

2) It is necessary to define an acceptable risk level that should be defined in terms of a targeted debt portfolio structure, including debt currency structure, interest rate structure, maturity structure and debt structure by the types of instruments;

3) It is necessary to uphold the development of the market of government securities issued both in the domestic and international market, so as to have a developed market which would reduce the medium-term and long-term borrowing costs;

4) The borrowing process should be transparent and predictable.

Public Debt Management Strategy must be supported by and consistent with general Government medium-term macroeconomic and fiscal framework.

The Public Debt Management Strategy shall in the following medium-term period be based on the financing of the budget costs of the Republic of Serbia, mainly through the issue of government securities in the international and domestic capital market. The government securities market is still developing and one of the principles of public debt management is the necessary flexibility in order to secure the financing of Serbia's budget expenditures. Flexibility shall be reflected in the choice of the market for borrowings, borrowing currency and financing instruments. The choice of the financing structure will be made considering the domestic and international financial market current balance and development (interest rate level, risk premiums, yield curve, reference foreign currency exchange rates) and an acceptable level of financial risks exposure.

The objective is financing through the issue of mainly dinar-denominated securities in the domestic market in the following long-term period. The current situation indicates that, despite the firm decision to develop domestic securities market, in the following medium-term period, one part of the financing must be carried out in the international financial market.

Borrowing in a foreign currency, such as, e.g. in US dollars, includes the foreign currency risk, due to the changes of the exchange rate RSD-EUR and EUR-USD, so for that reason it is necessary to consider and use the possibility of hedging if borrowing is not in RSD or EUR.

The public debt management policy must take into account the long-term perspective, and still make a decision about financing budget expenditures annually. Decision on annual borrowing is made within the Budget Law for a certain fiscal year. Depending on the basic fiscal aggregate changes, the correction of the borrowing plan is possible during a fiscal year.

Financial risks and financial risk management measures

Financial and fiscal risks can cause a greater public debt growth than predicted by the baseline scenario. The risks that are present and may cause the debt and public debt servicing costs increase are: refinancing risks, foreign currency exchange risks, market risk (interest rates risk, inflation risk), liquidity risk, credit and operative risks, and risks tied to the servicing costs distribution (debt structure, liabilities concentration).

In order to reduce the exposure to financial risks, the following measures should be taken:

1. Refinancing risks

- Greater share of medium-term and long-term dinar-denominated financial instruments on the domestic financial market;
- Equal liabilities distribution based on public debt on an annual level in the following long-term period;
- Extension of average debt maturity issued in securities;

2. Foreign currency risk

- Tendency to reduce the foreign currency-denominated debt share regarding the new debt costs (cost of debt dinarisation);
- Utilization of financial derivatives to limit the effects of the reference currencies exchange rates changes;
- Tendency to have external debt in EUR mainly and to use the US dollar-denominated debt only if financing in dollars in the international market is less expensive, with the additional use of financial derivatives for limiting the risk;

3. Market risk (interest rate risk, inflation risk)

- Tendency to extend the duration of the internal dinar-denominated debt;
- Issue of indexed bonds (interest rates indexation);
- Risk based on external debt interest rate does not jeopardize the long-term objective of minimizing public debt costs tendency to extend the average duration of the internal dinar-denominated debt;

4. Liquidity risk

- Permanent sustainability of cash on Serbia's accounts at a level that enables smooth liabilities financing for at least four months, as well as the amortization of possible minor inflows based on borrowing according to the plan;
- Adequate management of free cash assets available on the accounts of the Republic of Serbia, according to the *asset-liability management* principles;

5. Credit and operative risks

- Financial derivatives transactions can only be carried out with the financial institution of high credit rating;
- The use of financial instruments that limit the credit risk;
- Granting guarantees and new loans to local government only if there has been an adequate analysis of a relatively low possibility of realizing the guaranty in the medium-term period or the local government becoming insolvent in the medium-term period;
- Introduction of adequate control in all the business activities in the Public Debt Administration and expanding the employees' knowledge;
- Upgrade and improve the existing information system that monitors the public debt and the operations related to it;

6. Risks tied to the servicing costs distribution

- Adequately planned annual borrowing and equal distribution for the following years and during the fiscal year in order to avoid the risk of high concentration of refinancing liabilities;

- Avoiding the obligations concentration based on the public debt on a monthly level, which could not be amortized by free cash assets on the accounts of the Republic of Serbia.

Analyses used to create the Public Debt Management Strategy

Public Debt Administration used the quantitative approach to formulate the Public Debt Management Strategy, identifying the possible restrictions through the macroeconomic indicators, and the analysis of costs, risks and market conditions which affect the public debt management. During the analysis of costs and risks, all the feasible financing alternatives are considered. The share of each instrument in the overall financing needs in the given year is decided according to the objectives of the Strategy.

For the purpose of analysis, the following instruments described below, available in the domestic and international financial market, were used.

Financing sources denominated in foreign currency

- Foreign governments and international financial institutions loans are shown as concessionary instruments denominated in EUR and USD, with fixed and floating interest rate;

- Internal, euro-denominated debt is presented through two instruments – government bills and government bonds issued in the domestic financial market;

- Eurobond denominated in EUR and USD issued in the international financial market.

Financing sources denominated in domestic currency

All of the dinar-denominated government securities are categorized into several groups: short-term government bills (with maturity dates up to 53 weeks), two-year, three year and long-term (five-year, seven-year and ten-year) government bonds.

Future market interest rates and analysis scenario

In the process of creating the medium-term public debt management strategy for the period 2017-2020, quantitative costs and risks analyses based on various scenarios and projections were used.

The first step is the basic scenario based on the most likely market conditions. Then three groups of market variables are identified: foreign currency exchange rates, interest rates in the international market and RSD reference interest rates. Future market rates can be deducted through the analysis of the available predictions of the purchasing power parities or through the prediction of the interest rate parities. The trend of RSD depreciation against EUR and USD is assumed, according to the macroeconomic framework in the period observed, and the relatively stable constant relation between EUR and USD remains, in order to provide a clear picture of the effect of the shock applied. The shocks test the effects of the market interest rates changes. The approach to dinar- and euro-denominated interest rates is based on the current yield rates realized in 2017.

Having defined the basic scenario, three more scenarios – shocks were chosen to conduct the stress test.

Dinar depreciation against US dollar by 15%. In this type of shock the EUR-RSD ratio in projection remains unchanged. This scenario has large influence on the Serbian debt due to the USD-denominated debt share (which was 31.3% of central government public debt at the end of September 2017).

Depreciation of dinar against all the currencies by 15%. In this scenario, the EUR-USD ratio would remain stable, whereas dinar would be depreciated against both currencies. Macroeconomic conditions for such scenario would refer to the increased current deficit of balance of payments and to the low direct and portfolio foreign investments inflow.

International market interest rates increase. The current interest rates in the world are at the historically low level. If the world economy recovers, the interest rates will probably increase for about 2p.p. in the medium-term period.

Domestic market interest rates increase by up to 4 percentage points. This scenario would be possible if the inflation were to rise above the level of allowed deviation in relation to the targeted inflation, as in the period until 2012, and if the high volatility of RSD-EUR exchange rate due to the country's risk premium increase.

Each of the above mentioned stress tests or risk scenarios were used to outline the effects of the costs of the strategies examined.

Alternative borrowing strategies for the period 2018-2020

The optimal choice between costs and risks, on the basis of the World Bank model *Medium Term Debt Strategy Model - MTDS*, defined the basic borrowing strategy choice for the next medium-term period. The analysed alternative borrowing strategies are the following:

Basic Strategy (S1): it is the strategy that covers the needs to finance government securities issue in domestic and foreign currency in the domestic financial market (80%), whereas 20% are provided from the concessionary credits.

Strategy (S2): compared to S1 strategy, the entire needs for financing are met through issuing the state securities in the domestic market, in the domestic currency (50%) and in the foreign currency (50%). This strategy, compared to strategy S1, has zero financing from concessionary credits.

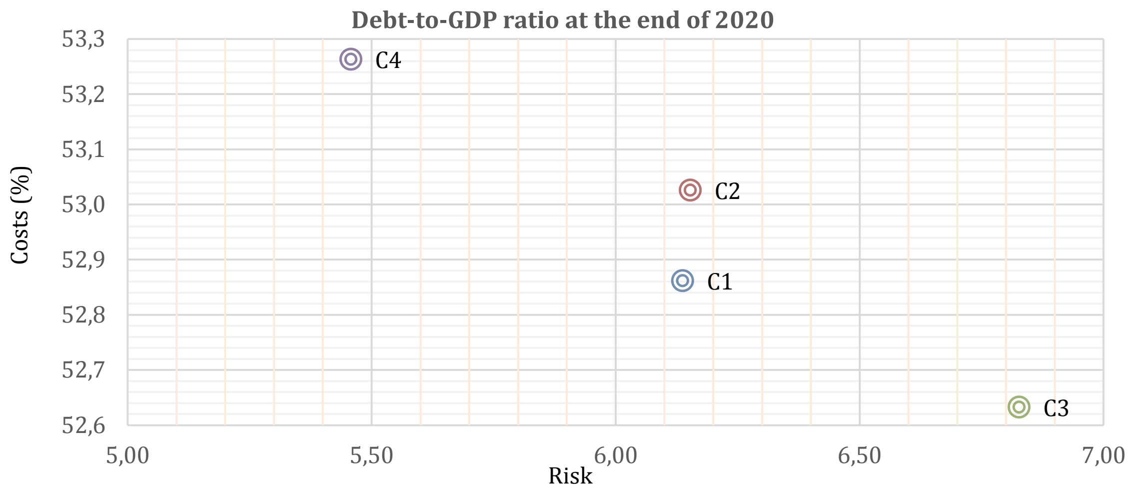
Eurobonds Issue-Based Strategy (S3): S3 strategy, as compared to S1 strategy predicts the strategy in which the total financing is based on the issue of euro-denominated Eurobonds with five and ten-year maturity.

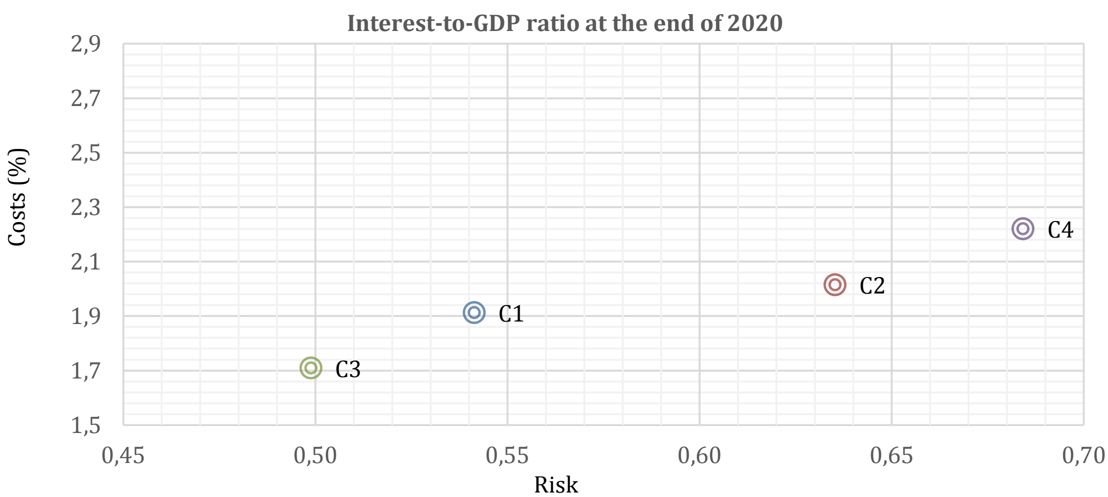
Additional Dinarisation Strategy (S4): this is a strategy in which the total financing is based on dinar-denominated securities issues.

Financing Serbia's budget expenditures following these strategies will be executed mainly through the issue of government securities in the international and domestic capital market.

Comparing the alternative strategies

Quantitative analysis represents the performance of each of the four alternative borrowing strategies. The vertical axis represents the debt share in GDP, i.e. interest in GDP costs in the basic macroeconomic framework whereas the horizontal axis represents the potential cost of a certain borrowing strategy (stress test result). Two cost ratios are implemented: public debt to GDP and nominal interest to GDP. The former is the balance indicator, and the latter the course indicator. For the sake of comparison, the attention is focused on the results of the strategies examined, at the end of 2020.





The Graphs clearly show the costs brought by each of the considered strategies - strategies S2 and S3 have relatively highest foreign currency exchange rate risk exposure. Strategy S4 has the highest exposure to possible oscillations of dinar-denominated interest rates, since the total additional financing is provided through issuance of dinar-denominated securities. On the other hand, strategies S1 and S3 in the basic macroeconomic framework will have the lowest debt in GDP ratio at the end of 2020. Strategy S3 has the lowest risk in terms of interest rates out of the four strategies examine, due to low fixed costs of euro-denominated Eurobonds; however, it turns out to be rather risky in terms of debt-GDP ratio. Strategy S4 appears to be relatively expensive from the aspect of foreign currency risk, considering that the budget financing on this ground is performed by issuance of dinar-denominated securities.

The analysis of public debt-to-GDP ratio graded strategy S3 as the one of the highest risk, despite the fact that within the baseline scenario, it has the lowest debt to GDP ratio, due to the risk originating from the exchange rate changes. Strategy S4 has the highest interest costs due to the significant share of dinar-denominated securities, as well as the risk caused by possible increase of domestic interest rates. Based on these analyses, it is evident that in the following medium-term period basic borrowing operations will be based on strategies S1 and S2. Application of discount prices that maintain the limited borrowing costs of the Republic of Serbia in the financial market would result in the most optimal borrowing strategy S3 from the aspect of net current value.

Table 27. Public debt-to-GDP ratio at the end of 2020

Scenarios	C1	C2	C3	C4
Basic scenario	52.9	53.0	52.6	53.3
Foreign currency exchange rate shock (15% of all the currencies)	59.0	59.2	59.5	58.7
Interest shock (scenario 1)	53.3	53.5	53.0	53.8
Interest shock (scenario 2)	53.7	54.0	53.4	54.3
Combined shock (15% of USD and interest shock 1)	55.8	56.1	55.6	56.3
Maximum risk	6.1	6.2	6.8	5.5

The source: Ministry of Finance, Public Debt Administration

Table 28. Payment ratio based on interest and GDP at the end of 2020

Scenarios	C1	C2	C3	C4
Basic scenario	1.9	2.0	1.7	2.2
Foreign currency exchange rate shock (15% of all the currencies)	2.1	2.2	1.9	2.4
Interest shock (scenario 1)	2.2	2.3	2.0	2.6
Interest shock (scenario 2)	2.5	2.6	2.2	2.9
Combined shock (15% of USD and interest shock 1)	2.3	2.4	2.1	2.7
Maximum risk	0.5	0.6	0.5	0.7

The source: Ministry of Finance, Public Debt Administration

The following table shows the basic public debt parameters trends in each of the four strategies considered, which outlines the above mentioned characteristics of each strategy:

Table 29. Alternative strategies risk indicators

Risk indicators		at the end of 2020			
		C1	C2	C3	C4
Nominal debt (% of GDP)		52.9	53.0	52.6	53.3
Net present value (% GDP)*		44,4	44.2	38.0	50.6
Applied interest rate (%)		3,7	3.8	3.3	4.2
Refinancing risk	ATM[2] external portfolio (in years)	6.6	6.5	6.5	6.5
	ATM domestic portfolio (in years)	3.3	4.8	2.4	5.1
	ATM total portfolio (in years)	5.6	6.0	6.2	5.7
Interest rate risk	ATR[3] (in years)	5.0	5.4	5.6	5.1
	Refixing (% of total debt)	27.5	25.8	21.8	29.8
	Fixed rates debt (% of total debt)	89.1	89.9	89.9	90.0
Foreign currency exchange rate risk	Foreign currency debt (% of total debt)	69.1	69.8	92.8	46.5

The source: Ministry of Finance, Public Debt Administration

* Applied discount rate reflects the limit borrowing cost of the Republic of Serbia in the financial market

Stress test analysis

Fiscal rule, defined by the Law on Budget System, imposes that the General Government public debt must not exceed 45% of GDP. Should the debt exceed that level, the Government's duty is to implement a program to reduce the debt share in GDP, i.e. to have the debt within the legal framework again.

[2] ATM (*Average Time to Maturity*) - abbreviation in english for average time to maturity.
[3] ATR (*Average Time to Refixing*) - abbreviation in english for average time to interest rate change.

At the end of 2016 the central government debt reached 71.9% of GDP, and general government debt reached 73.0% of GDP. The public debt-GDP ratio of Central Government was 63.4% of GDP at the end of September 2017, and the general government 65.2%. Dropping trend is expected to continue until the end of 2017, at the level of about 62.8% of GDP at central government level, i.e. 63.7% of GDP at general government level.

Due to high share of foreign currency-denominated debt (about 77.9%), it is clear that the foreign currency risk will determine the behavior of public debt-GDP ratio in the following period, and it will significantly influence the success of the fiscal policy measures designed to consolidate public finances and reduce the debt share in GDP.

Based on the planned macroeconomic framework, providing that there is no possible risk influence (foreign currency risk primarily), public debt, excluding the non-guaranteed debt of local government, would be at the level of 55.2% of GDP, until 2020.

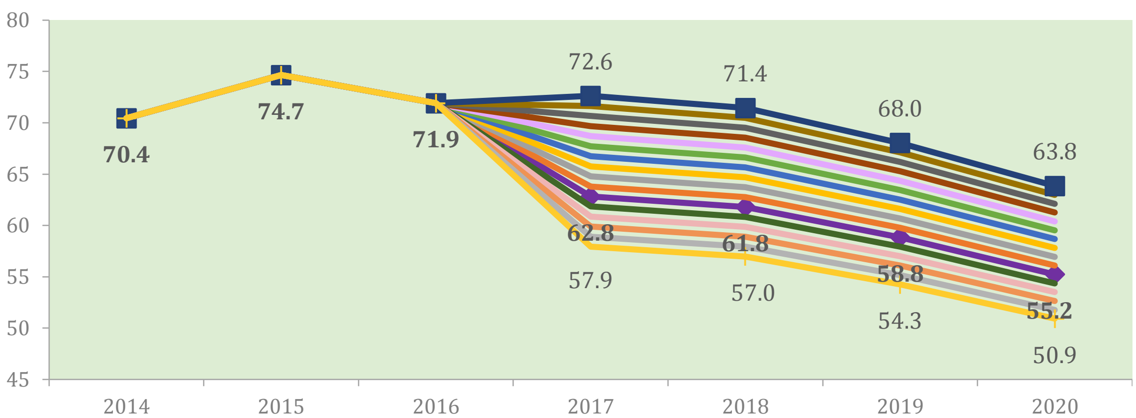
The key factors that influence the stabilization of public debt-GDP ratio include GDP growth, primary deficit, dinar exchange rate against foreign currency rates, and interest level. The planned measures of fiscal policy define the primary surplus, which reduces the key factor of debt growth, so under these circumstances, the constant decline of public debt is expected.

Table 30. Contributions from the key macroeconomic variables to the change in the central government public debt-to-GDP ratio, in %

	2015	2016	2017p	2018p	2019p	2020p
Central government debt in % GDP	74.7	71.9	62.8	61.8	58.8	55.2
Changes compared to the last year	4.3	-2.8	-9.1	-1.0	-3.0	-3.6
Primary deficit/surplus influence	-0.3	-2.8	-3.2	-1.8	-1.7	-1.7
Interest	3.1	3.0	2.7	2.5	2.2	2.1
Nominal GDP growth	-2.3	-3.8	-3.3	-3.8	-3.8	-3.9
Other factors affecting the ratio	3.8	0.8	-5.3	2.1	0.3	-0.1

The source: Ministry of Finance, Public Debt Administration

Impact of changes in the RSD exchange rate against the basket of currencies from the public debt portfolio on the change in public debt-to-GDP ratio



Graph represents the public debt-to-GDP ratio trends depending on the dinar exchange rate against a certain currency basket. It shows the basic projection with alternative scenarios depending on the appreciation or depreciation of dinar exchange rate, in the range of 10% appreciation to 20% depreciation of dinar against a currency basket. Implementation of the scenarios in question shows that in 2020 the ratio would range from 50.9% to 63.8%, whereas in the basic scenario it would be at 55.2%.

Major risks to the Strategy implementation, apart from the above mentioned quantified factors, include the following: stability of macroeconomic situation in the Republic of Serbia, the need for additional borrowing in order to regulate debts at other government levels, the public sector and the financial sector of the Republic of Serbia and activation of provided guarantees.

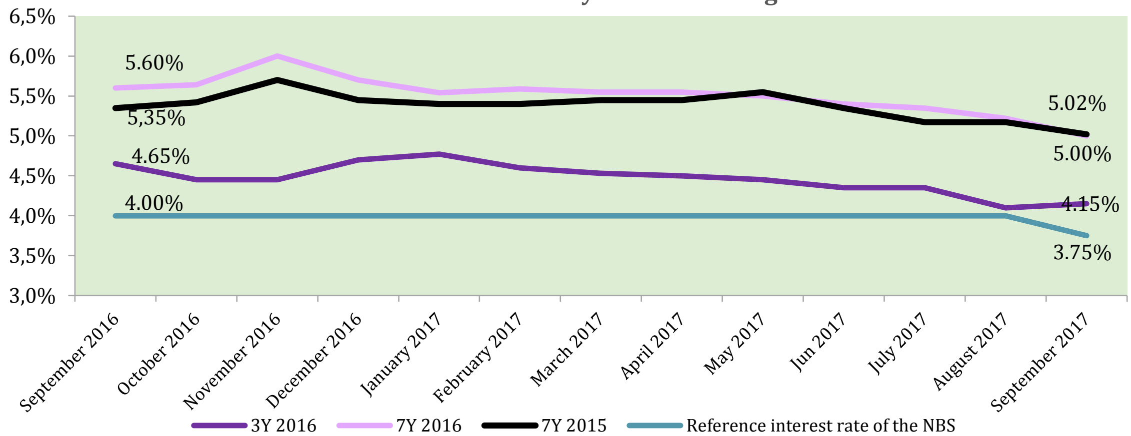
It is important to mention that the reduction of the public debt in relation to GDP will be enhanced by the more adequate control of guarantees issuance and the improvement of the process of investments projects prioritization, financed from the loan lines of multilateral and bilateral creditors Starting from 2015, the guarantees will be issued only for the project (investment) loans, i.e. no more guarantees for current liquidity loans to public enterprises which already in 2015 resulted in the reduction of the guaranteed public debt balance.

Long-term strategic framework of public debt management

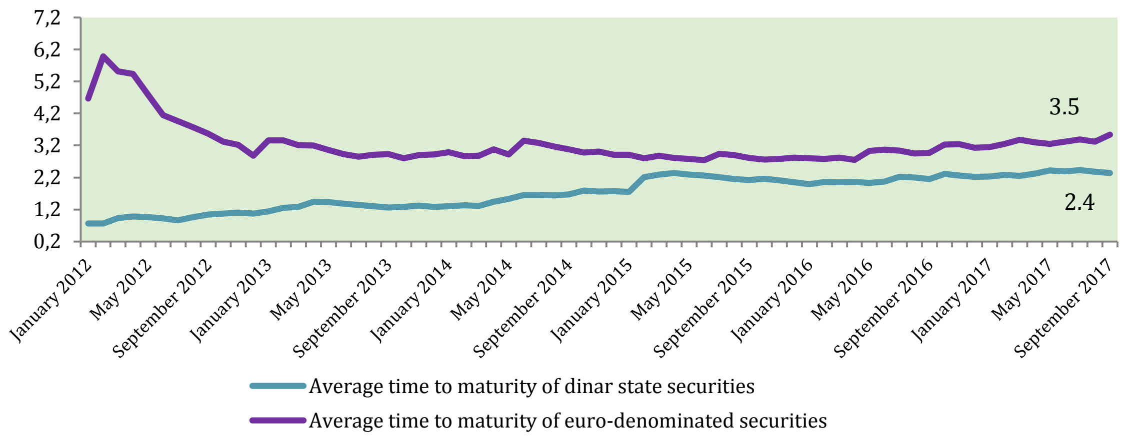
The basic strategic objectives which are to be acquired in the following long-term period, in order to minimize the risk of increased debt and public debt servicing costs are the following:

- The share of dinar-denominated debt should be about 25% of the overall public debt in the medium-term period;
- The share of euro-denominated debt in the public debt should be at least 60% of the foreign currency debt, including future borrowings and transactions;
- The share of floating interest rate should drop to below 20% in the mid-term period;
- Average time to refixing (ATR) should remain at a level of at least 4.5 years, in accordance with the above mentioned measure of gradual decrease of floating interest rate debt share;
- Weighted average interest rate (WAIR) for internal public debt shall not exceed 7.00%;
- The share of the short-term debt (whose maturity is up to a year) shall be up to 15% of the overall public debt;
- The average maturity time (ATM) of internal debt shall be at a level of at least 4 years in mid-term
- The average maturity time (ATM) of external debt shall remain at a level of from 6 ± 0.5 years in the same time framework.

Yield to maturity trends o three-year and seven-year dinar benchmark issues on the secondary market trading



Average time to maturity(ATM) of securities issued in the domestic financial market in the period from 2012 – 30 September 2017



Improvement measures for dinar-denominated securities market in the period 2018–2020

In the period of 2012– September 2017, the securities market has achieved the set strategic objectives, primarily regarding the financing instruments, but also when it comes to maintaining stability of diversified investor base. Transferring from short term financing resources, which were used in the period up to 2010, to the mid-term and long-term financing instruments, and the constant drop in borrowing costs, have influenced the reduction of refinancing risk, as one of the primary risks in the public debt management process. At the end of 2013, the share of long-term dinar-denominated instruments in initial maturity of three or more years amounted to 38.3% in dinar-denominated securities balance, whereas at the end of September 2017, the amount was 81%.

Transparent work and reports, as well as presence on the international capital market, helps the non-residents to be informed and therefore interested to invest their capital into borrowing instruments, primarily into long-term government securities, which enhances the development of a stable investor base. In 2014 were for the first time issued ten-year bonds which concluded the maturity development on the yield curve, of both dinar and euro denominated government securities. In February 2015 was for the first time established benchmark issue in the domestic financial market with the 7-year maturity in the amount of RSD 50 billion. During 2015, there was an issue of two three-year bonds in the amount of RSD 50 billion each. Due to successful realization of benchmark issues during 2015, the same practice continued during 2016. In February and July

2016 there was an issue of a three-year and seven-year benchmark bond in the amount of RSD 110 billion each. In April 2017 there was an issue of a three-year benchmark bond in the amount of RSD 110 billion. This issue considerably extended the scope of secondary trade in these instruments which considerably contributed to the drop in effective yield rates in the re-opening of the stated issues.

Trade in long-term government securities was enabled at Belgrade stock exchange to ensure further development of the secondary market of government securities from November 12, 2015.

The period to which this strategy applies is expected to improve the efficiency of the primary market through the concept of primary dealers, as a mechanism of selling government securities which can, in the long run, directly contribute to the reduction of borrowing costs and refinancing risk. Introduction of the selling system for the government securities in the domestic financial market through primary dealers is a solid base for the improvement of the market efficiency of the secondary market of government securities. In time, the development of the secondary market will establish the concept of market efficiency in the process of government securities evaluation. Introduction of the benchmark issue of bonds will have a positive effect on the amount and continuity of secondary trade, as well as on the improvement of market efficiency in the process of selling government securities in the primary market.

We should highlight the fiscal result, expected inflation rate and foreign currency exchange rate as the key factors that influence the yield curve of government securities. A special group of factors are the macroeconomic trends and expectations, as well as changes in the international financial market, which reflects the premium risk of the country.

At the end of 2011 the average maturity of dinar-denominated securities was 272 days (0.75 years), at the end of 2012 it was 394 days (1.1 year), at the end of 2013 it was 469 days (1.3 years), at the end of 2014 it was 645 days (1.8 years), at the end of 2015, it was 789 days (2.4 years), and on 30 September 2017 it was 864 days (2.4 years). In the period by 2020 it is predicted that the average maturity of government securities should be ranging between 2.5 and 3 years. Development of the domestic securities market will be supported by the Republic of Serbia with the following measures:

- Including domestic currency-denominated securities in one of a Global Currency Government Bond Emerging Market Indexes. Including Serbia's bonds in a global index would considerably increase the database of investors and support secondary trade, which would contribute to further reduction of costs by borrowing issues of securities;

- In order to create a base of investors as large as possible and to develop the secondary market for securities issued in domestic market, the Government created an equal tax treatment for the domestic and foreign investors at the end of 2011, and in the following period, efforts will be made to remove all the obstacles to a free capital flow. In the following period, the possibility will be considered of carrying out the clearing and offsetting of the domestic securities transactions through the international clearing system;

- The possibility of introducing the primary dealers will be considered in the following period;

- In order to increase the investments of domestic natural persons, there will be additional efforts in the domain of educating the citizens of the Republic of Serbia in order to make them invest the savings bonds of the Republic of Serbia, the first issue of which is to be on 27 December 2017.