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PUBLIC DEBT MANAGEMENT IN SELECTED CENTRAL EAST EUROPE COUNTRIES

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Review paper

Abstract: Public debt management represents an important part of public finance in each economy and in most countries is in administrative authority within the Ministry of Finance. The Public Debt Administration is the holder of public debt policy, presenting one of the most important branches of macroeconomic policy and has stabilization and developmental function. The Public Debt Management determines the schedule, scope and currency structure of the security issuance in the domestic and international financial markets and directly affects the level of indebtedness of the country and the level of foreign exchange risk. The main objective of public debt management is to ensure that the government's financing needs and its payment obligations are met at the lowest possible cost over the medium to long run, consistent with a prudent degree of risk. Adequate public debt management is crucial in view of the severe macroeconomic consequences of non-enforcement of public debt and the potential expansion of instability to other sectors in an economy. All this indicates the need for an adequately setting up current and future public debt management strategy and the development of instruments to reduce borrowing costs and foreign exchange risk levels. The aim of this paper is to present public debt management in selected Central East Europe countries (Serbia, Hungary, Croatia, Albania and Slovenia) and to recommend further improvement of its public debt strategies.

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Introduction

Public debt management is one of the most important tasks of the Ministry of Finance, besides planning and execution the state budget, determining of consolidated balance of public revenue and public spending, policy of taxes, tariffs and other public revenue, and public expenditure policy. Proper way of planning security issuance in the domestic and international financial markets, its currency and maturity structure determine the level of country debt, level of foreign exchange risks and country ability to timely finance its obligations. All this points to the necessity of establishing and maintaining excellent management governance and providing strategies that will deliver a good basis for planning future activities in the medium and long term. The aim of this research paper is to present the basic principles of public debt management in selected Central East Europe (hereinafter referred to as: CEE) countries (Serbia, Hungary, Croatia, Albania and Slovenia), as well as recommendation for improving their strategies. Hungary, Croatia and Slovenia are the countries which are chosen because they are using hedging instrument in public debt management and have developed function of primary dealers. Serbia and Albania still do not use hedging instrument and do not have primary dealers, but can use experience from previously mentioned countries and in that way improve their public debt management. This is especially important for Serbia whose Amendment to Law on Public Debt defines function of primary dealers and possibility of using derivative transaction.

1. Public debt management in Republic of Serbia

Public Debt Law in Article 2 defines public debt of the Republic of Serbia as the debt arising on the basis of a contract concluded by the Republic, the debt on the basis of issuing securities, the debt under a contract or an agreement that has rescheduled obligations which the Republic took over under the previously concluded contracts, as well as the issued securities of value under special laws, the debt arising on the basis of a given guarantee of the Republic or on the basis of a direct takeover of the obligation as a debtor for payment debt based on the date of the guarantee and the debt of the local government.

The Public Debt Administration (hereinafter referred to as: PDA) is an administrative authority within the Ministry of Finance of the Republic of Serbia, having the role in the public finance system of ensuring liquidity of the state and supporting governmental bodies, public enterprises and other state institutions in financing projects having the public importance. The activities of PDA have been mostly regulated by the Public Debt Law, as well as by Budget System and other laws and by-laws. The PDA was established on October 1, 2009, in accordance with the recommendations of the World Bank.

According to Article 11 of the Public Debt Law, the goal of public debt management is to decrease borrowing expenses for the Republic in accordance with a prudent risk level. Public debt management shall include:

1. Contractual arrangements for risk management, including reducing or eliminating risk of changes in exchange rate, interest rates and other risks;
2. Making decisions on the purchase and sale of foreign exchange;
3. Monitoring daily balance of the consolidated treasury account system and
4. Management of inflows related to public debt, investing and executing other transactions with liquidity surpluses, that is financial assets' funds pertaining to the Republic of Serbia under management.

The Republic of Serbia started issuing government securities in 2003. Initially, only short-term government bonds were issued in the period from 2003 to 2006, so that after a period of stagnation of the development of the state-owned securities market, the securities of the state securities were restarted as of February 2009. In 2012, new dinar instruments were introduced, such as inflation indexed bonds, two-year variable coupon variable bond and a five-year dinar bond. In 2013 significant changes occurred in the development of the state securities market, both in primary and secondary markets, as well as the development of financing instruments in the domestic financial market. Until then, eighteen-month and twenty-four-month treasury bills were exchanged with two-year government bonds. In addition to changing the structure of instruments, the Republic of Serbia for the first time issued seven-year state dinar bonds in March 2013. In 2012 in order to extend the maturity of government securities and increase the share of dinar-denominated debt in total public debt, continued with the introduction of new long-term instruments in dinars. The five-year dinar bonds with a 10% coupon were first issued on January 24, 2012. In order to diversify the debt on August 1, 2012, a two-year amortization bond was issued with a coupon related to the key policy rate of the National Bank of Serbia. The trend of extension of maturity and the increase in the participation of dinar state securities in the total portfolio of government securities issued on the domestic market continued in 2014. On October 21, 2014, for the first time, a ten-year dinar bond was issued. The issuance of 10-year bonds achieved one of the strategic goals of developing the maturity of the yield curve of dinar government securities. From the point of view of the Strategy of dinarization, it is of special importance to include long-term government securities in the trading on the Belgrade Stock Exchange as of November 12, 2015. In this way, the base of investors is expanded into state securities, which contributes to the liquidity of the secondary market of government securities, but also to the development of other financial instruments in the capital market (Martin 2018, p. 207-208).

According to the data from the Public Debt Management Strategy 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 September 30, 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. This indicates that PDA aim is to increase maturity of the RSD securities and to create yield curve which can be used as indicator to value other RSD product like mortgage and lease loans for households denominated in dinar.

Development of the domestic securities market, based on the Public Debt Management Strategy 2018-2020, will be supported by the Republic of Serbia with the following measures: (1) including domestic currency-denominated securities in one of a Global Currency Government Bond Emerging Market Indexes, (2) carrying out the clearing and offsetting of the domestic securities transactions through the international clearing system, (3) the possibility of introducing the primary dealers and (4) 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 saving bonds was on December 27, 2017 (Euro bonds were offered in the value of 80 million and citizens of Serbia bought these securities for EUR 17.5 million, while dinar bonds were offered in the amount of RSD 12 billion and citizens of Serbia bought only RSD 195.7 million).

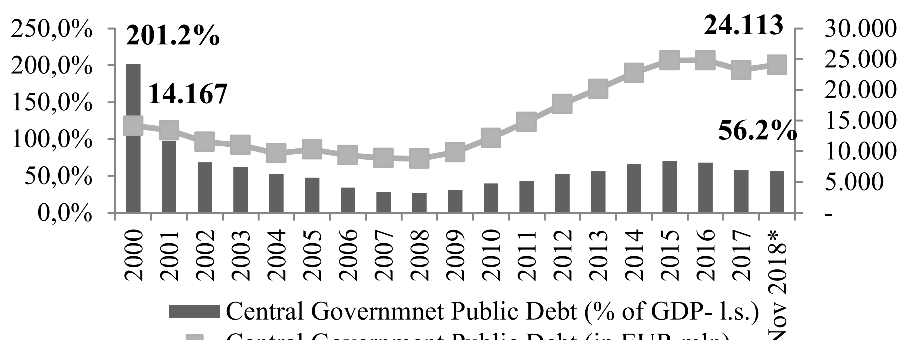
Based on data in the Public Debt Management Strategy 2015-2017, in September 2011 the Republic of Serbia issued the first Eurobond of nominal value USD 1 billion (Eurobond 2021), in the international financial market (ten years maturity, 7.24% coupon and 7.50% yield to maturity). In September 2012, the Ministry of Finance reopened the issue of Eurobonds 2021 from the year 2011, in the amount of USD 1.0 billion and yield rate at 6.25%. On November 14, 2012, the Republic of Serbia entered international market of debt instruments with an issue of five-year Eurobonds in the amount of USD 750 million (total demand for that issue was at the level of USD 3.7 billion) and with the yield rate of 5.45%. On February 14, 2013 the Republic of Serbia issued Eurobond of seven-year maturity in amount of USD 1.5 billion, with yield of 5.15%. On November 21, 2013, the fifth issue of Eurobonds of the Republic of Serbia was in the international financial market. Eurobond Serbia 2018 issued in the amount of USD 1 billion, with 5.875% coupon rate and a five-year maturity. The investors achieved 6.125% yield on that auction. In Article 1, Law on Budget of the Republic of Serbia for 2019 it is planned to make issued of Eurobonds in amount of EUR 1 billion during 2019 and if this realized that would be first issue on international market in currency euro. In this way PDA, by issuing Eurobonds in euro, will decrease currency risk which at the moment exist due to volatility of currency pairs EURUSD and USDRSD. Also it is planned that from issuing government securities, in euro and dinar, on domestic market to collect funds in amount of RSD 396 billion.

Amendments to the Law on Public Debt prescribe definition of primary dealers and general conditions of transaction with financial derivatives. In Article 2 for the first time defines function of primary dealer as financial institution selected by the ministry responsible for finance to perform certain activities in the government securities market, as well as to improve the primary and secondary market and to perform other activities that improve the management of public debt and the development of the government securities market. Also, Article 11 states that Government will regulates the general conditions of transaction with financial derivatives.

At October 10, 2018 PDA announced that it will apply buyback for RSD securities. First buyback PDA conducted on November 20, 2018 (3Y state securities in dinars, issue in February 18, 2016, executive rate of 2.90%) and second at December 18, 2018 (3Y state securities in dinars, issue in February 18, 2016, executive rate of 3.00%)

According to preliminary data Central Government Public Debt at end of November was at the level of EUR 24.426 million (direct liabilities stand at the level of EUR 22.550 million and contingent liabilities at the level of EUR 1.563 million) and had participation in GDP of 56.2%. (*Graph 1*). In Graph 1 the data of the GDP that are presented are revised by Statistical Office of the Republic of Serbia for the period 2005-2017.

Graph 1. Central Government Public Debt in Serbia



**Note: Preliminary data for November 2018*

Source: Public Debt Administration, Republic of Serbia

It is also important to follow currency and interest rate structure of public debt. Data for November 2018 indicate that major part of public debt in Serbia is in euro and with fixed interest rate (*Table 1*).

Table 1. Currency and interest rate structure of the Central Government Public Debt in Serbia, November 2018

Currency	Share of outstanding debt (in %)	Interest rate	Share (in %)
RSD	25.18%	Fixed rate	81.92%
EUR	38.63%	Variable rate	18.08%
USD	29.11%		
CHF	0.44%		
SDR	3.11%		
Other (GBP, JPY, DKK, SEK, NOK)	3.53%		

Source: Public Debt Administration Republic of Serbia

Public Debt Management Strategy for the period 2018 to 2020 (p. 14) contains the long-term strategic framework of public debt management in order to minimize the risk of increased debt and public debt servicing costs. Recommendations are following:

1) The share of dinar-denominated debt should be about 25% of the overall public debt in the medium-term period;
2) 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;
3) The share of floating interest rate should drop to below 20% in the mid-term period;
4) 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;
5) Weighted average interest rate (WAIR) for internal public debt shall not exceed 7.00%;
6) The share of the short-term debt (whose maturity is up to a year) shall be up to 15% of the overall public debt;
7) The average maturity time (ATM) of internal debt shall be at a level of at least 4 years in midterm and
8) The average maturity time (ATM) of external debt shall remain at a level of from 6 ± 0.5 years in the same time framework.

This strategy implies that PDA aim is to increase participation of euro and dinar-denominated debt and consequently to lower dollar denominated debt, as well as to downsize floating interest rate. This points to the need to reduce currency risk as well as the risk of changing variable interest rates.

2. Public debt management in Hungary

The Central Government Public Debt in Hungary present the debt of central government managed by the Debt Management Agency. This debt is taken into account in a consolidated manner (debts within the government sector offset each other) and is calculated on a gross basis (it is not decreased by the assets of the government sector). In Hungary public debt management is entrusted to ÁKK (Government Debt Management Agency). The mission of ÁKK is to finance the government debt and the central government deficit at the lowest costs in the long run taking account risks, at a high professional level and by using sophisticated methods. The main duties of ÁKK are to ensure the solvency of the central budget on the basis of the annual Budget Act and by taking into account the forecasts given by the State Treasury and to ensure that the central government deficit and debt redemptions are financed, and that the government debt and the temporarily free cash-funds of the state are properly managed (www.akk.hu).

In accordance with the economic policy of the government ÁKK has set three main objectives. *The primary objective* of debt management is to support the debt reduction. *The second objective* of ÁKK is to broaden the domestic investor base by funding large part of the deficit via retail financing. Decreasing debt ratio and increasing domestic financing enable to maintain the low share of foreign currency debt within the total debt, which is the *third objective* of ÁKK.

ÁKK is issuing various securities on domestic and international market. In domestic market, the following securities have been issued in domestic currency (HUF): (1) *Discount Treasury Bill* (government securities with a maturity less than one year), (2) *Government Bond* (interest-bearing government security with a maturity longer than one year. Currently, it is issued with tenors of 3, 5, 10 and 15 years), (3) *1-year Hungarian Government Security* (former name 1-year Interest Bearing Treasury Bill), (4) *Half-year Hungarian Government Security* (former name Half-year Interest-Bearing Treasury Bill), (5) *Treasury Saving Bill Plus*(fixed, step-up rate securities in a dematerialised form with a tenor of one year), (6) *Bonus Hungarian Government Security* (former name Bonusz Hungarian Government Bond-floating rate government security with tenors of four, six and ten years), (7) *Premium Hungarian Government Security*(former name Premium Hungarian Government Bond-floating rate government security with tenors of three and five years) and (8) *2-year Hungarian Government Security* (former name 2-year Government Bond).

Also, on domestic market, ÁKK is issuing two types of government bonds in EUR: (1) *Premium Euro Hungarian Government Bond* (floating rate government security with a tenor of three years) and (2) *Residency bond*. Since February 16, 1999, ÁKK has been issuing foreign currency bonds in international markets in different currency (EUR, USD, CHF, JPY, CNY, GBP), with tenor up to 30 years maturity. Non-EUR issues are swapped into EUR obligations as required by the benchmark laid down in the debt management strategy. According to the Annual report, on December 31, 2017 there were 29 series of foreign currency bonds outstanding, 19 of which had been issued in euro (including the domestic eurobonds as well), 8 in US dollars and 2 in Chinese Yuan Renminbi (CNY). Basically, ÁKK had set up benchmarks to maintain the optimal cost-risk characteristics of public debt, and one of these benchmarks is to keep foreign currency debt portfolio in 100% euro, allowing for a 5% deviation from this target. Therefore ÁKK swaps the non-euro foreign currency debt to euro debt with help of currency swaps.

At the end of November 2018, according to the data from the Monthly Report, total central government debt stranded at the level of HUF 20,005 billion, of which HUF23,024.4billion relates to HUF denominated debt, HUF 5,747.9 billion to foreign exchange denominated debt and HUF 232.8 billion to other obligations.

ÁKK has determined the following benchmark targets for government debt management in 2018 (Debt management outlook, p. 7-8):

- *Share of foreign currency debt*: The share of the foreign currency denominated debt within the total central government debt should remain within 15-25%. The decreasing share of foreign currency debt is achieved by covering the net financing need and a part of the maturing FX debt with financing in domestic currency.
- *Currency mix of the foreign currency denominated debt*: In order to mitigate cross-currency exchange rate risk, foreign currency obligations after swaps should be 100% in EUR, allowing for a 5% deviation from this target.
- *Fixed/floater composition*: Within the HUF debt, the share of the fixed rate elements should be in the range of 56-66%, and that of floating rate debt, which includes all short-term debt, between 34% and 44%. Within the foreign currency denominated debt, the share of the fixed rate elements should be in the range of 60-70% and that of floating rate debt between 30% and 40%.
- *Duration:* In order to keep an acceptable level of refinancing risk, the Macaulay duration of the HUF debt portfolio is targeted in the range of 2.5-3.5 years.

- *Liquidity:* In order to maintain the continuously safe financing of the budget, a minimum target balance of the Single Treasury Account has been determined and ÁKK's objective is to keep the end-of-day actual balance over this level.

Table 2. Central Government Public Debt in Hungary

Year	Gross debt (in HUF bln)	Gross debt/GDP
2004	11 592,35	56.8%
2005	12 744,17	58.0%
2006	14 676,71	61.8%
2007	15 576,40	61.3%
2008	18 025,39	68.2%
2009	18 944,75	74.0%
2010	19 821,00	75.6%
2011	20 532,62	75.8%
2012	20 369,00	73.9%
2013	21 881,36	72.7%
2014	23 569,94	73.3%
2015	23 943,74	72.0%
2016	24 687,38	71.8%
2017	26 471,96	70.0%

Source: Public Debt Administration Republic in Hungary

3. Public debt management in Croatia

The State Treasury is an administrative organization in the Ministry of Finance which carries out business affairs as follows: budget preparation and consolidation, budget execution, state accounting, public debt management as well as the affairs of financial management of the European Union's aid funds through the National fund (www.mfin.hr)

The Budget Act (Official Gazette, No. 87/08 and No. 136/12) prescribes the legislative and institutional framework for public debt management. It identifies the scope of public debt, the objectives of public debt management, the terms and conditions of borrowing, and the reporting obligations.

The Budget Act defines government debt as the central budget debt, and the public debt as a debt of the general budget. The central budget is the state budget and the financial plans of extra budgetary users of the state budget. The general budget is defined as the central budget and the budgets of local and regional self-government units and extra-budgetary users of local and regional self-government units.

The objectives of public debt management are: (1) satisfying the financial needs of the state, including the settlement of matured liabilities, (2) achieving the lowest mid-term and long-term financing costs with an acceptable level of risk and (3) to promote the development of the domestic capital market.

Borrowing in order to secure the financing needs determined by the state budget with the achievement of the lowest cost of financing is carried out through: (1) auctions of treasury bills, (2) financial and operational guarantees and (3) by issuing bonds.

T-bills auctions are in accordance with the published annual calendar of treasury bills issuance. The Ministry of Finance, through the Bloomberg Auction System (BAS), announces an auction at least two business days before the auction of treasury bills. The invitation to participate in the auction of treasury bills is published also on the website of the Ministry of Finance, where offers for the purchase of treasury bills are ranked according to the price of the offered discounted price, starting from the highest price. The lowest acceptable discounted price is determined and according to it, a unique selling price is determined for the entire series of issues. After the conclusion of the auction, investors are informed automatically of the results of the auction via BAS. Treasury bills auction statistics are also published on the Ministry of Finance website. Treasury bills are issued in EUR and HRK.

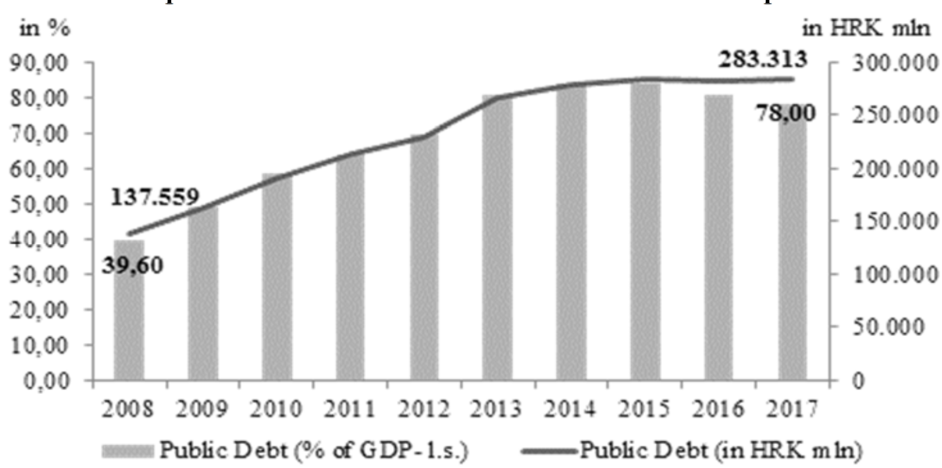
The Government may, on behalf of the Republic of Croatia, provide *financial and operational guarantees* on the proposal of the Ministry of \finance. In the first six months of 2018, financial and operational guarantees stand at level of HRK 14.7 billion.

Bonds represent a direct, unconditional and priority obligation of the Republic of Croatia and they are mutually equal with all other, current and future, unsecured obligations of the Republic of Croatia. The Ministry of Finance issues bonds in accordance with the annual plan of the issue. The previous practice of issuing bonds in the Republic of Croatia is carried out through the trade unions of domestic banks as an issuing partner. On the proposal of the Ministry of Finance, the Government of the Republic of Croatia made a decision on the issuance of bonds with the issuing arrangements whose bid was the best. All issued bonds of the Republic of Croatia are listed in Zagreb Stock Exchange. The first issue of domestic bonds issued by the Republic of Croatia or with the guarantee of the Republic of Croatia of the bond was in December 2000 (EUR 105 million, maturity three years, interest 8%, issued by Privredna banka Zagreb d.d. and Zagrebačka banka d.d. Zagreb) and the last in July 2018 (HRK 5 billion, maturity eleven years, interest 2.375%, issued by

Erste&Steiermärkische Bank d.d., Privredna banka Zagreb d.d., Raiffeisen bank Austria d.d. and Zagrebačka banka d.d.). The first issue of international bonds by the Republic of Croatia was in July 1996 (USD 857.7 million, three years grace period and eleven years repayment, interest 3M USD Libor+81.25 bp) and the last one was in July 2018 (EUR 750 million, maturity ten years, coupon 2.7%, issued by Deutsche Bank AG, London Branch, J.P. Morgan Securities plc and Zagrebačka banka d.d.).

In period from 2008 to 2017 public debt grew from 39.6% GDP to 78.0% GDP, e.g. from HRK 137.6 billion to HRK 283.3 billion (*Graph 2*). The reason for such an increase of debt from 2008 was the accumulation of budget deficits, but also the factors which mostly refer to the realization of potential risks at companies in the majority state-ownership. Besides, the level of public debt was also influenced by re-classification of several heavily indebted companies in the majority state-ownership to the general government sector, which occurred due to transfer to ESA 2010 (Public Debt Management Strategy for the period 2017-2019, p. 9).

Graph 2. Public Debt Trend in Croatia in the 2008-2017 period



Source: Public Debt Administration Republic of Croatia

Public Debt Management in last three years used protection instrument (currency swap), as a way to remove the currency risk. By using currency swap Public Debt Management replaced significant part of liabilities denominated in dollar to euro liabilities, and thus, the significant amount of savings was realized (saving were more than HRK 11.6 billion on the amount of debt principal). Five currency swap transactions of bonds were issued in total amount of USD 7.5 billion. In *Table 3* results of using swaps are presented regarding currency and interest rate structure and its change.

Table 3. Results of using swap in public debt management in the Republic of Croatia

	Currency structure				Interest rate stucture	
	Euro	Kuna	Indexed to euro (FX clause)	US Dollar	Fixed	Variable
Before swap	25.54%	28.34%	17.79%	28.33%	80.20%	19.80%
After swap	46.30%	29.86%	18.74%	5.09%	86.20%	13.80%

Source: Public Debt Administration Republic of Croatia

This results indicate that after using swap currency structure of public debt improved in sense that there is significant decrease of dollar denominated part of debt in favor of increasing participation of euro and kuna. Also, after swap there is more favorable interest rate structure.

For 2018 (2019) Public Debt Management project fixed interest share in total public debt to be 87.1% (86.7%), while variable interest share project at the level of 12.9% (13.3%).

4. Public debt management in Albania

Public debt in Albania consists of:

1) *Domestic Debt, which* includes government securities (treasury bills and treasury bonds) issued in the domestic market by the Central Government and debt guaranteed held by entities residing in the domestic market;
2) *External Debt, which* includes external loans contracted between external creditors and the Central Government and the instruments issued in the international financial markets by the Central Government and
3) *External guaranteed debt* refers to the loans signed between foreign creditors and public or private enterprises, for which Central Government has issued guarantees.

Since 2008, the Albanian General Directorate of Public Debt Management (GDPDM) has been organized in a General Directorate under the Ministry of Finance. The GDPDM is divided in a front, middle, and back-office and it is set up as a designated unit in the Ministry of Finance to take the lead in all borrowing activities, promote development of the domestic debt market, and to prepare a medium-term debt management strategy with annual updates on a rolling basis. Under this structure, the GDPDM has been headed by a General Director, who reports to the Deputy Minister of Finance. GDPDM functions as principal debt management entity and the principal guarantee entity of Albania. Among its responsibilities are to manage central government debt (both domestic and external). Borrowing in the domestic market is undertaken by issuance of Treasury bills and Treasury bonds through an auction process managed by Bank of Albania as agent for the Ministry of Finance. The approval of bids received in the auctions, however, is always decided by the General Director of GDPDM and the Minister of Finance. Formally, the Minister approves all borrowings (Financial sector assessment program Albania-Public debt technical note February 2014, World Bank, p.9)

Average maturity of total public debt at the end of Q3 2018 was 790 days (at the end 2017 780 days) with average yield of 4.27% (at the end 2017 4.33%). This indicates that public debt management succeeded to extend maturity with lower borrowing costs. The high levels of cover ratio in the Ministry of Finance auctions, from the specifically on those of long term investments, demonstrate that people are very interested to invest to government securities because of high interest levels compared to bank deposits, which is a positive signal for increasing the maturity of sovereign debt (Kalaja&Vokshi 2015). According to data of debt statistics bulletin, as of September 30, 2018, total public debt, including debt guarantees at the end of Q3 2018 stand at the level of ALL 1.088.972 million and represents 60.0% of GDP (*Table 4*).

Table 4. Stock of Central Government Debt in Albania including Debt Guarantees

ALL million

Indicators	**2014**	**2015**	**2016**	**2017**	**Q3 2018**
Total Debt Stock	**977,102**	**1,042,272**	**1,065,709**	**1,087,342**	**1,088,972**
Domestic Debt Stock	**564,673**	**551,374**	**561,120**	**577,056**	**590,991**
Central Government Debt	538,641	520,936	530,834	546,939	575,663
Central Government Guaranteed Debt	26,033	30,439	30,286	30,117	15,328
External Debt Stock	**412,429**	**490,898**	**504,589**	**510,286**	**497,980**
Central Government Debt	383,922	465,306	481,407	490,518	466,427
Central Government Guaranteed Debt	28,507	25,591	23,182	19,768	31,554
GDP	**1,395,305**	**1,427,799**	**1,472,791**	**1,555,202**	**1,649,952**
Total Debt Stock/GDP	**70.03%**	**73.00%**	**72.36%**	**69.92%**	**66,00%**
Domestic Debt Stock/GDP	40.47%	38.62%	38.10%	37.10%	35,82%
External Debt Stock/GDP	29.56%	34.38%	34.26%	32.81%	30,18%

Source: Ministry of Finance, Albania

In Albania, Public Finance Management Strategy for 2014-2020 period states a few aims regarding public debt management:

1) Establishing a fiscal rule that will guide fiscal policy toward long-term sustainability of public debt, leaving reasonable room for counter-cyclical fiscal policy to smooth strong economic cycles and shocks;
2) Restricting the use of privatization proceeds to retiring debt and/or to capital investment. In future, windfall revenue resulting from privatization and other forms of financial transactions will only be used for debt reduction and/or for public investments of national and socioeconomic interest.
3) Establishing legal rules that, in the years of parliamentary elections, will prevent early exhaustion of approved deficit and borrowing limits;
4) Developing a strategy for Government securities market's development. The Ministry of Finance will conduct a comprehensive analysis of primary and secondary markets of public debt including an analysis of desirable set of benchmarks, i.e., maturities, target sizes and number of lines via issuance simulations, and international benchmarking. It will finally conduct an analysis to assess market readiness/need for a Primary Dealer (PD) Programme and review/propose changes to the regulatory framework (if needed) for implementation of a PD-programme.
5) The aim is to reach total public debt share in GDP in 2020 at the level of 56.7% (legal ceiling stand at the level of 60 per cent for the debt/GDP ratio).

Public debt strategy indicate importance of strict rule, prevention of early exhaustion of approved deficit and borrowing limits, further development of primary and secondary market and reaching legal ceiling of public debt participation in GDP.

5. Public debt management in Slovenia

Central budget debt of the Republic of Slovenia refers to the total gross debt in nominal value at the end of the year, consolidated within the sector. In this way the impact of transactions between general government units is eliminated so as to prevent double counting. This debt represents liabilities of general government units towards domestic sectors and the rest of the world in million of euros. (www.stat.si).

The main mission of the Central Government Debt Management Department is the execution of the central government budget financing as well as execution of the debt management transactions. The Department reports Central Government Debt data to international and domestic institutions as well as Rating agencies. The structure of financing instruments, the size of short versus long term borrowing, and dynamics of the borrowing execution are primarily being planned taking into account the strategic objectives and the principles of government debt management for minimizing refinancing, foreign currency and interest rate risks as well as the central government budget cash flow assessments. (http://www.mf.gov.si). Securities which are issued by public debt management are following:

1) *Government bond* – according to Rules of the Republic of Slovenia government securities auction only primary dealers can participate in auctions directly, while other legal entities and private individuals can participate in the auctions in an indirect manner, by submitting their order(s) for subscription and payment of government securities for their own account to primary dealers. For government bond at the moment there are fourteen primary dealers. The auctions of government securities are carried out through an electronic system provided by Bloomberg (the Bloomberg Auction System - "the BAS"). The bond auctions are executed in two phases: by competitive bidding and by non-competitive bidding. The nominal amount of every individual competitive bid must be equal to or higher than 100.000 EUR. Maturity of government bonds are three, five, seven years, between ten and fifteen years and over fifteen years maturity. During 2008 public debt management organized three buyback auction for government bond (Febuary 21, March 20 and April 17)
2) *Treasury Bills* - auctions are executed in a single phase by competitive bidding. At least five working days before the auction date, a formal invitation to the primary dealers will be sent by the Ministry of Finance through the BAS after setting up a tender. For treasury bills at the moment there are seven primary dealers (Abanka d.d, Deležna banka Slovenije d.d., Jefferies International Limited, Nova KBM d.d., Nova Ljubljanska banka d.d., SKB banka d.d. Societe Generale Group andUnicredit Banka Slovenija d.d.). Maturity of Treasury Bills, according to the calendar for 2018 are 91, 182, 364 and 546 days. In April 10, 2013, the Government announce public invitation for buyback 18 months T-bill in value of EUR 510.7 million with price of 99.525% and yield of 3.99% (Buyback offer for Republic of Slovenia's OZ1 treasury bills)

In accordance with the agreement between the Ministry of Finance and the Ljubljana Stock Exchange (LJSE), all government bonds issued for budget financing are listed on Ljubljana Stock exchange official market. (Eurobonds and bonds issued for special restructuring and restitution purposes are exempt from this agreement). The treasury bills are also listed on LJSE. Bonds, denominated in USD, and bond Euro bond 2018, ISIN XS0292653994 are listed on the Luxemburg Stock Exchange. Benchmark government bonds, denominated in EUR, are listed on MTS Slovenia. Outstanding government security, based on original maturity, at the end of November 2018 valued at the level of EUR 28.2 billion (*Table 5*).

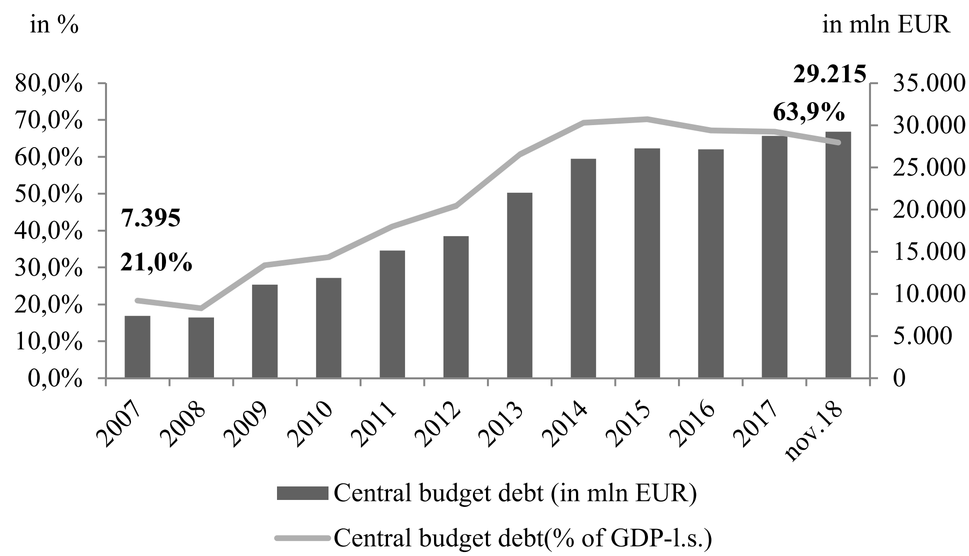
Table 5. Outstanding government security in the Republic of Slovenia

Outstanding end-November 2018	(in € millions)	(%)
T-bills (3 - month maturity)	15	0,1
T-bills (6 - month maturity)	25	0,1
T-bills (9 - month maturity)	0	0
T-bills (12 - month maturity)	366	1,3
T-bills (18 - month maturity)	133,5	0,5
Government bonds (3 - year maturity)	0	0
Government bonds (5 - year maturity)	1.101,30	3,9
Government bonds (7 - year maturity)	2.000,00	7,1
Government bonds (between 10 and 15 years maturity)	13.091,60	46,3
Government bonds (over 15 years maturity)	11.512,50	40,7
Total	**28.244,90**	**100**

Note: Original maturity
Source: Ministry of Finance and Debt of the Government Budget of the Republic of Slovenia

Central budget debt at the end of November 2018 stood at the level of EUR 29.2 billion and had share in GDP of 63.9% (*Graph 3*)

Graph 3. Central budget debt of the Republic of Slovenia



Source: Treasury Directorate, Ministry of Finance Republic of Slovenia

According to statement from May 2017, Slovenia concluded five cross-currency liability management transactions bought back a 47% of the existing US dollar debt portfolio so that the denominated US$ debt in state budget at the end 2017 was at the level of 12.5% (Republic of Slovenia issued in total USD 8.25 billion bonds, according to outstanding value of debt, in 2012, 2013 and 2014, maturity of five and ten years). The rest of it, at the end of 2017, was denominated in euro. (www.mf.gov.si).

In investors presentation for January 2019 it is stated that key focus of the state treasury is to extend the duration of the debt portfolio, hence reducing roll-over risk, while reducing implicit interest rate at the same time. It is planned to increase extended modified duration of the debt portfolio from 4.7 in 2014 to 8.2 at the end of 2018, while at the same time implicit interest rate is going to be reduced from 4.4% in 2014 to 3% in 2018. Also, it is estimated that long term financing cost of the central government budget for 2018 is going to be 1.85% GDP (2.3% GDP in 2017).

6. Recommendation for further improvement in public debt management in selected CEE countries

In the previous sections of work public debt strategies were presented for selected CEE countries. As a way to further enhance and improve a public debt management strategy, it is necessary to give guidance to public debt administration.

In *Serbia* 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. Also, in Memorandum on the Strategy of Dinarisation of the Serbian Financial System signed by NBS and RS Government in March 2012, states that one of the Government's task is to raise the share of pure dinar debt in total public debt. Based on the previous analysis, it is important to note that all of Eurobonds, which were issued by the Government of Republic of Serbia on the international markets, were denominated in USD. 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 EURRSD and EURUSD, so for that reason it is necessary to consider and use the possibility of hedging if borrowing is not in RSD or EUR. Recommendations for public debt administration in Serbia are following: (1) decreasing share total public debt in GDP below 45%, according to fiscal rule, (2) increasing RSD share in total public debt, (3) using hedging instrument for Eurobond issued in USD in a way to downsize FX risk, (4) further improving primary and secondary market for all security, especially for those issued in domestic currency, (5) making plans that future issue of Eurobond in the international market be denominated in EUR and (6) to introduce primary dealers in practice because the Amendment to the Law on Public Debt defines their role.

In *Hungary* recommendation is connected with proposal of increasing number of primary dealers that are currently operating. Based on information in Annual report for 2017 at the end of 2017 there were 15 primary dealers (7 were non-resident institutions). Also, public debt management should work on broadening investors base, particularly domestic investors.

For *Croatia* suggestion is to further decrease share of total public debt in GDP, taking into account EU legal provisions where public debt rule defines that a share of public debt in GDP shall not exceed the reference value of 60%. At the end of 2017 share of total public debt in GDP stood at 78.5%. Also one of the recommendations is a continued usage of protection instrument, e.g. currency swap, as a way for further decrease of US dollar share in total public debt.

In *Albania* share of public debt to GDP is still high (in Q2 2018 at the level of 65.19%) taking into account that legal ceiling stand at the level of 60 per cent for the debt/GDP ratio. Also authorities in Albania should improve the primary and secondary market so that they could attract wider investors base and to introduce primary dealers. Finally, public debt management can upgrade using hedging instrument in a way to improve currency structure of total public debt (at the end of Q2 2018 57.18% of total public debt was in euro, 24.54% in SDR, 11.62% in US dollar and 5.66% in other currencies).

For *Slovenia* recommendation to further decrease share of total public debt in GDP and to be in line of Maastricht criteria that Government debt-to-GDP ratio not exceed 60% at the end of the preceding fiscal year. Also it is advisable in the following period to further develop primary and secondary market, as well as continuation of using hedging instruments.

The implementation of the above recommendations for all previously analyzed countries will depend on macroeconomic stability in the certain country and globally, the movement of domestic and foreign inflation rates, the stability of the domestic currency exchange rate, the fluctuation of interest rates in the country and abroad, the level of country rating and its attractiveness for investment from domestic and foreign investors. All this can be achieved by mutual cooperation between the Central bank and the Ministry of Finance and coordination among monetary and fiscal policy.

7. Conclusion

Many public debt agencies seek to further strengthen their capacity to appropriately manage public debt and ensure borrowing in the interest of maintaining sustainable debt levels. The main objective of public debt management is to ensure that the government's financing needs and its payment obligations are met at the lowest possible cost over the medium to the long run, consistent with a prudent degree of risk. Adequate public debt management is crucial in view of the severe macroeconomic consequences of non-enforcement of public debt and the potential expansion of instability to other sectors in an economy.

When a clear set of objectives in terms of public debt management are defined, they need to be translated into an applicable strategy of public debt management in terms of strategic goals. After the objectives are proposed, then the public debt management authority assumes complete responsibility for the implementation of the public debt management strategy. Public disclosure of the strategy strengthens the transparency and accountability of the institution in charge of public debt management.

Analysis of this paper is focused on public debt management in selected countries in CEE (Serbia, Hungary, Croatia, Albania and Slovenia). Hungary, Croatia and Slovenia are the countries which are chosen because they are using hedging instrument in public debt management and have developed function of primary dealers. Serbia and Albania still did not use hedging instrument and do not have primary dealers, but can use experience from previously mentioned countries and in that way improve their public debt management. This is especially important for Serbia which is in the Amendment on Law on Public Debt defines function of primary dealers and possibility of using derivative transaction.

Each country is presented with the organization of public debt management, issued securities and their characteristics, development of primary and secondary markets, hedging instruments as well as presentation of public debt strategies for the following period. Final discussion is focused on proposing measures which each country could implement and potentially improve public debt management. The recommendations are referring to decrease share of total public debt in GDP, introducing hedging instrument and primary dealers, widening base of investors and upgrading primary and secondary markets.

Main problem with regard to all analyzed countries is a high level of public debt and its participation in GDP and future activities should be direct on its reduction. For all countries participation of public debt in GDP is higher that legal ceiling (in case of Serbia is put at 45% of GDP) or Maastricht criteria (debt-to-GDP ratio should not exceed 60% at the end of the preceding fiscal year). Reduction of public debt can be done by introducing hedging strategies where debt in US dollar can be swap for debt in euro, implementing buyback activities, extending maturity of the debt and potentially decrease interest, as well as introducing new security and wide investors' base. Swap should use as a way to maintain the optimal cost-risk characteristics of public debt and to decrease level of FX risk.

All analyzed countries should have a public debt level that is sustainable from the aspect of its repayment, but also an acceptable currency structure and interest rate structure. In line with the generally accepted goals of PDA, their aims are to reduce the costs of public debt financing at a reasonable level of risk, with particular attention to the risk of refinancing the existing debt portfolio. Acting in this manner level of public debt will be decreased at the sustainable level and all further government borrowing should be in line of development needs of entirely economy, while securing government liquidity in the short and long run. Otherwise, any indebtedness of a country that is greater than the potential of debt financing threatens financial stability and can lead to a public debt crisis, like it has been recorded in Greece.

To achieve all previously mentioned proposals for improvement of public debt management, monetary and fiscal authorities should cooperate in a way to achieve and maintain macroeconomic stability, low and stable level of inflation, relatively stable exchange rate, further improvement of primary and secondary markets and introduction primary dealers and hedging instruments in countries that at the moment do not have. Of great importance is the ability of every country to adjust to national and international geopolitical scenario which is marked by a high degree of uncertainty. Only through collaboration between monetary and fiscal policy public debt can be reduced and their repayment can be achieve on sustainable basic.

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UPRAVLJANJE JAVNIM DUGOM U IZABRANIM ZEMALJAMA CENTRALNE I ISTOČNE EVROPE

Apstrakt: Upravljanje javnim dugom predstavlja važan deo javnih finansija svake zemlje i u većini zemalja je u nadležnosti ministarstva finansija. Uprava za javni dug je nosilac politike javnog duga, koja predstavlja jednu od najvažnijih delova makroekonomske politike i ima stabilizacionu i razvojnu funkciju. Uprava za javni dug određuje raspored, obim i valutnu strukturu emisija hartija od vrednosti na domaćem i međunarodnom finansijskom tržištu i direktno utiče na nivo zaduženosti zemlje i na nivo valutnog rizika. Glavni cilj uprave za javni dug je da obezbedi finansijske potrebe vlade i otplatu obaveza na vreme po najnižim mogućim troškovima u srednjem i dugom roku, što je konzistentno sa prihvatljivim nivoom rizika. Adekvatno upravljanje javnim dugom je presudno imajući u vidu značajne makroekonomske posledice neizvršenja javnog duga i potencijalno širenje nestabilnosti na druge sektore u ekonomiji. Sve ovo ukazuje na potrebu adekvatnog postavljanja tekuće i budućih strategija upravljanja javnim dugom i na razvoj instrumenata za sniženje troškova zaduživanja i nivoa valutnog rizika. Cilj ovog rada je da prezentuje upravljanje javnim dugom u izabranim zemljama centralne i istočne Evrope (Srbija, Mađarska, Hrvatska, Albanija i Slovenija), uz preporuke poboljšanja njihovih strategija upravljanja javnim dugom.

Ključne reči: javni dug, strategije hedžinga Eurobond, međunarodno tržište

Author's biography

Vesna Martin finished bachelor, master and PhD studies at Faculty of Economics, University of Belgrade. From March 2008 to May 2012, Vesna Martin was employed at Raiffeisen Bank a.d. in Treasury and Investment Banking Department, Treasury Sales Division. From May 2012 Vesna Martin is employed in National Bank of Serbia, first at Monetary Operation Department, Foreign Exchange Division and at present at Financial Stability Department, Division for Macroprudential Supervision. She owns the ACI Dealing Certificate license, an authorized certificate for participants in the foreign exchange market and was a participant in several useful lectures, seminars and study visits organized by other central banks and financial organizations (Deutsche Bundesbank, De Nederlandsche Bank, Czech National Bank and IMF). She also wrote several scientific research papers on the topic of inflation targeting, strategy of dinarization and foreign exchange market analysis.