

## Retrospective Analysis of Romania's Public Debt

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**Abstract.** *The public debt stock is an indicator of high interest at the macroeconomic level and regulated within the European Union by the Maastricht Treaty, which provides a level of public debt of at most 60% of GDP. Romania, as a member state of the EU, must fit this percentage. This article analyzes the evolution of public debt in our country in terms of dynamics and structure for the period 2000-2018. The evolution of governmental and local public debt, as well as the service of governmental public debt and the differences between the public debt determined according to the EU methodology and the one determined according to the national methodology is highlighted. Finally, we will draw some conclusions regarding the evolution of the public debt and its sustainability.*

**Keywords:** public debt, government bonds, public debt crisis, public loan

**JEL Classification:** H62, H68

### 1. Introduction

In the 1980s Romania had as a major political objective the liquidation of external debt and made extraordinary efforts and sacrifices to achieve this goal. Today, there are opinions that call into question the fairness of the decision to repay all foreign debt in advance, given the subsequent evolution of international events and the experience of other heavily indebted states such as Poland or Hungary, whose foreign debt was transformed after 1990 into non-repayable loans. A verdict is difficult to give because we will never know if Romania would have received the same treatment.

It is certain that after 1990 the practice of public lending was resumed. In the first years (until 1996) the financing needs were mainly covered (over 70%) by way of external loans. This is because, at that time, there were no regulations regarding the instruments for contracting the debt internally, and the capital market was practically non-existent. The resources of the population to which the state could appeal were very low, given the economic situation of the country where the saving rate of the households was very low.

Starting with 1996 the primary and secondary market of government securities was regulated, the way of placing and trading them was defined, so that the state could make more frequent appeals to the existing resources internally. Even though the evolution of the total public debt in relation to the gross domestic product has not reached a worrying level, however, for only a decade, an increase of up to 31.1%, which represents in 2000 the public debt as a percentage of the GDP, is a spectacular growth.

### 2. The Evolution of the Total Public Debt of Romania

Our analysis of the level and dynamics of public debt will focus on the realities of the last two decades, as highlighted in table no. 1.

From the data analysis, a first finding that can be made is that, in absolute terms, the total public debt has experienced a systematic increase. The increase of more than 15 times in less than two decades, however, must be viewed with caution as, as any value indicator expressed in current prices, it includes the inflationary germ, so in real terms the growth is lower.

**Table no. 1. The Level and Dynamics of the Public Debt \* of Romania in the Period 2000-2018**

Year	GDP	Public debt		Governmental public debt			Local public debt		
		mil. lei	% GDP	mil. lei	% GDP	% total debt	mil. lei	% GDP	% total debt
2000	81275	25288.8	31.1	25285.5	31.1	100.0	3.3	0.0	0.0
2001	118327	33817.8	28.6	33776.4	28.5	99.9	41.4	0.0	0.1
2002	152630	43867.4	28.7	43793.8	28.7	99.8	73.6	0.0	0.2
2003	198761	51363.2	25.8	51136.6	25.7	99.6	226.6	0.1	0.4
2004	248748	55819.7	22.4	55147.3	22.2	98.8	672.4	0.3	1.2
2005	290489	59010.9	20.3	56381.8	19.4	95.5	2629.1	0.9	4.5
2006	347004	63340.8	18.3	59868.5	17.3	94.5	3472.3	1.0	5.5
2007	428979	82324.3	19.2	76149.6	17.8	92.5	6174.7	1.4	7.5
2008	538050	109795.1	20.4	100556.4	18.7	91.6	9238.7	1.7	8.4
2009	526345	147329	28.0	136493.8	25.9	92.6	10835.2	2.1	7.4
2010	529624	194459.2	36.7	182510.3	34.5	93.9	11948.9	2.3	6.1
2011	562062	223268	39.7	210388.6	37.4	94.2	12879.4	2.3	5.8
2012	595367	240842.6	40.5	226841.9	38.1	94.2	14000.7	2.4	5.8
2013	637456	267150.9	41.9	252179.8	39.6	94.4	14971.1	2.3	5.6
2014	668590	295655.5	44.2	280763.8	42.0	95.0	14891.7	2.2	5.0
2015	712588	315933.7	44.3	299142.6	42.0	94.7	16791.1	2.4	5.3
2016	765135	339080.2	44.3	323039.3	42.2	95.3	16040.9	2.1	4.7
2017	856700	368448.9	43.0	353015.9	41.2	95.8	15433	1.8	4.2
2018	944220	400923	42.5	384965	40.8	96.0	15958	1.7	4.0

\* according to the national regulations (GEO 64/2007) also includes the guarantees issued by the central and local authorities

Source: data taken from the MFP website and processed by the author

More relevant is the dynamics of total public debt as a share of gross domestic product, both because both indicators are expressed in current prices, they are equally influenced by inflation.

And in this case we find that we are dealing with an increase in the share of public debt in GDP by 11.4 percentage points between the limits of the analyzed period, but we notice two distinct periods:

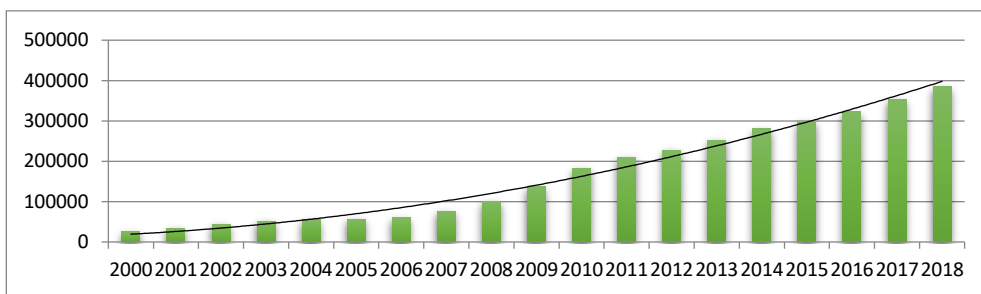
- between 2000-2006, the total public debt decreases continuously, reaching a level of 18.3% of GDP in 2006;
- since 2007, amidst the outbreak of the global economic crisis, public debt has seen a sharp increase, doubling as a share of GDP in only four years;
- in the coming years we are witnessing a stabilization of the debt level around 44% of GDP, with a slight downward trend over the last two years, despite the often criticized measures to increase the salaries and pensions adopted by the government.

It should also be noted that Romania falls slightly within the 60% ceiling set by the Maastricht Treaty, which does not mean that we must refrain from reaching and even exceeding this ceiling, following the model of other European states.

According to the national statistical rules, the total public debt is recorded and reported in two components: governmental public debt and local public debt.

### 3. The level and dynamics of government debt

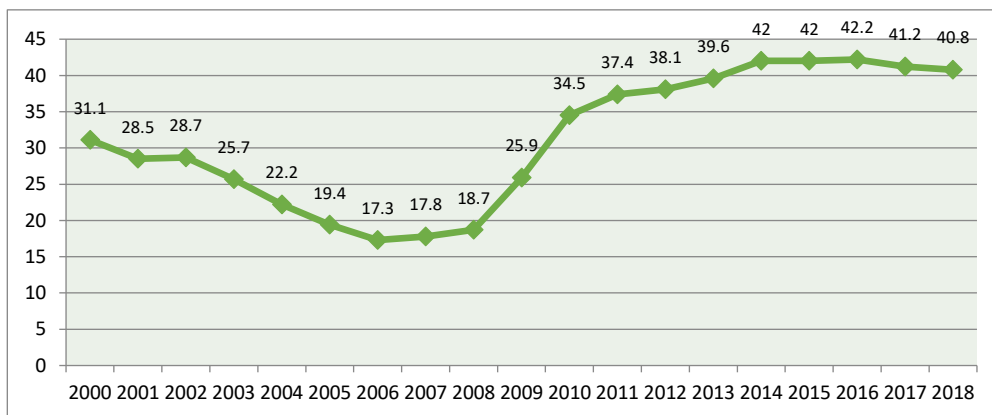
From the data presented in the table no. 1. it is obvious that the governmental public debt is the basic component of the total debt, since during the studied period it represents over 91% of the total public debt. In these conditions, it is natural that the evolution of the governmental public debt during the analyzed period will be similar to that of the total public debt, both as an absolute level and as a share in the GDP, as illustrated in graphs 1 and 2.



**Chart no. 1. The evolution of the governmental public debt of Romania (mil. lei)**

*Source: data taken from the MFP website and processed by the author*

The growth registered by the governmental public debt in 2018 compared to the previous year, of 32 billion lei was mainly determined by the contracted debt for the financing of the budget deficit and for the refinancing of the governmental public debt, but also for the consolidation of the financial reserve in foreign currency available to the State Treasury.



**Chart no. 2. The evolution of the government debt of Romania (% of GDP)**

*Source: data taken from the MFP website and processed by the author*

An important indicator of analysis of governmental public debt is the service of governmental public debt. It shows how much is spent at each financial year in the account of government debt and includes:

- the expenses with the repayment of the matured loans (capital rates);
- expenses for the payment of interest, commissions and other costs incurred by the public debt.

The level and structure of the governmental government debt service in the last decade are presented in table no. 2.

**Table no. 2. Romanian government debt service**

Year	The service of governmental public debt (mld. lei)	of which:		of which:	
		Direct* (%)	Guaranteed (%)	Repayments (%)	Interest and commissions
2008	12,6	97	3	75	25
2009	32,7	97	3	84	16
2010	24,0	97	3	85	15
2011	59,6	96	4	86	14
2012	64,3	98	2	83	17
2013	66,1	98	2	84	16
2014	57,6	98	2	83	17
2015	58,9	96	4	84	16
2016	60,3	97	3	84	16
2017	50,0	97	3	81	19
2018	56,3	97	3	78	22

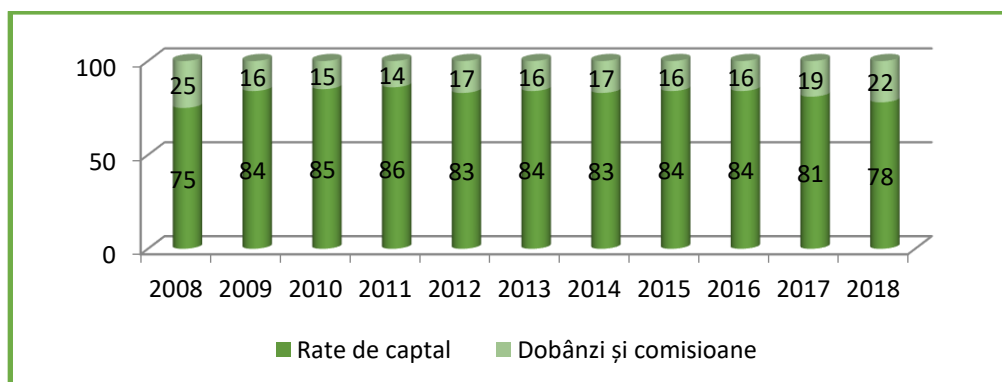
\* Note: does not include reimbursements from the availability of the general account of the State Treasury and those for the cash management instruments

Source: data taken from the MFP website and processed by the author

A first finding is that the level of governmental public debt service (SDPG) has a general upward trend. This growth has been spectacular since 2009, both on the backdrop of the increase of governmental public debt as a whole, but mainly due to the fact that the financing of the budget deficit and the refinancing of the public debt was done, as we have seen before, by issuing short-term government bonds. (treasury certificates), due to the worsening of the situation on the internal and external capital markets as the financial crisis worsens. In the last years of the period, the SDPG level goes into a slight decline.

As it was natural, most of the SDPG belongs to the direct governmental public debt, its service accounting for between 96 - 98% of the total over the entire analysis period.

The level and structure of the SDPG is represented in the chart no. 3.



**Chart no. 3. The structure of the governmental public debt service of Romania**

Source: data taken from the MFP website and processed by the author

From another point of view, the total SDPGs are the expenses with the repayment of the matured loans (capital rates), which is a positive fact since the

amounts received previously are returned. However, in the last years undergoing the analysis, we see an increase in the share of expenses representing interest payments and commissions, which at least in the case of external debt, means a transfer abroad of part of the gross domestic product of Romania.

#### 4. The evolution of local public debt in our country

Local public debt is the residual component of total public debt, adding to governmental public debt. Local public debt includes both loans directly committed by local public administration authorities, as well as loans undertaken by economic operators and public services subordinated to territorial administrative units and guaranteed by local public administration authorities.

In the table no. 3. the evolution of the level and structure of the local public debt is presented. As in the case of governmental public debt, we find that the absolute level of local public debt expressed in current prices has increased sharply. The increase became more pronounced as the legal framework for the indebtedness of local authorities was created (first GEO no. 45/2003 and later Law 273/2006 on local public finances). And in relation to the gross domestic product or the total debt, there is a noticeable increase in the years in which the effects of the global financial crisis have manifested.

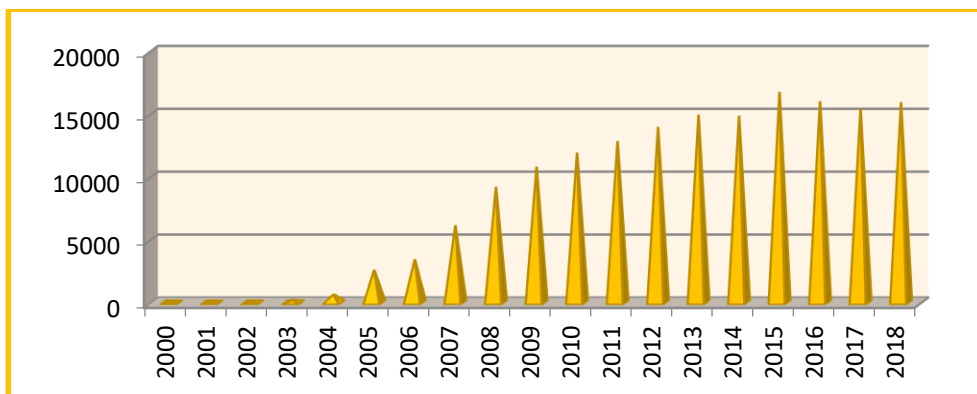
**Table no. 3. The structure of the local public debt of Romania in the period 2000-2018**

Year	Local public debt (mil. lei)	by type		by contract currency			by maturity	
		Direct %	Garanteed %	Lei %	Euro %	USD %	1-5 years %	more than 5 years %
2000	3.3	100	0	100	0	0	100	0
2001	41.4	100	0	100	0	0	100	0
2002	73.6	86	14	86	14	0	86	14
2003	226.6	87	13	87	13	0	87	13
2004	672.4	51	49	91	9	0	91	9
2005	2629.1	93	7	26	74	0	25	75
2006	3472.3	92	8	40	60	0	14	86
2007	6174.7	91	9	53	46	1	19	81
2008	9238.7	92	8	59	41	0	14	86
2009	10835.2	93	7	60	40	0	29	71
2010	11948.9	93	7	60	40	0	20	80
2011	12879.4	95	5	60	40	0	4	96
2012	14000.7	95	5	58	42	0	4	96
2013	14971.1	96	4	58	42	0	3	97
2014	14891.7	96	4	58	41	1	5	95
2015	16791.1	96	4	77	23	0	7	93
2016	16040.9	96	4	78	22	0	6	94
2017	15433	96	4	80	20	0	6	94
2018	15958	96	4	81	19	0	6	94

Source: data taken from the MFP website and processed by the author

Regarding the structure of the local public debt, depending on the form of the debt, we observe that the direct local public debt is preponderant, reaching 96% of the

total at the end of the period. Following the main contract currency, the loans used in lei show an increasing trend, causing the loans in euros to decrease.



**Chart no. 4. The evolution of local public debt in Romania (million lei)**

*Source: data taken from the MFP website and processed by the author*

Regarding the maturity of the debt, we find that over the period analyzed progressively decreased the debt in the medium term, instead increasing the local public debt in the long term. Therefore, the evolution of the structure of the local public debt, both according to the contract currency and from the point of view of the maturity, can be appreciated positively, in the sense that it ensures the limitation of the exposure to the refinancing risk and the currency risk.

## 5. Governmental public debt in line with EU methodology (Maastricht debt)

The EU methodology for determining and reporting public debt differs from the one applied at national level. In the EU's view, gross government debt represents the public administration debt at nominal value, consolidated within the public administration sectors and does not include guarantees provided by the state and territorial administrative units, except for those paid from the budget or for which three successive payments have been made. by the guarantor. As such, the level of public administration debt according to the EU methodology is different from the one established according to the methodology used at national level, being lower, as shown in table no. 4.

It can be seen that the evolutionary trends of the level and structure of the debt resulting from the previous analyzes are also found in the new structure, which is why we will not resume the already analyzed aspects, limiting ourselves to a few observations.

First of all, it should be noted that reporting according to the EU methodology allows for a separate analysis of the internal and external debt of the public administration. This allows us to notice yet another positive aspect in the evolution of Romania's public debt, namely that, in the last decade, the relationship between internal and external debt has reversed. If during 2010 - 2013 this ratio deteriorated, starting with 2014 the increase of the share of internal debt in total debt was resumed, so that at the end of 2018 the internal debt represents 52% and the external debt 48% of the total debt.

This is important given that a high share of foreign debt increases the degree of dependence on foreigners. In addition, the payment of the external public debt service involves the export of part of the national GDP abroad.

**Table no. 4. The governmental debt of Romania according to the EU methodology**

Indicator		2010	2011	2012	2013	2014	2015	2016	2017	2018
Government debt (I+II)	Mil. Lei	157410,4	191035,3	219761,5	238882,3	262195,2	269151,3	285553,1	301158,5	330046,9
	% din GDP	29,7	34,0	36,9	37,5	39,2	37,8	37,3	35,2	35,0
I. Government domestic debt	Mil. Lei	81930,7	98163,5	108502,6	108738,0	125539,7	136081,8	148285,0	155029,0	172245,1
	% of total debt	52	51	49	46	48	51	52	51	52
II. External debt of government	Mil. Lei	75479,7	92871,8	111258,9	130144,3	136655,5	133069,6	137268,1	146129,5	157800,8
	% of total debt	48	49	51	54	52	49	48	49	48

*Source: data taken from the MFP website and processed by the author*

This standardized reporting at EU level allows comparative analysis of the Member States from the point of view of the public debt committed by them. Note that at the end of 2018, Romania's public debt, according to the EU methodology, represented 35% of GDP, falling lightly within the 60% ceiling established by the Treaty of Maastricht. Moreover, if liquid financial assets are considered, the level of net government debt was 27.2% of GDP.

According to the Eurostat Communiqué no. 67 of April 23, 2019, at the end of 2018 Romania, with a public debt of 35% of GDP, ranked 7th among the EU countries with the lowest level of debt being preceded by Estonia (8.4% of GDP), Luxembourg (21.4% of GDP), Bulgaria (22.6% of GDP), Czech Republic (32.7% of GDP), Denmark (34.1% of GDP) and Lithuania (34.2% of GDP), given that the average debt for the euro area (EA-19) was 85.1% of GDP, and for the whole EU-28 it was 80% of GDP. It should be mentioned that at the end of 2018, not less than half of the Member States had a debt level of over 60% of GDP, the most indebted were Greece (181.1% of GDP), Italy (132.2% of GDP), Portugal (121.5% of GDP), Belgium (102% of GDP) and Spain (97.1% of GDP).

## 5. Conclusions

The conclusion we reached was that Romania's public debt is sustainable, the arguments in support of this claim being the following:

- despite a marked increase in absolute terms, as a share of gross domestic product, our public debt falls slightly within the ceiling of 60% of GDP established by the Maastricht Treaty;

- the evolution, in all aspects, of the structure of the public debt (in terms of debt instruments, contract currencies, maturities, type of interest rate) certifies a respect of the evolutionary principles established by the Strategy for medium-term administration of public debt and debt The "indicative targets" set by this strategy;

- according to the EU reporting methodology, the relationship between external and internal debt has evolved in favor of the latter, which reduces the degree of dependence of the national economy on foreign countries, including the export of GDP abroad in the form of payment of interest, commissions and other costs. related to public debt.

**References**

- Adama, C.S. and Bevan, D.L. (2005). *Fiscal deficits and growth in developing countries*, Journal of Public Economics, vol. 89, Issue 4, pp. 571-597.
- Al-Khedair, S. I., (1996). *The Impact of the Budget Defecit on Key Macroeconomic variables*, Major Industrial Countries.
- Baum, C.F., (2001). *Residual diagnostics for cross-section time series regression models*, The Stata Journal, vol. 1, no. 1, pp. 101-104.
- Barro. (1979). On the Determination of the Public Debt. *Journal of Political Economy*, 87, 240- 271.
- Drukker, D.M. (2003). *Testing for serial correlation in linear panel-data models*, The Stata Journal, vol. 3, no. 2, pp. 168-177.
- Fisher, S., (1993). *The role of macroeconomic factors in growth*, Journal of Monetary Economics, vol. 32, Issue 3, pp. 485-512.
- Hoechle, D., (2007). *Robust Standard Errors for Panel Regressions with Cross-Sectional, Dependence*, The Stata Journal, vol. 7, no. 3, pp. 281-312.
- Molănescu, G. and Aceleanu, M.I., (2011) Consecințele deficitului bugetar în România în contextul crizei actuale. Implicații asupra pieței muncii, *Economie teoretică și aplicată, Volumul XVIII, No. 2, pp. 58-74.*
- Romer, D., (1998). What Are the Costs of Excessive Deficits?, *NBER Macroeconomic Annual*, Cambridge.