PUBLIC DEBT SUSTENABILITY ANALYSIS

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Abstract

Assessing public debt sustainability has always been in the now and required an analysis of public debt management within the current macroeconomic environment along with the significant public debt increase in Romania.

In the analysis of public debt sustainability performance are used the indicators that assess the risk that might arise due to the impact of economic conditions on debt.

Romania's public debt according to EU methodology was located at a sustainable level of 38.2% of GDP at end-June 2016, well below the 60% ceiling set by the Maastricht Treaty.Moreover, throughout the period, including the financial and economic crisis, Romania was situated among EU Member States least indebted.

It is important to note that annual funding requirement during 2010-2015, which is represented by the budget deficit and public debt refinancing, had a decreasing trend.

Keywords: Sustainability, public debt, GDP, external public debt

JEL Classification: H63, H68

Introduction

Assessing public debt sustainability has always been in the now and required an analysis of public debt management within the current macroeconomic environment along with the significant public debt increase in Romania.

"Public debt sustainability is the degree to which a government can maintain existing programs and fulfill the creditor's requirements without increasing public debt burden on the economy."

Public debt sustainability is a concept that is interrelated with sustainable public finances.

Sustainability of public finances is a major challenge to public policy because of the high level of public debt and the possible risks of budgetary pressure.

According to Art.4 (3) of Law no. 69/2010 on fiscal responsibility "the sustainability of public finance implies that on medium and long term, the Government should be able to manage risks or contingencies without having to make significant adjustments to expenses, income oreconomically or socially destabilizing effects of budget deficit."

The analyses itself is a complex exercise and with multiple implications which must take into account the trend indicator public debt reported to gross domestic product (GDP) and public debt structure that can increase the likelihood of negative circumstances over it.

Sustainability analysis allows the government to assess the possibility of keeping the fiscal position or whether adjustments are needed to maintain a constant public debt as a proportion of GDP.

In the analysis of public debt sustainability performance we used the indicators that assess the risk that might arise due to the impact of economic conditions on debt.

Analysis indicators of public debt sustainability are designed tomeasure the indebtedness of public debt, the repayment capacity, and the capacity of payment and refinancing.

1. Measurement of the indebtedness of public debt

The indicator public debt/GDP is the most important in the measure of indebtedness, highlighting the country's solvency. It is recognized as the most widely used indicator for measuring the level of debt in relation to the country's economic activity.

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The measurement of the indebtedness of public debt means analyzing the evolution of public debt compared to the country's economy and way of covering solvency risk. The indicator used is public debt / GDP.

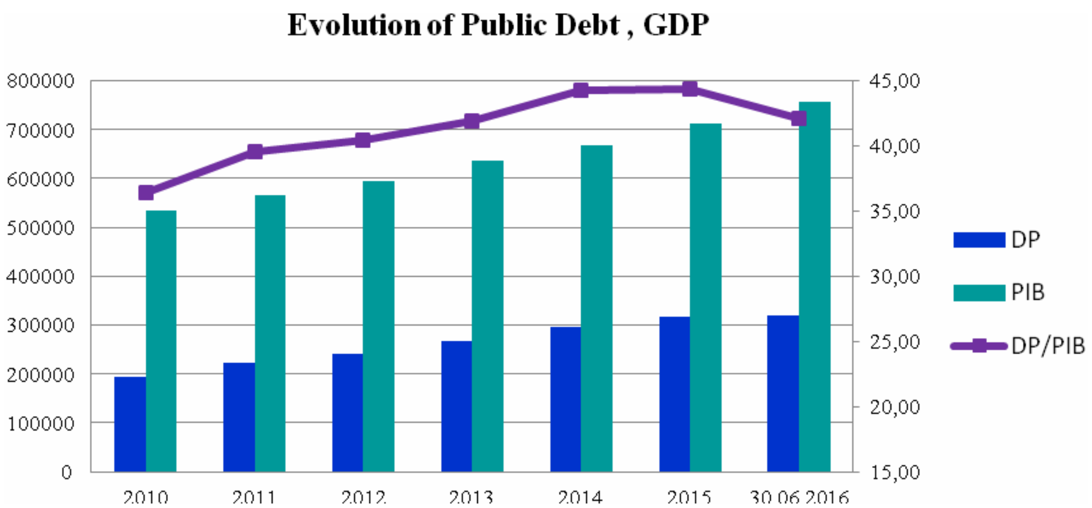
Public debt reported at gross domestic product and exports of goods and services during 2010 - 2016

Year	Public debt (mill. lei)	Public debt (mill. Euro)	GDP * (mill. lei)	Public Debt, percent from GDP (%)	Exports of goods and services during(mill. Euro)**	Public Debt percent from Exports of goods and services during (mill. Euro)**
1	2	3	4	5	6	7
2010	194459.2	45383.5	533881.0	36,4	43982	103.2
2011	223268.0	51686.0	565097.2	39,5	52545	98.4
2012	240842.6	54382.2	595367.3	40,5	53472	101.7
2013	267150.9	59569.4	637456.0	41,9	57306	103.9
2014	295655.5	65963.6	667577.0	44,3	61908	106.6
2015	315833.7	69805.2	712832.3	44,3	65899	105.9
30.06.2016	318471.8	70442.8	757000.0	42,1	68520	102.8

The ratio of public debt to GDP is an assessment element of sustainability of public finances. During the analyzed period has been observed a deterioration of its reaching 44.3% in 2015.

Increasing the volume of public debt relative to the size of 36.4% of GDP in 2010 to 41.9% in 2013, while in 2015 to reach 44.3% is explained not only by borrowing the budget deficit, but the currency depreciation and strengthening liquidity reserves of the State Treasury.

National Bank of Romania [Financial Stability Department] highlights that for reasons of sustainability in the group of emerging economies, and to moderate interest expenses and their impact on primary deficit, fiscal consolidation must ceiling public debt to shares under 40% of GDP.



2. Measuring repayment capacitance

The indicator Public debt/Exportscan be defined as the ratio of public debt balance of outstanding loans at the end of the year and exports of goods and services in the financial year. This indicator is used as a measure of sustainability as an increase of the indicator at an interest rate of time involves increasing public debt at a faster pace than revenue external, indicating that it could record problems regarding fulfillment of payment obligations at maturity.

Analysis indicator - the ratio of public debt to the level of exports of goods and services indicates to what extent is the size of public debt to income from exports of goods and services. This indicator is useful in analyzing the repayment capacity of the country.

As shown in the above graphic representation between 2010-2011 and 2014-2015 analyzed indicator representing the public debt to exports of goods and services was down slightly due to lower volume of exports reaching 119.5% and 106 4% while public debt has reached about 131.9% and 105.8%.

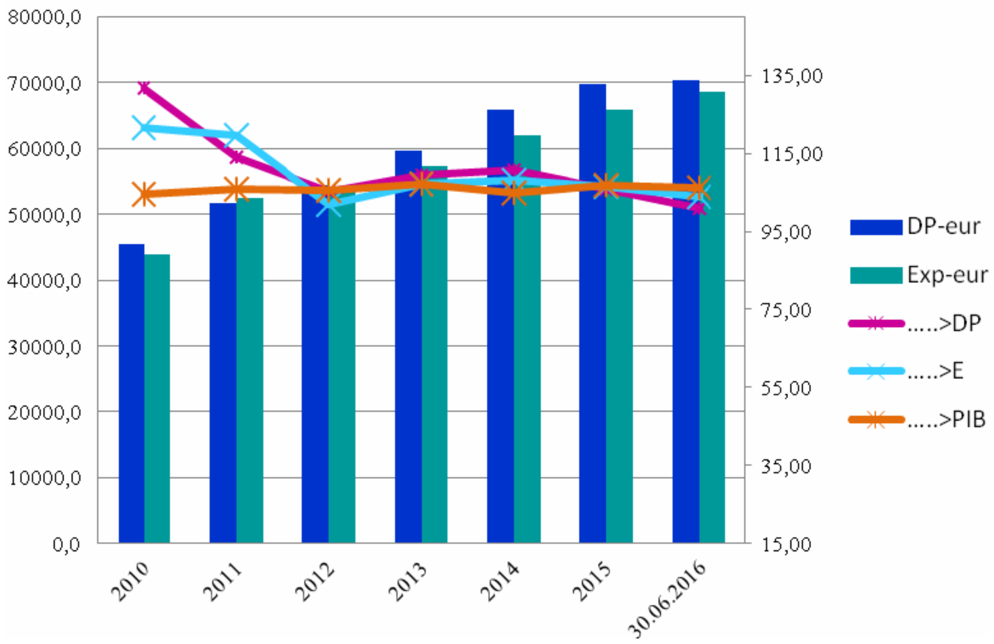
The evolution of public debt growth rate, exports of goods and services and GDP during 2010 - 2016

Year	Public Debt (Mill. Lei)	Public Debt (Mill. Euro)	GDP (mill. Lei)	Exports of goods and services (mill. Euro)	Public debt rate %	Exports of goods and services rate (mill. Euro)	GDP rate %
1	2	3	4	5	6	7	8
2010	194459.2	45383.5	533881.0	43982	131.9	121.7	104.5
2011	223268.0	51686.0	565097.2	52545	131.9	119.5	104.5
2012	240842.6	54382.2	595367.3	53472	105.2	101.8	105.4
2013	267150.9	59569.4	637456.0	57306	109.5	107.2	107.1
2014	295655.5	65963.6	667577.0	61908	110.7	108.0	104.7
2015	315833.7	69805.2	712832.3	65899	105.8	106.4	106.8
30.06.2016*	318471.8	70442.8	757000.0	68520	100.9	104.0	106.2

From 2012 to 2014 the analyzed indicator representing the public debt to exports of goods and services had a slightly increasing trend due to increase in export volumes by about 108.0% and increase of public debt by approximately 110.7%.

From thedata presented above in 2010 the growth rate of public debt was higher than the growth rate of exports of goods and services.

Evolution of growth rate of public debt, exports and GDP



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In 2011 the growth rate of public debt was below the growth rate of exports of goods and services, this reflected positively on the ratio of government debt to exports, which registered a downward trend

From 2012 to 2014 the growth rate of public debt exceeded the growth rate of exports of goods and services, this reflected negatively on the ratio of government debt to exports.

In 2015 the growth rate of public debt was below the growth rate of exports of goods and services, this reflected positively on the ratio of government debt to exports, which registered a downward trend.

Regarding the growth of public debt versus GDP level it can be mentioned that in the period 2010 - 2014 the growth rate of public debt has surpassed that of GDP, in other words the level of debt relative to economic activity Romania has increased from year to year.

Maintaining a growth rate of public debt ahead of economic growth, solvency risk will increase.

Solvency risk is not having sufficient own funds for absorption of potential losses.

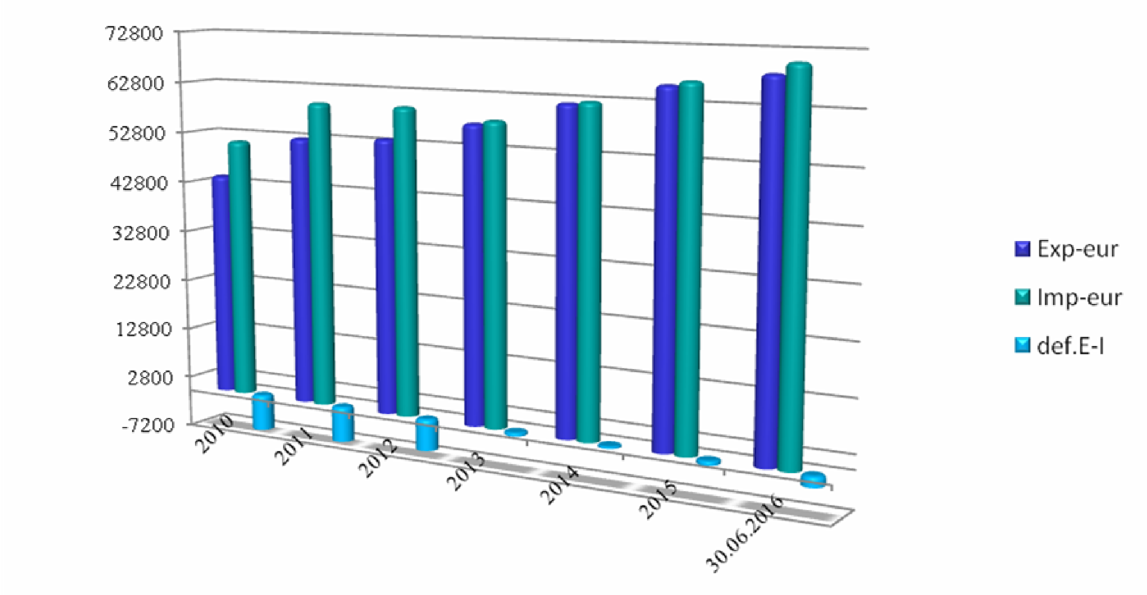
Exports and importsof goods and services during 2010 – 2016

Yearl	Exports of goods and services* (mill. Euro)	Imports of goods and services (mill. Euro)	Goods and services deficit (mill. euro)
1	2	3	4
2010	43982	51155	-7173
2011	52545	59599	-7054
2012	53472	59721	-6249
2013	57306	58049	-743
2014	61908	62379	-471
2015	65899	66739	-840
30.06.2016	68520	70600	-2080

In 2015 compared to 2014 are no longer maintained the upward trend of public debt growth rate registering 105.8%, while GDP in 2015 recorded 106.8% (a decrease of -2.1 points percentage compared to the previous year).

This rate of decay is kept in 2016 so we can say, in the period from 2015 to 2016 the growth rate of public debt not outrun the growth of the economy, so solvency risk decreases.

Exports and importsof goods and services during 2010 - 2016



From the data presented in the above table there results that Romania consumes more than it produces, which is reflected negatively in the balance of goods and services respectively in the current account of balance of payments.

Deficit of goods and services is determined by the volume of exports which is much lower than the volume of imports, leading to the need to contract loans.

3. Measuring the capacity of payment and refinancing

External public debt/GDP indicator is defined as the ratio of external public debt balance of outstanding loans at the end of GDP and is useful for determining the ability to pay.

External public debt/exportsindicator is a useful indicator of the evolution of external public debt, reflecting its ability to refinance.

Measuring the capacity payment and refinancing means analyzing the proportion of foreign debt and the amount of revenue coming from exports of goods and services and how influences this indicator the Romanianrepayment ability.

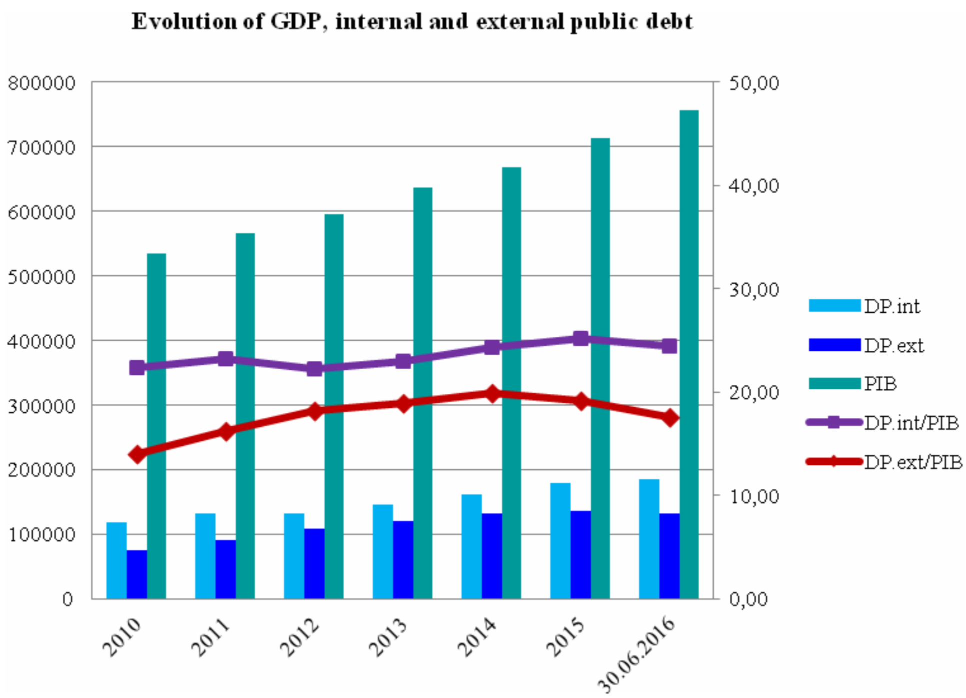
In terms of exchange rate changes, this indicator has the advantage of being a less volatile indicator than the **external public debt/GDP** as it allows significant conclusions on external public debt developments.

In the period under review, internal and external public debt of Romania has the following increase:

The evolution of internal and external public debt of Romania, the internal public debt ratio to GDP and public external debt to GDP ratio in exports of goods and services during the period 2010 – 2016

Year	Public debt (mill. Lei)	Internal Public debt (mill. Lei)	External Public debt (mill. Lei)	Public debt (mill. Euro)	Internal Public debt (mill. Euro)	External Public debt (mill. Euro)	GDP (mil. lei)	Internal Public debt percent from GDP (%)	External Public debt percent from GDP (%)	Exports of goods and services (mill. Euro)	External public debt percent from export of goods and services (%)
1	2	3	4	5	6	7	8	9	10	11	12
2010	194459.2	119460.9	74998.3	45383.5	27880.2	17503.3	533881.0	22.38	14.05	43982	39.80
2011	223268	131606.2	91661.8	51686.0	30466.5	21219.5	565097.2	23.29	16.22	52545	40.38
2012	240842.6	132641.8	108200.8	54382.2	29950.5	24431.7	595367.3	22.28	18.17	53472	45.69
2013	267150.9	146366.4	120784.6	59569.4	32636.8	26932.6	637456.0	22.96	18.95	57306	47.00
2014	295655.5	162602	133053.5	65963.6	36278.1	29685.5	667577.0	24.36	19.93	61908	47.95
2015	315833.7	179158.1	136675.2	69805.2	39597.3	30207.8	712832.3	25.13	19.17	65899	45.84
30.06.2016	318471.8	185359.5	133112.3	70442.8	40999.7	29443.1	757000.0	24.49	17.58	68520	42.97

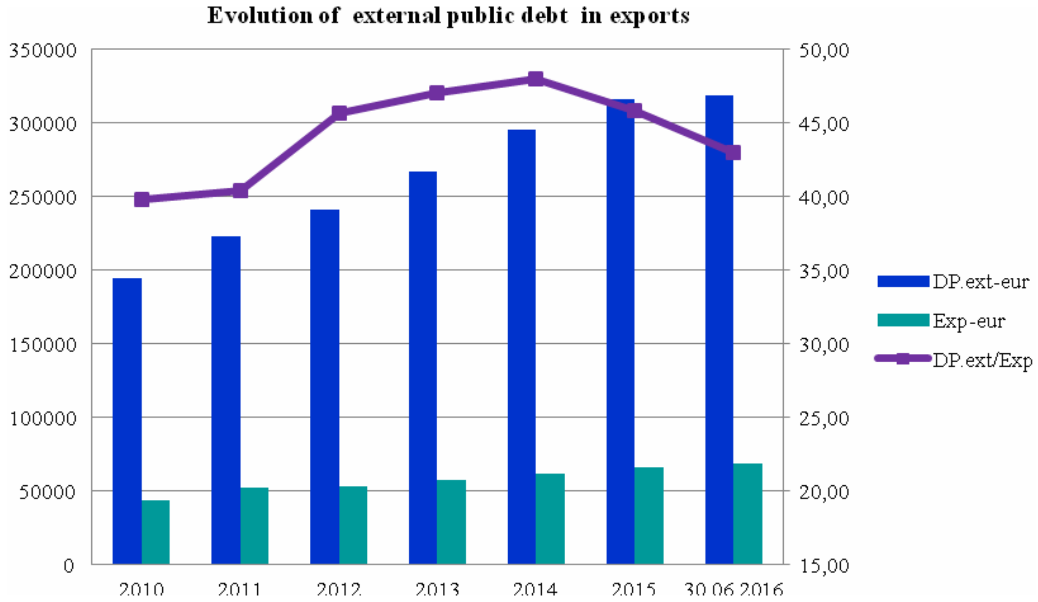
During the analyzed period, the total public debt accounted for about 56.3% from internal public debt, while foreign debt accounted for about 43.7%. In other words, the Romanian state has appealed in a higher proportion to internal resources, especially through issuance of benchmark bonds with maturity term and medium term.



Internal/external indebtedness indicators defined as the ratio of internal/externalpublic debt balance outstanding loans at the end of GDP and are useful for assessing the ability to pay.

These indicators of public debt sustainability analysis reflect how much is scarified in one year of GDP to fully repay the debt in that year.

From 2010 to 2016 the internal public debt development in relation to GDP varies between 22.3% and 25.13%, with a peak of 25.13% in the year 2015. The evolution ratio indicates a slight increase in since 2011 and since 2014 the growth rate of internal debt growth ahead of GDP.



In 2012 the economic growth rate is faster than the pace of internal debt, which leads to the ability to repay loans.

From 2010 to 2016 the external public debt developments in relation to gross domestic product registered a growth trend continues, reaching a peak of 19.9% in the year 2014.

This is explained by the fact that the growth rate of external debt growth far ahead of GDP.The analysis of data submitted shows that the evolution of external public debt in relation to exports of goods and services recorded a growth trend continues, reaching a peak of 47.9% in 2014. The growth rate of foreign public debt well ahead of pace growth of exports, this reflected negatively on repayment capacity.

Conclusions

Romania's public debt according to EU methodology was located at a sustainable level of 38.2% of GDP at end-June 2016, well below the 60% ceiling set by the Maastricht Treaty.Moreover, throughout the period, including the financial and economic crisis, Romania was situated among EU Member States least indebted. Thus, in the member states of the European Union in late 2015, Romania ranked No. 5 among EU member states with the lowest level of indebtedness by Estonia (9.7%), Luxembourg (21.4%), Bulgaria (26.7%) and Latvia (36.4%). And all at the end of 2015, the average of the 28 EU countries amounted to 85.2%.

It is important to note that the budget deficit and public debt refinancing,the annual funding requirements during 2010-2015 had a decreasing trend. In fact, 2014 was the first time below 10% of GDP (9% of GDP) at the beginning of the financial and economic crisis, and in 2015 represented 8.8% of GDP. And medium-term financing needs will continue the downward trend from 9% of GDP as estimated for 2016 to 6% of GDP in 2019. In this context, the estimated level of gross government debt is sustainable for the end of 2016 39.1% of GDP, while in the medium term is expected to be below 40% of GDP.

Annual growth of public debt is due to the debt incurred to finance the budget deficit and public debt refinancing, and since 2010 for the creation and strengthening financial reserve (buffer) in foreign currency to the State Treasury, which constitutes a safeguard against possible external shocks..

Moreover, amid a climate of recovery in European sovereign debt crisis and a period of calm in financial markets, financing conditions have improved significantly Romania. Also in the month of March 2016 the rating agency JCRA has improved the rating of Romania's country at BBB - BBB confirming prospects for sustainable economic growth and low public debt.

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