

## PUBLIC FINANCE SUSTAINABILITY IN ROMANIA. RECENT DEVELOPMENTS

Petru-Ovidiu Mura<sup>1</sup>

<sup>1</sup>Finance Department, Faculty of Economics and Business Administration, West University of Timișoara, România  
[petru.mura@e-uvv.ro](mailto:petru.mura@e-uvv.ro)

**Abstract:** *The main objective of this paper is to evaluate the sustainability of public finance in Romania and to explore the fiscal threats Romania might face in the future. A sound fiscal policy implies avoiding excessive liabilities of the government, but at the same time delivering the proper public goods and services, including the necessary safety net in times of crisis. An unsustainable fiscal position negatively impacts on macroeconomic stability; moreover, if public finances are perceived to be unsustainable in the long run, the reaction of the international financial markets could generate a fiscal crisis, which might surprise the fiscal planners. The main findings of the paper are the following: i) according to the multidimensional approach of the European Commission, in the short run, it seems that Romania is free from fiscal stress, there is a low risk in the medium term, and in the long run the risk becomes medium; ii) a potential medium-term fiscal sustainability risk derives from the accumulation of losses and arrears in the business and companies sectors in which the state is a majority shareholder; iii) Romania records one of the lowest budget revenues to GDP ratios in EU, while the Romanian tax system is characterized by a poor tax collection, inefficient administration and excessive bureaucracy; iv) the structure of public spending in Romania is characterized by the predominance of wage spending and social assistance, while the poor state of the public pension system is an important vulnerability of the public finance position; v) overall, the degree of tax compliance in Romania was only 55.8% in 2013, and according to the calculations made by the Fiscal Council, tax evasion represented 16.2% of GDP in 2013. All these aspects make up a grim picture of sustainability of public finances, which has to be considered by the public decision makers regarding future fiscal policy actions.*

**Keywords:** public finance; fiscal sustainability; Romania; multidimensional assessment; fiscal risks.

**JEL classification:** H62; H53; H26.

### 1. Introduction

As Blanchard et al. (1991) stated, “sustainability is actually about good housekeeping”. Fiscal sustainability refers to the government’s ability to assume the financial burden of its future debt; it is essentially a forward looking macroeconomic concept which is related to the solvency of government. Maintaining sustainable public finances has become most important since the recent economic and financial crisis. Indeed, in order to generate a stable macroeconomic environment, it is necessary to ensure a stable long-term relationship between government expenditures and revenues.

A sustainable fiscal policy means that the inter-temporal government budget constraint holds in present value terms, i.e. the current market value of public debt is equal to the discounted sum of expected future primary surpluses. In other words, a sound fiscal policy implies avoiding excessive liabilities of the government, but at the same time delivering the proper public goods and services, including the necessary safety net in times of crisis. An unsustainable fiscal position negatively impacts on macroeconomic stability; thus, fiscal authorities aim at reducing the budget deficit, in order to maintain public debt within

sustainable limits, or to mitigate the rising of the current account deficit (Coroiu, 2015). In the European context, fiscal sustainability is an acute policy challenge, due to the worsening of fiscal positions and increases in public debt since 2008; to make things worse, Europe is facing an ageing population, which will undergo dramatic demographic changes in the near future, due to the dynamics of fertility, life expectancy and migration rates. According to the 2015 Ageing Report, population ageing is expected to seriously affect economic growth (if fertility rates are lower than expected, then growth rates could be much reduced) and to generate important pressures to increase public spending. This will make it difficult for the Member States to maintain sound and sustainable public finances in the medium and long-term.

Since the sustainability of public finances needs to be addressed at the country level, a country assessment is obviously useful. In this respect, we should note that the borders of sustainability differ across countries and over time. The ability to run high debts depends on several factors, i.e. the degree of financial markets' development, perceived risks, trust in the capacity of a government to implement structural reforms and consolidate deficits, the degree of global risk aversion and the attractiveness of investments alternative to government bonds (Sudharshan et al., 2012). Still, countries recording high debt ratios and large external imbalances are most exposed.

The main objective of this study is to evaluate the sustainability of public finance in Romania, using the most recent data sources. Specifically, the study assesses fiscal sustainability by highlighting the multidimensional approach of the Commission, integrating the longer term with an assessment of more immediate challenges and risks. Also, the second part of the study explores the threats for public finances sustainability, by looking into several sensitive areas, such as: public arrears, tax collection, the efficiency of public spending or tax evasion.

The rest of the paper is structured as follows: Section 2 highlights the literature review; Section 3 presents the multidimensional assessment of fiscal sustainability in Romania; Section 4 explores potential threats for Romania's fiscal sustainability, while Section 5 concludes.

## **2. Literature Review**

In the last twenty years or so, there has been a significant work (theoretical and empirical) in public finance regarding the sustainability of fiscal policy, especially since 2008-2009, when the financial and economic crisis has been triggered. The empirical analysis of fiscal sustainability usually tests for cointegration between government revenues and expenditures and/or for the existence of unit roots in government debt and budget deficit series.

Such an empirical analysis was performed by Landolfo (2008), who evaluated fiscal sustainability in the Euro Area (for the period 1966-2004) and USA (for the period 1977-2003), by applying cointegration and unit root tests to public debt, primary surplus and interest rates. On the basis of infinite horizon-tests, the general conclusion is that both regions have a sustainable fiscal policy. Focusing also on the European sample, Afonso and Rault (2010) assess the sustainability of public finances in the EU-15 over the period 1970–2006, using stationarity and cointegration analysis. Despite the fact that their estimations reveal fiscal sustainability being an issue in some countries, they conclude that fiscal policy was sustainable both for the EU-15 panel set, and within subperiods (1970–1991 and 1992–2006).

Another contribution to the literature belongs to Yildiza and Yildirimb (2014) who study the financial viability of the European Monetary Union member countries (a balanced panel including 12 EMU countries, over the period 1995-2011). After testing the existence of panel causality between debt/GDP and primary surplus, the authors conclude that the variables are co-integrated, i.e. there is a statistically significant long-run relationship

between the two variables.

Furthermore, Afonso and Jalles (2012) study the sustainability of public finances in OECD countries, over the period 1970-2010. Using unit root and cointegration analysis, they discover that government revenues and expenditures for most countries are not cointegrated, while government debt Granger causes the primary balance for 12 countries; for some countries, in general, fiscal policy has been less sustainable, and panel data results confirm the time-series findings. Two years later, the same authors, Afonso and Jalles (2014), investigate the sustainability of fiscal policy in a set of 19 countries, this time by taking a longer-run secular perspective over the period 1880–2009. Testing the stationarity of the first-differenced level of government debt and disentangling the components of the debt series using structural time series models, the authors conclude that longer-run fiscal sustainability can be accepted (Japan and Spain seem to be exceptions), since in most cases stationarity can be accepted.

Some of the recent papers focus their attention on groups of countries. Such a study belongs to Kapopoulos and Lazaretou (2011), who analyze the case of South-East European countries, given the fact that many of these countries faced debt crisis episodes during the last decades. The authors come to the conclusion that every SEE country tried to consolidate its public finances over the last decade; still, the empirical analysis indicates a weak connection between public debt sustainability and the short-run conduct of fiscal policy, i.e. debt sustainability is not improved by the short-run conduct of fiscal policy.

Regarding fiscal sustainability in Romania, there are several studies that analyze the subject. Talpoș and Enache (2008) use monthly public revenues and public expenditures time series, in order to test for a cointegration relation. Since they discover at least two cointegration relations between the two time series, the authors conclude that in Romania, if the determinants of the public revenues and public expenditures remain unchanged, the public debt will not have a divergent evolution and the fiscal policy will be sustainable in the long run.

Homorodean et al. (2014) analyze the evolution of tax revenues in Romania between 2005 and 2013, as well as the share of tax revenues in the general consolidated budget of Romania. The main conclusion is that Romania is a country with an average level of risk for fiscal sustainability. Finally, Sudharshan et al. (2012) suggest that the costs of financing the Romanian public pension system threatens long-term fiscal solvency all together with negative demographic shifts over the next half of century. Also, tax evasion records high values, the Romanian tax system having one of the smallest efficiency in the European Union.

### **3. Multidimensional Assessment of Public Finance Sustainability in Romania**

#### **3.1. Methodological Approach**

The European Commission (2012) has developed a multidimensional tool for assessing fiscal sustainability, which integrates the longer term with an assessment of more immediate challenges and risks. This multidimensional approach allows the assessment of three types of challenges: i) short-term challenges, based on the S0 indicator (“early detection of fiscal stress”); ii) medium-term challenges, based on the modified S1 indicator (“debt compliance risk”) and iii) long-term challenges, based on the S2 indicator (“ageing-induced fiscal risks”).

The S0 indicator aims at an “early detection of fiscal stress”, through a combination of fiscal, financial and competitiveness indicators. This indicator is designed to highlight shorter-term (one-year horizon) risks for fiscal stress, generated by the fiscal, financial and competitiveness sectors of the economy. There are 28 fiscal and financial-competitiveness variables used in the composite indicator S0.

The medium-term sustainability indicator, the S1 indicator, illustrates “the budgetary

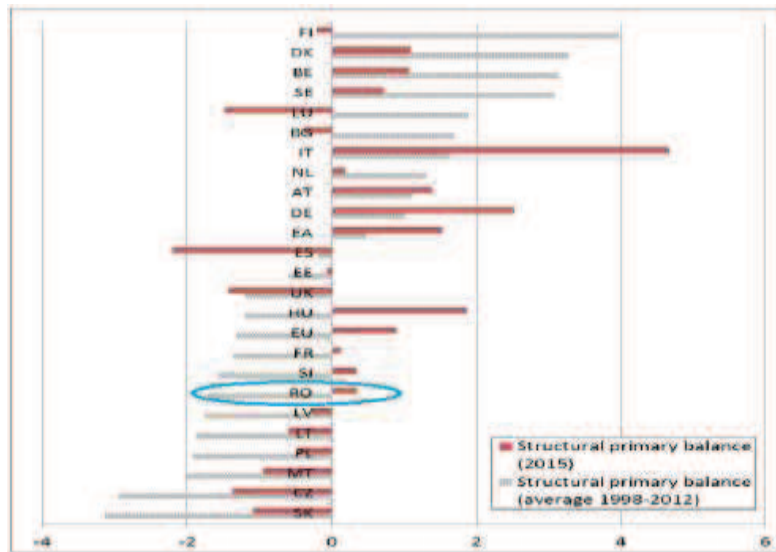
adjustment effort required, in terms of a steady improvement in the structural primary balance to be introduced until 2020, and then sustained for a decade, to bring debt ratios back to 60% of GDP - the debt threshold in the Treaty - in 2030, including financing for any additional expenditure, arising from an ageing population until the end-point date.” (European Commission, 2012). In order to evaluate the degree of the sustainability challenge, several thresholds were used: “(i) if the S1 value is less than zero, the country is assigned low risk; (ii) if it is between 0 and 3 (thus requiring a structural adjustment in the primary balance of up to 0.5 p.p. of GDP per year until 2020), it is assigned medium risk; and, (iii) if it is greater than 3 (meaning a structural adjustment of more than 0.5 p.p. of GDP per year is necessary), it is assigned high risk” (European Commission, 2012). The S2 indicator describes “the adjustment to the current structural primary balance required to fulfill the infinite horizon inter-temporal budget constraint, that is, current and future government revenue matches current, comprising outstanding government debt, and future expenditure, including paying for any additional expenditure arising from an ageing population” (European Commission, 2012). The S2 indicator takes into account the estimated changes in age-related expenditure over a much longer time span (to 2060 and beyond) and it doesn't take into account the required adjustment for high debt countries to reduce their debt below 60% of GDP. In order to interpret the indicator, the general rule is the following: the higher the values of the S2 sustainability indicator, the greater the required fiscal adjustment and thus the fiscal sustainability risk. There are three specific thresholds: (i) if the value of S2 is lower than 2, the country is assigned low risk; (ii) if it is between 2 and 6, it is assigned medium risk; and, (iii) if it is greater than 6, it is assigned high risk.

### **3.2. The Case of Romania**

According to the multidimensional approach of the European Commission, in the short run, it seems that Romania is free from fiscal stress (S0), there is a low risk in the medium term (S1), and in the long run the risk becomes medium (S2). The level of government debt was of 38% of GDP in 2013 and 39.4% in 2014, below the 60% of GDP threshold. In case the structural primary balance would return to lower values (similar to the average for the period 1998-2012), then risks would be higher: the S1 indicator would increase from -1.4 to 1.5 (medium risk), while the S2 indicator would increase from 3.7 to 5.9, right next to the upper limit.

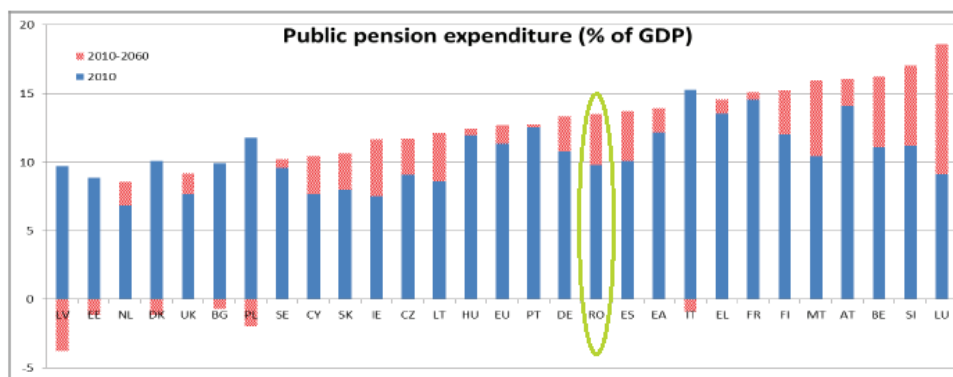
Figure 1 shows the structural primary balances, i.e. the cyclically-adjusted primary balance corrected for one-off and temporary measures. It shows both the Commission's autumn 2013 forecast for 2015 and the average over the period 1998-2012.

As can be noticed, Romania recorded a negative structural primary balance during the period 1998-2012, the average being close to -2% of GDP. As for 2015, the Commission's forecast suggests a structural budgetary surplus, which must be treated with caution: in order to positively affect the economy, it should emerge from improved tax collection, current spending cuts and increased investment, and not from the introduction of new taxes or the lack of infrastructure projects.



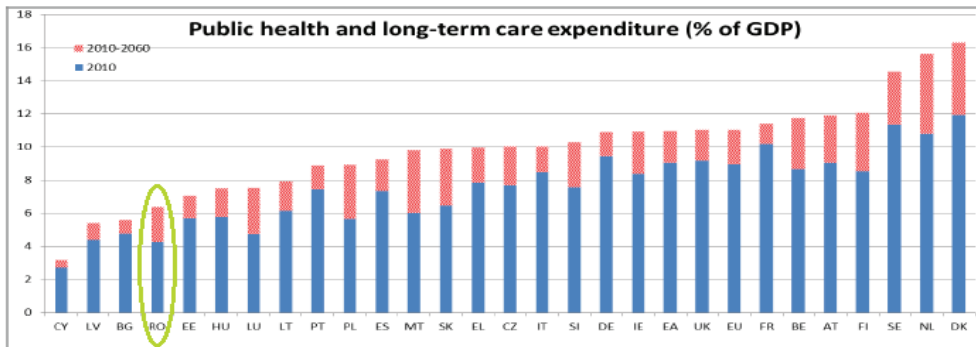
**Figure 1:** Structural primary balance, 2015 and average (1998-2012), % of GDP  
Source: Commission Services.

Another key element of the sustainability indicators is the cost of ageing, which covers a longer time horizon (50 years). Its impact derives from the estimated evolution in age-related expenditure, i.e. pension, health care, long-term care, education and unemployment benefits. The most important expenditure type is public pension spending, accounting for about 11% of GDP in the EU as a whole. Public pension expenditure in the EU-27 is projected to increase by 1.5 p.p. of GDP over the period 2010-2060 to a level of 12.9% of GDP, while in the euro area, an increase by 2.0 p.p. of GDP is projected. Member States display a significant variation in terms of both current expenditure levels and in terms of projected changes in pension spending. This illustrates the different pension systems in place, and also the stage of the pension reform process Member States find themselves in (see Figure 2).



**Figure 2:** Public pension expenditure, 2010 and 2060 (% of GDP)  
Source: Commission Services

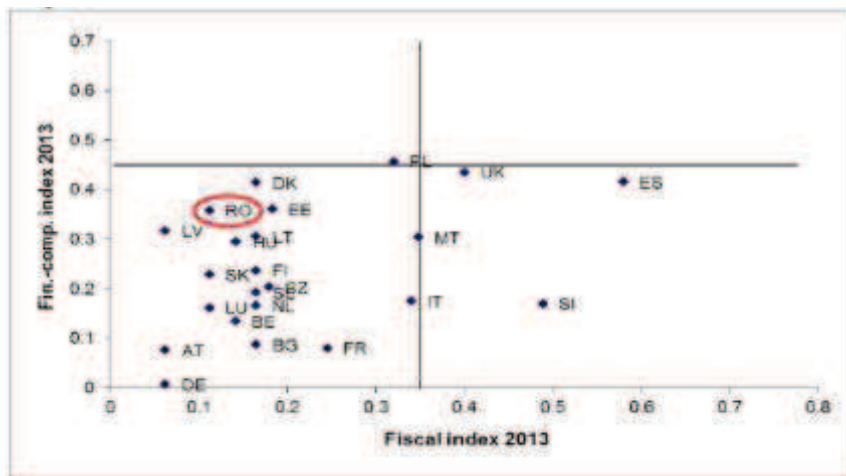
Health care spending is the second largest expenditure item, accounting for about 7% of GDP for the EU as a whole. Besides health care, attention should also be paid to long-term care. When taken together, these items represent 9% of GDP in the EU. Figure 3 illustrates a more detailed image of this category of expenditures.



**Figure 3:** Public health care and long-term care expenditure, 2010 and 2060 (% of GDP)  
Source: Commission Services.

Both previous Figures (2 and 3) highlight the fact that Romania will record higher future pension expenditures (+3.7 p.p. of GDP), as well as higher health and long care spending (more than 2 p.p. of GDP). This will exert additional pressure on the public budget, thus contributing to the medium and long term fiscal risks.

As stated before, the S0 indicator is used to assess risks for fiscal stress in the following year, its values beyond the threshold indicating potential short-term risks. Countries with a value for the overall indicator above the threshold (0.43) in 2013 are at risk for fiscal stress in the year ahead. Figure 4 indicates that Romania has an “acceptable” value (below the threshold) of the S0 indicator, presenting no fiscal risk in the short run.



**Figure 4:** The S0 indicator  
Source: Commission Services.

With respect to the medium-term challenges assessed by the S1 indicator, Figure 5 shows this indicator in the no-policy-change scenario, taking the budgetary position in 2015 (the last year of the autumn 2013 Commission forecast) as a starting point. Also, it illustrates the values resulting from taking the year 2012 as a starting point, thus showing the size of the adjustment currently planned in the following years, as reflected in the autumn 2013 forecast.





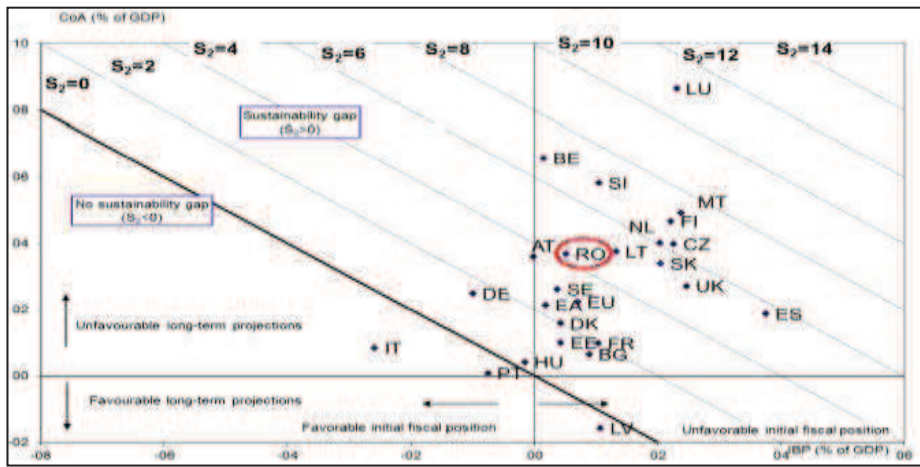
**Figure 5:** The S1 indicator  
Source: Commission Services.

As can be observed, the medium-term sustainability gap (S1) is negative (-1.4% of GDP in the baseline scenario), reflecting the low debt to GDP ratio (well below the 60% of GDP threshold). When using the risk scenario, the S1 indicator remains almost unchanged (-1.2%), showing elasticity to higher health care and long term care spending.

The S2 sustainability indicator assesses the size of current and future budgetary imbalances and, consequently, of the size of the challenge placed on public finances. Figure 6 shows on the horizontal axis - the initial budgetary position (IBP) and on the vertical axis - the long-term change in the budgetary position (LTC). A country positioned to the left has a favorable IBP; if it is below zero, it means that the budgetary position contributes positively to fiscal sustainability. A country positioned towards the bottom of the axis has a low long-term “cost of ageing” (European Commission, 2012).

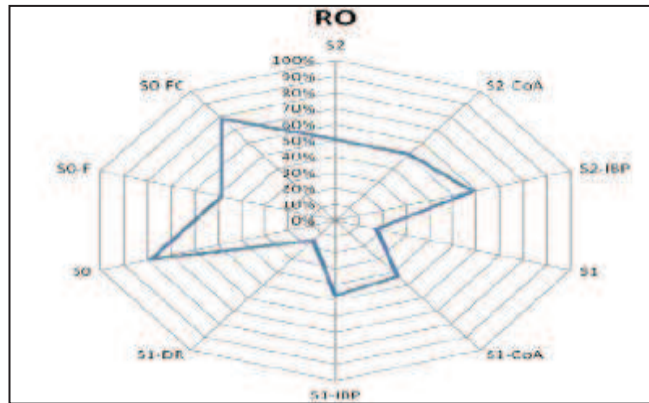
The fiscal sustainability position of the countries from the upper area can be improved by reforming the pension systems and, thus, curbing the estimated increase in age-related expenditure, while countries to the right can improve their fiscal sustainability position by consolidating their public finances. The further a country is positioned towards the upper-right corner, the higher is the sustainability gap. The horizontal lines indicate the size of the sustainability gap; for example, the EU as a whole has a sustainability gap of 2.9 pp. of GDP.

According to the long-term sustainability analysis, Romania has a sustainability gap (S2) of 3.7% of GDP (see Figure 6), which is above the EU average (2.6%). This sustainability gap is almost entirely due to the long-term cost of ageing (+3.6 pp.), which is generated by an increase in pensions (+2.4 pp.) and healthcare and long-term care (+1.3 pp.). The initial budgetary position of Romania, in terms of the structural primary balance, considering the required adjustment to stabilize the debt ratio at the current value, is close to zero (+0.1 pp.).



**Figure 6:** The S2 sustainability gap decomposed  
Source: Commission Services.

Figure 7 allows for the comparison of Member States by taking into account the three indicators: S0, S1 and S2 and their components. The scale for each variable corresponds to the range of the data in the EU (highest value of all countries: 100%, lowest: 0%). One must note that higher values (closer to the outer area of the chart) mean higher sustainability risks.



**Figure 7:** Determinants of fiscal sustainability in Romania  
Source: European Commission (2012): 124.

Analyzing Figure 7, we can conclude that Romania, compared to the other Member States, “suffers” most in the following areas: financial-competitiveness subindex (S0-FC), initial budgetary position component (S2-IBP) and ageing cost component (S2-CoA). The finest performance belongs to the debt requirement component (S1-DR), since Romania records a value well below the 60% of GDP threshold (39.4% of GDP in 2014, according to the official data presented by the Romanian Ministry of Finance).

#### 4. Fiscal Risks for Romanian Public Finances Sustainability

##### 4.1. Arrears of State Companies

A potential medium-term fiscal sustainability risk address derives from the accumulation of losses and arrears in the business and companies sectors in which the state is a majority



shareholder: if they fail to streamline their activity, the Government will ultimately be forced to intervene with public resources, which may lead to a deterioration in public finances, with an increased budget deficit.

Although the contribution of public companies in total turnover in the economy was only 4.4% in 2013, the accumulated arrears represented 19.8% of total arrears recorded in the economy (Figure 8), both indicators continuing the downward trend since the peak in 2009 (6% for public companies contribution to the total turnover in the economy and 35.5% for arrears accumulated by state-owned companies in total arrears in the economy). The stock of arrears belonging to the 1086 state companies represented 3.6% of GDP in 2013, following the same downward trend as the indicators mentioned above (6.9 % of GDP peak in 2009). Most of the arrears of public companies are related to the general consolidated budget (50% of total arrears), especially the social security budget, unlike private companies, whose arrears are related to suppliers mostly (52% of total arrears).

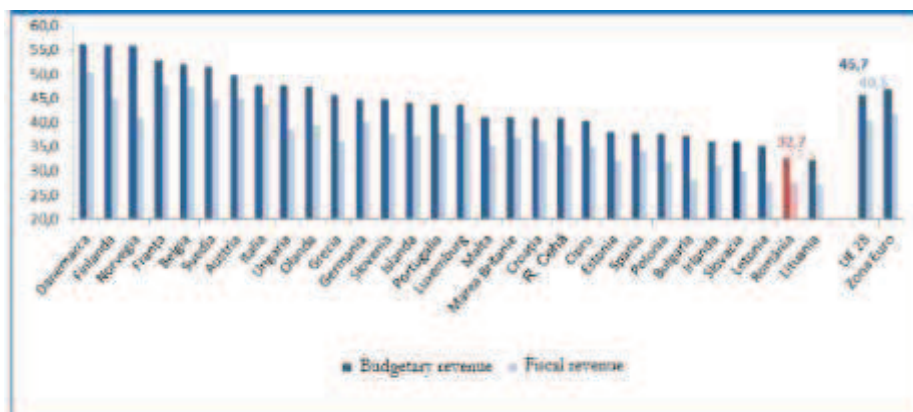


**Figure 8:** The evolution of arrears of public and private companies (% of GDP)  
Source: Fiscal Council Report (2014): 103.

#### 4.2. Tax Collection

Romania records one of the lowest budget revenues to GDP ratios (tax and non-tax revenue), representing only 32.7% of GDP in 2013, 13 p.p. of GDP lower than the European average. The level of tax revenues to GDP (taxes and social contributions) in Romania was 27.5% in 2013 (Figure 9), also with 13 p.p. of GDP lower than the EU-27 average (40.5%).

In addition, the gap that separates us from the EU average increased in 2013 over the previous year by 1.1 pp of GDP in terms of total revenues and 0.8 percentage points for tax revenues. The share of tax revenue to GDP is significantly lower than in similar economies, such as Hungary (38.6%), Slovenia (37.6%), Czech Republic (35.3%) and Poland (31.8%).



**Figure 9:** The budget revenue and tax revenue (% of GDP, ESA95, 2013)  
Source: Fiscal Council Report (2014): 116.

The Romanian tax system is characterized by a poor tax collection, inefficient administration and excessive bureaucracy, a relatively low tax base, with many exemptions and legal deductions, and high tax evasion. However, in recent years there have been initiated a number of measures that led to an improvement, but their impact is likely to be fully observable in future.

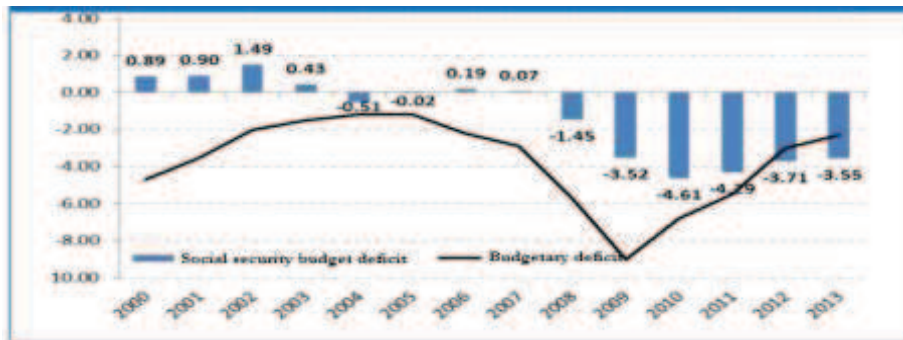
According to the World Bank (2014), Romania is ranked 134 of 189 countries worldwide in terms of ease of paying taxes (slightly up from 136, the place occupied in the previous year). The number of payments per year that is required for a company in Romania to pay taxes is 39 (down slightly compared to 41 in 2012), significantly higher than in other surveyed countries. In terms of the number of hours required to pay the tax liabilities of a financial year, Romania is positioned relatively favourable in the sample, with 200 hours required per year.

#### 4.3. The Composition and Efficiency of Public Expenditure

The structure of public spending in Romania is characterized by the predominance of wage spending and social assistance (pensions, welfare), but their relative importance has declined significantly in 2010-2013, as a result of fiscal consolidation.

The poor state of the public pension system is an important vulnerability of the public finance position, the relative importance of this category of expenses in total income being still too high. However, the enforcement of the new pension law should support the medium-term objective of reducing this share. Also, in terms of ensuring medium- and long-term sustainability of public finances, it is important that any increase in wages in the public sector in the coming years to be related to the evolution of economic activity and, in particular, of productivity gains.

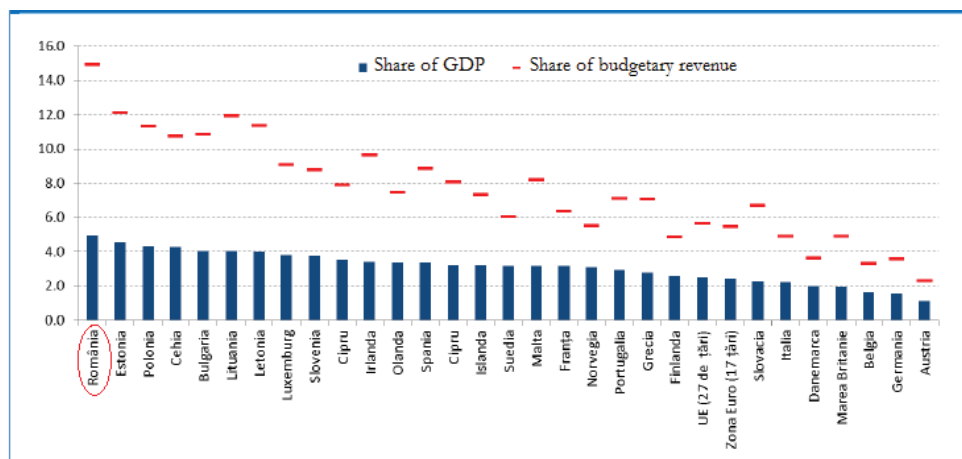
If during the period 2000-2007, social security budgets (pensions, unemployment and health) were characterized by a relative balance, after the year 2008, deficits have come to represent an important component of the total deficit, (ranging from 68% to 155% in 2010-2013). Basically, in the latter year, Romania would have had a budget surplus if the social security budget would have been in equilibrium. Figure 10 shows how the deficit in the public pension system (-1.86% of GDP) significantly affected the position of public finances, representing a relevant risk to the sustainability of fiscal policy in the medium and long term.



**Figure 10:** Social security budget deficit (pensions, unemployment and health) and total budget deficit - ESA95 (% of GDP)

Source: Fiscal Council Report (2014): 122.

The ineffectiveness of budget expenses is very high. For example, Romania had the largest allocation for capital expenditure as a percentage of GDP (as a percentage of total budget revenues as well) of all EU countries in the period 2002-2013 (as can be noticed from Figure 11), but the results are modest: Romania still has the weakest infrastructure in the EU. This example clearly shows that the money was spent inefficiently.



**Figure 11:** The share of investment spending in GDP and total revenue (average 2008-2013)

Source: Fiscal Council Report (2014): 123.

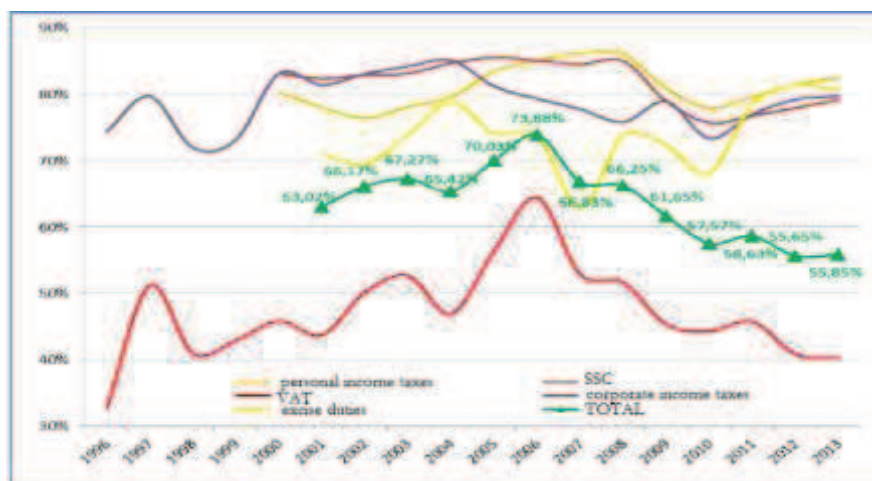
#### 4.4. Tax Evasion

According to the calculations made by the Fiscal Council, based on NIS data, tax evasion is very high in Romania, representing 16.2% of GDP in 2013. A profound reform of the administration of taxes in Romania, targeted towards increasing tax collection, is absolutely necessary, thus being capable of creating the fiscal space needed to reduce the tax burden on employment, which displays a very high level today.

Approximately 75% of the evasion is generated by VAT, which reached a maximum of 12.34 % of GDP in 2012, followed by a slight decrease in 2013 (12.21 % of GDP). Note that in 2010, when the legal VAT rate was increased from 19% to 24% in the second half of the year, tax evasion increased from 8% of GDP in 2009 to 9.6% of GDP in 2010, an upward trend that maintained itself in the coming years.

Based on calculations of the Fiscal Council, we can determine the degree of tax compliance, defined as the ratio between the actual collected budget revenue and theoretical income (including tax evasion and revenue actually collected). Overall, the

degree of tax compliance was only 55.8% in 2013 (Figure 12), a slight improvement compared to 2012, when we had a minimum of the last 12 years. The highest degree of tax collection during 2001-2013 was reached in 2006, i.e. 73.9%. The lowest degree of tax compliance is recorded in the field of VAT, only 40.38%.



**Figure 12:** Evolution of compliance degree towards payment of main taxes  
Source: Fiscal Council Report (2014): 136.

Regarding income taxation, we can notice an improvement in the degree of compliance in 2005-2006, after the introduction of the flat tax rate of 16%. During 2007-2013, there is a stagnation of the degree of compliance and subsequent worsening, reaching levels even lower than the period prior to 2005. Moreover, there is a deterioration of the degree of compliance regarding the Social Security Contribution during 2009-2013, compared to 2008, when the SSC quotas were increased.

## 5. Conclusions

Achieving sustainable public finances is a challenging task, especially if the starting point is one of significant imbalances. The sharp adjustments that took place in Romania, i.e. austerity measures, undermined the trust in the ability of the government to maintain basic safety nets, especially with the recent discovered corruption episodes. The democratic processes involving the use of public money will function properly if there is a greater transparency. Also, since debates on fiscal sustainability can be very complex and hard to understand, a necessary step is the improvement in the financial literacy of citizens, politicians, administrators, journalists and other stakeholders. Greater awareness of the connections between financial markets and public finances can help ensure citizens play a more active role in demanding better long-term fiscal sustainability. Finally, reforms are also critical to improving the management of public resources and to rebuild confidence among citizens regarding the ability of the government to meet existing commitments and plans for the future. For Romania, growth is not sufficient on its own to achieve sustainability in the long run, without appropriate public sector financial management.

## 6. Acknowledgements

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