AN OPTIMALITY ASSESSMENT OF THE FISCAL CONSOLIDATION PROCESS INITIATED BY ROMANIA IN 2010

Bogdan Andrei DUMITRESCU, PhD[*]

Abstract

The manifestation of the economic and financial crisis consequences in Romania at the end of 2008 coincided with the accumulation of severe imbalances in terms of public finances position and current account balance. The inevitable decision of the Romanian authorities to implement a program of fiscal consolidation in 2010 raised the question of its optimality in terms of size and composition, namely the mix between the modification of different categories of revenues and expenditures. The present study calculated the short and medium term need for fiscal adjustment existent in 2009 and also compared the structure of the chosen fiscal consolidation package with the one indicated by the best practices from the literature. The paper concludes that, although the fiscal consolidation program has been successful in correcting the fiscal imbalances, its quality in terms of composition was an average one.

Keywords: fiscal consolidation, economic growth, equity, crisis management

JEL Classification: H12, H23, H68

1. Introduction

The economic and financial crisis has had severe consequences in Romania that were amplified by the accumulated domestic macroeconomic imbalances, especially in terms of public finances position and current account balance. The low level of public debt existing in Romania in 2008, respectively 13.2 % of GDP, allowed postponing the necessary measures to adjust the budget deficit that reached in 2009 a record high of 8.9% of GDP. Given the exponential growth of both public and private funding needs amid a hostile macroeconomic environment and confronted with prohibitive

[*] *Lecturer, The Bucharest University of Economic Studies, Department of Money and Banking and CARFIB*

financing costs, Romania decided to implement in 2010 a comprehensive fiscal consolidation program aimed to correct the accumulated imbalances, even if this decision was equivalent to continue practicing pro-cyclical fiscal policies.

It arises the question to what extent the fiscal consolidation program decided in 2010 was an optimal one in terms of solving the accumulated budgetary imbalances, of the proposed fiscal consolidation pace and implicitly in terms of stabilizing the public debt to GDP ratio, but also from the perspective of ensuring an optimum in terms of the costs associated with such a program - such as for example the negative impact on economic growth and social equity. In this regard, the literature shows that the structure of the fiscal adjustment program is particularly relevant, namely the choice of the budgetary aggregates by which to reduce the budgetary deficit. This research aims to contribute to the optimality analysis of the fiscal consolidation program initiated by Romania in 2010 and, if it is the case, to propose alternative approaches by identifying the size of the necessary fiscal consolidation existing at the time, by investigating the literature regarding best practices for implementing a fiscal adjustment program calibrated in the case of Romania and by comparing them with the actual way that the deficit reduction was achieved in Romania during 2010-2013.

2. An assessment of the size of the fiscal consolidation need existing in Romania in 2009

The calculation of the fiscal consolidation need is a difficult task depending on many factors related to the specific imbalances accumulated by a country – fiscal and/or in the financial sector or regarding the current account balance - which is also affected by numerous uncertainties considering the fact that it is significantly influenced by the medium and long term projections of the key macroeconomic variables.

Sutherland et al. (2012) show that one can distinguish between a short to medium term fiscal consolidation need generally oriented to stabilize the debt to GDP ratio and a long-term fiscal consolidation need which targets reducing debt to a certain threshold. The authors also show that the mix between the two dimensions of a process of fiscal consolidation - short term and long term - depends on the trade-off regarding short-term stabilization, namely the impact on economic growth given by the fiscal multipliers, the effect on long-term economic growth, the redistribution effects of such a process and also on aspects related to intergenerational equity.

In essence, long-term fiscal policy should have as an anchor a certain level of public debt. This level can influence the long-term economic growth in view of the findings from the literature which have shown that a debt level above a certain threshold has negative consequences for real GDP growth. For example Reinhart and Rogoff (2010) and Cecchetti et al. (2011) showed that for developed countries, the economic growth rate is about 1 percentage point lower if the public indebtedness is higher than 90% of GDP and the impact is amplified non-linearly as this level increases. Moreover, debt intolerance for developing countries has the potential to manifest itself at much lower levels as shown by Reinhart et. al (2003), and these countries cannot afford the same level of debt as developed countries given for instance the much lower access to finance. There are also adjacent factors limiting the ability to accumulate debt for developing countries such as higher volatility of the macroeconomic variables, the usually lower average maturity of the public debt, higher share of foreign currency denominated debt, all of these increasing their vulnerability to various economic shocks.

The target level of public debt should be a prudent one in order to allow an optimal response to shocks, the recent experience of EU countries showing clearly that a steep increase in indebtedness can occur abruptly in the conditions of a severe economic crisis and/or if the need to intervene with public funds to rescue financial institutions arises. In Europe, a strong anchor on public indebtedness is given by the 60% of GDP threshold stipulated in the Maastricht Treaty, which is in theory enough to allow the existence of a fiscal space when needed. However, there are enough reasons for which this limit is too high for emerging economies like Romania. Moreover, to formally recognize this, Romania's fiscal responsibility law, through the changes operated in 2013, sets public debt thresholds that trigger a series of corrective changes at 50%, 55% and respectively 60% of GDP.

In view of the situation in Romania from 2009, the economic and financial crisis has led to recording a real GDP growth of -7.1 % and the correction of the severe accumulated fiscal imbalances has been delayed in order to allow the automatic stabilizers to mitigate to some extent the effects of the crisis. Romania's chance was represented by the very low level of public debt at the end of 2008, respectively 13.2% of GDP which allowed the delay to a certain extent of the discretionary measures implementation designed to reduce the budgetary deficit that reached a level of 8.9% of GDP in

2009. In these circumstances, the public debt trajectory was obviously pointing to a steep increase, the advance 10 pp. of GDP recorded in 2009 only being expected to continue.

Given the low starting point for the public indebtedness, but also its steep upward trend, identifying the fiscal consolidation need is reduced to determining the fiscal gap over the short and medium term given the significant space against a possible public debt target consistent with long-term economic growth, albeit at a level significantly lower than that stipulated by the Maastricht Treaty. However, medium-term debt stabilization was not without challenges given the very high budgetary deficit recorded in 2009 and the domestic and international macroeconomic framework. Basically, forecasting the evolution of public debt to GDP ratio is based on the debt dynamics equation that uses as inputs the medium-term projections for the economic growth, the interest paid on public debt and the inflation rate. Thus, identifying the fiscal consolidation need is affected both by the uncertainty associated with these forecasts, but also by the possible links between the determinants of the public debt to GDP ratio.

In this paper, the fiscal consolidation need existing in Romania in 2009 was determined based on the following hypothesis. First, it should be noted that, as the analysis is an *ex-post* one, for simplicity it was assumed that the necessary macroeconomic variables have been forecasted to the actual recorded level. Second, the medium term objective of a fiscal consolidation process is to stabilize the public debt; it is clear that, given the starting point which is represented by very high budgetary deficits, the adjustment was very difficult to occur in just a year or two. For example, in order to stabilize public debt in 2010 a primary surplus of about 0.4% of GDP would have been required which is equivalent to an improvement in the primary balance of 7.8% of GDP over the previous year, but such a development was virtually impossible in practice without very high economic and social costs. It is reasonable to consider a medium term adjustment of the budgetary deficit, with the objective to stabilize public debt in 5 years for example. Starting from the public debt equations, as synthesized by Cafiso (2012), several scenarios of fiscal consolidation starting with 2010 have been built, with an average fiscal consolidation pace in terms of reduction in the primary deficit set at 0.5%, 1%, 1.25% and respectively at 1.5% of GDP. More specifically, the annual change in public debt as a percentage of GDP will be given by:

$$\Delta b_t = -w_t + \left(\frac{1+i_t}{(1+\pi_t)*(1+\eta_t)} - 1\right) * b_{t-1},$$

where b_t designates the public debt at the time t, w_t is the primary surplus , i_t represents the nominal interest rate paid in year t for the public debt, π_t designates the inflation rate measured by the GDP deflator while η_t is the real economic growth rate in year t.

The stock-flow adjustment was assumed to be zero, and the values of the macroeconomic variables are the ones actually realized, as this is an *ex-post* evaluation. Given the above, the primary deficit and public debt were forecasted at the end of the 5 years period, while it is of interest to check if the debt has been stabilized. The results of these calculations can be found in the table below:

Table 1

The primary deficit and public debt in various fiscal consolidation scenarios with 2010 as the starting point

Annual reduction in the primary deficit (% of GDP)	0.50	1	1.25	1.5
Projected primary deficit at the end of 2014 (% of GDP)	4.90	2.4	1.15	-0.1
Public debt stabilization by the end of 2014	no	no	Yes	yes
Public debt at the end of 2014 (% of GDP)	42.38	39.88	38.63	37.38
Change of the public debt compared to the 2014 level (% of GDP)	3,87	0.9	-0.58	-2.07

Source: own calculations

Thus, the fiscal consolidation need can be assessed to a fiscal consolidation pace of about 1.25% of GDP/year, which appears as sufficient in order to stabilize public debt in 2014 and to initiate a trend of reducing it from 2015 onwards. It should be made clear that the actual data on the stock of public debt contain elements included in the so called stock-flow adjustment such as the one arising from the Ministry of Public Finances decision to build a cash reserve by meeting in advance the future financing needs or the one resulting from the depreciation of the national currency; however, for the present analysis, these elements can be ignored. In conclusion, in the 2010-2014 period a need to improve the fiscal balance by approximately 6.25% of GDP has been identified, corresponding to an annual pace of 1.25% which should be sufficient in order to stabilize public debt at a level below 40% of GDP.

Regarding the actual pace of fiscal consolidation, beyond the identified average for 5 years, Romania's obligations arising from EU membership must be also be taken into account. The budgetary deficit from 2008 of over the 3% of GDP, surpassing the threshold stated in the Maastricht Treaty led to placing Romania in the excessive deficit procedure, with a deadline to correct the budgetary imbalance until late 2012. In this context, the pace of fiscal consolidation ought to be about 2% per year in 2010-2012, corresponding to a reduction in the headline deficit from the 8.9% of GDP level recorded at the end of 2009 to a level below 3%. Afterward, the annual pace of fiscal consolidation could be of 0.5 % of GDP in structural terms consistent with the provisions of the corrective arm of the Stability and Growth Pact under that Romania would actually fall subsequently to the reduction of the budgetary deficit below the threshold of 3%.

It can be observed that the time schedule for Romania to exit from the excessive deficit procedure is equivalent to achieving in three years the amount of fiscal consolidation required to stabilize debt, previously determined for a time horizon of 5 years. From a perspective of the need for fiscal consolidation, the best option seemed to be a gradual reduction on a 5 year horizon in the budgetary deficit at a rate of 1.25 % of GDP per year followed by smaller adjustments, corresponding to an annual pace of 0.5% of GDP in structural terms in order to achieve the medium-term objective. Such a scenario would have necessarily imposed prior negotiations with the EU institutions to extend the period allowed for the budgetary imbalances correction.

3. Best practices from the literature regarding the implementation of an optimal fiscal consolidation program

Beyond assessing the need for fiscal consolidation, it is of utmost importance the way to achieve it, respectively the mix between spending cuts and tax increases, but also identifying the budgetary aggregates where to operate modifications from the perspective of an optimal compromise between ensuring a sustainable budgetary and/or current account balance, equity and short and long-term impact on economic growth.

Applying a DSGE model for Hungary, Guerson (2013) analyzes the short and long-term impact on real GDP dynamics of a fiscal consolidation package and concludes that it is preferable that this process takes place through current expenditure cuts (e.g. spending on pensions, spending on goods and services) while the least indicated variant is the reduction in investment spending. Increasing taxes is somewhere between these two extremes, but here also, the chosen instrument matters. Thus, taxes on capital and labor have the most significant negative impact on long-term real GDP growth while the consequences of an increase in consumption taxation are somewhat more reduced.

Geng (2013), studying how fiscal consolidation was implemented in Lithuania in the aftermath of the economic and financial crisis, argued that the structure of a package of fiscal adjustment should be influenced by the specific situation of a country as Lithuania for example is characterized by the lowest ratio to GDP of budgetary revenues from the EU. In this sense, it is logical to implement measures to increase revenues and preferable in this respect are the tax base broadening, increasing property taxes and promoting greater progressivity in the tax system.

Ball et al. (2013) analyzing the consequences of a fiscal consolidation process on income distribution based on past experiences from the period 1978-2009 in 17 OECD countries conclude that fiscal adjustments are usually accompanied by significant redistributive effects, increasing inequalities as the process is contributing to a lower share of wages in total income and to higher long-term unemployment. The authors also show that reducing spending has on average a less negative impact on income distribution than tax increases. The authors recommended implementing alongside with the fiscal consolidation package a set of measures aimed at reducing the impact on income distribution in the economy possibly accompanied by a flexibility of the fiscal adjustment program depending on future economic developments.

Cournède et al. (2013) developed a hierarchy of the budgetary aggregates in terms of their suitability for use in a process of fiscal consolidation considering their impact on short- and long-term economic growth, equity and the current account balance, each criterion being assigned an equal weight. Thus, beyond the impact on real GDP, a fiscal consolidation process that is perceived as unfair has a higher risk of being reversed while many countries facing fiscal imbalances are also characterized by high current account deficits - thus, by the budgetary deficit reduction, an increase in national saving will occur with positive impact on the current account. The proposed hierarchy based on the application of these criteria is as follows, the ordering starting from the budgetary aggregates preferably to be used 1) Subsidies; 2) Pensions; 3) Other government consumption, unemployment benefits, environmental taxes and other property taxes; 7) Sickness and disability payments, recurrent taxes on immovable property and sales of goods and services; 10) Consumption, personal income and corporate income taxes; 13) Public Investment, health services; 15) Family policy and social security contributions; 17) Education.

In conclusion, a program of fiscal consolidation must be a compromise between the need to stabilize debt in the short and medium term and the need to reduce it in the long-term and the impact of the fiscal adjustment on economic growth, equity and income distribution and the current account balance. Choosing an optimal mix between spending cuts and tax increases and especially identifying the budgetary aggregates based on which to achieve the budgetary deficit and public debt reduction are of utmost importance in order to minimize the inevitable negative economic and social consequences of such a process.

4. The composition of the fiscal consolidation program initiated in Romania in 2010 - achievements versus best practices

The question arises to what extent the fiscal consolidation process in Romania from the period 2010-2013, which resulted in reducing the general government deficit from 8.9% of GDP in 2009 to 2.2% of GDP in 2013, was consistent with the best practices identified in the literature with regard to its structure. In this respect, the tables below show the evolution of revenues and spending in Romania in 2009-2013, with table no. 2 containing the budgetary expenditures in economic classification while table no. 3 refers to their functional classification as both are needed in order to assess if the chosen fiscal adjustment instruments are consistent with the criteria stated above.

Table 2

The evolution of budgetary revenues and expenditures in Romania in 2009-2013 according to ESA95 (% of GDP)

	2009	**2010**	**2011**	**2012**	**2013**	**Changes 2013 compared to 2009**
Total revenue	31.8	33.0	33.7	33.4	32.9	1.2
Fiscal revenue	17.1	17.7	19.0	19.1	18.6	1.5
Indirect taxes, out of which:	10.7	11.8	13.0	13.1	12.7	2.0
VAT	6.5	7.5	8.6	8.4	8.3	1.7
Excises	3.1	3.0	3.1	3.1	4.3	1.2
Direct taxes, out of which:	6.4	6.0	6.1	6.0	5.9	-0.5
Personal income tax	3.4	3.2	3.3	3.4	3.4	-0.1
Corporate income tax	2.6	2.3	2.3	2.1	2.0	-0.6
Social security contributions	10.0	9.3	9.0	8.8	8.7	-1.4
Other current revenue	1.6	2.6	2.1	2.4	2.6	1.0
Total expenditure	40.6	39.6	39.2	36.4	35.2	-5.5
Intermediate consumption	6.3	5.4	5.7	5.8	5.6	-0.7
Compensation of employees	10.7	9.5	7.8	7.7	8.0	-2.7
Interest payments	1.5	1.5	1.6	1.7	1.7	0.2
Social assistance	13.2	13.7	13.1	12.1	11.7	-1.5
Subsidies	1.1	1.0	0.9	0.7	0.5	-0.6
Other current expenditure	1.4	1.9	2.0	2.3	1.8	0.4
Gross fixed capital formation	6.0	5.7	5.5	4.8	4.6	-1.5
Budgetary deficit	**-8.9**	**-6.6**	**-5.5**	**-3.0**	**-2.2**	**6.6**

Source: Eurostat

Table 3

The evolution of budgetary expenditures according to the functional classification in Romania in 2009-2013 (% of GDP)

	2009	**2010**	**2011**	**2012**	**2013**	**Differences - 2013 compared to 2009**
Total	40.6	39.6	39.2	36.4	35.2	-5.4
General public services	4.3	4.5	4.8	4.9	4.9	0.6
Defense	1.5	1.4	0.8	0.7	0.8	-0.7
Public order and safety	2.1	2.4	2.2	2.2	2.2	0.1
Economic affairs	7.9	7.0	7.1	6.5	6.2	-1.7
Environment protection	0.6	0.8	0.9	0.8	0.7	0.1
Housing and community amenities	1.4	1.3	1.2	1.1	1.2	-0.2
Health	3.8	3.3	4.1	3.8	4.0	0.2
Recreation, culture and religion	1.1	1.0	1.1	1.0	0.9	-0.2
Education	4.1	3.3	4.1	3.0	2.8	-1.3
Social assistance	14.0	14.6	12.8	12.3	11.5	-2.5

Source: Eurostat

It can be observed that most of the fiscal adjustment of 6.6 pp of GDP was achieved by reducing budget expenditures (-5.4% of GDP) while increasing revenues contributed only with 1.2% of GDP. This evolution is in line with the recommendations from the literature which shows that it is preferable to reduce outlays to the detriment of tax hikes. Most of the reduction in expenditure was achieved through compensation of employees (-2.7% of GDP), important contributions also having social assistance (-1.5% of GDP), gross fixed capital formation (-1.5% of GDP), intermediate consumption (-0.7% of GDP) and subsidies (0.6% of GDP). Beyond the analysis of expenditure according to the economic classification it is relevant to analyze them also according to the functional classification – from this point of view the categories most affected by expenditure cuts were social assistance (-2.5% of GDP), economic activities (-1.7% of GDP), education expenditure (-1.3% of GDP). It should be noted that the decrease in the share to GDP of these budgetary aggregates was not achieved in general by reducing spending in nominal terms, but rather trough the denominator, namely a higher nominal GDP, supported by a relatively high GDP deflator. Thus, it can be concluded that more than 50% of the spending cuts have been achieved through elements not recommended in terms of the hierarchy presented by Cournède et. al (2013) respectively by reducing investment spending and those with education, while the difference up to 100% accounts generally spending reductions placed in the bottom of the hierarchy in terms of distortionary impact (pensions, intermediate consumption). On the revenue side, tax hikes were localized to the level of the budgetary aggregates placed in the middle of the hierarchy. Thus, the quality of the fiscal consolidation process was an average one in terms of minimizing its negative impact on economic growth, equity, in the distribution of income and the current account balance.

5. Conclusions and implications for policymakers

The optimality of the fiscal consolidation program initiated by Romania in 2010 designed to correct the significant fiscal imbalances existing at the end of 2009 can be assessed both from the perspective of the outcomes on improving the public finances position, but also in terms of the costs associated, namely the impact on economic growth, social equity and the current account balance. Undoubtedly, the reduction in the headline budgetary deficit from the level of 8.9% of GDP in 2009 to about 2.2% in 2013 is a success, even in the conditions of an alert fiscal consolidation pace of over 1.6 pp of GDP annually, possibly slightly higher than the optimal one, but conditioned by the Romania's commitments derived from the status of EU membership. Basically, the fiscal consolidation need existing in Romania at the end of 2009 was delivered in full by the end of 2013, the public debt being stabilized at a level below 40% of GDP while the long-term sustainability should be ensured through respecting the medium term budgetary deficit objective of 1% of GDP in structural terms. The convergence to this target from a headline deficit of 2.2% of GDP by the end of 2013 could take place in line with the requirements of the preventive arm of the Stability and Growth Pact, i.e. at a pace of adjustment of 0.5 pp of GDP annually in structural terms.

Judging by the composition of the fiscal consolidation program, the results are mixed. The quality of fiscal adjustment package was an average one in terms of the associated costs related to economic growth and social equity as certain expense categories, such as investment and education were reduced extensively during this period, which it is not recommended according to the literature regarding fiscal consolidations. It is true that the dimension of the accumulated imbalances imposed measures with significant budgetary impact and to some extent changes in the budgetary aggregates with high distortionary effects were inevitable, but also other elements could have been selected in the process of fiscal consolidation as such property taxes, environmental taxes or additional and extensive measures could have been taken in order to reduce intermediate consumption.

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