A CASE STUDY ABOUT THE PERFORMANCE INDICATORS OF THE ROMANIAN CONSOLIDATED GENERAL BUDGET

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Abstract: *The objective of this article is to develop an economic model quantifying for one of the main Romanian Consolidated General Budget performance indicators, the country risk. The analysis carried out over a 3 years period, and the data used had been reported, for the budget execution of this period. Through the study of the specialized literature and the analytical methods, a model of the Romanian country risk assessment developed, with the advantage of observational synthesis and the quantification of certain historical data, arising the possibility of forecasting, as well. The limitation of this analysis is about the allocations compared only at the level of the consolidated budget in relation to the state budget.*

Keywords: *performance indicators, budget, fiscal model, country risk, national economy*
JEL Classification: *E17, E62*

Introduction

Companies operating internationally rely on the stability of the economic environment in the foreign country, but the profits and investments may be vulnerable to some unknown negative developments, meaning country risk.

Therefore, the unexpected variation of country risk is an important strategic and operational indicator for companies operating in international environments.

Country risk considers also the capacity of a State to make payments and its impact on the ability of public or private entities to meet their cross-border payment obligations. In this context, the objective of our study is to build an economic model in order to quantify the country risk based on the main performance indicators of the Romanian Consolidated General Budget.

Literature review

Studying the economic literature, we conclude that economic, social and political imbalances in any country around the world, would lead to an increased risk of investing in those countries. An exhaustive study on the analysis of country risk sources in the environmental instability is attributed to Meldrum (2000). The author divides the risky events into six different categories, namely:

- Economic risks;
- Transfer risks;
- The risk arising from exchange rate trends
- Geographic location risk;
- The risk arising from government credit;
- Political risk.

The definition proposed by Meldrum (2000) seems to reflect these characteristics: "*Country risk analysis rests on the fundamental premise that growing imbalances in economic, social, or political factors increase the risk of a shortfall in the expected return on an investment. Imbalances in a specific risk factor map to one or more risk categories. Mapping all the factors at the appropriate level of influence creates an overall assessment of investment risk. The mapping structure differs for each type of investment, so an imbalance in a given factor produces different risks for different investments*."

This definition has broad connotations, adapting to different investment methods and including all those risk areas that are finding for an investment made abroad.

Another important issue that has generated many academic debates refers to the definition of risk. Some authors such as Feils & Şabac (2000) and Robock (1971) support the traditional risk vision based on Markowitz (1959) studies. According to Markowitz (1959), the risk arises as a deviation from the rate of real return on investment compared to the investment rate expected.

Another approach, commonly used in economic theory, refers to the concept of risk being regarded as a negative outcome or, in some cases, risk is treated as an event that could imply a return on investment less than expected income or benefits.

There are also some approaches referring to the concept of risk regarded as a loss (negative outcome), or in some cases, risk is treated as an event that could imply a return on investment lower than its income the expected benefits.

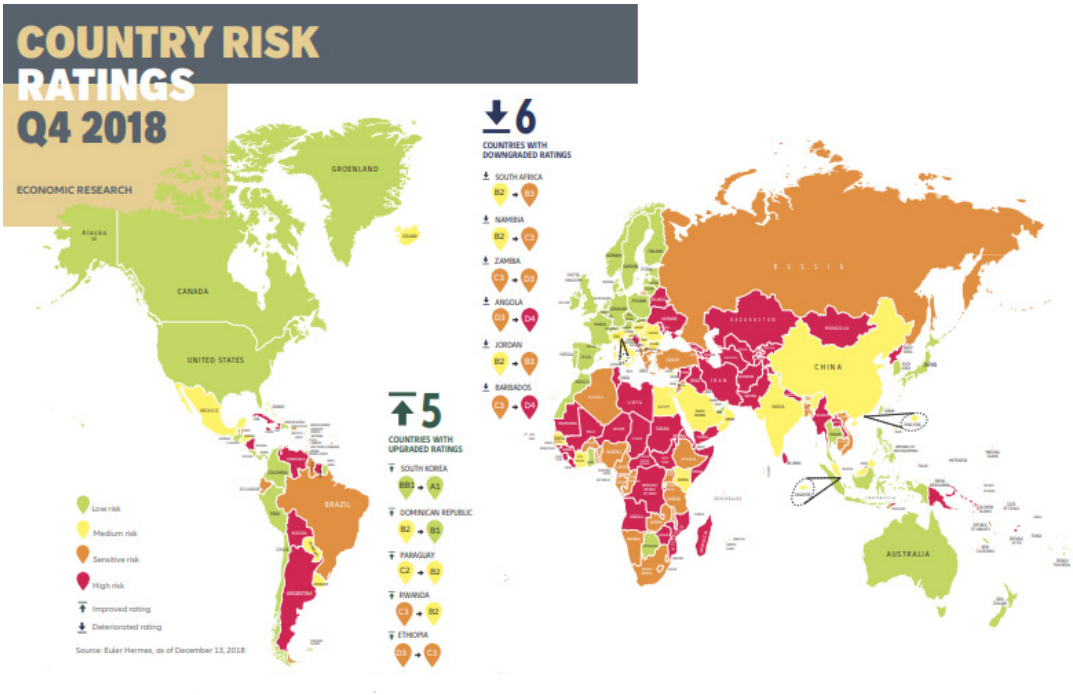
Among the authors supporting this approach are Meldrum (2000), who has established his entire theory of country risk, relying on events that have a negative impact on the estimated rate of return, (Howell & Chaddick 1994; Root Franklin 1972; Roy & Roy 1993; Simon 1982).

Although, all risk definitions present strengths and weaknesses, various studies conducted by (Baird & Thomas 1990; March & Shapira 1987) have shown that in practice, investors are not interested in assessing the degree of real output dispersion around the estimated value. So, they are concerned about measuring the likelihood of real return lower than the amount previously set, taking all measures to avoid such events.

Following the crises that took place in the 1980s and 1990s, there was an OECD awareness of establishing common rules for all members in the field of export credit. As a result, guidelines on premiums (with the obligation to apply the minimum level necessary to reach the profitability threshold), the environment, responsible loans and the fight against corruption (Baldacci & Chiampo 2007) were established. As far as the country risk assessment is concerned, it is divided into three main stages (Baldacci & Chiampo 2007):

- determining the risk category based on a model developed by the OECD;
- integrating the OECD rating with qualitative analysis of economic risks, political, financial and operational status of each country;
- Establishment of insurance conditions.
- For a better acknowledgement about country risk, we present the risk map in Figure 1 below:

Fig. 1: Country Risk Map



Source: Country Reports (2018)

Thus, before beginning to looking for a potential partner in a foreign country to start a business, whether commercial or productive, it is essential for investors to identify the market they will be targeting, depending on the opportunities it can offer in terms of expected profitability, and the country risk independent evaluation, as well.

In order to assess the effects of short-term changes on country risk, the level of government investment (investment expressed as a percentage of GDP), fiscal policy (tax rates applied, tax methods) and country debt (deficit / GDP), public debt / GDP and sources of public funding) are usually analyzed.

In addition to tax levels, the monetary policy and economic growth, the degree of openness to foreign investment and the rules in force that could affect economic development, are factors that should also be taken into account (possible limitations on privately owned property, the degree of regulation of private activities and the size of the underground economy).

Methodology of research

The analysis is focused on Romania's country risk and is based on the data collected form the consolidated general budget execution, as founded on the official website of the Ministry of Public Finance for a period of 3 years (2015-2017).

The proposed model is basis on the following study hypotheses:

1. Budget execution structured on three types of needs: current needs, capital needs, other needs, indicates a higher risk if the satisfied need is in deficit, respectively a lower risk if the satisfied need is in surplus;

2. Conjuncture factors are influencing the fiscal system contribution for the country's risk as the deficit on the financial policy segment.

Our findings indicate that there are some budgets (i.e. state social security budget, health insurance budget), with surpluses to cover the additional deficit registered with the state budget.

In fact, the entropy of the budgetary system is concentrated around the state budget as the main generator of allocation needs and as the main generator of consolidated financial destabilization.

Table 1 shows the trends of the budgetary indicators for the analyzed period.

Table 1. Romanian budget implementation and needs allocation categories (2015 and 2017)

	YEAR 2017			YEAR 2016			YEAR 2015		
The need for allocation	**Amount million euro state budget**	**Millions of euro consolidated budget**	**% from GDP**	**Amount million euro state budget**	**Millions of euro consolidated budget**	**% from GDP**	**Amount million euro state budget**	**Millions of euro consolidated budget**	**% from GDP**
The need for total allocation	-6,977.10	-5,391.30	-2.9	-6,357.00	-4,065.40	-2.4	-4,335.60	-2,302.50	-1.5
Need for current allocation	-8,854.90	-5,318.10	-2.8	-6,399.50	-1,640.50	-1	-4,688.30	-2,508.20	-1.6
The Need for Current Tax Allocation	-7,782.90	-3,190.00	-1.7	-5,889.30	-1,037.80	-0.6	-4,308.00	-1,610.40	-1
The need for current social allocation	-141	-1,631.10	-0.9	-68.1	-466.2	-0.3	-9.3	-670.8	-0.4

The need for allocation	YEAR 2017			YEAR 2016			YEAR 2015		
	Amount million euro state budget	Millions of euro consolidated budget	% from GDP	Amount million euro state budget	Millions of euro consolidated budget	% from GDP	Amount million euro state budget	Millions of euro consolidated budget	% from GDP
The need for current non-fiscal allocation	-931	-496.9	-0.3	-442	-136.5	-0.1	-371	-227	-0.1
The need for capital allocation	-1,248.60	-4,161.40	-2.2	-758.9	-4,054.60	-2.4	-924.7	-3,854.50	-2.5
Other allocation needs	3,126.40	4,088.20	2.2	801.4	1,629.70	1	1277.4	4,060.20	2.6
TOTAL EXPENSES	32,093.10	61,351.20	32.8	28,907.40	53,781.40	31.9	27,825.70	54,203.50	34.6
Current expenses	30,363.80	57,274.50	30.6	27,485.70	49,555.80	29.4	26,350.50	50,375.10	32.2
Capital expenditures	1,319.10	4,345.90	2.3	836	4,225.60	2.5	1012.3	4,058.50	2.6
Other expenses	410.2	-269.2	-0.1	585.7	0	0	462.9	-230.2	-0.1
EXCEDENT (+) / DEFICIT (-)	**-6,977.10**	**-5,391.30**	**-2.9**	**-6,357.00**	**-4,065.40**	**-2.4**	**-4,335.60**	**-2,302.50**	**-1.5**

In dynamics, the values of allocations by needs and budget categories, indicate a non-coverage of constant and growing needs.

The data presented in Table 1 were translated into relative data and calculated as Dynamic Impact Weights over the 2015-2017 period, so it follows that current allocation needs and capital allocation needs are the main risk factors that affect the entropy of the budget system (see Table 2):

Table 2. Needs trends by category

Consolidated general budget	2015	2016	2017
The need for total allocation	-100.0%	-100.0%	-100.0%
Need for current allocation	-108.9%	-40.4%	-98.6%
The Need for Current Tax Allocation	-69.9%	-25.5%	-59.2%
The need for current social allocation	-29.1%	-11.5%	-30.3%

The need for current non-fiscal allocation	-9.9%	-3.4%	-9.2%
The need for capital allocation	-167.4%	-99.7%	-77.2%
Other allocation needs	176.3%	40.1%	75.8%

The state budget shows a more significant shortfall in the level of current allocation than in the case of the consolidated general budget, which demonstrates the proposed study hypotheses no1.

For the level of the state budget, the dynamic of the allocation needs shown in the below table (Table 3) can be easily observe:

Table 3. Trends of allocating needs by category and the state budget

State budget	2015	2016	2017
The need for total allocation	-100.0%	-100.0%	-100.0%
Need for current allocation	-108.1%	-100.7%	-126.9%
The Need for Current Tax Allocation	-99.4%	-92.6%	-111.6%
The need for current social allocation	-0.2%	-1.1%	-2.0%
The need for current non-fiscal allocation	-8.6%	-7.0%	-13.3%
The need for capital allocation	-21.3%	-11.9%	-17.9%
Other allocation needs	29.5%	12.6%	44.8%

For the calculation of the country risk, the dynamics of the budget deficit accumulation analyzed through the relative importance weighting method.

The data indicate the an oscillating trend with a peak of the budget deficit accumulated for the year 2017, after the revival recorded in 2016, year when the monetary stability indicators correlated with the sustainable growth indicators generated the minimum increase in the budget deficit period (Table 4).

Table 4. Trends in the budget deficit accumulations over the period 2015-2017

General budget	2015	2016	2017
The need for total allocation	100.0%	100.0%	100.0%
Need for current allocation	131.3%	37.0%	244.4%
The Need for Current Tax Allocation	134.8%	36.5%	231.8%
The need for current socialallocation	121.8%	39.4%	263.8%
The need for current non-fiscal allocation	138.2%	34.1%	274.6%
The need for capital allocation	130.2%	59.6%	77.4%
Other allocation needs	158.1%	22.7%	189.2%

We defined four risk ranges with coefficients 1 to 7, assigned with growth rate 2, for country risk calculation, as following.

- Minimum risk 1
- Average risk 3
- High risk 5
- Major risk 7

The allocations on the three types of needs quantified according to the impact in the budget basket is estimating the allocation matrix according to the table below (Table 5):

Table 5. Matrix of risk levels for each needs categories

	Total allocation	**Current allocation**	**Allocation of capital**	**Other allocation**
Minimum risk	1	0.7	0.2	0.1
Average risk	3	2.1	0.6	0.3
High risk	5	3.5	1	0.5
Major risk	7	4.9	1.4	0.7

For risk trend evolution, we used the distribution probability according the needs allocation trends in the system. The risk quantified in the condition of the accumulation of deficit, the system entropy disturbance on allocation structures and associated risk, obtaining for the general budget strengthened an increase over the period 2015-2017 with risk units, respectively from medium risk to major risk, according to Table 6:

Table 6. The risk chart calculated based on the general consolidated budget deficit evolution

General budget	**2015**	**2016**	**2017**
The need for total allocation	5	5	7
Need for current allocation	5	5	7
The Need for Current Tax Allocation	5	5	7
The need for current social allocation	5	5	7
The need for current non-fiscal allocation	5	5	7
The need for capital allocation	5	5	5
Other allocation needs	1	3	3

We found that the accumulation of deficit generates horizontal and vertical effects, applying the system inertia to a risk homogenization process towards the end of the period.

The data risk analysis of the State Budget structure shows a more stable entropy at the beginning of the period based on system inertia and allocations according to a stronger fiscal policy, 2017 being marked by strong structural policy changes, new tax cuts and destabilization of the system through indirect foreign exchange rate risk.

The entropy presented in the proposed hypothesis reveals the homogenization of the values with the risk values of the consolidated budget towards the end of the period when the risk equaled the system to the major risk (Table 7).

Table 7. The risk table calculated on the state budget deficit trends

State budget	**2015**	**2016**	**2017**
The need for total allocation	3	3	5
Need for current allocation	3	3	5
The Need for Current Tax Allocation	3	3	5
The need for current social allocation	3	5	7
The need for current non-fiscal allocation	5	5	7
The need for capital allocation	5	5	7
Other allocation needs	3	5	5

The limitations of the study is firstly about needs allocation structuring for only three categories and the analysis of the allocations compared only at the level of the consolidated budget in relation to the state budget.

Conclusion

The risk map built shows the lack of prevention of global financial stress, inadequate use of European sustainable development funds, and last but not least the inappropriate use of financial policy instruments and budget balance. Distribution by classes and types of budgets shows inequities in administrative-territorial allocations and systemic stress of the economy based on such rebalanced budget construction.

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