

THE RACE TO THE BOTTOM AND ITS IMPACT ON THE PROVISION OF PUBLIC SERVICES IN ROMANIA

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ABSTRACT: *The literature is addressed by tax competition to attract capital and the measures taken in this regard. These measures aim, in most cases, reducing tax rates. Most authors, especially the classics, believes that this reduction creates an underprovision of goods and services and addresses the problem in terms of their level. Very few scholars have revealed that this race to the bottom lead to a different structure in delivering public services. Thus, from the idea of Keen-Marchand (1997), this paper addresses this issue, using as basic data in the Romanian economy, through a regression model. The analysis results show that the race to reduce the tax burden, in which Romania joined in the impact of tax competition, leads to an underprovision welfare services aimed directly at a taxpayer and those aimed at infrastructure overprovision.*

KEY WORDS: *tax competition; tax rates; public services.*

JEL CLASSIFICATION: *H20; H71.*

1. INTRODUCTION

The literature on tax competition since Oates (Oates, 1972) and other classic works, such as those of Zodrow and Mieszkowski (Zodrow & Mieszkowski, 1986, pp.356–370) and Wilson (Wilson, 1986, pp.296-315), focused largely on the effects of capital mobility public expenditure. While some authors have shown that tax competition can increase efficiency, most of the literature has tended to argue that tax and spending levels will be inefficiently low due to fiscal externalities mobile tax bases (Wilson, 1999, pp.269-304).

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In addition, tax competition may affect the composition (structure) of public goods provided. However, the issue of public expenditure structure was initially neglected. Keen and Marchand (Keen & Marchand, 1997, pp.33-53) addressed this issue and showed that, in the presence of mobile capital, tax competition tends to lead to an over-supply of resources and infrastructure to subfurnizare resources in those areas that directly affect consumer welfare such as social services.

The classic work on fiscal federalism, it is certainly a loss of wealth resulting from tax competition. Therefore, coordination both in terms of tax rates and in terms of public expenditure is a strong argument in the presence of competition for mobile factors. However, decentralization, especially in the first half of the '90s, was actively promoted as a necessary policy choice for many transition economies in Central and Eastern Europe and characterized as a means of getting rid of excessive centralization and politicization of economic life. While international political debate turned to the institutional requirements for successful decentralization, the debate on the potential benefits of decentralization is far from complete.

Romania is one of those countries to promote decentralization to depoliticize economic life in its transition to a market economy. This article analyzes the structure of public services provided in Romania under the impact of tax competition, the race to the bottom affecting all economies under globalization impact. Model analysis is based on the Keen-Marchand model, providing different public services in the presence of tax competition and uses empirical data from the consolidated budget of Romania during 1995-2010.

2. PROVIDING PUBLIC SERVICES IN ROMANIA AMID TAX COMPETITION

Starting from the idea of Keen-Marchand (Keen & Marchand, 1997, pp.33-53) by providing different public services in the presence of tax competition, we further examined this issue for Romania during 1995-2010, showing the impact of such competition on our country. In the analysis we used the following variables:

- Realized tax revenues (their share in GDP), as an independent variable. By this we caught the effect of tax rate reduction (the so-called "race-to-the-bottom", in which Romania joined in the current tax competition and globalization);
- Different categories of expenditure incurred (share in GDP), as dependent variables. By that, we surprised the public services provided and their structure in the presence of the race to the bottom in conditions of globalization.

In the analysis we used a linear regression model, as follows:

$$y = f(x) \quad (1)$$

where:

$$f(x) = \alpha + \beta x \quad (2)$$

where:

y - dependent variable, represented in this case, the share of public expenditure in GDP has made various, such as: general public services (denoted GSP), defence and national security policy (noted AOSN), education (denoted INV), health (denoted Ch_S),

culture (denoted Ch_C) Insurance (denoted Ch_Asig), public services and development (marked DP) and economic actions (denoted AEC);

x - the dependent variable, represented by the share of tax revenues achieved in GDP (denoted AC);

α, β - parameters of the regression equation.

For estimation we used the method of least squares, which requires the election of c_1 and c_2 as estimators of α and β 's such that:

$$W(c_1, c_2) = \sum (y_i - c_1 - c_2 x_i)^2 \tag{3}$$

to be minimal.

Statistical description of the variables analyzed for the period 1995-2010 is shown below:

Table 1. Statistical description of variables

Sample: 1995 2010									
	VF	SPG	AOSN	INV	Ch_S	Ch_C	Ch_Asig	DP	AEC
Mean	9.33324	1.564	2.5007	1.12	0.4433	0.274	2.007	0.3276	2.425
Median	10.8643	0.947	2.9998	0.97	0.4745	0.3002	1.593	0.3644	2.677
Maximum	15.8748	6.532	3.8867	2.8	0.5854	0.471	4.276	0.7852	4.328
Minimum	1.61662	0	0.3219	0.27	0.1714	0.02	0.113	0.0244	0.446
Std. Dev.	3.81216	1.803	1.1402	0.65	0.1058	0.1347	1.384	0.2008	1.286
Skewness	-0.65274	1.638	-0.719	1.01	-1.382	-0.4525	0.327	0.3189	-0.21
Kurtosis	2.88115	4.8	2.2786	3.77	4.2341	2.1438	1.817	2.9452	1.596
Jarque-Bera	1.14561	9.317	1.7261	3.09	6.1122	1.0348	1.218	0.2731	1.432
Robability	0.56394	0.009	0.4219	0.21	0.0471	0.5961	0.544	0.8723	0.489
Sum	149.332	25.03	40.011	18	7.0927	4.3839	32.11	5.2424	38.79
Sum Sq. Dev.	217.988	48.77	19.501	6.38	0.1679	0.2721	28.72	0.605	24.82

Source: Own calculations using Eviews program and empirical data Statistical Yearbook of Romania (www.insse.ro)

Estimating parameters by the method mentioned above were obtained the following regression functions between the variables analyzed:

1. Tax revenues and expenditures for general public services

$$GSP = 0.051 + 0.162 * VF$$

This result shows that the change to a percentage of revenues in GDP, expenditure on general public services will change in the same direction as 0.162%.

2. Tax revenues and expenditures for defense and national security policy

$$AOSN = -0.032 + 0.271 * VF$$

Regression equation allows us to make the following comments:

- Changing to a percentage of tax revenue to GDP will lead to changes in income in the same direction on defense and national security with 0.271%

3. *Tax revenues and expenditures on education*

$$INV = -0.005 + 0.121 * VF$$

According to the regression equation between the two variables is a positive linear relationship: the change to a percentage of tax revenue to GDP, public spending on education will change in the same direction as 0.121%.

4. *Tax revenues and expenditures for health*

$$Ch_S = 0.259 + 0.019 * VF$$

The regression equation between the two variables is a positive linear relationship: the change to a percentage of tax revenue to GDP, public spending on education will change in the same direction as the 0.019 %.

5. *Tax revenues and expenditures for culture*

$$Ch_C = -0.005 + 0.030 * VF$$

Estimated parameters of the equation shows that the change to a percentage of revenues in GDP, expenditure on culture will change in the same direction by 0.03%.

6. *Income tax and social security charges*

$$Ch_Asig = 0.097 + 0.205 * VF$$

Analyzing regression equation of income tax and social security charges to say that the change to a percentage of revenues in GDP, expenditure on social security will change in the same direction to 0.205%.

7. *Tax revenues and public spending and development services*

$$SDP = 0.016 + 0.033 * VF$$

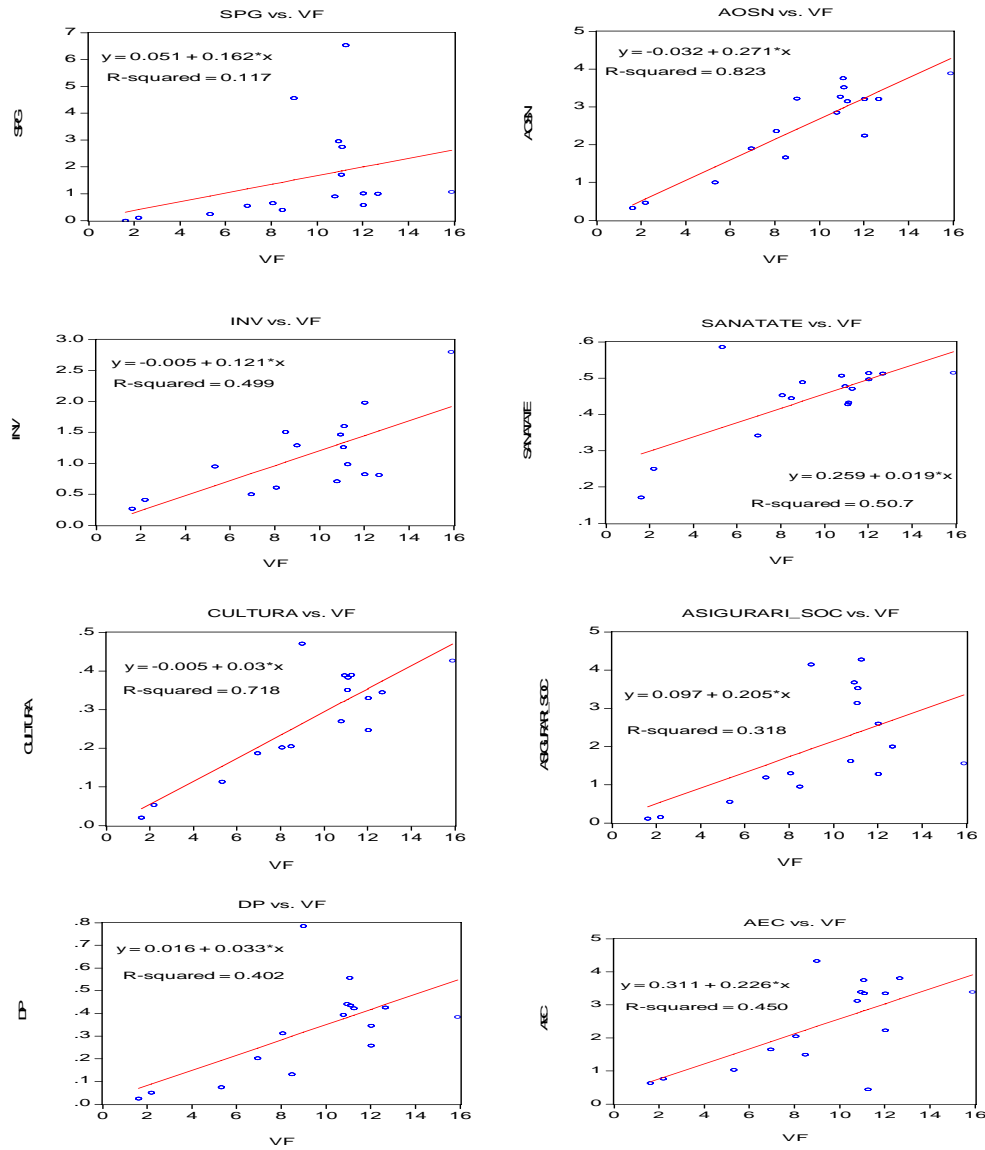
Estimated parameters of the equation shows that the change to a percentage of revenues in GDP, expenditure on public services and development will change in the same direction to 0.033%.

8. *Tax revenues and expenditures for economic action*

$$AEC = 0.311 + 0.226 * VF$$

This result shows that the change to a percentage of revenues in GDP, expenditure on economic activities will change in the same direction as 0.226%.

Graphically, the regression equations between different categories of expenditure and fiscal revenue can be represented in figure 1.



Source: Own calculations using Eviews program and empirical data from Statistical Yearbook of Romania (www.insse.ro)

Figure 1. Regression equations between different categories of public expenditure and tax revenue

The coefficient of determination for regressions of the above means that:

- 11.7% of the variance in overall spending on public services is explained by changes in tax revenue;
- 82.3% of the variance in national defence and security spending is explained by changes in tax revenue ;

- 49.9% of the variation in education spending is explained by changes in tax revenue;
- 50.7% of the variation in health spending is explained by changes in tax revenue;
- 71.8% of the variation in expenditure for culture is explained by the variation in tax revenue;
- 31.8% of the variance in social security expenditure is explained by changes in tax revenue;
- 40.2% of the variation in services and public development expenditure is explained by changes in tax revenue;
- 45% of the variation in expenditures for economic action is explained by changes in tax revenue.

3. CONCLUSIONS

Given the results of the above analysis we can conclude that in Romania, in the race to the bottom amid the global fiscal competition, taxpayer welfare services are aimed directly subcontractor (expenditures on education increased by 0.121% as a percentage of GDP 1% increase in fiscal revenues, health expenditures by 0.019% and culture by 0.03%, provided that these changes are explained in more than 50% percent of the variation in tax revenue), while other areas are services aimed at suprafurnizate (such as economic actions spending rising by 0.226% at a 1% increase in fiscal revenues or expenditures for national defence and security increased by 0.271%).

Providing public services in Romania can be explained in terms of policy instruments used by various parties that have ruled the country during the period under review, such as social insurance are explained only at a rate of 31.8% of fiscal policy changes or the general public services, whose variation is explained only 11.7% of the variation rate of income tax.

For more relevant results in this respect, it requires a more detailed analysis, taking into account the degree of involvement of the political factor in economic life.

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