The main objective of our paper is to analyze the fiscal decentralization and its general effects but also its implication regarding the economic growth. In this spirit we focused our efforts on studying the Romanian case study using a linear regression model. The actual research is the basis for detailing the assessment using more detailed indicators and introducing more variables for a more comprehensive explanation of the facts identified in the present paper. The analysis results demonstrate the direct link between the degree of fiscal decentralization in Romania and the GDP per capita, which can be interpreted as a positive aspect of the intense involvement presumed by administrative-territorial entities actions and activities that have led, in the analyzed period, to an improvement in the welfare of individuals in Romanian society.

Keywords: Fiscal decentralization, Economic growth, Romania,

JEL classification: H77, O47, E62

1. Introduction

 lately, the need for greater decentralization of certain areas was a highly debated issue in many countries, including Romania. This theme became present not only in federal states, but also in non federal ones, both in developed countries but also in developing ones. It became, therefore, an issue of global concern. Especially in context of the European Union, with the introduction of the principle of subsidiarity in the Maastricht Treaty it was emphasized the values of decentralization and how separation of powers, decisions and responsibilities between the Union and the Member States.

In this sense, our work aims to analyze the implications of fiscal decentralization on other important elements for the existence of a state and is focused in particular on the link between economic growth and fiscal decentralization.

2. Literature review

A part of economic theory is based on "decentralization theorem" of Oates (1972), and highlighted a number of factors that support the idea of decentralization. Thus, it is believed that both the tax and the spending of public money can be attributed to different levels of government in order to achieve the most effective results in the entire economic system. The assumption which is that if the central government provides local public goods, it would provide a uniform amount for all local jurisdictions: the central government is "insufficiently sensitive" to the heterogeneity of preferences of citizens regarding their request for local public goods (Cerniglia, 2003). Thus, the strongest argument in support of decentralization is the ability to better suit citizens' preferences for public goods.

In addition, decentralization made government more accountable to the citizens and recently, it was regarded as an extraordinary institutional framework to enhance growth. In the same area the literature still talks about decentralization costs which may be administrative or operating difficulties due to local economies.

Literature concerns heading to determine the optimal level of decentralization by analyzing variations in the degree of fiscal decentralization in different countries(both federal and unitary), and time. Option for fiscal decentralization is justified by several arguments, including:
- decentralization of expenditure will lead to increased efficiency because local authorities have information on the state of the village, and thus may consider policies to fold better administrative-territorial unit needs (Oates, 1972; Oates, 1993);
- decentralization of fiscal activity will increase accountability and transparency in the provision of public goods (de Mello, 2000);
- taxpayers are willing to cooperate with a more transparent local government (Wasylenko, 1987);

De Mello in 2000 examined the tax systems in several countries and reported negative effects on budget balances due to coordination failures in relations between the government and local authorities, particularly in low-income countries. In 2010, Neyapti B. depth research on this line, covering the role of institutional and structural factors that influence the relationship between fiscal decentralization and budget deficits and separate treatment of the impact of decentralization of public expenditure and revenue side. An analysis of the effects of fiscal decentralization on budget deficits should address both revenue and expenditure issues. In this regard, the literature emphasizes that centralization can increase the efficiency of tax expenditure provision of public local goods when a country is large, heterogeneous, and ethno-linguistic fractional because especially in these cases, local governments are in a better position than the central government to assess citizens' preferences. Other studies (Adam et al., 2008) provide evidence in favor of public sector efficiency associated with increased FD in the OECD region.

While decentralization of spending could be an effective, decentralized expenditure and revenue together could have drawbacks. Local governments may have limited tax base or fail to take full advantage of existing tax bases. Limited autonomy in terms of local income implies that their autonomy in expenditure is also limited. The problem stems from our fully internalize costs local tax administration can lead to increased budgetary imbalances. In addition, fiscal decentralization without an effective central redistribution can result in an unequal distribution of income if income tax bases vary between regions, according to some authors. Tanzi in 2000 argued that the effectiveness of fiscal decentralization depends on factors such as country size, the privatization of the economy, the ability of local governments to raise revenues, transparency and local institutional and administrative capacity.

On the other hand, fiscal decentralization may lead to increased tax burden, which, however, could be eliminated by "good governance".

Another issue less discussed in the literature is the difference between real autonomy and administrative autonomy, since there are several differences in exercise capacity and powers from the central to local government and vice versa. In practice it is found that decisions to transfer funds in some states are mainly polically subordinated and not to the efficiency of administration principle. In addition, including indicators to measure fiscal decentralization are not entirely correct, the emphasis on local own revenues or expenses or total local ones can bring different and conflicting results.

Based on the public finance principle of subsidiarity, public sector performance can be enhanced by taking into account local differences in terms of culture, environment, natural resource endowment, and economic and social institutions. Local preferences and needs are considered to be best met by local rather than national governments. Information on these local preferences and needs can be acquired cheaper and more specifically by local governments, which are closer to the people and therefore more identified with local causes.

A key issue is the coordination of fiscal decentralization is the fiscal relations between the administrative-territorial governments which impeded the work of theorists and practitioners in recent years (Poterba, 1996). Given the increasing complexity in coordinating government when a lower level of public sector enjoys greater autonomy in policy, the key policy challenge of decentralization programs is to design and develop an adequate multiple levels system of public finance in order to provide local public services efficiently and at the same time, to maintain macroeconomic stability.

Without a focus on institutional clarity and transparency, intergovernmental fiscal relations between the central budget and local governments may suffer from coordination failures (Dobre et al., 2010). These coordination failures can cause subnational governments to spend inefficiently. These policy failures tend to occur with high deficits and high borrowing costs, given the higher risk of default (Poterba & Rueben, 1997; de Mello, 2000). Fiscal decentralization may therefore aggravate rather than to reduce fiscal imbalances and therefore endanger macroeconomic stability (Prud'homme, 1995), except the cases when sub-national governments have committed to fiscal discipline and decentralization policy includes incentives for prudence in debt and expenditure management.

In short, in terms of the three traditional state functions, presented by Musgrave, failures of fiscal decentralization are closely related to macroeconomic stability and redistribution, while its benefits in efficient allocation involves gains (Inman & Rubinfeld, 1997).
3. Methodology and results

Relationship between fiscal decentralization and economic growth in the long term is ambiguous (Thornton, 2007). Some economists have analyzed the problem of fiscal decentralization as a means of promoting long-term economic growth given that it leads to a better allocation of resources and a more productive public sector, and possibly lower. This would happen because the policies set locally are more likely to take into account local and regional conditions in the provision of public goods such as infrastructure and education (Oates) or because the competition between different administrative levels promotes lower rates of taxation and efficient production of public goods in accordance with the constraints related to income (Brennan and Buchanan), or because it provides incentives for local governments to innovate offer utilities (Vázquez & McNab, 2003), or because there are greater incentives to save when public goods are adapted, in the fiscal decentralization process to young and old workers (Brueckner). In contrast, other economists (e.g., Tanzi, 1999; Ter-Minassian, 1996) pointed out that fiscal decentralization may create problems regarding coordination of macroeconomic policies in general and in the implementation of stabilization policies in particular.

Most empirical studies have focused on income or expenditure share in total revenues of local governments or government spending as a measure of fiscal decentralization. Studies reported a significant positive impact statistically speaking using these measures/tools for assessing fiscal decentralization, include:

- some authors reported a significant and positive impact of decentralization of public spending on growth of GDP per capita, analyzing a group of 51 developed countries and developing countries over the period 1997 to 2001 (IIM, 2005);
- in other studies it was found that the percentage of local government revenue and expenditure in total public revenues and expenditures had a positive and significant impact statistically on growth in a panel of U.S. states covering the period 1992-1996 (although when the indicator was limited to local governments revenue results were not statistically significant) (Akai & Sakata, M., 2002);
- another author distinguishes between unitary and federal states in a study of 46 developed countries and developing countries using annual data for the period 1971-1990 and found that fiscal decentralization has a positive and statistically significant growth in unitary states (Yilmaz, 1999);
- research which reported that the marginal rate of retention of national revenues collected at the provincial level had a statistically significant positive impact on the growth of real GDP per capita in China from fiscal decentralization in the 1980s (Lin & Liu, 2000).

On the other hand, studies that reported a negative and statistically significant using these tools to assess fiscal decentralization, include:

- demonstrate a negative impact of fiscal decentralization on revenue growth provinces in China during the period 1980-1992 (Zhang & Zou, 1998). The study covers a period of high economic growth in China, during which it was required a relatively high level of public sector to provide public investment that generates significant externalities in the early stages of economic development. So negative relationship is expected from these data sets.

Studies that have not found any statistically significant relationship between growth and fiscal decentralization include:

- one of the analyzes reported a negative but not statistically significant decentralization of public expenditure on economic growth in developing countries and no clear effect for developed countries using a panel of 46 developed and developing countries, covering period 1970-1989 (Davoodi & Zou, 1998). The problem with this analysis is the fact that the authors used cross-sectional data for countries where cultural, historical and institutional are substantial. So it can be difficult to determine the real impact of fiscal decentralization unless adjustments are made so as to take account of these differences;
- some authors have reported that there is a significant relationship between the ratio of local revenues and expenditures and total using average data for the period 1974-1991 for 23 developed and developing countries (Wollerau & Phillips, 1998);
- other studies found no statistically significant relationship when examining the relationship between fiscal decentralization and economic growth in USA, (Xie et al., 1999).

As far as we are concerned, at this stage we tried just a simple analysis of the link between fiscal decentralization in Romania, the ratio of local government expenditure and total public expenditure (calculated using Eurostat methodology), and growth in the period 1995-2011, using a linear regression model, which revealed the following:

- because R square is set to 0.12, very close to 0, then we can say that the regression model chosen not explain the relationship between variables (in addition, only 11.57% of the variation of Y-dependent variable, is explained by the independent variable);
- since Sig value for F test is 0.19 (greater than 0.05), the linear relationship between two variables is not considered significant.
Table no. 1. Regression Statistics

<table>
<thead>
<tr>
<th>Regression Statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple R</td>
<td>0.340288777</td>
</tr>
<tr>
<td>R Square</td>
<td>0.115796452</td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.052639055</td>
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<tr>
<td>Standard Error</td>
<td>4.451932035</td>
</tr>
<tr>
<td>Observations</td>
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</tr>
</tbody>
</table>

Source: Own calculation based on data from Eurostat

Table no. 2. ANOVA

<table>
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<tr>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>36.33859114</td>
<td>36.33859</td>
<td>1.83345829</td>
<td>0.197174109</td>
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<td>277.4757839</td>
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<td>15</td>
<td>313.814375</td>
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<td></td>
</tr>
</tbody>
</table>

Source: Own calculation based on data from Eurostat

Verifying the relationship between fiscal decentralization indicator and GDP/capita we found that indeed there is a close relationship between the two variables, dependent (GDP/capita) and independent (fiscal decentralization indicator), according to the tables below:

Table no. 3 – Regression Statistics

<table>
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</thead>
<tbody>
<tr>
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<tr>
<td>R Square</td>
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<tr>
<td>Adjusted R Square</td>
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<tr>
<td>Standard Error</td>
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<td>Observations</td>
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</tr>
</tbody>
</table>

Source: Own calculation based on data from Eurostat

Table no. 4 – ANOVA

<table>
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<th>MS</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>14</td>
<td>48776000</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Source: Own calculation based on data from Eurostat
Thus, based on data provided by Eurostat for Romania, during 1996-2010 the indicator calculated by us, that of fiscal decentralization and the GDP/capita in euro, the estimated simple regression model has the following distinct characteristics:
- The value of R square is 0.79, very close to 1, so we can affirm that the regression model explains the relationship between selected variables and it is direct (plus 79.19% of the variation of Y-dependent variable is explained by the independent variable), a statistically significant percentage;
- The Test F Sig is 0.00000886 (less than 0.05), demonstrating that the linear relationship between two variables considered are significant and can be interpreted.

So in our case, the analysis is more consistent if we agree the fact that their is a correlation between fiscal decentralization indicator and GDP/capita, than if we take into account the overall economic growth. And this version has been verified in the literature as GDP/capita can be explained as GDP growth at the individual, not the economy as a whole.

Results of the analysis is not a coincidence, but the first step in the analysis of fiscal decentralization and its effects on economic growth in Romania, which will be continued in future work, the analysis requires the introduction of other variables in the model, and adjusting fiscal decentralization indicator calculation, according to other analyzes performed in other states (Vasquez, Thornton, Tobin, Bodman, and so on).

These results reinforce the idea that an increased freedom (administrative, financial, economic, decision point of view), of the administratively-territorial units can create value added to citizens to address it directly and whose needs they know much better than the central administrative units. The local actions and projects generates an improvement in the welfare of their citizens, and the involvement of the citizens in local companies directly (in areas such as education, health, social assistance), which provides the basis of their increased living standards.

4. Conclusions

Our work is a first step to analyze the consequences of fiscal decentralization. The idea of studying the effects of fiscal decentralization on economic growth has mainly led researchers to develop a range of indices and indicators that characterize fiscal decentralization firstly, and then, based on empirical studies to determine the direction and intensity of the relationship between fiscal decentralization and economic growth. In this respect, our study focused mostly on describing the results of previous analyzes.

Because data and indicators used in the regression analysis may be improved, our intention is to continue and deepen this analysis on Romania in a future work, demonstrating and explaining how fiscal decentralization contributes to economic growth and individuals' wellbeing variation.

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5. References


