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# “DECENTRALIZATION” OF INCOME PER CAPITA AND ITS RELATIONSHIP TO ADMINISTRATIVE DECENTRALIZATION IN THE CONTEXT OF EUROPEAN UNION MEMBERS

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## **ABSTRACT**

*In this research we tried to define, for the first time, the concept of "decentralization" of per capita income and its position among other constructions, similar to or associated with it. In this direction, we tried to give decentralization a definition as clear as possible, using existing concepts to identify it, but also to associate it with its most likely cause, administrative decentralization. Besides the theoretical documentation we, additionally, attempted to put this relationship under an econometric test, which indicates some trends but, because of the difficulties in measuring some variables, we were not able to extract absolutely reliable conclusions.*

**Key words:** *decentralization, income decentralization, administrative decentralization, European Union*

**JEL Codes:** R10, R15, R50

## 1. Introduction

Dealing with the concept of decentralization as a mechanism for the transformation of society is not an unprecedented idea, but it has its roots in the 19th century, as reported by Cohen et al, as cited in Parker (1995), and the argument between the value of a centralized (Dupont -White) versus a decentralized state (Lemennais). In the second half of the 20th century, almost every country has experimented with some form of decentralization or reform of their local governments, in order to achieve various objectives and effects (Cheema & Rondinelli (1983) - review of the decentralization of the 1970s, Campbell et al. 1991 - Review of the recent experience in Latin America).

One of the most important trends of the European Union, in recent years, is the interest in administrative decentralization. Except for the federalization of the Union which became a tighter structure, as an organization, which has been completed and it constantly deepens, EU member states delegate more and more authorities to the decentralized subnational governments. This process has been linked, by many scientists, to the effectiveness and to the confrontation of regional disparities, as it is being discussed below.

Without being willing to judge, to replace or to substitute the value of this relationship, we start under the assumption that decentralized management may be more likely to lead to a decentralization of per capita income than to achieve tackling inequality between regions, which, according to Salmon (2009), is a key parameter of decentralization and federalism in several European countries.

In the following sections, we will examine the basis and the theoretical foundation of this relationship, according to the existing literature (Sections 2 and 3). Moreover, in sections 4 and 5, we will search for statistical elements that will express these concepts as variables and we will try to find out if this relationship could be econometrically confirmed. Finally, we present our conclusions and especially the prospects for improving the documentation of this relationship.

## **2. Literature Review**

### **2.1 Previous studies: object - methods - results**

In this section, we will attempt to cite and briefly describe previous studies carried out on the matter we discuss. Although we find no literature references precisely on decentralization of per capita GDP, we will deal with studies which either examine its unequal distribution between the regions of countries, or investigate the forms and the causes of administrative decentralization and, also, other alternative methods of measuring them.

In recent years, it has been observed that almost all countries have made some effort in order to achieve some kind of restructuring of their local government. Also, an increase in privatization of tradable services has been found, while a NGO development has taken place too (Parker, 1995).

Fortunately, in European Union, no extreme differences between the capitals and other regions have been noticed, as happens in other parts of the world. However, there exist some imbalances and, thus, it deserves to be studied in terms of its decentralization.

The most frequently used terminology to discuss decentralization is the one proposed by Rondinelli (1981), as cited in Parker (1995), which distinguishes four different categories of decentralization: (i) administrative decentralization, (ii) representative decentralization, (iii) transfers decentralization and (iv) privatization (a wider meaning of decentralization according to Matsui, 2005).

During decentralization, human communities and public services manage themselves under state control and power, while they are provided the necessary resources (Andronic 2012). Essentially, each local government undertakes a number of responsibilities, which require the implementation of a separate budget (Gyorgy & Campeanu 2009).

This phenomenon is particularly strong and brisk, when in situations of economic and political crisis, while it is regarded as a measure of democratic reform, after the collapse of centralized systems, while in other countries administrative decentralization or federalism have a long tradition (Balisacan et al. 2006).

In order to immunize the discussion's quality, it would be helpful to highlight that we do not fully employ, but we cite the finding of Oprea (2010), that federalization and decentralization are legally but not financially differentiated.

It is, therefore, common knowledge that most countries, including economically developed, face regional disparities and, therefore, they implement strategies and policies for regional development. But, it should be noticed that the difficulties arising from regional imbalances and the possibilities of solving them cannot be determined, without taking into account the general level of development in each country (Humplick & Moini-Araghi, 1996).

As highlighted in Balisacan et al. (2006), the centrally planned regional development efforts have usually failed, while local communities consider capitals (decision-making centers) as corrupted, authoritarian, arrogant and distant, especially in countries which are internally diversified and large<sup>1</sup> (Balisacan et al. 2006). That is why we are looking especially at per capita GDP's "decentralization" and not (as common) at regional inequality.

Initially, according to Bird and Villaincourt (1998:1) as cited in Balisacan et al. (2006), decentralization is neither a plague nor panacea. However, the relationship between regional development and local autonomy and decentralization, mainly administrative, is highlighted (Andronic, 2012). So, it seems to be a generally accepted position that the policy of competition between regions on tax and on provided services and the proximity of the decision-making to stakeholders, which decentralization causes, is particularly favorable in almost all sectors<sup>2</sup>. Although these assumptions are supported by the observed correlation between the degree of decentralization and economic development, Martinez-Vazquez and McNab (2003) argue that this is not interpreted and justified sufficiently yet (Balisacan et al. 2006; Cirnu 2010).

Public services are closer to citizens and to the resources while any tax (income) is transferred to the authority which is able to manage them more effectively (Andronic 2012). In Europe, the potential management of European funds at regional level is highlighted (Popescu & Enescu 2013). Finally, in a decentralized context, financial competition limits the government's ability to extract fees,

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<sup>1</sup> Large meaning: covering a wide area.

<sup>2</sup> Except for legal, macroeconomic, foreign and defense policy.

enhancing, thereby, economic efficiency and, thus, economic growth (Lessmann 2011).

Conversely, sometimes administrative decentralization limits fiscal capacity of central government to intervene in order to reduce disparities by investing in national infrastructure to remove internal barriers. Of course, a key role is played by coordination (vertical and horizontal) between individual governments and governance quality.

Another problem has to do with subnational government revenue. Many times, they are reluctant themselves to increase their tax revenue, because of political reasons, while (central) government tries to find ways to delay or reduce payments to them (Balisacan et al. 2006). Furthermore, it limits the possibility of asserting countercyclical policies (Ter-Minassian 1997a), because center is being deprived of some taxes and expenditure (Tanzi 1995) and subnational governments usually carry out pro-cyclical policies (Tanzi 2000; IMF 2009 in Eyraud et al. 2012).

Moreover, mistakes that lead to a reduction of the beneficial effects of decentralization, such as failure to provide services due to the insufficient transfer of powers, the lack of clarity and transparency of regulations, the narrow margin for the financial management of local resources and transfers, need to be avoided (Dragan & Gogonea 2009).

Other researchers highlight the beneficial effect of an active civil society, such as Putnam (1993). Finally, an essential element is an accountability and punishment system (Parker 1995).

Considering European Union over the last three decades, we observe a clear policy for an effective decentralization of state governments (Patonov 2013). Of course, in European Union diversification between countries, according to the extent and the form of decentralization is remarkably high, concerning both distribution of revenue (volume and origin) and expenditure as long as legislative authorities between government levels (Dragan & Gogonea 2009; Eyraud et al. 2012). Therefore, the term regionalization and the term region cover political and administrative realities that are extremely different in European countries (different kind of regions in each country) (Popescu & Enescu 2013). Similarly, the relationship between central government and subnational governments varies.

Coordinating, European Commission has developed the concept of regional policy, considering it as an investment policy form. Via investments it enhances competitiveness, economic development, job creation and it also improves quality of life and sustainable development highlighting the solidarity between countries and regions of EU, while it is believed that resources are allocated where they can produce the greatest possible improvement (Andronic 2012).

Using cross-section and panel data for 23 OECD countries from 1982 to 2000, Lessmann's (2011) work empirically studies the effect of fiscal decentralization on regional disparities. It considers that a higher degree of decentralization is related to a reduction of regional disparities.

Other studies show that whether decentralization is good or bad for equality is highly dependent on the level of development of a region. There are several reasons for that, such as limited budgets of poorest countries and the transfers' dependence on richest regions or state (Oates 2008). It seems, therefore, that there is a "minimum level of economic development", in which fiscal decentralization becomes attractive (Oates 2008) and it becomes more likely to yield reduction of inequality (Pike et. al. 2011).

Moreover, there are many empirical studies examining the relationship between fiscal decentralization and economic growth, but their results are somewhat confusing (Lessmann 2011). The main causes for such an image are:

- 1) The different models of decentralization among the analyzed countries,
- 2) The different levels of income,
- 3) The low explanatory power of regression models,
- 4) The omission of many variables in the regressions,
- 5) The existence of statistically insignificant regression coefficients and the different signs of these coefficients (Patonov 2013).

In general, we could conclude that the expenditure decentralization model in EU is efficient and successful. It helps to increase the efficiency of public sector and it accelerates economic growth of member states. The question about the optimum degree of fiscal decentralization for each country remains under discussion and depends on their macroeconomic peculiarities (Patonov 2013).

One last important contribution of the existing literature to our research is the identification of appropriate measures for administrative decentralization. Fiscal decentralization is usually measured by the ratio of local government revenue in general government revenue or their corresponding expenditure. Expenditure is preferred because the justification of most cases is based on arguments related to expenditure and not to revenue creation. Also, using expenditure ensures comparability of results with those of previous studies. However, the case in which decisions are taken by the central government, but they are executed by sub-national governments is usual (Oates, 1972) and, therefore, some implement decentralization measures based only on subnational governments revenue (Rodden 2004; Stegarescu 2005 in Lessmann 2011). Finally, a rather critical level of “high-quality institutions” ensures an efficient allocation of scarce resources between sectors, which could, perhaps, explain a possible failure of us to observe a correlation between the variables (Chanda & Dalgaard, 2003).

## **2.2 Bibliography gap and reasons why it exists**

What we observed throughout the whole literature is the absence of an investigation on or even a reference to the relationship that may exist between administrative decentralization and GDP p.c. decentralization. Particular emphasis has been laid upon the effort to link administrative decentralization to growth of a country as a whole and, to some extent, to the economic convergence of regions within a country.

Even on these issues, however, that theoretical analysis considered as completely logical and expected, there is no sufficient confirmation based on empirical studies. On the one hand, data are limited. On the other hand, choosing a model and the appropriate variables requires brave (and therefore risky) assumptions.

Another extension, that would worth some research, but there exist insufficient data is the effect, if any, of decentralization processes in interpersonal inequalities. However, our knowledge about it, is very limited and fragmented (Pike et. al. 2011).

Why income distribution inequality is investigated while income distribution decentralization is not? Perhaps, among other reasons, it is due to the objective that



is set by European Union to reduce the significant economic, social and territorial "inequalities" that still exist between Europe's regions (Andronic 2012).

### **3. Research Purpose**

This research has been created to complete the prospective effects of decentralization of administration in the economy, using a new concept: decentralization of income distribution.

#### **3.1 The bibliographic gap - definition of the investigated relationship of space and time**

As it has been extensively discussed in Section 2, the bibliographic gap is identified, in our opinion, in the space in between the surveys that had been already conducted. On the one hand, the impact of decentralization on the overall growth of a country, which applies it, has been studied (not leading to undeniable conclusions yet). On the other hand, the effect of decentralization of administration in inequality-convergence of regional income, has also been examined, mainly in theory and always leading to confused empirical results, depending on the country used in each case study (essentially studies aim to find out if the poorest regions are being favored or the income gap grows).

We will focus on another income gap, the one between the capital city (which is considered as the central decision-making core) and the rest of the country. We don't assume that decentralized power will necessarily be in favor of poorer regions, but that it will cease to be "biased" in favor of the core of centralized management, the capital city. We expect that the multi-central government would be able to bring about a "more polycentric" economy. Thus, we examine whether decentralization of administration leads to a decentralization of GDP.

Decentralization of development, which we are considering at this paper, could be also described as a form of dualism (if we widen the narrow definition of polarization between agricultural and industrial sector) between the center and periphery, as reported by Kanbur & McIntosh (1988), but in an interregional instead an international level, assuming that the local input is "administration".

Trying to have the best possible prospects for the relevance of the questions we ask and the existence of sufficient data, we attempt to investigate within the European Union, between 2003 and 2011. European Union is implementing an extensive decentralization effort, seeking to improve its financial performance. Also, member countries have redistributive policies in order to address regional disparities through state budget (Patonov, 2013). So, considering at first accessibility to regional data and secondly, the European debate around inequality and redistribution of GDP makes this study interesting and feasible.

But, does the phenomenon of concentration of income really exist? According to the table below, it does.

Table 1. Statistical Analysis of income decentralization (country level)

Mean	0.625253
Max	1.080000
Min	0.280000
St. Deviation	0.193951

Source: Authors' Calculations

As it becomes evident, since average income ratio of each region to the capital of its country is 0.62, the countries' capitals have a clear income favor. Indeed, the country which has the highest decentralization in comparison with the respective capital reveals superiority of the periphery over the capital reaching the level of 1.08, while the less decentralized has an average equal to 0.28. It is important to determine that when this index becomes equal to the unit, it shows absolute equality of capital income and the income of other regions.

Thus, on the one hand, it becomes clear that the issue which we discuss exists and moreover, it happens extendedly. Whether it can be explained by some characteristics of countries is a question which remains.

**3.2 Possibility and necessity of determining this relationship**

The best way to study how does international economy work, is to start by examining what happens inside the nations. (Krugman 1991: 3 as cited in Balisacan et al. 2006).

Following this logic, most countries, including economically developed, face regional inequalities. For this reason, they practice strategies and policies for regional development. So, it is imperative to study the progress of convergence and to identify those entities which cause inequality (for example capital cities) in extend of the measurement of inequality alone.

Regarding the possibility of determining this relationship, we have to face, and basically to accept, a series of limitations, because of our weakness to use a precise and undeniable measure for our basic explanatory variable, decentralization of administration. We will use measures that have been accepted in previous studies, not failing to emphasize their weaknesses.

Another obstacle is the innovative dependent variable, which raises questions as to its relevance to other independent variables. The variables selection is based on earlier literature. At the same time, we know that European Union exerts an unprecedented effort of economic convergence of European countries, in terms of per capita GDP, which hardly leaves unaffected the internal breakdown of GDP in each country. However, the investigation of this effect exceeds the limits of this work.

### **3.3 The relationship between growth and decentralization (regionalization) and concentration (federalism EU) processes**

Many countries around the world have started to delegate more and more powers to sub-national jurisdictions. Belgium, for example, became a federal state in 1993. An example of a trend in the opposite direction is the European Union, which gathers an increasing portion of responsibility, reducing the autonomy of its member states (Lessmann 2011).<sup>3</sup>

What is considered necessary for fiscal federalism is the constructive relationship between public authorities at different levels, which is the economic participation of the one being at the highest level, in order to support, if necessary, the authorities of lower levels. In this respect, an analogy can be used between "national" and "international" fiscal federalism, the latter being associated with the relationship between national and supranational authorities or international organizations (in international economics) (Oprea 2010).

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<sup>3</sup> Brexit has not been considered in this paper.

## **4. Model - Method**

### **4.1. Selection of variables (definition and evaluation of choices)**

In this research, we attempt to manage a dependent variable for which, to our knowledge, there has been no previous reference and, in particular, a relevant econometric model. Thus, we sought the best possible foundation, hoping that any failures and obstacles encountered will not make useful conclusions prohibitive.

As a dependent variable we will use some concepts of decentralization of per capita GDP. So, we try to adapt to the logic of decentralization variables which have been used, so far, to describe the inequality in per capita GDP.

As such, we firstly look at the average of the ratio of per capita GDP of each region to per capita GDP of the capital. This variable occurs as a paraphrase of the variable used to measure inequality in literature (Balisacan et al. 2006) and in which the denominator is the average of per capita GDP at a country level (instead of capital). So, we create data per country.<sup>4</sup>

Explanatory variables that we use, are mainly derived of models which describe the relationship between decentralization of administration and regional inequality, while the decentralization variables derive from models which consider them as dependent (Lessmann 2011 and Pike et. al. 2011).

Regarding the basic explanatory variable, decentralization of administration, literature is extensive but it does not lead to specific conclusions as to the correct approach. Many use subnational spending as a proxy, while others use subnational revenue as a percentage of GDP, supporting that the latter is preferred to declare independence from transfers (Balisacan et al. 2006 and Bahl & Martinez-Vazquez 2013 and Afonso & Hauptmeier 2009, Pike et al. 2011, Gyorgy & Campeanu 2009).

Using the costs also ensures better comparability of the results with those of previous studies, since some scientists use both revenues and expenditure, while others only use expenditure. Also, as Wallis and Oates (1988) point out, measures of expenditure decentralization tend to be more stable over time in relationship to measures of decentralization of revenue (Freinkman & Plekhanov 2005).

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<sup>4</sup> From now on it will be referred as “Y”.

Some completely ignore financial matters and think decentralization only in terms of local electoral system, and designers often focus solely on developing methods of transferring sources to local levels. The "one-dimensional" approach is not likely to be viable or to produce successful decentralization (Bahl & Martinez-Vazquez 2013).

Another decentralization variable is the quality of local governance (Balisacan et al. 2006), however, absence of a clear measure becomes a restriction.

Another variable that we used, considering that it is related to income inequalities was per capita country income (Freinkman & Plekhanov 2005).

Additionally, several studies (1997 InterAmerican Development Bank, Cerniglia, 2003; Arzaghi & Henderson, 2005 as cited in Lessmann 2011) confirmed that a formal federal structure helps the increase of fiscal decentralization. Overall, the share of subnational expenditure in total government spending, is higher in federal countries, but some non-federal countries, also have a high level of decentralized expenditure, while the distinction between federal and non-federal constitutions do not appear to reflect two compact groups (Lessmann 2011).

In relation to decentralization, the costs and loss of efficiency, the potential inability of regions to internalize positive and negative effects of the policies of neighboring regions is highlighted. Undoubtedly, the extent of these effects will be lower in larger states (Freinkman & Plekhanov 2005). We use, for this reason, a variable describing the population of countries.

Finally, we test a possible association of inequality at country level (through dispersion of Eurostat variable) with our dependent variable but it fails.

Then, we will give some general characteristics of the variables we use. Initially, we used Eurostat as a source and as a sub-national entity NUTS2 was taken, as Eurostat defines it. There are some outliers and also possible sensitivity of the results to the administrative limits selected (Balisacan et al 2006), which makes it interesting to additionally investigate NUTS3<sup>5</sup> level too.

Moreover, in literature appear doubts about the meaning of regional inequality, as intra-regional inequality explains much of the variation in incomes of households nationally (Balisacan 2003), while another problem is that the relationship between

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<sup>5</sup> Which, besides, exceeds the narrow limits of this paper.

the central and subnational governments vary through countries (Eyraud et al. 2012).

Table 2. Variables, Definitions and Stationarity

Variable	Definitions	Stationarity
Y (Authors' Calculations from Eurostat 2014)	$\frac{\sum \text{per capita GDP Region,}}{\text{per capita GDP Capital}} \cdot \text{Number of Regions}$	Stationary
EMU (Authors' Calculations from Europa 2014)	Binomial, 1 if country uses Euro	-
Subnational to National expenditure ratio (Authors' Calculations from Eurostat 2014)	Subnational Government expenditure/Central Government expenditure	Stationary
General Government expenditure (Eurostat 2014)	General Government expenditure as %GDP	Stationary
General Government Revenue (Eurostat 2014)	General Government Revenue as %GDP	Stationary
Subnational Government Revenue (Eurostat 2014)	Subnational Government Revenue as %GDP	Stationary
Πληθυσμός (Eurostat 2014)	Country Population	Stationary
Number of Regions (Authors' Calculations from Eurostat 2014)	Number of Regions	-

Source: Authors' Calculations

## 4.2. Econometric model and results

In our analysis we will use a state and time-series panel, testing some different specializations. Panels seem adequate, given that the countries in the European Union are significantly interdependent and their economic synchronization is intense (Afonso & Hauptmeier 2009). The specifications we use derive ideas from independent variables used in models relating regional income inequality (rather than decentralization) to decentralization, such as Lessmann (2011) and Pike et al. (2011).

In all analyses we use panel regression with least squares method, through Eviews8. Finally, we ran heteroskedasticity tests by BPG method.

Keeping these in mind, we examine the relationship between decentralization of income per capita and decentralization of administration, in the following model:

Table 3. Regression results

Variable	OLS	FE	RE	Stationarity <sup>6</sup>
Y (Dependent)				0.0000
C	-0.140795 (0.2171)	-0.169742 (0.1511)	-0.140795 (0.2234)	
Pop_Country	6.31E-06 (0.0002)	6.44E-06 (0.0002)	6.31E-06 (0.0003)	0.0000
EMU	0.113578 (0.0000)	0.114116 (0.0000)	0.113578 (0.0000)	
General_rev	0.012167 (0.0001)	0.011301 (0.0012)	0.012167 (0.0001)	0.0000
Noncentral_rev	0.009410 (0.0057)	0.010959 (0.0051)	0.009410 (0.0064)	0.0000
General_exp	-0.032085 (0.0000)	-0.032615 (0.0000)	-0.032085 (0.0000)	0.0000
EXPP	0.565126 (0.0000)	0.572744 (0.0000)	0.565126 (0.0000)	0.0000
N	-0.020921 (0.0000)	-0.021342 (0.0000)	-0.020921 (0.0000)	
R-squared	0.446954	0.455423	0.446954	
F statistic	21.93599 (0.000000)	10.14696 (0.000000)		
FE-F test		P=0.9431		
Hausman test			P=0.9056	
BPG Test	0.057718	0.425437	0.057718	

Source: Authors' Calculations

As table 3 imposes, Fixed effects model is clearly preferable to simple OLS (in F-test), while Hausman test highlights Random effects method as the best, but it slightly differs from OLS so they would be dealt, essentially, together. Further, FE model contains homoskedasticity for  $\alpha = 0.01, 0.05, 0.1$ . On the opposite side, both of the two other models are homoskedastic only while  $\alpha = 0.01, 0.05$ . Therefore, all three models are presented in order to prove the results' robustness.

<sup>6</sup> Common root Levin, Lin & Chu

## 5. Results Interpretation

### 5.1. Model annotation and variable correlation determination

The models presented above show a strong correlation between the dependent variable and the explaining ones. Of course, constant is not statistically significant, interpretative power of the model is quite high, since  $R^2$  fluctuate between 44% and 45%.

Variables that remain significant after successive regression specifications are very likely to actually be strongly correlated with the dependent variable. As shown, these are:

- EMU: Eurozone countries seem to be more decentralized, by an income perspective, than other countries, having a considerable variation (0.1141 in OLS and 0.1136 FE).
- Subnational to national expenditure ratio: the share of subnational spending relative to that of central government (administration decentralization measure) is positively correlated with income decentralization.
- General government expenditure: it indicates that the presence of public (general government's) expenditure, as a percentage of GDP has a statistically significant and marginally negative effect.
- General government revenue: this has a marginally positive impact on decentralization of income.
- Population: Larger, in population, countries seem to have slightly stronger decentralization than others.
- Subnational governments' revenue: The larger subnational governments' revenue is, the stronger is economic decentralization they achieve.
- Finally, a significant negative effect of the number of a country's regions in the decentralization of income is detected.

### 5.2. Reliability tests results

A parameter which makes the analysis more complicated and drawing conclusions less safe is the inevitable use of a panel of non-normal (but stationary) time series cross section. However, usual problems of heteroskedasticity and



doubtful, as to their significance, variables are not being observed. The problems this model suffers are non-normality of residuals and the ambiguity of the relationship of each variable that is used to approximate decentralization of administration (if there is one decentralization of administration form) to the dependent (due to the different approaches that have been proposed to measure it).

### **5.3. Variables deficiency and econometric gaps**

Regarding econometric gaps, rather problems arising are mainly such that they cannot be handled (such non normality), and so, the presentation provided seems effective enough. In relation to the variables, it would be more likely to a reader to be more thoughtful to their overabundance, despite the shortcomings. We distinguish many variables which approach different aspects (or kinds or forms) of the widespread concept of decentralization of administration, while we also tested variables related to administration in general (decentralized or not). This phenomenon hides the danger of over-specification and of dangerous interaction between independent variables.

## **6. Policy Implications**

It is of great importance to achieve an understanding of the impact that politics and politic systems have on civilian's income. Moreover, it becomes clear that the distribution of income is of first priority to European institutions and even more European regional policy. But, even more important and practically useful is using such knowledge in order to set the bases and implement policies that improve income and income distribution indexes.

Our research results have a clear and specific message to deliver. Except a few countries in European Union, there exist an important income gap between their capital's region and other regions. By this point of view, spatial and geographical deviations become of secondary importance. It is highlighted that governance and (non)decentralization of decision making creates an income gap that seems to be way in favor of the capitals and usually unfavorable to other regions. This way, decision making becomes more, or at least equally, important such as geography or nature, history and environment. The crucial difference is that policies can be easily changed by right decisions.

What we believe that could be helpful, is to consider regionalization as a policy against income inequality, and especially income decentralization. Thus, politicians should be much more positive when it comes to implementing such policies. Income inequality becomes a situation that is over geography, transportations, culture, or even fertility. Through this paper, it also becomes a decision making distribution side-effect.

According to that perspective, administrative decentralization is a strong instrument that seems to heel such differences and inequalities. Such results show that administrative decentralization and especially revenue decentralization can be the appropriate policy, in order to make income decentralization a matter of less intensity. In our opinion, the most important conclusion that should be extracted of this research is the ability of administrative distribution between decentralized and central governments to change income distribution between the provinces and capital regions.

## **7. Conclusions - Suggestions**

In conclusion, we present a possible relationship that may exist between decentralization of per capita GDP and decentralization of administration. Searching literature support, we were unable to find any straight references, but enough evidence that suggest or render feasible and reasonable such a relationship. In a statistical analysis, we determine the issue and analyze its strong existence. Through an econometric model, we bring to light a strong relationship between income decentralization of subnational entities at NUTS 2 level and explanatory variables used as decentralization of administration approaches. As main variable, subnational spending to central government ratio, acts positively on decentralization of income in all our specifications.

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