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**DECENTRALIZATION, FISCAL TRANSFERS AND INCOME INEQUALITY IN  
CENTRAL AND EASTERN EUROPEAN COUNTRIES**

**Abstract**

Although income redistribution is primarily a central government responsibility, decentralization can improve or deteriorate the equity in resource and income redistribution depending on how the process of decentralization is designed and implemented. This paper provides empirical evidence on the association between fiscal decentralization and income distribution for a panel of 11 economies from Central and Eastern Europe (CEE) during 1995-2011. In these regards, we focus on three research topics: the effect of decentralization on income inequality; the effects of the structure of local government finance on income inequality; and the validity of the Kuznets-hypothesis. The main findings from the empirical exercise are as follows: first, we cannot provide firm evidence on the presumes favourable effects of fiscal decentralization on income distribution in the CEE countries; second, our empirical model suggests that the effects of fiscal decentralization on income inequality depend on the source of finance of subnational governments, i.e. intergovernmental transfers might have a role in income equalization; third, we provide

empirical support for the validity of the Kuznets-hypothesis in the CEE countries in which there is a nonlinear relationship between the level of economic development and income inequality.

Key words: Fiscal decentralization, Fiscal transfers, GINI, Central and Eastern Europe, Panel Data Models

JEL classification: D31; H70; H73.

## **1 Introduction**

Higher level of equity in after-tax income redistribution is often stated as one of the main policy goals of government along with the macroeconomic stabilization and the efficient provision of public goods and services. In this context, the classical theory of fiscal federalism argues that the redistribution of income is more efficiently performed by the central government than by the local governments (Musgrave, 1959). Additionally, due to the mobility of taxpayers, when local governments engage in income redistribution policy, the final result may be even more unequal income redistribution between regions and individuals. According to Pauly (1973), decentralization will increase income equality only if there is limited mobility of individuals, income and capital between regions within a country. In such circumstances, local redistributive policies can differ and local governments with higher initial level of income inequality can implement more progressive tax systems and comprehensive social programmes for raising the welfare of lower income population, unlike other local governments that face more uniform income distribution.

Although income redistribution is primarily a central government responsibility, many authors agree that, depending on how the fiscal decentralization process is designed and implemented, decentralization can improve or worsen the equity in resource and income distribution between different regions and individuals within a country. For instance, one argument that decentralization may reduce income inequality between individuals and regions can be found in the theory of decentralization (Oates, 1972 and 1999), which argues that decentralization increases efficiency in the provision of public goods as well as creates incentives to utility - maximizing government behavior. In addition, it is argued that decentralization can promote higher income equality by bringing the government closer to the citizens. Along these lines, local governments are better

informed about the needs and preferences of the local residents in comparison with the central government's bureaucrats. As a result, decentralization is expected to contribute to better match between government's provision of public goods and services and citizens' needs and preferences (Lessmann, 2012). Finally, decentralization is also considered to contribute to greater transparency and accountability in government policies. Specifically, decentralization can reduce government corruption and can prevent the governments to act in favor of a few powerful group of individuals (usually, those with high incomes). Consequently, decentralization will lead to more equal income redistribution (Neyapti, 2006).

On the other hand, there are equal number of theoretical counterarguments that decentralization may influence the income redistribution in the opposite direction, i.e. may lead to greater income inequality: First, higher decentralization reduces the capacity of the central government to implement redistributive policies through social and economic transfers from richer to poorer individuals and regions in the country. Further, if income redistribution policy is assigned to local governments, quite predictably, especially for poorer regions, local governments will not have enough capacity to deal with the income differences within their jurisdiction. In this context, decentralization will lead to a greater income inequality between regions, especially if there are large differences in the level of economic development (Prud'homme, 1995). Moreover, when local governments face insufficient fiscal capacity and resources, they can easily be exposed to a pressure and lobbying by powerful high-income social groups, which will result in higher income inequality. Therefore, the direction in which fiscal decentralization affects income redistribution will depend primarily on the fiscal capacities of local governments and the quality of overall governance in the country (Neyapti, 2006).

This paper provides empirical evidence on the association between fiscal decentralization and income distribution for a panel of 11 economies from Central and Eastern Europe (CEE) during 1995-2011. In these regards, we focus on three research topics: the effect of decentralization on income inequality; the effects of the structure of local government finance on income inequality; and the validity of the Kuznets-hypothesis. The main findings from the empirical exercise are as follows: first, we cannot provide firm evidence on the alleged effects of fiscal decentralization on income distribution in the CEE countries since the magnitude of the regression coefficients is very small and they are not statistically significant; second, the results of our empirical model imply that the effects of fiscal decentralization on income inequality depend on the source of finance of

subnational governments (own revenues versus intergovernmental grants), i.e. intergovernmental grants may have a role in income equalization; third, we provide empirical support for the validity of the Kuznets-hypothesis in the CEE countries in which there is a nonlinear relationship between the level of economic development and income inequality

As for the structure of the paper, the following section provides a brief review of the empirical literature on fiscal decentralization and income inequality; section 3 focuses on recent developments in fiscal decentralization and income inequality in CEE countries; data and methodological issues along with the discussion of the results from the empirical investigation are presented in section 4; while section 5 concludes.

## **2. An overview of the empirical literature**

In this section we provide a brief overview of the empirical literature studying the relationship between fiscal decentralization and income equality. For instance, Qiao et al. (2008) investigate the effects of decentralization on regional income inequality in China and find that, in a decentralized political system, there is a trade-off between economic growth and fair regional distribution of resources as two main policy goals of the central government. Specifically, they show that decentralization has contributed to the economic growth in China, but also has led to a substantial increase in inequality in the distribution of resources between regions.

Rodriguez-Pose and Ezcurra (2009) explore the link between decentralization and regional income inequality on a sample of 26 countries over the period 1990 - 2006. The basic finding from their study is that the effects of decentralization on regional inequality depend on the level of economic development of the country. In high - income countries, decentralization contributes to reduction in regional inequality, while in the countries of low- and middle-income group, decentralization is associated with a significant increase in income differences between regions. This distinction is also supported by Neyapti (2006) who, based on a sample of 54 countries, finds that the effect of decentralization on inequality varies with the quality of governance, i.e. decentralization has stronger positive impact on income equity in countries with higher level of governance quality (usually, the high-income countries).

Tselios et al. (2012) study the relationship between decentralization, regional economic development and income inequality in Western European countries over the period 1995 - 2000.

According to them, higher decentralization leads to greater income equality, but as the level of economic development of the regions increases, the effect of decentralization on reducing income inequality diminishes. Covering 23 OECD countries during 1971-2000, Sacchi and Salotti (2014a) investigate the impact of decentralization on income inequality and economic differences between regions. Specifically, they employ seven different indicators of decentralization and find that in all cases decentralization increases income inequality. In addition, when decentralization also implies a greater autonomy of local governments, i.e. when local governments are financed by their own revenues instead of central government grants, the effect on income inequality becomes even larger. Similarly, based on a sample of 21 OECD countries over 1981-2005, Sacchi and Salotti (2014b) argue that in countries with significant regional disparities, decentralization has detrimental effects on income distribution.

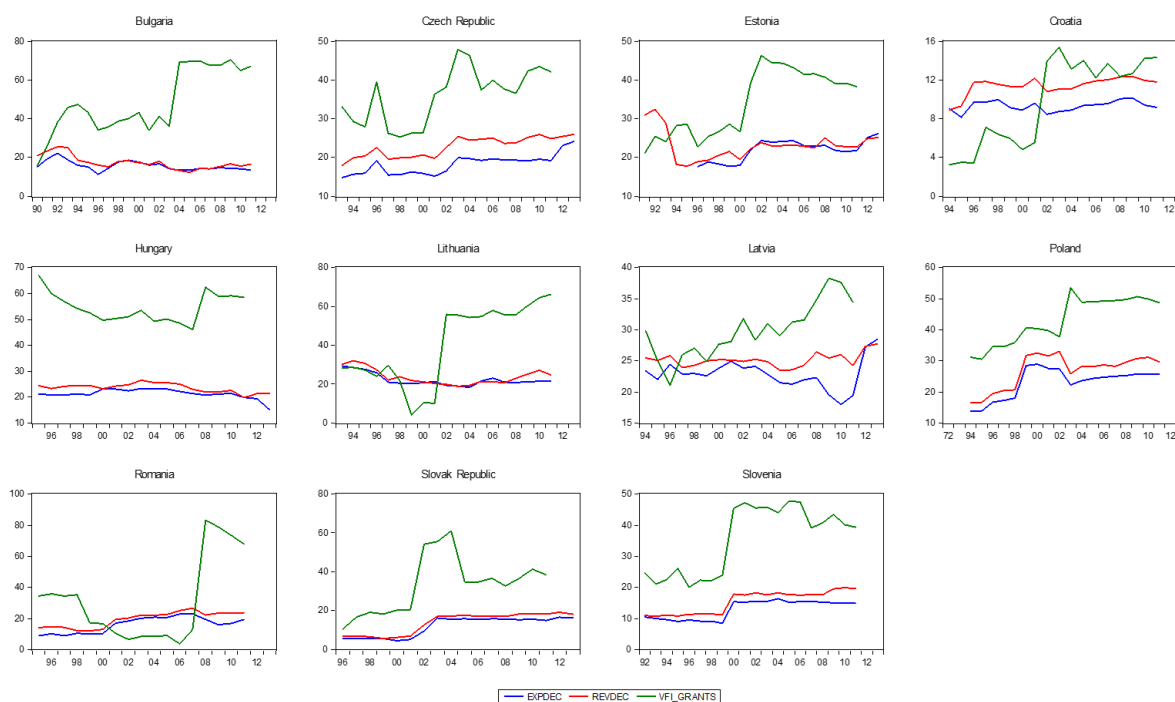
Sepulveda and Martinez-Vazquez (2011) explore the impact of decentralization on poverty and income inequality on a sample of 34 developed countries and 22 developing countries over the period 1971 - 2000. They conclude that decentralization increases income inequality in the countries with smaller public sector, but this effect diminishes as the public sector size increases. Once the public sector size reaches a certain critical point (20% in GDP), decentralization tends to reduce income inequality.

In general, the empirical literature provide inconclusive evidence on the effects of fiscal decentralization on income distribution. On the one hand, some authors agree that decentralization causes greater regional disparities and deteriorates the income distribution among individuals within countries. Hence, these empirical findings are consistent with the classical theory of fiscal federalism, which suggests that income redistribution and macroeconomic stabilization policies are better pursued by the central government rather than the local governments (Musgrave, 1959). However, some studies provide opposite evidence, implying that decentralization may reduce income inequality. Further on, our brief review of the empirical literature suggest that the effects of fiscal decentralization on income equality depend on various factors, such as: the level of economic development (Rodriguez-Pose and Ezcurra, 2009; Tselios et al., 2012), the quality of political governance (Neyapti, 2006), the model of financing local government (Sacchi and Salotti, 2014), etc. In sum, in the developed countries with a higher quality of political governance decentralization will probably be less distortive and may even lead to reduction of the regional and income disparities.

### 3. Decentralization and income inequality in CEE countries

During the last two decades the former communist countries have undergone a comprehensive process of political, institutional and economic reforms, which have comprised the decentralization of their public sectors (For a comprehensive coverage see Dabla-Norris 2006, Horvat 2000, Péteri 2002, Šević 2008, Slukhai 2003, and Swianiewicz 2004). As a result, the level of decentralization in CEE countries, measured as percentage of local government expenditures in GDP increased, on average, from 8.5% in 1997 to 9.5% in 2013. Nevertheless, the trend toward greater decentralization has differed among the individual countries (See Figure 1).

Figure 1: Decentralization of government expenditures, revenues and fiscal transfers in CEE countries, 1992-2013.



Source: Authors' own calculation.

Figure 1 shows that, on average, the degree of fiscal decentralization has increased throughout the region during the past two decades. It is also evident that the level of decentralization of government revenues and expenditures has increased by relatively stable rate over time, while the magnitude of fiscal transfers has shown significant upward and downward oscillations. These

difference motivate our empirical study, presented in the next section, in which we employ three measures of fiscal decentralization (expenditure decentralization, revenue decentralization and fiscal transfers) in order to test formally whether it produces different effects on income inequality, controlling for the mode of local government finance (own revenues versus central government grants).

Table 1 provides descriptive statistics for the GINI index in CEE countries. As can be seen, the Baltic countries are those with the highest level of inequality in income distribution in the region, followed by Romania, Poland and Bulgaria (all of them with GINI indices higher than 30%). On the other hand, Slovenia, Czech Republic and Slovak Republic features highest equality in income distribution, with GINI coefficients less than 25%). According to the World Development Indicators Database (not shown in Table 1), over the last two decades, the income inequality has increased in Bulgaria (from 24% in 2000, to 35% in 2013), Romania (from 29% in 2000 to 34% in 2013) and Lithuania (from 31% in 2000 to 37% in 2013). On the other hand, the income distribution has become more equal in Estonia (37% in 2004 to 32% in 2013) and Poland (35% in 2005 to 31% in 2013), while it has remained relatively stable in the other countries.

Table 1: Descriptive statistics for GINI coefficients in the CEE countries, 2000-2013

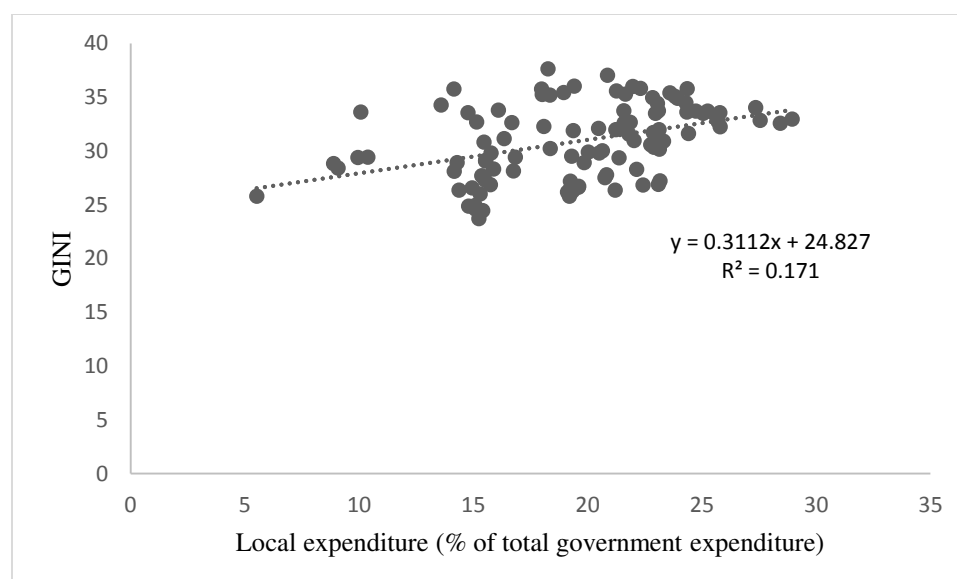
<b>Country</b>	<b>Mean</b>	<b>Max.</b>	<b>Min.</b>	<b>Std. Dev.</b>	<b>Obs.</b>
Bulgaria	30.36	35.90	24.00	4.69	14
Croatia	29.60	31.60	27.00	1.51	11
Czech Republic	25.10	26.00	24.60	0.39	10
Estonia	33.49	37.40	30.90	1.89	14
Hungary	26.48	33.30	24.00	2.42	13
Latvia	36.14	38.90	34.00	1.44	10
Lithuania	33.96	37.00	31.00	2.06	11
Poland	31.66	35.60	30.00	1.62	11
Romania	32.60	37.80	29.00	2.57	14
Slovak Republic	25.38	28.10	23.70	1.31	9
Slovenia	23.12	24.40	22.00	0.86	13
Whole sample	29.87	38.90	22.00	4.56	130

Source: Authors' own calculation based on the World Bank's World Development Indicator Database.



Fiscal decentralization and income inequality may be linked via the regional differences within the countries, due to the different level of economic development as well as the cultural and demographic characteristics of the regions. Such regional differences often lead to greater income disparities between individuals and consequently to greater disparities in local governments' fiscal capacities. Figure 2 and Figure 3 illustrate the association between income inequality (measures by the GINI index) and the extent of fiscal decentralization (expenditure and revenue decentralization, respectively) in the CEE economies. As can be seen, there is a clear positive relationship between income inequality and the degree of fiscal decentralization, suggesting that more decentralized countries are characterized by higher income inequality.

Figure 2: Expenditure decentralization and income inequality in CEE countries, 1995-2011

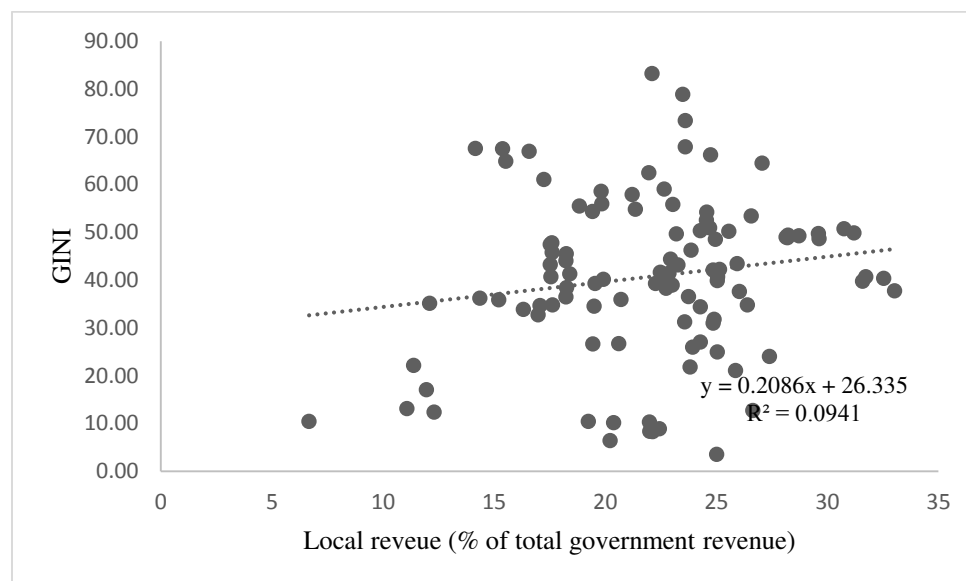


Source: Authors' own calculation.

In addition, as mentioned above, the effects of fiscal decentralization on income redistribution may differ on the financing method of local governments. When local governments are financed from “own” sources of revenues, decentralization will probably cause higher income inequality among individuals due to the disparities in fiscal capacities of local governments. On the other hand, when local governments rely mostly on fiscal transfers from the central government, decentralization is expected to have less distortive effect on income equality. The obvious explanation of this relationship between decentralization and inequality stems from the fact that the central government is primary responsible for redistribution of income. Consequently, the central

government can alleviate the differences in income distribution through the allocation of fiscal transfers to local governments.

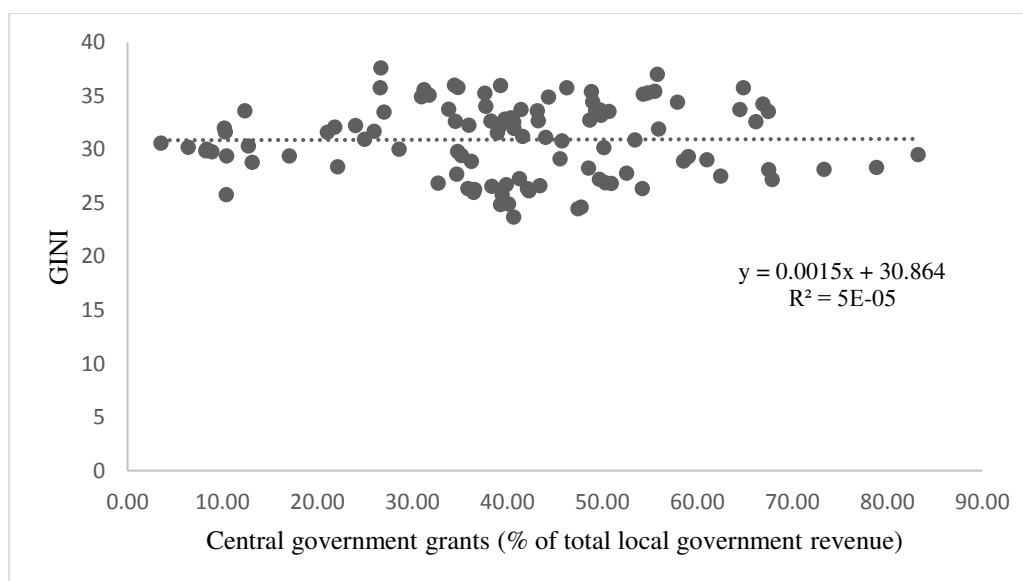
Figure 3: Revenue decentralization and income inequality in CEE countries, 1995-2011



Source: Authors' own calculation.

Figure 4 shows depicts the virtually non-existent relationship between income inequality and vertical fiscal imbalance (measured by the share of central government grants in total local government revenues) in the CEE countries. Note that not only is the simple regression coefficient very small, but also the coefficient of determination is virtually equal to zero. This implies that whether subnational governments are financed by own revenues or they rely primarily on central government grants does not affect the degree of income inequality between individuals. Of course, these findings should be considered only as indicative as they are based on simple bivariate regressions, which fail to control for the effect of other important factors on income inequality. Therefore, in the following section we provide formal econometric testing of these hypotheses.

Figure 4: Vertical fiscal imbalance and income inequality in CEE countries, 1995-2011



Source: Authors' own calculation.

#### 4. The empirical model: data, methodology and discussion

In this section we present the econometric analysis of the association between fiscal decentralization and income inequality based on a panel of 11 CEE countries over the period 1995 - 2011. The sample includes the following countries: Bulgaria, Estonia, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia, Hungary, Croatia, and the Czech Republic. The panel is unbalanced as the data span uneven time periods for the individual countries included in the sample.

At this point it is important to note that the paper deals with the income differences among individuals, i.e. due to data availability, it does not focus on the income and economic differences between regions within the countries. Hence, the dependent variable in the model is income inequality (*gini*) measured by the GINI index as defined by the World Bank, which refers to income inequality between individuals and households. In these regards, the GINI coefficient indicates the extent to which the distribution of income or consumption expenditure among individuals or households deviates from a perfectly equal distribution. The values of the GINI coefficient range from 0 to 100, with higher values indicating more unequal distribution of income among individuals and households (0 indicates perfect equality, while 100 indicates perfect inequality, i.e. the extreme situation when one individual or household owns 100% of the total income). The data

on the GINI index are taken from the World Bank's dataset, which is available at: <http://data.worldbank.org/indicator>.

We employ the two most widely used measures of fiscal decentralization labelled as “expenditure decentralization” (*exp*) and “revenue decentralization” (*rev*). The former shows the share of subnational government expenditure in total public expenditure, while the latter shows the proportion between subnational and general government revenues. In fact, these two measures are quite similar (Baskaran et al. 2016) and their primary purpose is to show the overall extent of fiscal decentralization, i.e. the amount of resources controlled by subnational government. However, as discussed above, in order to investigate whether fiscal decentralization has different effect on income inequality depending on how subnational governments are financed (by relying on their own revenues or on fiscal transfers from the central government), we employ a third measure of fiscal decentralization, too: the vertical fiscal imbalance (*transf*), i.e. the percentage share of central government grants in local government revenue). The data on the three indicators of fiscal decentralization data are obtained from the March 2014 issue of the World Bank's Fiscal Decentralization Indicators Database, which draws on the International Monetary Fund's Government Finance Statistics.

Besides the fiscal decentralization variables, the empirical model includes several other control variables that are also expected to affect the level of income inequality, such as: the level of economic development proxied by the log of GDP per capita (*gdp*), the unemployment rate (*unem*), trade openness (*trade*), i.e. the share of imports and exports in GDP, the proportion of urban population in total population (*urban*), and the age dependency ratio, i.e. the share of dependent population (individuals younger than 15 years or older than 64 years) in the working age population (individuals at age from 15 to 64). All these data are taken from The World Bank Development Indicators Database.

In order to examine the effects of fiscal decentralization on income inequality we employ the following empirical model:

$$income_{it} = \beta_0 + \beta_1 fiscal_{it} + \beta_2 gdp_{it} + \beta_3 gdp^2_{it} + \beta_4 open_{it} + \beta_5 unem_{it} + \beta_6 urban_{it} + \beta_7 depend_{it} + u_{it},$$

where  $u$  denotes the disturbance term while  $it$  stands for the country ( $i$ ) and time ( $t$ ) specific term.

As can be seen, we employ quite general specification of the empirical model encompassing several variables that are found to affect income distribution in the theory and the empirical studies. For instance, by introducing (the log of) GDP per capita as a control variable it is possible to proxy various socio-economic factors that are expected to be correlated with income inequality, such as: the quality of governance and institutions, rule of law, financial sector development etc. In addition, the above specification allows to test the validity of the Kuznets-hypothesis, which states that economic growth initially increases income inequality because the benefits are concentrated only in the high-income group of individuals (Kuznets, 1955). Later on, after the level of development reaches a certain threshold, the benefits of the growth become also available to the low-income individuals so that the income inequality begins to decline. Accordingly, the Kuznets-hypothesis suggests that the relationship between the level of economic development and income inequality is not linear, but rather has an inverted „U“ shape. Therefore, in order to test for this non-linear effects, our regression model includes the square of (log) GDP per capita as a control variable.

As for the estimation procedure, we employ the fixed-effects panel data model, which is more appropriate when working with macro panels, especially when the cross-sections are not sampled randomly and when the research focuses on the behaviour of the specific sample without drawing inferences about the whole population. In addition, the fixed-effects estimator is consistent even when individual effects are correlated with the regressors (Baltagi, 2008; Greene, 2003). In these regards, the assumption that the regressors are not correlated with the disturbance term, which is critical for employing the random effects model, seems to be a priori unrealistic (Wooldridge, 2002) as many of the regressors included in the model may be correlated with the unobserved country-specific effects. Formally, we base our choice of the fixed-effects vis-à-vis the random-effects model on the Hausman-test (Hausman, 1978), which in each case rejects the null-hypothesis that the regressors and the disturbances are not correlated. In addition, the validity of the individual fixed effects have been confirmed by the F-test on their joint significance. The results of these two tests are shown at the bottom of Table 2. Six regression equations have been run separately for the three alternative measures of fiscal decentralization: revenue decentralization (regressions 1 and 2), expenditure decentralization (regressions 3 and 4), and intergovernmental transfers (regressions 5 and 6).

**Table 2. Regression results – fiscal decentralization and income inequality in CEE**

Variables	(1)	(2)	(3)	(4)	(5)	(6)
<i>constant</i>	50.5915*** (12.3757)	-48.5081* (28.5092)	50.3015*** (12.3311)	-45.7763 (28.2205)	49.2284*** (12.7034)	57.1645* (29.1142)
<i>rev</i>	-0.0682 (0.0751)	-0.0453 (0.0703)				
<i>exp</i>			-0.0986 (0.0777)	-0.0795 (0.0728)		
<i>transf</i>					-0.0049 (0.0159)	-0.0148 (0.0149)
<i>gdp</i>	-0.30572 (0.5615)	25.5334*** (6.8179)	-0.6460 (0.5584)	24.4705*** (6.7554)	-0.3518 (0.5719)	27.1138*** (6.8965)
<i>gdp</i> <sup>2</sup>		-1.4683*** (0.3863)		-1.4235*** (0.3817)		-1.5541*** (0.3891)
<i>unem</i>	0.0605 (0.0652)	0.0680 (0.0608)	0.0416 (0.0620)	0.0543 (0.0580)	0.0421 (0.0626)	0.0546 (0.0580)
<i>open</i>	-0.0154 (0.0170)	-0.0040 (0.0161)	-0.0136 (0.0166)	-0.0031 (0.0158)	-0.0128 (0.0169)	-0.0007 (0.0160)
<i>urban</i>	0.2793 (0.1885)	-0.0217 (0.1927)	0.3577* (0.1914)	0.0578 (0.2949)	0.2623 (0.1917)	-0.0166 (0.1906)
<i>depend</i>	-1.01696*** (0.3152)	-0.8889*** (0.2957)	-1.0604*** (0.3168)	-0.9347*** (0.2977)	-0.9707*** (0.3120)	-0.8747*** (0.2897)
R <sup>2</sup>	0.7030	0.7420	0.7140	0.7506	0.7005	0.7436
Hausman test	35.8023 (0.0000)	47.9076 (0.0000)	34.2370 (0.0000)	47.6823 (0.0000)	41.8381 (0.0000)	49.1751 (0.0000)
F-test	12.4113 (0.0000)	13.9266 (0.0000)	12.7317 (0.0000)	14.3336 (0.0000)	12.2624 (0.0000)	14.0288 (0.0000)

Note: \*\*\*/\*\*/\* denote 1%, 5% and 10% level of significance, respectively.

As can be seen from Table 2, we find a negative relationship between fiscal decentralization and income distribution, i.e. higher decentralization is associated with lower values of the GINI index. Note that the formal econometric investigation has led the regression coefficients to have opposite signs as compared to those obtained in Section 3, thus, confirming that the previously obtained positive relationship between income inequality and fiscal decentralization is due to the omitted

variables in the bivariate regression model. At the same time, it is important to note that all the three measures of fiscal decentralization have negative regression coefficients, which implies that fiscal decentralization affect income inequality in two ways: directly via the amount of resources that are spent on subnational level, and indirectly via the way subnational governments are financed (own revenues versus intergovernmental grants). Specifically, the negative coefficient of *transf* suggests that given the extent of fiscal decentralization (measured either by local expenditure or local revenue), the greater reliance of subnational government on central government grants contributes to lower income inequality. In other words, this finding confirms that intergovernmental transfers have a favourable role in the equalization of income disparities. However, the magnitude of the regression coefficients is very small so that the presumed effects of decentralization on inequality, if any, are economically negligible. Finally, one can observe that the regression coefficients of the fiscal decentralization indicators are not statistically significant in all the regressions. Therefore, the results of our empirical model imply that the presumed favourable effects of fiscal decentralization on income distribution in the CEE countries are very small.

Commenting on the other variables included in the empirical investigation, it is important to note that most of the regression coefficients are statistically insignificant in the cases where the regressions omit the square of GDP per capita (regressions 1, 3 and 5), including the *gdp* variable, too. On the other hand, both *gdp* and its square become significant in regressions 2, 4 and 6, suggesting that the regression coefficients are better estimated when this variable omission bias is corrected. Hence, our preferred specification of the empirical model is provided in regressions 2, 4 and 6. Here, the *gdp* variable has positive regression coefficients unlike the negative ones in the regressions in which the square of *gdp* is omitted. Moreover, as already mentioned, in contrast to the basic specification of the regression model (regressions 1, 3 and 5), both *gdp* variables are statistically significant even at 1%. Taken together, these estimates (positive coefficient on *gdp* and negative coefficient of the quadratic term) provide evidence on the validity of the Kuznets-hypothesis in the CEE countries, i.e. there is a nonlinear parabolic (inverted “U” shaped) relationship between the level of economic development and income inequality. According to this hypothesis, at the relatively low level of economic development of CEE economies, economic growth delivers benefits only to the high-income population. Indeed, the magnitude of the coefficient of the *gdp* variable implies that economic growth in CEE countries produces strong

adverse effects on income distribution, i.e. it goes hand by hand with raising income inequality. However, as mentioned above, this relationship is nonlinear suggesting that beyond some threshold level of economic development income inequality begins to decline.

Further on, we provide a brief comment on the other results of the regression: as expected, the coefficient of *unem* is positive as higher unemployment rates are generally associated with higher income inequality; the coefficient of *open* is negative implying that trade openness, which fosters market competition, has beneficial effects on income distribution; the sign of the coefficient of *urban* is positive suggesting that higher proportion of urban population is associated with rising income inequality; finally, somewhat unexpectedly, we find a negative relationship between *depend* and inequality, which may be rationalized as follows: the higher the proportion of dependent population, the more comprehensive social safety benefits offered by the governments (pensions, scholarships, children subsidies etc.), which have positive effects on income distribution. However, a caution is required when interpreting the results of the control variables as most of them are not statistically significant at the conventional confidence levels.

## 5. Conclusion

This paper provides empirical evidence on the effect of revenue decentralization and fiscal transfers on income redistribution for a panel of 11 CEE countries over the 1995-2011 period, estimated by the fixed-effects estimator. The main findings from the empirical exercise are as follows: first, we find a negative relationship between fiscal decentralization and income inequality, second, the effects of decentralization on income inequality depend on the sources of local governments' finance (own revenues versus intergovernmental grants), i.e. intergovernmental grants might have a role in the equalization of income disparities. However, the magnitude of the regression coefficients is very small so that the presumed effects of decentralization on inequality, if any, are economically negligible. In addition, the estimated regression coefficients are not statistically significant so that we cannot provide firm evidence on the effects of fiscal decentralization on income distribution in the CEE countries.

Further on, we provide evidence on the validity of the Kuznets-hypothesis in the CEE countries, i.e. there is a nonlinear relationship between the level of economic development and income inequality. According to this hypothesis, at the relatively low level of economic development of



CEE economies, economic growth produces strong adverse effects on income distribution, i.e. it goes hand by hand with raising income inequality. Yet, beyond some threshold level of economic development income inequality begins to decline.

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