



Fiscal decentralization and regional disparities: The importance of good governance*

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Abstract. In this paper we consider how government quality mediates the relationship between fiscal decentralization and regional disparities. Previous work has argued that fiscal decentralization has the potential to reduce income differences across regions but that this potential may not be realized because of governance problems associated with sub-national authorities. Our empirical evidence based on a sample of 24 OECD countries over the period 1984 to 2006 lends a measure of support to this idea. We find that fiscal decentralization promotes regional convergence in high government quality settings but, worryingly, it leads to wider regional disparities in countries with poor governance.

JEL classification: D73, H71, H73

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1 Introduction

Whether fiscal decentralization increases or reduces regional disparities is an important question which has engaged scholars over the years. Increasing the fiscal capacity of sub-central governments can promote regional convergence because of the expectation that lower levels of government will react more efficiently to local needs either because they can provide better informed and tailor made policies or because they strive to preserve or increase their tax base in the face of competition from other regions. On the other hand, fiscal decentralization may also widen regional disparities because it reduces the redistributive capacity or response of the central government, and because relatively wealthier regions will tend to out-compete poorer

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ones in the race for fiscal resources. Another reason why fiscal decentralization may not contribute towards regional convergence, and one that we will explore in this paper, is government quality. In the context of the link between decentralization and regional disparities, it has been argued that fiscal decentralization may aggravate problems of corruption and administrative capacity which, in turn, may reduce or eliminate the convergence-inducing effects of fiscal decentralization.

The importance of government quality for the link between decentralization and regional convergence has also been suggested by empirical work based on both country case studies and cross-country analysis. The empirical evidence to date reports an opposite relationship between fiscal decentralization and regional disparities in rich and poor countries. Thus, while decentralization tends to increase disparities in developing countries, it reduces them in high income ones. Because high income countries generally enjoy better governance, and considering the governance problems which may be associated with fiscal decentralization, this has led scholars to propose, but not pursue empirically, the idea that the differential impact of decentralization in rich and poor countries is largely due to differences in the quality of government in each setting. In light of this, in this empirical paper we deal with the mediating role of government quality on the relationship between fiscal decentralization and regional disparities. We hypothesize that the governance problems attributed to decentralization are likely to be aggravated in countries with worse governance or, conversely, are likely to be mitigated in high government quality environments. Our empirical results based on an unbalanced panel of 24 OECD countries over the period 1984 to 2006 supports our expectations. We find that fiscal decentralization promotes regional convergence in countries with high quality institutions, while in countries with poor governance, decentralization tends to widen regional disparities.

The paper is structured as follows. In Section 2 we review those theoretical and empirical contributions which have explored how fiscal decentralization may affect regional disparities. In Section 3 we extensively describe how we measure the key variables employed in the empirical analysis. In Section 4 we explain our empirical methodology which includes a discussion of our choice of control variables, the estimators used and how we deal with the potential presence of reverse causality. Having done so, we then present our main empirical findings and some robustness checks in Sections 5 and 6 respectively, before concluding the paper with the main findings and policy implications in Section 7.

2 Fiscal decentralization and regional disparities: Theory and evidence

From a theoretical perspective, there are several reasons why the decentralization of fiscal resources can contribute towards regional convergence. Fiscal decentralization may reduce regional disparities because it implies better informed and more specific policies. In particular, lower level governments will tend to have more information about what people need and, moreover, can more easily adjust policies to local preferences (Oates 1972). This should lead to policies which are more effective in encouraging regional economic development and, ultimately, should help reduce regional disparities (Oates 1993). Fiscal decentralization may also mitigate regional disparities because it can set the stage for inter-jurisdictional competition. Fiscal decentralization has the potential to promote the competition for fiscal resources among subnational jurisdictions, and this in turn can act as a restraint on inefficient local government and, consequently, can promote regional convergence (Brennan and Buchanan 1980; Weingast 1995; McKinnon 1997; Qian and Weingast 1997). Moreover, voters can use the performance of higher-performing jurisdictions as a benchmark and this should further increase the efficiency in local public good supply (Salmon 1987; Breton 1996).

Alternatively, there are several ways in which fiscal decentralization can widen regional disparities. Most obviously, because fiscal decentralization means taking resources away from

the central government, it weakens the scope of inter-regional redistribution which may be aimed towards regional convergence (Prud'homme 1995). Relatedly, decentralization may increase the capacity of wealthier regions to resist net outflows of resources in the context of territorial redistribution thereby increasing disparities (Rodríguez-Pose and Ezcurra 2010). Moreover, in decentralized contexts where the scope for redistribution by the central government is more limited, richer regions with a larger tax-base can finance local public goods at lower tax rates (or finance more public goods with similar rates), something which may lead them to attract resources away from poor regions thereby increasing regional disparities (Prud'homme 1995; Keen and Marchand 1997; Oates 1999).

Another important argument, and one that will focus on in this paper, is that fiscal decentralization may worsen the governance problems of sub-central governments thereby reducing or eliminating the expected benefits of decentralization (Martinez-Vazquez and McNab 2003). Specifically, problems of corruption and administrative quality may worsen when assigning more resources to lower levels of government, because of the intimacy and frequency of interaction and greater discretion on the part of local governments, because national office being more prestigious and powerful it will be more intensely monitored and will tend to attract more qualified people, or because sub-national level interest groups find it easier to overcome free-rider problems (Prud'homme 1995; Bardhan and Mookherjee 2000; Bardhan 2002). Moreover, governments in regions where immobile factors are more numerous than mobile ones, or ones in regions that are uncompetitive for some structural reason, may give up on business friendly policies and dedicate themselves to predation instead (Rodden and Rose-Ackerman 1997; Cai and Treisman 2005).

Empirical work to date on the impact of fiscal decentralization on regional disparities can be divided into single country case studies of both developed and developing countries and cross-country studies either focused on developed countries or which include both developed and developing countries (see also, Lessmann 2012). In the context of country case studies, fiscal decentralization has been found to increase regional disparities in China (Kanbur and Zhang 2005; Qiao et al. 2008), the Philippines (Silva 2005) and Colombia (Bonet 2006), while it has reduced disparities in the USA (Akai and Hosio 2009) and Italy (Calamai 2009). Decentralization has also been seen to reduce disparities in a sample of European Union (Ezcurra and Pascual 2008) and OECD countries (Gil et al. 2004; Lessmann 2009). Finally, in more heterogeneous cross-country analyses, fiscal decentralization has been found to increase regional disparities in poorer countries while in richer countries it is either neutral or it tends to reduce disparities (Rodríguez-Pose and Ezcurra 2010; Lessmann 2012). Therefore, the empirical evidence suggests that fiscal decentralization contributes towards regional convergence in high income countries while it tends to increase disparities in poor countries.

The differential effect of fiscal decentralization in rich and poor countries has been partly attributed by some scholars to differences in institutional constraints. For example, Rodríguez-Pose and Ezcurra (2010, p. 624) state that: 'while many of the assumptions that link decentralization to greater territorial inequality may be valid for poorer countries with high existing territorial disparities and weak institutions, this may not be the case in richer, more equal, and more institutionally developed environments'. Lessmann (2012, p. 1382) puts it more strongly when he points to the expectation of 'different effects of decentralization on regional inequality in developing or emerging economies in contrast to highly developed countries. The reason is that the efficiency enhancing effects, which may contribute to regional convergence, are more likely to occur in highly developed countries, due to a better institutional environment'.¹

¹ Some of the country case studies have also pointed to the crucial role played by institutions. Bonet (2006) identifies the lack of institutional capacity at sub-national levels as one reason why fiscal decentralization may have widened regional disparities in Colombia. Calamai (2009) explains that fiscal decentralization in Italy led to convergence in those less advantaged regions with better social capital which he argues is a proxy of institutional performance or quality.

This institutional emphasis is not surprising considering the fundamental role played by institutional quality when explaining the growth prospects of both countries (Acemoglu et al. 2005), and regions (Tabellini 2010; Rodríguez-Pose 2013). Indeed, it has been argued that institutions are the fundamental cause of economic development in the long run, trumping both the effects of geography and economic integration (Rodrik et al. 2004). Because of the potential ‘primacy’ of institutions in explaining cross-country differences in economic development, numerous authors have tried to identify which factors may contribute towards institutional quality or governance. Explanations include initial conditions framed by climate and factor endowments, contemporary economic factors such as interpersonal income inequalities and the level of development itself, and cultural variables linked mostly to religion (for reviews see, Lamsdorff 2007; Acemoglu and Robinson 2012).

Despite the potentially crucial impact of institutional quality on the relationship between fiscal decentralization and regional disparities however, this impact has not been explored directly in empirical work. This is our objective in this study. In particular we will examine the extent to which cross-country differences in government quality mediate how fiscal decentralization affects regional disparities. In light of the literature reviewed, we would expect that in countries with poorer overall government quality, the efficiency gains from decentralization will tend to be overshadowed by the potential costs. Or, in other words, the governance problems identified by previous literature which may occur in decentralized settings are likely to emerge more forcefully in countries with generally poor quality institutions.²

3 Measuring the key variables

In this section we review the indicators employed to measure regional disparities, fiscal decentralization and government quality. We construct an unbalanced panel of 24 OECD countries over the period 1984 to 2006, basing our selection of countries and time period on the availability, frequency and quality of the data corresponding to these indicators.³

In order to measure regional disparities within countries, we use the population-weighted coefficient of variation (PW-CV), which is a measure typically used in the literature focused on regional disparities that is independent of the scale, population size and number of regions considered, and moreover satisfies the Pigou-Dalton principle (Cowell 1995; See also Williamson 1965; Ezcurra and Pascual 2008; Lessmann 2009; Rodríguez-Pose and Ezcurra 2010). Specifically:

$$\text{PW-CV} = \frac{1}{\bar{y}} \left[\sum_{i=1}^n p_i (\bar{y} - y_i)^2 \right]^{1/2},$$

where \bar{y} is the average country GDP *per capita*, y_i and p_i are, respectively, the GDP *per capita* and population share of region i and n is the number of regions.⁴ The PW-CV basically reflects disparities between a country’s regions, taking into consideration their relative population weights. It ranges between 0 (equality) and 1 (maximum disparities). According to this indicator, regional disparities are especially high in Mexico while they are lowest in the Netherlands

² Our approach here is in line with work which has considered how institutional quality affects how the European Union structural funds impact on GDP growth or FDI flows across member states (Beugelsdijk and Eijffinger 2005; Ederveen et al. 2006; Katsaitis and Doulos 2009).

³ See Table A1 for the list of countries included, Table A2 for the sources of all the data employed and Table A3 for the summary statistics in the Appendix.

⁴ All European regions are defined at the NUTS 2 level, except for Belgium, Germany, the Netherlands and the UK which are so at the NUTS 1 level. Australian regions are defined as states and territories; USA and Mexican regions are states, in Canada they are provinces and territories and in New Zealand they are the North and South Islands.

and Australia. On the other hand, the evolution through time seems to be very stable, except for the Eastern European countries where it has increased markedly over the time frame under examination (see Table A4 in the Appendix for country level data of the main variables).

To measure government quality we rely on a source which has been widely used in work exploring the causes and consequences of institutional quality (see, for example, Mauro 1995; La Porta et al. 1999; Adserà et al. 2003; Ederveen et al. 2006; Bähr 2008). Specifically we rely on the International Country Risk Guide (ICRG) database as developed by the Political Risk Services Group to assess the political, economic and financial risks across countries. The ICRG is based on the perceptions of a worldwide network of experts on a range of governance dimensions. It is important to note that these perceptions extend across state institutions and jurisdictions whether at the local, regional or central levels. As such they capture general or country-wide perceptions of government quality. The governance dimensions include corruption, law and order and bureaucratic quality. Corruption refers to the demand for bribes by political and administrative bodies as well as patronage, nepotism, job reservation, 'favours-for-favours', etc. The variable law and order assesses the strength and impartiality of the legal system as well as popular observance of the law. Bureaucratic quality refers to the strength, expertise, autonomy and recruitment and training mechanism of the civil service. Because the first two dimensions are measured on a scale from 0 to 6 while the last one does so from 0 to 4, we normalize each dimension between 0 and 1. The quality of government indicator used here is obtained by summing up these normalized values and thus, ranges from 0 to 3 where a higher number implies higher government quality. Using an aggregate indicator accounts for the possibility that each individual index may suffer a degree of measurement error (Mauro 1995). In our sample, government quality is low in Mexico and in Eastern and Southern Europe and high in the remaining countries.

The inter-jurisdictional competition literature emphasizes the importance of tying local expenditures to local revenues for the proper functioning of competition since vertical transfers may create incentives for local officials to ignore competitive pressures for better management (Qian and Weingast 1997; Qian and Rolands 1998; Oates 1999; Zhuravskaya 2000; Jin et al. 2005). With this in mind, we measure fiscal decentralization by way of subnational revenue as a percentage of consolidated general government revenue, after subtracting from state and local revenues, grants from other governments and based on the OECD General Government Accounts (see also, Kyriacou and Roca-Sagalés 2011). The most fiscally decentralized countries in our data set are the Canadian, Swiss and US federations while the least decentralized are the unitary states of Portugal and Greece. As was the case of our regional disparities measure, revenue decentralization is quite stable through the time period analysed, with the exception of Spain (where decentralization has increased significantly) and Norway (where it has fallen).

4 Empirical methodology

In line with our stated objective to consider how, if at all, government quality mediates the relationship between fiscal decentralization and regional disparities we estimate the following empirical model:

$$\text{Regional Disparities}_{it} = \alpha + \beta_1 \text{FD}_{it} + \beta_2 \text{GQ}_{it} + \beta_3 (\text{FD}_{it} * \text{GQ}_{it}) + \beta_4 X_{it} + \varepsilon_{it}, \quad (1)$$

where i refers to countries, t to years, α is a constant, FD is fiscal decentralization, GQ is government quality, X_{it} is a vector of control variables and ε_{it} is the error term. Given our discussion in Section 2 we would expect $\beta_3 < 0$, or in other words, that fiscal decentralization should reduce regional disparities in countries with better government quality.

Our vector of control variables contains real GDP *per capita*, public and private investment, current public spending, the degree of openness of the economy, human capital endowments, the presence of transition economies in our country sample and an indicator reflecting the presence of territorially segregated ethnic groups. Our choice of control variables is guided by the need to account for factors which may affect the relationship between fiscal decentralization and government quality on the one hand and regional disparities on the other and, consequently, whose omission might bias the estimated relationships between these three variables.

Thus, richer countries tend to have better government quality since economic development makes better quality institutions more affordable (Islam and Montenegro 2002), and will tend to create a demand for better government (La Porta et al. 1999), probably because of income's positive effect on education, literacy and depersonalized relationships (Treisman 2000). Wealthier countries are also likely to have a greater scope for redistributive policies aimed at reducing regional disparities (Lessmann 2009). Several authors have, moreover, reported empirical evidence indicating that wealthier countries tend to be more decentralized perhaps because decentralization is a normal good (Panizza 1999; Arzaghi and Henderson 2005).

We further control for the size of the public sector since countries with larger state sectors may be better endowed to address regional inequalities (Rodríguez-Pose and Ezcurra 2010). A larger public sector implies greater corruption due to the greater possibility for rents (Tanzi 1998). Or it could be that governments that are better endowed may perform better (Montinola and Jackman 2002). We employ two indicators which, taken together, reflect public sector size. First, current public spending as a share of real GDP and second, public investment as a percentage of GDP, especially since this has typically been aimed towards improving the productive capacity of less developed regions. It should be noted that, in the case of the European Union countries in our sample, the public investment variable also includes the Union's Structural Funds, which have been found to reduce regional disparities by previous works (see, Ezcurra and Pascual 2008; Kyriacou and Roca-Sagalés 2012). We also control for private investment since numerous empirical studies have shown that it has a positive and significant influence on growth performance (see, Voitchovsky 2005 and Lin et al. 2009 among others).

Regional disparities are likely to be affected by growing economic globalization. Rodríguez-Pose and Gill (2006) present a range of theoretical arguments from both the new economic geography and the Heckscher-Ohlin framework for why increasing trade or economic integration may either reduce or increase regional disparities. The empirical evidence is suggestive of a positive relationship between these variables (Giannetti 2002; Petrakos et al. 2005; Rodríguez-Pose 2012). Moreover, countries which are more integrated to the world economy may have better governments basically because they are subject to stronger competitive pressures (Ales and Di Tella 1999; Ezcurra 2012). Lastly, to the extent that it increases the economic viability of smaller states, globalization may generate secessionist pressures within countries and, consequently, open the way towards more decentralization (Alesina and Spolaore 2003).

Another factor which may influence the relationship between fiscal decentralization, government quality and regional disparities are human capital endowments. Human capital is a significant factor explaining economic growth at the national level (Mankiw et al. 1992; Barro 2001). Typically, human capital has been measured by way of quantitative indicators of education. For our purposes here, to control for the impact of human capital on regional disparities, we ideally need a measure of the former which accounts for regional differences in human capital endowments across countries. In the absence of such a measure, we turn to Barro and Lee (2001) who provide an indicator defined as the average years of schooling of the population aged 25 and over.

We further control for whether a country was a member of the Soviet Union. La Porta et al. (1999) have argued that a country's legal tradition is an indicator of the power of the state relative to property owners, with common law systems tilting the balance in favour of the latter and socialist law systems favouring the former to the detriment of efficient government.

Moreover, the transition from socialism to capitalism may have increased regional disparities because it seems to have benefited capital cities and major urban areas while harming agricultural and manufacturing regions (Petraikos 2001; Rodríguez-Pose and Ezcurra 2010).

The relationship between government quality, fiscal decentralization and regional inequalities may also be influenced by ethnic segregation. Alesina et al. (1999) have shown that ethnic heterogeneity reduces agreement over public policies something which eventually, reduces public good provision. It could be that ethnically segregated societies have greater difficulties in agreeing on inter-territorial redistribution, something which is likely to increase regional disparities (see also, Kyriacou and Roca-Sagalés 2012). More ethnically segregated countries are also likely to be more decentralized ones because of stronger demands for self-government from ethnically distinct regions (Panizza 1999; Alesina and Spolaore 2003; Arzaghi and Henderson 2005). We measure ethnic segregation by way of Alesina and Zhuravskaya (2011): they propose a continuous variable which ranges from a value of 1, if a country's regions are inhabited by different ethnic groups (and therefore each region is fully homogeneous), and a value of 0 if each region has the same ethnic composition as the country as a whole.⁵

We employ a feasible general least squares (FGLS) estimator. This is asymptotically more efficient than the pooled ordinary least squares (OLS) estimator when the series exhibit heteroscedasticity (Wooldridge 2010). We use period seemingly unrelated regression (SUR) weights that correct for both period heteroscedasticity and serial correlation within a given cross-section (Parks 1967). Neither fixed nor random effects models are appropriate. Fixed effects models rely exclusively on the time variation within each cross-section unit, something which is limited in two of our key variables, namely, regional inequality and, especially, fiscal decentralization (see Table A3 in the Appendix). On the other hand, using random effects would imply that our sample is a random one from a large population, something which obviously is not the case since our cross-section units are a group of OECD countries (Hsiao 2003).

One further methodological issue is the presence of reverse causality. This can emerge in several ways in our study and, to the extent that it does, it can bias the estimated impact of our key explanatory variables. First, it could be the case that in countries with more significant regional disparities, there could be pressure towards greater centralization with a view towards strengthening the redistributive capacity of the central government, or alternatively, more decentralization if this is perceived to contribute towards regional convergence (Lessmann 2012). Second, significant regional disparities may also lead to redistributive conflicts over the territorial distribution of resources which may crowd out policies aiming towards better or more efficient government at both central and sub-central levels (Kyriacou and Roca-Sagalés forthcoming).

To deal with reverse causality we take several approaches. First, we apply an instrumental variables technique based on two stage FGLS employing lagged values of our endogenous variables as instruments (see also, Lessmann 2009; Rodríguez Pose and Ezcurra 2010). Second, we use a system generalized method of moments (GMM) estimator suggested by Arellano and Bover (1995) and Blundell and Bond (1998). This estimator is particularly useful in our context since it preserves the information which comes from the cross-country dimension of the data. This information would be lost if we employed the first difference GMM estimator (Arellano and Bond 1991) which exploits the within variation in the data and, as such, is not appropriate when variables are highly persistent as is the case for our measures of regional disparities and fiscal decentralization. The limited within variation will tend to increase the measurement error bias by increasing the variance of the measurement error relative to the variance of the true signal (Griliches and Hausman 1986). In fact, in Monte Carlo simulations Blundell and Bond (1998) have shown that the system GMM estimator performs better than the first difference estimator

⁵ This indicator is, in fact, a squared coefficient of variation and it gives higher weight to the deviation of group composition from the national average in more populous regions than in less populous ones.

when variables are persistent. By adding the original equation in levels (with lagged first-differences as instruments) to a system of equations that also include equations in first differences (with lagged levels as instruments), the system GMM estimator makes use of the cross section dimension of the data and has the added advantage of controlling for country specific effects.⁶

5 Results

We present our main regression results in Table 1. The first three columns represent estimates based on annual data while the last three employ four year averages in an effort to reduce short-run fluctuations and therefore the influence of the business cycle, allowing us to focus on the structural relationship (see also, Lessmann 2009, 2012). Reassuringly, the impact of our control variables on regional disparities is mostly in line with previous empirical work. Wealthier countries tend to have lower regional disparities as we measure them in this paper. We also find that public investment reduces regional disparities in line with the expectation that governments may aim such investment towards the reduction of such disparities. On the other hand, openness is always associated with greater regional disparities, as again found in previous empirical work. Moreover, human capital tends to increase regional disparities although this result has to be taken with caution given the fact that our indicator of human capital is only a proxy. The positive impact of the transition economy dummy variable is in line with previously cited work which has reported

Table 1. Regional disparities, fiscal decentralization and governance (1984–2006)

Dependent variable: regional disparities	Annual data			Four year averages		
	(1)	(2)	(3)	(4)	(5)	(6)
Log of GDP <i>per capita</i>	-0.116 (0.016)***	-0.115 (0.014)***	-0.123 (0.014)***	-0.153 (0.031)***	-0.150 (0.027)***	-0.156 (0.026)***
Private investment	-0.103 (0.052)**	-0.116 (0.052)**	-0.097 (0.052)*	-0.001 (0.167)	-0.079 (0.151)	-0.048 (0.145)
Current public spending	-0.255 (0.068)***	-0.074 (0.068)	-0.048 (0.069)	-0.273 (0.186)	-0.063 (0.166)	-0.026 (0.163)
Public investment	-1.034 (0.203)***	-1.095 (0.194)***	-0.946 (0.196)***	-2.258 (0.700)***	-1.655 (0.635)***	-1.522 (0.620)**
Openness	0.048 (0.018)***	0.086 (0.018)***	0.088 (0.019)***	0.110 (0.049)**	0.120 (0.043)***	0.120 (0.043)***
Human capital	0.028 (0.004)***	0.031 (0.004)***	0.030 (0.004)***	0.031 (0.012)***	0.039 (0.011)***	0.038 (0.010)***
Dummy for transition economies	0.149 (0.018)***	0.096 (0.015)***	0.091 (0.015)***	0.103 (0.039)***	0.063 (0.034)*	0.054 (0.034)
Ethnic segregation	0.499 (0.069)***	0.473 (0.070)***	0.443 (0.073)***	0.660 (0.169)***	0.552 (0.147)***	0.446 (0.156)***
Fiscal decentralization (FD)	-0.169 (0.034)***	-0.081 (0.034)**	0.637 (0.188)***	-0.123 (0.089)	-0.056 (0.077)	0.918 (0.434)**
Government quality		-0.109 (0.007)***	-0.061 (0.015)***		-0.123 (0.018)***	-0.060 (0.033)*
FD × government quality			-0.257 (0.070)***			-0.356 (0.158)**
Adjusted R ²	0.61	0.71	0.71	0.50	0.65	0.66
Observations	418	418	418	123	123	123

Notes: Standard errors in parentheses. *, **, *** measures statistical significance at the 10, 5 and 1% levels respectively. All regressions report FGLS using Period SUR weights and include a constant (not shown).

⁶ For the use of system GMM estimators in similar settings, see Voitchovsky (2005) and Castelló-Climent (2010).

growing regional disparities during the transition process. The positive coefficient of ethnic segregation also confirms the expectation that in societies with territorially separated ethnic groups it may be more difficult to adopt policies aimed at reducing regional disparities. Both current public spending and private investment tend to reduce regional disparities but these results, especially in the case of the former, are not always statistically significant.

We now turn to the estimated impact of our key variables namely, fiscal decentralization, government quality and, especially, their combined effect. Our results suggest that fiscal decentralization tends to reduce regional disparities but this relationship is statistically significant with annual data (Table 1; column 1) and not so with four year averages (column 4). When we introduce institutional quality in the empirical model (columns 2 and 5) we find it to be negatively related with regional disparities at the 1 per cent level, suggesting that better quality governments may be more effective in promoting regional convergence. Interestingly, the inclusion of government quality significantly reduces the point estimate of fiscal decentralization raising the possibility that previous estimates of the impact of fiscal decentralization on regional disparities without regards to the quality of government may suffer a degree of omitted variable bias. The role of institutional quality becomes clearer when it is interacted with fiscal decentralization (columns 3 and 6). Recall, that we posit that governance problems related to fiscal decentralization are likely to be worse in countries with poorer government quality, potentially overshadowing the efficiency gains expected from decentralization in relation to regional convergence. This expectation is supported by the fact that the interaction term between fiscal decentralization is always negative and statistically significant.⁷

Table 2 presents our regression results when dealing with reverse causality. The first three columns apply two stage FGLS using one and four year lagged values of fiscal decentralization and government quality as instruments as well as instrumenting with the initial value of these variables in those regressions employing four year averages. The last three columns apply System GMM and employ the same instruments.⁸ The results overwhelmingly confirm those reported in Table 1. Fiscal decentralization has a positive and significant impact on regional convergence in the presence of government quality. In general our estimates show that fiscal decentralization will reduce regional disparities in high government quality countries: the cut-off value of government quality which changes the sign of the impact of fiscal decentralization on regional disparities in our regressions ranges from 2.4 and 2.6.⁹

In an effort to facilitate the interpretation of the mediating role of government quality on the relationship between fiscal decentralization and regional disparities, Figure 1 plots the marginal effect of fiscal decentralization on regional inequality against the quality of government taking 95 per cent confidence intervals (based on column 4 of Table 2). It shows that as government quality deteriorates below 2.4 according to the ICRG measure, the marginal effect of fiscal decentralization on disparities is positive and increasing, pointing to the possibility that governance problems associated with fiscal decentralization tend to eliminate the expected efficiency benefits to the detriment of regional convergence. The marginal effect becomes negative above this value suggesting that the efficiency benefits of fiscal decentralization are more likely to emerge in high quality institutional environments. In our sample of 24 OECD countries over a 22 year period starting in 1984 this is always the case for Australia, Austria,

⁷ The positive and significant coefficient of fiscal decentralization in columns 3 and 6 should not be interpreted in isolation. Rather, it should be considered jointly with the interaction term. For details on the mechanics and interpretation of interaction models see Brambor et al. (2006) and footnote 11 below.

⁸ The results are maintained when taking two or three period lags. The use of longer lags reduces any correlation between the instrument and the disturbances but it can also, potentially, weaken our instruments (Murray 2006). The strength of longer lags is confirmed by the first stage regressions. Moreover, regarding the estimates using system GMM, the Sargan and Hansen tests detect no problems regarding instrument validity.

⁹ The cut-off value is obtained by differentiating the regressions containing the interaction term with respect to fiscal decentralization.

Table 2. Regional disparities, fiscal decentralization and governance (1984–2006): Reverse causality

Dependent variable: regional disparities	TS-FGLS				SYS-GMM			
	Annual		Four year averages		Annual		Four year averages	
	One year Lags	Four year Lags	Initial values	Initial values	One year Lags	Four year Lags	Initial values	Initial values
	(1)	(2)	(3)	(3)	(4)	(5)	(5)	(6)
Log of GDP <i>per capita</i>	-0.129 (0.020)***	-0.102 (0.026)***	-0.150 (0.026)***	-0.150 (0.026)***	-0.079 (0.004)***	-0.083 (0.005)***	-0.083 (0.005)***	-0.091 (0.013)***
Private investment	-0.090 (0.058)	-0.187 (0.073)**	0.048 (0.141)	0.048 (0.141)	-0.202 (0.027)***	-0.003 (0.001)***	-0.003 (0.001)***	-0.151 (0.070)***
Current public spending	0.033 (0.088)	0.262 (0.107)**	0.013 (0.165)	0.013 (0.165)	0.148 (0.021)***	0.176 (0.021)***	0.176 (0.021)***	0.070 (0.052)
Public investment	-0.980 (0.231)***	-0.712 (0.266)***	-1.419 (0.578)**	-1.419 (0.578)**	-1.719 (0.100)***	-1.015 (0.108)***	-1.015 (0.108)***	-1.656 (0.246)***
Openness	0.101 (0.020)***	0.123 (0.026)***	0.119 (0.042)***	0.119 (0.042)***	0.100 (0.004)***	0.112 (0.004)***	0.112 (0.004)***	0.112 (0.011)***
Human capital	0.030 (0.006)***	0.020 (0.006)***	0.038 (0.010)***	0.038 (0.010)***	0.007 (0.001)***	0.033 (0.001)***	0.033 (0.001)***	0.033 (0.004)***
Dummy for transition economies	0.074 (0.018)***	0.071 (0.021)***	0.056 (0.033)*	0.056 (0.033)*	0.104 (0.004)***	0.109 (0.004)***	0.109 (0.004)***	0.097 (0.010)***
Ethnic segregation	0.338 (0.089)***	0.267 (0.131)***	0.448 (0.157)***	0.448 (0.157)***	0.467 (0.014)***	0.459 (0.014)***	0.459 (0.014)***	0.417 (0.034)***
Fiscal decentralization (FD)	1.267 (0.436)***	1.472 (0.755)***	0.998 (0.505)**	0.998 (0.505)**	0.727 (0.062)***	1.007 (0.064)***	1.007 (0.064)***	1.021 (0.188)***
Government quality	-0.035 (0.046)	-0.087 (0.050)	-0.058 (0.039)	-0.058 (0.039)	-0.103 (0.005)***	-0.092 (0.005)***	-0.092 (0.005)***	-0.072 (0.016)***
FD × government quality	-0.476 (0.163)***	-0.500 (0.271)***	-0.392 (0.183)**	-0.392 (0.183)**	-0.305 (0.022)***	-0.396 (0.023)***	-0.396 (0.023)***	-0.408 (0.066)***
Adjusted R ²	0.63	0.62	0.69	0.69	–	–	–	–
Sargan test	–	–	–	–	0.170	0.446	0.446	0.246
Hansen test	–	–	–	–	0.152	0.346	0.346	0.652
Observations	401	350	121	121	401	350	350	121

Notes: Standard errors in parentheses. *, **, *** measures statistical significance at the 10, 5 and 1% levels respectively. Regressions (1) to (3) use Period SUR weights. All regressions include a constant (not shown).

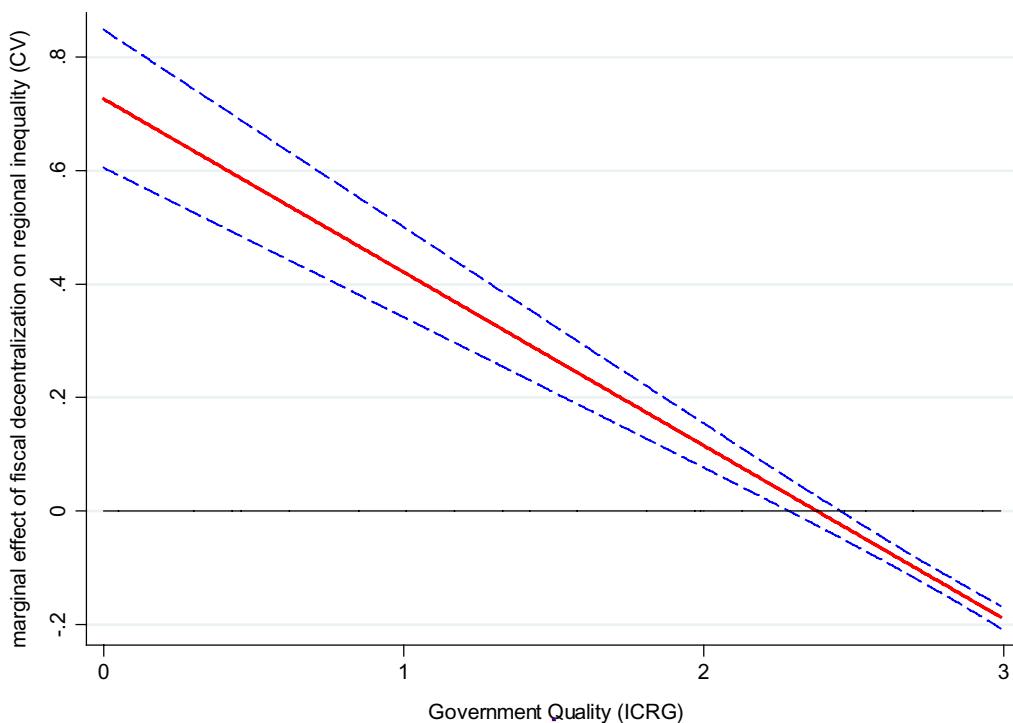


Fig. 1. Marginal effect of fiscal decentralization on regional disparities in the presence of government quality

Belgium, Canada, Denmark, Finland, Germany, the Netherlands, New Zealand, Norway, Sweden, Switzerland, the UK and the US. Alternatively, in the Mediterranean and Eastern European countries in our sample, and especially in Mexico, fiscal decentralization is likely to increase regional disparities. In sum, our results suggest that fiscal decentralization may increase regional disparities in low government quality settings, while it will tend to reduce regional income differences in countries with good governance.

6 Robustness analysis

In this section we examine the statistical robustness of our findings. First, in order to fathom whether the results are being driven by one particular country in our sample, we repeat our regressions after removing each of the 24 countries one at a time for the whole sample. The results are stable, indicating that no single country is driving them, and confirm the importance of institutional quality when estimating the impact of fiscal decentralization on regional disparities.¹⁰

An additional issue concerns that empirical evidence that suggests the differential impact of fiscal decentralization in rich and poor countries (Rodríguez-Pose and Ezcurra 2010; Lessmann 2012). Recall that these contributions find that fiscal decentralization tends to increase regional disparities in poor countries while in wealthy ones it either reduces disparities or it has no effect. And because wealthier countries tend to have better quality institutions, these scholars make the untested claim that an important factor driving their results is probably institutional quality, something which is supported by our empirical evidence. But it could be that their results are driven by other factors which are closely related to income but unrelated to government quality.

¹⁰ These and other results mentioned in the paper but not shown are, of course, available upon request.

In an effort to account for the possibility that the differential impact of fiscal decentralization on disparities in rich and poor countries may be driven by other factors beyond institutional quality, we now add in our regressions an interaction term between fiscal decentralization and GDP *per capita*.

The results in Table 3 tend to support the suggestion that institutional quality is driving differences of the effect of fiscal decentralization in rich versus poor countries. In columns 1 and 5 of the table we report the regression results when no direct measure of institutional quality is considered. Then, in columns 2 and 6 we explore how the impact of fiscal decentralization is conditioned by GDP *per capita* and find, in line with previous results, that the interaction terms are negative and statistically significant suggesting the relevance of income when explaining the effects of fiscal decentralization on regional disparities. The results change considerably when we, moreover, control for government quality: the conditional effect of decentralization *vis-à-vis* GDP is no longer significant when we employ annual data (column 3), and it is barely significant when we use four year averages (column 7). This result is reinforced when we, additionally, control for the conditional effect of fiscal decentralization *vis-à-vis* government quality. While this latter effect is negative and statistically significant at either the 1 or 5 per cent levels, the interaction term between fiscal decentralization and GDP *per capita* is no longer statistically robust (see columns 4 and 8).

As can be appreciated in Table 4, this finding is robust when estimating instead by way of TS-FGLS and System-GMM and instrumenting fiscal decentralization and government quality through one and four year lags when employing annual data, and initial period values when using four year averages. Taken together, these results point towards the important influence of institutional quality on the relationship between fiscal decentralization and regional disparities.

Before concluding this article, a point about sample composition is in order. Admittedly, the fact that our sample size is limited to middle and high income OECD countries probably reduces the robustness of the interaction term (between fiscal decentralization and GDP *per capita*) in our estimates. On the other hand, this term is still statistically significant at the 10 per cent level (in regressions 2 and 6 of Table 3), which reflects a degree of variation in income levels across countries in our sample (from as low as US\$6,769 in Mexico in 1984 to US\$49,747 in Norway in 2006). We suspect that widening the sample to include more developing countries will tend to increase the statistical robustness of the interaction in the absence of government quality. On the other hand, a wider sample is also likely to increase the variance of the government quality indicator so it is not clear if our findings here will change.

7 Conclusion

In this paper we have examined the extent to which institutional quality influences the effect of fiscal decentralization on regional disparities. While there is an expectation that fiscal decentralization may contribute towards the reduction of regional disparities because it empowers better-informed sub-central governments and foments inter-jurisdictional competition, scholars have pointed to the danger that convergence may not materialize because of governance problems at lower levels of government.

We explore how governance mediates the relationship between fiscal decentralization and regional disparities in a sample of OECD countries over a period starting in 1984 and ending in 2006. We exploit the intuition that the governance problems related to decentralization, are likely to be worse in countries with lower overall government quality. Thus, we include a measure of governance in regressions of regional disparities on fiscal decentralization and interact this measure with fiscal decentralization to consider the mediating effect of governance. At one, more general, level we find that controlling for government quality reduces the economic impact of

Table 3. Regional disparities, fiscal decentralization and governance (1984–2006): Robustness

Dependent variable: regional disparities	Annual data				Four year averages			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log of GDP per capita	-0.116 (0.016)***	-0.087 (0.024)***	-0.089 (0.022)***	-0.103 (0.022)***	-0.153 (0.031)***	-0.095 (0.048)*	-0.094 (0.044)**	-0.109 (0.043)**
Private investment	-0.103 (0.052)**	-0.088 (0.052)*	-0.107 (0.053)**	-0.098 (0.052)*	-0.001 (0.167)	0.001 (0.002)	-0.020 (0.154)	-0.001 (0.001)
Current public spending	-0.255 (0.068)***	-0.301 (0.070)***	-0.111 (0.069)	-0.071 (0.070)	-0.273 (0.186)	-0.323 (0.187)*	-0.104 (0.168)	-0.059 (0.165)
Public investment	-1.034 (0.203)***	-1.044 (0.200)***	-1.081 (0.195)***	-0.959 (0.196)***	-2.258 (0.700)***	-2.089 (0.695)***	-1.537 (0.629)**	-1.433 (0.620)**
Openness	0.048 (0.018)***	0.044 (0.017)**	0.082 (0.019)***	0.085 (0.019)***	0.110 (0.049)**	0.107 (0.050)**	0.111 (0.044)**	0.113 (0.044)**
Human capital	0.028 (0.004)***	0.029 (0.004)***	0.032 (0.004)***	0.031 (0.004)***	0.031 (0.012)***	0.036 (0.012)***	0.042 (0.011)***	0.041 (0.010)***
Dummy for transition economies	0.149 (0.018)***	0.151 (0.019)***	0.101 (0.016)***	0.096 (0.016)***	0.103 (0.039)***	0.105 (0.040)***	0.068 (0.035)*	0.061 (0.034)*
Ethnic segregation	0.499 (0.069)***	0.486 (0.071)***	0.468 (0.071)***	0.442 (0.073)***	0.660 (0.169)***	0.652 (0.174)***	0.524 (0.150)***	0.436 (0.157)***
Fiscal decentralization (FD)	-0.169 (0.034)***	1.588 (1.018)	1.505 (0.976)	1.774 (0.968)*	-0.123 (0.089)	3.546 (2.106)*	3.114 (1.891)	3.348 (1.876)*
FD × log of GDP per capita		-0.171 (0.100)*	-0.154 (0.095)	-0.117 (0.096)		-0.359 (0.206)*	-0.310 (0.184)*	-0.248 (0.184)
Government quality			-0.106 (0.007)***	-0.064 (0.015)***			-0.122 (0.018)***	-0.065 (0.033)*
FD × government quality				-0.233 (0.071)***				-0.317 (0.160)**
Adjusted R ²	0.61	0.60	0.70	0.70	0.50	0.51	0.66	0.67
Observations	418	418	418	418	123	123	123	123

Notes: Standard errors in parentheses. *, **, *** measures statistical significance at the 10, 5 and 1% levels respectively. All regressions report FGLS using Period SUR weights and include a constant (not shown).

Table 4 Regional disparities, fiscal decentralization and governance (1984–2006): Robustness

Dependent variable: regional disparities	TS–FGLS				SYS–GMM			
	Annual		Four year averages		Annual		Four year averages	
	One year Lags	Four year Lags	Initial values	Initial values	One year Lags	Four year Lags	Initial values	Initial values
	(1)	(2)	(3)	(3)	(4)	(5)	(6)	(6)
Instrumenting FD and government quality with								
Log of GDP <i>per capita</i>	-0.114 (0.031)***	-0.054 (0.046)	-0.111 (0.043)***	-0.111 (0.043)***	-0.0780 (0.007)***	-0.068 (0.008)***	-0.085 (0.018)***	-0.085 (0.018)***
Private investment	-0.093 (0.056)*	-0.207 (0.074)***	0.019 (0.142)	0.019 (0.142)	-0.206 (0.027)***	-0.003 (0.000)***	-0.151 (0.070)**	-0.151 (0.070)**
Current public spending	0.011 (0.105)	0.206 (0.111)*	0.015 (0.167)	0.015 (0.167)	0.177 (0.023)***	0.178 (0.023)***	0.061 (0.057)	0.061 (0.057)
Public investment	-0.975 (0.234)***	-0.696 (0.267)***	-1.351 (0.578)**	-1.351 (0.578)**	-1.761 (0.100)***	-1.003 (0.107)***	-1.663 (0.246)***	-1.663 (0.246)***
Openness	0.099 (0.021)***	0.117 (0.026)***	0.114 (0.042)***	0.114 (0.042)***	0.107 (0.004)***	0.117 (0.004)***	0.111 (0.011)***	0.111 (0.011)***
Human capital	0.030 (0.006)***	0.021 (0.006)***	0.039 (0.009)***	0.039 (0.009)***	0.034 (0.001)***	0.032 (0.001)***	0.035 (0.004)***	0.035 (0.004)***
Dummy for transition economies	0.077 (0.019)***	0.084 (0.024)***	0.062 (0.033)*	0.062 (0.033)*	0.102 (0.004)***	0.105 (0.004)***	0.098 (0.010)***	0.098 (0.010)***
Ethnic segregation	0.336 (0.088)***	0.294 (0.129)**	0.428 (0.157)***	0.428 (0.157)***	0.462 (0.013)***	0.447 (0.014)***	0.417 (0.034)***	0.417 (0.034)***
Fiscal decentralization (FD)	2.044 (1.914)	3.670 (1.930)**	3.093 (1.875)*	3.093 (1.875)*	0.689 (0.286)***	1.757 (0.316)***	1.272 (0.692)***	1.272 (0.692)***
Government quality	-0.037 (0.046)	-0.101 (0.050)**	-0.055 (0.039)	-0.055 (0.039)	-0.107 (0.005)***	-0.097 (0.005)***	-0.073 (0.016)***	-0.073 (0.016)***
FD × government quality	-0.462 (0.161)***	-0.401 (0.267)*	-0.392 (0.182)**	-0.392 (0.182)**	-0.306 (0.023)***	-0.370 (0.022)***	-0.393 (0.070)***	-0.393 (0.070)***
FD × log of GDP <i>per capita</i>	-0.080 (0.176)	-0.239 (0.178)	-0.204 (0.181)	-0.204 (0.181)	0.004 (0.029)	-0.078 (0.032)**	-0.028 (0.072)	-0.028 (0.072)
Adjusted R ²	0.62	0.62	0.70	0.70	–	–	–	–
Sargan test	–	–	–	–	0.210	0.140	0.201	0.201
Hansen test	–	–	–	–	0.350	0.340	0.521	0.521
Observations	401	350	121	121	401	350	121	121

Notes: Standard errors in parentheses. *, **, *** measures statistical significance at the 10, 5 and 1% levels respectively. Regressions (1) to (3) use Period SUR weights. All regressions include a constant (not shown).

fiscal decentralization on regional disparities, something which raises the possibility that previous empirical work which does not account for government quality may be plagued by omitted variable bias. At a more specific level, we find that fiscal decentralization will tend to widen regional disparities in countries with poor institutional quality, while decentralization reduces disparities in countries with high quality institutions. These results are robust to the introduction of a range of important covariates whose absence would otherwise bias our estimates. Moreover, our findings are maintained when we explicitly deal with the possibility of reverse causality.

Previous empirical work, has reported that fiscal decentralization tends to increase disparities in developing countries while it reduces them in developed ones. Because richer countries tend to have better quality governments, this has led some authors to suggest that the differences in government quality are driving the differential effect of decentralization in each setting. While we report empirical evidence which is suggestive of this, it is not conclusive since it is based on a sample of medium to high income OECD countries. Thus, an important avenue for future research is the extension of the sample to include low income countries. In relation to this, Rodríguez-Pose and Ezcurra's (2010) findings about the differential impact of fiscal decentralization on regional disparities in poor and rich countries are based on a panel of 19 developed and seven developing countries, while Lessmann's (2012) results on this same issue are drawn from a sample of up to 54 countries, around 20 of which could be classified as developing. Future work could reconsider how the results reported by these authors are affected by the inclusion of a measure of government quality in the regressions.

Another interesting line for future research is related to differences in government quality across government levels. Is there an important difference between the quality of government at central versus sub-central levels within countries? If this is the case, can this affect how fiscal decentralization impacts on regional disparities? A further issue relates to the phenomenon of asymmetric decentralization. The degree of decentralization may vary across the regions within a country, with some regions being assigned more fiscal capacity as well as competencies in specific policy areas (see, for example, Congleton et al. 2003). Does asymmetric decentralization affect regional disparities and, more specifically, what does it mean for the mediating role of government quality? Unfortunately, the unavailability of governance indicators which differentiate between the different governments levels within countries, and fiscal decentralization measures which capture the presence of asymmetric fiscal decentralization, means that we cannot pursue these questions at the present time.

From a policy perspective our empirical results have a clear implication. While countries may decentralize for any number of reasons, including the need to accommodate cultural diversity, to the extent that the driving force behind decentralization is the objective of regional convergence then caution is in order. Those countries which are endowed with good quality institutions are more able to harness the potential benefits from fiscal decentralization to the benefit of regional development. Alternatively, in countries which are plagued by poor governance, bestowing sub-national governments with greater fiscal capacity is likely to widen income differences between better off and worse off regions.

Appendix

Table A1. List of countries

Australia	Finland	Italy	Slovakia
Austria	France	Mexico	Spain
Belgium	Germany	the Netherlands	Sweden
Canada	Greece	New Zealand	Switzerland
Czech Republic	Hungary	Norway	United Kingdom
Denmark	Ireland	Portugal	the United States

Table A2. Data sources

Variable	Source	Comments
Regional disparities indicators	Cambridge Econometrics and national statistics (courtesy of A. Rodríguez-Pose)	Time varying (annual)
Fiscal decentralization	OECD General Government Accounts (courtesy of I. Sanz)	Time varying (annual)
International Country Risk Guide	Political Risk Services Group	Time varying (annual)
GDP <i>per capita</i>	Penn Tables	Time varying (annual)
Private investment	World Development Indicators (World Bank)	Time varying (annual)
Current public spending	IMF Government Finance Statistics	Time varying (annual)
Public investment	IMF Government Finance Statistics	Time varying (annual)
Trade openness	Penn Tables	Time varying (annual)
Human capital	Barro and Lee (2001)	Time varying (5 year periods)
Transition economies dummy	La Porta et al. (1999)	Time invariant

Notes: See main text for the definitions of the variables.

Table A3. Summary statistics

		Mean	Standard deviation	Minimum	Maximum	Observations
Regional disparities	Overall	0.2129	0.1009	0.0481	0.6035	n = 418
	Between		0.1230	0.0567	0.5868	n = 24
	Within		0.0252	0.0876	0.3345	T = 17.42
Fiscal decentralization (FD)	Overall	0.2225	0.1294	0.0321	0.5454	n = 418
	Between		0.1321	0.0348	0.5269	n = 24
	Within		0.0225	0.1446	0.3412	T = 17.42
Government quality	Overall	2.6292	0.3739	1.4166	3	n = 418
	Between		0.3925	1.5061	2.9938	n = 24
	Within		0.1587	2.0252	3.0802	T = 17.42
Log of GDP <i>per capita</i>	Overall	10.1430	0.3156	9.0617	10.7935	n = 418
	Between		0.3355	9.1576	10.5371	n = 24
	Within		0.1459	9.7033	10.6589	T = 17.42
Private investment	Overall	0.2113	0.3432	0.1514	0.3574	n = 418
	Between		0.2980	0.1761	0.2878	n = 24
	Within		0.2075	0.1624	0.2888	T = 17.42
Current public spending	Overall	0.1959	0.0394	0.0963	0.2880	n = 418
	Between		0.0425	0.1017	0.2688	n = 24
	Within		0.0115	0.1562	0.2370	T = 17.42
Public investment	Overall	0.0281	0.0084	0.0066	0.0604	n = 418
	Between		0.0070	0.0170	0.0423	n = 24
	Within		0.0052	0.0146	0.0507	T = 17.42
Openness	Overall	0.6456	0.3172	0.1418	1.7732	n = 418
	Between		0.3021	0.2066	1.3489	n = 24
	Within		0.1157	0.2206	1.1901	T = 17.32
Human capital	Overall	3.1121	1.0886	0.8670	5.0880	n = 418
	Between		1.0482	1.3420	4.8585	n = 24
	Within		0.3713	1.8352	4.0516	T = 17.42
Dummy for transition economies	Overall	0.0694	0.2544	0	1	n = 418
	Between		0.3378	0	1	n = 24
	Within		0	0.0694	0.0694	T = 17.42
Ethnic segregation	Overall	0.0411	0.0650	0.001	0.244	n = 418
	Between		0.0669	0.001	0.244	n = 24
	Within		0	0.411	0.0411	T = 17.42

Table A4. Panel data description

Code	Country	Annual Obs (4 year Obs)	Regional disparities			Quality of government			Fiscal decentralization		
			mean	max	min	mean	max	min	mean	max	min
1	Australia	16 (5)	0.0567	0.0692	0.0481	2.8164	2.8333	2.7500	0.3004	0.3260	0.2734
2	Austria	22 (6)	0.2325	0.2469	0.2119	2.7775	2.8472	2.6666	0.2678	0.2987	0.2245
3	Belgium	22 (6)	0.3619	0.3987	0.3398	2.6843	3.0000	2.3333	0.1197	0.1596	0.0736
4	Canada	16 (5)	0.1472	0.2100	0.1243	2.9379	2.6944	3.0000	0.5269	0.5454	0.5112
5	Czech Republic ^a	13 (4)	0.3268	0.4095	0.2016	2.2313	2.4166	2.0000	0.1757	0.2169	0.1394
6	Denmark	21 (6)	0.1387	0.1587	0.1222	2.9835	3.0000	2.9203	0.3260	0.3584	0.2950
7	Finland	22 (6)	0.1563	0.1802	0.1303	2.9938	2.9271	3.000	0.2628	0.2786	0.2466
8	France	22 (6)	0.2568	0.2723	0.2226	2.5533	3.000	2.000	0.1341	0.14700	0.1163
9	Germany	15 (5)	0.2133	0.3061	0.1963	2.7500	2.5000	3.0000	0.3353	0.3420	0.3252
10	Greece	17 (5)	0.1566	0.1753	0.1410	2.1323	2.5833	1.6666	0.0348	0.0379	0.0321
11	Hungary ^a	6 (3)	0.3895	0.4119	0.3735	2.1678	2.5417	1.9167	0.1432	0.1486	0.1384
12	Ireland	21 (6)	0.1634	0.1878	0.1253	2.5382	2.8333	2.3333	0.1227	0.1487	0.0986
13	Italy	22 (6)	0.2643	0.2726	0.2531	2.1734	2.4896	1.5694	0.1343	0.2083	0.0839
14	Mexico	8 (3)	0.5869	0.6035	0.5763	1.5061	1.6528	1.4166	0.2285	0.2503	0.2069
15	Netherlands	22 (6)	0.0973	0.1508	0.0762	2.9684	3.0000	2.8333	0.1204	0.1281	0.1132
16	New Zealand	4 (1)	0.0667	0.0765	0.0613	2.8784	2.9166	2.8333	0.0817	0.0838	0.0793
17	Norway	22 (6)	0.2113	0.2845	0.1295	2.8745	3.0000	2.8333	0.2247	0.2472	0.1779
18	Portugal	22 (6)	0.2832	0.4048	0.2390	2.2718	2.5139	1.9375	0.0905	0.1129	0.0578
19	Slovakia ^a	10 (3)	0.4349	0.4718	0.4068	2.0448	2.3750	1.8333	0.0898	0.1626	0.0532
20	Spain	17 (6)	0.2074	0.2304	0.1843	2.2338	2.5694	2.0833	0.2061	0.3249	0.1282
21	Sweden	19 (6)	0.1683	0.1992	0.1201	2.9729	3.0000	2.8333	0.3334	0.3573	0.3061
22	Switzerland	15 (5)	0.1668	0.1992	0.1497	2.8801	3.000	2.5833	0.4707	0.4853	0.4580
23	United Kingdom	22 (6)	0.1896	0.2149	0.1376	2.7567	2.9444	2.5555	0.1142	0.1534	0.0928
24	United States	22 (6)	0.1468	0.1951	0.1201	2.7557	2.9028	2.5000	0.4284	0.4634	0.4108

Notes: ^a Transition economy.

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Resumen. En este artículo consideramos cómo la calidad de la gobernanza interviene en la relación entre la descentralización fiscal y las disparidades regionales. Los estudios anteriores sostienen que la descentralización fiscal tiene el potencial de reducir las diferencias de ingresos entre regiones, pero que este potencial no se logra manifestar debido a problemas de gobernanza asociados con las autoridades subnacionales. Nuestras pruebas empíricas, con base en una muestra de 24 países de la OCDE durante el período 1984 a 2006 apoyan en cierta medida esta idea. Hallamos que la descentralización fiscal fomenta la convergencia regional en escenarios con una alta calidad de gobernanza, pero que, de forma preocupante, conduce a disparidades regionales más amplias en países con una pobre gobernanza.

要約: 本論文では、財政の分権化と地域間格差の關係に行政がどのように影響するかを検討する。従来の研究は、財政の分権化は地域間の所得格差を縮小させる可能性を持つものの、地方政府に関連する統治問題によりこの可能性が実現しないこともあるとしてきた。OECD24か国の1984年から2006年の期間を対象とした我々の実証分析は、この主張を支持するものである。優れた行政の下では財政分権化は地域間の収束を促進するが、行政レベルが低い国では結果的に地域の格差は拡大している。