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The Impact of Fiscal Decentralization: A Survey

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Abstract

In this paper we offer a comprehensive and updated review of the impact of fiscal decentralization on the economy, society and politics. We start with the examination of two crucial and yet unsolved issues in the literature on decentralization: its proper measurement and the potential endogeneity of fiscal decentralization with many of the variables of interest we are trying to investigate. Then we discuss the main findings in the existing literature on the effects of decentralization on a relevant list of socio-economic variables. The impact of fiscal decentralization reforms on political institutions is also considered. Complete answers to the many questions on the impact of fiscal decentralization are not likely to be certain but overall there are reasons to be optimistic about the overall positive impact of the decentralized systems that have been introduced all over the world in the past several decades. The survey offered in this paper by necessity has to be selective but it presents a balanced view of what is known and what is not yet known opening room for further research and practice on fiscal decentralization.

*JEL classification***:** H70, H72, H77

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INTRODUCTION

Over the last several decades many countries around the globe have devolved fiscal and political powers to sub-national governments. According to data gathered by Garman et al. (2001), more than 80% of the seventy-five developing countries analyzed had been undergoing some decentralization of authority by the beginning of the millennium. The picture is quite the same in developed countries. The index of regional authority computed by Hooghe et al. (2010) for 42 democracies and semi-democracies reveals that 70% of countries have decentralized since 1950.

Decentralization is motivated by quite different reasons. In the past several decades, a large number of unitary countries have sought decentralization as a means of searching for a more efficient and leaner public sector. Other countries became disenchanted with the performance of former planning and centralized policies. Indeed, fiscal decentralization deals with how the public sector is organized and how to create opportunities for higher growth and welfare. Decentralizing governance can restore confidence in public policies and provide a basis for broader policy consensus. There are often grassroots demands to achieve democratic ideals through decentralization. On the other hand, some decentralization movements are designed to contain centrifugal forces, ethnic conflicts, and/or separatist movements, and to smooth out social and political tensions by means of allowing more local autonomy. In some cases there may even be some political opportunism using decentralization for merely electoral objectives.

Since sub-national governments are now key actors in the delivery and provision of public goods and services to citizens all over the world, it has become increasingly important to know the impact of fiscal decentralization on the economy, the society and politics. The array of socio-economic issues is wide and it includes growth and development, reducing poverty and achieving the Millennium Development Goals (MDG), improving public sector efficiency and governance, or achieving greater macroeconomic stability and fiscal sustainability. The fundamental question is whether the ongoing decentralization trend is helping or hurting those important policy goals. Moreover, there are other key institutional and political aspects affected by fiscal decentralization and interacting with public choices that merit attention. The set of issues is again wide and diverse, including country unity and separatism, the level of corruption, accountability and political representation, and the nationalization of political party systems.

In this paper we offer a comprehensive review of what is known to date on the impact of fiscal decentralization. We begin with an examination of two crucial and yet unsolved issues in the literature on decentralization: first, its proper measurement; and second, its potential endogeneity with many of the effects of interest and the best way of dealing with this issue. In section three we review the main findings in the literature on the effects of decentralization on a relevant list of socio-economic variables. Political consequences are discussed in section four. Section five concludes.

2. ISSUES TO WORRY ABOUT: MEASURING DECENTRALIZATION AND ADDRESSING ENDOGENEITY

Decentralization implies the devolution of decision-making powers to subnational governments, as opposed to "deconcentration" where central government operations are decentralized, but there is no devolution of any decision-making powers. In addition, decentralization is a multifaceted phenomenon since it encompasses political, administrative, and fiscal dimensions that are implemented at varying extents on the vertical structure of governments also interacting with each other.[1]

Two basic issues continue to represent significant obstacles to analyzing the consequences of fiscal decentralization from an empirical standpoint. The first is how to measure it. Ideally, decentralization measures should take into account its multi-dimensional nature, including political and administrative aspects. But also looking at both sides of the budget (expenditure and tax decentralization) and the actual degree of autonomy given to sub-national governments over tax and spending decisions (Ebel and Yilmaz 2003; Stegarescu 2005). A case in point is that high sub-national revenue and spending shares do not necessarily involve high local autonomy. The second obstacle has to do with the problem of endogeneity. Because decentralization is contemporaneous to many other forces and processes, it is far from clear how to isolate its effect from these other phenomena and how to know whether decentralization is a cause or itself also an effect of the policies and institutional changes in which we are interested.

The debate surrounding the measurement of decentralization continues in both economics and political science literatures. Most of the good measures essentially boil down to a few concepts: locally raised own revenues, autonomy on expenditure decisions, locally spent national grants, or even number and size of local units. Differences in how it is defined and measured can result in widely differing values of the decentralization variable (Liu, Martinez-Vazquez and Timofeev, 2012; Voigt and Blume, 2012). In particular, some of the inconclusive results

[1] The traditional theory of fiscal federalism and intergovernmental fiscal relations draws heavily from the seminal contributions, among others, by Tiebout (1956), Musgrave (1959), Oates (1972) and Olson (1969). The goals of greater public sector efficiency attributed to devolution of tax and expenditure authority illustrate how the literature makes the economic case for decentralization. Viewing government as a benevolent agent, the well-known decentralization theorem by Oates states that in the presence of diverse preferences and needs, the provision of public services by a decentralized government structure is superior to the centralized provision and generally will lead to increased citizen welfare. Although this first-generation literature has been characterized as normative, it may also be described as making the economic case for fiscal federalism and it has inspired numerous decentralization reform projects around the world. An important extension of this literature is what has become known as "second-generation theory" of fiscal federalism, that brings a "public choice" perspective by assuming the presence of selfish public officials with their own agenda, as opposed to the benevolent public officials assumed in the first-generation theory. As an example, the market-preserving federalism focuses on incentives for government officials not to deviate from 'good behavior' and emphasizes the role of decentralization as a mechanism to control an expansionary public sector and to support private market activity (Weingast 1995, McKinnon 1997). More generally, the second generation literature depicts a world where political and fiscal institutions work under imperfect information and political agents have their own objective functions which are distinct from that of the "society" as a whole (Oates, 2005). The benefits and costs of decentralization are no longer limited to efficiency gains and losses in public good provision; the second-generation literature identifies other goals for decentralization, as well as tradeoffs involving the design of institutions, political incentives and rent seeking, and the generation of information (Weingast, 2009).

regarding the impact of fiscal decentralization on economic growth are due to disparities in the level of effective local autonomy that may be over or underestimated by the commonly used measures of fiscal decentralization (Gemmell, Kneller and Sanz, 2013). As a matter of fact, regression results from a cross-section study of high income OECD economies over the period 1980-2000 suggest that, when measured considering the true financial autonomy of sub-national governments, the impact of fiscal decentralization on economic growth is not statistically significant (Thornton 2007).

As a departure point, Rodden (2004) proposes a sound three-category classification of decentralization. First, fiscal decentralization captured by means of expenditure and revenue data. It has attracted most of the attention in empirical studies, also thanks to the availability of information on sub-national revenues and expenditures for many countries. Second, policy decentralization, focused on how and to what extent higher levels of government affect or override policy decisions of lower levels of government. Third, a political dimension for decentralization captured by the process by which the local officials assume their offices. However, this distinction is not so clear-cut in practice.[2] The different aspects of decentralization may interact with one another affecting the meaning and effectiveness of similar measures of decentralization. There are many real situations where facts prove this interaction. First, centrally determined standards of service and/or federal laws may considerably limit sub-national governments' discretion and autonomy. Second, delegating responsibility for tax collection may over-estimate the revenue autonomy of sub-national governments, if tax policy parameters such as tax bases and tax rates are defined by the central government. Third, even when on paper local authorities are given a lot of control over the local tax parameters and unconditional formula-based grants, if local officials are selected by the central/higher level government officials then it is highly unlikely that their behavior will reflect true local preferences. In fact, even when the local officials are locally elected, the drafting of the candidates for local elections by the political parties may exert a lot of influence over the independence of those officials (Rodden, 2004; Ponce-Rodríguez et al., 2012).[3]

Narrowing the focus to fiscal decentralization does not necessarily lead to less ambiguity on what is the relevant definition to be used. The specific focus of the inquiry necessarily influences the measurement of fiscal decentralization selected. For example, Neyapti (2010) and Rodden (2002) both addressed how fiscal decentralization affects governments' fiscal discipline. However, Rodden's interest was in the impact of vertical imbalances and sub-national borrowing

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[2] This distinction has been adopted in similar forms in several other studies. Schneider (2006) has condensed these dimensions in fiscal decentralization, administrative decentralization, and political decentralization. O'Dwyer and Ziblatt (2006) employ this framework to compare the effect of decentralization on the quality of government. They find that the different dimensions have different effects on the quality of government. However, interactions among the three dimensions are not explored.

[3] The political dimension of decentralization is usually measured by whether the constitution classifies a country as a federation or as a unitary state and by whether sub-national officials are elected (Treisman 2006; Fan et al., 2009). According to a theoretical standpoint, local public officials may not improve decentralization outcomes despite the need for some degree of political centralization (Riker 1964). Riker's hypotheses have been tested by Enikolopov and Zhuravskaya (2007) who show that fiscal decentralization produces better outcomes in countries with political centralization taking the form of strong national political parties. Their result is also consistent with the notion that fiscal decentralization and political centralization are integral parts of the system of checks and balances (Bardhan, 2002).

on sub-national budget deficits or surpluses. Therefore, his focus is on measuring vertical imbalances (roughly defined as the share of grants over revenues). Instead Neyapti's (2010) study focuses on the degree of expenditure and revenue decentralization defined as shares of sub-national revenues and expenditures over those for the general government.

In addition, no single measure of decentralization can capture all the multiple dimensions that decentralization offers. And even though composite measures of decentralization that may be attractive and useful in some contexts they can also fall short when measuring the impact of decentralization on specific policy outcomes (Martinez-Vazquez and Timofeev, 2010; Liu et al., 2012).[4]

All in all some recent work along the lines of a single index of decentralization is noteworthy. The *Regional Authority Index* (RAI) designed and computed by Hooghe, Marks, and Schakel (2010) addresses both the multifaceted nature of decentralization and the need to combine several complementary indicators. The RAI computes a global index of self-rule, which is based on the addition of partial indices measuring the different dimensions of decentralization: the extent of taxing powers, expenditure autonomy, the extent to which regional representatives co-determine the distribution of national tax revenue, the extent to which a regional government is autonomous rather than deconcentrated, and the extent to which a region is endowed with an independent legislature and executive. A growing number of empirical papers are using this database (e.g., Rondinelli, 2008; Lago-Peñas et al., 2011). Even though the use of an index such as the RAI offers the advantage of a simple representation of decentralization, which may be important when there is a limitation in the number of degrees of freedom, it still has limitations since it does not capture all the potential dimensions of decentralization and enters the relative weight roles of others in an arbitrary fashion.

The second issue to deal with is endogeneity. This means that there is a need to evaluate whether decentralization is the cause of certain outcomes or simply - through the presence of reverse causation - the effect of other ongoing processes, such as democratization, government quality, fiscal discipline or economic growth. In general, the direction of causation is at the least debatable. The potential problem of endogeneity is likely to be a concern in a pure cross-country analysis. Several techniques have been adopted to deal with it. Using instrumental variables, probably the most appropriate approach, has been a challenge due to the scarcity of time-variant exogenous instruments.

Historical studies may help in addressing the problem of finding relevant instruments by identifying possible instruments among political and economic variables (Rodden 2002). More recently, Canavire-Bacarreza and Martinez-Vazquez (2012) explore the empirical relevance of geography (measured along several dimensions including elevation, land area, and climate) as a determinant of fiscal decentralization, and as geography is truly exogenous, its validity as an

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[4] The key message in these papers is that aggregating those distinct dimensions of decentralization into a single indicator inevitably leads to a loss of information and that therefore in a multivariate framework of empirical analysis the distinct aspects of decentralization should enter the regression separately in the most flexible functional form.

instrument for decentralization.[5] The relationship between decentralization and geography is based on the logic that more geographically diverse countries show greater heterogeneity among their citizens, including their preferences and needs for public goods and services provision. They find a positive and strong correlation between geographical factors and fiscal decentralization and that the interaction of geography with the development of infrastructure in transportation, communications, etc. tends to reduce, but only slightly, the effect of geography on decentralization.

Likewise, Enikolopov and Zhuravskaya (2007) use the geographical area of countries as instruments for fiscal decentralization sustaining that, *ceteris paribus*, costs of centralized governance increase with the geographical size of the country, which leads to higher economic decentralization in countries with a larger area. However, geography is time invariant and the development of infrastructure is likely to be endogenous itself. Moreover, geographical area can be endogenous in the long run (Alesina and Spolaore, 2003). In order to consider a time varying instrument, some scholars have used the average level of democracy in the preceding ten years (e.g., Perez-Sebastian and Raveh, 2013). However, even though the level of democracy can be considered a key determinant of fiscal decentralization, the lagged average makes it relatively exogenous to growth in the following period. Indeed, one criticism may be that democracy is not a strong instrument for fiscal decentralization because it is correlated with income, but using lagged values of the democracy variable should address this concern. In addition, it has been shown that the degree of decentralization varies according to the levels of GDP – i.e. richer countries tend to be more decentralized – instead of to the changes of GDP, and over long spans of time (Bodman 2011). Hence, while regressions considering aggregate income levels are likely to suffer from endogeneity problems with decentralization, it appears to be less of a concern in estimations considering growth rates of GDP. More generally, as stressed by Slemrod et al. (1995), in the presence of endogenous relationships between fiscal variables and GDP, such "regressions in levels" are likely to suffer especially from statistical endogeneity problems. By first differencing the data, it is possible to remove the country specific factors that affect the level of spending and taxation.

Another often adopted instrument for decentralization is a country's legal origin (La Porta et al. 1999). This choice is on the country's affinity with the civil legal code system or the common law system, which can have a bearing on government decentralization, since the civil legal code system emphasizes the need to conform to the constraints of statutes laid down by federal or central legislators. As an example, Fisman and Gatti (2002) find that legal origin performs well as an instrument for decentralization, and that instrumenting decentralization this way strengthens the estimated negative relationship between decentralization and corruption. A similar approach to the choice of instrument and also result are obtained by Altunbas and Thornton (2012) who find strong support for the view that fiscal decentralization has a beneficial impact on improving governance in a country by reducing the level of corruption. However, the pertinence of legal origin as an appropriate instrument for decentralization may be biased because legal origin can also affect other socio-economic variables selected as dependent

[5] Panizza (1999) and Arzaghi and Henderson (2005) demonstrate that the size of the country is an important determinant of fiscal decentralization.

variable and not through fiscal decentralization, as argued by Enikolopov and Zhuravskaya (2007).

Given the difficulty of finding suitable external instruments for fiscal decentralization, another approach to address endogeneity is the adoption of proper estimators. As an example, the system-GMM estimator (developed by Arellano and Bover, 1995; Blundell and Bond, 1998) using lagged values of the level variables is implemented by some scholars to adequately address the problem (e.g., Strumpf and Oberholzer-Gee, 2002; Filippetti and Sacchi, 2013). The use of lagged values as valid instruments for fiscal decentralization is also proposed by Gemmell et al. (2013) who provide robustness checks for possible endogeneity bias affecting their fiscal decentralization measures and then their results.

Summing up, despite all the efforts so far in the literature, the issue of endogeneity in the measurement of decentralization remains a critical obstacle to the wholesale validity of a significant part of the burgeoning empirical literature reviewed next.

3. ECONOMIC AND FISCAL CONSEQUENCES OF FISCAL DECENTRALIZATION

The last two decades have witnessed a bourgeoning of the literature examining the impact of fiscal decentralization on a wider array of fiscal and economic issues. In this section we focus on a selected number of areas based on their importance and also the attention that has been generated.

3.1 The impact on service delivery

Oates's (1972) theorem predicts a greater efficiency of decentralized service delivery in terms of allocative efficiency, which is using available resources to better match taxpayers' preferences and needs. A direct test of this is hard to do and actually has never been performed.[6] A second concept of efficiency is that of production efficiency, or delivering a particular bundle of public services at a minimum cost. Being able to produce and deliver public services at a lower cost should translate into an increased quality and quantity of the services. Considering these changes represents a main alternative avenue for testing the efficiency effects of decentralization. Since education and health are among the most important types of decentralized services (OECD, 2013), a lot of the empirical literature has focused on those two areas.

The empirical studies on the effectiveness of decentralization reforms on education outcomes vary in terms of their scope and focus. Most of them examine the overall impact of the reforms on increasing allocative efficiency, raising enrollment rates, and improving students' performance. In general, a significant number of researchers have found that decentralization has

[6] The ultimate test for the efficiency effects of decentralization would be to be able to observe increases in the utility of taxpayers following decentralization and having expanded the budget. However, there have been over the years a number of indirect tests performed for the greater efficiency of decentralized delivery, such as those related to the Tiebout (1956) hypothesis reflecting the greater variety and heterogeneity of services under decentralized settings, taxpayers mobility across jurisdictions, and possibly the capitalization of differential efficiencies into house values.

affected education outcomes positively. In Bolivia, Faguet (2004) shows that decentralization made public investment in education and other services more responsive to local needs. In Indonesia, Simatupang (2009) and Qibthiyyah (2008) also provide support for improved education outcomes after decentralization, including overall and female literacy rates, years of schooling, and dropout rates for primary and secondary education. In Colombia, Faguet and Sánchez (2014) and Lozano and Martínez (2013) find that decentralization improved public school enrollment. Similar results emerge in the case of advanced economies. For instance, Barankay and Lockwood (2007) show that the degree of decentralization is positively related to educational attainment in Switzerland; Solé-Ollé and Esteller-Moré (2005) find that the proportion of successful Spanish students in the last year of secondary education improved with decentralization. Cross-country studies also tend to confirm the positive outcomes of decentralization on education. Falch and Fischer (2012), using a panel of international student test scores for 25 OECD countries for 1980–2000, find that government spending decentralization results in improved student performance. More recently, OECD (2013) shows that, while educational policies and functions can be delegated either to sub-central governments or to schools, both strategies are equally beneficial for achieving high-quality primary and secondary education as measured by the *Programme of International Student Assessment* (PISA).

The findings for health services confirm that decentralization has similar positive effects on this sector. However, results are overall weaker than those for education and, in some cases, the impact of decentralization is actually negative. This may be due to decentralized governments giving lower priority to healthcare services by comparison to education services.[7] Positive results emerge in the case of Argentina where Habibi et al. (2003) find that revenue decentralization contributes to decrease infant mortality; in Canada, fiscal decentralization of health services has a positive and substantial influence in improving health (Jiménez-Rubio, 2011a). A positive but weak impact of decentralization on the efficiency of the health care sector occurs in Italy (Porcelli, 2014). Several cross-country studies also report positive evidence. Robalino et al. (2001) find that countries where local governments manage a higher share of public expenditures tended to have lower mortality rates. Using data for 20 OECD countries for the period 1970-2001, Jiménez-Rubio (2011b) finds a significant and positive effect of fiscal decentralization on infant mortality only if revenue decentralization means a substantial degree of tax autonomy for sub-central tiers.

On the other hand, Martinez-Fritscher and Rodriguez-Zamora (2011) do not find strong evidence that decentralization improves health indicators in Mexico, except among those who were uninsured. In turn, Schwartz et al. (2002) find that local public health expenditures increased after decentralization in the Philippines, but over time local governments decreased the share of revenue allocated to public health. A similar approach is used by Ferrario and Zanardi

[7] In highly centralized countries the bulk of sub-central spending is confined to primary and secondary education, economic affairs, recreation, and other residential services. In those more decentralized the spending structure is different, with healthcare and social welfare accounting for a larger share of sub-central expenditure and education remaining a core local government responsibility (OECD 2013). In both institutional systems, the education function matters at the sub-central and local levels.

(2011) claiming that in Italy decentralization may lead to increases in regional disparities in health expenditures due to the lack of mechanisms to transfer resources from rich to poor jurisdictions. Actually, this problem may be easily overcome. As a matter of fact, decentralization of public health care in Spain has not involved a significant increase in overall inequality in terms of per capita public expenditure levels thanks to an effective fiscal equalization system (Cantarero and Lago-Peñas, 2012). All in all, while spending on services like education and healthcare rises as decentralization increases, so does funding through progressive taxation. The result may be funding imbalances in the case of poorer sub-central governments and also changes in the economy because income and consumption taxes have larger effects on the behavior of households and firms than property taxes do (see OECD 2013).

Regarding other services, the evidence on the impact of decentralization is also mixed but leaning fairly strongly to the positive side. In the Republic of Korea, Wade (1998) found increases in efficiency in decentralized irrigation systems as opposed to relatively inefficient centralized systems in India. For infrastructure, the World Bank (1994) cited numerous cases where delivered infrastructure in decentralized settings was of better quality and completed at lower costs than in centralized settings. Escaleras and Register (2012) test if decentralization improves the provision of local public goods and services by determining whether relatively more decentralized countries fare better when natural disasters strike - in terms of effects on the population; their evidence supports the hypothesis, especially in developing countries.

Instead of measuring changes in the quality, quantity or outcomes of public services, an alternative way is to ask citizens and taxpayers directly how they feel about decentralized services delivery. This survey evidence could be interpreted as a substitute, albeit imperfect, for the direct measurement of individual utility changes as implied by the decentralization theorem. At any rate, a growing number of household surveys typically have shown increased citizen satisfaction with decentralized delivery of public services (e.g., Hellman et al. (2003) for Indonesia). Following this line of research, Diaz-Serrano and Rodríguez-Pose (2015) have recently estimated the impact of fiscal (and political) decentralization on the perception of the state of the education system and of health services by using the 2002, 2004, 2006 and 2008 survey waves of 31 European countries. The analysis based on the views of 160,000 individuals indicates that, while the effect of fiscal decentralization on the perception of the state of the health and education system is unambiguously positive, political decentralization affects citizen’s satisfaction with education and health delivery in different ways, depending on the effective authority and the policy influence exerted by local governments. Likewise, Ligthart and van Oudheusden (2015) and Espasa et al. (2015) use survey data to evaluate the respondents’ level of satisfaction with the provision of decentralized public goods in Spain (the latter) and whether fiscal decentralization is associated with citizens’ feelings of trust in government-related institutions for 42 countries over the period 1994–2007 (the former).

Additionally, regardless of the lack of objective measures to evaluate whether decentralization yields more or less satisfaction with government and public policies, recent contributions have also concentrated on the implications of decentralization for happiness, finding that local autonomy may not be associated with greater levels of individuals’ happiness and may, in some cases, be detrimental for it (Bjørnskov et al., 2008).

3.2 The impact on economic growth

The proposition that fiscal decentralization enhances economic efficiency may have a corresponding effect on the dynamic setting of economic growth (Oates 1993). Theoretically, fiscal autonomy is associated with higher output per unit of labor and higher growth rates (Brueckner, 2006). However, a causation path is not clear, and decentralization may affect growth indirectly through its impact on other economic variables, such as macro stability (Martinez-Vazquez and McNab, 2003), or through its interaction with the institutional framework (Feld and Schnellenbach, 2011).

In fact, the empirical evidence is mixed. For example, Xie et al. (1999), Zhang and Zou (1998), Lin and Liu (2000), Thiessen (2003), Ezcurra and Rodriguez-Pose (2011) find negative impacts of fiscal decentralization on GDP growth for a single country (e.g, China) and for cross-country studies (e.g., OECD sample). In turn, Thornton (2007) does not show any impact on economic growth when decentralization is measured by tax revenues over which sub-national governments have full control, but Baskaran and Feld (2013) have recently analyzed similar data and reported that those results were not robust.

On the positive side, Feld et al. (2004) demonstrate that in Switzerland, greater sub-national fiscal autonomy has led to faster economic growth, and that matching grants from the center tended to reduce growth. Qiao et al. (2008) find a positive impact of fiscal decentralization on growth in China. For the American states, Akai and Sakata (2002) show that decentralization improves economic growth and business climate. As for cross-country analyses, Gemmell et al. (2013) find that decentralization of tax revenues increases economic growth thus advocating for a closer match between spending and revenue decentralization. A more comprehensive analysis is provided by Blöchliger and Égert (2013) proving that the relationship between fiscal decentralization and GDP per capita, productivity or human capital is positive and statistically significant, while the relationship with investment is insignificant based on a set of growth regressions covering the years between 1970 and 2010 for OECD countries.

There may be different reasons to explain those diverse results. As Salmon (2013) states, the approach to the relation between decentralization and growth based on cross-jurisdiction regularities could have reached a dead end mostly because, when jurisdiction specificity is very strong, it is normally difficult to say if there is a relation between observable decentralization arrangements in a jurisdiction and its observable economic performance. In addition, many dimensions of decentralization have emerged as essential determinants of or preconditions for pro-growth effects, justifying the view that decentralization and federalism should be treated as multifaceted phenomena (Voigt and Blume, 2012). In this regard, the contribution by Filippetti and Sacchi (2013) analyses the decentralization-growth relation shifting from a view based on some optimal degree of fiscal decentralization towards a more systemic view based on a coherent institutional design that involves the different dimensions of decentralization (i.e. the political and administrative ones) and the interconnections crucial for GDP growth.[8]

[8] Likewise, Enikolopov and Zhuravskaya (2007) and Rodriguez-Pose and Ezcurra (2011) extend the analysis to political features of decentralization in relation to economic growth.

Beyond this, the issue of endogeneity has been handled differently in previous studies, and often not at all, due to small sample sizes and the difficulty of finding good instruments, thus inevitably leading to different results. In fact, some effects running from economic growth to fiscal decentralization may arise because the efficiency gains associated with fiscal decentralization may be enhanced with the growth of the economies (Panizza, 1999; Martinez-Vazquez and McNab, 2003). Moreover, the “quality” of decentralized institutions and the indirect effects of decentralization on growth through other relevant economic and institutional variables, such as macro stability and corruption, are likely to differ significantly across countries and over time. These effects are not always accounted for with the appropriate control variables in the different studies.

Still another possibility may be related with how decentralization affects economic efficiency by distorting resource allocation away from efficient uses due to sub-national government policies: distorted resource allocation would translate into lower economic growth. However, the evidence is very limited. Day and Winer (2006) studied the effect on labor mobility of provincial unemployment schemes and other provincial policies in Canada, finding that labor mobility decisions were influenced mainly by economic factors (moving costs, wages, and probabilities of employment) and the effect of sub-national policies such as differences in unemployment insurance eligibility, welfare services, and other provincial policies playing a very modest role in those decisions. Another impact on allocation is by creating favorable or unfavorable business climate. Sobel et al. (2013) found that decentralization at the state level in the US leads to better a business climates and faster growth. On the other hand, Abdullatif et al. (2013) look at the impact of different levels of decentralization on the measures of business climate for a large panel of countries finding that higher decentralization levels are generally associated with higher costs of doing such business.

Special attention has been given to the decentralization-growth experience of China. Qian and Weingast (1997) and Qian and Roland (1998) have suggested that decentralization there provided incentives to local governments for economic success, with the township and village enterprises becoming sources of growth and examples of “market-preserving federalism”. Through that success, decentralization in China would have become an effective limitation to central government power (Weingast 2009). In contrast, for the case of Russia, where fiscal decentralization was accompanied at least for a while with political decentralization, Ponomareva and Zhuravskaya (2004) noted that decentralization provided negative incentives to growth through the “clawback” of any additional revenues generated by sub-national governments via the reduction of central government transfers.

3.3 The impact on macroeconomic stability and fiscal sustainability

Traditionally, some authors (Tanzi, 1995; Prud’homme, 1995) have warned about the macroeconomic stability dangers of decentralization, while others (McLure, 1995; Sewell, 1996) have minimized these claims. More recently these positions have been subject to empirical corroboration with mixed results.

Decentralization does not appear to make economies worse in countries where macroeconomic instability predated decentralization, such as in Argentina and Brazil (Burki, Perry, and Dillinger, 1999), but a correspondence emerges between increases in sub-national deficits and central government expenditures and deficits in the subsequent period (Fornasari, Webb, and Zhou 2000). On a different dimension of stability, the impact of fiscal decentralization on the level of inflation appears to be benign. While Treisman (2000) and Rodden et al. (2003) find no relationship, two other studies show a positive impact when there is devolution of taxing powers to lower tiers. More specifically, Martinez-Vazquez and McNab (2003) find that revenue decentralization leads to more price stability. Likewise, Baskaran (2012) finds that revenue decentralization is conductive to lower inflation by using a modified measure of fiscal resources controlled by sub-national governments that accounts for inter-temporal variation of level of revenue autonomy. These findings highlight the relevance of the 'nature' of fiscal decentralization, i.e. revenue decentralization mostly (and more than expenditure decentralization) may lead to greater fiscal responsibility of decentralized governments and then to more sustainable macroeconomic policies.

More generally, tax decentralization may positively affect the capacity of countries to reduce chronic deficits. Indeed, the assignment of taxing power responsibilities and resources among different levels of government should encourage vertical and horizontal fiscal virtuous competition across local governments, transparency in both tax burden and public good delivery, and shrink the monopolistic power of Leviathan central governments to over-tax their citizens (Brennan and Buchanan, 1980; Martinez-Vazquez, 2015). Moreover, thanks to their increased closeness to governments under decentralization (Ivanyna and Shah, 2012), taxpayers may be more willing to cooperate with local governments and may be also more aware of the taxes they pay over time.

On the empirical side, some studies have also focused on the effects of tax/revenue decentralization on budgetary stability and fiscal discipline with mixed results. Rodden (2002) provides cross-country evidence that revenue autonomy and limits on sub-national borrowing lead to smaller budget deficit. Interestingly, Foremny (2014), using panel data for 15 EU countries over the period 1995-2008, shows that the effectiveness of both fiscal rules and tax autonomy depends on the constitutional structure. Fiscal rules decrease deficits only in unitary countries. Deficits of sub-national sectors in federations can be avoided through tax autonomy. Neyapti (2010) also shows that revenue decentralization tends to reduce budget deficits, but that the strength of this effect varies according to a number of country-specific factors such as the size of the population or whether local elections are held. Similarly, Eyraud and Lusinyan (2014), who analyze the impact of vertical fiscal imbalances on overall fiscal performance in 20 OECD countries, find that the general government fiscal balances improve with reduction in vertical fiscal imbalances. That is, closing the gap between sub-national expenditure and own-revenue is associated with better fiscal outcome.

However, less positive results are provided by, de Mello (2000). He finds that the degree of tax autonomy of sub-national governments might cause intergovernmental coordination failures, increasing public deficit at the central and local government levels. Thornton (2009) also focuses on two measures of revenue decentralization characterized by more and less local autonomy. By comparing results from panel regressions on a sample of 19 OECD countries over the period 1980-2000, he finds that when accurately measured, revenue decentralization appears to have had no negative impact on fiscal discipline. More recently, Presbitero et al. (2014) consider the necessity of providing further empirical analyses on which kind of local tax is more likely to promote nationwide fiscal sustainability. They find that greater reliance on property taxes assigned to sub-national governments contributes to fiscal discipline. This suggests that fiscal decentralization reforms should favor greater tax autonomy in order to discipline local politicians and bureaucrats.

Finally, Baskaran (2010) investigates how tax and spending decentralization affect the level of public indebtedness in OECD countries over the period 1975–2001. His findings suggest that expenditure decentralization significantly reduces public indebtedness, whereas tax decentralization and vertical fiscal imbalances are insignificant.

In almost all previous studies, there are sources of possible endogeneity in the data, not only between the fiscal decentralization measures and, for instance, primary/overall balance but also between some explanatory variables (e.g., unemployment) and the budgetary dependent variable. However, the use of more sophisticated methodologies such as the GMM estimator is rarely adopted as a growing literature stresses its limitation in macro panel, especially with small sample like those of advanced economies and OECD countries. Certainly, addressing causality in such context remains a key policy question, for which a credible instrumental variable (IV) strategy with possible external instruments should be envisaged. Actually, in some cases possible reverse causality issues between fiscal decentralization and budgetary discipline have been mitigated using lagged values of explanatory variables (see, e.g., Presbitero et al. 2014).

In practically all previous studies there are sources of possible endogeneity in the data, not only between fiscal decentralization and the main dependent variables of interest (for example, economic growth, primary/overall budget balances), but also between some other explanatory variables; for instance, unemployment. The use of lagged values and more sophisticated methodologies to address endogeneity, such as the GMM estimator, has been limited as a growing literature has stressed their limitations for macro panel estimation, especially for small samples. Certainly, addressing causality in such contexts remains a key policy question, for which a credible instrumental variable (IV) strategy with external instruments will be needed.

3.4 The impact on income inequality and poverty

Fiscal decentralization can indirectly affect poverty and income distribution in a myriad of ways (e.g., by means of growth, the degree of institutional development, the size of government intervention into the economy, the quality of governance) and the ultimate impact depends on the specific characteristics of each decentralization process.[9] The relevance of this question is shown by the fact that many countries simultaneously implemented policies aimed at reducing income inequality and poverty as well as at fiscal decentralization reforms (Ravallion, 1999; Rao, 2002; Galasso and Ravaillon, 2005), and then it is important to clarify the extent to which these policy strategies interact with each other.

[9] For example, Arze del Granado et al. (2005) argue that fiscal decentralization would lead to more welfare spending programs (i.e. basic healthcare and primary schools) that usually benefit the poorer individuals (e.g. through in-kind benefits).

On the empirical work looking for a direct link with income distribution, Von Braun and Grote (2002), Lindaman and Thurmaier (2002), and Sepúlveda and Martinez-Vazquez (2011) find that fiscal decentralization has a positive effect on the Gini coefficient. Sepúlveda and Martinez-Vazquez (2011) provide a further result according to which this positive impact applies only when the relative size of the government sector in the economy is large. Similarly, Tselios et al. (2012) highlight that fiscal decentralization decreases interpersonal income inequality within regions by using regionally aggregate microeconomic data for more than 100,000 individuals. On the other hand, Sacchi and Salotti (2014a), investigating the effects of fiscal decentralization on household income inequality, for a sample of 23 OECD countries over the period 1971-2000, find that a higher degree of tax decentralization is associated with a more unequal distribution of income within a country. The authors pay particular attention to the quality of the fiscal decentralization data and to measurement issue, using several indicators, not only differentiating between expenditure and tax decentralization, but also taking into account different degrees of real autonomy granted to the sub-central governments. Neyapti (2006) also offers empirical evidence based on the role of revenue decentralization in affecting the individual income distribution showing that revenue decentralization leads to increased household income inequality but, when coupled with good governance, can reduce it.

On the direct impact of decentralization on poverty, the empirical evidence is also mixed. Crook and Manor (1998) and Crook and Sverrisson (2001) note the positive impact of political and administrative decentralization on poverty reduction outcomes in some selected developing countries. Galasso and Ravallion (2005) find that Bangladesh's food-for-education program became more pro-poor with decentralization, while Bardhan and Mookherjee (2003) conclude that decentralized management advanced poverty alleviation goals in West Bengal in India. A number of other studies find that decentralization can negatively affect poverty levels. For instance, West and Wong (1995) show that decentralization results in lower levels of public services in poorer areas of China; Ravallion (1999) observed that decentralization generates substantial inequality in public spending in poor areas of Argentina. More recently, Sepúlveda and Martinez-Vazquez (2011) prove that higher levels of fiscal decentralization appear to reduce poverty as long as the share of sub-national expenditure is not greater than one-third of total government expenditure. A limitation of the work is that the analysis is based on one sole dimension of fiscal decentralization, - i.e. the expenditure side – while the potential impact of tax/revenue decentralization on poverty (and on income inequality) is completely neglected, even though its importance is recognized by the authors when discussing their theoretical priors.

3.5 The impact on geographical and interregional disparities

Beyond the contributions focusing on the relationship between fiscal decentralization and income inequality among individuals, other studies examine the links between decentralization and regional economic disparities (e.g., Gil Canaleta et al., 2004; Rodríguez-Pose and Ezcurra, 2010). The net effect is far from evident from a theoretical standpoint.

On the one hand, decentralization may lead to increased regional disparities for two reasons. First, decentralization may enhance the differences in institutional capacities and socio-economic endowments across regions, as in the case of China (Zhang 2006). Second, decentralization may imply a reduction of the influence of poorer areas over the allocation of financial resources and transfers across the nation (Rodríguez-Pose and Gill, 2005; Besley and

Ghatak, 2003).[10] On the other hand, decentralization may contribute to reducing interregional disparities because of higher transparency and by bringing more efficiency and equalization across jurisdictions. For example, Québec's more progressive and egalitarian welfare state compared to that of other provinces may have later contributed to strengthening social protection elsewhere in Canada (Béland and Lecours 2010).

Many studies show that decentralization tends to be associated with a general reduction in territorial disparities (see, among others, Shankar and Shah, 2003 and Rodríguez-Pose and Gill, 2005). In addition, positive results emerge in most country case studies, such as those by Bonet (2006) for Colombia, Hill (2008) for Indonesia, Silva (2005) for the Philippines, and Qiao et al. (2008) for China. However, recent empirical research qualifies this general result. In particular, Lessman (2012) shows that the decentralization-disparities relationship depends on various conditions such as the wealth of a country, the dimension of its existing disparities, and the presence of solid fiscal redistribution systems. Using a unique dataset covering 54 countries Lessman (2012) shows that decentralization tends to drop regional inequalities in general, but this effect depends on the level of economic development. Put differently, decentralization (both fiscal and political) promotes significant regional convergence in richer countries, whereas it may lead to higher regional inequalities in developing and emerging economies. The relationship between fiscal decentralization and regional disparities could be also mediated by government quality as described by Kyriacou et al. (2013). Indeed, their empirical evidence based on a sample of 24 OECD countries over the period 1984 to 2006 lends support to the fact that fiscal decentralization promotes regional convergence in high government quality settings but, of some concern, it leads to wider regional disparities in countries with poor governance.

4. POLITICAL AND POLICY CONSEQUENCES OF FISCAL DECENTRALIZATION

There has also been developing interest in the impact of fiscal decentralization processes on political institutions and public policies. As in the previous section, here we focus on those areas which we deem of higher importance and which also have attracted more attention in the literature.

4.1 The impact on government size and public policies

The sign of the relationship between fiscal decentralization and the size of government depends on the nature of decentralization and therefore on how it is measured. When attention is paid to the most usual indicators (see Golem, 2010 for a recent review of the empirical literature), higher revenue decentralization seems to lead to smaller size of the whole public sector. Making sub-national governments more directly responsible for their own financing appears to lead to more conservative spending policies and smaller government size. On the contrary, just higher expenditure decentralization would seem to lead to larger government size, perhaps for the opposite reasons (Jin and Zou 2002; Moesen and van Cauwenberge, 2000;

[10] Tax decentralization combined with low levels of central equalization transfers can lead to enlarged inequalities in citizens' access to public service and levels of economic development.

Rodden, 2003).[11] There is also empirical evidence supporting the idea that government's ideology influences this relationship. In particular, Baskaran (2011) found that decentralization increases public spending, but the increase is smaller under a right- than under a left-wing government for a sample of high-income OECD countries over the 1980–2000 period.

The size of the public sector could be also measured by the level of public employment as in Martinez-Vazquez and Yao (2009), who note that the increase in the share of sub-national government levels on total public employment often overwhelms the corresponding decrease in the central level share. As a result, the level of total public sector employees unambiguously increases with the degree of fiscal decentralization of a country. Marqués and Rosselló (2004) find that the increase in the number of public employees at the regional government level was 1.6 times the reduction of the number of public employees at the central government level in Spain during the period of decentralization, 1990–2003. For India, Rajaraman and Saha (2008) show that horizontal splintering of the federation into smaller sub-national governments increased the total size of the sub-national civil service across all lower governments. However, these findings do not mean that decentralization is more inefficient than centralization. Indeed, a larger number of employees may respond to a more efficient offer of public services as desired by citizens, which requires more labor-intensive production technologies.

Concerning the composition of public expenditure, there is strong evidence from panel data showing that fiscal decentralization increases the share of education and health expenditures in total government expenditures, especially in developing countries (Arze del Granado et al., 2005; Shelton, 2007). In addition, Faguet (2004) has found evidence that fiscal decentralization increases investment in social sectors, such as education, urban development, water and sanitation, and health care in Bolivia. Holding a cross-country perspective, Sacchi and Salotti (2014b) show that tax decentralization positively correlates with healthcare, education, housing and transport spending decentralization, suggesting that the link between those who benefit from the programmes and those who finance them (through charges and user fees, for example) is strong. On the other hand, tax decentralization is not correlated with decentralized welfare spending, while intergovernmental grants are positively and highly correlated with it. It confirms the practice commonly adopted by central governments of financing this type of function through upper transfers.

4.2 The impact on governance, governments' accountability, and corruption

From a theoretical standpoint, there is a mutually reinforcing relationship between fiscal decentralization and democratic governance. Decentralization promotes democratic governance, and democratic governance is required to reap the full benefits of fiscal decentralization. An important impetus for fiscal decentralization in Africa, Eastern Europe, Latin America, and the former Soviet Union was the democratization of the political systems in many of these countries

[11] An exception is provided by Cassette and Paty (2010) who find that decentralization may unexpectedly increase both total and sub-central government size even when they are financed by their own taxes. A qualification of this result is provided by Liberati and Sacchi (2013) who capture the impact of different tax decentralization mechanisms on local government size showing that only property taxes, which are normally assigned on tax separation schemes at a local level, tend to have a negative and significant impact on the size of the local public sector.

(Rondinelli and Nellis, 1986). Decentralization can improve governance through local accountability (Blair, 2000; Manor, 1999). Martinez-Vazquez and McNab (2006), using panel data, discover that governance and decentralization support each other in a bidirectional causal relationship. Faguet (2012) shows how a comprehensive decentralization reform improved accountability and responsiveness of government by increasing citizen voice and the incentives that public officials face in Bolivia. Additionally, the same author (Faguet, 2014) provides a review on decentralization and governance, listing a number of empirical studies that show how decentralization makes local governments more responsive to citizens' needs. Among others, Kyriacou and Roca-Sagalés (2011) posit that fiscal decentralization involves a positive effect on institutional quality in a sample of OECD countries, but this positive effect is mitigated in the presence of regional elections and multi-level government.

However, there are other mechanisms to take into account involving less positive effects. First, decentralization is more demanding on voters insofar as responsibilities are dispersed among several fiscal tiers. Electoral accountability of government officials may be undermined when individuals do not know whom to assign blame or praise for policy outcomes. In this respect, Lago Peñas and Lago Peñas (2010a) find that in Spain, when different parties rule at the national and sub-national level, political accountability decreases because voters face difficulties assigning responsibility among different levels of government. Gelineau and Remmer (2006) also find that political accountability of provincial politicians in Argentina is higher when the same party ruled at the national level. Second, elected officials face substantial incentives to exploit the fiscal common by over-borrowing in order to increase local public goods provision (Goodspeed, 2002). Of course, the empirical relevance of this problem depends on the institutional framework. In particular, more taxing power and more autonomous taxes may induce responsible local spending behaviour and governments' accountability (Martinez-Vazquez, 2008; Weingast, 2009).

Another way decentralization may affect governments' quality is through its effect on corruption. From a theoretical perspective, decentralization tends to reduce corruption because of several reasons: enhanced accountability and competition among local governments (Weingast, 1995); the existence of additional "exit" and "voice" mechanisms; higher levels of information and transparency at the local level (Seabright, 1996; Boadway and Shah, 2009).[12] Overall, different forms of decentralization may affect corruption differently (Weingast, 2009).

On the negative side, decentralization may theoretically weaken monitoring, controls, and audits by central agencies, thereby creating opportunities for corruption (Tanzi, 1995; Prud'homme, 1995). Political decentralization may favor higher incidence of corruption through involvement of a larger number of officials in dealing with potential investors like feudal lords and oligarchs (Shleifer and Vishny, 1993), higher incidence of clientelism (by protecting and benefiting political supporters), and interest group capture where elites dominate the local political scene (Shah, 1999; Litvack et al. 1998; and Bardhan and Mookherjee, 2000).

[12] Also decentralization may reduce centralized regimes' incentives to corruption; national officials in centralized regimes would seek re-election by selectively pooling on a minimum majority of regions while extracting maximum rents from the rest (Lockwood, 2005).

Empirical findings skew toward a virtuous impact of decentralization on corruption. Both, Arikan (2004), and Fisman and Gatti (2002) find that decentralization reduced the level of corruption. More recently, Ivanyna and Shah (2011), using data for 158 countries, find that decentralization has a significant and robust negative effect on corruption regardless of the estimation technique or the measures of corruption used. Likewise, Altunbas and Thornton (2012) find, for a data set comprising 64 developing and developed economies, that the larger the share of sub-central fiscal revenues and expenditures the lower the country's corruption index. Moreover, when financial decentralization is applied to both side of the budget (i.e. revenues and expenditures), it reduces corruption over time (Padovano et al., 2013). This evidence is confirmed for the case of Colombia by Fiszbein (1997).

When the focus moves from corruption to the shadow economy, empirical results also tend to be mostly positive for decentralization processes. Buehn et al. (2013) use a data base for 73 countries to find that decentralization, both fiscal and political, increases the probability of detection of shadow economic activities. Teobaldelli (2011) also finds a negative relationship between federalism and the shadow economy size. According to her, this effect is explained by the potential for individual mobility and horizontal competition among jurisdictions. This competitive framework leads policy makers to adopt more efficient policies increasing the return for activities in the formal sector compared to those in the informal sector. A further step is provided by Dell'Anno and Teobaldelli (2015). They rely upon a sample of 145 countries to investigate how decentralization affects the relationship between corruption and the shadow economy. They find that decentralized countries have smaller informal sectors than centralized ones. The difference between the sizes of the unofficial economy between the two institutional settings is important: i.e. on average, about ten percentage points *ceteris paribus*. Moreover, they find a larger effect of corruption on the shadow economy in centralized states relative to decentralized.

But there is also some empirical evidence that certain aspects of decentralization may lead to higher corruption. In particular, countries where there are more tiers of sub-national governments are more corrupt (Fan et al., 2009); moreover, proliferation of smaller units of local government besides or below the local level tend to increase the perceptions and experiences with corruption (Nelson, 2013).

4.3 The impact on social capital and tax morale

Although debates on its nature and definition are not definitively resolved (Sobel, 2002), social capital has been a hot concept in social sciences in the last two decades. While the seminal contribution by Putnam (1993) found no clear empirical evidence for or against the impact of decentralization on social capital, Hooghe and Marks (2003) show that decentralization may encourage more collective action, interaction, and ultimately social capital. Huther and Shah (1998) find that fiscal decentralization is associated with greater citizen participation, social justice, and improved economic management. Those who have been exposed to decentralization tend to be more outspoken and trusting of public officials. In the same vein, de Mello (2004) provides support for a positive and significant effect of both revenue and expenditure decentralization and several social capital indicators for a wide sample of market economies. Decentralization increases trust not only in government but also for other political entities such as political parties and parliaments (Ligthart and van Oudheusden, 2015).

Concerning tax morale, the empirical evidence provided by Gütz et al. (2005) reflects that people's propensity to pay taxes is higher in a decentralized system, in which taxes collected in one region are spent exclusively on that region's public goods, than in a centralized setting, in which taxes paid in all regions are pooled and spent on regional public goods on a per capita basis. However, if fiscal equalization is strong enough, this mechanism is cancelled out because decentralization will not mean reducing interregional redistribution. On the contrary, residents in net fiscal contributor regions are tempted to think that the federal fiscal menu is disadvantageous. This opinion may be boosted and managed by sub-national political parties in order to claim for changes in fiscal arrangements. Cheating on taxes may be then socially justified as a way of *de facto* increasing the fairness of the system in rich regions. Then the propensity to pay federal taxes in rich regions would be weaker than in decentralized countries without equalization. Empirical evidence provided by Lago-Peñas and Lago-Peñas (2010b) for 17 European countries confirms that tax morale is weaker for individuals living in relatively richer regions which are net contributors to the interregional redistribution system. Furthermore, this effect is much stronger in federal or quasi-federal countries than in unitary countries. In sum, in both centralized and decentralized countries with strong interregional transfers tax morale will tend to be weaker in net contributor regions. But this negative relationship tends to be stronger in the latter, because visibility of interregional redistribution is higher and the political party system tends to be more poorly nationalized.

4.4 The impact on voter turnout, nationalization of party systems, and national unity

Intuitively, people seem more prone to vote when the legislature and government to be elected have more power, resources and/or authority. This is what the second-order elections model states (Reif and Schmitt, 1984). Hence granting more power to sub-national governments should contribute to increased turnout in sub-national elections and to lower participation in national elections. Furthermore, decentralization would increase the relevance of local political arenas and then reduce the spatial homogeneity of party systems. Finally, it has been argued that decentralization and federalism could be an answer to accommodate secessionist pressures in some countries. Unfortunately, the empirical literature does not provide strong support to those causal conjectures.

First, the empirical evidence reported by Blais et al. (2011) for 88 countries over the period 1972-2005 does not show any significant effects of different indicators of decentralization on turnout in national elections. The authors suggest that it may be that national parliaments manage to keep visibility and symbolic weight in spite of decentralization. Additionally, they also recognize that some uncontrolled factors might bias these results. To avoid this problem and solve the lack of homogeneous cross-national data for regional elections, they focus on two countries where fiscal decentralization has significantly increased in the last thirty years, Canada and Spain. Interestingly, in both cases there is a significant but small effect of decentralization on relative turnout in regional elections, compared to national elections.

The picture is quite the same when analyzing the degree of party system nationalization, defined as the extent to which parties compete with similar strength across sub-national geographic units (Kasuya and Moenius, 2008). According to the rational choice institutionalist approach (Chhibber and Kollman, 1998; 2004) as national governments decentralize power, party system nationalization should decrease. However, Lago-Peñas and Lago-Peñas (2011) do not find robust relationships between the degree of decentralization and the nationalization of party systems after analyzing seventeen Western European countries between 1945-1998, except in three cases (Italy, Norway, and Finland). As the authors conclude, the impact of decentralization on party system nationalization is far from being automatic and universal.

Finally, much has been said about the potential role played by decentralization and federalism as solutions to avoid the breakup of nations (Bolton and Roland 1997, Alesina and Spolaore, 1997). The available empirical evidence again does not provide strong support for this conjecture. Kymlicka (1998), who reviewed such cases as Catalonia and Québec in detail, concludes not only that federalism may not provide a viable alternative to secession in multination states but that moving in this direction may actually induce more people to think that secession is a more realistic alternative to federalism. Curtice (2006) explored survey evidence on perceptions of national identity and the support for various devolution arrangements by residents of Scotland and Wales. His conclusion was not as bleak as Kymlicka's, but neither was it encouraging for those who hope that the political solution to national disunity lies in decentralization. Sorens (2008) argued that there is an alternative to secessionism—regionalism—which he defines as territorial recognition within the state. He found that regional autonomy increased the share of votes received by both regionalist and secessionist parties. The push in regional decentralization in Italy and Spain may be explained in terms of accommodating ethnic and cultural variation to deflate secessionist pressures (Davies et al., 2002). Furthermore, while asymmetrical decentralization arrangements in terms of autonomy or revenues could improve things in regions that benefit from that special treatment, it could also boost perceptions of discrimination in other regions and eventually lead to conflict (Bird and Ebel, 2006). In summary, no one as yet has any clear ideas or evidence about the impact of decentralization on national unity (Bird, Vaillancourt, and Roy-César, 2010).

5. CONCLUSION

Complete answers to the many questions regarding the impact of fiscal decentralization are not likely to be available, even after the additional research that is still required in many areas has been completed, if it is. However, there are reasons to be optimistic about the overall positive impact of the decentralized systems that have been introduced all over the world in the past several decades especially when those decentralization processes have been well designed and implemented. There is still much work to be done precisely on how to improve the design and implementation of fiscal decentralization systems.

The survey of the literature on the impact of fiscal decentralization offered in this paper by necessity had to be selective but it is our hope that the paper presents a balanced view of what is known and what is not yet known and that it will be useful in advancing the research and practice of fiscal decentralization. In moving forward it will be important to find better instrumental variables in order to better deal with the issue of endogeneity. It would also be important to improve the standardization and overall quality of decentralization data, something international organizations like the OECD or the World Bank have talked about doing in the past. Replication studies should also play a role in the future as some of the diverging results are likely to be the result of inadequate estimation approaches. Finally, strengthening research networks could help with the convergence in methodologies and data bases utilized and, at the end of the day, with the quality and higher uniformity of the results.

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