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Fiscal decentralisation, efficiency, and growth

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Abstract. Much of the recent worldwide trend towards devolution has been driven by the belief that fiscal decentralisation is likely to have a positive effect on government efficiency and economic growth. It is generally assumed that the transfer of powers and resources to lower tiers of government allows for a better matching of public policies to local needs and thus for a better allocation of resources. These factors, in turn, are expected to lead to an improvement in regional economic performance, if subnational authorities shift resources from current to capital expenditures in search of a better response to local needs. In this paper we test these assumptions empirically by analysing the evolution of subnational expenditure categories and regional growth in Germany, India, Mexico, Spain, and the USA. We find that, contrary to expectations, decentralisation has coincided in the sample countries with a relative increase in current expenditures at the expense of capital expenditures, which has been associated with lower levels of economic growth in countries where devolution has been driven from above (India and Mexico), but not in Spain, where it has been driven from below. We hypothesise that the differences in legitimacy between the central or federal government and subnational governments in top-down and bottom-up processes of devolution may be at the origin of the diverse capacity to deliver greater allocative and productive efficiency and, eventually, greater economic growth by devolved governments.

Introduction

Over the past decades much of the developing and developed world has embarked upon some type of fiscal decentralisation (Maio et al, 2003; Rodden, 2002; Rodríguez-Pose and Gill, 2003). In some cases such transfers of powers and resources have occurred in response to bottom-up regional demands. In other instances central or federal governments actively promoted decentralisation. Regardless of the origins of such moves towards fiscal decentralisation, awarding subnational governments greater spending autonomy is often considered in academic and political circles to yield potential benefits in terms of government efficiency and economic growth (Morgan, 2002).

Although the notion that decentralisation increases government efficiency seems widely accepted amongst governments and international organisations alike, the empirical proof for this proposition remains scant (Martínez-Vázquez and McNab, 2003). This lack of robust empirical work is mainly linked to the fact that government efficiency, in general, and allocative efficiency, in particular, are difficult to quantify. Therefore, studies that aim to test the 'efficiency through fiscal decentralisation' hypothesis often need to resort to alternative measures of efficiency such as government size and economic growth. The work of Brennan and Buchanan (1980) is widely used to provide a justification for using government size as a measure of government efficiency. The theoretical foundations of the proposition that an increase in government efficiency leads to economic growth are relatively more limited. This lack of theory building is particularly problematic considering the divergent results that are obtained in the empirical studies that look at the relationship between fiscal decentralisation and growth. In this paper we aim to add to the current debate on the economic merits of fiscal decentralisation by examining the link between decentralisation, efficiency, and growth in greater detail.

Most of the current work on decentralisation and growth is based on the assumption that the transfer of powers and resources to lower tiers of government affects growth through the effect it has on the allocation of resources across expenditure categories (Martínez-Vázquez and McNab, 2003). More specifically, decentralisation is expected to be growth-enhancing to the extent that it results in a shift of resources from current to capital expenditures. In this paper we test this hypothesis by looking at trends in subnational expenditures and regional growth in five countries: Germany, India, Mexico, Spain, and the USA. With the exception of Germany, where the legal framework of decentralisation has remained stable and a moderate fiscal centralisation was experienced in recent years, each of these countries has gone through a process of fiscal decentralisation over the period of investigation. The term fiscal decentralisation will be taken to refer both to situations where resources and powers are devolved to autonomous subnational governments, as well as to instances in which central governments retain relatively more control by the transferring of specific decision-making powers and resources to autonomous or semiautonomous subnational tiers of government. Although subnational discretion over expenditures differs between these two forms of decentralisation, devolution both through taxation and through transfers provide subnational governments with a real opportunity to shape local policies and to redress the allocation of resources.

In general, we find that, contrary to expectations, decentralisation tends to coincide with an increase in current expenditures at the expense of capital expenditures. Devolved governments in our sample countries, whether through their own decision making or as a consequence of the strings attached to fiscal transfers by the central or federal government, tend to spend a greater proportion of their resources on areas such as social security, welfare, or even recreation than on education, infrastructure, or innovation. Conventional wisdom states that such a shift in expenditure allocation will have a negative impact on growth. To test this hypothesis we undertake a dynamic regression analysis of regional gross domestic product (GDP) per capita growth on the size and variation in the type of expenditure by subnational governments in our sample countries. We find that, while it is true that shifts from capital to current expenditures by subnational governments are negatively associated with growth in GDP per capita, this only seems to be the case in those countries where the recent process of devolution has been driven from above (ie India and Mexico). In Spain, where regions have held the upper hand in the process, the shift from capital to current expenditure has been associated with higher, rather than lower, growth.

In this paper we advance the hypothesis that these findings may be the result of the differences in legitimacy between central and subnational governments in diverse national contexts or, put differently, between top-down and bottom-up processes of devolution. Where regions have been the main drivers of the process, the shift from capital to current expenditure by subnational governments may reflect a genuine response to local needs, in a perfect Tiebout and Oates style. Hence, greater autonomy will lead to greater allocative efficiency, greater satisfaction by the population, and ultimately greater growth. When the legitimacy lies with the central government, the bargaining power of subnational governments is weaker and thus the shift from capital to current expenditure may not reflect a genuine choice by subnational governments in order to address local needs, but a need to intervene in areas where there has been a retreat by the national government. In these cases the changes in expenditures caused by decentralisation seem less likely to increase allocative efficiency and foster regional economic growth.

Fiscal decentralisation and efficiency

Historically, calls for the transfer of powers and resources to lower tiers of government have been based on cultural, ethnic, linguistic, and religious arguments. Within this discourse, decentralisation is presented as a way to safeguard regional cultures and identities and to increase the sustainability of culturally heterogeneous states (De Winter and Türsan, 1998; Gourevitch, 1979; Hechter, 1975; Horowitz, 1985; Moreno, 2001). More recently, proponents of decentralisation have shifted their focus towards the economic benefits it can bring (Bookman, 1992; Giordano, 2000; Harvie, 1994; Rodríguez-Pose and Sandall, 2008). Building on the theoretical arguments put forward in the classical works of Tiebout (1956), Musgrave (1959), Oates (1972), and Brennan and Buchanan (1980), it is argued that fiscal decentralisation can lead to increased government efficiency.

Decentralisation can affect government efficiency in two ways. First, the transfer of certain resources and expenditures to the subnational level may allow public spending to be matched with consumer preferences more accurately, thereby increasing the so-called allocative or consumer efficiency of governments (Martínez-Vázquez and McNab, 2003). Second, decentralisation may create competition between subnational governments and encourage them to increase producer efficiency (Donahue, 1997; Martínez-Vázquez and McNab, 2003; Prud'homme, 1995). The proposition that decentralisation may lead to greater allocative efficiency has especially gained relatively widespread acceptance amongst government officials and international organisations alike (Martínez-Vázquez and McNab, 2003). In this section we will discuss the theoretical foundations of these claims, before turning to how efficiency gains could be linked to regional economic growth.

The main argument in favour of fiscal decentralisation is based on the proposition that decentralisation allows for a more efficient allocation of public resources, since it both gives the government a better insight into the true preferences of the public and allows for the tailoring of policies to local preferences (Oates, 1972; Tiebout, 1956). Within the original Tiebout model, decentralisation is expected to increase allocative efficiency by providing a rational consumer – voter with the incentive to reveal his or her true preferences through choosing to live within the community that offers the basket of public goods and services that best satisfies his or her needs (Tiebout, 1956, page 418). Assuming that citizens can enter and exit competing jurisdictions freely and costlessly, decentralisation may offer a functional equivalent to market competition (Marks and Hooghe, 2004).

Even in the absence of full mobility, fiscal decentralisation may still be linked to considerable allocative efficiency gains. If we assume that lower levels of government can better identify the preferences of the local population, decentralisation would still allow for a better tailoring of public goods and services to local demands than central provision (Musgrave, 1959). This argument builds on the idea that preferences are spatially heterogeneous and diseconomies of scale exist in the dissemination of information about local preferences. By bringing the government closer to the people, decentralisation may increase citizen participation, transparency, and the accountability of political processes while reducing the costs of collective action and cooperation (Azfar et al, 1999; Inman and Rubinfeld, 2000; Putnam, 1993). Decentralisation therefore allows policies to be matched to local preferences more accurately (Oates, 1996).

Whether fiscal decentralisation indeed leads to allocative efficiency in practice is, however, disputed. At the most fundamental level the validity of the assumption that interjurisdictional preferences differ substantially, and that these differences are the main or most important source of regional variation to which government policy should be adjusted, has been questioned. Especially in the case of developing countries, the most relevant issue may not be

> "to reveal the fine differences in preferences between jurisdictions but to satisfy basic needs, which are—at least in principle—quite well known" (Prud'homme, 1995, page 208).

In addition, it has been argued that, where preferences do vary substantially, subnational governments may not necessarily be better at uncovering these preferences (Prud'homme, 1995).

Even if we assume that information asymmetries exist, fiscal decentralisation will only have a positive impact on allocative efficiency if subnational governments are willing and able to satisfy the preferences they reveal (Prud'homme, 1995, page 208). In addition, subnational governments may lack the technical expertise or resources to translate their knowledge of local preferences into effective policies. Since central governments can generally offer better career opportunities and salaries than subnational governments, it could be the case that central officers are on average better educated and more capable than their subnational counterparts (Prud'homme, 1995). Finally, subnational governments often lack the powers and resources necessary to really address local problems. Especially where decentralisation is a top-down process, subnational governments may receive unfunded mandates or block grants that are earmarked for certain expenditures (Rodríguez-Pose and Gill, 2003). This reduces the degree to which subnational governments can adjust spending to local preferences.

Since preferences for public goods are not directly observable and there is no market price for public goods, empirical work into the effect of decentralisation on allocative efficiency has been limited. Despite this lack of empirical evidence, the idea that fiscal decentralisation leads to allocative and producer efficiency gains has won widespread acceptance (Loehr and Manasan, 1999; Martínez-Vázquez and McNab, 2003; Thießen, 2003). The proponents of this position argue that decentralisation gives subnational governments a strong incentive to produce public goods and services more efficiently by creating interjurisdictional competition for residents and economic activity (Brennan and Buchanan, 1980; Breton, 1996; Thießen, 2003). In order to compete, subnational governments will have to make innovations to the production process that lead to a more efficient production of public goods and services (Breton, 1996; Donahue, 1997; Tanzi, 1995; Thießen, 2003). In addition, decentralisation may yield producer efficiency gains where diseconomies of scale exist. The costs of producing certain public goods may rise disproportionately with size, due to the increasing costs of information processing and the disadvantages associated with large centralised bureaucracies (Klugman, 1994). By making use of local resources, knowledge, and capacities, subnational governments may be able to shorten supply chains and adjust the production processes so that they fit local circumstances. This can in turn lower unit costs, allow governments to produce better-quality outputs with the same resources, and even make up for the central government's loss of redistributive power (Ezcurra and Pascual, 2008, page 1198).

The impact that decentralisation is likely to have on producer efficiency is, however, heavily disputed. First, it has been widely argued that economies of scale and scope exist in the production of many public goods and services (Prud'homme, 1995). This seems particularly true for the production of goods and services that are capital intensive—rather than labour intensive—and that require large fixed facilities (Frenkel, 1986). A critical mass of income, population, and activities, and thus a certain degree of centralisation, therefore seems to be a necessary prerequisite for the cost-efficient provision of certain goods and services (Breton and Scott, 1978; Rodríguez-Pose and Bwire, 2004). The diversity of our sample countries and the differences in size and population among their regions may, in some cases, affect the capacity of their subnational governments to deliver efficient public policies. Even if efficient production were to be possible at the subnational scale, government officials at this level may lack the capabilities to adequately guide and oversee the process (Prud'homme, 1995). Indeed, Oates (1993) argues that a fundamental problem with devolutionary projects in developing countries in particular is the lack of effective provincial and local fiscal institutions following years of highly centralised fiscal systems.

Again, empirical evidence of the effect of fiscal decentralisation on producer efficiency is scarce. Determining whether subnational governments are producing public goods on or closer to the production possibilities frontier of national governments is notoriously difficult. Cost comparisons for the provision of standard packages of goods and services are complicated by the fact that decentralisation usually leads to changes in the package of goods and services that are provided. In addition, certain public goods, such as local garbage collection, are not provided by the central government at all (Loehr and Manasan, 1999, page 419). Therefore, the effect of decentralisation on producer efficiency is difficult to quantify.

Does fiscal decentralisation lead to economic growth? The current state of the literature

In spite of the extensive theoretical literature and the seemingly widespread conviction that decentralisation can increase efficiency amongst governments and international organisations alike, empirical evidence remains scant. We have argued that this lack of robust empirical work can mainly be linked to the fact that government efficiency, in general, and allocative efficiency, in particular, are difficult to quantify. To avoid this complication, studies that aim to test the 'efficiency through fiscal decentralisation' hypothesis often resort to economic growth as a proxy for efficiency. Compared with allocative and producer efficiency, regional economic growth is relatively easy to measure, especially since regional GDP and population data have become readily available for many countries across the world in recent decades.

Although a substantial empirical literature has emerged on the relationship between fiscal decentralisation and growth, the results of such studies have so far been inconclusive. Some studies report a negative correlation between fiscal decentralisation and economic growth (eg Davoodi and Zou, 1998; Zhang and Zou, 1998; 2001), while others find a positive relationship (Akai and Sakata, 2002; Iimi, 2005; Lin and Liu, 2000) or no relationship at all (Davoodi and Zou, 1998; Woller and Phillips, 1998). Thießen (2003), however, argues that the relationship is in fact hump shaped, suggesting there may be a growth-maximising level of decentralisation (table 1).

Understanding these divergent results is complicated by the fact that the theoretical literature on the link between decentralisation, efficiency, and growth is scarce. As we have seen in the previous section, the static proposition that fiscal decentralisation enhances allocative and producer efficiency is already contentious. The idea that such efficiency gains lead to economic growth is no less debatable. Perhaps the link between producer efficiency and economic growth is least controversial. If subnational governments are indeed more efficient at producing certain public goods and services than the central government, decentralisation will lead to the production of more or better-quality public goods and services with the same level of expenditures. Over time, this additional or better-quality government output is likely to have a positive effect on income and growth (Martínez-Vázquez and McNab, 2003). However, the notion that fiscal decentralisation leads to producer efficiency gains is probably the most contentious element of the 'efficiency through decentralisation' discourse.

Most of the quantitative studies into fiscal decentralisation and growth assume that the transfer of powers and resources to lower tiers of government affects growth by changing the allocation of resources across expenditure categories. Within the

Table 1. Fiscal decentralisation and economic growth.

Author (year)	Sample	Period	Findings
Akai and Sakata (2002)	USA	1988 – 1996	Positive and significant
Davoodi and Zou (1998)	46 countries	1970 – 1989	Developing: negative, but not significant OECD: no relationship
Iimi (2005)	51 countries	1997 – 2001	Positive and significant
Lin and Liu (2000)	China	1970 – 1993	Positive and significant
Rodríguez-Pose and Bwire (2004)	Germany, India, Italy, Mexico, Spain, and US	Different periods until 2001	Most insignificant, with the exceptions of Mexico, the US, and, partially, India, where it becomes negative
Thießen (2003)	26 countries	1973 – 1998	Hump-shaped relationship
Woller and Phillips (1998)	23 less-developed countries	1974 – 1991	No relationship
Zhang and Zou (1998)	China	1980 – 1992	Negative and insignificant
Zhang and Zou (2001)	China	1987 – 1993	Negative and insignificant

growth literature, a leading tenet suggests that the composition of government expenditure may be central to understanding the effect that governmental expenditures have on economic outcomes (Barro, 1990; Devrajan et al, 1996; Kneller et al, 1999). A distinction is made between capital expenditures and current expenditures. Conventional wisdom proposes that capital expenditures will have a positive effect on growth, while an increase in current expenditures is expected to have no or a negative effect on growth (Aschauer, 1989; Barro, 1990). Unfortunately, it is not always possible to make a clear distinction between capital and current expenditures. For instance, spending on education is usually classified as capital expenditure (Barro, 1991; Kneller et al, 1999). However, in Mexico 95% to 99% of state education expenditures in the 1990s were earmarked for teachers salaries (Cabrero Mendoza and Martínez-Vázquez, 2000, page 155). In this case such educational expenditures should theoretically be classified as current expenditures, rather than as capital expenditures. Neither is it always the case that capital expenditure in the public sector (as opposed to private firms) should always be more growth enhancing than current expenditure. Spending on new government offices is, for example, not likely to yield greater economic returns than current expenditure. Bearing these caveats in mind and for the purpose of this paper, we follow the division between capital and current expenditures used by Kneller et al in 1999 (table 2).

A second and more serious issue with explanations based on expenditure types is that they do not take into account how the quality and type of decentralisation influences the allocation of resources and its effect on growth. The literature on regional economic development policies suggest that the effect of subnational policies on economic growth depends mostly on the degree to which these policies successfully

Table 2. Capital and current expenditures (source: Kneller et al, 1999, page 177).

Capital expenditures	Current expenditures
General public service expenditures	Social security and welfare expenditure
Educational expenditure	Expenditure on recreation
Health expenditure	Expenditure on economic services
Housing expenditure	
Transport and communication expenditure	

respond to the opportunities and threats that a community faces, rather than the overall type of expenditure (Cheshire and Gordon, 1998). In general, regional economic development programmes tend to focus on four areas: improving the competitiveness of local firms, attracting new inward investment, developing human capital, and upgrading infrastructure. As Rodríguez-Pose (2002) argues, intervention does not necessarily need to occur in all four areas, but it is more likely to have beneficial effects when expenditures in any of the four areas are properly tailored and matched by sufficient capability in the other three. For example, upgrading local infrastructure does not necessarily lead to economic growth and employment if the local economic fabric is weak. In other words, if local human capital and labour skills are low and firms within the locality are not competitive in a broader market, a capital investment aimed at improving infrastructure may only provide easy access to outside competitors rather than development opportunities for local firms. Similar arguments can be made for policies that focus on either of the other axes in an environment that suffers from weaknesses in other areas.

If we accept this reasoning, changes in the type of spending cannot fully explain the effect that decentralisation has on economic growth. Rather, the challenge becomes to uncover the conditions under which subnational governments are more likely to be able to match public goods and services to local needs in a growth-enhancing way. In order to do this we have to take a closer look at the diverse practices that are grouped together under the term decentralisation. Processes of decentralisation are complex and heterogeneous, with large differences existing in the speed and degree of decentralisation between both countries and the regions within them. Looking for a minimum common denominator, it can be argued that processes of decentralisation are made up of three factors: legitimacy, the decentralisation of resources, and the decentralisation of authority (Donahue, 1997). In essence, the heterogeneity in decentralisation arrangements originates from the conflict of interest between central and subnational governments and the differences in legitimacy or bargaining power that each of these government tiers has in the process (Rodríguez-Pose and Gill, 2005). In general, we would expect that subnational governments do not necessarily wish to receive the same powers and resources as central governments prefer to transfer. The type of decentralisation that occurs is therefore influenced by the relative strength, or, in political terms, legitimacy, of the respective tiers of government. Whether the process of decentralisation is bottom up—that is, driven by regional demands—or top down—controlled by the central government—influences both the type of powers that are transferred and the way in which the new responsibilities are financed. Both these elements in turn influence the degree to which decentralisation is likely to lead to allocative efficiency and growth. We argue that bottom-up decentralisation is more likely to have positive effects on efficiency and growth than top-down processes for several reasons.

Firstly, if the decentralisation process is driven by regional demands for greater autonomy, subnational governments are more likely to receive adequate resources for the tasks they need to perform. If we assume that government tiers behave as budget maximisers to some degree, the central government has an incentive to devolve responsibilities to subnational governments with as few accompanying resources as possible, creating unfunded mandates. However, where regions are more legitimate and can thus put greater pressure on the central government, the decentralisation of authorities is likely to be accompanied by a more generous amount of resources [for a more elaborate discussion, see Rodríguez-Pose and Gill (2003, pages 334–336)]. In addition, block grants that are earmarked for expenditures are likely to be more common when the decentralisation process is driven from above, as central governments may be reluctant to relinquish control. Taken together, we therefore expect that subnational discretion over expenditures is greater when the decentralisation process is bottom up rather than top down. As Oates-style allocative efficiency gains and the related economic benefits are intimately linked to the degree of subnational expenditure discretion, such gains seem more likely to emerge when subnational governments enjoy a greater degree of legitimacy and bargaining power.

Secondly, when regions have a stronger say in the decentralisation process, the powers and responsibilities that are transferred to the subnational level are more likely to match the areas in which regional needs diverge. Presumably, subnational governments that actively pursue additional powers and resources will aim to acquire authority in those policy areas where they feel that central policies are not adequately meeting regional needs. In a top-down process, central-level considerations tend to influence the type of policies that are decentralised. If the policy competences that are transferred to the subnational level do not match the areas in which regional wants and needs diverge, this can limit the potential for allocative efficiency gains and economic growth.

Finally, where decentralisation occurs in response to the growing legitimacy of subnational governments, the transfer of powers and resources to this government tier may also have positive secondary effects on growth. If the public strongly supports greater subnational autonomy or deeply distrusts the central government, decentralisation is likely to increase public trust in the government in general. The increased legitimacy of the governmental system as a whole may, in turn, create incentives for individuals to make savings, investment, and work effort decisions that are more conducive to growth (Martínez-Vázquez and McNab, 2003).

Decentralisation, efficiency, and economic growth: a matter of expenditure assignment or subnational legitimacy?

In this section we test whether the effect of decentralisation on growth is mainly due to a rebalance between capital and current expenditures as well as our alternative legitimacy-based argument in our five sample countries: Germany, India, Mexico, Spain, and the US. With the exception of Germany, considerable powers and resources have been delegated or devolved to subnational governments in all of these countries in the last decades. For example, states in the US have been receiving greater responsibility over welfare expenditures since the early 1980s, while Spanish regions have progressively gained greater powers during the 1990s and early 21st century, mainly in the realms of education and health. In Mexico functions have been transferred to the states on a sector-by-sector basis and in India decentralisation accelerated with the country's transition from a planned economy to a market economy in the 1990s.

Within the USA, India, and, to a lesser extent, Mexico, the decentralisation process was principally top down. In the US both Republicans and Democrats have made electoral commitments to decentralisation in recent decades (Kincaid, 2001). Some argue that the motivation behind such promises was mainly to reduce the perceived illegitimacy of the federal government (Donahue, 1997). A similar centrally driven process occurred in Mexico and in India. In both countries subnational governments remain highly dependent on the federal government for resources and their powers are restricted by the centre's ability to intervene in state affairs. Interestingly, in Mexico the driving force of devolution has gradually shifted from top down to bottom up since the late 1990s. Mexican state governments continue to raise their political capacity and 'voice', and increasingly have the credibility to demand greater political autonomy and more resources for their constituencies (Courchene and Díaz-Cayeros, 2000).

Since this shift is relatively recent, it will take a while for the effects of these changes on efficiency and growth to become apparent.

In Spain, however, the recent devolution of powers and resources occurred in response to clear regional pressures. The existence of regions with distinct identities and linguistic and cultural features has traditionally created a pressure towards greater regional autonomy. Devolution was widely perceived as a necessary step to consolidate democracy and to create a new and more widely accepted form of governance (Rodríguez-Pose, 1996), thus the 1978 Spanish Constitution allowed regions with a distinct identity, such as Catalonia, the Basque Country, and Galicia, to gain a large level of autonomy almost immediately. Less distinctive regions, such as La Rioja, Cantabria, or Madrid, went through a lengthy period of restricted autonomy (Guibernau, 2006). The trends in centralisation and decentralisation in our sample countries in the last three decades are presented in table 3.

These devolutionary developments were translated into an increase in subnational expenditures. Table 4 illustrates the subnational and national expenditure growth rates in Germany, India, Mexico, Spain, and the US. These data indicate that there has been a substantial increase in subnational expenditure resources, particularly in Spain between the late 1980s and the 1990s and in Mexico in the late 1990s. Over the periods

Table 3. Trends in centralisation and decentralisation in the US, India, Mexico, Spain, and Germany.

Year	US	India	Mexico	Spain	Germany
1970s	'New Federalism' agenda promotes the transfer of responsibilities to the states			Seventeen autonomous communities (AC) established	'Joint fiscal tasks' introduced
1980s	1981—seventy-seven categorical grants are consolidated into block grants	States receive greater functional responsibilities	Deconcentration efforts occurred during de la Madrid and Salinas presidencies	Statues of autonomy adopted	Cooperative federalism consolidated
	Federal aid to states in decline	Fiscal imbalances persist	Since 1989—opposition leaders victorious in gubenatorial elections in major Mexican states		Greater bargaining powers gained by federal government
1990s and 2000s	1995 – the Unfunded Mandate Reform Act	Shift towards a market economy	'New Federalism' agenda promoted under President Zedillo	1992—autonomy pact extends AC autonomy	Growing discontent with the equalisation system
	1996—Personal Responsibility and Work Opportunity Reconciliation Act for welfare reform	1992—new economic policies introduced	1997—conditional grants introduced as well as reforms promoting muncipal autonomy	1993 and again in 1996 – no overall majority in Parliament gives Catalan and Basque nationalist parties greater influence on decision making	From 2004 onwards—steps towards the reform of the federal system
		States fiscal health in decline		2000—transfer of education completed	
				2002—transfer of health completed	

Table 4. Average annual real growth rates in national and subnational expenditure per capita (source: calculated from World Bank world development indicators and national public finance data).

	National total	Subnational total	Subnational capital	Subnational current
Spain				
1985–2002	4.3	8.6	6.7	9.2
Mexico				
1995–2001	1.6	9.0	1.3	10.0
USA				
1992–2001	1.2	4.5	4.6	4.4
India				
1985–2001	5.7	4.2	2.6	7.3
West Germany				
1989–2001	1.9	−0.1	−0.3	0.0

examined, regional per capita expenditures increased by about 9% per annum in both Spain and Mexico. In comparison, central government expenditures over the same period increased by 4.3% per annum in Spain and by 1.6% per annum in Mexico. In both cases the growth of current expenditures was larger than the growth in capital expenditures. In Mexico this trend was particularly pronounced: current expenditures grew on average by 10% a year, compared with an average capital expenditure growth of a little over 1% per year.

In the US subnational expenditures also grew significantly faster than federal expenditures over the period from 1992 to 2000, but the growth of capital and current expenditures was more balanced. In India, in contrast, subnational expenditure growth was lower than the central growth rate over the period from 1985 to 2001. Subnational governments gained significant new powers and an important rise in resources over time, with state expenditures growing by 4.2% per annum. Again, current expenditures accounted for a large part of this increase, with a growth rate of over 7% compared with 2.6% for capital expenditures. In Germany we have limited our analysis to the subnational governments of the former West Germany. During the 1990s the Länder experienced a slight decline in their expenditure capacity, both in real terms and in relation to federal spending. The Länder per capita expenditures declined slightly, while the federal government's expenditures increased by 1.9% between 1989 and 2001.

In four out of our five sample countries subnational government current expenditures grew at a faster rate—or declined less—than total subnational expenditures (table 4). In part this may reflect the needs and wants of the citizens. However, it could also be the case that decentralisation provides subnational governments with incentives to undersupply those public goods requiring large capital expenditures. As argued in the previous section, cross-jurisdictional spillovers and externalities may affect capital expenditures, such as infrastructure investment, more deeply than current expenditures (Klugman, 1994). In addition, economies of scale and scope may make less efficient the subnational production of goods and services that are capital intensive, rather than labour intensive (Frenkel, 1986). Regardless of its origins, the tendency to reallocate resources towards current expenditures may signify that subnational governments are using their additional resources in a way that could be detrimental to overall economic growth, from a pure economic perspective. Before testing the validity of this proposition we will first take a closer look at the subnational spending patterns in the five countries under examination. Although general trends are recognisable, regional differences are substantial across these countries.

In Spain current transfers have been on average the largest expenditure sector by autonomous communities. Public administration spending, which was the largest expenditure category at the beginning of the period of examination, was greatly reduced in relative terms during the 1990s. Simultaneously, current transfers increased from around 25% of regional spending in 1985 to almost 33% in 2002 (table 5). The growing size of the transfer sector in Spain reflects the regional governments' increasing control over functions and resources. Table 5 shows that these collaborations have translated into a relative declining size of their budgets allocated to current transfers in both regions.

In Mexico transfers also constitute the largest expenditure sector. Table 5 shows that the Mexican states spent on average 55% of their total expenditures on transfers between 1999 and 2001. This is indeed an increase from the mid-1990s when transfer expenditures absorbed around 30% of the states' budgets. Within individual regions, changes have been even larger. In Guerrero, for example, transfer expenditures increased from less than 15% of the annual budget in the mid-1990s to over 72% between 1999 and 2001. Interestingly, table 5 shows that the states with large shares of expenditure initially devoted to transfers are also those with relatively small changes in their priorities during the period of analysis. This suggests a convergence in the shares that subnational governments dedicate to this category.

The substantial increase in the size of the transfers sector in Mexico by 2001 can in part be linked to the fact that conditional transfers—called *aportaciones*—were introduced in 1997 in order to finance specific public programmes such as education, health, and infrastructure. Education and health are by far the largest expenditure sectors within the transfer category. For example, in the health subsector the transfer of human resources, infrastructure, and financial resources to all the states was concluded in 1997 (PAHO, 1998). However, the majority of expenditures in the transfer sector are earmarked at the federal level for certain expenditures, primarily salaries. In other words the Mexican federal government maintains control over subnational governments transfer expenditures and continues to steer the expenditure trajectory of subnational governments towards current outlays through the education and health programmes in particular.

In India nondevelopmental expenditures is the largest expenditure sector (table 5). This expenditure sector consists primarily of interest on debt expenditures and government administration expenditures. Interest payments have been the fastest growing component of the states revenue current account (Mundle and Rao, 1997). The rise in spending on the nondevelopmental sector reflects the deterioration of the Indian states fiscal health since the mid-1980s as the devolution of expenditure mandates without a similar rise in resources led to an increasing gap between revenues and expenditures which the states tackled through borrowing to service current expenditures. This rise in state borrowing coincided with an increase in interest rates and thus a growing deficit and rising debt. These nondevelopmental expenditures appear to be crowding out expenditures in sectors such as irrigation and agriculture. This could be particularly detrimental to per capital income and economic growth, since in some states agriculture still accounts for over 40% of GDP (Josi et al, 2001) and as much as 70% of the total workforce (Guruswamy, 2003). Again, regional differences are substantial, with nondevelopmental spending rising from 24% to 50% of total spending in Punjab, but only from 27% to 30% in Karnataka over the period between 1985 and 2000.

In the US subnational welfare expenditure has experienced the greatest increase (table 5). This is related to the welfare reforms of the 1990s. States gained greater discretion over welfare spending, primarily through the implementation of block grants. However, while expenditures related to the new welfare programme (TANF),

Table 5. Regional allocation in the largest expenditure sector (source: our calculations based on national public finance data).

Period/year	Expenditure in sector as a percentage share of the total						
Current transfers	Spain	*Castilla-León*	*Extremadura*	*Madrid*	*Basque Country*	*Canary Islands*	*Cantabria*
1985	24.4	17.0	13.3	3.5	23.8	28.7	27.4
1990	27.8	45.5	11.6	15.8	25.4	27.9	18.3
1995	29.1	56.1	10.2	19.8	25.8	21.0	10.7
2002	32.5	54.0	39.0	28.6	22.9	21.0	19.6
change $(t_1 - t_0)$	8.1	37.0	25.7	25.1	−0.9	−7.7	−7.8
Transfers	Mexico	*Morelos*	*Guerrero*	*Tlaxcala*	*Nayarit*	*Quintana Roo*	*Tamaulipas*
1995–1997 (average)	30.4	39.2	14.5	28.4	69.2	66.7	63.1
1999–2001 (average)	54.9	77.8	72.8	71.1	68.4	68.4	66.2
change $(t_1 - t_0)$	24.5	38.7	58.2	42.7	−0.8	1.7	3.1
Nondevelopmental	India	*Punjab*	*Uttar Pradesh*	*Madhya Pradesh*	*Gujarat*	*Karnataka*	*Andhra Pradesh*
1985	24.5	24.2	23.8	19.8	21.8	27.4	21.7
1990	27.9	31.6	31.0	23.9	24.9	25.6	25.5
1995	33.7	48.2	44.2	28.6	26.1	27.7	27.6
2000	39.0	50.1	45.1	39.5	30.8	30.5	30.4
change $(t_1 - t_0)$	14.5	25.9	21.4	19.7	9.0	3.2	8.7
Public Welfare	US	*New York*	*Rhode Island*	*Nebraska*	*Massachusetts*	*Michigan*	*Wisconsin*
1992	22.3	33.4	21.8	20.0	29.8	25.5	22.9
1996	25.9	38.0	25.9	22.6	26.3	20.4	20.9
2001	24.6	38.0	29.1	25.0	24.3	20.6	17.3
change $(t_1 - t_0)$	2.3	4.6	7.3	5.0	−5.5	−4.9	−5.6
Social services	West Germany	*Hamburg*	*Berlin*	*Bremen*	*North Rhine-Westphalia*	*Bavaria*	*Baden-Württemberg*
1989	17.2	22.8	19.9	18.9	19.5	11.2	13.2
1995	20.1	26.6	22.7	23.0	22.0	12.7	14.9
2001	21.9	29.9	28.2	25.5	21.5	14.4	14.3
change $(t_1 - t_0)$	4.7	7.1	8.3	6.6	2.0	3.2	1.1

as well as spending on a variety of public assistance programmes, are a part of this expenditure category, a large portion of welfare expenditures go to the Medicaid programme (NASBO, 1999). Over the period under examination, Medicaid expenditures rose sharply due to increases in health care costs and other factors, including population size, age distribution, personal income, and insurance status (Martin et al, 2001). The growth of states' functional responsibilities over health expenditures alongside the growth of Medicaid costs are increasingly tying up state resources. Some states, like for instance Michigan, Massachusetts, and Wisconsin, nonetheless managed to reduce their percentage of expenditures on welfare between 1992 and 2000 (table 5).

In the German case the largest and fastest-growing component of the Länder's expenditure was social security. This category includes spending on medical assistance, pensions, and other assistance programmes. The size of this expenditure sector mirrors the importance of the German welfare state and the national commitment to uniformity of living standards for all citizens. Table 5 indicates that the largest increase in the social security sector is found in the city-states (Berlin, Hamburg, and Bremen). The growth of this sector is related to the changing demographic structure and the incapacity to balance contribution to the pensions insurance system with the ageing population (Sinn, 1999).

Subnational expenditure and regional economic performance in Germany, India, Mexico, Spain, and the US

On the basis of the evolution of subnational expenditure in our sample countries and the theories on expenditure sectors and growth, we would expect to find that, in Mexico, India, and Spain, decentralisation would have led to a reallocation of resources that is, on average, detrimental to growth. In the US, where the growth of capital and current expenditures has been more balanced, we would anticipate a neutral association between decentralisation and states' growth. In Germany, where centralisation more than decentralisation was the norm during the period of analysis, no significant effects are expected, as the balance of capital and current expenditures has remained relatively stable.

To test whether this allocation of resources across expenditure categories has indeed influenced regional growth rates, we run a dynamic regression analysis of regional GDP per capita growth on the size and variation in the type of expenditure by subnational governments in our sample countries. We also control for the effect that differences in regional GDP per capita may have on GDP growth.

The model adopts the following form:

$$\Delta G_{i,\, t_1-t_0} = \alpha + \beta_1 \ln G_{i,\, t_0} + \delta_1 \ln C_{i,\, t_0} + \delta_2 \Delta C_{i,\, t_1-t_0} + \zeta_1 \ln U_{i,\, t_0} + \zeta_2 \Delta U_{i,\, t_1-t_0} + \varepsilon_i , \quad (1)$$

where:

$\Delta G_{i,\, t_1-t_0}$ is the growth of GDP per capita in region i during the period of analysis;
α is a constant;
$\ln G_{i,\, t_0}$ represents the natural logarithm of GDP per capita in region i at the beginning of the period of analysis;
$\ln C_{i,\, t_0}$ denotes the natural logarithm of capital expenditure by region i at the beginning of the period of analysis;
$\Delta C_{i,\, t_1-t_0}$ is the growth in real terms of capital expenditure in region i during the period of analysis;
$\ln U_{i,\, t_0}$ denotes the natural logarithm of current expenditure by region i at the beginning of the period of analysis;
$\Delta U_{i,\, t_1-t_0}$ represents the growth in real terms of current expenditure in region i during the period of analysis;
ε is the error term.

We estimate the model by means of heteroskedasticity-consistent pooled ordinary least square (OLS) regressions. The use of pooled OLS has the advantage of allowing us to present a dynamic picture of the impact of different forms of regional expenditure on economic growth. As we have no preconceived hypothesis about the time lag needed for the initial and changes in capital investment and in current expenditures to have an impact on regional economic growth, we present the coefficients for the association between our independent and dependent variables for the year in which the investment takes place and for the five successive years, with the exception of Mexico, for which only a six-year time series is available and thus only two lags are reported. Variance inflation factor tests were conducted for all the variables included in the model, with multicollinearity only detected in the case of India, as a result of the association between GDP per capita and initial capital expenditure. Regressions for India are thus run without GDP per capita. The key results from this analysis are shown in table 6.

Table 6. Capital and current expenditures and regional gross domestic profit (GDP) growth in (a) India, 1985–2001 (regression run without GDP per capita because of multicollinearity problems between GDP per capita and capital expenditure), (b) Spain, 1985–2002, (c) Germany, 1989–2001, (d) US, 1992–2001, (e) Mexico, 1995–2001.

Growth of GDP per head	No lag	Lag 1	Lag 2	Lag 3	Lag 4	Lag 5
(a) India (1985–2001)						
ln GDP per capita						
ln capital expenditure	3.037***	3.701***	4.040***	3.160***	2.807**	1.888**
	0.867	*0.914*	*1.007*	*1.104*	*1.110*	*1.264*
Growth of capital expenditure	0.064	0.022	0.004	−0.003	0.004	0.024
	0.040	*0.043*	*0.048*	*0.051*	*0.049*	*0.051*
ln current expenditure	−0.944*	−1.717**	−1.619**	−0.767	0.683	1.524
	0.666	*0.699*	*0.749*	*0.838*	*0.884*	*1.183*
Growth of current expenditure	−0.029	−0.028	−0.024	−0.027	−0.087***	−0.084**
	0.027	*0.028*	*0.030*	*0.032*	*0.032*	*0.032*
Constant	−11.379***	−10.984**	−13.969***	−13.123**	−19.131***	−17.532***
	4.375	*4.684*	*5.197*	*5.711*	*5.694*	*6.179*
F	4.482	4.363	4.350	2.589	5.406	4.332
Prob > F	0.002	0.002	0.002	0.040	0.000	0.003
df	*4, 191*	*4, 177*	*4, 163*	*4, 149*	*4, 135*	*4, 121*
R^2	0.092	0.097	0.105	0.071	0.152	0.139
Adjusted R^2	0.071	0.075	0.081	0.044	0.124	0.107
(b) Spain (1985–2002)						
ln GDP per capita	−1.821***	−1.559***	−0.936*	−0.253	0.701	1.161**
	0.539	*0.544*	*0.505*	*0.488*	*0.498*	*0.546*
ln capital expenditure	−1.650***	−1.626***	−1.089***	−0.293	0.655**	1.109***
	0.310	*0.312*	*0.290*	*0.273*	*0.269*	*0.289*
Growth of capital expenditure	0.033***	0.003	−0.027***	−0.043***	−0.032***	−0.016*
	0.009	*0.009*	*0.008*	*0.008*	*0.008*	*0.009*
ln current expenditure	0.834***	0.944***	0.859***	0.645***	0.456***	0.367***
	0.184	*0.185*	*0.173*	*0.163*	*0.164*	*0.178*
Growth of current expenditure	0.027**	0.024**	0.026**	0.021**	0.009	−0.006
	0.012	*0.012*	*0.011*	*0.010*	*0.011*	*0.011*
Constant	30.809***	26.547***	15.890**	3.789	−12.990*	−20.870***
	7.499	*7.566*	*7.016*	*6.811*	*6.941*	*7.578*
F	14.990	8.449	7.437	12.381	15.642	13.492
Prob > F	0.000	0.000	0.000	0.000	0.000	0.000
df	*5, 249*	*5, 249*	*5, 249*	*5, 232*	*5, 215*	*5, 198*
R^2	0.275	0.176	0.158	0.255	0.323	0.315
Adjusted R^2	0.256	0.155	0.137	0.234	0.302	0.291

Table 6 (continued).

Growth of GDP per head	No lag	Lag 1	Lag 2	Lag 3	Lag 4	Lag 5
(c) Germany (1989–2001)						
ln GDP per capita	−1.895	−0.765	2.072**	3.439***	4.058***	4.497***
	1.379	*1.038*	*0.839*	*0.788*	*0.690*	*0.732*
ln capital expenditure	1.759	0.735	−0.812	−2.084*	−2.189**	−1.394
	1.826	*1.374*	*1.110*	*1.050*	*0.929*	*1.004*
Growth of capital expenditure	−0.047	−0.159***	−0.135***	−0.066**	−0.107**	−0.184***
	0.046	*0.034*	*0.028*	*0.030*	*0.043*	*0.051*
ln current expenditure	−0.625	−0.411	−0.676	−1.013	−1.777***	−2.979***
	1.267	*0.954*	*0.770*	*0.732*	*0.656*	*0.758*
Growth of current expenditure	0.199**	0.014	−0.158***	−0.200***	−0.141***	−0.038
	0.091	*0.069*	*0.055*	*0.051*	*0.045*	*0.056*
Constant	11.648	5.785	−9.739	−11.812*	−9.953*	−11.344*
	10.928	*8.225*	*6.643*	*6.209*	*5.541*	*5.928*
F	1.276	5.677	14.052	11.136	12.183	12.087
Prob > F	0.282	0.000	0.000	0.000	0.000	0.000
df	*5, 104*	*5, 104*	*5, 104*	*5, 93*	*5, 82*	*5, 71*
R^2	0.072	0.257	0.461	0.440	0.504	0.552
Adjusted R^2	0.016	0.212	0.429	0.400	0.462	0.507
(d) US (1992–2001)						
ln GDP per capita	0.364	−0.207	−0.314	−0.609	−0.516	−0.739
	0.537	*0.596*	*0.669*	*0.786*	*0.968*	*1.508*
ln capital expenditure	−1.753***	−2.373***	−2.606***	−2.994***	−3.181***	−3.178***
	0.362	*0.395*	*0.443*	*0.520*	*0.645*	*1.000*
Growth of capital expenditure	0.136***	0.094***	0.069**	0.056	0.039	0.057
	0.026	*0.030*	*0.034*	*0.038*	*0.046*	*0.064*
ln current expenditure	−0.021	0.368	0.514	0.494	0.503	0.664
	0.363	*0.397*	*0.440*	*0.518*	*0.653*	*1.093*
Growth of current expenditure	−0.003	−0.012	−0.049*	−0.038	−0.024	−0.117
	0.024	*0.026*	*0.029*	*0.034*	*0.045*	*0.082*
Constant	11.238**	19.226***	21.298***	27.326***	27.666***	29.218**
	4.937	*5.530*	*6.256*	*7.247*	*8.894*	*13.560*
F	13.370	12.573	11.881	10.658	7.019	3.629
Prob > F	0.000	0.000	0.000	0.000	0.000	0.000
df	*5, 344*	*5, 294*	*5, 244*	*5, 194*	*5, 144*	*5, 94*
R^2	0.185	0.205	0.234	0.270	0.272	0.292
Adjusted R^2	0.171	0.189	0.215	0.245	0.233	0.212
(e) Mexico (1995–2001)						
ln GDP per capita	1.717***	1.207**	1.486**			
	0.453	*0.539*	*0.639*			
ln capital expenditure	0.075	0.100	−0.730*			
	0.244	*0.282*	*0.403*			
Growth of capital expenditure	−0.005	−0.003	−0.007			
	0.005	*0.005*	*0.005*			
ln current expenditure	−2.310***	−1.942***	−1.868***			
	0.442	*0.478*	*0.565*			
Growth of current expenditure	−0.024	−0.029*	−0.030*			
	0.150	*0.016*	*0.016*			
Constant	2.917	4.837	5.167			
	4.137	*4.612*	*5.205*			
F	6.987	4.074	3.533			
Prob > F	0.000	0.020	0.008			
df	*5, 118*	*5, 87*	*5, 56*			
R^2	0.228	0.190	0.240			
Adjusted R^2	0.196	0.143	0.172			

*** Significant at the 99% level; ** significant at the 95% level; * significant at the 90% level.
Note: standard errors reported in italics under unstandardised coefficients.

In the case of Germany we find that the level of current and capital expenditures does not have a significant effect on regional economic growth in the period immediately after the expenditures take place. Over time, both initial levels and, more extensively, the growth in capital and current expenditures are found to have a significant and negative effect on growth. Whereas the negative association between initial capital and current investment by regional governments on economic growth becomes significant three and four years, respectively, after the investment takes place, the negative impact of the growth in capital and current investment kicks in much earlier (table 6). These results reflect the situation of a country where, first, a highly developed horizontal federal equalisation system among Länder has existed since the inception of the Federal Republic (Zimmermann, 1989) and, second, the legal framework of decentralisation has remained stable, leading to a de facto recentralisation over the period under investigation. This implies that, as the Länder have had limited incentives to care for their own tax base (Zimmermann, 1989) and have lost relative capacity to implement their own autonomous policies vis-à-vis the federal state, the negative effects of the taxation needed to finance regional expenditures may outweigh the economic benefits of the public goods and services that are produced by the regional tier of government. The only exception is the change in current expenditures, which is positively and significantly associated with regional growth in the year when the change takes place. However, the positive effect withers away in time, with the coefficient becoming negative and significant.

The United States is the only case in our sample where recent decentralisation trends have not led to a shift towards greater current expenditure at state level. It is therefore not surprising that we find virtually no effect of the level or growth of current expenditures on economic performance. The results highlight a significant negative effect of the volume of capital expenditure on growth. As richer states tend to invest more in capital expenditures, this may indicate some degree of cross-state convergence, a hypothesis that is reinforced by our finding that an increase in capital expenditure is positively correlated with growth, although the positive effect—and thus this type of convergence—withers away over time. Taken together, these findings indicate that neoclassical forces could be at work in the case of the US, as one additional dollar of capital investment yields a higher return in poorer states than in their richer counterparts, at least in the first three years after the change in the investment takes place (table 6).

In two of the three cases where decentralisation has been associated with an increase in current expenditures to the detriment of capital expenditures, the overall impact on economic growth of shifts towards current expenditure by regional governments has been, as predicted by mainstream economic theory, generally negative. The only exception is Spain. In the case of India the results clearly concur with Barro's (1990) approach. Capital expenditure is correlated with greater economic growth, although the volume of expenditure is more relevant than the growth in expenditure over time. Current expenditure is, by contrast, negatively correlated with growth. The volume of expenditures has an immediate negative association with economic performance, while growth in current expenditure only has a significant negative correlation on growth after four years (table 6).

In Mexico the fact that decentralisation is a relatively recent phenomenon demands caution when interpreting the results of table 6. However, the pattern displayed by the Mexican coefficients for current expenditure is similar to that in evidence in the Indian case. The volume of current expenditure is strongly negatively correlated with economic growth, while increases in current expenditure have a weaker, but also negative, association with growth.

In our final case, Spain, the inverse relationship stands. Both the volume and growth of capital expenditure are generally negatively correlated with growth, while the volume and growth of current expenditure are growth enhancing. The positive association between economic growth and the initial levels of current expenditure lingers in time, while that with changes in current expenditure by regional governments only withers away four years after the changes take place. In contrast, the negative association between capital expenditure and regional economic growth observed during the first three years becomes positive and significant after five years.

The fact that we find significant effects that run counter to the predictions of expenditure-type-based explanations indicates that the relationship between fiscal decentralisation, allocative efficiency, and growth is more complex than these type of explanations suggest. We argue that the characteristics of the process of decentralisation in each country help us to interpret these results and expand our understanding of what determines how decentralisation influences efficiency and growth.

In India, Mexico, and Spain decentralisation led to an increase of current expenditures to the detriment of capital expenditures. On the basis of this finding, as mentioned earlier, decentralisation would have a detrimental effect on growth. The results in the cases of India and Mexico concur with this prediction: the diversion of funds from capital to current expenditures in the wake of decentralisation seems to have negatively affected economic growth and prosperity. However, in Spain, where decentralisation was fundamentally driven by nationalist forces in Catalonia, the Basque Country, and, to a lesser extent, Galicia and thus had a distinctly bottom-up nature (Núñez, 2001), the opposite is true: the increase in current expenditures at the expense—at least in relative terms—of capital expenditure is positively associated with regional growth. It can be argued that the bottom-up nature of devolution in Spain created the conditions in which decentralisation was more likely to generate allocative efficiency gains and economic growth, even if it was accompanied by a shift towards current expenditures to the detriment of capital expenditures.

There are several factors that would support this hypothesis. First, as decentralisation in Spain was mainly driven from below, Spanish regions have generally had relatively adequate funding to implement their own autonomous policies (Castells, 2001). In India and Mexico, however, funding at the subnational level has been more limited. Indian and Mexican states have thus had a stronger reliance on block grants earmarked for specific expenditures. This combination of relatively scarcely funded mandates and earmarked resources have forced Indian and Mexican subnational governments to make specific types of expenditures. In Spain the ability of subnational governments to use their legitimacy to negotiate more favourable conditions allowed them to exercise greater discretion over the allocation of resources, both across and within expenditure sectors. This greater discretion over expenditures is particularly important if we accept the argument that decentralisation mainly influences economic performance through the capacity of subnational governments to cater for local needs, rather than the resource allocation across expenditure sectors.

Spanish subnational governments may also have been better able to target expenditures successfully, because the devolution process took place in response to regional demands for greater autonomy. In the mainly top-down devolution processes of India and Mexico, not only is the overall expenditure capacity of states more determined by the federal government, but also the areas of decentralisation seem to be guided more by central government considerations than by regional demands or needs. This type of top-down decentralisation may be less conducive to efficient resource allocation and economic growth. In Spain the shift from capital to current expenditures may thus be a genuine response by regional governments to local demands and needs, leading to greater allocative and, possibly, production efficiency, while in the Indian and Mexican cases it may just reflect the lower bargaining capacity of subnational governments that have to make do with unfunded mandates and earmarked grants.

Finally, in Spain devolution may also have had positive secondary effects on growth, by increasing stability and public trust in the government. After the death of General Franco, decentralisation played a role in legitimising the Spanish central state and strengthening democratic principles (Aja, 2001; Núñez, 2001), as well as providing an outlet to limit the risk of ethnolinguistic strife (Guibernau, 2006). Hence, the benefits that decentralisation had in terms of stability and democracy may have, in turn, favoured the creation of incentives for individuals to make savings, investments, and work effort decisions that are more conducive to growth (Martínez-Vázquez and McNab, 2003). In the cases of India, Mexico, and the US, top-down devolutionary processes and more limited popular support for devolution may have undermined the potential positive economic effect that the strong legitimacy of a devolutionary process may bring about.

Conclusions

The majority of the literature on fiscal decentralisation suggests that political decentralisation brings about significant welfare and economic benefits. It is often claimed that devolved subnational governments, because of their greater proximity to citizens, are more capable to match policies and public good provision to the needs of local inhabitants, delivering greater allocative efficiency. When greater allocative efficiency is coupled with a better targeting of capital expenditure, devolution is also expected to bring about greater productive efficiency and economic growth. Hence, if devolved governments autonomously devote their resources to capital investment, the greater matching of policies to needs associated with subnational governments will yield economic dividends.

In this paper we have tested empirically whether this hypothesis stands for four countries that have witnessed significant, but radically different, devolution processes in recent years: India, Mexico, Spain, and the US. Germany, a strongly decentralised country where the legal framework that governs the link between the federal government and the Länder has remained relatively stable in recent years and where there has been some de facto recentralisation, has been used as our control country.

The analysis of the evolution of expenditures by subnational governments in all of the countries considered brings to the fore the fact that, with the exception of US states, most subnational governments had progressively shifted resources from capital to current expenditure. Regional expenditure on education, innovation, or infrastructure has been giving way to expenditure on salaries, recreation, prisons or corrections, and, above all, social security and welfare. Such a change in expenditure priorities means that the potential economic benefits related to devolution highlighted by the literature on fiscal decentralisation may have not materialised. Shifts towards greater current expenditure in the cases of Germany, India, and Mexico have indeed meant that devolution has been negatively, rather than positively, associated with economic performance. Only in the US—the only country in our sample that has resisted the trend towards greater current expenditures at the subnational level—is growth in capital expenditure positively correlated with state-level economic performance. Although in the US case there seems to be more of a convergence in the returns of capital expenditure across states than a truly positive effect of changes in capital expenditure as a result of devolution.

While the four cases above go along with expectations, the Spanish case defies economic theories. Here is a country that has embarked in an ambitious devolution process and whose regions have significantly increased subnational current expenditure, and yet regions that have the greatest share of (or have witnessed the greatest growth in) current expenditure not only do not grow less than those regions that have invested more in capital goods and services, but actually outperform them.

The potential explanation for these trends may be that the link between devolution and economic performance at the subnational level is more complex than a simple current versus capital expenditure dilemma or than the possibility of better adapting policies and public goods and services to local needs. Differences in the drivers and types of decentralisation and devolution may also condition economic outcomes. Strong popular demand for devolution will, in all likelihood, deliver more powerful and legitimate subnational governments, with greater capacity and resources to implement their own autonomous policies without central or federal government interference. Weak demands for devolution, in contrast, will see the central or federal government in the driving seat of the process, resulting in less legitimate subnational governments. This is likely to affect the bargaining capacity of lower tiers of government, leading frequently to unfunded mandates and to the central government retaining a significant degree of control of the expenditure capacity of subnational governments through earmarked or conditional grants. Hence, the growth in current expenditures by subnational governments especially in India and Mexico may simply reflect the lack of autonomy or of sufficient funds by Indian and Mexican states to pursue fully autonomous policies. This may be especially poignant in cases of unfunded mandates, where social and welfare current needs may take precedence over capital expenditure, whose benefits will only be felt a few years down the line. Mexican and Indian states, because of their weak legitimacy during the devolution process, are thus not in the best position to cater for the preferences and needs of the local population, hence limiting the potential economic benefits of a matching of local policies to local needs, in a Tiebout or Oates style. In the Spanish case the choice to put greater emphasis on current, rather than on capital expenditures, may in contrast be a genuine Tiebout and Oates style response to the needs and demands of local residents.

Consequently, the 'economic dividend' of devolution and fiscal decentralisation does not depend exclusively on the potential of subnational governments to deliver policies that better match the needs of their citizens (Oates, 1972), or on the leadership and capacity to innovate of subnational governments (Donahue, 1997), or on the quality and nature of subnational policies and of the civil servants that have to design and implement them (Prud'homme, 1995). The economic returns of devolution are also affected by the bargaining powers of the political actors involved in the decentralisation process and by the perceived legitimacy of different tiers of government. And more legitimate subnational governments are more likely to be able to deliver an economic dividend than those whose capacity to cater for the needs of local citizens is curtailed by weak legitimacy.

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