

INTERGOVERNMENTAL GRANTS IN OECD COUNTRIES: TRENDS AND SOME POLICY ISSUES

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Introduction

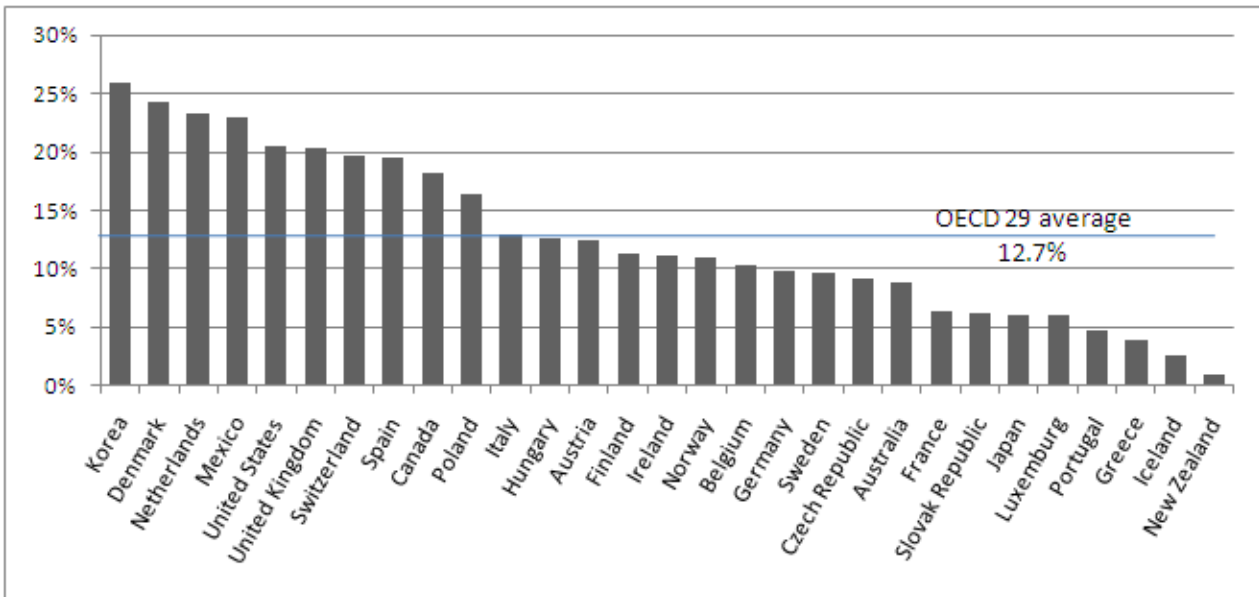
1. Intergovernmental grants make up around one half of total tax-plus-grants revenue of sub-central governments (SCG) in OECD countries on average. Earmarked grants in turn represent around 50 percent of total grants. The first section of this paper describes the grant systems and the grant structure in OECD countries, and analyses their evolution between 1995 and 2005. The second section analyses the distinction between earmarked and non-earmarked grants in OECD countries, and their evolution during the last decade. The third section deals with some policy issues related to the intergovernmental grants system: their different purposes and potential side effects.

1- Intergovernmental transfers: level and evolution

The system of intergovernmental grants has grown in more than half OECD countries during the last decade...

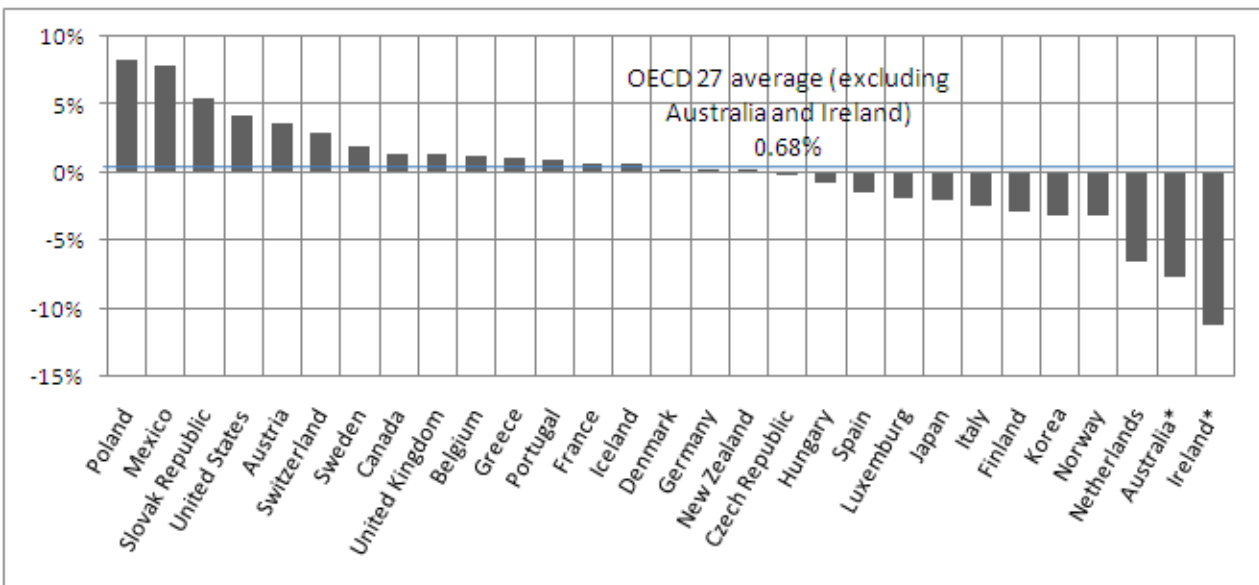
2. Between 1995 and 2005 the average ratio of transfers to total government grew steadily and regularly in around two-thirds of the OECD member countries. Year-on-year increases in the transfer share are much more frequent than falls. Today, the share of sub-central transfers in total government expenditure varies between 26% (Korea) and 1% (New Zealand), with an average of around 13%. Federal countries have a higher transfer-to-government expenditure ratio than unitary countries, partly because there are more government levels disbursing grants. Grants have largely covered the growing fiscal gap of the 1995 to 2005 decade, acting as a main policy lever in the decentralisation process and determining the balance between the two SCG fiscal resources.

Figure 1. Share of transfers in total government expenditure, 2005



Source: OECD National Accounts

Figure 2. Change in transfers to total government expenditure, 1995-2005



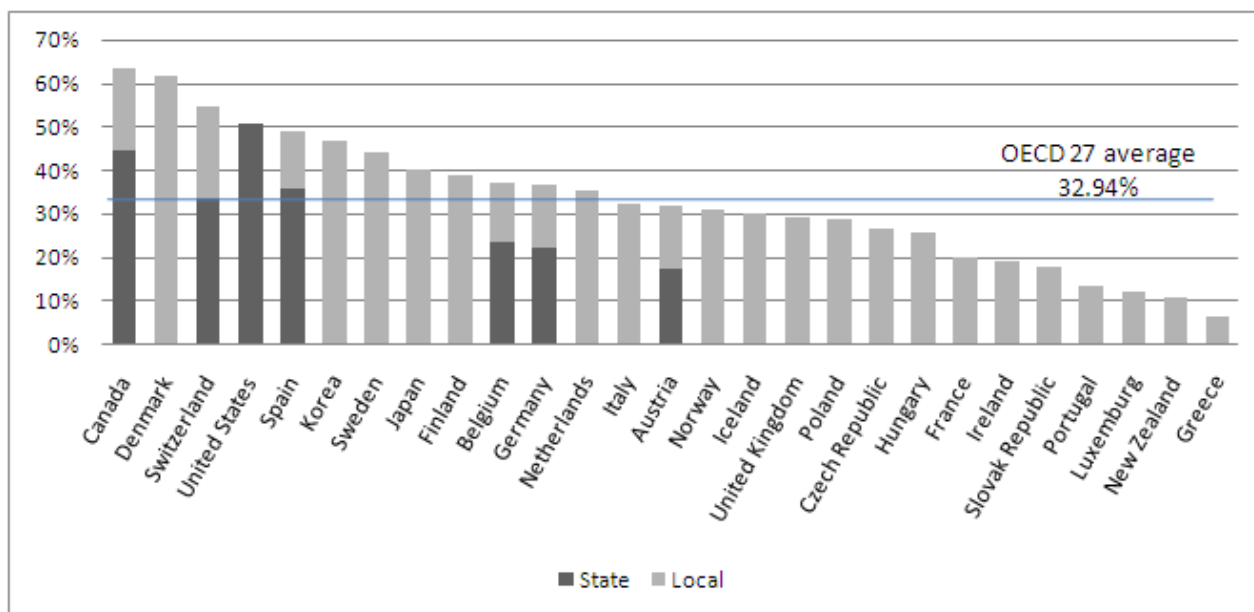
Source: OECD National Accounts, * The apparently strong reduction in Australia's and Ireland's transfer systems is mostly due to a change in accounting practices.

... due to a clear decentralisation trend in spending ...

3. While the ratio of SCG to total expenditure varies strongly across OECD countries (61% for Canada, 5% for Greece), between 1995 and 2005 its average increased from less than 31 to almost 33%. Only in Ireland, Japan, the Netherlands and Norway did the sub-central spending share significantly decrease. In most countries, SCG spending growth was regular and steady, with some countries showing

sharp increases close to or above 10 percentage points – such as in the Czech Republic, Finland, Poland, the Slovak Republic, or Spain. On average, federal countries have a higher SCG expenditure share (figure 3) and an above average growth rate (figure 4), even though the constitutional framework (federal or unitary) does not fully explain the pattern, as some unitary countries also show very high shares, and some federal countries have seen this share decrease since 1995. Actually simple expenditure ratios do not take into account the spending power, *i.e.* the capacity of SCGs to choose the level and composition of their spending.¹

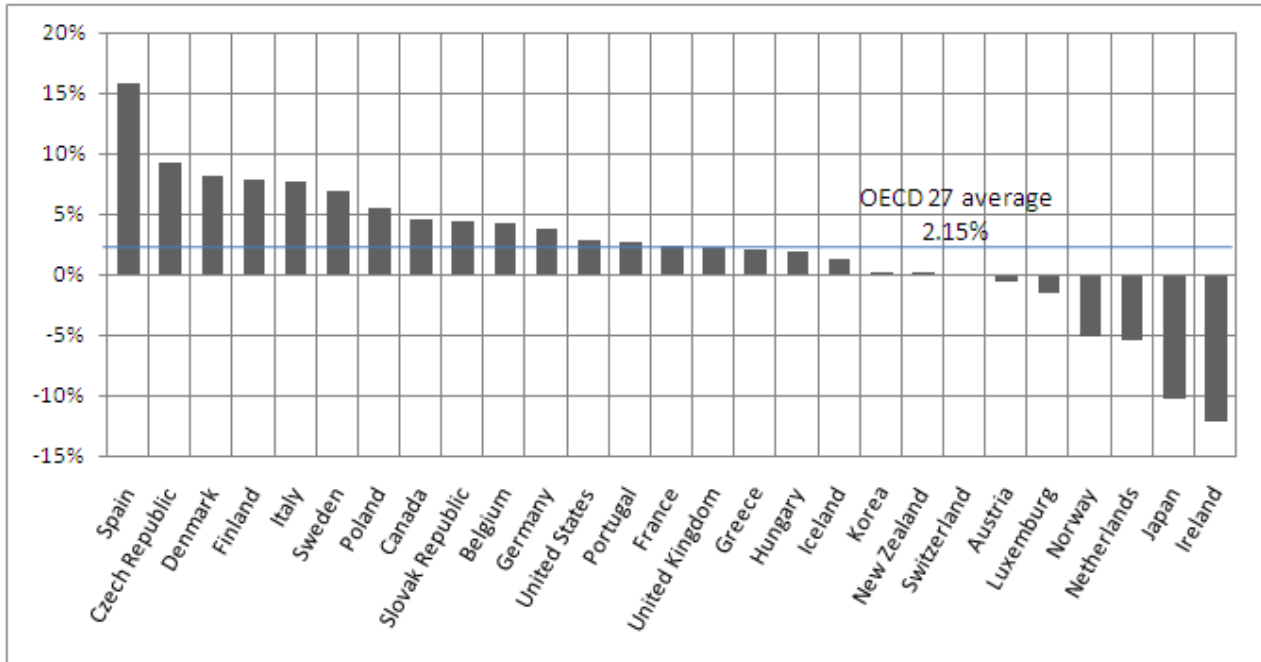
Figure 3. **SCG expenditure ratios, 2005**



Source: OECD National Accounts

¹ On the measurement of true spending power using institutional indicators see Bach, Blöchliger and Wallau. (2009).

Figure 4. SCG expenditure ratios, 1995-2005



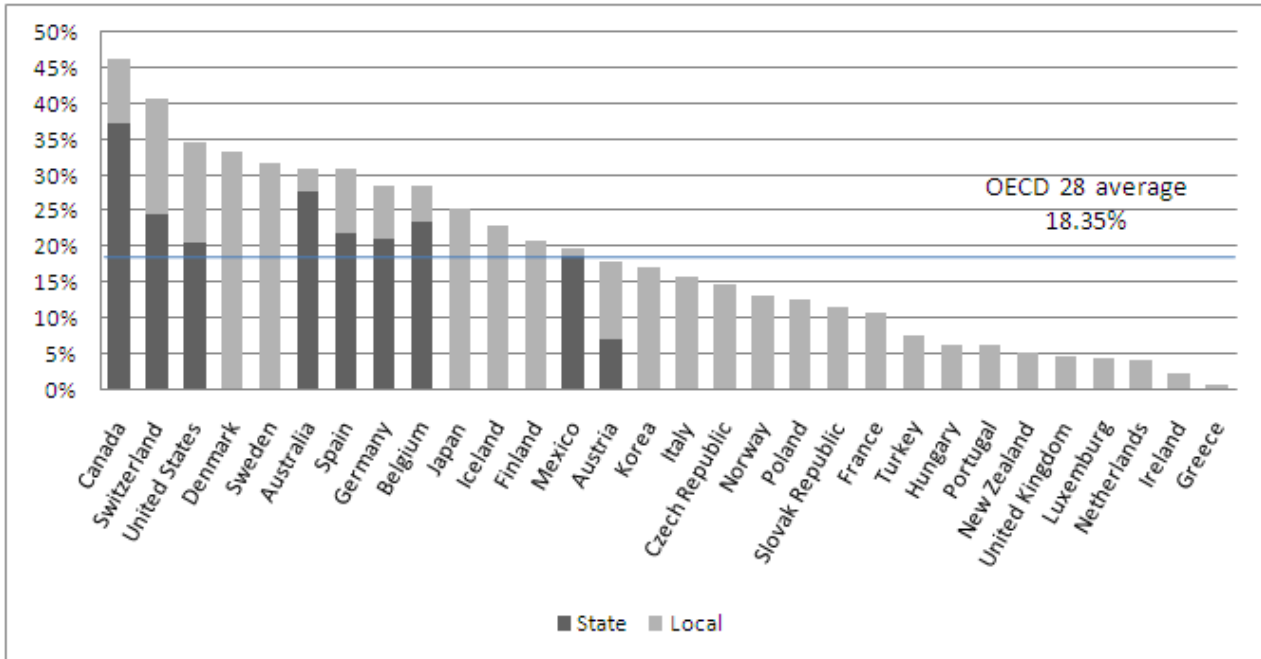
Source: OECD National Accounts

... while tax decentralisation remained relatively limited.

4. Unlike spending, tax revenues have hardly been decentralised to lower level governments during the last decade (figure 6). The SCG to total tax share varies between 46% (Canada) and 1% (Greece), with an average tax share of 17% (figure 5). Federal countries grant a significantly higher SCG tax share than unitary countries (28 versus 13%). Between 1995 and 2005 the tax share rose slightly from 17 to 18% of total tax revenue, but this increase is mainly due to a few countries involved in secular decentralisation such as Hungary, Italy and Spain.² In all other countries, the sub-central tax share remained roughly stable or even decreased.

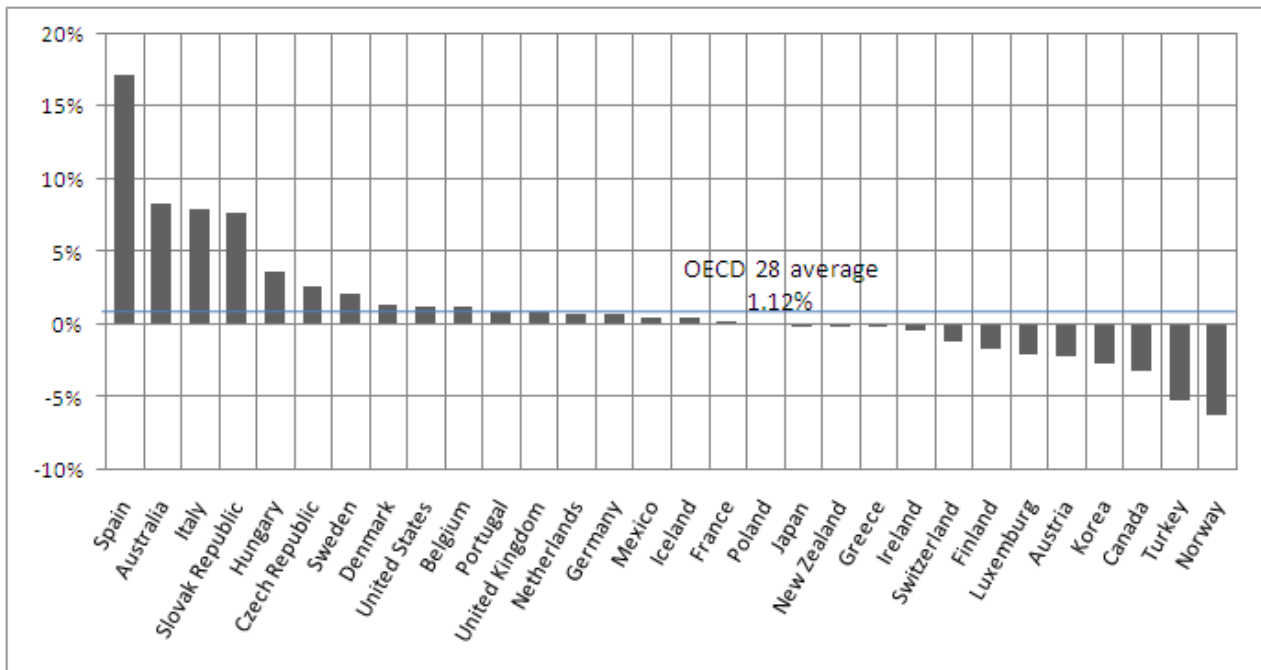
² Australia also shows a strong increase around the year 2000, but these numbers reflect a change in accounting following the introduction of the GST (Australian VAT) rather than a true expansion of SCG taxing power.

Figure 5. Tax revenue ratios, 2005



Source: OECD National Accounts

Figure 6. Change in tax revenue ratios, 1995-2005



Source: OECD National Accounts

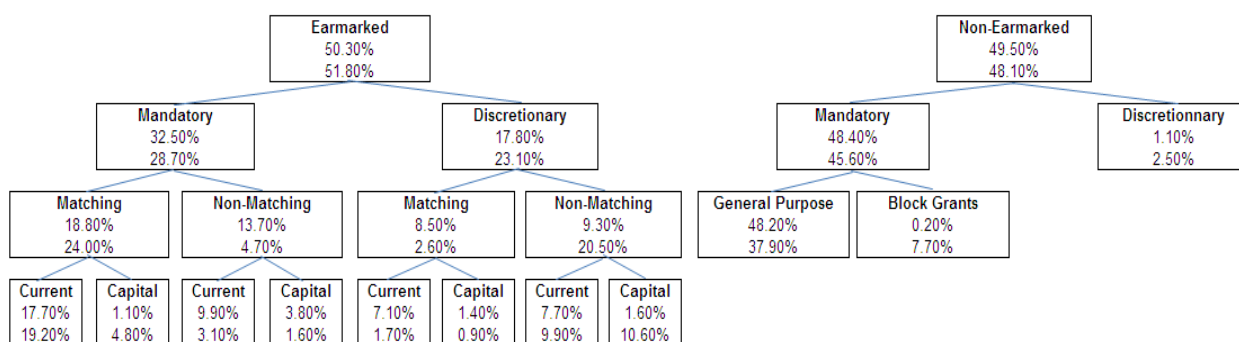
5. Sub-central taxation appears to be a very stable feature of fiscal policy in general and in fiscal federalism in particular, with the taxing power of each government level often anchored in constitutional provisions or fundamental laws on sub-central autonomy. While stable fiscal frameworks make potential

tax revenue more predictable, the widening gap between sub-central spending and sub-central tax revenue requires finding additional SCG resources such as transfers.

2- Earmarked versus non-earmarked grants

6. Grants can be divided into many different categories, each type of grants serving different purposes and having different pros and cons. The main distinction for assessing sub-central fiscal autonomy is the division between earmarked and non-earmarked grants. The two categories can be further subdivided into mandatory and discretionary grants, which has different implications in terms of predictability of revenues for SCGs. Earmarked grants may be further subdivided into matching and non-matching grants, according to whether the transfer is linked to SCG own expenditure or not. This distinction has important consequences on sub-central incentives to spend. Finally, earmarked grants can also be subdivided between grants for capital expenditure and grants for current expenditure. Non-earmarked grants consist of block and general purpose grants, where the latter provide more freedom of use; but as both forms are unconditional, the distinction often collapses³. This taxonomy is also used by the Council of Europe.

Figure 7: Composition of grants, 2006

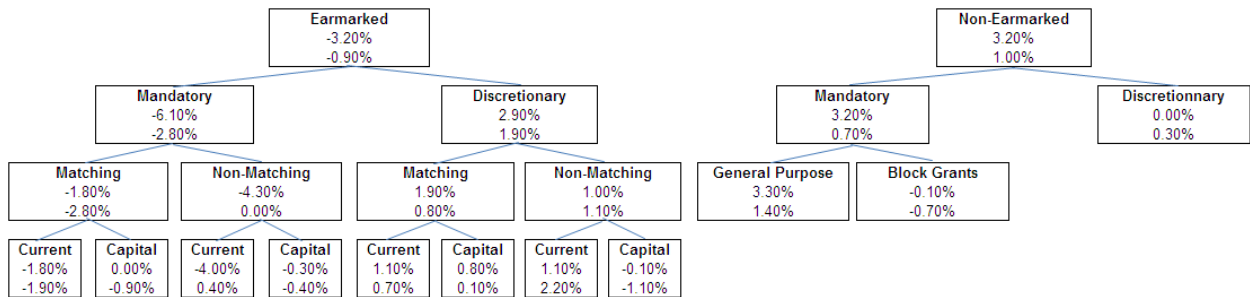


Note: the first line corresponds to state averages, the second line to local averages.
Source: OECD Fiscal Decentralisation Database

7. On average, earmarked and non-earmarked grants account for around the same share of intergovernmental grants in 2007 (Figure 7, table 1 in the annex for country details). Almost 30 percent of earmarked grants are matching, *i.e.* linked to SCG own expenditure. Matching grants lower the cost for SCGs of providing public services, as CGs bear part of the cost. This therefore tends to foster SCGs spending, but as will be discussed further in this report, this may put some pressure on both central and sub-central budgets. Around two-thirds of all earmarked grants are mandatory, giving SCG more revenue security but leaving less scope for central governments to adjust expenditures rapidly to overall fiscal conditions. Only around one third of earmarked transfers are discretionary and therefore can be – at least from a legal, if not political, point of view - reduced within short notice. Whether discretionary transfers fluctuate more than mandatory grants remains to be analyzed once data for a longer time period are available.

3 Details on how block grants are distinguished from general purpose grants can be found in Bergvall, Charbit, Merk and Kraan (2006).

Figure 8: Evolution of the composition of grants, 2000-2006



Note: the first line corresponds to state averages, the second line to local averages.
Source: OECD Fiscal Decentralisation Database

8. Overall grant design has little evolved between 2000 and 2006 (Figure 8, table 2 in the annex for country details). Some earmarked grants have been replaced by non-earmarked grants, which increased by around 3 percentage points, pointing at more fiscal leeway for SCG, whereby the state level has benefited more than the local level. A recent report by the Council of Europe also comes to the conclusion that earmarked grants are still widely used. The strongest decline was in the category of the mandatory earmarked non-matching grants. Again, structural change varies widely across countries, pointing at some path-dependency of the intergovernmental transfer system.

3- Some policy issues

9. The following section deals with some policy issues related to the grant system. Grants are usually used for equalisation purposes, or to take account of externalities, but they can also be used to fund specific policies. Grants often have unintended side effects, which can be reduced by carefully designing the grant formulas, or by combining grants with other types of measures, such as performance indicators, laws setting standard levels, contracts, etc.

Grants have an equalisation role

10. While a higher sub-central tax share is preferable on grounds of efficiency and accountability, it is likely to raise equity concerns. Indeed, tax raising capacity is unevenly distributed across jurisdictions and likely to entail an uneven provision of public services under sub-central responsibility. Intergovernmental grants can be used to reduce differences in tax raising capacity and public service needs across jurisdictions (Boadway, 2007). This section gives a short overview on fiscal equalisation in OECD countries, the importance of equalising grants, and the role these would have to play if SCGs got a higher tax share.

11. Fiscal equalisation is a central policy driver in intergovernmental fiscal relations and accounts on average for more than half of total grants. Most countries have introduced explicit or implicit equalisation systems using either vertical grants to financially weak SCGs or horizontal grants from financially strong to financially weak SCGs. An overview of fiscal equalisation indicators is given in Table 2. For the countries that provided data in 2007, equalisation covers around 2.3% of GDP, 4.8% of total government expenditure and for 55% of total intergovernmental grants on average (but can represent more than 80% or

total grants in countries such as Switzerland, Portugal or Turkey).⁴ On average, fiscal equalisation diminishes disparities in revenue raising capacity – as measured by the Gini coefficient or the variation coefficient – by almost two thirds, from 29% to 10% and to virtually zero in some countries. After equalisation, fiscal disparities are clearly below economic disparities as measured by regional GDP, *i.e.* the potential to provide public services is more evenly distributed than economic wealth (OECD, 2007).

Table 1. A snapshot of fiscal equalisation, 2007
Equalising grants and their fiscal disparity-reducing effect

	Size of the equalisation system (in percent)			Effect on fiscal disparities (variation coefficient)		
	Percent of GDP	Percent of government expenditure	Percent of intergovernmental grants	Disparities before equalisation	Disparities after equalisation	Difference
Federal/regional countries						
Australia	0.5	1.4	19	16.8	0.0	16.8
Austria	3.8	7.6	69	-	4.2	-
Canada	1.0	2.5	24	29.8	20.1	9.7
Germany	2.0	4.2	45	13.0	2.7	10.3
Italy	3.0	6.3	48	39.0	6.0	33.0
Mexico	3.7	-	78	-	-	-
Spain	3.0	7.6	67	26.5	10.1	16.4
Switzerland	3.0	8.2	80	31.8	23.2	8.7
Unitary countries						
Denmark	2.8	5.1	23	16.0	6.0	10.0
Finland	3.8	7.4	71	17.7	4.2	13.4
Greece	1.2	2.4	75	-	-	-
Japan	4.0	11.0	-	36.0	-	-
Norway	0.5	1.2	11	23.0	8.0	15.0
Portugal	1.8	4.0	81	90.0	28.0	62.0
Sweden	2.6	4.6	50	10.0	0.0	10.0
Turkey	1.1	-	82	39.0	14.0	25.0
Unweighted average	2.3	4.8	55	29.9	9.7	19.2

Source: Blöchliger and Charbit (2008).

12. A widely held view is that higher sub-central tax autonomy is associated with higher fiscal disparities and hence with more need for equalisation (*e.g.* for Germany: Seitz, 2008). In policy terms, a country wishing to increase sub-central taxing power could be interested to know whether – and to what extent – equalisation should be strengthened in order to keep fiscal disparities at bay. A simple cross-section analysis suggests that countries with a higher SCG tax share tend to have larger equalisation systems (annex 3). A 10 percentage *point* increase in the sub-central tax share must be associated with an increase of the share of equalising grants in GDP by 0.6 percentage *point* if disparities across jurisdictions are to remain stable. In relative terms: a 10% increase of the sub-central tax share must be associated with a 15% increase of equalising grants to keep disparities stable.

Equalising grants will therefore play a central role in the decentralisation process: The empirical evidence shows that more sub-central tax autonomy is associated with larger fiscal disparities, potentially requiring larger fiscal equalisation system. Therefore, political economy considerations will most probably force countries wishing to increase sub-central tax autonomy to increase the share of transfers dedicated to

⁴. Since some equalisation systems work *via* tax sharing not reported as intergovernmental grants, the share of equalising grants in total grants is likely to be lower than 55%. Moreover, many grants reported in the fiscal equalisation exercise as “equalising” consist of both an equalising and a neutral part, with the neutral part often larger than the equalising part.

fiscal equalisation. There is some consensus that fiscal equalisation is a necessary companion to tax decentralisation and that the latter's success is likely to depend on a well-functioning equalisation system.

Grants may reduce externalities

13. Horizontal and vertical fiscal externalities or “spillovers” often serve to justify intergovernmental grants on efficiency grounds. Fiscal externalities can arise if the fiscal policy of one jurisdiction or government level affects outcomes in other jurisdictions, or, more technically, if governments do not fully perceive the social marginal cost and benefits of their taxing and spending decisions. Intergovernmental grants can compensate jurisdictions that are affected by such externalities. Matching or subsidisation grants may also provide incentives to SCGs to experiment, by compensating a SCGs who takes innovation risks, from which other SCGs could benefit. Fiscal externalities may be rooted both in the spending and the revenue side of decentralised budgets, and can be either horizontal or vertical (table 2).

Table 2. Taxonomy of externalities

	Horizontal	Vertical
<p>Spending externalities</p> <p>May lead to undersupply of the concerned public services.</p>	<p>Arise if a SCG's spending policy affects the residents of other jurisdictions. Examples include public services funded by one jurisdiction – e.g. infrastructure – benefiting the residents of neighbouring jurisdictions.</p>	<p>Arise when the spending decisions of an upper government level – e.g. for tertiary education – depend on spending of a lower government level, i.e. for primary and secondary education.</p>
<p>Tax externalities</p> <p>May lead to a distorted tax structure, excessive or too low tax rates or distorted spatial allocation decisions of firms and residents.</p>	<p>Arise if a SCG's tax policy affects the residents of other jurisdictions. Examples include tax exporting, i.e. local and regional taxes borne by non-residents, or strategic tax rate setting affecting tax revenues in other jurisdictions.</p>	<p>Arise if different government levels tax the same tax base.</p>

14. Intergovernmental grants – particularly matching grants – might correct for such externalities, to give incentives for SCGs to provide adequate levels of public services for non-residents or to compensate them for the tax policies of other jurisdictions. However, the rationale for grants as an anti-externality device is not always clear-cut and seems to be relevant in a limited number of countries with a specific institutional and fiscal background only.

- Horizontal tax externalities could play a role if SCGs have high taxing power *and* rely significantly on sales taxes. This is the case mainly in the United States, where autonomous sales taxes account for 50% of state and 20% of local tax revenue. The many studies trying to quantify the externalities associated with these taxes conclude that they both lead to considerable sub-central tax exporting and sub-central tax erosion (for a – somewhat outdated – overview see Hall and Smith, 1995), and a US report estimates the losses due to out-of-state-purchases at 0.5 to 5% of total tax revenue (OECD, 2005). However, policy proposals to cope with tax exporting and tax erosion hardly ever favour grants over straightforward reforms of the tax system (Bird, 1993). Reform proposals include: to replace SCG sales taxes by a sub-central Value Added Tax (McLure, 2000 or Marè, 2007) – despite sub-central VATs having drawbacks – or to integrate SCG indirect taxes into a

tax sharing system, as was done in Australia in 2000 or Mexico in the 1980s, although that reduces the fiscal autonomy of SCGs.

- Horizontal spending externalities could be relevant in countries with large SCG spending power. Tertiary education could be particularly relevant, since geographical mobility of students could generate a disincentive for SCGs to invest in universities (OECD, 2008a and 2008b). Transport infrastructure is another example, where inter-jurisdictional externalities (or spillovers) could lead to underinvestment by sub-central governments (Sutherland, 2008). A number of Swiss studies estimate spillovers for various municipal services at 8 to 15% of total municipal expenditure, reaching 30% for some specific services such as road infrastructure (OECD, 2002). Since Switzerland is a likely benchmark in terms of both jurisdictional fragmentation and spending decentralisation, these percentages could hold as an upper limit for spillovers. In the case of Canada, spending externalities appear to be of little significance (Smart, 2005). Moreover, some spillovers tend to cancel each other out, which give affected jurisdictions an incentive to compensate them mutually (Rauscher, 2000).⁵ As a consequence, rather than relying on central government, SCGs have often reached agreements for service use across jurisdictional borders.⁶
- Finally, vertical externalities could arise in countries where responsibilities overlap or where central and sub-central governments tap the same tax base. Central government may subsidise sub-central services like primary and secondary education or health care on the assumption that SCGs do not invest sufficiently there. However, the few empirical studies suggest that SCGs provide adequate levels of core services and in some cases even tend to overspend (OECD, 2005).⁷ Vertical tax overlap, *i.e.* concurrent taxation of the same tax base is quite pervasive in many OECD countries, and tax externalities – particularly excessive tax rates – could arise if one government level does not allow for the impact of its tax policy on another government level (Dahlby, 1996). Vertical externalities tend to be relevant if both government levels tax a mobile base such as personal or corporate income (Keen and Kotsogiannis, 2002; Esteller-Moré and Solé-Ollé, 2001). However, since it is not clear which government level is actually responsible for vertical externalities, the question of who has to compensate whom remains open, and grants could as well flow from the sub-central to the central level (Keen, 1997). If governments feel that taxing a common tax base leads to externalities, changes to the tax framework rather than to the grant system may be the appropriate solution.

15. It appears that the size and structure of intergovernmental grants, particularly matching grants, can be better explained by political economy factors and constraints – such as SCGs role and power in the multilevel framework – than by purely fiscal considerations (Brennan and Pincus, 1990).⁸ Indeed, with their limited scope, actual fiscal externalities are likely to be smaller than the matching grants invented to tackle them. Earmarked matching grants plus discretionary earmarked grants – the latter often having a matching character – account for around 37% of intergovernmental grants and around 18% of total sub-

⁵. Service provision across jurisdictional borders can be seen as a repeated game. If the stakes of each jurisdiction are roughly symmetrical, the outcome is likely that all jurisdictions provide services taking into account the effect of their actions on others.

⁶. Around 3% of SCG spending is covered by grants from other jurisdictions of the same government level. This type of grants usually reflects horizontal compensation agreements.

⁷. Swiss cantons seem to provide excessive hospital care compared to what the federal level would do if it was responsible for this service (Steinmann *et al.*, 2003). Some regions in Spain appear to overspend in transport infrastructure in order to lure economic activity (*e.g.* Delgado and Alvarez, 2007).

⁸ For a summary of recent empirical studies see Blöchliger and Charbit (2008).

central spending for both SCG levels taken together. These percentages are well above the size of externalities identified in OECD member countries (for a summary see Joumard and Kongsrud, 2003). Moreover, matching rates in most countries are typically much larger than justifiable by any plausible level of externalities (see for the US: Inman, 1988 and for Switzerland: Blöchliger and Herrmann, 2001).

Earmarked grants may be used to fund specific policies

16. From a theoretical perspective, non-earmarked grants are considered to be a more effective tool for financing SCGs, especially for what concerns equalisation purposes. However, there are some specific cases where earmarked grants might be an appropriate policy instrument. Such cases consist of addressing risk-sharing concerns (such as supporting innovation), supporting experimentation in public service delivery, and co-funding projects. In addition, temporarily using earmarked grants can help building capacity at the SCG level during decentralisation processes, when new tasks are assigned to SCGs, or finance recovery policies after crisis or natural disasters. Recently, the financial and economic crisis has triggered a surge in the use of discretionary earmarked grants in national stimulus packages, as these have proven to be very flexible and fast instrument to address exceptional situations, which require timely, geographically targeted responses (box 1).

Box 1. Using earmarked grants to address exceptional situations

Grants can be used by central government as an instrument to take fast and geographically targeted actions to tackle emergency situations such as natural disasters or economic downturns. In the present financial and economic crisis, grants to SCGs have been widely used to distribute and manage national stimulus packages as they represent on average almost 30% of national stimulus plans (table 3). A very small fraction of these grants is directly targeted to help out SCGs (general purpose grants and current expenditure grants represent less than 5% of total national stimulus packages), and most of these grants are earmarked to finance capital expenditure, thus serving the national purpose of sustaining demand and employment through investment.⁹

Table 3. Example of share of grants to SNGs as a percentage of total national stimulus spending¹⁰

	General Purpose Grants	Earmarked Grants		TOTAL
		Current Expenditure	Capital Expenditure	
Australia	-	0%	56%	56%
Canada	-	6%	78%	84%
France	-	-	27%	27%
Germany	-	-	29%	29%
Japan	33%	-	18%	51%
Korea	-	-	28%	28%
Norway	7%	2%	30%	39%
Portugal	-	-	22%	22%
Spain	-	1%	72%	73%
United States*	-	-	13%	13%
average (16)	2%	1%	23%	26%

Source: Country responses to a questionnaire prepared by OECD's Network on Fiscal Relations Across Levels of Government; and

⁹ As SCGs are responsible for about 50% of general government capital expenditure in OECD countries, increasing earmarked grants to support investment is hardly surprising.

¹⁰ In OECD (2009), fiscal packages are registered according to the type of investment they are targeted to, and not according to the level of government that receives and manages the funds. This is why the “transfers to SCGs” displayed in this work are not consistent with the answers to the questionnaires, as these reflect the share of the national stimulus packages channelled through SCGs (even if they are earmarked for specific purposes, and thus consolidated under other items in national figures).

OECD (2009). Fiscal Packages Across OECD Countries: Overview and Country Details. *Various government reports.

This national fiscal stimulus effort is aimed at increasing investment levels, but bears a moral hazard risk, as SCGs could be tempted to cut their own expenses and investment programs, knowing that they will receive funds from CGs. Central governments must therefore be careful to create mechanisms to ensure that the grants given to SCGs do not crowd out investment programs that SCGs would have carried out anyway. Several mechanisms have been used to achieve this goal: the grants can for example be conditional on SCGs maintaining a minimum level of investment (e.g. in France, the early disbursement of the “Fonds de Compensation de la TVA” is conditional on SCGs investing at least as much as the average over the years 2004-2007; in Australia, States are required to maintain their own pre-plan level of spending in areas receiving Commonwealth funds).

These stimulus funds might also trigger unnecessary investments, as those bearing the benefits (SCGs) do not bear the costs (CGs). This risk is usually addressed by requiring SCGs to co-finance the investments (matching grants).

Source: OECD (2009). Sub-national Dimension and Policy Responses to the Crisis, OECD Network of Fiscal Relations across Levels of Government, Paris.

Grants may have unintended side effects

17. Intergovernmental grants constitute a “common pool” resource for an individual SCG and can alter sub-central fiscal behaviour and bring about moral hazard, as shown above. This is due to the asymmetry between benefits and costs for SCGs, as SCGs receiving a grant or an increase in grant allocation enjoy its full benefits, while bearing only a fraction of the cost in terms of the additional tax revenue or borrowing needed for the central government to finance these grants. Depending on the formulas that determine the grant allocation and depending on the political economy of fiscal relations in a country – especially SCGs influence on central government budget allocations and their interest in higher tax autonomy – intergovernmental grants can soften the sub-central budget constraint and deteriorate the fiscal stance of both central and sub-central governments. There are several channels through which moral hazard can work, affecting not only fiscal outcomes such as SCGs own tax revenue, expenditure, deficits, and debts, but eventually the size of the transfer system itself.

18. Equalisation grants may reduce sub-central tax effort, as in most countries, they ensure a minimal fiscal endowment to low-income jurisdictions, which is achieved by disbursing grants inversely related to a SCG's fiscal capacity. While such equalising grants are well justified on equity grounds, they tend to discourage SCGs from raising their own tax revenue since a SCG increasing its tax capacity must inevitably accept a reduction in grant entitlements. This “compensation rate”, “equalisation tax” or “tax on tax revenue” can reach up to 80 or 90% of additional tax revenue, thereby undermining a SCG's tax effort and willingness to strengthen its fiscal base.

19. Grants may also put pressure on spending: if these are linked to the actual cost of producing the services (education, health, infrastructure, etc.) and not to standard costs, SCGs do not have incentives in increasing efficiency. Matching grants allow reducing the cost of service provision for SCGs, and can thus be justified on externality grounds, but they also invite to overspending, as the allocation received by SCGs increases the more it spends on the matched service. The grant system may also cause self-propelling growth of deficits and debts, when SCGs face soft budget constraints and expect central government to automatically increase the level of transfers in case of a deficit, or bailout excessive debts.

20. The variety of disincentives can be reduced with a skilful grant design, described in more detail in earlier Fiscal Network papers (e.g. Bergvall *et al.*, 2006). A summary is provided in Box 2. The negative side effects of grants can also be treated by combining grants with complementary instruments. For example, incentives for increasing efficiency can be provided by combining general purpose grants with

performance indicators or imposing automatic productivity cuts (also called “efficiency dividends”), and the over-spending bias can be mitigated by using co-funding mechanisms, as SCGs must bear part of the cost of the investment (this is being very widely used in the stimulus packages in countries such as Canada).

Box 2. Well-designed grants: a summary

Countries have developed several approaches to contain the negative side effects of their intergovernmental transfer system (Bergvall *et al.*, 2006; Blöchliger and Charbit, 2008). Their various approaches can be divided into 1) measures on the tax revenue side, 2) measures on the grant side, and 3) institutional measures, with the three groups sometimes overlapping. The approaches can be summarized as follows:

1. Tax effort can be increased if the potential tax base instead of actual tax revenue is used to assess SCG tax capacity. Many countries use a representative tax system (RTS), where potential revenue from each sub-central tax is determined by multiplying a standard tax base with a standard tax rate, or they use the revenues from a central government tax to assess sub-central tax capacity. A RTS should cover all major sub-central taxes and their bases. Alternative indicators for assessing potential tax capacity include sub-central GDP or household income (macroeconomic approach). RTS can help reduce strategic behavior and prevent SCGs from manipulating tax capacity indicators in order to obtain more grants.

2. Spending pressure can be reduced if grant allocation is based on a few broad-based geographic, demographic or socio-economic need indicators. Having few indicators covering principal sub-central needs tends to be more transparent and produces less statistical headaches in the allocation of entitlements. Indicators should be outside sub-central control to ensure that SCGs cannot manipulate them. Most countries today use standard or norm cost approaches whereby grant allocation is independent of actual expenditure incurred by SCGs. Also, spending performance can be increased if grants serving several purposes – e.g. simultaneously to subsidize SCG services and to equalize SCG disparities – are disentangled and separate grant systems developed.

3. Finally, institutional reforms can help contain grant-related budget drift. Some countries set transfer caps irrespective of sub-central financial needs. Establishing agencies and other arms’ length independent bodies responsible for grant distribution can help channel transfer increases and reduce the pressure from special interest. Also, an adequate set of budget management rules can improve fiscal discipline. In several countries intergovernmental grants are shown as a single and separate budget item, thereby increasing transparency. A two-stage budget procedure, whereby the overall grant budget is negotiated separately from the distribution formula, can also contain pressure from special interest.

ANNEX

Table 4. Grant revenue by type of grant, 2006
As percentage of total grant revenue

	Earmarked								Non earmarked			Total
	Mandatory				Discretionary				Mandatory		Discretionary	
	Matching		Non-Matching		Matching		Non-Matching		General purpose	Block grants		
	Current	Capital	Current	Capital	Current	Capital	Current	Capital				
Australia												
State	-	-	-	-	47.5	9.2	32.4	4.9	5.9	-	-	100.0
Local	-	-	-	-	15.6	-	2.8	0.0	81.6	-	-	100.0
Austria												
State	48.4	2.4	12.1	17.3	0.9	-	0.3	-	10.9	0.2	7.5	100.0
Local	36.5	3.3	11.5	28.7	1.8	-	0.2	-	18.0	0.1	0.0	100.0
Belgium												
State	1.0	0.3	-	-	-	0.0	-	-	97.1	1.6	-	100.0
Local	45.0	5.0	-	-	-	-	-	-	49.9	-	-	100.0
Canada												
State												
Local												
Czech Republic												
Local	12.4	-	-	-	-	-	72.3	15.3	-	-	-	100.0
Denmark												
Local	0.1	71.8	-	0.0	0.3	0.6	0.0	0.1	26.8	-	0.2	100.0
Finland												
Local	5.8	-	-	-	-	-	1.9	1.7	14.2	75.8	0.6	100.0
France												
Local	6.8	-	0.1	-	-	2.0	1.7	1.8	80.9	6.7	-	100.0
Germany												
State												
Local												
Greece												
Local	40.9	36.1	-	-	-	-	-	-	23.0	-	-	100.0
Hungary												
Local	36.2	10.5	-	-	-	-	5.3	10.6	36.2	-	1.1	100.0
Iceland												
Local												
Ireland												
Local	-	-	-	-	-	-	14.8	73.5	11.7	-	-	100.0
Italy												
State	-	4.5	-	5.1	-	-	14.7	5.6	70.2	-	-	100.0
Local	-	-	-	-	-	-	30.5	31.5	38.0	-	-	100.0
Japan												
Local												
Korea												
Local	-	-	-	-	12.7	14.7	-	-	72.6	-	-	100.0
Luxembourg												
Local	86.3	13.6	-	-	-	-	-	-	-	-	-	100.0
Mexico												
State	-	-	49.0	-	-	-	5.7	-	45.4	-	-	100.0
Local	-	-	42.3	-	-	-	-	-	57.7	-	-	100.0
Netherlands												
Local	48.4	-	-	-	-	-	-	-	51.6	-	-	100.0
New Zealand												
Local												
Norway												
Local	9.6	0.0	-	-	-	-	33.5	-	-	56.9	-	100.0
Poland												
Local												
Portugal												
Local	-	-	-	-	-	-	16.1	-	83.9	-	-	100.0
Slovak Republic												
Local												
Spain												
State	0.3	0.4	8.5	4.4	1.3	0.8	1.1	0.9	82.4	-	-	100.0
Local	17.1	17.8	2.1	-	-	-	-	-	62.9	-	-	100.0
Sweden												
Local												
Switzerland												
State	74.3	-	-	-	-	-	-	-	25.7	-	-	100.0
Local												
Turkey												
Local	-	-	-	-	-	-	-	57.0	-	-	43.0	100.0
United Kingdom												
Local												
United States												
State												
Local												
<i>Unweighted average</i>												
State ¹	17.7	1.1	9.9	3.8	7.1	1.4	7.7	1.6	48.2	0.2	1.1	100.0
Local	18.2	8.3	2.9	1.5	1.6	0.9	9.4	10.1	37.3	7.3	2.4	100.0

Table 5. Evolution of grant revenue by type of grant

Change in 2000-2006, percentage points

	Earmarked								Non earmarked			
	Mandatory				Discretionary				Mandatory		Discretionary	
	Matching		Non-Matching		Matching		Non-Matching		General purpose	Block grants		
	Current	Capital	Current	Capital	Current	Capital	Current	Capital				
Australia												
State	-	-	-	-	5.9	4.6	5.4	-1.2	-14.6	-	-	
Local	-	-	-	-	8.6	-0.1	2.7	-0.4	-10.8	-	-	
Austria												
State	-6.3	-0.2	9.2	-2.2	0.4	-	0.1	-	-0.8	0.0	-0.1	
Local	-2.2	-5.6	6.5	-6.3	0.5	-	0.0	-	7.1	0.0	0.0	
Belgium												
State	-0.7	-0.1	-	-	-0.1	0.0	-	-	1.1	-0.3	-	
Local												
Canada												
State												
Local												
Czech Republic												
Local	-16.7	-	-	-	-	-	31.9	-15.2	-	-	-	
Denmark¹												
Local	-39.699	71.8	-0.6	0.0	0.3	0.6	-0.1	-4.0	-28.4	-	0.1	
Finland												
Local	-3.9	-	-	-	-	-	0.2	-1.5	14.2	-8.2	-0.8	
France												
Local	-0.9	-	0.0	-	-	-0.5	-0.9	-0.7	5.9	-2.9	-	
Germany												
State												
Local												
Greece												
Local	7.7	-7.7	-	-	-	-	-	-	0.0	-	-	
Hungary												
Local	-4.3	1.4	-	-	-	-	0.2	5.6	0.3	-	-3.2	
Iceland												
Local												
Ireland												
Local	-	-	-	-	-	-	-1.2	2.8	-1.6	-	-	
Italy												
State												
Local												
Japan												
Local												
Korea												
Local	-	-9.3	-	-	1.5	2.6	-	-	5.1	-	-	
Luxembourg												
Local	-4.0	3.9	-	-	-	-	-	-	-	-	-	
Mexico												
State	-	-	-1.0	-	-	-	-0.1	-	1.1	-	-	
Local	-	-	0.3	-	-	-	-	-	-0.3	-	-	
Netherlands												
Local	-5.0	-	-	-	-	-	-	-	5.0	-	-	
New Zealand												
Local												
Norway												
Local	-11.2	0.0	-1.0	0.0		0.0	16.3	-3.2	0.0	-0.8	-	
Poland												
Local												
Portugal												
Local	-	-	-	-	-	-	-0.4	-	0.4	-	-	
Slovak Republic												
Local												
Spain												
State	0.0	0.3	-32.1	0.2	0.4	0.2	1.0	0.8	29.2	-	-	
Local	0.8	4.1	-0.4	-	-	-	-	-	-4.4	-	-	
Sweden												
Local												
Switzerland												
State	-4.0	-	-	-	-	-	-	-	4.0	-	-	
Local												
Turkey												
Local	-	-	-	-	-	-	-	-8.0	-	-	8.0	
United Kingdom												
Local												
United States												
State												
Local												
Unweighted average												
State ²	-1.8	0.0	-4.0	-0.3	1.1	0.8	1.1	-0.1	3.3	-0.1	0.0	
Local	-4.7	3.4	0.3	-0.4	0.6	0.2	2.9	-1.4	-0.4	-0.7	0.2	

1) The years 2000 and 2006 are not comparable because of the change in the methodology.

Annex 3: Testing for the link between SCG tax autonomy and equalisation needs

The empirical investigation on the sub-central tax share and equalizing transfers is based on the assumption that a higher sub-central tax share is associated with higher fiscal disparities. In this line of reasoning, if the SCG tax share is to rise, more equalizing grants would be needed to keep disparities constant. Since equalizing transfers not only depend on the SCG tax share but also on country-specific features such as the sub-central tax mix, sub-central tax autonomy or preferences for disparity reduction, some control variables have to be introduced. To keep the equation simple and also to take the low number of degrees of freedom into account, an empirical model of the type

$$transfer_i = \beta_0 + \beta_1 \cdot taxshare_i + \beta_2 \cdot taxstructure_i + \beta_3 \cdot reduction_i + \varepsilon_i$$

is chosen, where for each country “transfer” stands for the share of revenue-equalising grants in GDP, “taxshare” alternatively stands for the sub-central share in total tax revenue (for federal countries the share of the state level was used since equalization concerns only the state level) or the share in *autonomous* taxes, *i.e.* taxes of the “a”, “b” and “c” type in the taxing power classification (OECD, 1999), “taxstructure” for, alternatively, the share of income taxes, immovable property taxes and consumption taxes, and “reduction” for the difference in pre- and post-equalization disparities (measured through the variation coefficient). Data are available for 12 countries and for the year 2005. The model was estimated both in its linear and log-linear form.

Regression results for the main specification are shown below, with the linear form in the left-hand panel and the log-linear form in the right-hand panel of table 2. Coefficients for both the SCG tax share and the disparity reduction achieved are positive and statistically significant at the 5 or 10 percent level, suggesting that a higher sub-central tax share is associated with a higher transfer to GDP share, if disparities are to remain equal. The coefficient for the tax structure – represented here as the share of immovable property taxes in total SCG tax revenue – tends to be negative but is not significant. In various alternative specifications, higher tax autonomy tends to have little influence on the need for equalizing grants, the share of income taxes in the sub-central tax mix also tends to have little influence, and a higher share of consumption taxes in the SCG tax mix tends to be associated with a lower need for equalizing grants, but none of these coefficients is significant.

Table: Estimated effects of the SCG tax share on the need for equalization grants

Linear regression			Log-linear regression		
Variable	Coefficient	Std. Error	Variable	Coefficient	Std. Error
C	-1.22	0.84	C	-9.10*	3.94
TAXSHARE	0.06**	0.02	LOG(TAXSHARE)	1.49*	0.64
REDUCTION	0.09***	0.02	LOG(REDUCTION)	1.72*	0.95
PROPERTYTAX	-0.08	0.05	LOG(PROPERTYTAX)	0.00	0.40
Number of observations	12		Number of observations	12	
Adjusted R-squared	0.51		Adjusted R-squared	0.34	
Prob(F-statistic)	0.03		Prob(F-statistic)	0.22	

Note: ***significant at the 1-% level, **significant at the 5-% level. For explanations see Box 1.

Source: Fiscal Network database.

The results have to be interpreted with great care. First, only a limited number of countries participated to this exercise. The data is likely to suffer from sample bias especially with respect to the tax structure, as countries with a high sub-central property tax share are under-represented. Second, coefficients may be biased for reasons of endogeneity. Disparity reduction – *i.e.* the variable reflecting preferences - could actually hold as another variable for the amount of equalization transfers, making the relationship between transfers and disparity reduction circular. Third, a cross-sectional analysis does not say anything about a possible evolution over time. Differences in tax raising capacity may evolve quite differently across countries once the sub-central tax share starts rising. To the extent that countries made or make reforms to the sub-central revenue composition, more detailed time series analysis should be carried out.