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Article

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CESifo DICE Report

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Suggested Citation: Osterkamp, Rigmar; Eller, Markus (2003) : Functional Decentralisation of Government Activity, CESifo DICE Report, ISSN 1613-6373, ifo Institut für Wirtschaftsforschung an der Universität München, München, Vol. 01, Iss. 3, pp. 36-42

This Version is available at:

<https://hdl.handle.net/10419/166778>

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FUNCTIONAL DECENTRALISATION OF GOVERNMENT ACTIVITY

RIGMAR OSTERKAMP AND
MARKUS ELLER*

The degree of decentralisation of government activity can be measured and analysed in several different ways. One is to focus on total government expenditures and to ask, first, for the share that is spent on sub-central levels of government and, second, for the reasons why countries differ in this share. This has been done in an earlier article of the authors (Osterkamp, Eller 2003). It has been found that the degree of decentralisation differs quite considerably between countries and that the differences can best (but only partly) be explained by differences of the constitution (i.e., federal vs. unitary) as well as by those of country size. However, this rough measure of the degree of decentralisation might hide important features and should, thus, also be looked at in an aggregated way, namely by functional categories (or types of expenditures). This is the aim of this contribution.

The Government Finance Statistics of the IMF contain the necessary data for such an analysis. The data source distinguishes between 14 different types of expenditures: 1. General Public Services; 2. Defence; 3. Public Order & Safety; 4. Education; 5. Health; 6. Social Security & Welfare; 7. Housing & Community Amenities; 8. Recreational, Cultural and Religious Affairs and Services; 9. Fuel & Energy; 10. Agriculture, 11. Forestry, Fishing and Hunting; 12. Mining and Mineral Resources, Manufacturing, Construction; 13. Other Economic Affairs & Services; 14. Other Expenditures, e.g. Interest Payments.

Function-specific decentralisation ratios

Calculating the sub-national (i.e.: non-central or sub-central level) expenditures by function as a percentage of total government expenditures by

(the same) function, we get function-specific decentralisation ratios. Table 1 shows these ratios and indicates specialisation of sub-national tiers of government on specific policy tasks.

The most decentralised policy field is Recreational, Cultural and Religious Affairs and Services (B8). On average over all countries, 73 percent of total government expenditures for this policy field is spent on one or the other of sub-central levels. Housing and Community Amenities (Cat. 7) ranks second in the decentralisation degree, with an average of 70.8 percent. Education (Cat. 4) follows next with an average of 63.7 percent. The least decentralised are the expenditures for Defence (Cat. 2), with an average of less than 1 percent, and for Social Security & Welfare (Cat. 6), with an average of 18.4 percent.

For some of the functions the differences of the decentralisation degree between countries are remarkable. Expenditures for Public Order (Cat. 3) range from only a 12 percent degree of decentralisation in Denmark to 100 percent in Ireland. Health expenditures (Cat. 5) at over 95 percent are highly decentralised in Canada (federal) as well as in Denmark (unitary), while the decentralisation degree of this function in France is only 2 percent.

When we look at the averages of the federal and the unitary countries we recognise – not astonishingly, but also not necessarily – that for each policy field, without exception, the decentralisation degree is higher in the federal than in the unitary countries. But the extent of these differences differs between fields. This is made explicit by the figures in the last line of Table 1, which contains the ratio between the average of the federal to that of the unitary countries and, thus, answers the question of the fields in which the differences in decentralisation are relatively small and large, respectively. Relatively small differences between these two groups of countries are found in the policy areas of Social Security (Cat. 6), Housing (Cat. 7) and Recreation (Cat. 8), whereas the differences are relatively large, e.g., in Agriculture (Cat. 10). This result can also be put differently: Public expenditures for Social Security, Housing and Recreation are decentralised to a similar degree in federal as well as in unitary countries, while the decentralisation degree in agriculture differs widely between the two country groups.

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Table 1

Function-specific Decentralisation Ratios
Sub-central expenditures by function as % of total government expenditures by function

Country	Latest year available	General Public Services	Defence	Public Order & Safety	Education	Health	Social Security & Welfare	Housing & Community Amenities	Recreational, Cultural and Religious Affairs and Services	Fuel & Energy	Agriculture, Forestry, Fishing and Hunting	Mining and Mineral Resources, Manufacturing, Construction	Transportation & Communication	Other Economic Affairs & Services	Other Expenditures (e.g., interest payments)	Total sub-central expenditure as % of total government expenditure
		Cat. 1	Cat. 2	Cat. 3	Cat. 4	Cat. 5	Cat. 6	Cat. 7	Cat. 8	Cat. 9	Cat. 10	Cat. 11	Cat. 12	Cat. 13	Cat. 14	
Australia	1998	54.4	0.0	86.8	72.2	48.1	9.7	76.6	79.7	26.1	53.4	57.7	85.4	42.1	20.4	49.8
Canada	2000	36.8	0.0	66.8	94.5	95.9	31.2	73.7	69.2	98.5	64.4	99.6	89.9	57.4	35.3	59.8
Denmark	2000f	28.9	0.0	12.1	45.5	95.1	54.9	28.8	54.1	0.1	0.0	11.7	50.5	40.9	3.5	56.5
France	1993	25.7	0.0	27.7	37.2	2.2	8.8	81.7	72.6	81.0	0.0	0.0	42.3	0.0	15.2	18.6
Germany	1996	61.9	0.0	92.4	95.8	27.6	21.4	92.6	95.6	63.9	84.9	6.1	56.6	50.0	36.9	37.8
Ireland	1997	7.9	0.0	100.0	21.8	48.4	6.3	70.4	48.7	51.3	13.1	0.0	43.5	8.3	2.8	25.5
Luxembourg	1995	16.2	0.0	24.5	21.4	1.8	2.2	56.1	58.6	93.9	24.7	n.a.	18.7	10.9	13.9	15.4
Netherlands	1997	28.9	0.0	24.6	33.3	4.6	14.4	78.7	82.6	45.4	0.9	28.3	35.0	0.0	14.9	26.1
Norway	1998	34.4	0.0	16.9	63.5	77.2	18.6	86.9	65.4	0.0	0.0	0.0	30.5	14.8	9.9	37.9
Russia	2000	28.2	0.3	23.3	82.4	90.1	10.2	95.5	75.0	15.7	60.9	59.8	68.3	49.2	14.3	38.7
Spain	1997	56.4	0.0	40.8	71.3	62.7	5.9	93.1	83.0	24.7	72.0	65.8	62.0	44.9	15.7	35.9
Switzerland	1999	58.4	9.8	92.7	89.9	44.2	23.3	85.1	87.0	51.8	44.8	0.0	58.0	60.7	44.4	49.2
United Kingdom	1999	20.6	0.1	49.1	67.9	0.0	19.7	39.9	74.4	0.0	9.8	2.9	60.7	8.9	8.8	25.7
United States	1999	31.6	0.0	81.3	95.3	42.9	31.3	32.4	76.3	0.0	40.3	0.0	74.5	32.9	41.9	48.5
Average Federal		35.0	0.7	52.8	63.7	45.8	18.4	70.8	73.0	39.4	33.5	25.5	55.4	30.1	19.9	37.5
Average Unitary		45.2	1.7	73.9	88.3	58.1	21.2	76.0	80.5	42.7	58.1	37.2	72.1	48.7	32.2	47.3
Avg. Unit. / Avg. Federal		27.6	0.0	38.3	46.4	41.4	17.4	64.8	66.7	30.8	17.2	18.1	43.0	18.4	9.9	31.9
		61.1	0.7	51.8	52.5	71.2	82.3	85.3	82.9	72.1	29.6	48.7	59.6	37.8	30.9	67.3

Notes:

1. Names of federal countries are in italics.

2. Sub-national expenditures refer to the expenditures of the state/regional/provincial government sub-sector (if any) and the local government sub-sector.

3. Austria, Finland, Sweden: data for expenditure by function were not available for LOC. The respective authorities were not able to provide a functional classification of the expenditures. However, data for total expenditures is available for LOC - the share of sub-national governments in total expenditures can be constructed. Belgium, Italy, Portugal: the respective authorities did not report data for expenditure by function neither for CEN, nor for LOC. However, data for total expenditures are available by level - the share of sub-national governments in total expenditures can be constructed. Greece has two levels of government (central and local), but they do not report local government data by function for publication in the GFSY.

Source: IMF, Government Finance Statistics Yearbook, 2001, Washington D.C. 2000, Ifo calculations.

Although federal countries exhibit relatively high general degrees of decentralisation, there are also expenditure categories where the central level is still strongly involved. This holds particularly for defence (only Switzerland spends a considerable amount for defence at the sub-central level) and Social Security (the highest decentralisation ratios in the USA and Canada with about 31 percent). Furthermore, we can find different emphases of decentralisation within federal countries (decentralisation ratio ≥ 80 percent): Australia (Public Order, Recreation), Canada (Mining, Manufacturing, Construction, Fuel and Energy, Health, Education, Transport), Germany (Education, Recreation, Housing, Public Order, Agriculture), Russia (Housing, Health), Switzerland (Public Order, Education, Recreation, Housing), USA (Education, Public Order). In unitary countries we can also find expenditure categories where the decentralisation ratio is greater than 80 percent: Denmark (Health), France (Housing, Fuel and Energy), Ireland (Public Order), Netherlands (Recreation), Norway (Housing), Spain (Housing, Recreation), United Kingdom (Education, Public Order).

Comparing the general decentralisation ratios (last column of Table 1) with the function-specific ones, remarkable differences can be seen. France or Luxembourg show a low general degree of decentralisation (France: 18.6 percent, Luxembourg: 15 percent), but within the fields of Housing, Recreation or Fuel and Energy they spend between 60 percent and 90 percent of total expenditures at the sub-central level. Of interest are also the cases of Canada and Denmark: both countries exhibit more or less the same sub-central share in total expenditures (Canada: 60 percent, Denmark: 56.5 percent); but comparing their decentralisation ratios by function, considerable differences arise. While in 10 out of 14 examined categories Canada spends more than 50 percent of general government expenditures at the sub-central level, in Denmark this is the case in only four categories. The high general decentralisation degree in Denmark is mainly the result of the high decentralisation degree of one expenditure category, namely that of social expenditures (Cat. 6) at 55 percent.

Relative importance of sub-central expenditure categories

For a full characterisation of the functional decentralisation one should not only ask for the sub-cen-

tral expenditures of a certain function as a share of all public expenditures of that function (Table 1), but one should ask additionally how the sub-central expenditures are distributed over the different public tasks. This is the content of Table 2.

Table 2 indicates that, on average, the countries concentrate their sub-central expenditures mainly on Education, Social Security and Health, with average shares of 21.2 percent, 17.1 percent and 15.4 percent, respectively. Although health care might be regarded – on economic grounds – as a very meaningful expenditure category for sub-central levels, the central level is, however, strongly involved in the execution of that field of activity, visible from the generally moderate function-specific decentralisation ratios (with the exception of Canada, Denmark, Russia, Norway and Spain). The opposite holds for Recreation: while it is the most decentralised expenditure category, its share in total sub-central expenditures is relatively low.

Normative considerations

In a last step we would like to dig deeper into the expenditure categories with the highest relative importance for sub-national government levels and discuss their appropriate assignment. These are: Education, Social Security and Health. From a general and normative point of view, heterogeneous local preferences, limited cross-regional externalities, limited possibilities for seizing scale effects, or inter-jurisdictional competition stand in favour of decentralisation (see Alesina, Perotti, Spolaore 1995, Andersson, Hårsman, Quigley 1997, Behnisch, Buettner, Stegarescu 2001, Breuss, Eller 2003, Eichenberger, Hosp 2001, Thießen 2000, Thomas 1997). It is necessary to check country-by-country and function-by-function to see whether these features are pronounced and whether the de facto decentralisation corresponds to the normative advice. This is done in a preliminary way for the mentioned most important sub-central expenditure categories.

Education expenditures

For education, arguments have been put forward to justify a central or a sub-central assignment. Consideration of heterogeneous local preferences, effects of inter-jurisdictional competition, or limited cross-regional externalities (see Alesina et al.

Table 2

Relative Importance of Sub-central Expenditure Categories
Sub-central expenditures by function as % of total sub-central expenditures

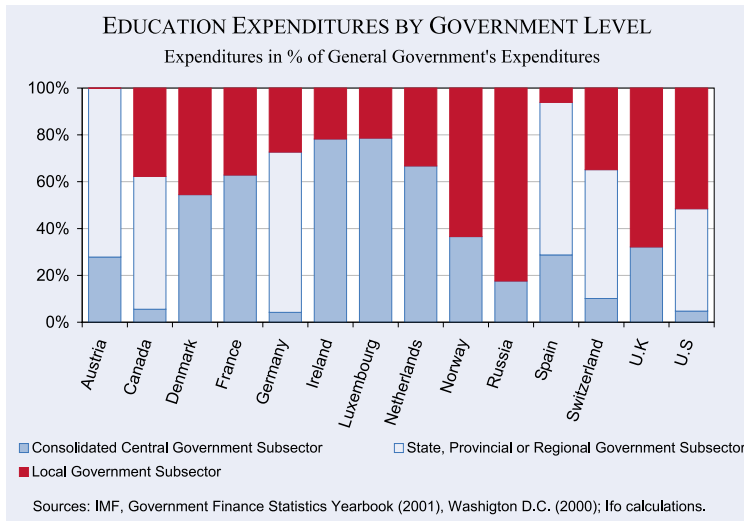
Country	Latest year available	General Public Services	Defence	Public Order & Safety	Education	Health	Social Security & Welfare	Housing & Community Amenities	Recreational, Cultural and Religious Affairs and Services	Fuel & Energy	Agriculture, Forestry, Fishing, and Hunting	Mining and Mineral Resources, Manufacturing, Construction	Transportation & Communication	Other Economic Affairs & Services	Other Expenditures (e.g., interest payments)	Total
		Cat. 1	Cat. 2	Cat. 3	Cat. 4	Cat. 5	Cat. 6	Cat. 7	Cat. 8	Cat. 9	Cat. 10	Cat. 11	Cat. 12	Cat. 13	Cat. 14	
<i>Australia</i>	1998	11.0	0.0	7.5	25.9	18.0	5.0	5.2	5.0	0.3	2.1	0.5	11.0	2.2	6.3	100.0
<i>Canada</i>	2000	2.9	0.0	5.0	27.6	22.9	14.3	2.7	2.4	1.2	1.9	0.2	5.9	2.7	10.6	100.0
<i>Denmark</i>	2000f	3.9	0.0	0.3	12.3	16.1	57.5	0.9	2.8	0.0	0.0	0.1	2.8	2.5	0.8	100.0
<i>France</i>	1993	10.6	0.0	2.3	19.6	2.3	17.7	24.1	7.7	4.2	0.0	0.0	3.6	0.0	7.8	100.0
<i>Germany</i>	1996	6.4	0.0	6.2	18.3	10.6	20.1	8.6	3.5	0.3	2.2	0.1	5.8	4.3	13.6	100.0
<i>Ireland</i>	1997	2.3	0.0	1.8	11.0	44.6	5.1	14.6	1.9	3.8	2.2	0.0	11.0	0.7	1.1	100.0
<i>Luxembourg</i>	1995	10.5	0.0	3.0	14.9	0.2	6.4	20.9	12.3	10.0	2.6	0.0	12.7	0.9	5.4	100.0
<i>Netherlands</i>	1997	9.4	0.0	3.4	17.9	2.6	22.6	20.0	5.8	0.5	0.0	0.5	6.7	0.0	10.6	100.0
<i>Norway</i>	1998	5.6	0.0	0.9	23.1	31.6	17.4	6.7	4.4	0.0	0.0	0.0	4.5	0.8	5.1	100.0
<i>Russia</i>	2000	5.0	0.1	2.7	17.8	13.2	6.0	20.5	3.5	0.5	3.4	5.8	12.3	0.9	8.3	100.0
<i>Spain</i>	1997	6.9	0.0	4.2	18.3	20.6	5.1	10.7	5.4	0.1	3.5	1.0	7.2	2.7	14.3	100.0
<i>Switzerland</i>	1999	6.4	0.6	6.6	24.0	17.2	16.5	4.8	3.4	0.2	3.7	0.0	8.9	0.7	7.0	100.0
<i>United Kingdom</i>	1999	4.0	0.0	12.3	28.7	0.0	32.5	5.4	3.0	0.0	0.1	0.0	4.9	1.0	8.0	100.0
<i>United States</i>	1999	4.4	0.0	7.4	37.1	15.6	13.3	1.4	1.8	0.0	1.1	0.0	7.2	0.8	9.9	100.0
<i>Average</i>		6.4	0.0	4.5	21.2	15.4	17.1	10.5	4.5	1.5	1.6	0.6	7.5	1.4	7.8	100.0
<i>Average Federal</i>		6.0	0.1	5.9	25.1	16.3	12.5	7.2	3.2	0.4	2.4	1.1	8.5	1.9	9.3	100.0
<i>Average Unitary</i>		6.6	0.0	3.5	18.2	14.7	20.6	12.9	5.4	2.3	1.1	0.2	6.7	1.1	6.6	100.0
<i>Avg. Unit. / Avg. Federal</i>		110.0	2.6	59.8	72.6	90.7	163.9	179.3	167.0	562.6	44.1	17.6	78.4	56.3	71.6	

Notes:

- Names of federal countries are in italics.
- Sub-national expenditures refer to the expenditures of the state/regional/provincial government sub-sector (if any) and the local government sub-sector.
- Austria, Finland, Sweden: data for expenditure by function were not available for LOC. The respective authorities were not able to provide a functional classification of the expenditures. However, data for total expenditures is available for LOC - the share of sub-national governments in total expenditures can be constructed. Belgium, Italy, Portugal: the respective authorities did not report data for expenditure by function neither for CEN, nor for LOC. However, data for total expenditures are available by level - the share of sub-national governments in total expenditures can be constructed. Greece has two levels of government (central and local), but they do not report local government data by function for publication in the GFSY.

Source: IMF, Government Finance Statistics Yearbook, 2001, Washington D.C. 2000, Ifo calculations.

Figure 1



2001, Smekal 2001, Persson et al. 1996) speak in favour of a local provision of educational services. But there are also strong reasons in favour of an assignment to the central level: adverse effects of sub-national provision on the stock of human capital (Ter-Minassian 1997), avoidance of R&D duplication (Hoeller et al. 1996), or increase of national labour mobility due to enforced teaching of nation-wide subjects (Persson et al. 1996).

Figure 1 shows the decentralisation of education expenditures, which are the most important category for sub-national governments (sub-national education expenditures amount on the average to circa 21 percent of total sub-national expenditures, see Table 2). Remarkable differences arise between federal and unitary countries. 90 to 96 percent of education expenditures are spent at the sub-national level in Switzerland, Canada, USA and Germany, while the respective decentralisation ratios in Luxembourg, Ireland, Netherlands, France and Denmark lie only between 21 and 46 percent. It is unlikely that the stated normative features are so differently pronounced between the analysed countries. It is more obvious that in this case the kind of constitutional structure (federal vs. unitary) determines decisively the allocation of education competencies to different levels of government and indirectly also the amount of expenditures disposable for each level.

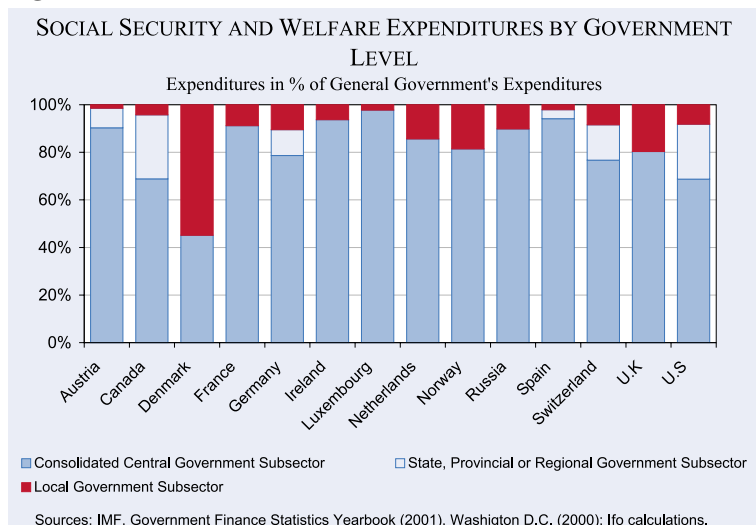
Social Security expenditures

Local preferences and inter-jurisdictional competition are stated as arguments in favour of sub-national responsibility for social policy (Alesina, Angeloni, Schuknecht 2001, Smekal 2001). Additionally, the improvement of administrative efficiency and a low level of mobility, which limits spill-overs (see Hoeller, Louppe, Vergriete 1996, p. 38), strengthen decentralised responsibility. But there are also valuable reasons for central assignment. Ter-Minassian (1997) discusses the effects

of social risk-pooling at the central level and perceives the importance of a central guarantee of nationwide standards for social insurance. Persson, Roland, Tabellini (1996) supplement this position with their politic-economic point of view – they advise a strong role of the central level because of the danger of social dumping between sub-central tiers. Despite this centralisation recommendation, they also acknowledge the dilution of rigid labour market constraints by regulatory competition, which, in turn, calls for decentralised responsibility.

In fact, social expenditures are strongly centralised. Figure 1 depicts the respective decentralisation ratios regarding social security and welfare expenditures. In our sample between 69 percent (United States, Canada) and 98 percent (Luxembourg) of social expenditures are spent at the central level. Federal

Figure 2



countries spend per average more at the sub-national level than unitary countries. A fundamental exception is Denmark, where about 55 percent of social expenditures are spent at the sub-central level. It might be that normative pro-decentralisation arguments are particularly pronounced in Denmark with regard to this expenditure category.

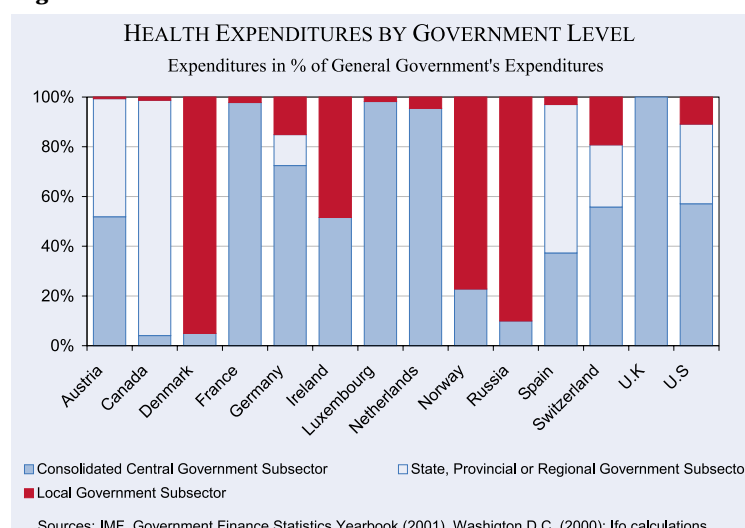
Health expenditures

On the one hand, heterogeneous preferences, inter-jurisdictional competition effects as well as limited cross-regional externalities are the crucial reasons for a decentralised provision of health care. On the other hand, inefficiencies might arise because of overlapping or duplication of health services in the case of local health care provision. Therefore, Ter-Minassian (1997), e.g., favours the assignment of health tasks to the central level and emphasises the importance of a central guarantee of nation-wide health standards. Empirical analysis does not clarify this theoretical trade-off: Letelier (2001) analyses the impact of fiscal decentralisation on the efficiency of education and public health and concludes that fiscal decentralisation produces a significant improvement on the efficiency of education, but the quality of public health services is improved only to a statistically less robust degree.

In our sample the degree of decentralisation differs enormously between the countries analysed. Canada, Denmark and Russia spend between 90 percent and 96 percent of health expenditures at the sub-national level, while France, Netherlands, and Luxembourg spend only between 2 and 4 percent and the United Kingdom spends nothing at the sub-national level. In the case of education, the degree of decentralisation amounts to 96 percent in Germany, but in the case of health care this degree decreases to 28 percent. Strong deviations from education can also be detected in Switzerland (education: 90 percent, health: 44 percent) and the United States (education: 95 percent, health: 43 percent).

These remarkable international differences and policy-specific deviations call for further work at

Figure 3



the theoretical and empirical front. Pros and cons of a decentralised government have to be detected in a task-specific way, following a case-by-case approach (see Breuss, Eller 2003). For a clearer understanding of the political, social and economic factors governing the assignment and the effects of certain assignment decisions, it will be indispensable to develop country-specific normative profiles and evaluate the de facto decentralisation of public activities.

Summary and concluding remarks

Public expenditures on sub-central levels have been analysed by function (14 different types of expenditure) and for 14 countries. The following results were obtained:

- (i) The functional decentralisation degrees in our country sample are highest in the policy fields Recreational, Cultural, Religious Affairs; Housing and Community Amenities; Education; Transportation and Communication; as well as in Public Order and Safety. Even countries which show low general degrees of decentralisation, like France or Luxembourg, exhibit a high decentralisation ratio in these policy fields.
- (ii) Federal countries, on average, exhibit in each of the different fields of activity higher decentralisation degrees than the average of the unitary countries. In the fields of Agriculture, Public Order and Education, these differences are specifically pronounced.

- (iii) Sub-central spending is heavily concentrated on Education, Social Security, Health, and Housing.
- (iv) Comparing normative recommendations regarding the optimal assignment of these policy tasks to different levels of government with the de facto distribution, remarkable discrepancies arise with respect to Health, while Social Security and Education expenditures correspond more or less to the normative advice.
- (v) However, the development of country-specific normative profiles must be regarded as an undeniable prerequisite for the adequate evaluation of the de facto assignment of various tasks to different levels of government.
- (vi) Finally we would like to appraise critically our approach chosen for measuring decentralisation. The budget data approach does not inform about the real autonomy or independence of sub-national governments. Additionally, there is a lack of reported data for sub-national levels, and function-specific decentralisation ratios can only be constructed for few countries. Furthermore, a fine-tuning of the compared categories is necessary in order to cope with different functions of policy responsibility, with additional institutional and non-government tiers, or with disaggregated policy functions. Thus, it is essential to construct additional reliable and comparable indicators for the degree of decentralisation. In order to cope with a multi-level government, the exploration of alternative approaches gets a crucial role. At the moment there is a lack of thorough cross-country econometric verifications. International comparisons, which modulate the various costs and benefits of decentralised government structures, could provide a clearer advice regarding the optimal degree of decentralisation (see Breuss, Eller 2003). To sum up, further work is needed at the theoretical and empirical front in order to design optimal assignment patterns for different countries, compare international differences and advise valuably political processes of competence allocation and public sector reorganisation.

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