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# The Spending Power of Sub-Central Governments

**A PILOT STUDY** 

Steffen Bach, Hansjörg Blöchliger, Dominik Wallau

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#### ECONOMICS DEPARTMENT

THE SPENDING POWER OF SUB-CENTRAL GOVERNMENTS: A PILOT STUDY

ECONOMICS DEPARTMENT WORKING PAPER No. 705

by Steffen Bach, Hansjörg Blöchliger and Dominik Wallau

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#### ABSTRACT/RÉSUMÉ

#### The spending power of sub-central governments: A pilot study

This pilot study presents indicators that assess sub-central government (SCG) spending power by policy area. Traditional indicators – such as the share of SCG in total government spending – are often misleading as they underestimate the impact of central government regulation on sub-central spending patterns. In order to gauge true spending power, a set of institutional indicators is established, based on a detailed assessment of institutional, regulatory and administrative control central government exerts over various SCG policy areas. Results tend to confirm the limited discretion of SCGs over their own budget. Education in particular – the main SCG budget item in most countries – is strongly shaped by central government regulation. Federal countries tend to grant more spending power to SCGs than unitary countries. With a few amendments, the framework of this study could be applied to all OECD countries, although it is advisable to restrict the analysis to the main sub-central spending areas.

JEL classification: H10, H72, H77

Keywords: fiscal federalism; spending autonomy; local government

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#### L'autonomie budgétaire des administrations infra-nationales: un avant-projet

Cet avant-projet présente des indicateurs pour évaluer l'autonomie budgétaire des administrations infra-nationales (AI). Les indicateurs traditionnels – tels que la part des dépenses des AI dans les dépenses totales – sont souvent trompeurs car ils sous-estiment l'influence de la réglementation mise en place par le gouvernement central sur la ventilation des dépenses infra-nationales. Afin d'estimer la véritable autonomie des AI, un ensemble d'indicateurs a été développé sur la base d'une analyse détaillée du pouvoir institutionnel, réglementaire et administratif que le gouvernement central exerce sur les politiques menées par les AI. Les résultats tendent à confirmer que les AI disposent d'une autonomie limitée sur leurs propres dépenses. L'éducation en particulier – souvent le poste budgétaire le plus important des AI – est un domaine fortement modelé par le gouvernement central. Les pays fédéraux tendent à garantir une autonomie budgétaire plus élevée à leurs AI que les pays unitaires. En l'adaptant légèrement, le cadre de cette étude pourrait être appliqué à tous les pays membres de l'OCDE, bien qu'il soit recommandé de limiter l'analyse aux domaines principaux de l'action publique.

Classification JEL: H10, H72, H77

Mots clés : fédéralisme fiscal ; autonomie budgétaire ; collectivités territoriales

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## ECO/WKP(2009)46

#### THE SPENDING POWER OF SUB-CENTRAL GOVERNMENTS: A PILOT STUDY

By Steffen Bach, Hansjörg Blöchliger and Dominik Wallau<sup>1</sup>

#### 1. Introduction

- 1. A common way to compare and assess sub-central spending power defined as the extent of control sub-central governments (SCG) exert over the budget is the sub-central share of government expenditure, as provided by National Accounts Statistics (OECD) and Government Finance Statistics (IMF). However, sub-central spending may be strongly influenced by upper level government regulation, reducing SCG discretion over various budget items. An analysis of SCG spending power based on simple expenditure shares may therefore be misleading. No internationally comparable indicators of spending power are currently available, except for recent activities carried out by the OECD Economics Department on primary and secondary education (Gonand *et al.*, 2007) or a database on decentralisation in developing countries (Wunsch, 2006). To allow for better policy analysis, more refined autonomy indicators would be useful. Once established, such indicators could help assess how decentralisation affects policy outcomes like public sector efficiency, the fiscal stance or long term sustainability
- 2. This paper presents a pilot study on indicators of sub-central spending power and is organised as follows: The second section presents sub-central expenditure ratios for the various policy areas based on the National Accounts classification of government functions. The third section gives an overview on how spending power can be defined and measured. The fourth section presents the results of a pilot study for four policy areas, namely education, public transport, childcare and elderly care, and sets the newly obtained spending power indicators against the traditional expenditure shares. The fifth section concludes and presents options for continuation of the work. Most information was provided by questionnaires sent to selected countries in summer 2007 and spring 2008. Results of the pilot study can feed into future Network activities. The paper does not draw any normative conclusions on efficient allocation of spending power across government levels.
- 3. Conditional on the small sample of participating countries, the main results of this pilot study can be summarised as follows:

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- Spending power indicators show relatively low SCG spending autonomy. Spending power indicators appear to show that SCGs have relatively little power and autonomy, especially if compared to the commonly used sub-central expenditure share. Much sub-central spending is regulated or otherwise influenced by central government, and simple expenditure shares tend to give an inappropriate picture of sub-central spending autonomy.
- Spending power is particularly low in education. Spending power seems to be particularly low in education and to a lesser extent in childcare and elderly care. While the sub-central expenditure share in education often above 50% suggests extensive sub-central autonomy, the spending power indicators paint a different picture, where SCGs mainly function as agencies funded and regulated by central government.
- Federal countries grant more spending power than unitary countries. SCG spending power tends to be higher in federal than in unitary countries in most policy areas except elderly care. However, federal countries also have more overlapping responsibilities, generating potential efficiency losses in intergovernmental relations.
- Spending power indicators require extensive data analysis. The spending power concept rests on a detailed analysis of each policy area for which SCGs spend money. Data have to be retrieved through questionnaires which require a thorough knowledge of the institutional and regulatory background of each policy area on the part of the respondent. If the activity were to be extended, only the main sub-central spending areas should be considered and evaluated, such as education, health care, social welfare and public infrastructure. Parallel work on more detailed financial statistics (COFOG II) could complement the spending power activity.

#### 2. Expenditure shares: a traditional way to assess SCG budget autonomy

#### 2.1 SCG expenditure shares

4. Government expenditure shares are currently the most common way of describing SCG spending power. The OECD National Accounts provide data on the spending of different levels of government based on the COFOG I classification.<sup>2</sup> Figure 1 shows that the average expenditure share of SCGs from 1995 to 2005 across OECD countries amounted to 33%. Values for individual member states vary considerably, ranging from nearly 70% in Canada to merely 6% in Greece. Federal and regional countries for which data are available have above-average expenditure shares, but only three countries (Canada, Denmark and the United States) are effectively decentralised with a SCG-expenditure share exceeding 50%. Between 1995 and 2005 the sub-central expenditure share rose by 2%, with more than two thirds of all countries showing an increase (not shown in Figure 1).

<sup>2.</sup> COFOG = National Accounts Classification of Functions of Government. COFOG I divides government expenditure into ten functions or policy domains. These are: general public services; defence; public order and safety; housing and community amenities; economic affairs; environment protection; health; recreation, culture and religion; education; social protection.

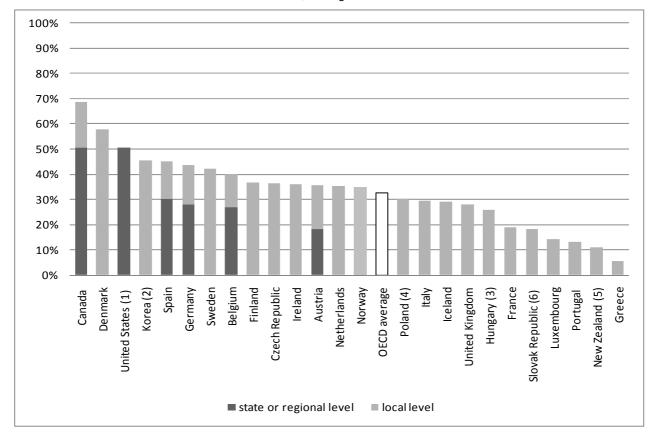


Figure 1. Share of sub-central government expenditure in total government expenditure

All functions, average 1995 – 2005

Note: Unconsolidated data. For the following countries data are not available for the period 1995-2005: Korea (2000–05), Hungary (2001–05), Poland (2002–05), New Zealand (2003–05), Slovak Republic (2003–04). For the United States, National Accounts do not provide a breakdown between state and local governments.

Source: OECD National Accounts.

#### 2.2 SCG expenditure shares across policy areas

- 5. SCG expenditure shares do not only vary between countries, but also across functions (Figure 2). The data suggest that on average SCGs are more involved in policy fields which have a smaller share of the total public budget, such as environmental protection, with the exception of education where the subcentral share clearly exceeds 50% of total public expenditure on average. All other policy areas are predominantly financed by central government. Between 1995 and 2005, expenditure shares rose in all service areas except for environment protection and health. Increases were above average in general public services, economic affairs, housing and community amenities, and in social protection. Increases were below average in education and others. Detailed charts for specific policy fields can be found in the annex (Figure A1).
- 6. Some functions are characterised by a strong variation in SCG expenditure shares which is not easy to explain. A case in point is the large spread of expenditure ratios in health care. While in some countries such as Canada, Denmark, Italy, Sweden, Ireland, or Finland the sub-central level accounts for more than 80% of total health care spending, in other countries such as France, Greece, Luxembourg, New Zealand or the United Kingdom, SCGs have little or virtually no financial responsibility for health care. Whether these numbers accurately reflect the national diversity in health care systems requires

corroboration with respect to more refined indicators of sub-central involvement in the funding of health care systems.

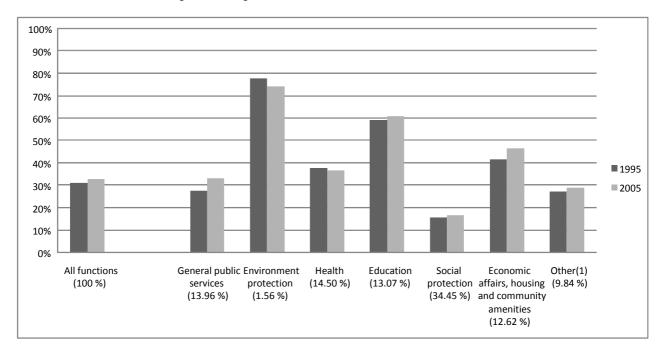


Figure 2. Share of sub-central government spending by main functions
Unweighted average of all OECD countries, 1995 and 2005

"Other" includes defense, public order and safety as well as recreation, culture and religion.
 Note: Percentages in brackets indicate the share of that policy area in total general government expenditure in 2005.
 Source: OECD National Accounts.

## 2.3 Shortcomings of expenditure shares in measuring budget autonomy

7. The use of expenditure shares as a measure for sub-central autonomy has its limits, since a large SCG expenditure share does not necessarily coincide with true spending autonomy. SCG spending may be strongly influenced by upper level government regulation, thus reducing discretion over various expenditure items. Often SCGs implement policies which are completely determined by the central government and financed through earmarked transfers. In some countries, the transfer of financial responsibility for education and health care was hardly more than a change in accounting procedures, while essential regulatory and financial power remained with the central level. Hence, the large sub-central expenditure ratios for health care in some countries are unlikely to reflect a thoroughly decentralised health care system. To produce a more accurate picture of the true level of SCG spending power, a more refined set of indicators is required.

#### 3. Spending power: definition, scope and measurement

## 3.1 Definition and scope of spending power

8. The term "spending power" describes the ability of SCGs to shape, determine and change their spending policy. The spending power concept thus has a larger scope than that of simple expenditure shares and encompasses all facets of policy making. In order to capture the idea of sub-central spending power, it is probably best to consider sub-central governments as service providers. SCGs spend money on various services, from local public transport and garbage collection, through the police and judiciary, to

health care, education and regional development. A set of rules and regulations governs each of these services, and the more sub-central expenditures are shaped and influenced by upper-level intervention, the smaller is the effective power of sub-central governments to determine the size and structure of their budget (Watts, 1999). Hence, SCG spending power depends on the extent to which those regulations are under sub-central control. Conceptually, rules and regulations may be grouped into five categories relating to major facets of autonomy (see also Bell *et al.*, 2006):

- **Policy autonomy**: To what extent do sub-central governments exert control over main policy objectives and main aspects of service delivery (*e.g.* are sub-central governments obliged to provide certain services)?
- **Budget autonomy:** To what extent do sub-central governments exert control over the budget (*e.g.* is expenditure autonomy limited by earmarked grants or expenditure limits). The stringency of fiscal rules could also be assessed here if linked to individual policy areas.
- **Input autonomy:** To what extent do sub-central governments exert control over the civil service (staff management, salaries) and other input-side aspects of a service (e.g. right to tender or contract out services).
- **Output autonomy**: To what extent do sub-central governments exert control over standards such as quality and quantity of services delivered (*e.g.* the right to define school curricula, the right to set up a hospital, the right to set prices for local public transport *etc.*)?
- **Monitoring and evaluation:** to what extent do sub-central governments exert control over evaluation, monitoring and benchmarking (*e.g.* financial control, school tests, *etc.*)?
- 9. The five categories of autonomy could in theory be applied to every policy area for which spending power is assessed. According to the COFOG level II classification this would mean 69 policy areas. Evaluating all categories would be very elaborate, however. Therefore, for practical reasons, a spending power database should cover the main expenditure items of sub-central government, likely to contain around 8 to 10 policy areas eventually. For the pilot study, four policy areas representing large subcentral expenditure shares were analysed.

## 3.2 Measuring spending power: institutional indicators

10. Sub-central spending power will be measured by means of *institutional indicators*. Institutional indicators assess a country's policy arrangements in quantitative terms. Applied to the present study, they measure the extent to which SCGs have autonomy in the design of public services, *i.e.* how and by whom are public services provided, organised, regulated or financed. Spending power indicators as developed here are intended to be purely descriptive and contain no explicit or implicit evaluation of the effectiveness of a given arrangement. Guidelines on how to establish institutional indicators are shown in Sutherland *et al.* (2005) or Blöchliger (2008).

## 3.3 Policy areas selected

11. To assess the feasibility of the spending power concept, four policy areas are selected, namely "primary and secondary education", "public transportation", "childcare" and "elderly care". Data was obtained through a questionnaire for each policy area. The questionnaire was structured according to the five above-mentioned categories policy autonomy, input autonomy, budget autonomy, output autonomy, monitoring and evaluation. For "public transportation", four categories were used, as input autonomy and budget autonomy were merged to form one single category. As far as possible the questions followed a multiple choice pattern. Five countries participated in the pilot study, of which two – Germany,

Switzerland – are federal and three – Denmark, Portugal, Slovak Republic – are unitary. In addition, Ireland returned a questionnaire on "primary and secondary education".

#### 3.4 Indicator set and coding

12. The generalised indicator tree based on a set of recurrent questions for an individual policy area is shown in Figure 3. The indicator tree consists of low-level indicators (LLI), medium-level indicators (MLI) and the high-level indicator. Indicator construction starts with LLIs that describe one specific facet of autonomy. LLIs are then aggregated using the random-weights technique to form five MLIs actually representing the five autonomy categories shown above. The MLIs are finally aggregated to yield a single high-level indicator (HLI) portraying spending power in one sub-central policy area. Indicator trees for individual policy areas are shown in the Annex (Figures A2.1–A2.4), where further statistical details are also explained.

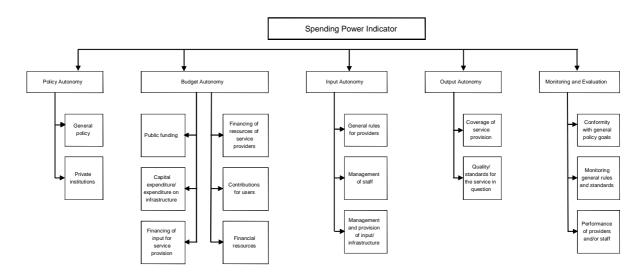


Figure 3. Spending power: Sample indicator tree

- 13. Coding is relatively simple. Each answer to the questionnaire was transformed into a LLI using the codes shown in Table 1. The lower the level to which a certain responsibility, role or task is assigned, the more decentralised the spending power and the higher the indicator value. While indicator values are scaled between 0 and 10 and can easily be transformed into percentages, the ordinal ratings are arbitrary. If answers to the questionnaire indicated shared responsibilities, the arithmetic mean of the indicator values for the government levels involved was used.
- 14. Two points are noteworthy with respect to coding for this pilot study:
  - Providers schools, hospitals, transport companies etc. are considered a separate government level receiving the highest indicator value. This implies that a move of spending responsibilities from a state or local government to providers increases sub-central autonomy. While allocating spending power to providers can be considered as decentralisation that tends to bring services closer to citizens, it does not necessarily increase sub-central power over a specific service, particularly since service providers or the bodies managing them are often not democratically controlled. The question whether service providers should be seen as a separate and decentralised government level should be investigated in more detail.

10

Local governments in unitary countries were given the value five (5) which is the average of the regional (3) and the local level (7) in federal countries. This arbitrary assignment can be interpreted as local governments in unitary countries partially fulfilling tasks which are incumbent on state governments in federal countries. While this assignment is used to make spending power in federal and unitary countries comparable, it rests on the assumption that local levels in both country types can be set against each other. The question whether results are comparable for countries with and without an intermediate SCG level – state or regional – should also be investigated in more detail.

Federal countries

Level of government responsible

Indicator value

Level of government responsible

Indicator value

Central

0

Central

0

State

3

Local

Local

Unitary countries

Level of government responsible

Indicator value

5

Service provider

Table 1. Coding for low-level indicator

#### 4. Results: Spending power in education, public transport, childcare and elderly care

7

10

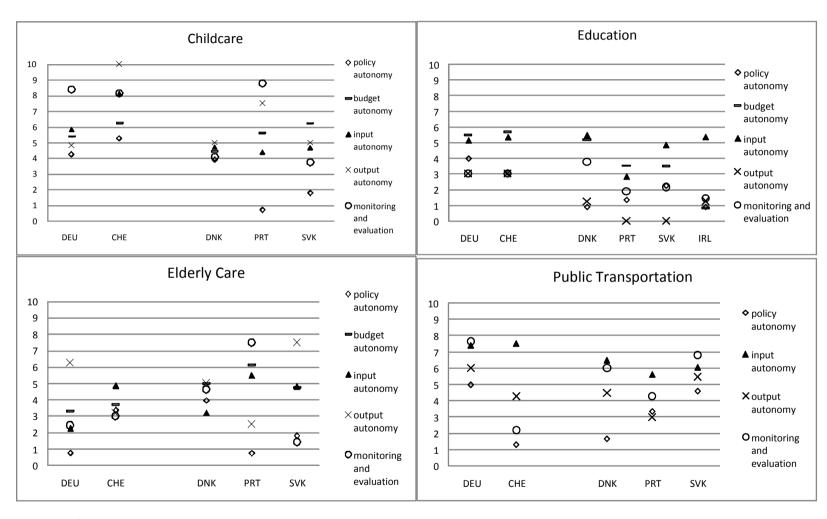
#### 4.1 Medium-level indicators

Local

Service provider

- 15. Figure 4 shows preliminary results for medium-level indicators for the four analysed policy areas. The higher the value, the greater is SCG autonomy over spending in that policy area. Indicator values for federal countries Germany, Switzerland are shown in the left hand side of each figure while results for unitary countries Denmark, Portugal, Slovak Republic plus Ireland for "education" are shown in the right hand side. The results for federal/regional and unitary countries are comparable subject to the caveats described in Section 3.4. Numerical values are shown in Tables A2.1. to A2.4. in the Annex. Detailed figures for each of the participating countries can also be found in the Annex.
- 16. Indicator values are quite dispersed, but certain patterns can be identified. Federal countries tend to have higher values than unitary countries. Values for childcare and public transport tend to be higher than in the other policy areas. Education has the lowest values, pointing to relatively little autonomy in this policy area, while for elderly care autonomy tends to be higher. Data points show relatively small dispersion in education, pointing at quite homogenous arrangements, while the spread is larger in childcare and public transport, but these spreads are quite country specific: while Switzerland has quite homogenous arrangements for elderly care and dispersed arrangements for public transport, the opposite is true for Germany.
- As for the autonomy categories, central government has a stronger oversight over policy and output aspects of a service than over the input and budget side. This is shown by low indicator values for policy autonomy in all four service areas and for low values for output autonomy in education and public transport. By contrast, in most countries SCGs are granted more leeway for input-related matters such as defining the administrative and organisational framework of service delivery. The values for input and budget autonomy are therefore higher, especially in education. The few cases where output-oriented autonomy is larger than input-oriented autonomy could reveal arrangements that are difficult to manage for SCGs. Interestingly, values for monitoring and evaluation have a large spread across services and countries, revealing that some monitoring activities are organised at lower government levels while others are subject to a high degree of central control.

Figure 4. **Medium-level spending power indicators** Indicators across countries, policy areas and autonomy categories



Source: questionnaire responses.

- 18. Shared responsibilities between different levels of government can influence the spending power of SCGs and the efficiency of intergovernmental fiscal relations. Table 2 reveals the extent to which responsibilities are shared across government levels by showing how often more than one box was ticked in the questionnaire. Shared responsibilities are spread unevenly among countries, but federal countries tend to share responsibilities more frequently than unitary countries. Of the unitary countries under scrutiny, Denmark has fewer shared responsibilities than Portugal or the Slovak Republic. The number of shared responsibilities also depends on the service in question, *e.g.* responsibilities tend to be more often shared in public transportation than in childcare or elderly care, likely to reflect the network industry character of the former and hence the need for enhanced coordination.
- 19. Another way of determining shared responsibilities between different levels of government is by means of 90% confidence intervals for a single service and autonomy category, as shown by the vertical line through indicator values (Figures A2.1. to A2.8. in the Annex) and obtained through the aforementioned random-weights technique. Statistically, confidence intervals indicate the robustness of the indicators; in the figurative sense they measure the consistency of a policy setting for one single service. The confidence intervals vary considerably, from zero in several cases to almost three indicator points, pointing at quite heterogeneous arrangements. In general, confidence intervals tend to be smaller for budget autonomy than for the other autonomy categories. Also, federal countries tend to have lower confidence intervals than unitary countries, pointing at more consistent policy settings within a single autonomy category. For statistical details see the Annex.

## 4.2 High-level indicator

20. Results for the high-level indicator are shown in Figure 5. The figure can be interpreted in the same way as Figure 4. Values are obtained by arithmetic (additive) aggregation of the medium-level indicators using the random-weights technique. The top figure compares spending power across policy areas, while the bottom figure compares spending power across countries, with federal countries to the left and unitary countries to the right. Detailed figures, including the 90% confidence intervals, are shown in Annex 2 (Figure A2.9.). Confidence intervals underestimate the uncertainty about the real value of the HLI as the confidence intervals of the MLIs are not taken into account. As already stated for the MLI-level, confidence intervals also vary considerably, but remain smaller than those for MLIs.

 Table 2. Shared responsibilities

 Number of rules and procedures where more than one government level is involved

		Childcare	Education	Elderly Care	Public Transport	Total
Federal countries			_			
Germany	Policy Autonomy	7	4	3	4	18
	Budget Autonomy	7	1	4		20
	Input Autonomy	3	2	4	8	9
	Output Autonomy	2	0	3	5	10
	Monitoring/Evaluation	2	0	3	4	9
	Total	21	7	17	21	66
Switzerland	Policy Autonomy	6	4	3	4	17
	Budget Autonomy	9	11	8	10	38
	Input Autonomy	3	9	11	10	23
	Output Autonomy	0	0	3	5	8
	Monitoring/Evaluation	4	0	0	4	8
	Total	22	24	25	23	94
Unitary countries						
Denmark	Policy Autonomy	3	0	1	2	6
	Budget Autonomy	2	3	0	9	14
	Input Autonomy	5	7	2	9	14
	Output Autonomy	0	1	0	5	6
	Monitoring/Evaluation	3	2	1	2	8
	Total	13	13	4	18	48
Ireland <sup>2</sup>	Policy Autonomy	-	2	-	-	2
	Budget Autonomy	-	0	-	-	0
	Input Autonomy	-	4	-	-	4
	Output Autonomy	-	1	-	-	1
	Monitoring/Evaluation	-	2	-	-	2
	Total	0	9	0	0	9
Portugal	Policy Autonomy	0	6	0	3	9
	Budget Autonomy	2	11	2	11	26
	Input Autonomy	2	12	1	11	15
	Output Autonomy	1	0	1	5	7
	Monitoring/Evaluation	0	3	0	7	10
	Total	5	32	4	26	67
Slovak Republic	Policy Autonomy	1	3	1	3	8
	Budget Autonomy	6	7	6	5	24
	Input Autonomy	4	2	8		14
	Output Autonomy	2	0	4	1	7
	Monitoring/Evaluation	4	2	2	6	14
	Total	17	14	21	15	67
	Grand Total	78	99	71	103	351

Note: For Ireland, only data on education are available. For public transport, input and budget autonomy were merged to form a single category.

Source: Questionnaire responses.

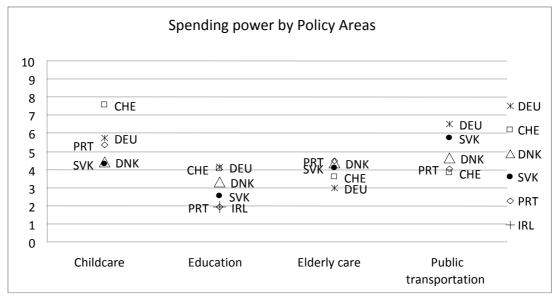
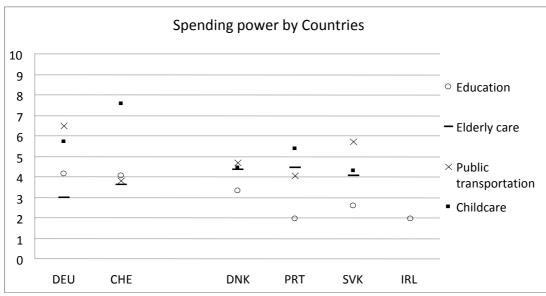


Figure 5. **High-level spending power indicators** Indicators across countries and policy areas



Source: Questionnaire responses.

21. Again, indicator values vary considerably across policy areas and countries. SCG spending power is highest for childcare and lowest for education, particularly in Ireland and Portugal which both appear to have a strongly centralised school system. The spread of indicator values across countries is highest in childcare and smallest in elderly care, pointing at very different intergovernmental arrangements, while values for education and public transportation have similar spreads in a medium range. Spending power is generally higher in federal than in unitary countries except for elderly care. Since spending power indicators are purely descriptive and not normative, there is no "optimal" indicator value to which the actual values could be compared; given the lack of benchmarks, one cannot say whether spending power in a particular policy area is "too low" or "too high" in a country.

While high-level indicators permit a quick assessment of a single policy area, they tend to blur institutional differences across countries. Indeed, HLIs differ less than MLIs across countries, suggesting that policy settings are similar everywhere. Yet as shown in Figure 4, indicator ordering across autonomy categories differs between countries, implying that some SCGs have more input autonomy while others have more output autonomy. These differences disappear once intermediate indicators are aggregated, since the high-level indicator averages them out. For this reason it may be preferable to concentrate on intermediate-level indicators without the aggregation effect just described. In the same vein, intermediate-level indicators in the work on primary and secondary education (Joumard, Gonand and Price, 2006) and on market mechanisms in public service provision (Blöchliger, 2008) proved to be more relevant than the high-level indicators.

#### 4.3 Comparing SCG spending power and SCG expenditure shares

23. The spending power indicators developed in this exercise are meant as a complement to expenditure shares. Set against each other, they can provide an encompassing picture of sub-central budget autonomy. Table 3 and Figure 6 compare spending power indicator values for each of the four policy areas to the sub-central expenditure ratios for the respective COFOG I function. More specifically, public transportation was compared to COFOG I function "economic affairs", education was compared to COFOG I function "social protection" and elderly care and childcare were compared to COFOG I function "social protection" Working with the COFOG I classification can only give a rough approximation of the true expenditure ratios in a particular policy area, but a more detailed approach can only be undertaken once COFOG II data are available.

DFU DNK PRT SVK IRI Child- & Child- & Public Public Child- & Public Public Child- & Edu-Edu-Edu-Edu-Edutrans elderly trans elderly transelderly trans elderly cation cation cation cation cation Spending Power 6.51 4.13 4.36 3.32 4.38 4.05 1.93 4.92 5.73 2.56 4.17 1.96

2.81

0.76

0.10

1.31

6.60

0.32

2.71

Table 3. Comparing SCG expenditure shares and SCG spending power indicators

*Note*: to make indicators comparable, expenditure shares expressed in per cent are divided by ten (*e.g.* an expenditure share of 53% is shown as 5.3 in the table).

7.34

Source: Questionnaire responses and OECD National Accounts.

10.52

2.39

4.20

5.29

5.93

Expenditure

Share/10

<sup>3.</sup> To make both spending power indicators and expenditure shares directly comparable in Table 3, expenditure shares are divided by ten. *E.g.* a value of 5.4 means 54% SCG expenditure share.

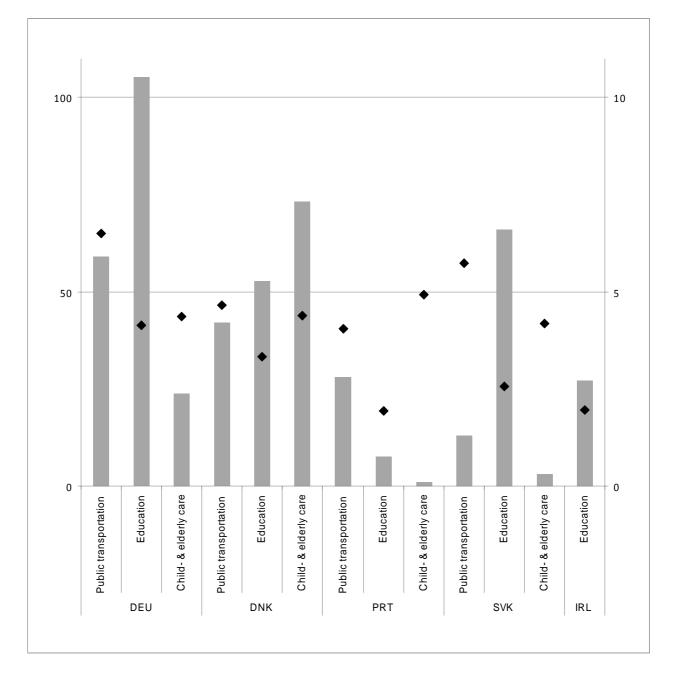


Figure 6. Comparing SCG expenditure ratios and SCG spending power indicators

Note: Bars and the left hand scale represent SCG expenditure shares in per cent, dots and the right hand scale represent spending power indicators. The spending power indicator for "public transportation" is compared to the expenditure ratio for "economic affairs". The spending power indicator for (primary and secondary) "education" is compared to the expenditure ratio for "education". The mean of the spending power indicators for "child- and elderly care" is compared to the expenditure ratio for "social protection". Switzerland is not represented due to lack of COFOG I data. National Accounts data are unconsolidated.

Source: OECD National Accounts and questionnaire responses.

24. Table 3 and Figure 6 support the view that simple expenditure ratios often poorly reflect effective sub-central spending power. Whereas expenditure ratios frequently exceed the 50% threshold, the corresponding spending power indicator is rarely above the value 5, indicating that sub-central spending power is more limited than expenditure shares suggest. This is particularly true for education. By contrast,

in the area of economic affairs spending power is relatively high compared to expenditure shares. For most policy areas the results suggest that SCGs often function as agencies funded and regulated by the central government rather than autonomous and independent policy makers. The power of SCGs over their own budget is limited, pointing at potential difficulties once they have to set spending priorities or to enforce spending cuts. Again, the comparison rests on the assumption that, first, the spending power indicators can be transformed into percentages and, second, that these percentages can be set against sub-central expenditure shares.

## 5. Conclusions and further steps

- 25. This pilot study presented a method to establish indicators that measure the spending power of sub-central governments and produced numerical values for a few countries and policy areas. Spending power indicators could complement existing financial statistics, especially sub-central expenditure shares, delivering a more complete and varied picture of the autonomy SCGs actually enjoy. In the following a few suggestions are made if the activity is to be continued, based on what the Secretariathas learnt during this exercise and Delegate's comments during the pilot study.
  - Spending power indicators should only be established for core SCG policy areas. Theoretically, the spending power exercise could cover all 69 categories of the COFOG II classification. However, the workload to establish indicators is considerable and extending the exercise to all COFOG II categories by using a questionnaire with roughly 50 questions for each policy area would yield nearly 3.500 data points per country to be analysed. Moreover, detailed COFOG II data is not available so far. It is hence useful to apply the spending power concept to core SCG policy areas such as education, health care, social welfare, and infrastructure.
  - Spending power indicators should complement financial statistics: Spending power indicators provide information which hitherto was not available in this clarity. The newly established indicators should however be linked and compared to the existing financial statistics such as subcentral expenditure shares, in order for sub-central spending power to be assessed correctly and in the most complete way.
  - Providers might not be seen as a separate "government level": Although in most countries public service providers schools, hospitals, transport companies etc. do have some spending power, they may not be considered a separate government level. Usually providers or the special bodies governing them are not democratically controlled. If providers are to be left out, the coding table must be adapted accordingly. While providers may indeed have some power over spending issues (e.g. the power to negotiate salaries or to determine investment strategies), coding should reflect that it is usually a specific government that is granting such spending power to providers.
  - Determining spending power requires careful preparation of questionnaires: When designing questionnaires on policy areas, it is crucial to choose questions which are detailed enough to capture the diversity of possible service design on one hand, but also to avoid exhaustive length of questionnaires on the other hand. Questions should not be too complex (no "compound questions") and not combine different subjects or dimensions of a decision making process, because questionnaire recipients are likely to state shared responsibilities when in fact different levels of government are responsible for different aspects of service delivery. Questions should however reveal real overlapping responsibilities. Often, a multiple-choice-type questionnaire may not capture all details of intergovernmental regulation, which makes it advisable to leave space for comments and explanations.
  - Allowing for regional bodies in unitary countries: In several unitary countries the regional level
    and regional jurisdictions have gained importance in the last two decades. To allow for a more
    differentiated picture of responsibilities in unitary countries, it could be useful to distinguish

- between a local and a regional level. Also inter-jurisdictional agreements that leave, once established, little autonomy to an individual jurisdiction could be included.
- Efficiency of spending power arrangements: The approach developed in this paper is descriptive and not normative, *i.e.* spending power arrangements are not evaluated. As a next step, preliminary work on how to measure the *efficiency* of spending power arrangements could be carried out.
- 26. To provide a closer link with National Accounts, it would be useful to have COFOG II expenditure data, whose sub-division into government functions corresponds more closely than COFOG I data to the policy areas selected for the spending power indicators. Progress on spending power indicators and on COFOG II data could be made independently but in parallel, and in the future the two datasets could be made comparable. At European Union level a Task Force to implement COFOG II has been established.

#### **BIBLIOGRAPHY**

- Bell, M., R. Ebel, K. Kaiser and J. Rojchaichaninthorn (2007), *Measuring Fiscal Decentralisation: A New Perspective*, Washington: The World Bank (*forthcoming*).
- Blöchliger, H. (2008), "Market Mechanisms in Public Service Provision", *OECD Economics Department Working Papers* No. 626, OECD, Paris.
- Gonand, F., I. Joumard and R. Price (2007), "Public Spending Efficiency: Institutional Indicators in Primary and Secondary Education", *OECD Economics Department Working Papers* No. 543, OECD, Paris.
- Sutherland, D., I. Joumard and R. Price (2005), "Sub-central Government Fiscal Rules", *OECD Economic Studies* 41, OECD, Paris.

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