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# **Towards Government at a Glance: Identification of Core Data and Issues related to Public Sector Efficiency**

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**TOWARDS GOVERNMENT AT A GLANCE:**

**IDENTIFICATION OF CORE DATA AND ISSUES RELATED TO PUBLIC SECTOR EFFICIENCY**

**Working Paper No. 2**

by **Zsuzsanna Lonti and Matthew Woods**

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## Table of Contents

EXECUTIVE SUMMARY .....	5
WHAT SHOULD CONSTITUTE THE CORE DATA SET FOR <i>GOVERNMENT AT A GLANCE</i> ? .....	7
Antecedents .....	8
Structure of government .....	8
Revenue data .....	8
Input data .....	8
Expenditures .....	8
Employment data .....	9
Compensation costs .....	9
Data on institutional arrangements .....	10
Budget practices .....	10
Performance measurement .....	10
Human resources management practices .....	10
Regulatory quality management .....	10
Integrity framework .....	11
e-Government .....	11
Output data .....	12
Outcome data .....	13
What are the consequences for the future? What to commit to? .....	13
MEASURING PRODUCTIVITY AND EFFICIENCY IN THE PUBLIC SECTOR .....	15
What are productivity and efficiency? .....	15
How to measure them? .....	16
Output measurement and its challenges .....	16
Input measurement – easier in theory .....	18
Difficulties in measuring efficiency in the public sector .....	18
What is the evidence on the impact of institutions on efficiency? .....	19
INDICATORS: INTRODUCTION .....	21
ANTECEDENTS .....	21
Structure of government .....	22
The political institutions .....	22
Administrative structures .....	25
The senior civil service .....	27
REVENUE DATA .....	28
Weight of general government with regard to GDP .....	30
Structure of general government revenue .....	31
Revenue structure by level of government .....	34
Tax revenue structure .....	37
INPUT DATA .....	38
Expenditure data .....	38
Expenditure in relation to GDP .....	39
COFOG .....	41
Levels of government .....	43

COFOG Special .....	46
Employment data.....	48
Employment in government .....	48
Employment in the public domain.....	51
Compensation costs of general government in the wider context of production costs of the public domain .....	56
PROCESS DATA .....	60
Budget practices .....	60
Methodological framework .....	60
Fiscal discipline .....	61
Flexibility at the ministry level.....	66
Autonomy at the agency level .....	69
Performance information.....	72
Types of performance information produced by governments.....	72
Use of performance information in the budget process.....	74
Providing performance information to the legislature and the public .....	80
Roles and responsibilities in performance measurement and evaluation systems.....	82
Human resources management in government .....	85
Methodological framework .....	85
Participation of women in public employment.....	86
Ageing workforce in the public sector.....	88
Stability of employment contracts and casual employment in government .....	92
Part-time work in the civil service at the national level of government in selected OECD countries... 94	
Prevalence of performance-related pay .....	95
Components of overall pay.....	98
Pay compression in the civil service.....	99
Regulatory management quality.....	102
Methodological framework .....	102
Use of Regulatory Impact Analysis (RIA) .....	103
Quality of consultation procedures .....	108
Facilitating licences and permits .....	110
OUTPUT DATA.....	112
Introduction.....	113
Health .....	114
Average length of stay in hospitals for acute care.....	114
Hospital discharges.....	116
Consultations with doctors .....	118
Education.....	121
Number of years in education.....	121
Graduation rates.....	123
EFFICIENCY DATA .....	124
Introduction.....	125
Tax administration.....	126
Efficiency of tax administration: administrative costs to revenue collections .....	126
Education.....	130
Efficiency levels in primary and lower secondary education .....	130
HOT TOPICS .....	133

Productivity/efficiency estimation practices in central government annual budgeting.....	134
Enhancing transparency in lobbying.....	137
Integrity in public procurement.....	141
ANNEX I: MEMBERSHIP OF STEERING GROUP.....	146
ANNEX II: METHODOLOGY FOR COFOG-SPECIAL.....	147
Purpose of COFOG-Special.....	147
Methods.....	148
The structure of the COFOG-Special classification.....	148
Sources for the generation of COFOG-Special data.....	148
The cash/in-kind split.....	149
The individual/collective split.....	151
Renaming of COFOG-Special groups.....	153
Summary table.....	153

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## EXECUTIVE SUMMARY

This is the second Working Paper in the series of three annual papers that the Public Governance and Territorial Development (GOV) Directorate publishes in preparation for its major biennial publication, *Government at a Glance*, planned for late 2009. *Government at a Glance* will provide a suite of key indicators of good government and efficient public services, which will help governments to better assess, plan and measure the performance of their public sector and, over time, the impacts of their public sector reform agendas.

Working Paper No.1 (WP1), “Towards Better Measurement of Government”, proposed a comprehensive data classification and analysis framework for *Government at a Glance*. It recommended that the publication be structured around six categories of variables: revenues; inputs; public sector processes; outputs; outcomes; and antecedents or constraints that contextualize government efficiency and effectiveness. It took stock of available and comparable OECD data on revenues, inputs and public sector processes and was accompanied by three technical papers that set out in detail the proposed approach, discussed the major challenges in output and outcome measurement in the public sector and raised technical alternatives for expert review and comment.

This second working paper (WP2) focuses on two main themes: (1) the identification of **core data** for *Government at a Glance*, and (2) the publication of existing data that help assess the **efficiency** of government. It should be noted that these two themes are not mutually exclusive; some of this existing data linked to efficiency will form part of the core data for *Government at a Glance*.

There are three reasons for the regular collection of core data. First, to enable governments to compare their institutional arrangements and performance to other OECD countries both at one point in time and over time. Second, to shed light on the possible causes of performance differences among governments. Third, to facilitate over time more in-depth analysis of the impact of public sector reforms.

Currently, most available information is collected either on an *ad hoc* basis or at irregular intervals. We propose that the core data be collected regularly, utilising methods that will minimize the burden on member countries. In order to detect trends, it is also important that the core data be as stable as possible. This can be achieved by the use of standardised questionnaire items; since questions often change even when surveys are repeated, comparisons over time become impossible. At the same time, the core data set will be an open concept to which indicators can be added once their significance is established.

It is suggested that the core data include indicators on government revenue and expenditure structures; employment and compensation in the public domain; executive governance outcomes; and institutional arrangements such as budget procedures, HRM practices, performance management, and e-government, including the quality aspects of these institutional arrangements, which we call machinery of public administration outputs and outcomes (*i.e.* intermediate outputs and outcomes). Information on the structure of government is also suggested for inclusion since this is an antecedent to and/or constraint on government action.

Although we intend to limit new data collection as far as possible, it would provide considerable added value to collect information on the quality aspects of processes – what we will refer to as machinery of public administration output and outcome information. These are intermediate outputs and outcomes which might not directly impact on citizens, but which help us to better understand what governments do and how they do it. They are about handling tax declarations, maintaining a sound financial management,

good human resource management, transparent public procurement, and so on. This might not necessarily take the form of new surveys, as in most instances it could be accomplished through the use of existing survey instruments. In this context, creating a technical advisory group consisting of academics and practitioners who are experts in output and outcome measurement could help the Secretariat select the appropriate public administration indicators, whilst of course the project in general will remain under the direction of the Steering Group.

In the future, it is proposed that data coverage be extended to sub-national levels as far as possible. Further work is also proposed for the cautious development of composite indicators. Composite indicators combine different aspects of the same phenomenon, simplifying data presentation and aiding comprehension. WP2 introduces composite indicators for performance measurement and regulatory management. Further composite indicators might be constructed for other institutional variables, *e.g.* budget practices, which would enable us to look for synergies across practices.

In terms of the second theme of the paper, WP2 describes the methodological challenges encountered in the measurement of *efficiency* in the public sector. It also considers the empirical evidence on the institutional drivers of efficiency in the public sector, described in more detail in the accompanying Technical Paper 4. Institutional drivers are processes and institutional arrangements that governments are able, in most instances, to modify. These institutional changes usually constitute the core of public sector reforms, such as the introduction of agencies or the individualisation of employment relations. Consequently, empirical evidence on their impact is highly relevant in assessing the impact of public sector reforms and helps to justify the institutional variables selected to be showcased in *Government at a Glance*.

Currently available data are presented here that highlight some of the core information that *Government at a Glance* will include, this time relating it specifically to the data needs of understanding efficiency in the public sector. It contains revenue and expenditure structure information, including new, experimental expenditure data, distinguishing between individual and collective goods, cash transfers and goods in-kind. These expenditure splits are particularly important for discussions about re-allocation of resources and structural reforms, such as decentralization, outsourcing, and privatisation. New data is also included on efficiency estimation methods used in the budget process in selected countries, as well as enhancing transparency in lobbying and public procurement.

WP2 also presents some highlights of output data from two policy sectors, health and education, as well as efficiency measures from the education policy sector and tax administration. These areas have been selected as they are the most advanced and promising in either output measurement or efficiency analysis (OECD, 2007a; OECD, 2007b). Furthermore, the education sector represents a substantial part of government expenditures in every OECD country; its efficiency is thus crucial to overall government efficiency. Work is also underway within the OECD to look at efficiency in the health sector although this is currently at an exploratory stage.

Working Paper No. 3 will be published at the end of 2008 and will focus on government effectiveness, introducing new executive governance outcome indicators. It will also serve as a trial run for *Government at a Glance*.

Our work has been greatly helped by members of a Steering Group, composed of representatives from the Public Governance Committee (see *Annex 1: Membership of Steering Group* for details), and has been carried out in close co-operation with other OECD Directorates, in particular the Education Directorate, the Health Division of the Employment, Labour and Social Affairs Directorate, the Centre for Tax Policy and Administration, the Statistics Directorate and the Economics Department.

## WHAT SHOULD CONSTITUTE THE CORE DATA SET FOR *GOVERNMENT AT A GLANCE*?

*Government at a Glance* intends to provide comparative data that will enable countries to better understand their own practices, to benchmark their achievements through international comparisons and to learn from the experiences of other countries facing similar challenges. In the longer term it will contribute to OECD-wide learning about public sector efficiency and institutional effectiveness; the possible causes of performance differences among governments; and the impact of public sector reforms.

In order to achieve these objectives a core set of data would need to be collected at regular intervals. Currently, most available information is collected either on an *ad hoc* basis or at irregular intervals. We propose that the core data be collected regularly, utilising methods that will minimize the burden on member countries. This will allow the identification of trends and will facilitate the application of “before and after” research designs, which are necessary for establishing causal relationships.

In order to detect trends it is also important that the core data be as stable as possible. This could be achieved by the use of standardised questionnaire items since questions often change even when surveys are repeated, making comparisons over time impossible.

It is proposed that *Government at a Glance* contain the following core data:

1. *antecedents*: structure of government
2. *revenue* structure
3. *inputs*: expenditure structure; employment data, compensation costs information
4. *processes/institutions*: budget practices, HRM practices, performance measurement practices, regulatory practices, integrity framework, e-government
5. *outputs*: policy sector outputs; machinery of public administration outputs (intermediate outputs)
6. *outcomes*: executive governance outcomes, policy sector outcomes, machinery of public administration outcomes (intermediate outcomes)

Most of the data that will form the core of *Government at a Glance* is currently collected on a semi-permanent basis by the Public Governance and Territorial Development Directorate through independent surveys, such as the Budget Practices Survey, Comparison of Employment in the Public Domain Survey, Survey on Strategic Human Resources Management, and the Regulatory Indicators Questionnaire. We have selected key indicators from all of these surveys and suggest that information on these be collected regularly from the original survey respondents. The justification for the inclusion in the core data set and the proposed data collection methods is described for each group of variables in detail below. The proposed indicators themselves are included in the table in Box 2, with italics denoting the indicators which are not currently collected.



It should be noted that some of these core datasets are linked to efficiency and have therefore been included in this Working Paper.

## **Antecedents**

### ***Structure of government***

The political institutions and administrative structures of a country provide the context for all work on the machinery of government, public sector efficiency and effectiveness. Being able to situate policies and indicators within this contextual background enables us to better understand differences between countries and, therefore, to provide more robust analysis. Whilst some preliminary work has been presented in this Working Paper, regular surveys will be needed in order to progress our understanding of how responsibilities are divided between departments and agencies (the horizontal dimension) and between the various levels of government (the vertical dimension).

*Next data collection requirement: first survey in 2008.*

## **Revenue data**

*Government at a Glance* will contain revenue data for general government using the System of National Accounts (SNA93) classification for all OECD countries. It will be sourced from the IMF, who collects this information annually.

This information reflects the redistributive power of governments, which, in turn, is the product of political decisions regarding the “optimal” size of government. For example, a state focusing on the provision of pure public goods – such as defence, law and order, and justice – may levy less revenue (and spend less) than a state more focused on social welfare. This may indicate the degree of “excludability” or inequity that a society tolerates, as well as its sensitivity to taxation.

Tax structure data shows the choices of governments regarding the means for raising revenues, *e.g.* how much they rely on direct taxes as opposed to indirect ones, whether they put more emphasis on consumption taxes or on income taxes, how much they tax labour income *vs.* capital income, and so on. The data will also highlight the fiscal relations across tiers of government. When local communities are allowed to fix and raise their own revenues – or a significant part of them – this fiscal decentralisation creates the basis for more tailored public services as well as competition across communities. Conversely, a higher proportion of grants from the Centre to local governments is usually accompanied by more standardised services, indicating that territorial cohesion is the priority for public policies.

*Next data collection requirement: no survey needed (source: IMF).*

## **Input data**

### ***Expenditures***

Spending data is available annually from the System of National Accounts, which constitutes the best internationally comparable source. The structure of expenditures shows the policy choices of governments, but international comparison is fraught with complications. For example, a large part of the variation in the general expenditure per GDP ratios across countries reflects the different approaches to delivering public goods and giving social support rather than true differences in resources spent on public services. If support is given *via* tax breaks rather than direct expenditure, expenditure/GDP ratios will naturally be lower. These complications show that great care should be taken in the interpretation of international differences in government spending.

*Government at a Glance* will also include unique splits of the expenditure data, enabling the distinction between individual and collective goods, cash transfers and goods in-kind, and individual goods in-kind financed for allocative and distributive reasons. These new expenditure splits are particularly important for discussions about re-allocation of resources and structural reforms, such as decentralisation, outsourcing and privatisation. Detailed expenditure data that allows for these splits will be available at the start only for European Union member countries.

*Next data collection requirement: no survey needed (source: System of National Accounts).*

### **Employment data**

Labour is the most important input used for the production of public goods and services. Consequently, collecting reliable and valid information on employment in government is imperative to understanding the public sector production process. Data on public sector employment, and especially changes in public sector employment patterns, is also of great interest to the public since it is often considered a proxy for the size and influence of government in the economy and society.

The employment information that is proposed for *Government at a Glance* has been recently developed by GOV in order to provide robust and comparable information on the size of employment in the public domain. The development of a new classification was necessary due to the lack of an internationally recognised standard definition of public sector employment. The new classification “public domain” combines both institutional/organisational characteristics and sources of funding, and is compatible with the SNA. What constitutes the public domain is dependent on one or more of the following criteria: public funding, public ownership, and/or statutory monopoly under strict regulation.

This data is collected by GOV for general government and other parts of the “public domain” in the Comparison of Employment in the Public Domain Survey. We suggest that the core data be collected bi-annually with the use of a short questionnaire.

*Next data collection requirement: survey in 2008/09*

### **Compensation costs**

Public sector employment data need to be supplemented by the cost of employing all these workers in order to gain proper understanding of production costs. Compensation costs are usually high in government compared to the private sector because most public services are labour intensive, often requiring highly-trained professionals. As a result, compensation cost comparisons across sectors need to consider differences in the composition of the workforces. International comparison of government compensation costs should take into account policy choices of governments in terms of providing services directly by their own employees or subcontracting that is, nevertheless, funded from the public purse.

Data on compensation costs is available from the SNA annually.

*Next data collection requirement: no survey needed (source: SNA).*

## **Data on institutional arrangements**

### ***Budget practices***

A functioning annual budget law is the necessary condition for the implementation of political decisions. Consequently, it is important to understand budget preparation, approval, execution, accounting and audit processes. The Budget Practices and Procedures Survey collects all this information and will in future be updated by way of the annual Senior Budget Officials meeting. This way the core data will be available annually.

*Next data collection requirement: updates in 2008, and survey in 2009*

### ***Performance measurement***

OECD countries are under pressure to improve public sector efficiency and effectiveness while controlling public expenditure. An important element of this is gathering objective information on the performance of government agencies, programmes, and policies. All OECD countries assess non-financial government performance. In addition to conducting evaluations, many countries also develop output and outcome measures. This information can provide governments with data on whether their policy objectives are being achieved and can enable them to measure changes in performance over time. More and better quality information on performance can facilitate improved policy, managerial, and budgetary decision making by politicians and civil servants. It can also enhance transparency to the public and the legislature. The development of performance information is a necessary, but not a sufficient, step in improving performance; this information also needs to be used in decision making.

Comparative data are available on the proportion and scale of the development of performance information, the type of information developed and the extent of use in certain areas. The OECD gathers data on this subject through the OECD database on budget practices and procedures and the OECD survey on the development and use of performance information in the budget process.

*Next data collection requirement: updates in 2008, and survey in 2009*

### ***Human resources management practices***

The empirical evidence on the institutional drivers of efficiency has shown that human resource management practices really matter. The major trends in public sector human resource management practices include decentralisation of the function to line departments and line managers, introduction of more flexible working arrangements and more flexibility in pay. The suggested core indicators focus therefore on these themes of autonomy and flexibility. Work is currently underway on the analysis of the 2005 survey results and, in light of the findings, the group of suggested core indicators may be broadened.

Data focusing on central government are collected by the Strategic Human Resources Management in Government Survey. We suggest that the survey be repeated every four years and, over time, be extended to sub-national levels.

*Next data collection requirement: survey in 2009/10*

### ***Regulatory quality management***

Regulatory quality management underpins government's ability to ensure that regulations are efficient, effective and of good quality. It also encompasses procedures related to administrative simplification aiming to reduce regulatory burden and improve the quality of regulation. Related

information has been collected in 1998 and 2005. It is proposed that information from members on indicators of regulatory quality management systems be collected every three years.

The results of the previous surveys have been used to generate composite indicators of regulatory quality management systems. The composites provide more information than individual variables and are based upon related questions designed to provide a picture of the extent to which the systems of members are consistent with OECD guidelines.

While the best view of the systems of member countries will be derived from studying the full range of composite indicators, a sample of the composite indicators can be used to provide a qualified view. This snapshot approach needs to be interpreted with some caution because of its limited perspective. However, a selection of elements which touches on the features of policies, tools and institutions for managing regulatory reform, including *ex ante* and *ex post* practices for reducing regulatory burdens, are included in the table at the end of this section.

*Next data collection requirement: survey in 2008.*

### ***Integrity framework***

Integrity is a critical element for achieving good governance. However, most existing indicators are based principally upon perceptions and can do little to track trends over time. Single national indicators cannot accurately reflect the variations across sectors or levels of government. Existing indices are likely to help generate awareness and political commitment to aggressively tackle corruption problems.

Work is currently underway in GOV to review existing data and feasible methodologies for developing relevant and credible data that can provide evidence-based comparative information on the implementation and impact of measures for promoting integrity and enhancing corruption resistance in public organisations. This data would provide policy makers and managers with indicators that point, as much as possible, to needed actions to develop a sound Integrity Framework in public organisations.

*Next data collection requirement: survey, date to be determined*

### ***e-Government***

OECD countries are transforming government through the use of ICT and ICT-enabled governance structures, new collaboration models (*i.e.* sharing data, processes and portals), and “networked” or “joined-up” administrations. Public sector transformation and e-government are therefore increasingly seen as closely linked policy areas. Several OECD e-government studies have shown that ICT is increasingly used to support broader public sector development objectives, aimed at creating a more coherent, user-focused and efficient public sector by (1) changing service delivery approaches by creating personalised, high quality services to users, thereby increasing user satisfaction and effective service delivery; (2) facilitating major work organisation and management changes creating back-office coherence and efficiency gains; (3) increasing transparency of government activities, and (4) increasing citizen engagement.

However, little empirical evidence on these effects has materialised yet. Traditionally, measurement has been focused narrowly on input and output indicators, which do not properly capture transformation processes and outcomes of transformation. Work is currently underway in GOV to review existing e-government performance indicators. The results of this study, combined with the lessons learned from numerous e-government reviews carried out by GOV, will form the basis for developing valid and reliable performance indicators. These might concentrate initially on service delivery (*e.g.* user take-up and satisfaction, administrative simplification) and organisational indicators (*e.g.* lower administrative burdens, staff satisfaction and skill levels).

*Next data collection requirement: survey, date to be determined*

## **Output data**

The core dataset could include output data from policy sectors as well as machinery of public administration (intermediate) outputs. Policy sectors produce outputs and outcomes that citizens value directly: education, health, safety, cultural experiences, road infrastructure, etc. Outputs and outcomes of public administration are concerned with the machinery of government, and therefore defining outputs for measurement is more complex. They are about such matters as handling tax declarations, maintaining a sound financial management, good human resource management, and transparent public procurement.

Sectoral service delivery is the result of a chain of activities. It is important to understand that the function of machinery of public administration output is usually to enable the provision of sectoral output. Public administration outputs are usually found in the early stages of the chain. For example, the *output* of a HRM department is reflected in the number and quality of staff recruited for government. For the department of education however, the number of staff employed is an *input* indicator. While discussing outputs, we need therefore to ask the question: outputs for whom?

Sectoral output data will be drawn mainly from the work of other specialised OECD directorates such as health and education. There is growing international experience in building sectoral datasets which enable rich sectoral analyses of government performance.

Unlike the policy sectors health and education, public administration has almost no experience with collecting internationally comparable output and outcome data. As a result, at this stage we can only assess the performance of public administrations in the OECD countries “through a glass darkly”. Further work in this area is suggested, with the aid of a technical advisory group composed of academics and practitioners. Data in this area could probably be collected principally through adding questions to existing survey instruments and would, therefore, not require new survey instruments. However, it would be premature to include any intermediate output indicators in the core dataset at the moment. This also means that the core dataset will be an open concept, to which indicators could be added after their significance in explaining government efficiency and effectiveness has been established.

The gradual inclusion of more machinery of public administration output information is important for two reasons. First of all, it is a crucial element in explaining differences in outcomes and for analysing the impact of reforms. As reforms are undertaken, we would expect to see better quality processes, which could be measured by these intermediate outputs and outcomes. Secondly, it may lead to sensible efficiency analyses. Expenditure data are increasingly detailed, and the combination of expenditure data with valid and reliable output data is a *sine qua non* for sound efficiency analyses.

We suggest that *Government at a Glance* focus on the machinery of public administration outputs since other publications such as *Education at a Glance* and *Health at a Glance* provide detailed information and analysis of outputs and outcomes of these policy sectors. This will also be in harmony with the approach proposed for outcome measures in *Government at a Glance*, *i.e.* aiming to measure the effectiveness of the executive. A gradual approach to the task seems sensible: areas of public administration need to be selected where output measurement is advanced on the national level. A good example of this approach is the work carried out by the Centre for Tax Policy and Administration (OECD, 2007), which performed a detailed review of the tax administration, including the measurement of its cost efficiency and effectiveness. Further possible areas for exploration could be the audit or enforcement functions of governments.

*Next data collection requirement: to be determined*

## Outcome data

The main focus of Working Paper No. 3 is planned to be “executive governance” indicators. These are built on the assumption that outcomes in *Government at a Glance* should reflect the activities of the executive. These “executive governance outcomes” might be broadly designated in four types: trust in government, citizen satisfaction, equity and fiscal/economic stability.

In addition, it is proposed that the intermediate outcomes of the machinery of public administration be included, an area to be explored further over the next year.

*Next data collection requirement: to be determined*

## What are the consequences for the future? What to commit to?

The commitment of member countries is requested for the provision of the core data identified for *Government at a Glance*.

It is proposed that a technical advisory group be set up, constituted of researchers and practitioners, to work together with the Secretariat on the further development of machinery of public administration (intermediate) output and outcome indicators. Progress on the selection/creation of these indicators will be reported to the PGC in the spring and in Working Paper No. 3.

It is also proposed that data collection gradually be extended to sub-national and local government levels. In some areas this data is already available (e.g. revenues and expenditures) and is therefore published in this paper. In other areas, such as functional responsibilities, the picture is less clear and would benefit from further exploration.

In time, the coverage of *Government at a Glance* could be extended to high and middle-income non-member countries in order to become a tool for wider discussion, ensuring that the OECD continues to reflect a changing world. In particular, the OECD was mandated by the Council at Ministerial level in May 2007 to open accession discussions with Chile, Estonia, Israel, the Russian Federation and Slovenia, and to strengthen its engagement with Brazil, China, India, Indonesia and South Africa. The G8 also requested in June 2007 that the OECD facilitate the Heiligendamm Process of high-level dialogue with four countries from the latter group (excluding Indonesia) as well as Mexico. Extending the coverage of *Government at a Glance* to these countries could form part of the OECD’s response to these missions, and options to do this will be explored over the next year.

Box 2: Proposed core data set

Antecedents	Revenue	Inputs			Processes						Output			Outcome		Efficiency
		Expenditures	Employment	Production costs	Budget	HRM	Performance measurement	Integrity	E-government	Regulatory Management	Intermediate outputs	Health	Education	Intermediate outcomes	Executive governance	
state structure	general government revenue as % of GDP	general government expenditures as % of GDP	employment in general government as % of labour force	compensation costs of employees as % of general government output	flexibility: ability of ministers to carry-over unused funds/ appropriations from one year to another	proportion of workers above 50	types of performance information developed	for future development, but will include procurement and lobbying data	for future development	regulatory quality	for future development	number of consultations per physician	upper secondary graduation rates	for future development	trust in government	efficiency of tax administration
elected Upper House	general government revenue structure	general government expenditure by function (COFOG)	employment in other parts of the public domain as % of labour force	indicative production costs in the public domain as % of GDP	autonomy: lump sum appropriations given to agencies /executive organisations	representation of women in the civil service	degree of involvement of MOF in government wide performance			quality of consultation processes					citizen satisfaction	output efficiency in primary and lower secondary education
election system for Lower House	general government revenue structure by sectors (local, state, national)	general government expenditure by sectors (local, state, national)	proportion of staff managed at the federal/ national level		fiscal discipline indicators	representation of women in senior positions	consequences if performance targets are not met			reduction and control of administrative burdens					fiscal and economic stability	hospital efficiency
frequency of collations governments	general government tax revenue as % of GDP	general government expenditures: individual vs. collective goods			independent audit indicators	representation of women in administrative tasks	provision of performance information to legislature			facilitating licenses, permits and administrative requirements					equality	
frequency of elections in years	tax revenue structure	general government revenues: cash vs. in-kind			economic assumptions indicators	proportion of open term contracts/ lifelong employment	provision of performance information to the public									
existence of term limits for Presidents						proportion of part-timers										
number of departments and agencies						components of overall pay										
number of ministers						dispersion of earnings										
functional decentralisation indicators																

## MEASURING PRODUCTIVITY AND EFFICIENCY IN THE PUBLIC SECTOR

Building on the work which was carried out last year on how and why government activity should be measured in *Government at a Glance*, this year our main focus is on issues related to productivity and efficiency measurement. First we discuss the precise meaning of these concepts and the particular difficulties encountered when trying to measure them in the public sector.

### What are productivity and efficiency?

Efficient provision of public goods and services is a major objective of all OECD governments. It has received increased attention in the last two decades mainly as a result of the fiscal crises many countries have faced, themselves a consequence of ever-increasing public demand for services, coupled with the limited ability of governments to raise taxes to finance those services.

Discussions of productivity and efficiency are, in essence, concerned either with delivering more outputs for the resources consumed or, alternatively, delivering a fixed amount of output with the least resources. Measuring this has immense practical and policy significance within the public sector – for example, delivering the same services at lower costs could allow tax reductions and thus improve incentives to work and invest, while attaining a higher level of public sector outputs with the same amount of public money could enhance growth. However, it is important to remember that these measures are only valid to the extent that there is a clear causal relationship between the factors involved – and establishing this relationship can be a significant challenge.

The terms “productivity” and “efficiency” are regularly used interchangeably in everyday language. Yet there is a distinction between them in economic theory.

*Productivity* is the ratio of a volume measure of output to a volume measure of input (OECD, 2001). If there is only a single input and a single output, the calculation is straightforward. If there are multiple inputs and outputs, then a method for aggregating inputs and outputs into a single index of inputs and outputs is needed in order to create a ratio measure of productivity.

When referring to productivity we mean **total factor productivity**, which is a productivity measure which considers all factors of production. Productivity can also be measured for separate inputs. In that case the contribution of a single input to the outputs is isolated. For instance (average) **labour productivity** defines the amount of output for each unit of labour (Celli *et al.*, 1999). However, partial measures of productivity can be misleading when considered in isolation. We have to take other production factors into account when we compare partial measures over time or between countries<sup>1</sup>.

While productivity is therefore an absolute measure, *efficiency* is a relative concept. In economics, efficiency has two dimensions. **Technical** (or operational) efficiency refers to the output-input ratio

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<sup>1</sup> For instance, an increase in an organisation’s labour productivity does not necessarily tell that labourers work harder than before. It can be the result of an investment in capital too. Equally, a high labour productivity in a country does not necessarily imply that labourers work harder than in other countries.



compared to a standard ratio, which is considered optimal. Both output and input-oriented efficiency can be defined. Output-oriented efficiency focuses on the maximisation of output for a given set of inputs, or alternatively, input orientation aims at the minimisations of inputs for a given set outputs. **Allocative** efficiency refers to the use of inputs in optimal proportions given their respective prices and production technology. For example, allocative efficiency in input selection involves selecting the mix of inputs (*e.g.* labour and capital) which produce a given quantity of output at minimum costs, based on prevailing input prices. **Economic** (or cost) **efficiency** is the product of technical and allocative efficiency. Thus the two key objectives of efficiency measurement in the public sector are:

- to trace technical inefficiencies: identifying opportunities for improvements in the ways resources are converted into outputs;
- to identify inefficiencies in the mix of production factors (Manning *et al.*, 2006).

Efficiency can also be improved by exploiting economies of scale. However, this is not necessarily a viable option for public sector organisations; altering output and/or input levels are seldom within their control, as they are constrained by political principals and legal requirements<sup>2</sup>. In most welfare states, citizens have a legal right to a number of public services. Reducing output is therefore usually not an option for public service providers such as hospitals, courts and unemployment agencies. These institutions, however, can attempt to minimise inputs – in other words, they could be input-efficient.

However, input levels are also often predetermined for public services. If we look at the private sector, the budget is an estimate from which companies can deviate, for example, to exploit economies of scale. By contrast, in the public sector the budget is not only an estimate, but also an authorisation. It is an expression of a political desire that a specific amount of resources be used to attain societal outcomes, as well as serving as a guarantee that the overall public budget is in balance. For instance, cultural institutions and environmental agencies usually have fixed inputs. These institutions, however, can attempt to maximise outputs. In other words, they could be output-efficient.

### **How to measure them?**

Measurement of efficiency requires quantitative information on both inputs (or costs) and outputs (or volume) of public service provision. However, defining the relevant input and output variables for efficiency or productivity analysis is not straightforward, as public services are complex activities, with multiple inputs and outputs.

### ***Output measurement and its challenges***

Correctly measuring the economic value of output requires capturing the quantity and quality of products and services. The OECD Productivity Manual notes that “activities where non-market producers dominate pose specific problems of productivity measurement, due to the difficulty or impossibility of observing and/or defining market prices or output” (OECD, 2001, para 1.2).

Until recently, most OECD countries measured the volume of non-market services by the so-called input method. Output volumes were estimated through the estimated input volumes. As this method is built on the assumption that output equals inputs for non-market services, productivity is considered constant over time and across countries for these non-market services. In order to overcome this shortcoming of the

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<sup>2</sup> Wilson (1989) argues that dealing with these constraints is the main task of public sector managers. He states that whereas business management focuses on the “bottom line” (that is, profits), government management focuses on the “top line” (that is, constraints).

input method, both the System of National Accounts (SNA93) and Eurostat recommended that volume (*i.e.* economic value) measures should be based on an observable flow of service provision. Since 2006 European Union member countries have been required to measure and report the outputs of their non-market services.

Most countries measure activities. Activity is, for example, the number of operations in hospitals or number of patrols carried out by the police. According to Atkinson, activity indicators reflect what the non-market units are actually doing with their inputs and therefore are closer to the output (Atkinson *et al.*, 2005, p. 31). However, this is clearly an imperfect measure; if, for example, improved medical treatments reduce the number of operations necessary, then the number of operations performed is no longer a useful indicator since a higher number would imply a decrease of output and productivity (Eurostat, 2002, 3.1.2.1).

The quantities of different outputs should be added together using data on prices or costs of the services provided. In practice, most countries are adopting methods in which output is proxied by the number of various activities carried out, each weighted by their respective average unit cost. However, there is also a need to carry out quality adjustment, to reflect differences in the quality of services that are provided. This is usually reflected in the price/cost weights. Work is currently underway in the OECD regarding the further development of price and volume measures for non-market services.

Outputs can be measured at various levels. Micro-level measures capture the outputs of individual organisations, intermediate measures capture outputs at the policy sector level, and macro measures capture outputs at the government-wide level. Macro efficiency measurement of outputs may be useful to distinguish trends but is less useful for managerial purposes. Typically, macro-level data encompass a diffuse set of activities of numerous units. However, managers should only be accountable for concrete outputs that are controlled by the units they manage. Moreover, macro-level data do not show where an efficiency problem occurs and thus this information does not tell managers where they need to intervene. It is fair to say then that micro-level measurement has more to offer for public managers since this micro-level focus is required if we want to gain an understanding of the underlying causes of inefficiency.

Furthermore, the aggregation of micro-level measurements into macro-level data poses several problems (Murray, 1992). First, only the final outputs (the products and services that are produced for the public or business) should be counted since the inclusion of intermediate outputs will lead to double-counting. In the private sector, the output of a firm is roughly everything that has a price tag. However, in the public sector it is much more difficult to identify that final output, due to the lack of price information. Additionally, aggregation requires weights, and in the absence of price information there is no obvious way to add up, for example, road patrols and detective work of a police agency, as described earlier. A third issue concerns how the quality of goods and services should be incorporated, again in the absence of price information.

Another problem is that the output mix of many public sector organisations includes intangibles. Hackman and Oldham (1980) distinguish among three types of outputs with progressively less tangible outputs: routine based tasks, human relations based activities and process based activities. A diplomatic service, for example, has many process based activities (*e.g.* negotiating, interest representation), some human relations based (*e.g.* issuing immigration permits) and some routine processes (*e.g.* security checks). Although such outputs can be captured, the risk is of focusing on the measurable outputs whilst neglecting other outputs. Experience has shown that measurement can concentrate too much on the measurable proxies of public service provision to the detriment of less tangible aspects (Shepard 1990; Smith and Rottenberg, 1991).

But the most significant challenges lie in the measurement of outputs for collective services, such as defence and public order and safety. Eurostat notes that “(f)or collective services, however, there is no transaction between producer and consumer, since these are provided simultaneously to the society as a whole. It becomes therefore very difficult to define the output. It is very difficult to say for example what the unit of output is of defence or police services” (Eurostat, 2001, para 3.1.2.1). There are two main approaches in measuring collective services output. According to Eurostat, in the case of collective services a modified input method can be used, in which the volume of each type of input is estimated separately, taking quality changes of each input into account. Alternatively, activity can be measured. However, none of these solutions are ideal.

Measuring outputs can also create incentives to “game” or cheat, particularly when output measures directly affect monetary or career incentives (Bouckaert and Balk, 1991; Smith, 1995). This generally happens in one of two ways (Van Dooren, 2006) – data can be deliberately captured in a misleading way, or organisational behaviour can be adapted specifically in order to change the output measures, regardless of other perverse consequences.

### ***Input measurement – easier in theory***

Happily, *measuring inputs* is more straightforward although, again, significant practical challenges remain. Accounting systems can be regarded as institutionalised measurement systems for the input-side. Efficiency analysis requires cost accounting, and cost accounting requires an accounting system that registers costs and not only cash flows. A cash based system is insufficient.

Accruals based accounting records financial events based on events that change the net worth. In an accrual based system, a transaction is registered when the activity generates revenue, or when resources are consumed, regardless of when the associated cash is received or paid. Accrual based systems record transactions both on an accruals basis and on a cash basis (Blöndal, 2003). Nearly one-third of OECD countries have adopted full accrual accounting.

For costs to be imputed to outputs, it is not only necessary to maintain a system of accrual accounting but also to maintain a management accounting system that splits out all costs to separate outputs. This requires a financial administration at the agency level that records all the costs of all outputs produced.

Only the governments of Australia, New Zealand and the United Kingdom have adopted full accrual budgeting (Sterck and Scheers, 2006). Its relative unpopularity among OECD countries is due to a belief that it risks budget discipline and that it is too complex.

However, even input information is not always available in monetary terms. In that case, in the same way that proxies are used to assess output volumes, they are used to assess input volumes. Most commonly, labour (number of full-time equivalents) is used as a proxy for the input. In some sectors, such as education, labour costs make up the bulk of the total inputs, and in these cases, the use of this proxy is a good strategy. In other sectors, such as hospitals, labour costs are a considerably lower portion of the total input mix. In this case, other (additional) proxies would be needed.

### ***Difficulties in measuring efficiency in the public sector***

Most of the empirical studies that have been carried out on public spending efficiency focus on specific sectors – in particular, education, health care and criminal justice – at the national level (Pollitt and Bouckaert, 2003, p. 13). There are also comparative studies of efficiency or productivity in the public sector (Social and Cultural Planning Office, 2004) and current OECD work to measure efficiency in the education and health sectors (OECD, Economics Department, 2007a and 2007b) and tax administration

(OECD, 2007c). However, studies in these areas have been bedevilled by weak data. Other studies have resorted to using rather poor-quality measures of output with perception-based quality indicators (Afonso, Schucknect *et al.*, 2006).

Developments in measuring public spending efficiency in the health and education sectors look promising, using both non-parametrical methods (*e.g.* Data Envelopment Analysis – DEA) and parametric methods (*e.g.* stochastic frontier analysis). However, these methodologies are still highly contested and are considered to be in a developmental stage. One of their major shortcomings is that efficiency results are very dependent on numerous “technical” judgments, which are rather more political than truly technical in nature. As a result, when conducting efficiency analysis, a vital requirement is to secure the involvement of policy makers in the model building process.

DEA is very sensitive to measurement errors; consequently, techniques to detect outliers or sample biases need to be used to correct for those (OECD, 2007a, p. 6). The advantage of stochastic frontier analysis compared to DEA is that it is not restricted to the estimation of inefficiencies but can also pinpoint the possible causes of inefficiencies. Still, non-parametric methods have been preferred in public sector efficiency analyses to date mainly due to their simplicity and their applicability to small samples, often encountered in international comparisons.

### **What is the evidence on the impact of institutions on efficiency?**

Institutional arrangements are the means through which the public sector production process is carried out, where public sector inputs are converted into public sector outputs. So the efficiency of public sector production processes cannot be understood without understanding the role played by institutional arrangements.

An accompanying technical paper (Technical Paper No. 4) explores the available empirical evidence on the institutional drivers of government efficiency, showing which institutional arrangements seem to influence efficiency and under what circumstances. The institutional arrangements that it reviews include budget practices, performance measurement arrangements, HRM practices, e-government practices, fiscal decentralisation, agencification, privatisation, competition and intra-governmental co-ordination. It also looks at the impact of selected workforce characteristics on efficiency, such as workforce size, composition and wage levels.

The evidence on the institutional drivers of efficiency in the public sector is surprisingly limited. Available research provides a very guarded assessment of the impact on efficiency by varying the mix of inputs used (more staff on contract, less permanent employees, for example) or by changing structural and managerial arrangements.

Nonetheless, relatively strong findings emerged in three areas. First, it seems that efficiency gains could be obtained by increasing the *scale of operations*, based on evidence collected mainly in the education and health sectors. However, the impact on other public service values, such as equity, access to services, quality of services and effectiveness needs to be considered when adopting these kinds of strategies for efficiency improvements. Second, *functional and political decentralisation* to sub-national governments seem beneficial for efficiency. Third, *human resource management practices* matter a great deal. The soft aspects of human resource management such as employee satisfaction and morale are the most important drivers of performance. While wages are still important for staff, non-monetary incentives, such as recognition, interesting work and autonomy are essential. High wage levels – compared to similar work in the private sector – could lead to inefficiencies, although governments are often model employers and their wage policies reflect equity concerns as well. But where there are skill-shortages, wages are especially important for attracting and retaining qualified staff.

Findings are inconclusive on the impact of *ownership, competition and agencification*. While private ownership is not a guarantee of efficiency, public ownership does not necessarily lead to inefficiencies either. It is more probable that it is not ownership but competition that drives efficiency. The nature of service delivery, such as low asset specificity and low information costs, is a crucial factor when introducing competition in public services.

Regarding agencification, there is some evidence that a reduction of input controls combined with steering for results, financial incentives and competition could lead to increased efficiency. However, the impact on the quality of service delivery and policy effectiveness is unclear. The literature also calls attention to the major risks of agencification, including the exposure of government to financial and employment risks and opportunities for political patronage and corruption.

There is very little evidence on the impact of workforce diversity and representativeness on efficiency. The role of unions in public sector efficiency is also relatively uncharted territory, although union representation is relatively high in the public sector in most countries. The effects of new intra-governmental co-ordination mechanisms are also not known, nor, surprisingly, has the impact of e-government been thoroughly evaluated by researchers.

Negative effects of performance measurement/management have been increasingly reported when this is tightly coupled with decision making. More positive effects are found in performance arrangements with a loose coupling between measurement and decisions. These performance arrangements inform rather than punish professionals in the public sector. The evidence on the use of performance information in the political arena is diffuse, but their major impact is situated in the internal management of departments and agencies.

The reasons for the limited and inconclusive evidence on the impact of various institutional arrangements on public sector efficiency are numerous. First, many reform initiatives have been driven more by ideological considerations and management fads than true efficiency concerns. Second, managers might have a vested interest in the success of the reforms and may over-claim their impact, especially if their introduction is tied to monetary or other incentives. Often politicians who are the instigators of institutional reforms are less interested in their outcomes for fear of any negative effects being uncovered.

However, research in this area is extremely complicated due to the limited availability of data, measurement difficulties and the potential effects of many external factors on efficiency – sometimes unmeasured, other times unknown. In this instance *Government at a Glance* could help ease these problems by collecting relevant, valid and reliable data in a timely manner. Collecting data internationally and regularly over a longer period of time would allow research methods to be utilised that could probe cause and effect relationships between institutional arrangements and public sector performance. Time-series data could also help untangle the short-term and long-term effect of reforms, establishing or refuting claims of efficiency gains from institutional reforms dissipating over time.

Finally, the lack of evidence of efficiency improvements due to institutional reforms might be simply because the concepts and measurements used by researchers and practitioners are too gross/aggregate/crude. In that case it is possible that efficiency-improving reforms are indeed taking place, but the measures and techniques for capturing them have not yet been developed. This might be what is driving practitioners to make reforms – they can sense improvements that researchers are blind to. In this case, the OECD's job is to help further the issues of the measurement of public services.

## INDICATORS: INTRODUCTION

The following sections of the Working Paper contain indicators from the Antecedents, Revenues, Inputs, Processes, Outputs and Outcomes categories of government activities, as well as some “Hot Topics”. Most of it is constituted from new data gathered since the publication of Working Paper 1 and comprises indicators which have a particular link to productivity and efficiency. The section on efficiency indicators and calculations *per se* highlights work done in this area in the fields of education and tax administration.

Each indicator is displayed using a graphic accompanied by explanatory text. This procedure seeks to define and explore the relevant concept and its significance, as well as provide highlights of the results and draw attention to any definition and measurement issues.

## ANTECEDENTS

### Structure of government

#### *The political institutions*

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While the governmental bureaucratic systems of all OECD countries display, in varying degrees, the key elements of Max Weber's "ideal-type", they also embody important cross-national historical, cultural and political differences. Major differences in political institutions that can affect the way a country's bureaucratic system works include the existence of an elected Upper House, the election system for the Lower House, the frequency of coalition governments, the frequency of elections and the existence of term limits for the President (if applicable).

Relatively little research has been conducted on understanding the linkages between these spheres, with most tending to focus on either the micro (organisational theory) level, or the macro (political science) level. Public administration work concentrates on the machinery of government, taking the political context as a given.

However, the type of election system employed has a number of potential consequences. For example, proportional representation typically leads to fragmented party systems and coalition governments, which tend to be more consultative and consensus-oriented, whereas single party majorities tend to be able to impose their agenda more forcefully. However, policies resulting from a more consensus-oriented system may be more resistant to a change of government and, therefore, more durable over time.

The frequency of elections and the existence of term limits both influence the behaviour of the executive government, determining the amount of time available to design and implement policies. Whilst presidential term limits have the disadvantage of removing experienced politicians from office, they can be used as an institutional safeguard of democracy.

#### **Definition and measurement**

Preliminary research on this topic has been gathered through a review of available sources and member country government websites.

#### **Highlights**

Whilst it is worth remembering that this data is largely a result of historical developments, it is nonetheless interesting to note that 12 of the 17 OECD countries that have an Upper House elect its members. Equally, the vast majority (25 out of 30) of OECD countries elect their Lower House through some sort of proportional representation system.

The link between the election system and the frequency of coalition governments is clearly supported by the data, with single-member systems leading to coalition governments relatively infrequently.

Finally, term limits for Presidents are widespread amongst OECD countries. Most are two-term limits although in Mexico, South Korea and Turkey, the President is limited to one term in office.

**Table ANT1. Existence of elected Upper House**

System	Total	Country
Elected	11	Australia, Czech Republic, France, Italy, Japan, Mexico, Netherlands, Poland, Spain, Switzerland, United States
Non-elected	5	Austria, Canada, Germany, Great Britain, Ireland
Partially elected	1	Belgium
No Upper House	13	Denmark, Finland, Greece, Hungary, Iceland, Luxembourg, New Zealand, Norway, Portugal, Slovak Republic, South Korea, Sweden, Turkey

Source: Member country government websites

**Table ANT2. Election system for Lower House**

System	Total	Country	
Single Member	First Past the Post <sup>3</sup>	3	Canada, Great Britain, United States
	Preferential	1	Australia
	Two Round <sup>4</sup>	1	France
Multi Member	Proportional Representation <sup>5</sup>	17	Austria, Belgium, Czech Republic, Denmark, Finland, Greece, Iceland, Ireland, Luxembourg, Netherlands, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Turkey
	Semi-Proportional <sup>6</sup> Representation	8	Germany, Hungary, Italy, Japan, Mexico, New Zealand, South Korea, Switzerland

Source: Member country government websites

<sup>3</sup> Under First Past The Post, the winner is the candidate with the most votes but not necessarily an absolute majority of the votes.

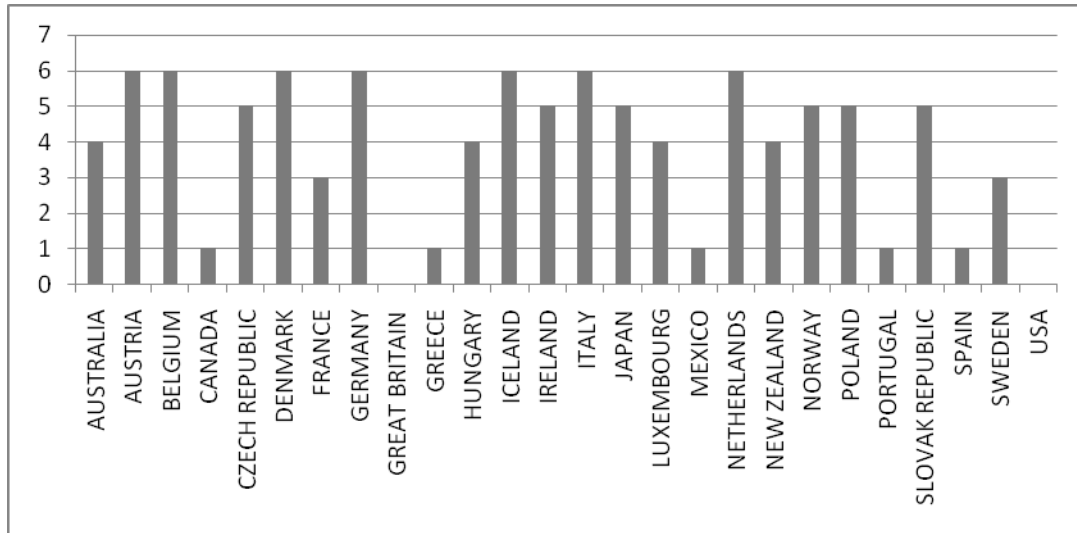
<sup>4</sup> The Preferential (Alternative) Vote and the Two-Round System are majoritarian systems which try to ensure that the winning candidate receives an absolute majority (*i.e.* over 50%). Each system makes use of voters' *second preferences* to produce a winner with an absolute majority if one does not emerge from the first round of voting. In the Two Round system a second round of voting is used if the first round does not result in one candidate winning over 50% of the vote.

<sup>5</sup> Proportional Representation systems aim to reduce the disparity between a party's share of the national vote and its share of the parliamentary seats. If a party wins 40 per cent of the votes, it should win approximately 40% of the seats, whilst a party with 10% of the votes should also gain 10% of the legislative seats.

<sup>6</sup> Semi-proportional systems attempt to combine the attributes of both plurality and PR systems, and feature two electoral systems running alongside each other. There are two forms of mixed system. Under Mixed Member Proportional systems, the PR seats are awarded to compensate for any dis-proportionality produced by the district seat results. In Parallel systems the PR component does not perform this compensatory role.



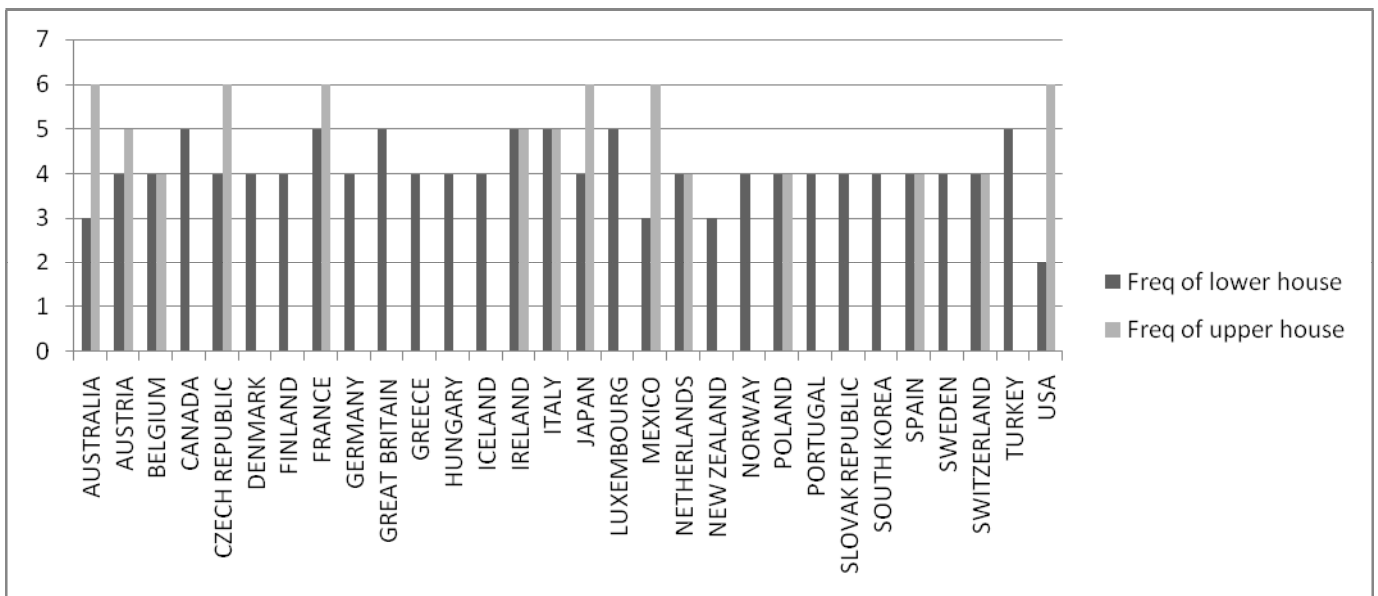
Figure ANT1. Frequency of coalition governments over the last 20 years



Source: Member country government websites

Note: No data available for Finland, South Korea, Switzerland or Turkey. Data for France refers to periods of "cohabitation".

Figure ANT2. Frequency of elections in years



Source: Member country government websites

Note: No value indicates a non-elected Upper House

**Table ANT3. Existence of term limits for president**

City or Town	Total	Country
Term limit	12	Austria (12 yrs), Czech Republic (10 yrs), Finland (12 yrs), Greece (10 yrs), Ireland (14 yrs), Mexico (6 yrs), Poland (10 yrs), Portugal (10 yrs), Slovak Republic (10 yrs), South Korea (5 yrs), Turkey (7 yrs), United States (8 yrs)
No term limit	5	France, Germany, Hungary, Iceland, Italy
No President	13	Australia, Belgium, Canada, Denmark, Great Britain, Japan, Luxembourg, Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland

Source: Member country government websites.

### ***Administrative structures***

The way that governments are structured – how the responsibilities are divided between departments and agencies (the horizontal dimension) and between the various levels of government (the vertical dimension) – forms the institutional basis for all public administration.

Indicators selected to highlight the administrative elements of the structure of government are: the number of departments, number of ministers and the structure of the state (federal or unitary).

Increasing the scale of operations by undertaking government activities through a smaller number of larger ministries can lead to efficiency gains, due to savings in overhead costs and fixed costs in tangible assets – although creating an organisation that is too large may lead to dis-economies of scale through excessive rigidity. The link between the political and administrative spheres remains relevant; the number of departments may also be influenced by political motivations (such as the number of ministers needing portfolios).

Whilst the structure of the state is chiefly a result of historical developments, whether it is federal or unitary nonetheless has consequences for the degree of decentralisation of authority. *De facto*, in federal states there is a division of sovereignty between the federal and state governments, whereas in unitary states there is no constitutionally defined division of state power – although some states are more centralised than others. It has been postulated that reforms implemented in more decentralised states tend to be narrower in scope and less uniform in practice, as different entities are able to go in different directions or at different speeds (Pollitt *et al.*, 2004). Conversely, centralised governments tend to be more heavily involved in service delivery and, therefore, may focus more narrowly on results and outputs rather than outcomes.

### **Definition and measurement**

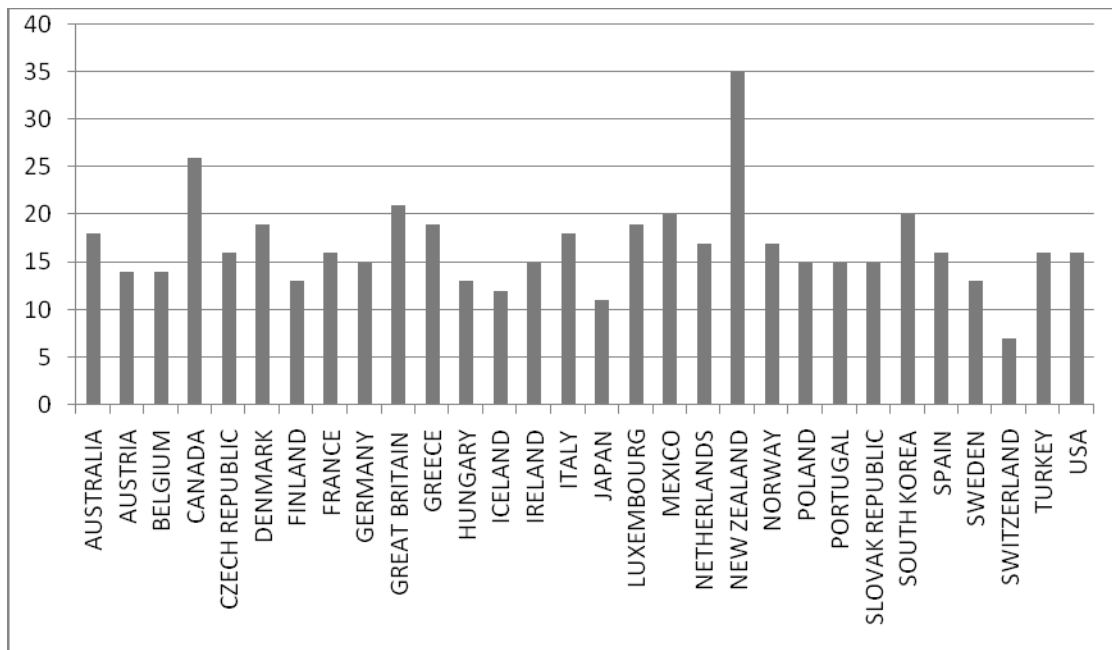
The data has been gathered through a review of available sources and member country government websites. This has enabled the creation of a framework and the collection of certain more readily available indicators although further analysis of the structure of government will require survey efforts.

### **Highlights**

OECD countries vary widely in terms of numbers of departments with New Zealand at one extreme having 35 departments and Switzerland at the other with 7 departments. The number of ministers does not necessarily correspond to the number of departments; in some countries, ministers are responsible for more than one department, whilst in others additional ministers do not have a departmental portfolio.

Two-thirds of OECD countries are unitary states. However, this group is far from homogeneous; certain countries (such as the Nordic states) are more decentralised than others.

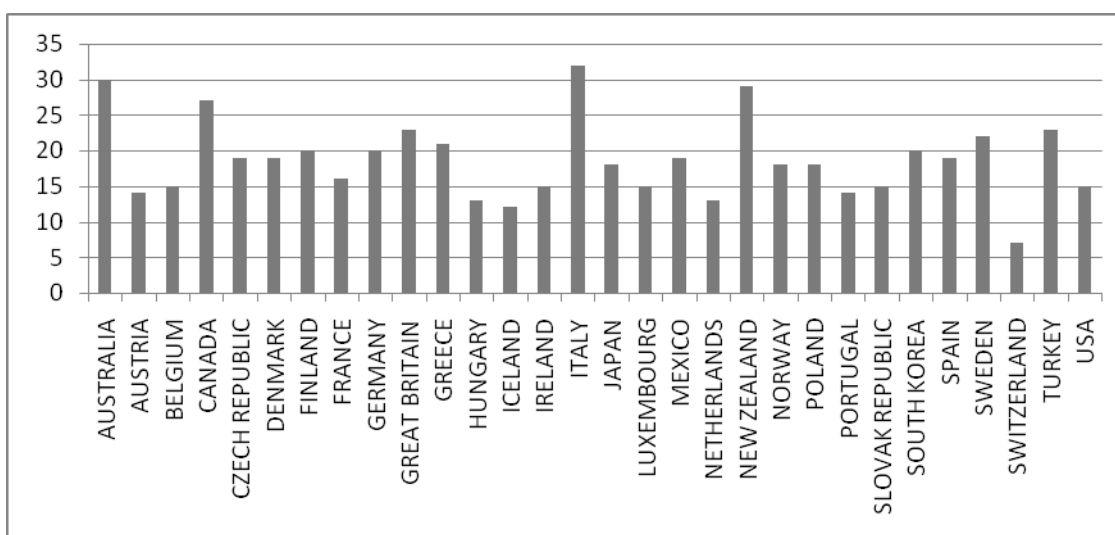
**Figure ANT3. Number of departments at the national/federal level**



Source: Member country government websites.

Note: A government department is also termed a ministry in certain countries.

**Figure ANT4. Number of ministers at the national/federal level**



Source: Member country government websites.

**Table ANT4. Federal or unitary state**

<b>State structure</b>	<b>Total</b>	<b>Country</b>
Federal	10	Australia, Austria, Belgium, Canada, Germany, Mexico, Norway, Spain, Switzerland, United States
Unitary	20	Czech Republic, Denmark, Finland, France, Great Britain, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Poland, Portugal, Slovak Republic, South Korea, Sweden, Turkey

Source: Member country government websites.

### ***The senior civil service***

A number of OECD countries have created a separate Senior Civil Service to act as a “mediating institution” between the political and administrative spheres, and between different sectors, groups and departments of governments. Reasons for its creation are varied. It can result from a desire to overcome fragmentation (itself a consequence in part of increased decentralisation) by creating a corporate culture, or from a need to introduce more flexible recruitment and employment conditions for high-level managers. In many cases, the senior civil service is used to clarify the boundaries between politics and the administration, as a response to the tensions inherent within the relationship between politics and administration caused by the need to find a proper balance between political responsiveness and neutral competence. This balance is found at various points along the continuum in different OECD countries. Finally, a separate Senior Civil Service can help to foster and implement reforms.

The size of this group varies across countries although too large a group may make it difficult to achieve a corporate ethos or cohesive senior cadre.

### **Definition and measurement**

The Senior Civil Service can be defined as a separate, structured and recognised system of personnel for the higher, non-political positions in government, in order to provide stability and professionalism at senior levels. Features include competitive appointment based on merit, a requirement for specific skills and being centrally managed. Data for this indicator were taken from the 2006 OECD Strategic HRM Survey, which was sent to members of the PEMWP, who were asked, “Is there a defined group of staff in central/national/federal government who are widely understood to be the “senior civil service”?”

### **Highlights**

Over two-thirds of OECD countries (21 out of 29 respondents) have a separate senior civil service, which in many cases has been a relatively recent development. However, it is important to remember that not all senior civil services are homogeneous; there are significant differences among countries in terms of size, diversity and composition, as well as practical differences in terms of how they are managed. Case study work is currently underway in order to progress our understanding of the detail underneath these differences.

**Table ANT5. Existence of a separate senior civil service**

<b>Existence of separate senior civil service</b>	<b>Total</b>	<b>Country</b>
Yes	21	Australia, Belgium, Canada, Czech Republic, Finland, France, Great Britain, Hungary, Iceland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, South Korea, Turkey, United States
No	8	Austria, Denmark, Germany, Ireland, Mexico, Spain, Sweden, Switzerland
No response	1	Greece

Source: OECD (GOV), 2006 Strategic Human Resources Management Survey

## REVENUE DATA

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These indicators focus on the revenue side of the government budget. They show general government revenue as a percentage of GDP and break down total revenue at the level of general government and at the level of the subsectors in various types of taxes and non-tax revenues. These data give insight into the ways in which governments raise revenues as well as the degree of autonomy across different levels of government.

### Definition and measurement

Revenue encompasses:

1. Taxes levied by the government on income, profits and capital gains, on payroll and workforce, on property, on goods and services, on international trade and transactions and other taxes;
2. Social contributions (social security contributions and other social contributions);
3. Grants (grants from foreign governments, international organizations and other general government units) and other revenue;

General government consists of central, state and local government – in the System of National Accounts this is S1311, S1312 and S1313.

Revenue data come from 2006 *IMF Government Finance Statistics Yearbook* (GFSY) and are consistent with the System of National Accounts 1993. For more than half of the 30 OECD countries<sup>7</sup>, 2005 data are provisional. When data are not available for 2005, structure and ratios have been calculated with older data (identified in the graphs by an asterisk). Data are not available for Turkey.

Data regarding GDP come from OECD members' *System of National Accounts* (SNA). Main aggregates from SNA have been prepared from statistics reported to the OECD by member countries in their answers to the national accounts questionnaire. All member countries have agreed to adopt the 1993 SNA except Turkey, which presents its national accounts on the basis of 1968 SNA<sup>8</sup>.

As GFS Yearbook and SNA statistics are computed on the basis of the same methodology, we can provide cross-country comparisons for structure or ratios (general government as a share of GDP).

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<sup>7</sup> 2005 data of the following countries are provisional: Austria, Belgium, Canada, Finland, Greece, Hungary, Ireland, Italy, Netherlands, New Zealand, Norway, Portugal, Slovak Republic, Sweden, United States. 2004 data for Denmark are also provisional.

<sup>8</sup> There are numerous differences between the two systems as regards valuations, classifications and definitions, and these must be taken into account when comparing data compiled according to different systems.

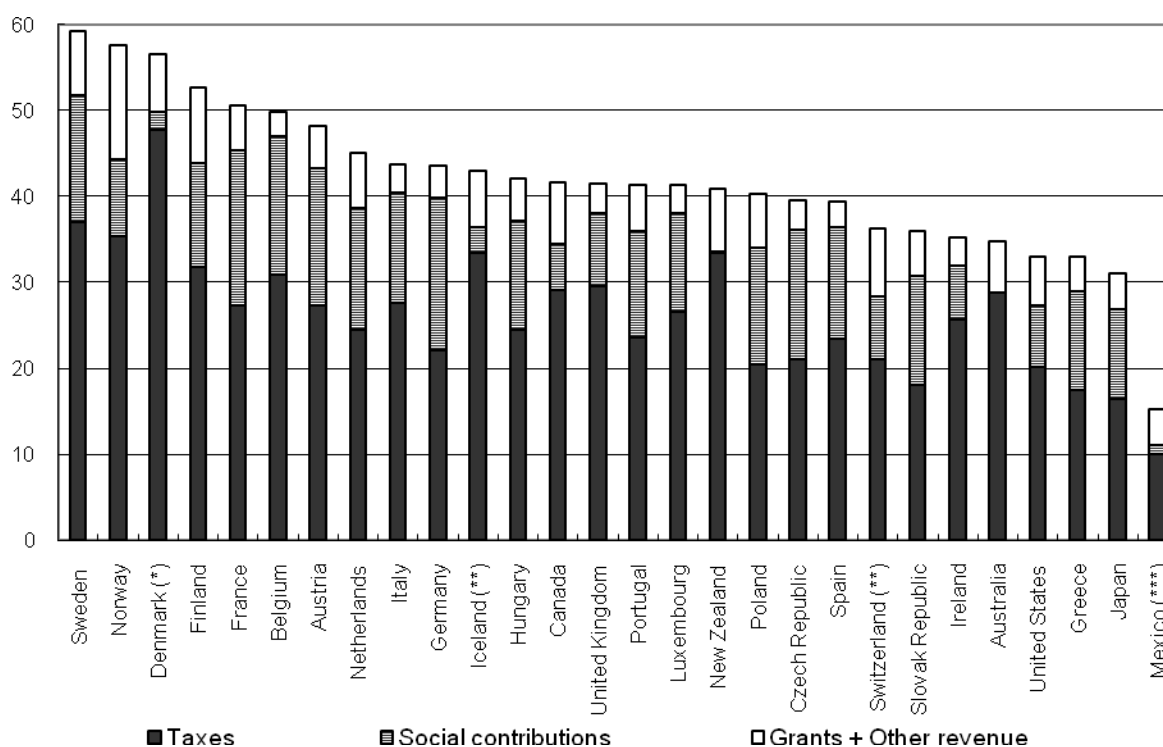
## Weight of general government with regard to GDP

### Highlights

In five OECD countries, general government absorbs more than half of annual GDP. The so-called “Scandinavian model”, comprising Sweden, Norway, Denmark and Finland, is by far the most representative of social welfare-oriented governments. The “French model” is at the fifth rank with reforms in progress. On the other hand, Mexico displays a very low ratio due to low expenditure on social security.

Time series data comparing government revenue as a share of GDP in 2000 and 2005 are available for 25 countries. The general trend shows a minor decrease in general government revenues as a share of GDP, except for slight increases in six countries: Belgium, France, Portugal, Spain, the United Kingdom and the Czech Republic. A significant reduction in the share of government revenue to the GDP can be observed in Iceland, Switzerland and Greece.

**Figure REV1. General government revenue as a share of GDP (%) in 2005 or closest year available**

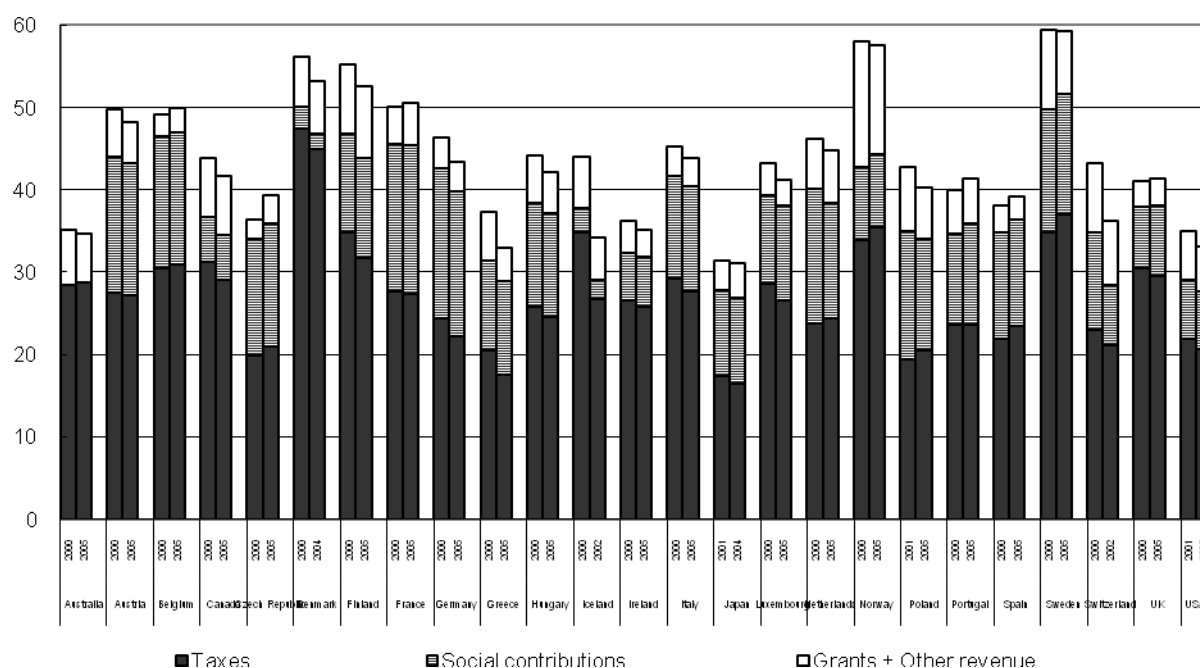


Source: IMF, Government Finance Statistics Yearbook 2006.

Note: Data not available for Turkey and Korea.

Note: (\*) 2004, (\*\*) 2002, (\*\*\*) 2000.

**Figure REV2. Changes in general government revenue as a share of GDP (%) in 2000 and 2005 or closest year available**



Source: IMF, Government Finance Statistics Yearbook 2006.

## Structure of general government revenue

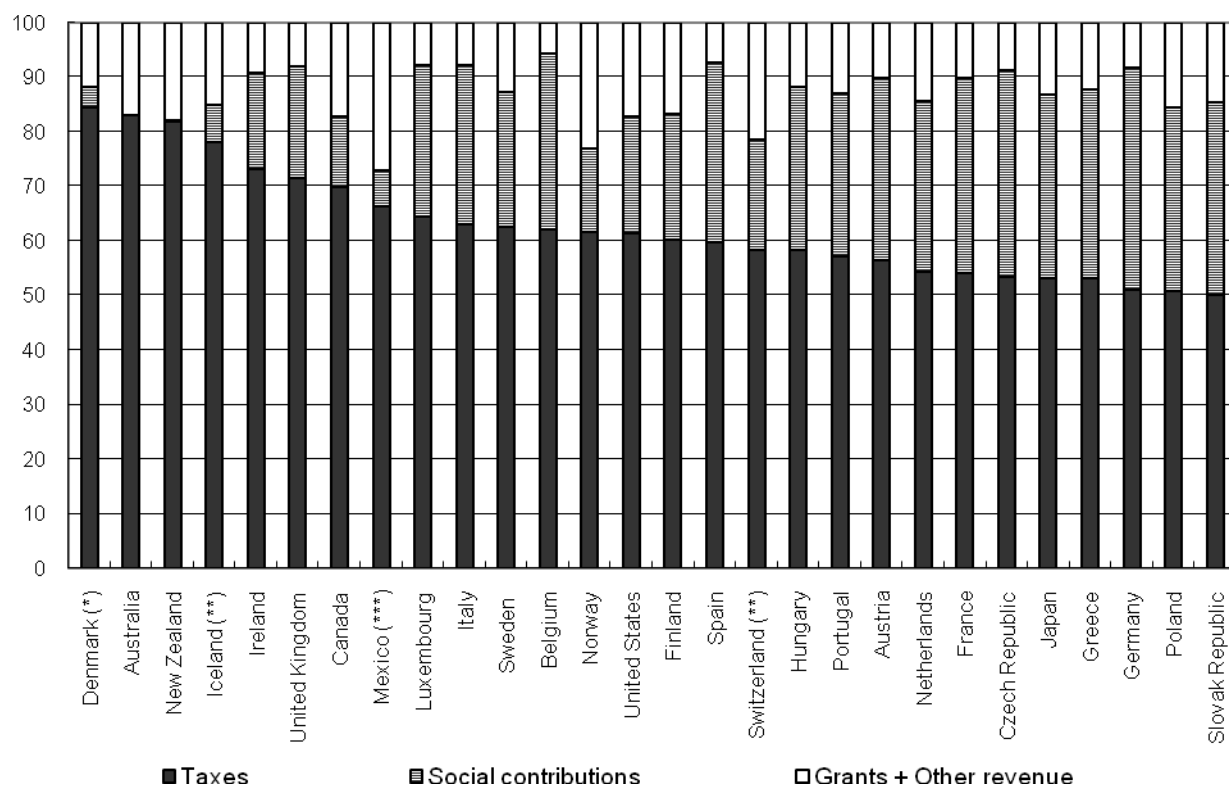
### Highlights

Taxes represent more than half of general government revenue in all OECD countries. The United Kingdom and other Commonwealth members are the least reluctant to finance public and social security budgets through taxes (from around 70% of revenue in Canada to more than 80% in Australia). Conversely, Eastern European members and more generally Continental Europe (with a particular mention of France, Germany and Spain) tend to utilise social contributions to a larger extent. The relatively large weight of grants and other revenue in Norway and Mexico is linked to oil revenue, and in Switzerland and Canada to the large powers devolved to local governments.

60% of OECD countries display a decreasing share of taxes in total revenue. In general, this decline in tax share is combined with an increase in the weight of social contributions, such as in Greece (+ 5.6 points), Luxembourg (+ 3.0) the United Kingdom (+ 2.2), Ireland (+ 1.9), Portugal (+ 1.9), Italy (+ 1.8), Hungary (+ 1.4) and Germany (+ 1.2). Conversely, an increase in taxes share tends to be balanced by a decrease in the weight of social contributions, such as in Switzerland (– 7.0 points), Netherlands (– 4.4), Poland (– 2.7), Czech Republic (– 1.1) and Denmark (– 1.0).



**Figure REV3. Structure of general government revenue in OECD countries in 2005 or closest year available**

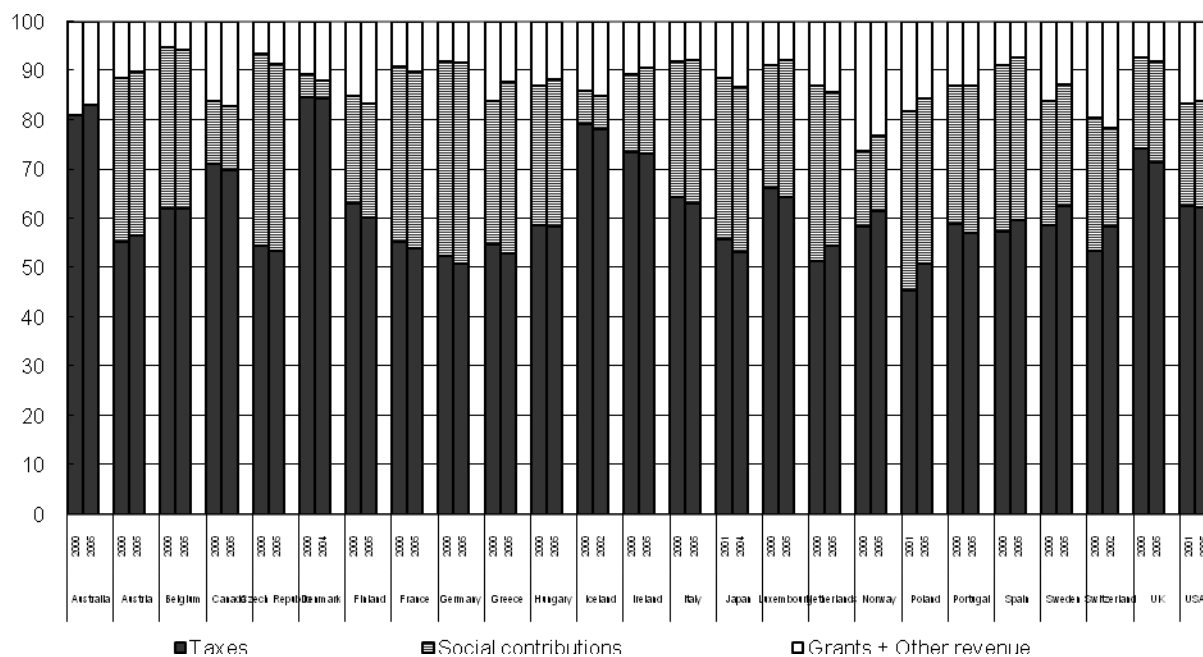


Source: IMF, Government Finance Statistics Yearbook 2006.

Note: (\*) 2004, (\*\*) 2002, (\*\*\*) 2000

Note: Data not available for Korea.

**Figure REV4. Changes in structure of general government revenue in OECD countries in 2000 and 2005 or closest year available**



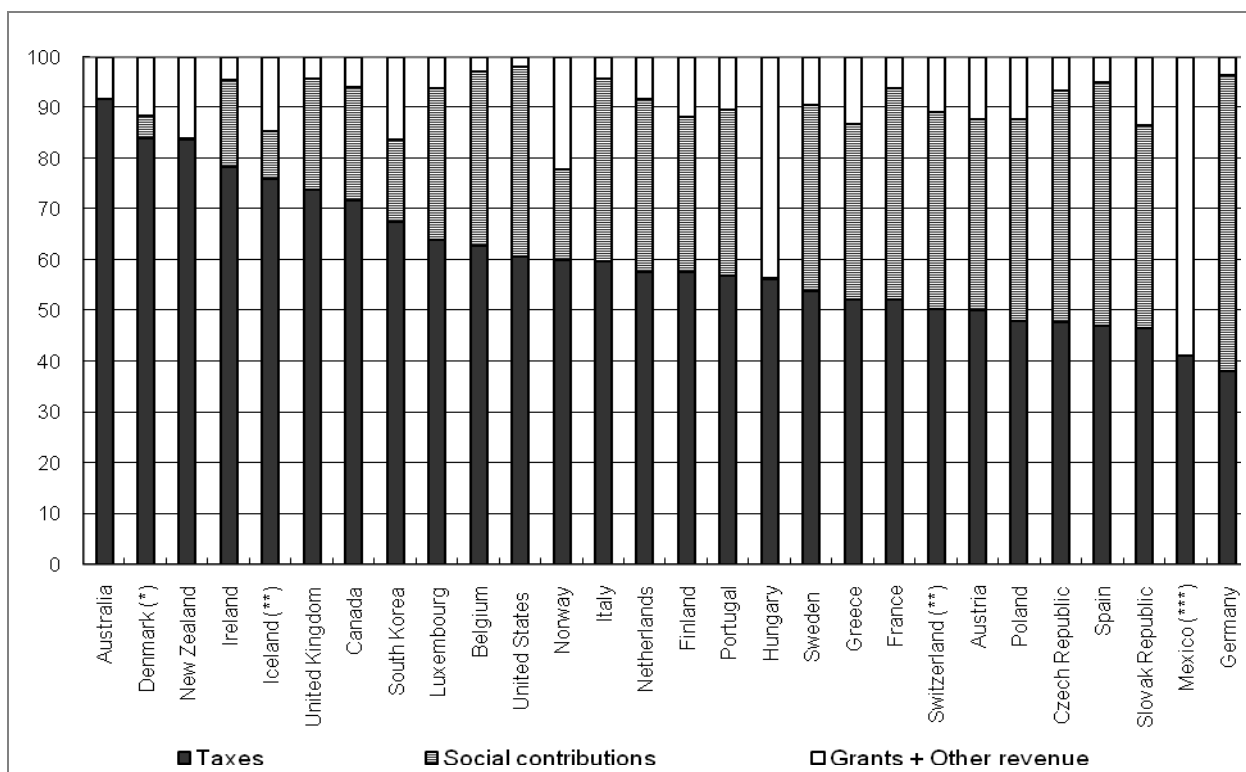
Source: IMF, Government Finance Statistics Yearbook 2006.

## Revenue structure by level of government

### Highlights

It is noteworthy that in the United Kingdom, Netherlands, Greece and Ireland, the share of grants in local government revenue is more than 80%<sup>9</sup>.

**Figure REV5. Central government revenue structure in OECD countries in 2005 or closest year available**



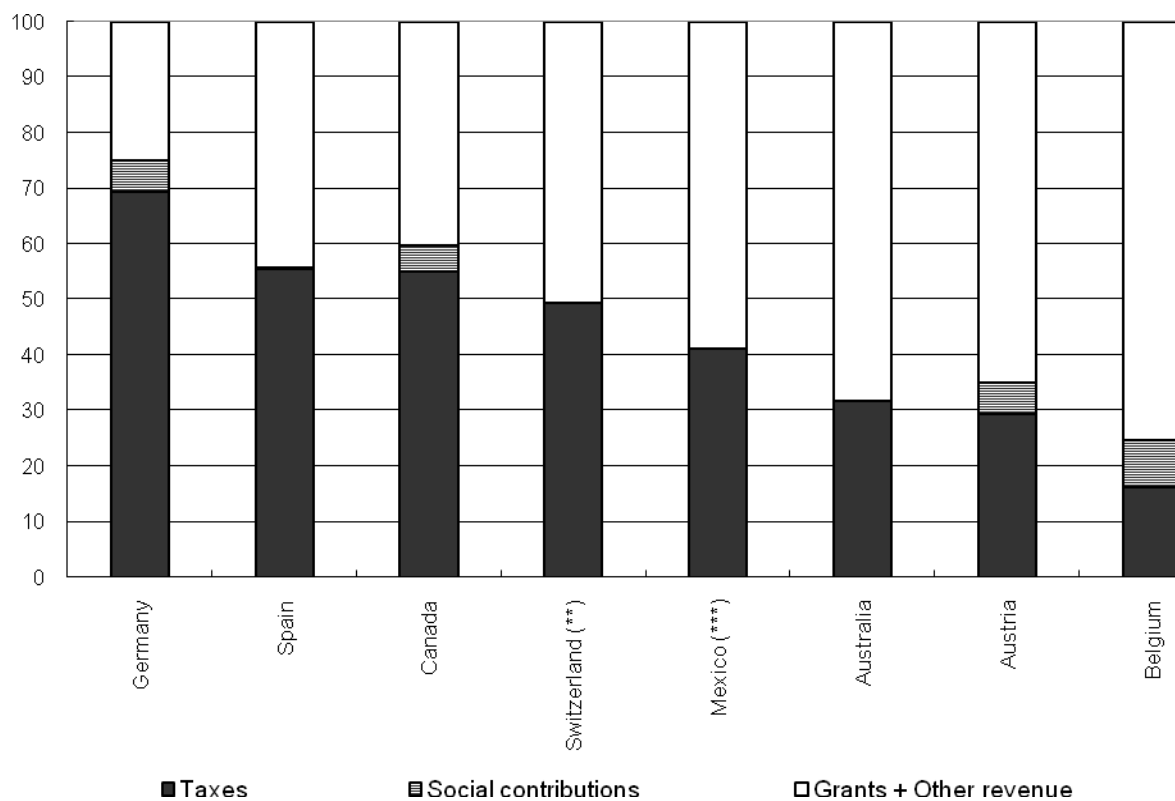
Source: IMF, Government Finance Statistics Yearbook 2006.

Note: Data not available for Japan and Turkey.

Note: (\*) 2004, (\*\*) 2002, (\*\*\*) 2000.

<sup>9</sup> In this respect it is relevant that in other countries local revenue may partly stem from tax-sharing systems which count in the revenue statistics as taxes. However, tax-sharing systems and general purpose grants are very similar, especially if the size of general purpose grants is determined at a fixed percentage of certain tax revenues, as is the case in the UK and the Netherlands.

**Figure REV6. Structure of State government revenues in OECD federal countries in 2005 or closest year available<sup>10</sup>**

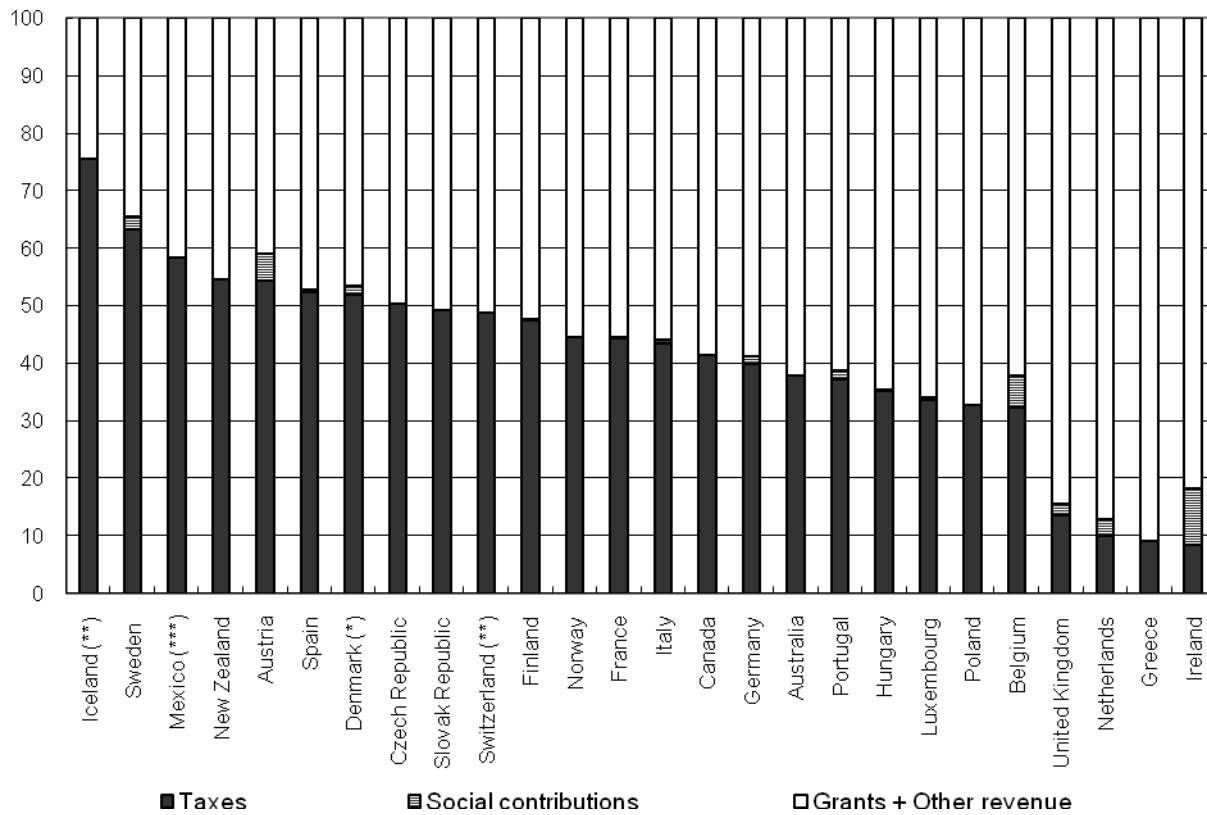


Source: IMF, Government Finance Statistics Yearbook 2006.

Note: (\*) 2004, (\*\*) 2002, (\*\*\*) 2000.

<sup>10</sup> Data from United States not available in the 2006 IMF Yearbook.

**Figure REV7. Structure of local government revenue in OECD countries in 2005 or closest year available**



Source: IMF, Government Finance Statistics Yearbook 2006.

Note: Data not available for Japan, Korea, Turkey, and United States.

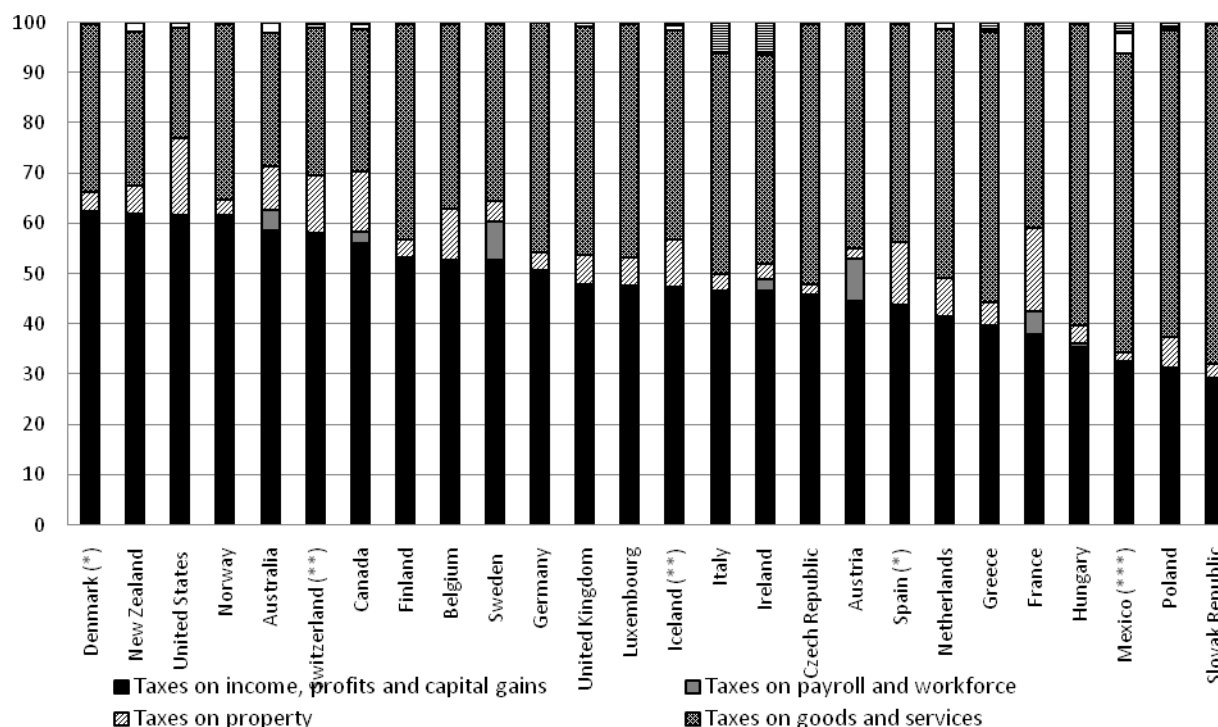
Note: (\*) 2004, (\*\*) 2002, (\*\*\*) 2000.

## Tax revenue structure

### Highlights

OECD countries tend to levy the biggest parts of revenue from taxes on all kinds of income flows and consumption of goods and services (VAT). All Nordic countries (except Iceland) hold more than half of their tax revenue from income-related levies. In Eastern European countries (except for the specific case of Czech Republic), taxes on consumption are clearly predominant (60 to around 70%). The proportion of taxes on property is proportionately highest in France and the United States, and also quite significant in Canada, Spain and Switzerland.

**Figure REV8. Tax revenue structure of general government in OECD countries in 2005 or closest year available**



Source: IMF, Government Finance Statistics Yearbook 2006.

Note: Data not available for Japan, Portugal, Korea and Turkey.

Note: (\*) 2004, (\*\*) 2002, (\*\*\*) 2000

## INPUT DATA

### Expenditure data

*Key contacts:* Dirk-Jan KRAAN and Laurent NAHMIAS, OECD GOV

These indicators focus on expenditures of general government and the sub-sectors, broken down by function. More detailed breakdowns are provided for three countries<sup>11</sup>, with data split between individual and collective goods, as well as between transfers in cash and in kind. These further breakdowns, developed by the OECD under the name “COFOG (Classifications of the Functions of Government) Special”, provide us with additional information on the structure of resource allocation in the public sector.

#### Definition and measurement

General government consists of central, state and local government – in the System of National Accounts this is S1311, S1312 and S1313.

Data on expenditures come from the System of National Accounts (SNA), which provide a breakdown of government expenditure on the basis of an economic classification. Economic flows of expenditure are aggregated according to the Classification of the Functions of Government (COFOG)<sup>12</sup>. Data on expenditures are assessed at current prices and expressed in national currency. COFOG Special has been developed by the OECD Secretariat (GOV) for the OECD Network of Senior Budget Officials<sup>13</sup>.

GDP data are from the OECD members’ Statements of National Accounts (SNA). All member countries have agreed to adopt the 1993 SNA, except Turkey for which national accounts are still presented on the basis of 1986 SNA.

It should be noted that cross-country differences are significantly lower when gross public expenditure data are adjusted for the reliance on mandatory private schemes and for the impact of the taxation of social benefits, tax allowances for social purposes as well as for indirect taxes<sup>14</sup>.

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<sup>11</sup> More details on the methodology can be found in Annex II. Over time, more countries will provide the data needed to perform the analysis (14 more in 2008).

<sup>12</sup> According to COFOG classification, functional sector can be split between ten sub-sectors : General public service (010), Defence (020), Public order and safety (030), Economic Affairs (040), Environment protection (050), Housing and community amenities (060), Health (070), Recreation: culture and religion (080), Education (090) and Social protection (100).

<sup>13</sup> Working Party of Senior Budget Officials, Expert Group meeting, OECD, Paris, 11 February, 2004

<sup>14</sup> See *OECD Journal on Budgeting* Vol. 7, No. 1, August 2007, “Improving Public Sector Efficiency: Challenges and Opportunities”, p. 161

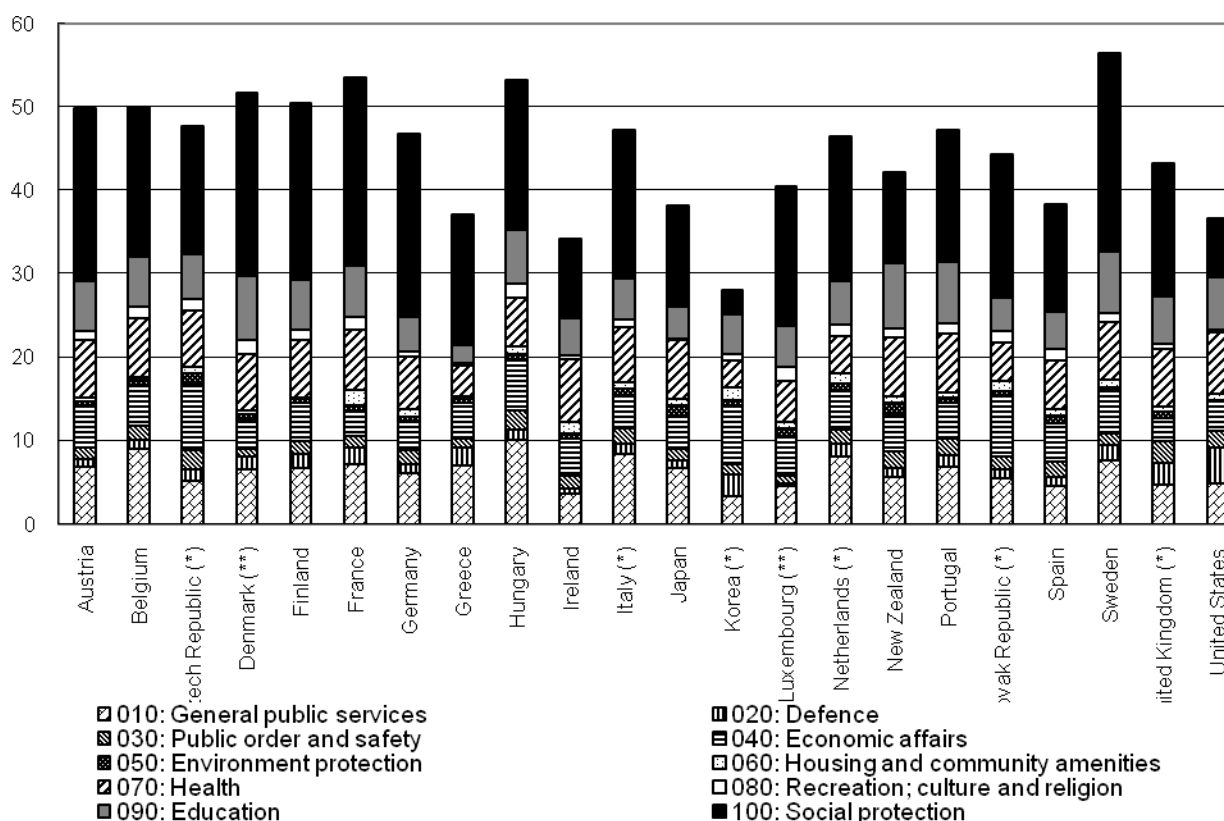
**Expenditure in relation to GDP**

**Highlights**

Sweden, Hungary, France and Denmark are the four OECD countries in which General Government expenditure exceeds 50% of GDP. Conversely, South Korea, Ireland, United States and Greece are the only four OECD members in which General Government spends less than 40% GDP. In South Korea, General Government expenditure amounted to 28.1% of GDP in 2004 (the lowest percentage in the sample) while in Sweden General Government expenditure was 56.5% of GDP (the highest percentage in the sample).

Time series data comparing government expenditure as a share of GDP in 1995, 2000 and 2005 are available for 14 countries. Four additional countries display data for the years 2000 and 2005. Most of the countries (70% of the sample) show a decrease in general expenditure as a share of GDP across the 10 years. This is more marked in France (- 17.7 points), Finland (- 11.1), Sweden (- 10.6), Denmark (- 8.1) or Austria (- 6.2). A significant increase in government expenditures can be observed in Korea (+ 8.0 points) and to a lesser extent in Portugal (+ 4.1).

**Figure EXP1. Government expenditure by function as a share of GDP in 2005 or closest year available**



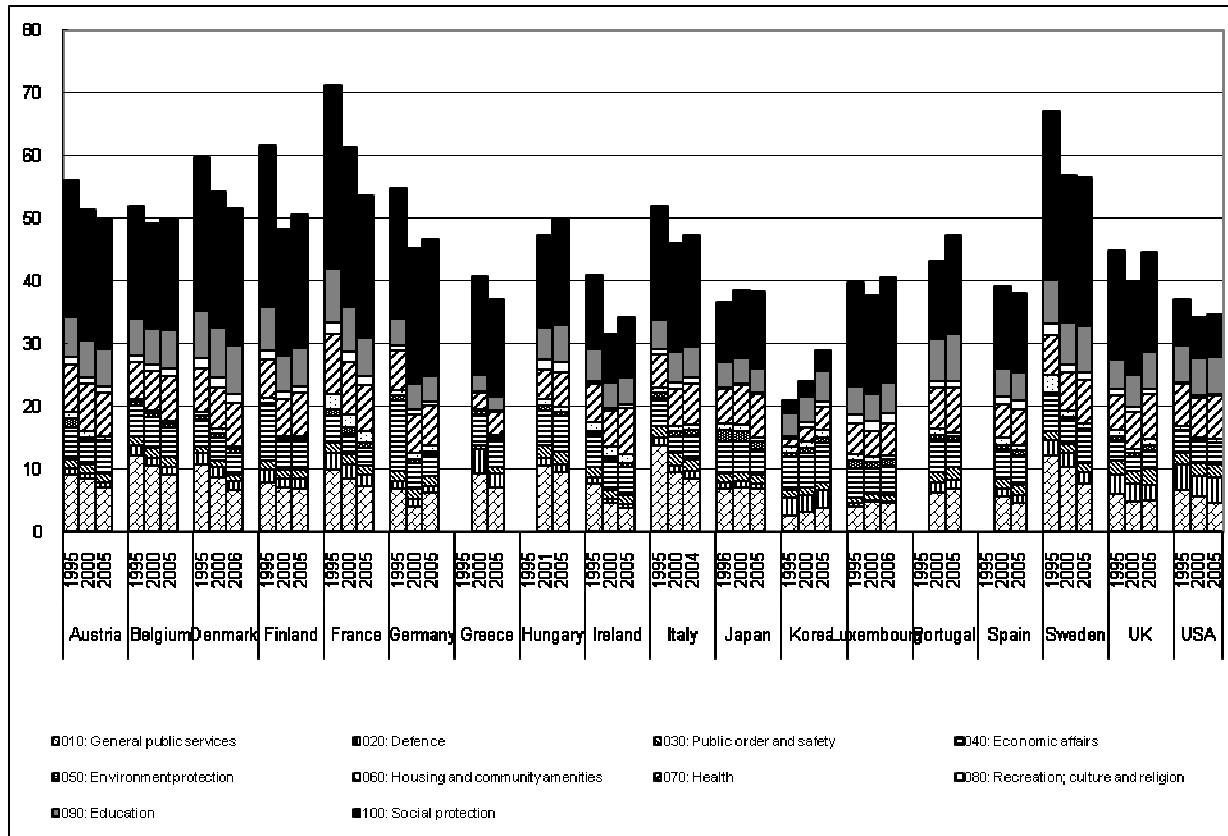
Source: OECD (NAFS).

Note: Data not available for Australia, Canada, Iceland, and Mexico.

Note: (\*) 2004, (\*\*) 2006.



**Figure EXP2. Changes in government expenditure by function as a share of GDP in 1995, 2000 and 2005 or closest year available**



Source: OECD (NAFS).

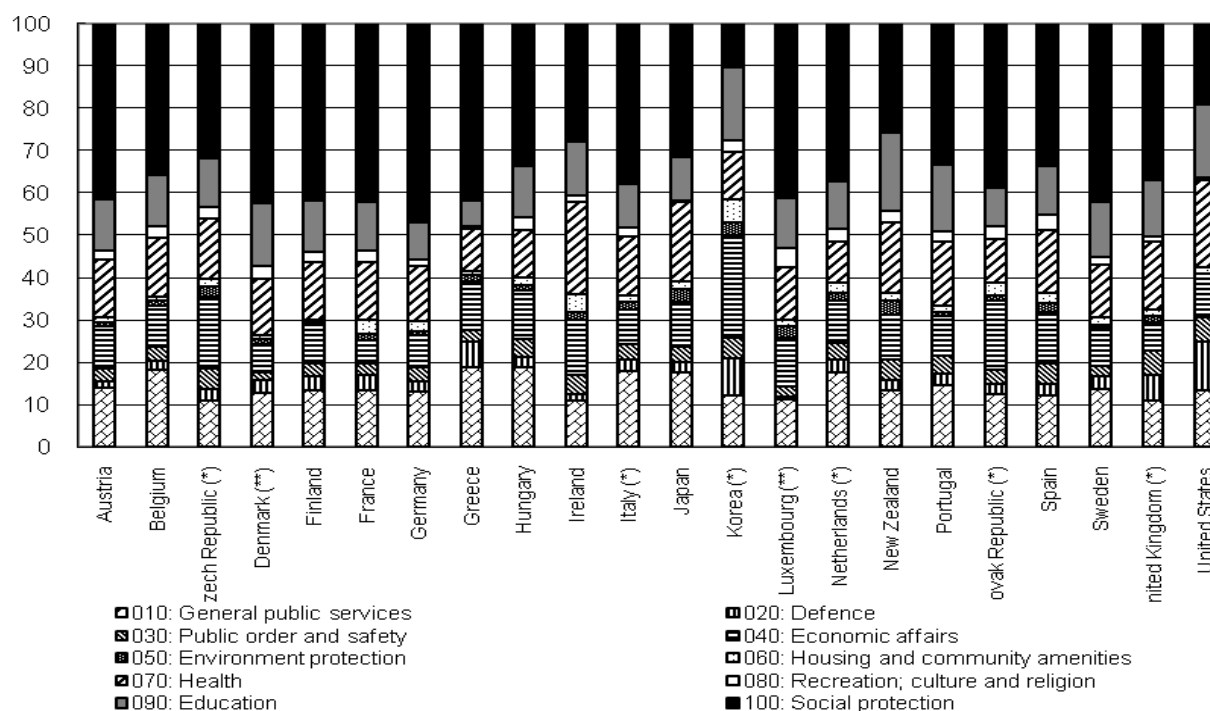
**COFOG**

**Highlights**

Except for the United States and South Korea, social protection remains by far the most significant part of general government expenditure, representing between 30% and more than 40%, and exceeds education, health and general public services spending. Nordic countries<sup>15</sup>, France, Germany and Austria have the most costly social welfare systems. Interestingly, some of the traditional core state missions (defence, law and order) do not represent significant parts of general government expenditure.

The weight of the general public services industry decreased in all countries except for Korea, Germany and Portugal. The weight of social protection increased slightly in all countries apart from the Anglo-Saxon trio of the United Kingdom, United States and Ireland, where minor decreases can be observed.

**Figure EXP3. Structure of general government expenditure by function in OECD countries in 2005 or closest year available**



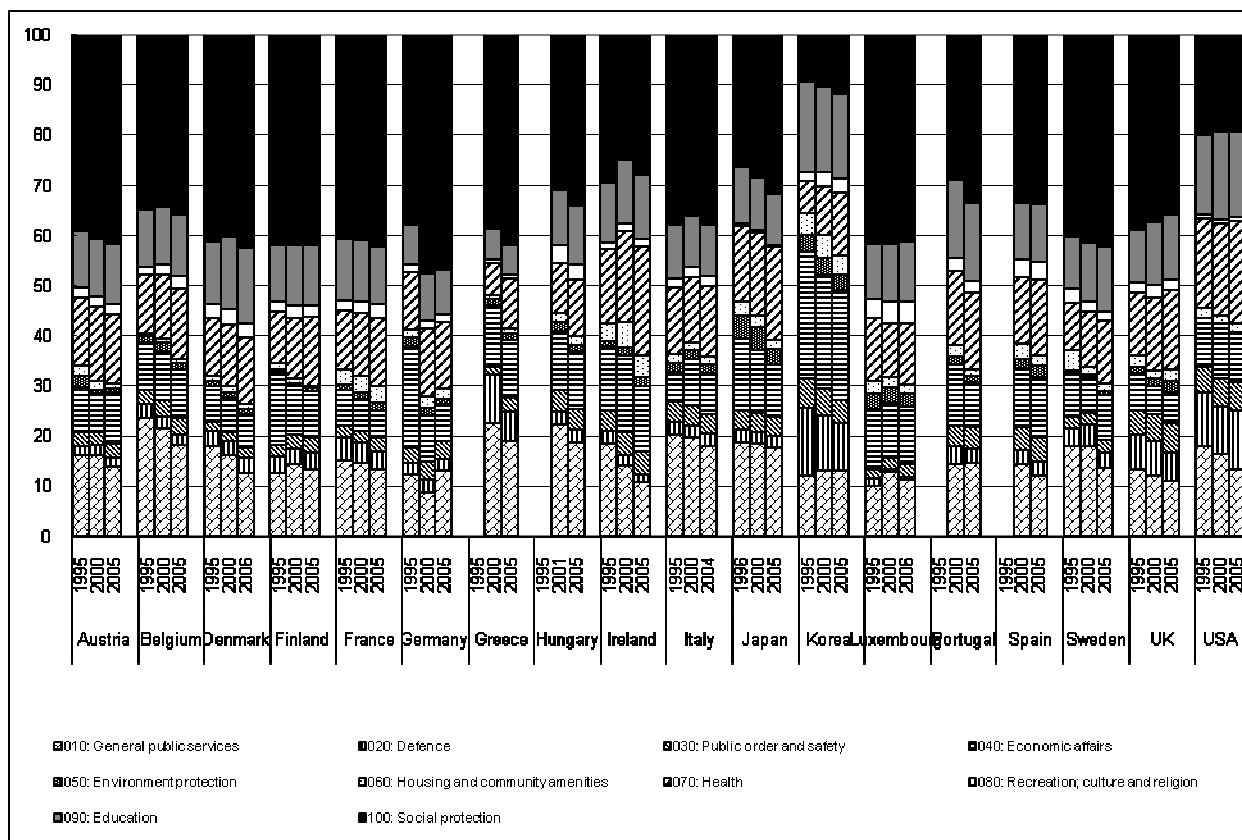
Source: OECD (NAFS).

Note: Data not available for Australia, Canada, Iceland, Mexico, Norway, Poland, Switzerland and Turkey.

Note: (\*) 2004, (\*\*) 2006.

<sup>15</sup> Data from Norway are not available.

**Figure EXP4. Changes in structure of general government expenditure by function in OECD countries in 1995, 2000 and 2005 or closest year available**



Source: OECD (NAFS).

*Levels of government*

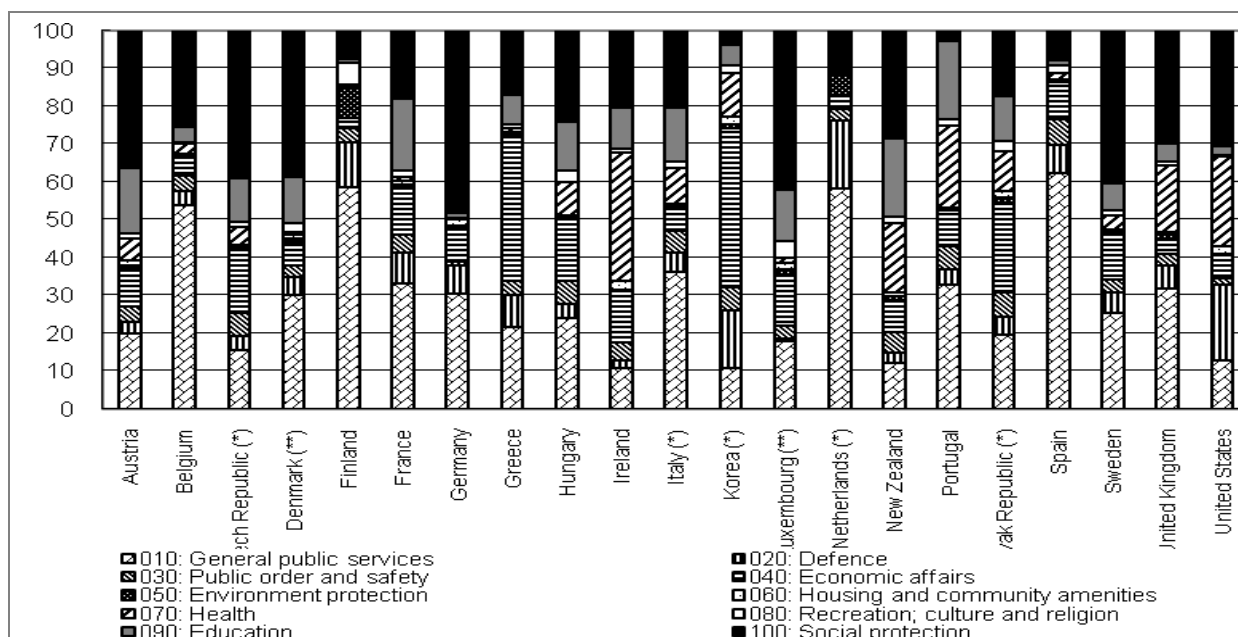
**Highlights**

On the central government level, this is mainly responsible for the provision of general public services in Belgium, Finland, Netherlands and Spain. In Germany, almost 50% of central government expenditure concerns social protection; it is also by far the most significant part of expenditure in Sweden, Denmark, Czech Republic and Austria. In Ireland, the national health service is the largest spending post, whilst in the US, the three posts of social protection, health services and defence share the majority of public spending on a relatively equal footing at the federal level.

Among the five federal countries displayed, state governments have different profiles: the Austrian *Länder* have quite “generalist” socio-economic attributes, with roughly similar expenditure shares for health, social protection, education and economic affairs. The Belgian *Communautés* have been set up on a linguistic basis, which may explain the emphasis placed on educational matters. In German *Länder*, education, social protection and general public services are the three priorities. The Spanish *autonomous communities* emphasise mainly health and education, as to a lesser extent do the US states.

Decentralisation of tasks and competencies to local governments follows different paths in OECD countries. In three of them (Finland, Greece, Netherlands), local governments’ function is clearly oriented towards the provision of general public services, which represent around half of their expenditure. In Italy, local government puts the emphasis on the delivery of health services. Danish local authorities are mainly responsible for providing social protection (more than half of their expenditure). In Eastern European countries, education is the largest budgetary post of local governments, as well as in Korea, whilst in the United Kingdom, this priority is of the same order as that of social protection.

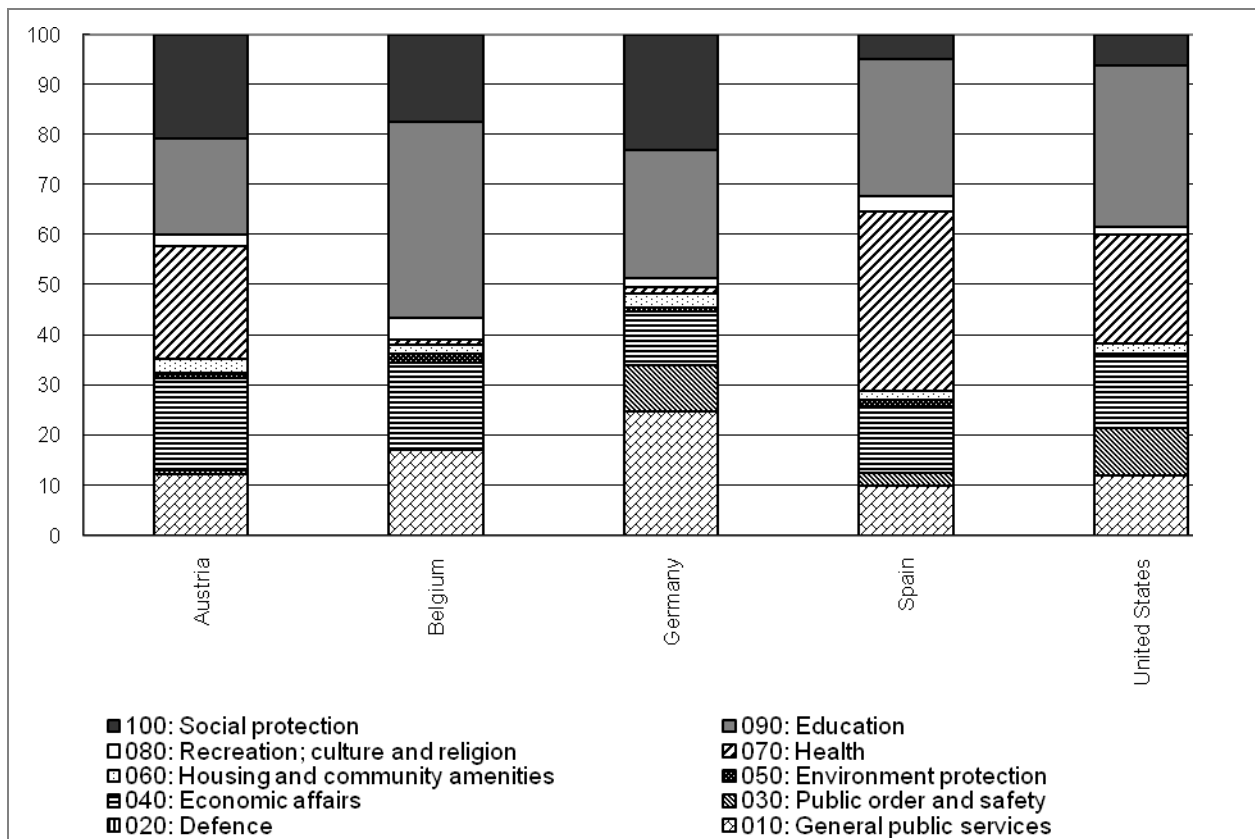
**Figure EXP5. Structure of central government expenditure by function in OECD countries in 2005 or closest year available**



Source OECD (NAFS).

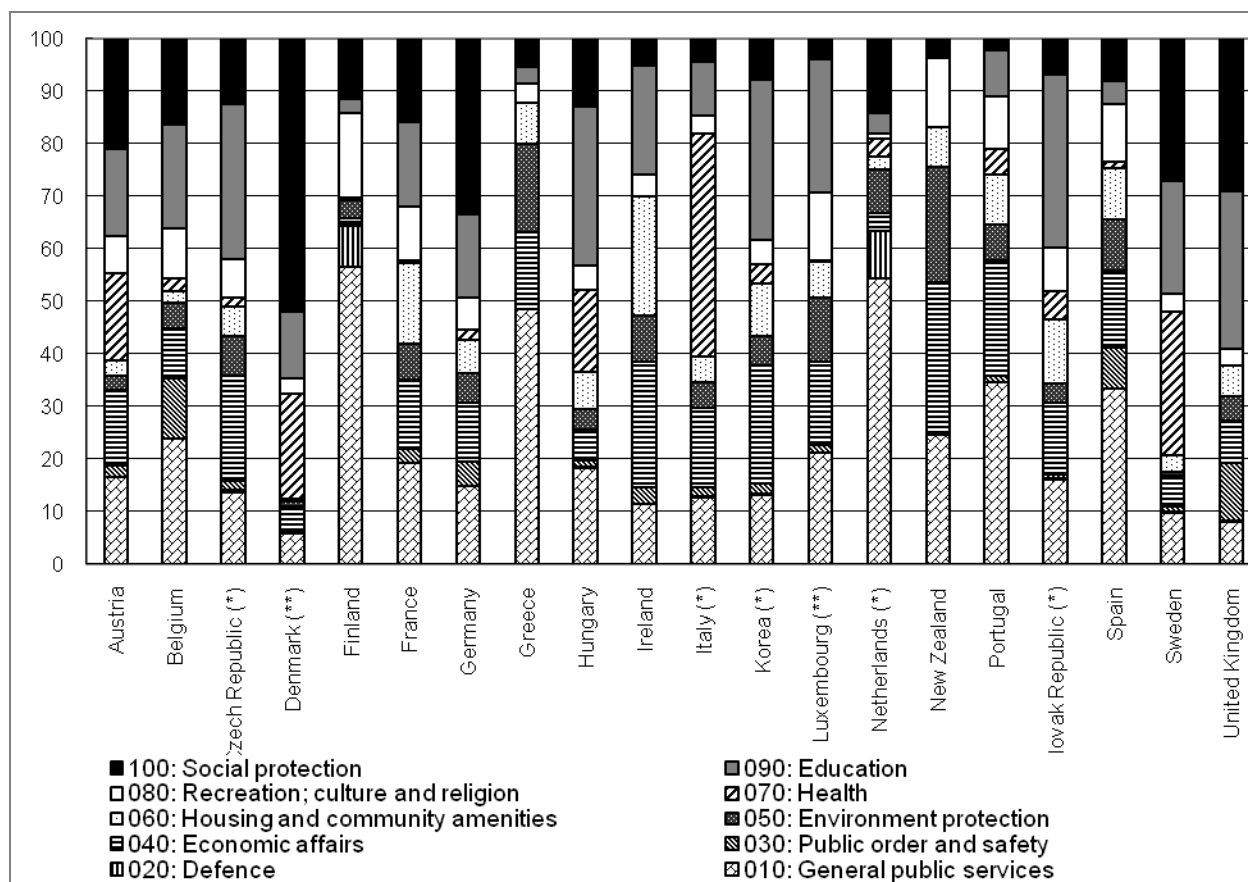
Note: Australia, Canada, Iceland, Japan, Mexico, Norway, Poland, Switzerland and Turkey.

**Figure EXP6. Structure of state government expenditure by function in OECD federal countries in 2005 or closest year available**



Source: OECD (NAFS).

Figure EXP7. Structure of local government expenditure by function in OECD countries in 2005 or closest year available



Source OECD (NAFS).

Note: Data not available for Australia, Canada, Iceland, Japan, Mexico, Norway, Poland, Turkey, United Kingdom, and United States.

## ***COFOG Special***

### **Methodology and highlights**

COFOG-Special, requested by the Working Party of Senior Budget Officials of the OECD, was developed in 2004 as part of an OECD study on Reallocation. COFOG-Special is an adaptation of regular COFOG, which aims to provide additional information that is particularly important for gaining comparative insight into the structure of public expenditures. In particular, COFOG-Special adds to regular COFOG three distinctions between kinds of expenditure, namely:

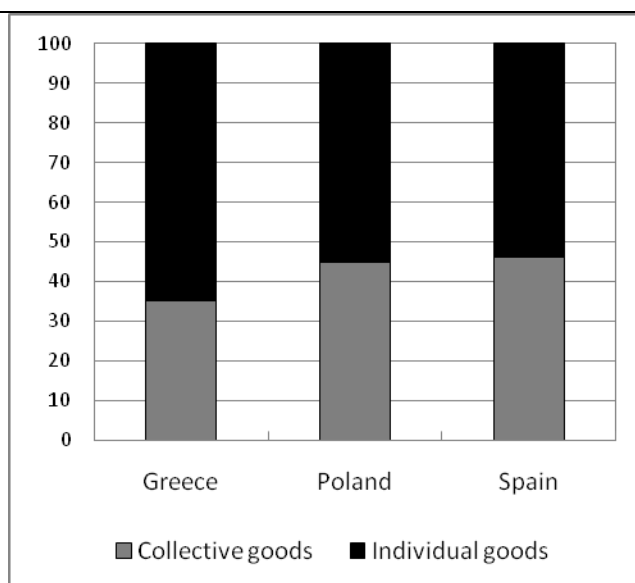
1. the split between expenditures for the provision of collective *versus* individual goods and services;
2. the split between expenditures for cash transfers *versus* goods and services in kind;
3. the split between expenditures for individual goods and services in kind for allocative *versus* distributive purposes.

These splits make it possible to characterise the structure of public finances in OECD countries according to the different types of welfare state. This, in turn, makes it possible for countries to compare themselves with other relevant member countries and may stimulate the national policy debate about questions such as decentralisation, redistribution, privatisation, the role of the non-profit sector and the application of user fees.

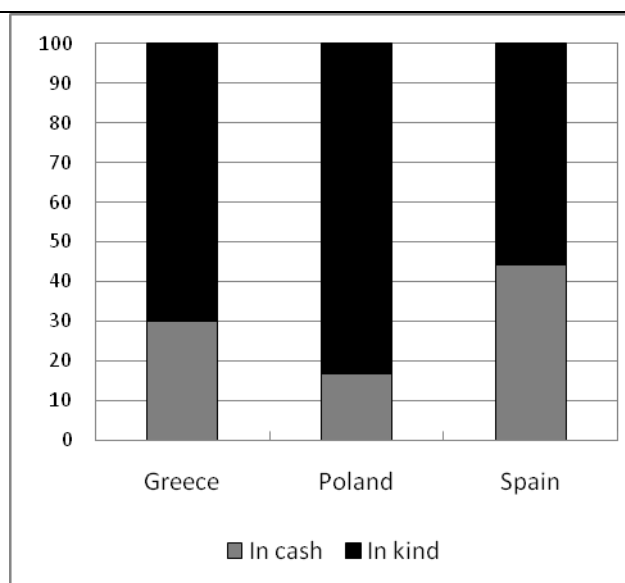
The methodology applied to make the required splits has been developed since 2004 and has gradually become more accurate. The most recent methodology, used in an OECD Working Paper of 2007, makes use of second-level COFOG data and has been applied in a test procedure on five European countries (of which three are OECD countries) that have provided second-level COFOG data to Eurostat. In the course of 2007, 14 more countries will make available second-level COFOG data to Eurostat. In 2008, a further working paper will be published that will contain COFOG-Special data for some 15 countries.

As there are only three OECD countries currently available, it is hard to draw conclusions from the data published here. Nonetheless, clear differences can be seen among the countries displayed, pointing to the different policy choices taken in the provision of services (*e.g.* Poland's in-kind expenditure is significantly higher than Spain's).

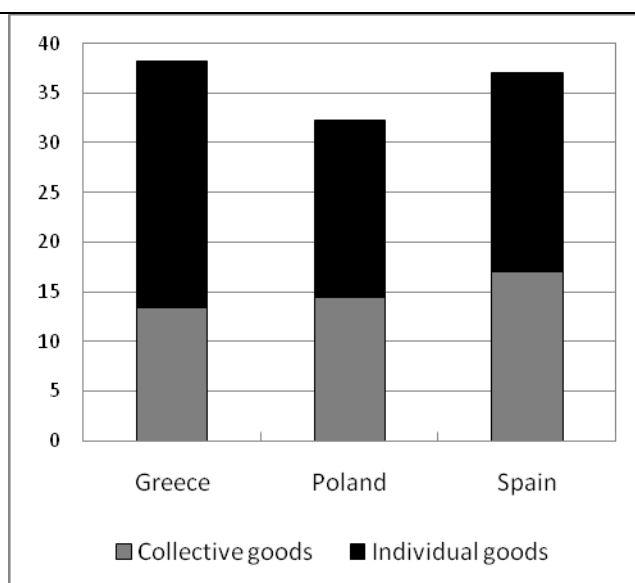
**Figure EXP8. Structure of government expenditures, 2005**



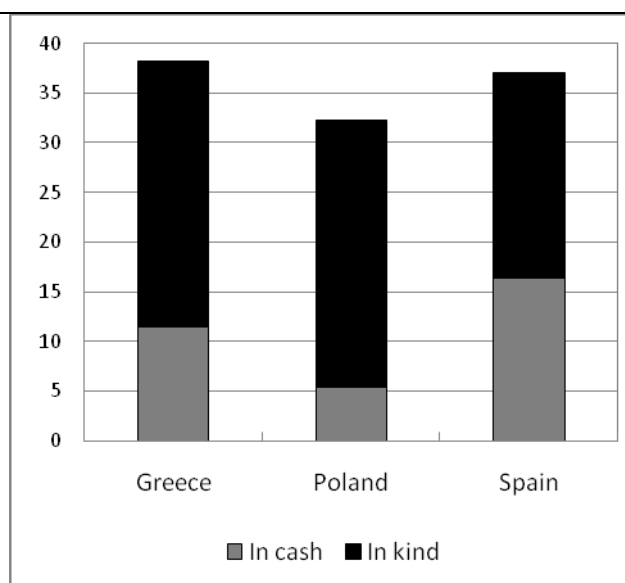
**Figure EXP9. Structure of government expenditures, 2005**



**Figure EXP10. Government expenditures as a share of GDP, 2005**



**Figure EXP11. Government expenditures as a share of GDP, 2005**



Source: OECD (GOV).



## Employment data

### *Employment in government*

*Key contacts:* Elsa PILICHOWSKI and Edouard TURKISCH, OECD GOV

#### **Methodological framework**

Previously, due to methodological difficulties, no international comparative data on public employment that gave practitioners robust and comparable information on the size and weight of employment in the public sector across OECD member countries existed. Historically, three conflicting definitions of the public sector have been used at the country level: (i) the legal definition (government organisations and organisations under public law), (ii) the financial or funding definition (criteria of public funding), and (iii) the sectoral definitions (*a priori* sectoral definition of what the public sector is). The result has been that, across countries – and even within OECD countries, depending on the source of information – the definitions of “government organisations”, the “public sector” or the “public services” vary significantly, and available data on public employment have traditionally referred to employees in different sets of organisations. This has seriously undermined all attempts made to gather data from national administrative sources (including the long-standing GOV data-gathering process entitled “Public sector pay and employment – PSPE”). Consistency with the SNA has rarely been possible.

Achieving a consistent and acceptable classification has required establishing a terminology and a new definition of what GOV has coined the “public domain” – comprising both organisational/institutional characteristics and sources of funding. Most importantly, the new classification had to be consistent with the SNA for two reasons. First, the SNA reflects a well-established consensus concerning the components of the public sector. Second, although only partial data on employment for some sub-fields of the public domain are available, financial data on other sub-fields of the public domain are available from the SNA and enable comparisons on the costs of production as well as an overall understanding of the size and costs of services in the public domain at large.

In the new methodology, the over-arching criteria for what constitutes the public domain were taken to be basically a choice of one or more of the following criteria:

- public funding<sup>16</sup>
- public ownership
- statutory monopoly under strict regulation.

The organisations taken into account in the public domain can be public or private. Examples of public organisations are ministries, public schools or public enterprises. Examples of private organisations are private hospitals funded through social security funding, private schools financed by public funds, sub-contracted private enterprises that provide goods or services to public units, or concessions of legal monopoly. Similarly, they can be publicly financed (*e.g.* ministries, schools) or not (*e.g.* publicly owned enterprises but financed by the revenues of the fees paid by the users, or concessions of legal monopolies).

The process for producing these data is still in development and will continue over the next few months. So far, GOV has collected comparable data for only parts of the public domain that include the

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<sup>16</sup> Units included are those that deliver goods or services which are government funded. In terms of the economic classification of expenditures, this includes all units funded by compensation of public employees, intermediate consumption (procurement and outsourcing), gross capital formation (procurement and outsourcing) and social transfers in kind via market producers (outsourcing of social security services), paid by the General Government Sector. However, subsidies (which generally concern funding shared of less than 50%) and social benefits to households, are not taken into account.

General Government sub-sector (following SNA definition) and public (*quasi*) corporations for a number of countries (shaded in the Table below). As this exercise is in its early stages, trend data are currently available for only a limited number of countries.

Notwithstanding this, the partial data collected can be interpreted in the wider context of the analysis of costs in the wider public domain. Even with partial employment data for the public domain, analysis remains possible thanks to the financial data provided by the SNA.

**Table EMP1. The public domain in relation to the SNA**

SNA	Fiscal classifications (& relevant classification of the SNA)	General government (S.13)			Part of Corporations & quasi-corporations (Part of S.11 and S.12)			
	Organisational entities covered	Government units <sup>17</sup> & other non-market public units: General admin, defence, & functional sub-sectors	Social Security funds	Private non-market non-profit institutions financed (>50%) and "controlled" by government units	Market corporations & quasi corporations, financed by public funds in exchange for the delivery of goods or services to the users <sup>18</sup>	Public corporations & quasi-corporations (public enterprises)	Procurement (including contracting out) <sup>19</sup>	Concessions of legal monopolies
Proposed classification: Sub-domains of the public domain		<b>Sub-domain (i): Direct provision of services in the public domain</b>  (Mainly publicly financed provision by publicly owned units)		<b>Sub-domain (ii): Indirect provision of services in the public domain</b>  (Publicly financed provision by privately owned units)		<b>Sub-domain (iii): Public corporate provision of services in the public domain</b>  (Market provision by publicly owned units)	<b>Sub-domain (iv): Devolved provision of services in the public domain</b>  (Market provision by privately owned units)	
		<b>A</b>		<b>B</b>		<b>C</b>	<b>D</b>	<b>E</b>

Note: Examples of units taken into account in the different categories A, B, C, D and E:

Category A: Core ministries, departments and agencies, non market publicly owned hospitals, public schools, social security organisations etc.

Category B: Schools, hospitals, etc. that are largely funded and controlled by government but not owned by government

Category C: Private hospitals (nonprofit or for-profit) financed through social security, private market organisations financed by public funds in exchange of the delivery of goods or services directly to the users

Category D: Publicly owned enterprises (not classified in the General Government sector), like publicly owned banks, harbours, airports

Category E:- Contracting out to private enterprises: they deliver the goods or services to the public units that sub-contract them.

- Concessions of legal monopolies: for instance private enterprises managing highways, airports, electricity or water supply, with a statutory monopoly.

<sup>17</sup> This also includes some market producers which are classified in the General Government Sector (print shops, the mint etc.)

<sup>18</sup> They can be non-profit or for profit institutions.

They can also be >50% or <50% financed by public funds. If it had been possible, GOV would have preferred to limit this category to units that are funded by more than 50% by funds from General Government. However, in this project for this sub-category, we are only using financial flows and not counting employment per unit. And, i) employment data for those units funded by more than 50% by funds from General Government do not exist. ii) the financial flows are only available as aggregate for all financial flows and through a proxy;

<sup>19</sup> If it had been possible, GOV would have preferred to limit this category to units that draw more than 50% of their resources from contracted out services from General Government. However, in this project for this sub-category, we are only using financial flows and not counting employment per unit. And, i) employment data per se available for those units funded by more than 50% by funds from General Government do not exist; ii) the financial flows are only available as aggregate for all financial flows and through a proxy.

## ***Employment in the public domain***

*Key contacts:* Elsa PILICHOWSKI and Edouard TURKISCH, OECD GOV

Labour, the procurement of goods and services, and capital investment are the inputs used for government production. Gathering a consistent and comparable set of data on employment in government is thus vital for use as one of the key input variables for the complex measurement of productivity in government. Indeed, linkages are often made between data on public sector employment, and the size and influence of government in the economy and society.

### **Definitions and measurement**

This indicator measures employment in the part of the public domain that is constituted by government owned units and non-market, non-profit institutions financed and controlled by government. It thus leaves out employment in publicly funded services provided by privately owned market institutions.

The indicator is disaggregated between publicly-owned and non-publicly owned units, and by market and non-market institutions. The former variable is a good indicator of how much employment is directly managed by government, while the latter variable is a good indicator of how much employment is involved in publicly funded services provided by non-market institutions. What the indicator does not show is how much employment is required to deliver all publicly funded services, which would require a full analysis of the public domain.

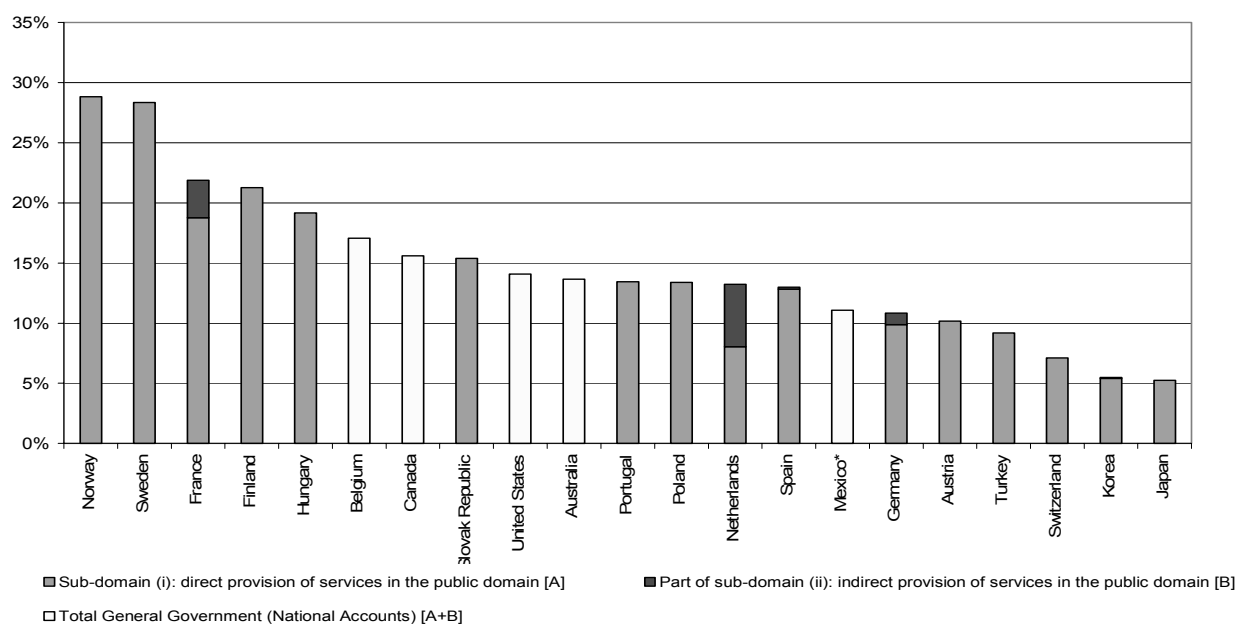
This specific indicator is extracted from the results of the Comparison of Employment in the Public Domain (CEPD) Survey and gathers data that are comparable across countries. Data for the other parts of the public domain have been impossible to gather in a reliable manner across countries, and a full analysis of costs in the public domain can thus only be carried out with the financial data provided by the SNA. This indicator thus covers data in the general government and the public (*quasi*) corporations.

In most cases, employment data gathered in the CEPD questionnaire are in number of employees, except in Austria, Netherlands, Sweden and Switzerland where they are in full-time equivalents. Corrections will be made to achieve consistency across all countries when more detailed data are made available.

### **Highlights**

The level of employment in general government varies greatly across countries, from a low of just over 5% of the labour force in Japan to a high of nearly 29% of the labour force in Norway. Variations in employment at the different levels of government are equally significant, ranging from Australia with 11% of staff managed at the federal/national level to Turkey with 88% of staff managed at the federal/national level. These variations reflect differences in the level of publicly funded services, differences in the way public services are provided and, perhaps, differences in productivity. They also highlight the need to consider the structure of the state and activities at sub-national as well as federal/national level when discussing the public sector. The analysis of these numbers can only make some sense if carried out within the broader framework of the public domain, which shows the costs of public services broken down by how they are delivered. In addition, employment numbers should always be analysed in comparison to the level and quality of publicly funded services.

**Figure EMP1. Employment in General Government (disaggregated) (A and B) as a percentage of the labour force (2005)<sup>20</sup>**

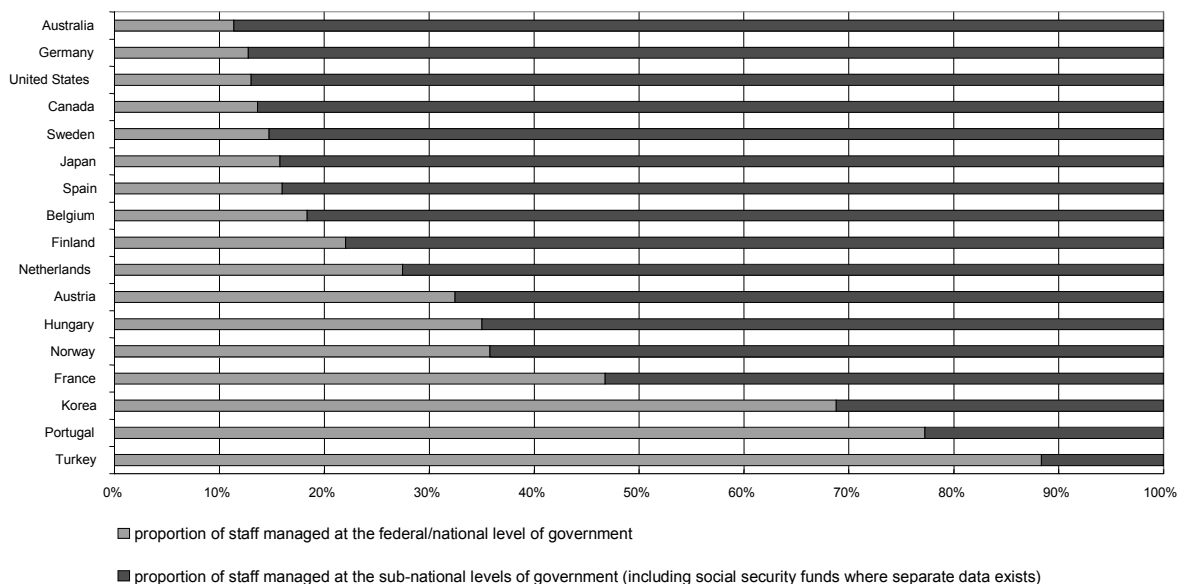


Source: OECD, CEPD survey, Labour Force Survey.

Note: When disaggregated data by sub domain (i) and (ii) were not available, aggregated data have been included under the legend “total general government”.

<sup>20</sup>Austria: Data do not include private non-profit institutions financed by government  
 France: Data exclude some Public Establishments  
 Germany: There remain some uncertainties regarding the differentiations across categories, but not regarding the totals.  
 Mexico: 2000.  
 Slovak Republic: Data refer to the ISIC classification assuming that private institutions financed by GG are of marginal importance.  
 Austria: Mixed data 2004 and 2005  
 Belgium: 2004 and not 2005  
 Finland: Mixed data 2004 and 2005  
 France: Data are for 2004  
 Poland: 2004 and not 2005  
 Slovak Republic: Categories L (public administration, defence, social security) + M (education) + N (health and social work) of the ISIC classification.

**Figure EMP2. Employment in general government (aggregated) (A and B) by level of government (2005)**



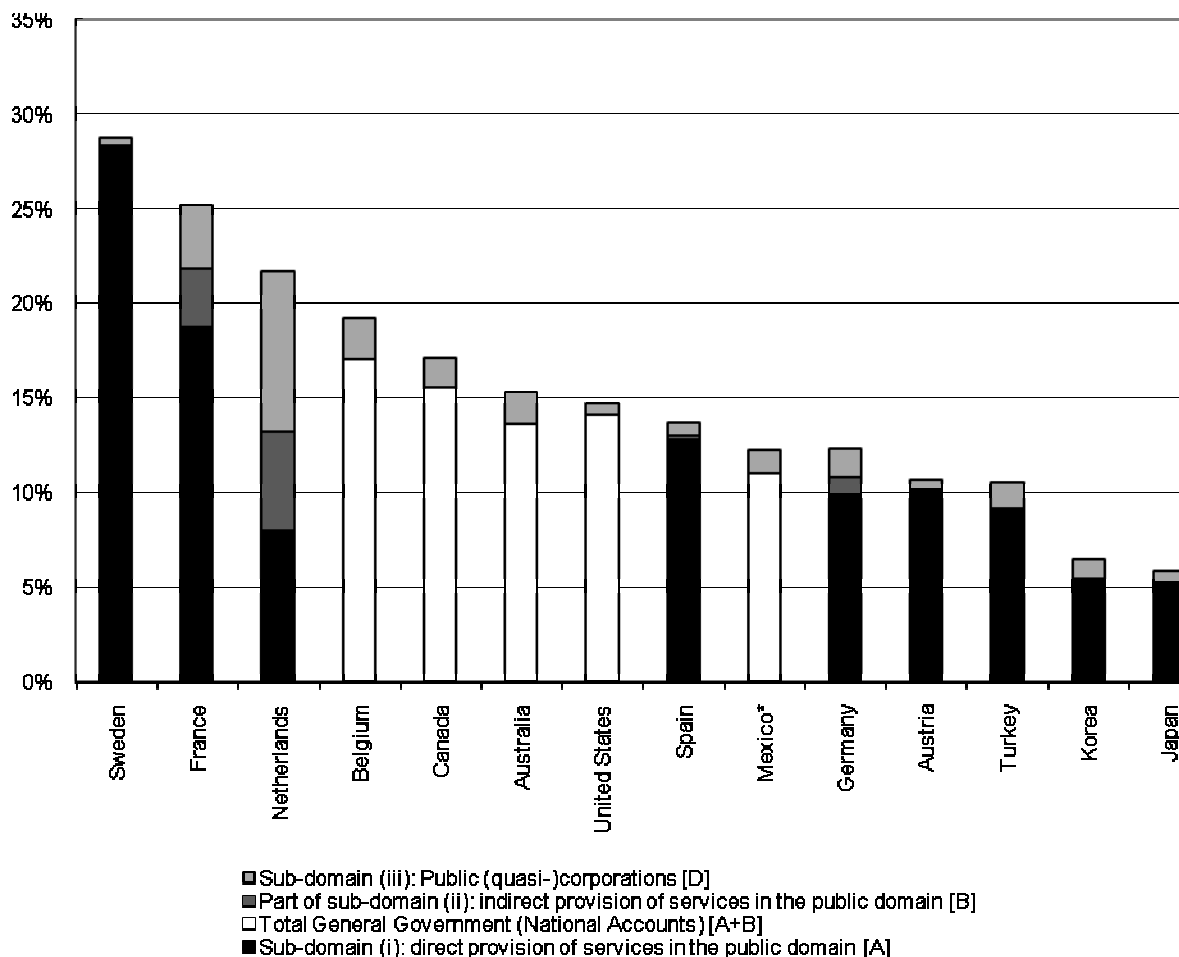
\* In Korea, teachers are included at the national level

\*\* Employment in social security is not taken into account at the national level in Austria, Belgium, Finland, France, Hungary, Japan, Korea, Netherlands, Spain, Sweden and Turkey.

Note: Employment in social security is not taken into account at other levels of government in Australia, Canada, Germany, Norway, Portugal and the United States.

Source: OECD, CEPD survey.

Figure EMP3. Employment in general government and public (*quasi*)-corporations as a percentage of the labour force<sup>21</sup> (A, B and D) 2005



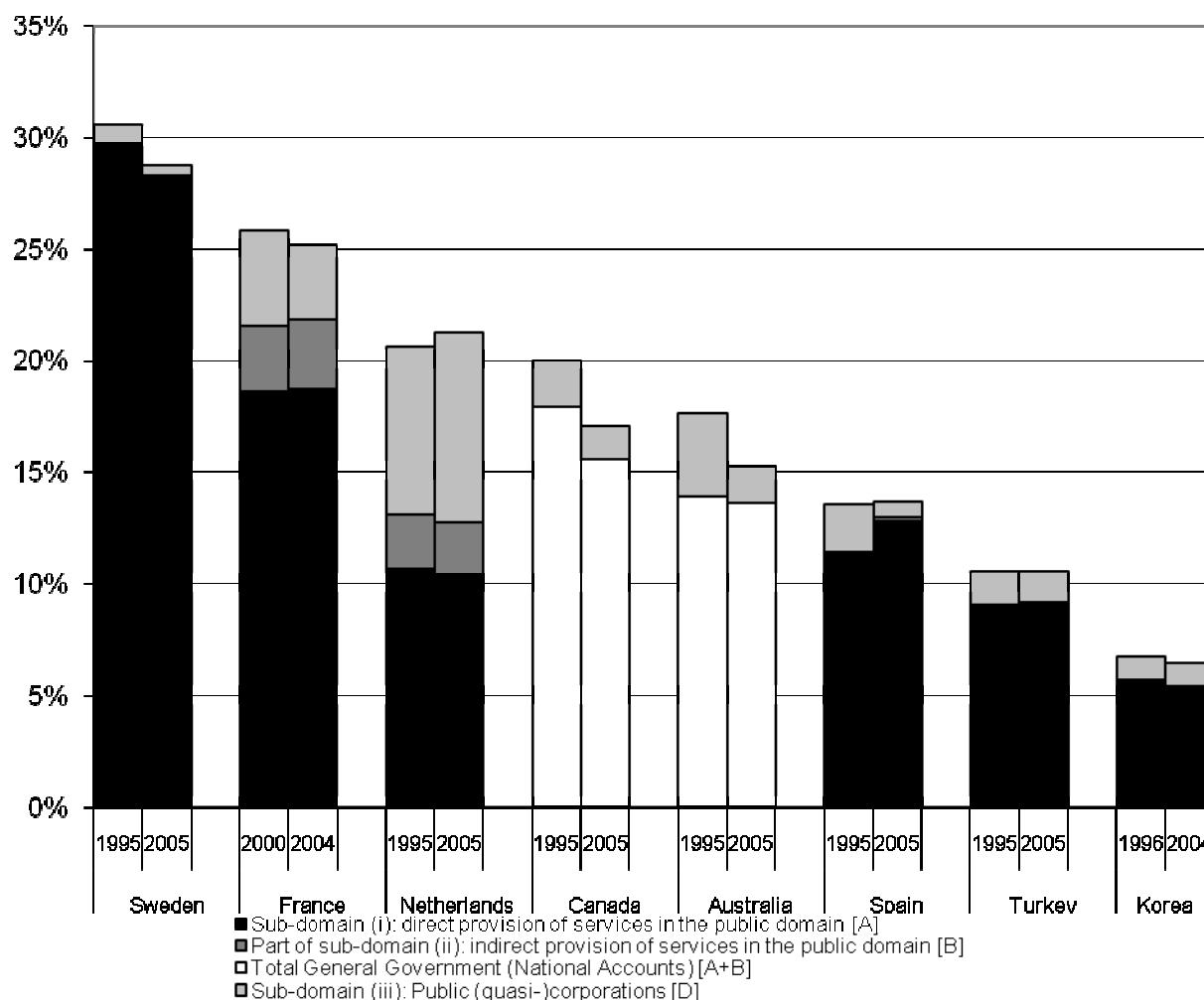
Note: When disaggregated data by sub-domain (i) and (ii) were not available, aggregated data have been included under the legend total general government (national accounts)

Note: Austria: Data for D are partial and only include universities that have been reclassified.

Source: OECD, CEPD survey, Labour Force Survey.

<sup>21</sup> Belgium: for public corporations, a proxy was used that added employment in the largest public enterprises  
 Sweden: Public corporations only at the central level (data for public corporations at local level remain to be verified).

Figure EMP4. Changes in employment in general government and public (quasi) corporations as a percentage of the labour force (A, B and D) from 1995 to 2005



Source: OECD, CEPD survey, Labour Force Survey.

Note: Netherlands: the share between sub-domain (i) and sub-domain (ii) is not the same as in the first graph. Here religious schools are taken into account in the sub-domain (i) in order to make comparisons with the data for 1995. In the first graphs they are taken into account in the sub-domain (ii) as defined in the survey.



## **Compensation costs of general government in the wider context of production costs of the public domain**

*Key contacts:* Elsa PILICHOWSKI and Edouard TURKISCH, OECD GOV

Compensation costs are an important part of production costs in public services since the provision of most public services is labour-intensive. They are also an important variable in any analysis of productivity and efficiency of public services.

Analysis of compensation costs should be supplemented by an analysis of the level of skills and competencies of employees as well as by an analysis of the level of public services funded by government but provided by private market producers. This is possible through the use of SNA data – although a truly complete analysis would need to include currently unavailable data on the production costs of public (*quasi*) corporations, procurement and concessions of legal monopolies.

### **Definition and measurement**

In order to analyse compensation costs of general government in a comparative manner across OECD countries, data have been analysed following the classification used for employment in the public domain. However, within what we have defined as the public domain, the only comparative data available are for the subset of employees in general government units. While these can give insights into the level of compensation costs compared to private sector employees, and are interesting in terms of trends, they do not take into account other parts of the costs of production incurred in the wider public domain.

We therefore use proxies for other parts of the classification – private market corporations financed by public funds in exchange for the delivery of goods or services to users, and sub-contracted out corporations. For the first two sectors, the proxy of social transfers in kind *via* market producers is used. For the latter sector, the proxy of intermediate consumption is used (*i.e.* the value of goods and services consumed as inputs by a process of production). We have excluded the production costs of concessions of legal monopolies because no suitable proxies have been identified. It should be noted, however, that these proxies include not only compensation costs but all costs of services and are thus indicative.

Compensation of employees is defined in the SNA as the total remuneration, in cash or in kind, payable by enterprises to employees in return for work done by the latter during the accounting period. It includes all of the mandatory employers contributions to social insurance and the voluntary contributions paid on behalf of employees.

In terms of public spending, the cost of production of services in the public domain presented in Figure EMP6 below then excludes government liabilities (including debt), investments, and transfers to economic actors (households, private companies, etc.) that are not made in exchange for the production of public services (*e.g.* subsidies).

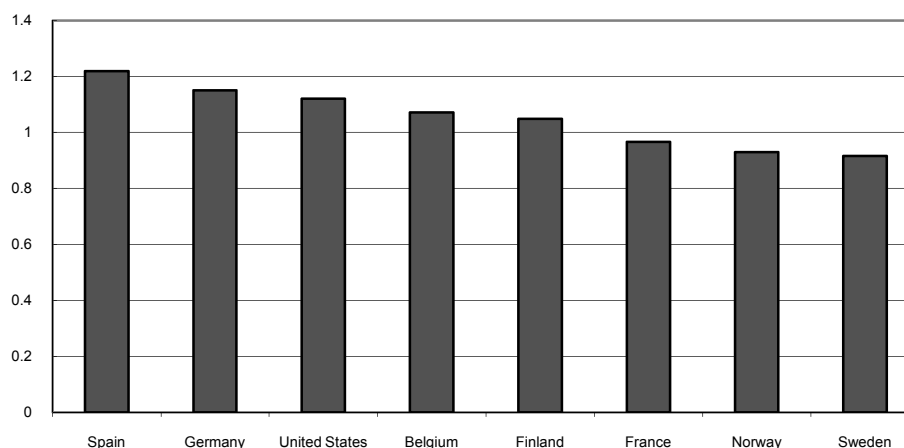
### **Highlights**

The relative weights of compensation costs and intermediate consumption (sub-contracted services) in general government output vary significantly across OECD countries. Those that have outsourced relatively more tend to have higher compensation costs per employee compared to the private sector. It is likely that they have retained a more qualified workforce by outsourcing many of their lower-skilled activities. Thus, when comparing production costs one should be extremely cautious in one's approach and conclusions.

The addition of compensation costs of general government employees, intermediate consumption and social transfers in kind *via* market producers gives an interesting first indication of the level of production costs of the public domain. The table provides an indicative overview of the relative aggregate costs of production of services in the public domain of OECD countries. It adds compensation costs of general government employees, social transfers in kind *via* market producers, and contracted-out services provided to government by the private sector, calculated as a percentage of GDP or as a percentage of public spending. At this stage, because data are not available, they do not include the costs of providing services by public (*quasi*) corporations and concessions of legal monopolies.

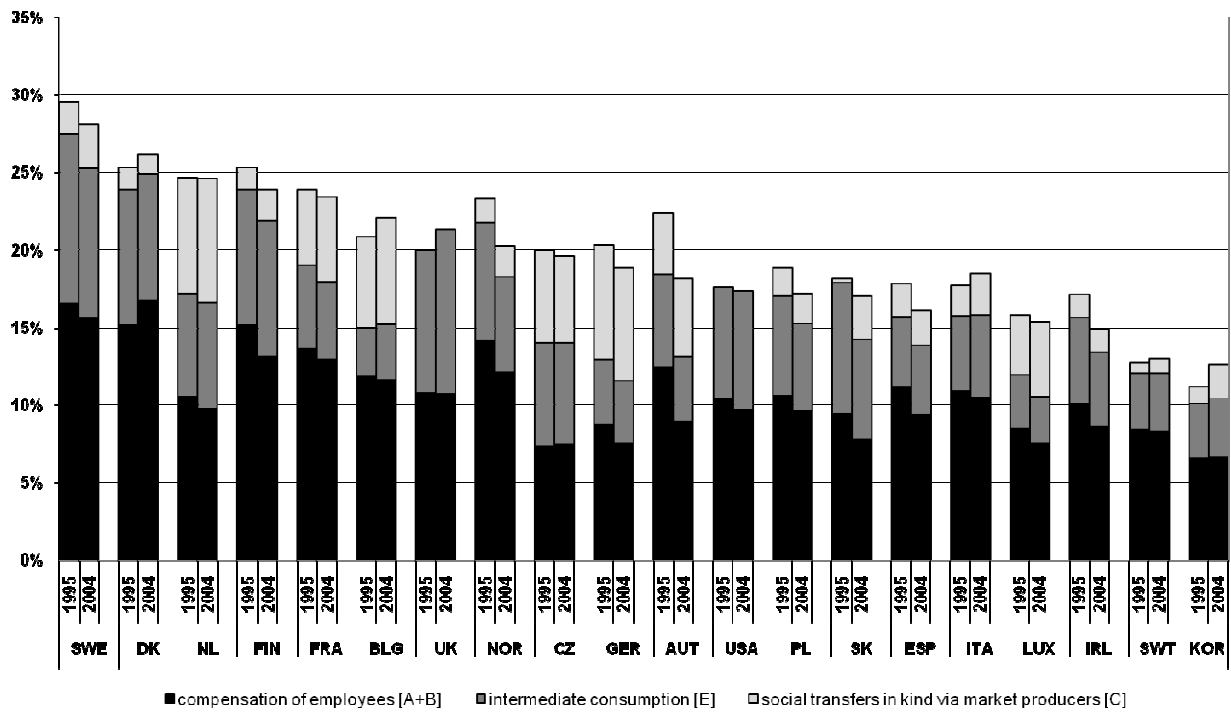
The costs of production as a percentage of GDP give an indication of the weight of the production of public services in the economy. The costs of production as a percentage of public spending give an indication of the structure of public spending: the lower the production costs as a percentage of public spending, the bigger the part of public spending not dedicated to producing services.

**Figure EMP5. Relative ratio of the compensation cost per employee between general government and salaried employment in the whole economy, 2005**



Source: OECD, National Accounts, CEPD Survey, Labour Force Surveys.

Figure EMP6. Indicative production costs in the public domain as a percentage of GDP, in 1994 and 2005



Source: OECD (NAFS).

Table EMP2.Costs of production in the public domain

Country	Aggregate costs of production in the public domain (excluding public quasi corporations and concessions) as a % of GDP	Public costs of production (compensation of employees, intermediate consumption and social transfers in kind via market producers) as a % of total public expenditures in 2005
Australia	N/A	N/A
Austria	18.2	37.9
Belgium	22.1	45.7
Canada	N/A	N/A
Czech Republic	19.6	46.8
Denmark	26.2	51.3
Finland	23.9	50
France	23.4	45
Germany	18.9	41.1
Greece	16.9	N/A
Hungary	20.8	N/A
Ireland	14.9	48
Italy	18.5	39.9
Japan	15.9	N/A
Korea	12.6	N/A
Luxembourg	15.4	39
Mexico	N/A	N/A
Netherlands	24.6	55.4
Norway	20.2	49.5
Poland	17.2	43.7
Portugal	20.7	46.2
Spain	16.1	45.7
Slovak Republic	17.1	45
Sweden	28.1	51.5
Switzerland	13	N/A
Turkey	N/A	N/A
United Kingdom	21.4	51.1
United States	17.4	50.4

Source:OECD (NAFS).

## PROCESS DATA

### **Budget practices**

#### *Methodological framework*

*Key contacts:* Ian HAWKESWORTH, OECD GOV

The information and analysis provided here are from the 2007 OECD Budget Practices and Procedures Survey. This survey was run for the first time in 2003 by the Budgeting and Public Expenditures Division. The second edition, executed in 2007, was extensively revised and made more concise. It includes the latest topical issues in the field of public budgeting and financial management and takes into account advice and recommendations from practitioners and academics in the field. It was sent to the 30 OECD member countries as well as to 13 non-member Latin and Caribbean countries, and final data are available publicly on [www.oecd.org](http://www.oecd.org). For the purpose of this publication, only OECD member countries are included.

Particular groups of countries such as Nordic countries, Westminster systems, etc. are given special mention. These groups have common historical, geographical, cultural or institutional features that lend themselves to common analysis.

Issues of interest are classified under three main areas: fiscal discipline, flexibility (at the ministry level) and autonomy (at the agency/managerial level). In recent years, trends in public sector reform in OECD countries have put the emphasis on improvement of public performance in terms of efficiency and productivity, and these three key issues have been identified by academics as well as policy-makers as some of the main drivers for change. Institutional arrangements such as top-down budgeting techniques or medium-term frameworks may contribute to ensuring that fiscal sustainability concerns are taken into account during the budget process. Such flexibility instruments as internal charging systems, carry-overs of unspent appropriations from one fiscal year to another or the possibility of in-year re-allocation across ministerial line-items facilitate the optimal use of public resources and seek to remove disincentives to improve the efficiency of public expenditure. Finally, the motto "Let managers manage!" has been concretely illustrated through the adoption by some countries of lump-sum appropriations, as well as the right of agencies to use efficiency gains for other purposes within the remit of the agency.

The sources of performance information data are the 2007 OECD Budget Procedures and Practices Survey and the 2005 OECD Survey on the Development and Use of Performance Information in the Budget Process.

***Fiscal discipline***

*Key contacts:* Ian HAWKESWORTH, OECD GOV

***Budgeting for the medium term: multi-year expenditure estimates and targets/ceilings***

This indicator concerns whether member countries use multi-year expenditure estimates and multi-year expenditure targets/ceilings. These are an important part of multi-year budget/expenditure frameworks, which are considered an effective tool for strengthening fiscal discipline. Multi-year ceilings are in essence a strengthening of the top-down approach where the government allocates funds to the minister, but they are also associated with more autonomy for the line minister within the ceilings. They are a device to enable managers of public agencies to plan beyond the short term.

**Definition and measurement**

Medium-term expenditure frameworks set out the government's medium-term fiscal objectives, such as the level of aggregate revenue and expenditure, budget balance (deficit/surplus) and public debt. Multi-year estimates of expenditure and revenue for the whole of government, ministry and in some cases line-items are established, which typically cover two to four years beyond the current fiscal year. They may not be binding, but are rather the baselines for the following years' budgets.

In order to make the framework as credible as possible in terms of fiscal discipline, the Central Budget Authority may then need to devise hard budget constraints or "ceilings" for individual ministries and programmes over a number of years. The aim is to achieve fiscal consolidation in the medium term and counter the one-year focus of governments' budgets (see also *Top Down Budgeting* below).

However, the presence of ceilings does not in itself guarantee their implementation. It is the degree to which they are enforced that reflects the robustness of the political will for fiscal discipline. Conditions for targets/ceilings to be useful include realism and enforceability, the latter being closely linked to the power of the Central Budget Authority.

**Highlights**

Half (15) OECD countries have multi-year expenditure targets or ceilings. However, most (12) of these ceilings are at whole-of-government level. Only two countries have hard ceilings at ministry level (United Kingdom, Slovak Republic) and one at line-item level (Germany). This indicates that while many countries produce an overall multi-year ceiling as part of the budget process, they do not distribute this to each ministry. The ministerial budgets are subject to yearly changes as part of the annual budget process. Two-thirds (21) of OECD countries use less binding multi-year estimates, 11 of these at ministerial or line-item level.

**Table FD1. Use of multi-year estimates**

	<b>Number</b>	<b>Percentage</b>	<b>Countries</b>
No	1	3.3	Greece
Yes, at the aggregate level	10	33.3	Austria, Czech Republic, France, Germany, Hungary, Italy, Japan, Mexico, Poland, Switzerland
Yes, at the ministry level	5	16.7	United Kingdom, Ireland, Slovak Republic, Turkey, United States
Yes, at line-item level	6	20.0	Canada, Denmark, Luxemburg, New Zealand, Netherlands, Sweden
Other	8	26.6	Australia, Belgium, Finland, Iceland, Norway, Portugal, South Korea, Spain
<b>TOTAL</b>	<b>30</b>	<b>100.0</b>	

Source: OECD (GOV), 2007 Budget Practices and Procedures database.

**Table FD2. Use of multi-year targets/ceilings**

	<b>Number</b>	<b>Percentage</b>	<b>Countries</b>
No	9	30.0	Australia, Ireland, Mexico, Norway, Poland, Portugal, Spain, Switzerland, United States
Yes, at the aggregate level	12	40.0	Austria, Czech Republic, Finland, France, Iceland, Italy, Japan, Luxemburg, Netherlands, New Zealand, South Korea, Sweden
Yes, at the ministry level	2	6.7	United Kingdom, Slovak Republic
Yes, at line-item level	1	3.3	Germany
Other	5	16.7	Belgium, Canada, Denmark, Hungary, Turkey
Missing	1	3.3	Greece
<b>TOTAL</b>	<b>30</b>	<b>100.0</b>	

Source: OECD (GOV), 2007 Budget Practices and Procedures database.

*Top-down budgeting: ceilings on each ministry's initial spending request*

This indicator measures the extent to which top-down budgeting techniques are used in OECD member countries by describing whether ceilings are imposed by the Central Budget Authority on each ministry's initial spending request. The advantage of top-down budgeting is that the budget should then reflect overall government priorities rather than be a residual result of a number of smaller budget battles. Consequently top-down budgeting is used to a growing extent in OECD countries.

**Definition and measurement**

In top-down budgeting systems, each spending minister has a pre-set limit on how much he can spend. The government makes a binding decision concerning the total level of expenditure for the budget year and divides these funds among individual spending ministries, often on the basis of the medium-term budget framework. In some cases the government then decides on what changes are to be made at the margins of each ministry portfolio. Sometimes this is based on raising the total expenditure, whereas in other cases it is based on re-allocating funds from other ministries.

In many cases the Central Budget Authority interferes only to a very limited degree with the distribution of funds below the ministerial level. However, in some cases the top down ceilings are more detailed, limiting the discretion of public entities. The ceilings can also target specific costs, as is commonly the case for the wage bill, which is generally the biggest part of government's operating costs. Certain expenditure items such as entitlements acting as automatic stabilizers (*e.g.* unemployment benefits) may be excluded from the limits.

**Highlights**

Within the OECD, Westminster systems<sup>22</sup> seem to be the most reluctant to adopt this tool as only Ireland uses initial ceilings for certain types of spending. The majority of the Eastern European OECD members (Czech Republic, Hungary, Slovak Republic) use top-down budgeting. This may be due to the wave of structural reforms these states experienced with the transition to market economy.

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<sup>22</sup> Countries that have inherited the traditions and specificities of the British Crown's parliamentary system: besides, United Kingdom, these are Ireland, Canada, Australia and New Zealand.



**Table FD3. Does the Central Budget Authority impose limits (ceilings) for each ministry's initial spending request?**

	Number	Percentage	Countries
No, there are no such limits	6	20.0	Australia, Canada, France, New Zealand, Norway, Spain
Yes, there are only suggested/indicative limits	4	13.3	United Kingdom, Greece, Sweden, United States
Yes, but only for some types of expenditure (e.g. salaries) at a chapter level	4	13.3	Belgium, Denmark, Luxemburg, Slovak Republic
Yes but only for some type of expenditure (e.g. salaries) at a line-item level	2	6.7	Ireland, Mexico
Yes, for all types of expenditure at a chapter level	6	20.0	Austria, Czech Republic, Iceland, Netherlands, South Korea, Switzerland
Yes, for all types of expenditure at a line-item level	4	13.3	Germany, Hungary, Italy, Turkey
Other	4	13.3	Finland, Japan, Poland, Portugal
<b>TOTAL</b>	<b>30</b>	<b>100.0</b>	

Source: OECD (GOV), 2007 Budget Practices and Procedures database.

*Internal charging*

This indicator addresses whether government organisations are able to charge each other for the delivery of goods and services.

**Definition and measurement**

Internal charging is an attempt to introduce a form of market mechanisms in the public sector, distinguished from the traditional bureaucratic command structure. This enables the organisation to understand its own cost structure; it can then form the basis for comparisons with the private sector in terms of costs of unit production, thus enabling a discussion about productivity or possibilities for outsourcing. However, the less comparable the activity is to the private sector, the more difficult it is to make meaningful comparisons. Internal charging is also a tool to make sure some agencies do not use other agencies' resources and thus circumvent the appropriations principle.

**Highlights**

Internal charging has been firmly established in OECD countries in general, with half of all OECD countries using it to a great extent (Canada, United Kingdom, South Korea, Sweden and the United States) or to some extent (ten countries). However, nearly a third (nine) of OECD countries do not use it at all and five countries only use it to a minor extent. All OECD countries with Westminster systems and all Nordic OECD countries have introduced the internal charging system.

**Table FD4. Is there a system to charge a price for goods and services provided by one government organisation to another?**

	Number	Percentage	Countries
No	9	30.0	Belgium, Czech Republic, France, Hungary, Italy, Japan, Luxemburg, Mexico, Slovak Republic
Yes, used to a great extent	5	16.7	Canada, United Kingdom, South Korea, Sweden, United States
Yes, used to some extent	10	33.3	Australia, Austria, Denmark, Germany, Greece, Norway, Poland, Spain, Switzerland, Turkey
Yes, only used to a minor extent	5	16.7	Finland, Iceland, Ireland, New Zealand, Portugal
Other	1	3.3	Netherlands
TOTAL	30	100.0	

Source: OECD (GOV), 2007 Budget Practices and Procedures database.

**Flexibility at the ministry level**

*Key contacts:* Ian HAWKESWORTH, OECD GOV

*In-year reallocation*

This indicator concerns the degree to which ministers can re-allocate their appropriations – whether ministers are allowed to transfer funds between line-items within their responsibility during the fiscal year. The more this is possible, the more flexibility the minister enjoys during the budget execution phase. Shifting funds during the year enables the government to respond to new priorities, and is an important element in top-down budgeting.

**Definition and measurement**

Re-allocation is the legitimate transfer of funds from one line item to another during the execution of a budget approved by the Parliament. A line item is a parliamentary sanctioned right to use public money for a specific purpose. In principle therefore, the more detailed the line item is, the more power Parliament has over the use of public funds. Re-allocating funds from one line item to another thus constitutes a weakening of legislative power.

However, if the minister is not able to re-allocate funds within the ceiling, additional funds would in principle have to be allocated to the ministry for every item not budgeted in the year's budget. The fewer line items a budget has, the more autonomy the ministry has in using funds and the less need there is for re-allocation.

There are a number of ways that re-allocation can happen. In many countries the minister has the statutory right to re-allocate between line items below a certain threshold – e.g. 5% of the appropriation. In some countries this general right is restricted to re-allocation between similar types of expenditures, i.e. operating expenditure to operating expenditure, capital to capital, transfer to transfer. In most countries it is not possible to re-allocate funds from any type of expenditures to salaries. Re-allocation that involves more than the threshold will typically require the sanction of the CBA and/or the legislature.

**Highlights**

Almost all OECD respondents (29 countries out of 30), allow ministers to re-allocate funds within their responsibility with some restrictions. Six countries allow it with the approval of the legislature and five with the approval of the minister of finance. No OECD country grants the executive unfettered re-allocation power. Sweden is the only OECD country where in-year re-allocation is initiated and led exclusively by the legislature.

**Table FLX1. Are ministers allowed to re-allocate/vire funds between line items within their responsibility?**

	Number	Percentage	Countries
No	1	3.3	Sweden
Yes, with restrictions	29	96.7	Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, South Korea, Spain, Switzerland, Turkey, United Kingdom, United States.
Yes, without restrictions	0	0.0	..
TOTAL	30	100.0	..

Source: OECD (GOV), 2007 Budget Practices and Procedures database.

*End year flexibility: carry-over of unused funds to next year*

This indicator investigates the degree of end-year flexibility, *i.e.* whether ministers are allowed to carry over funds or appropriations from one year to another. This can be a tool to improve public sector performance by avoiding the waste of resources linked to the spending rush at the end of the fiscal year.

**Definition and measurement**

All countries operate on the principle of an annual budget. Previously, this meant that all appropriations lapsed at the end of the fiscal year. This creates a great and irrational rush to spend money before the end of the fiscal year since agencies would otherwise lose the money that year, and in light of surplus funds, might have their future years' appropriations reduced. The incentive structure changes if appropriations can be carried over from one year to the next. Only in cases where an agency continuously, year on year, builds up carry-overs does the Ministry of Finance tend to intervene.

**Highlights**

A clear majority of responding member States (18 out of 26, *i.e.* more than 60% of the OECD countries) allow carry-over of appropriations of operating and capital expenditure, mostly with restrictions. With regard to transfers/subsidies, 13 countries allow them (11 with restrictions, two without) while in 12 others, carrying over transfers and subsidies is not allowed. This is linked to the type of the expenditure since most transfers/subsidies are "entitlements" fixed in separate legislation and for which the agency only executes the payment. These funds will have to be paid regardless of the funds allotted.

Westminster systems (four out of five) and Eastern European countries (all the four), all parliamentary systems, allow carry-over of operating expenditure and investment (see Tables). For other European OECD respondents the picture is less clear: only half of them (five out of ten) allow carry-overs for operating and transfer expenditure. Most of them allow carrying over investment spending (seven out of ten).

Among OECD respondents that allow carry-overs with restrictions, the proportion of those needing the approval of the legislature and the proportion of those which only require the approval of the ministry of finance are almost the same for each type of expenditure. No significant pattern can be found; one can simply note that Nordic countries (except Iceland) more often need legislature approval and that Westminster systems (except Ireland) more often need finance minister approval.

**Table FLX2. Can ministers carry over unused funds or appropriations from one year to another?**

## Panel A: Operating expenditures

Operating expenditure	Number	Percentage	OECD Countries
No	7	23.3	Belgium, Greece, Italy, Luxemburg, Mexico, Spain, Turkey
Yes, without restrictions	2	6.7	Czech Republic, United Kingdom
Yes, with restrictions	17	56.7	Australia, Canada, Finland, France, Germany, Hungary, Ireland, Iceland, Netherlands, Norway, Poland, Portugal, Slovakia, South Korea, Sweden, Switzerland, United States
Missing answers	4	13.3	Austria, Denmark, Japan, New Zealand
Total	30	100.0	
<i>With approval of the legislature</i> <sup>23</sup>	6	..	Austria, Denmark, Iceland, Ireland, Japan, Norway
<i>With approval of the Minister of Finance</i>	8	..	Austria, Germany, United Kingdom, Iceland, Ireland, Japan, New Zealand, Sweden

## Panel B: Investment

Investment	Number	Percentage	OECD Countries
No	5	16.7	Belgium, Greece, Mexico, Spain, Turkey
Yes, without restrictions	5	16.7	Czech Republic, France, Netherlands, Slovakia, United Kingdom
Yes, with restrictions	15	50.0	Australia, Canada, Finland, Germany, Hungary, Ireland, Iceland, Netherlands, Norway Poland, Portugal, Switzerland, Sweden, South Korea, U.S.A.
Missing answers	5	16.6	Austria, Canada, Denmark, Japan, New Zealand
Total	30	100.0	
<i>With approval of the legislature</i>	6	..	Austria, Denmark, Iceland, Ireland, Japan, Norway
<i>With approval of the Minister of Finance</i>	9	..	Austria, Canada, Germany, United Kingdom, Iceland, Ireland, Japan, New Zealand, Sweden <sup>24</sup>

## Panel C: Transfer, subsidies

Transfers, subsidies	Number	Percentage	OECD Countries
No	11	36.7	Belgium, Finland, Greece, Iceland, Ireland, Italy, Luxemburg, Mexico, Spain, Turkey, United Kingdom

Source: OECD (GOV), 2007 Budget Practices and Procedures database.

<sup>23</sup> Multiple-choice question: carry-over may need approval from both the Legislature and the Minister of Finance. Additionally, a large number of missing answers prevent a pertinent analysis of this part of the question.

<sup>24</sup> Approval of the Cabinet is needed.

### *Autonomy at the agency level*

*Key contacts:* Ian HAWKESWORTH, OECD GOV

#### *Lump sum appropriations*

This indicator investigates the degree of financial flexibility executive agencies have through the use of lump sum appropriations. The usage of lump sum appropriations for agencies enables executive flexibility and decentralises decision-making powers. Adopting such a system expresses a political will to empower agency managers as well as to hold them accountable on their results, rather than focusing on rule compliance.

#### **Definition and measurement**

When government agencies receive lump sum appropriations, public managers in charge of these entities are free to allocate the public funds among the agency's production factors in order to maximise the performance of the entity. This freedom to manage lump sums at the "field level" is a relaxation of central input controls that in many countries takes the form of appropriations at a detailed level. A relaxation of input controls can help ensure an effective split between the policy and the implementation role (a purchaser/provider split) *via* the setting up of more or less independent agencies with a clearly defined implementation role. This is usually accompanied by a greater focus on output and outcome measurement.

#### **Highlights**

Thirteen OECD countries use lump sum appropriations for their agencies. Nine countries are still passing budgets detailing expenditure below the agency level. It is quite striking that all the Nordic countries (Denmark, Finland, Iceland, Norway and Sweden) use lump sum appropriations, as well as a majority of the countries with Westminster systems (Australia, Ireland and the United Kingdom). All Eastern European OECD countries indicate some use of lump sum appropriations. Among the countries that use lump sums appropriations, eight impose a sub-limit on wages, and seven include both operating and capital expenditures within the lump sum appropriation. The Czech Republic, Hungary and Slovak Republic use lump sum appropriations for operating and capital expenditure, and impose sub-limits on wages. Four out of five Nordic countries restrict lump sum appropriations to operating expenditure and do not use sub-limits on wages.

**Table AUT1. Do your agencies/executive organisations receive lump sum appropriations?**

	Number	Percentage	Countries
No, appropriations below agency level	9	30.0	Austria, Belgium, Germany, Greece, Japan, Mexico, New Zealand, South Korea
Yes, for operating expenditure, without sub-limit	4	13.3	Australia, Iceland, Norway, Sweden
Yes, for operating expenditure, with a sub-limit on wages	2	6.7	Canada, Denmark
Yes, covering both operating and capital expenditure, without sub-limit	1	3.3	Finland
Yes, covering both operating and capital expenditure, with a sub-limit on wages	6	20.0	Czech Republic, Hungary, Ireland, Slovakia, Switzerland, United Kingdom
Sub-total "only operating expenditure"	6	20.0	Australia, Iceland, Norway, Sweden, Canada, Denmark
Sub-total "operating + capital expenditure"	7	23.3	Czech Republic, Finland, Hungary, Ireland, Slovakia, Switzerland, United Kingdom
Sub-total "without sub-limit"	5	16.7	Australia, Finland, Iceland, Norway, Sweden
Sub-total "with a sub-limit on wages"	8	26.6	Canada, Czech Republic, Hungary, Denmark, Ireland, Slovakia, Switzerland, United Kingdom
Other <sup>25</sup>	8	26.6	France, Italy, Luxemburg, Netherlands, Poland, Portugal, Spain, United States
Total	30	100.0	

Source: OECD (GOV), 2007 Budget Practices and Procedures database.

<sup>25</sup> In general, these countries use lump sums for some agencies, and not for others. In the United States, only small agencies receive lump sums appropriations, whereas cabinet level agencies and larger entities receive appropriations specified below the agency level. In Canada most organisations receive appropriations below the agency level. However, most Crown Corporations (independent organisations such as Post, Railway, Public Broadcasting Corporation) and many smaller organisations have only one appropriation. In the Netherlands, some agencies receive a lump sum appropriation to cover operating expenditure. A lot of public bodies are financed based on their output (price\*quantity). In Portugal, it depends on the juridical status of agencies. In Poland, each agency/executive organisation receives a lump sum appropriation covering expenditures linked to targets imposed by central Government.

*Keeping efficiency gains in the agency*

This indicator investigates the incentives agencies have in realizing efficiency gains by measuring the restrictions on the agency keeping some or all of these funds. Some governments allow managers to keep parts of savings realized through improved efficiency in order to encourage the adoption of an efficiency-oriented mindset. However, this needs to be balanced against the principle that funds should be allocated by the legislature and that the savings have to be earned, rather than being a windfall.

**Definition and measurement**

Being able to keep (and redistribute) unspent money may constitute an incentive for public managers to improve performance, as long as they are free to manage and the output is monitored. The appropriation of the agency tends to be re-adjusted in case the organisation is able to save continuously year on year. The usage of the savings is usually specified and in principle only used for activities furthering present political priorities – *e.g.* cash bonuses should be limited. Keeping efficiency gains in the agency also complements the top-down budgeting technique where decisions below the ministry level are left to the relevant minister.

**Highlights**

Interestingly, results follow a similar pattern to that observed for the question dealing with the possibility of carry-overs. A clear majority of responding member States (21 out of 30, *i.e.* more than two-thirds of OECD countries) allow public managers to keep savings from efficiency gains of appropriations, most often with restrictions (except for the United Kingdom, Czech Republic, France, Luxembourg and Iceland). In eight countries, including five Western continental European countries, it is not possible.

Nordic countries, Westminster systems and Eastern European OECD members are inclined to allow managers to keep some savings from efficiency gains. In all Nordic and Eastern European member states this is possible, and among countries with Westminster systems, only Canada does not allow it.

**Table AUT2. In general, are government organisation managers able to keep any savings from efficiency gains that they have realized in order to finance other expenditures?**

	Number	Percentage	Countries
No	8	26.7	Belgium, Canada, Greece, Italy, Japan, Portugal, Switzerland, Turkey
Yes, without restrictions	5	16.7	Czech Republic, France, Iceland, Luxemburg, United Kingdom
Yes, with restrictions	16	53.3	Australia, Austria, Denmark, Finland, Germany, Hungary, Ireland, Mexico, New Zealand, Norway, Poland, Slovakia, South Korea, Spain, Sweden, United States
Other	1	3.3	Netherlands
Total	30	100.0	

Source: OECD (GOV), 2007 Budget Practices and Procedures database.



## **Performance information**

*Key contact:* Teresa CURRISTINE, OECD GOV

### ***Types of performance information produced by governments***

OECD governments are under pressure to improve public sector efficiency and effectiveness. An important step in this process is to gather objective information about public sector performance. Performance information enables governments to measure progress towards achieving their policy and programme goals and provides details on which initiatives are working and those that are not. Providing more and better quality information on the performance of programmes and agencies can facilitate improved decision making by politicians and civil servants. In addition, this information can enhance transparency to the public and the legislature.

In general terms, performance information is concerned with assessing actions and progress in achieving set goals. The evidence about performance may be quantitative (numerical) or qualitative (descriptive). The usefulness of performance information is enhanced by applying standards and other types of comparison (for example, with past performance, other comparable lines of business, or level of need) which allow judgments to be made about the extent to which interventions are achieving desired results.

### **Definition and measurement**

It is possible to apply different methodological approaches to gathering evidence on performance. These can be broadly grouped into performance measurement and evaluation. Performance measures are particular values or characteristics used to assess the progress of a programme or the activities of an organisation or an individual towards achieving pre-determined goals. They can relate to economy, efficiency and effectiveness, and include output and/or outcome goals and/or targets and/or processes indicators.

*Evaluation* refers to the assessment of an on-going or completed project, programme, activity or policy. It can include an examination of any one or all of the following aspects of a programme or policy: its objectives (policy priorities); design; implementation (process); and results (output/outcome/cost effectiveness). The aim can be to determine the relevance and fulfillment of objectives, in terms of efficiency, effectiveness, economy and sustainability. They can include a more detailed review of attributes and causality issues and typically include recommendations. Various types of evaluations include: *ex post/ex ante* evaluations, desk evaluations, impact or in-depth evaluations, and self-assessments.

*Benchmarking* involves making comparisons within carefully selected parameters. It can sustain a productive debate about how and why things differ between settings and options for reform

*Performance target* is the level of performance that a service or programme is aiming to achieve in a given year or over a number of years. Targets can be measured in terms of output and/or outcomes.

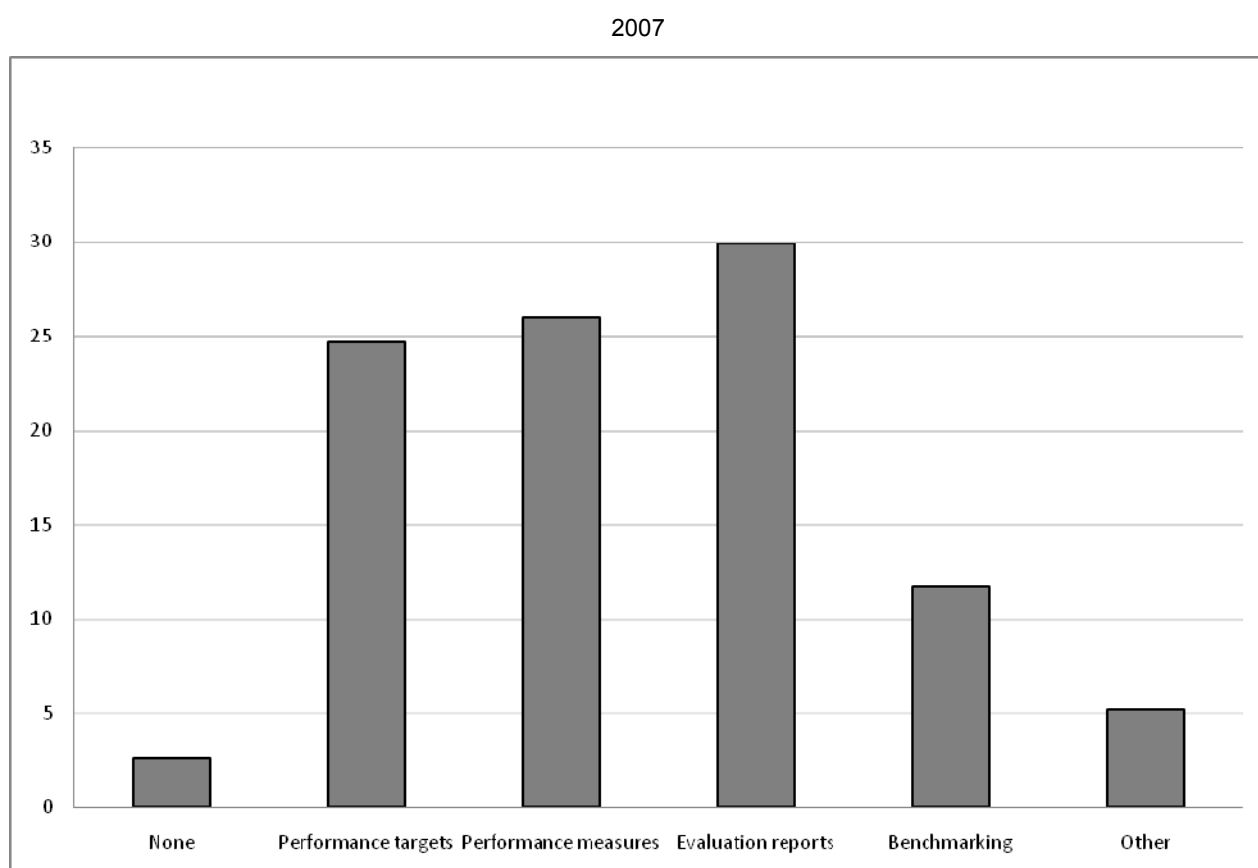
### **Highlights**

All OECD countries are developing and gathering data on their performance. In order to assess non-financial performance, the majority of governments have developed both performance measures (and/or targets) and evaluations. Although there are exceptions, the central governments of Belgium, the Czech Republic, Switzerland and Turkey concentrate only on evaluations and have not to date reported developing performance measures. In 2007, evaluations were the most common approach taken to

assessing non-financial government performance. This contrasts with 2005 when evaluations and performance measures were produced by countries in equal measure.

Provision of basic output data is becoming an integral part of managing government programmes and organisations. It is also important to measure outcomes in order to monitor governments' progress towards achieving their goals. The majority of OECD countries develop a combination of outputs and outcomes. In 2007, 25 out of the 30 OECD countries reported developing output measures and 24 reported developing both output and outcome measures. The number of output and outcome measures developed and the extent of programme and/or expenditure coverage varies widely across the OECD countries. For example, in Italy 1-10% of expenditure is specifically linked to performance targets, while in the United Kingdom 41-50% of expenditure is specifically linked to targets.

**Figure PER1. Types of performance information produced to assess the government's non-financial performance (distribution of responses in percentage terms)**



Source: OECD (GOV), 2007 Budget Practices and Procedures database.

## *Use of performance information in the budget process*

*Key contact:* Teresa CURRISTINE, OECD GOV

All OECD countries are developing information to assess their government's performance although there is a wide variation in the type of information produced and the extent of coverage. Advocates claim that the provision of "objective" performance information facilitates better decision making for the efficient use of resources, the management of programmes, central resource allocation and expenditure prioritisation decisions. However, the production of performance information is not an end in itself; to make a difference it has to be actually used. A major issue is if and how it informs the budgetary decision-making process.

Performance budgeting (PB) is a form of budgeting which uses performance information to relate funds allocated to measurable results. If the Ministry of Finance (MoF) does use performance information, the key questions are how it can be used to improve performance and what the consequences are for not achieving results. The MoF can use performance results to motivate agencies to improve performance, and potentially there are a number of mechanisms at their disposal to do so. These incentives can be financial or non-financial and formal or informal. They can be divided into three broad categories: 1) financial rewards or sanctions; 2) increasing or decreasing financial and/or managerial flexibility; and 3) making the results public – that is, naming and shaming poor performers and recognising good performers.

### **Definition and measurement**

It is possible to distinguish different categories of Performance Budgeting based on the proposed uses of formal performance information in the budget process. Formal performance information is taken to refer to both performance measures (outputs and/or outcomes) and evaluations.

- **Presentational:** Performance Information (PI) is presented in budgeting documents or other government documents. This information can be performance targets or performance results. In this category PI is included as background information for the purposes of accountability and dialogue with legislators and citizens on public policy issues and government direction. There is no link between PI and funding. Therefore, the information does not play a role in decision making on allocations, nor is it intended to do so.
- **Performance-informed budgeting:** Resources are related either to proposed future performance or to performance results in an indirect manner. Indirect linkage implies that PI – along with other information – is being systematically used to inform budget decisions. PI is important in the decision-making process, but it does not necessarily determine the amount of resources allocated. In this case formal PI is used to inform budget decisions along with other information pertaining to macro restrictions on fiscal policy and political and policy priorities. There is, however, no automatic or mechanical linkage between targets or performance results and funding. PI is important, but it is not absolute and does not have a predefined weight in the decisions. The final weightings will depend on the particular policy context.
- **Direct/formula performance budgeting:** Direct linkage involves the allocation of resources directly and explicitly to units of performance, generally outputs. Appropriations can thus be based on a formula/contract with specific performance or activity indicators – funding is directly based on results achieved. This form of performance budgeting is used only in specific sectors in a limited number of OECD countries. An example in higher education is that the number of students who graduated with a Master's degree would release funding for the university that ran

the programme in the preceding year. In this form of PB there is a formula for systematically providing funding rewards or penalties on the basis of activity produced.

### **Highlights**

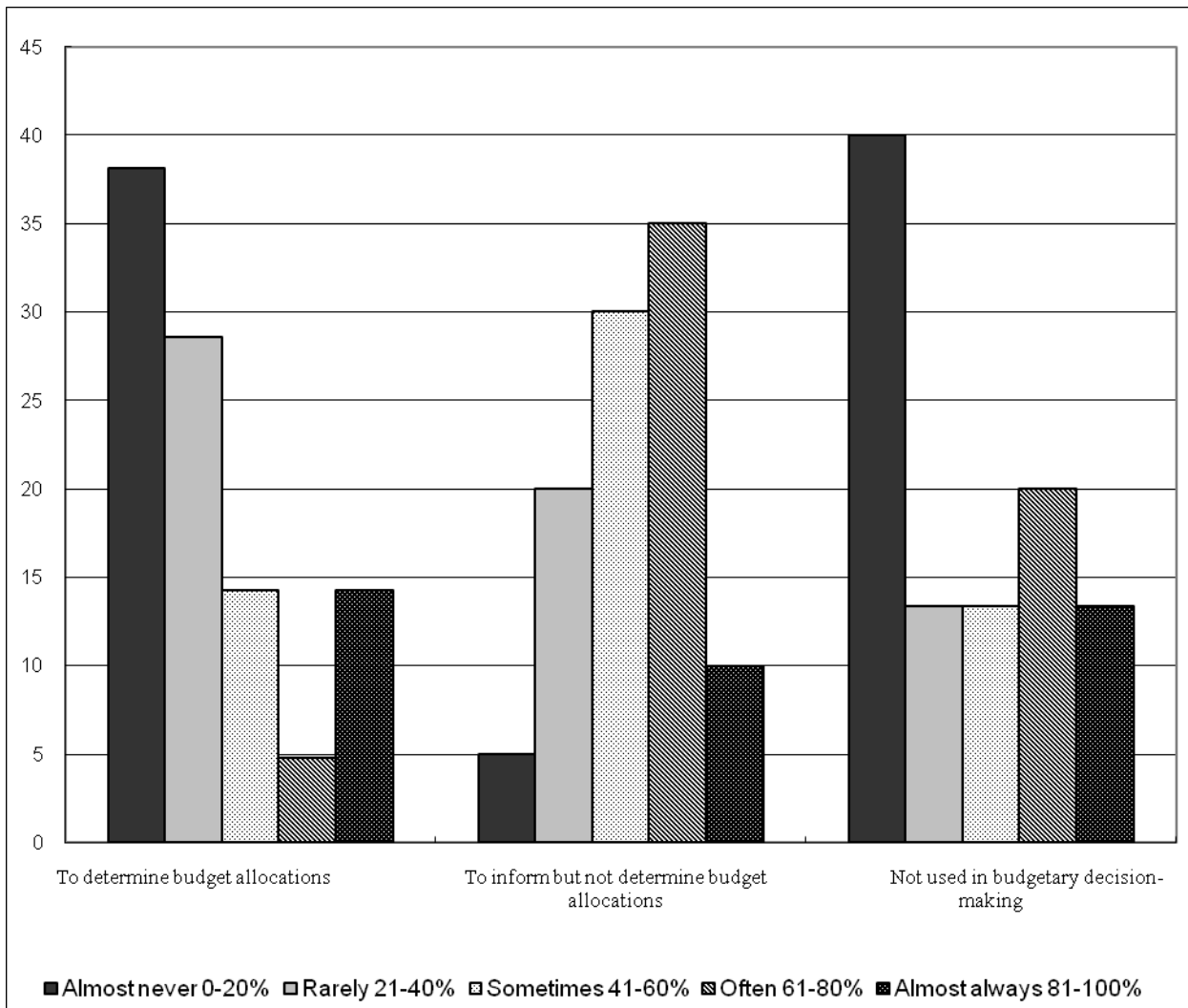
When MoFs use performance information in the budget formulation process they tend to engage in performance informed budgeting. Similar to the results of the 2005 survey, the 2007 survey confirmed that performance measures and evaluations are most often used along with information on fiscal policy and policy priorities to inform, but not determine, budget allocations. There is a loose or indirect link between performance information and funding. The weight given to performance information will depend on the policy area and the quality of the information.

Over two-thirds of countries responded that they do not directly link funding to performance results. It is not recommended that a direct or tight linkage between funding and performance results be applied on a systematic government-wide scale. Such automatic linkages distort incentives, generate gaming, ignore the underlying causes of poor performance, and require a very high quality of PI that is rarely available. Direct linkage may be possible in certain sectors, but should be decided on a case-by-case basis rather than establishing a government-wide system.

The results of the 2005 and 2007 surveys highlight that in over 85% of responding countries failure to achieve a performance target does not result in the elimination of a programme. For over 80% of responding countries, failure to meet a performance target rarely or never has any negative consequences on the pay or the future career opportunities of the heads of ministries/entities responsible for delivering the target. Only in Korea and Denmark does failure to meet a target almost always impact on the pay of the head of the relevant ministry. Additionally in Korea it impacts on their future career opportunities. The most common consequence if a programme fails to meet a target or it is performing poorly is that there is more intense monitoring of the programmes/activities in the future.

**Figure PER2. Performance against targets used by the Central Budget Authority in the budget formulation in OECD countries (distribution of responses in percentage terms)**

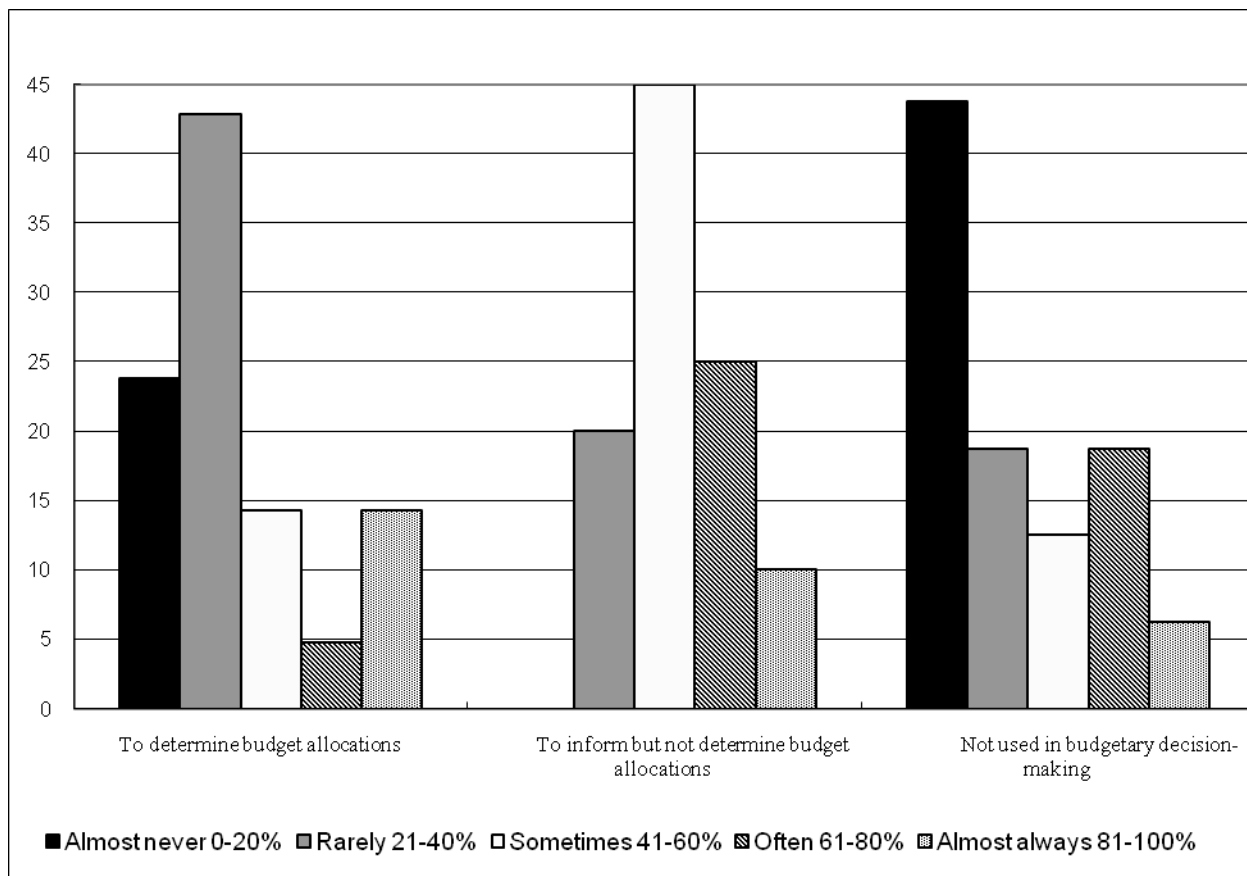
2007



Source: OECD (GOV), 2007 Budget Practices and Procedures database.

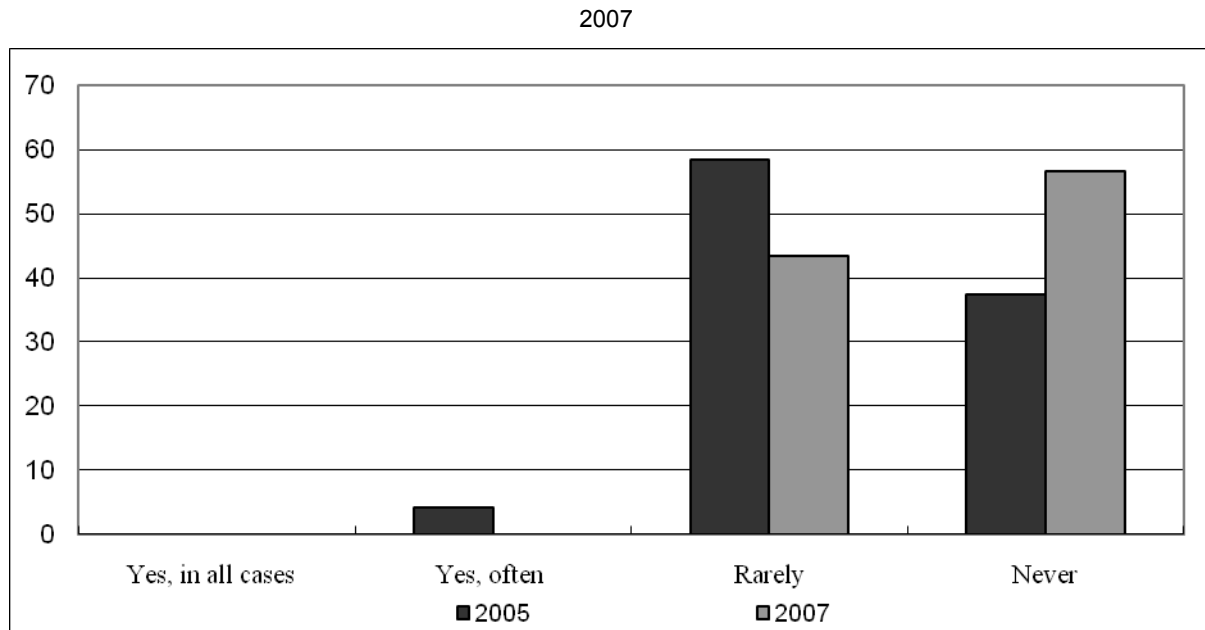
**Figure PER3. Results of evaluations used by the Central Budget Authority in the budget formulation process in OECD countries (distribution of responses in percentage terms)**

2007



Source: OECD (GOV), 2007 Budget Practices and Procedures database.

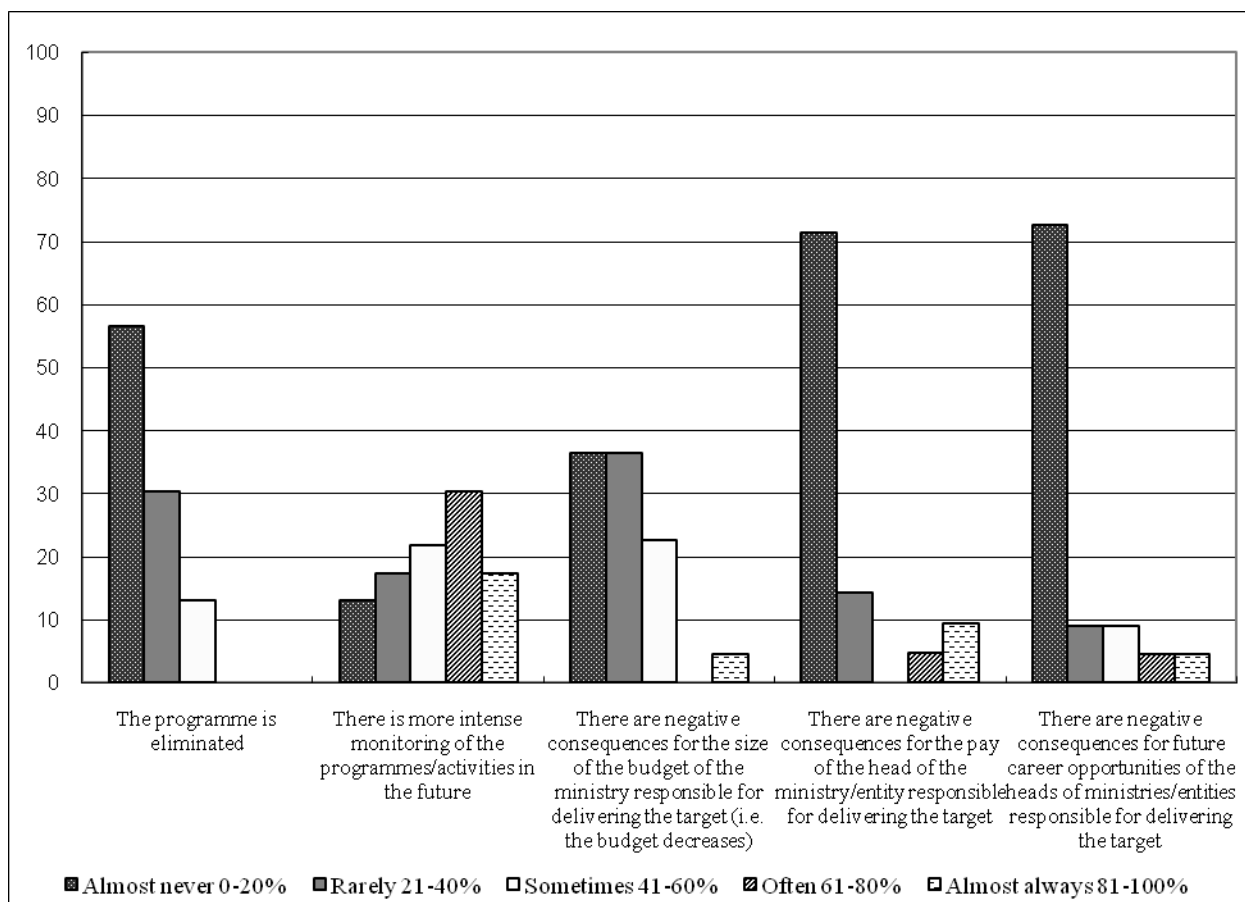
**Figure PER4. Elimination of programmes by the Central Budget Authority if performance targets are not met (distribution of responses in percentage terms)**



Source: OECD (GOV), 2007 Budget Practices and Procedures database.

**Figure PER5. Consequences if performance targets are not met in OECD countries (distribution of responses in percentage terms)**

2007



Source: OECD (GOV), 2007 Budget Practices and Procedures database.



***Providing performance information to the legislature and the public***

*Key contact:* Teresa CURRISTINE, OECD GOV

**Definition and measurement**

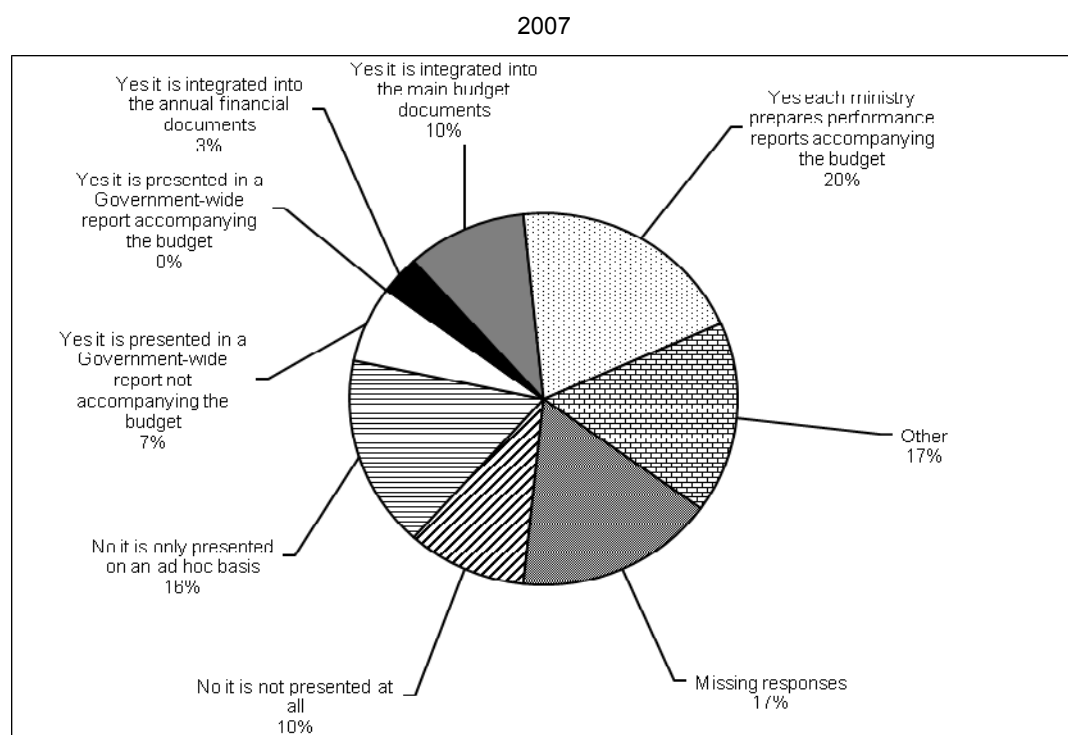
This indicator provides data on if and how information on performance is made available to the public and the legislature. It does not make any assessment of the quality of the information provided or the clarity of its presentation.

Governments are keen to show that they provide good value for money through their actions – providing public services efficiently – and implementing their electoral promises. Making performance information available to the legislature and the public can improve transparency. Without this information it is difficult for the public or the legislature to have any “objective” information by which to judge government performance. Furthermore, making public the performance results of agencies and programmes can help to recognise good performance and/or name and shame underperformers. The publication of this information can encourage the media, the public and the legislature to put pressure on underperformers to improve.

**Highlights**

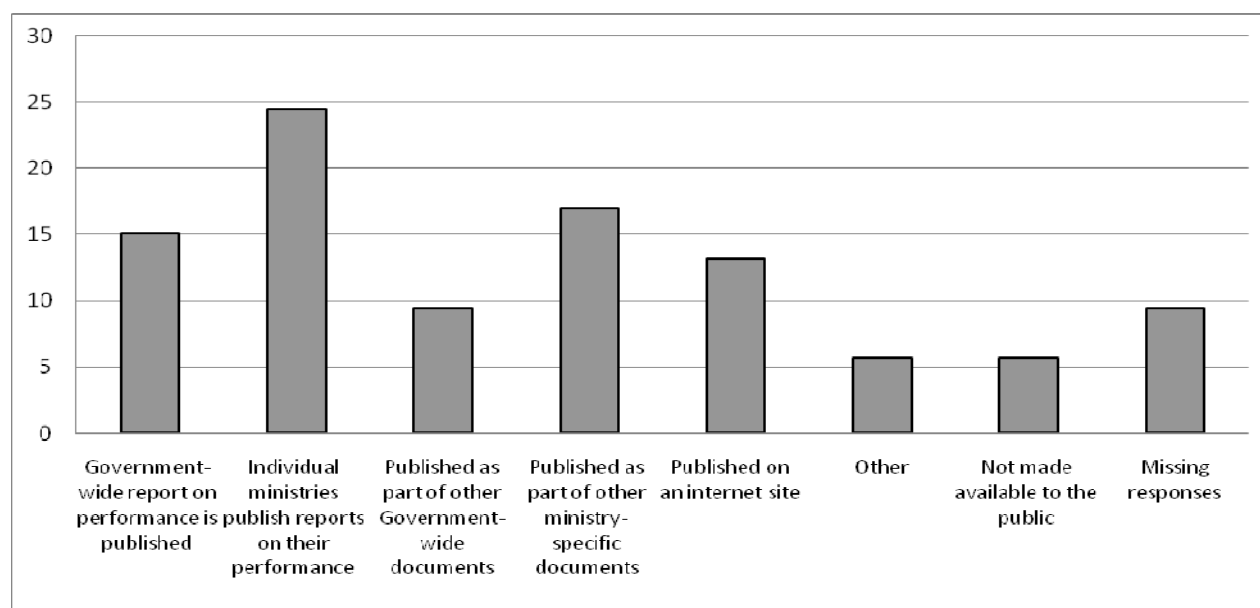
Most OECD countries that produce performance information make it available to the public. 15 per cent of responding countries, including Canada, Hungary, Sweden, the United States and Poland, reported that they published a government-wide performance report. However, the most common way for performance information to be made available to the public is for the individual ministries to publish separate reports on their performance followed by publication of reports as part of other ministry-specific documents. The most common form of presenting performance results to the legislature is for each ministry to prepare performance reports accompanying the budget.

**Figure PER6. Is performance against targets routinely presented to the legislature**



Source: OECD (GOV), 2007 Budget Practices and Procedures database.

**Figure PER7. Availability of performance against targets to the public in OECD countries in 2007 (distribution of responses in percentage terms)**



Source: OECD (GOV), 2007 Budget Practices and Procedures database.

### ***Roles and responsibilities in performance measurement and evaluation systems***

*Key contact:* Teresa CURRISTINE, OECD GOV

There is a wide variation in the formal role played by central agencies in OECD countries in the development and implementation of performance approaches to budgeting and management. This varies from some countries where the Ministry of Finance has no involvement at all to others where it is the main designer and manager of the performance system. Some countries have combined introducing performance management with delegating responsibilities within ministries and to agencies on the theory that managers need more freedom to use resources if they are to achieve results.

This indicator shows the extent to which the Ministries of Finance in OECD countries have participated in the development and monitoring of government-wide initiatives to develop performance measures.

#### **Definition and measurement**

The data is from the OECD 2005 survey on the developing and use of performance information in the budget process. It is a composite indicator, developed based on responses to three questions (Q1.4, Q1.6 and Q1.8) on the institutional roles and responsibilities of Ministries of Finance in the developing and monitoring of performance measurement initiatives. All questions are weighted equally.

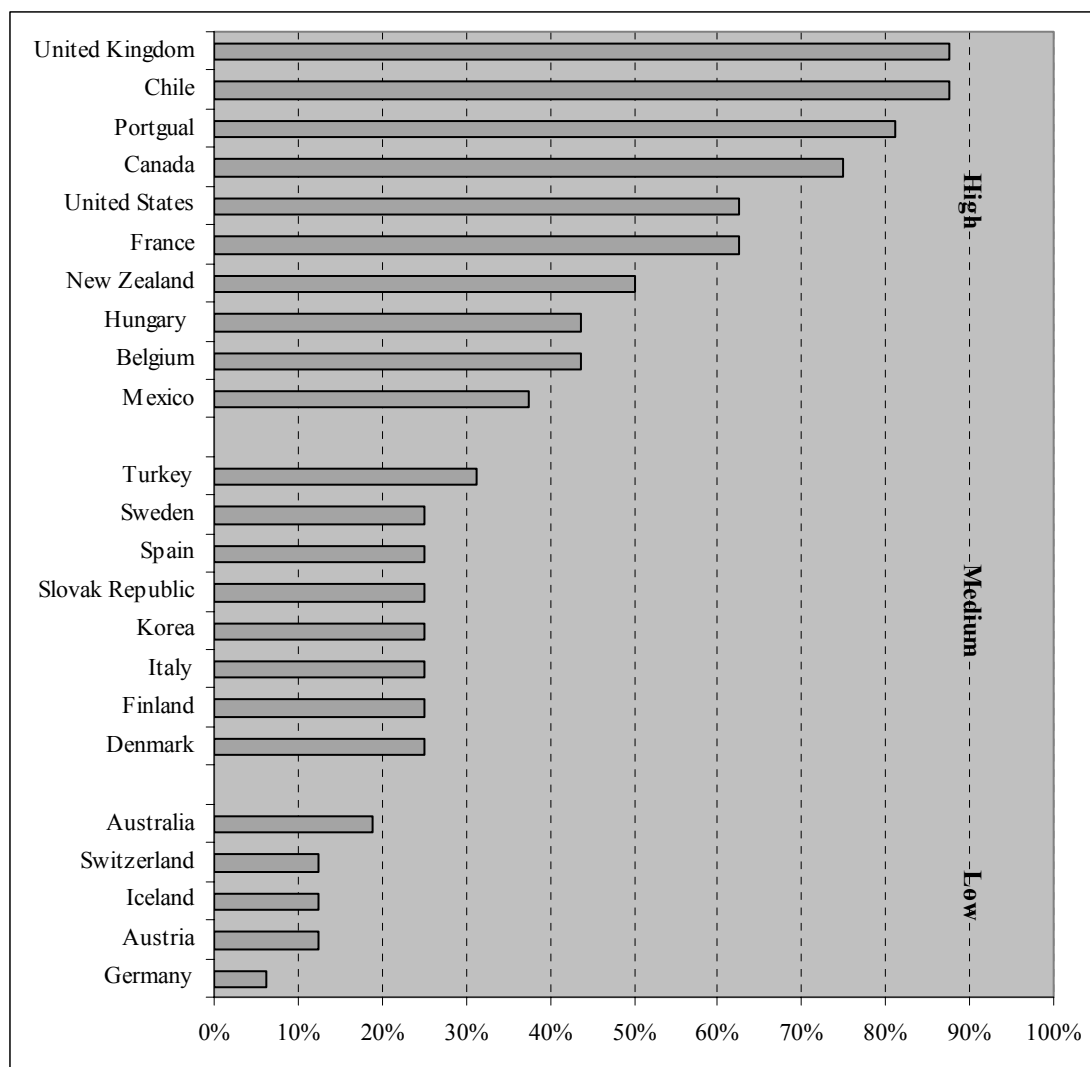
#### **Highlights**

In some countries, for example, the United Kingdom and Chile, the MoF has a high degree of involvement, and plays a strong and active role in developing and implementing these reforms. This more centralised approach contrasts with the much more decentralised one of, for example, Iceland, where the MoF has a low level of involvement, and it is solely the responsibility of individual ministries to develop and implement these reforms. The degree of involvement of the MoF is a function not only of the performance budgeting approach and the level of interest in these initiatives, but also of the relative position and power of the MoF in the wider institutional and political system. There are risks with having too much or too little central involvement from the Ministry of Finance or other central ministries in these reforms.

The line ministries are actively engaged in conducting and commissioning all types of evaluations. The most common type of evaluation from line ministries is review of new programmes and initiatives. The Ministry of Finance and the Central Budget office are also active in commissioning and conducting this type of evaluations as well as efficiency and cost effectiveness reviews.

**Figure PER8. Index of degree of involvement of Ministry of Finance in government-wide performance measures**

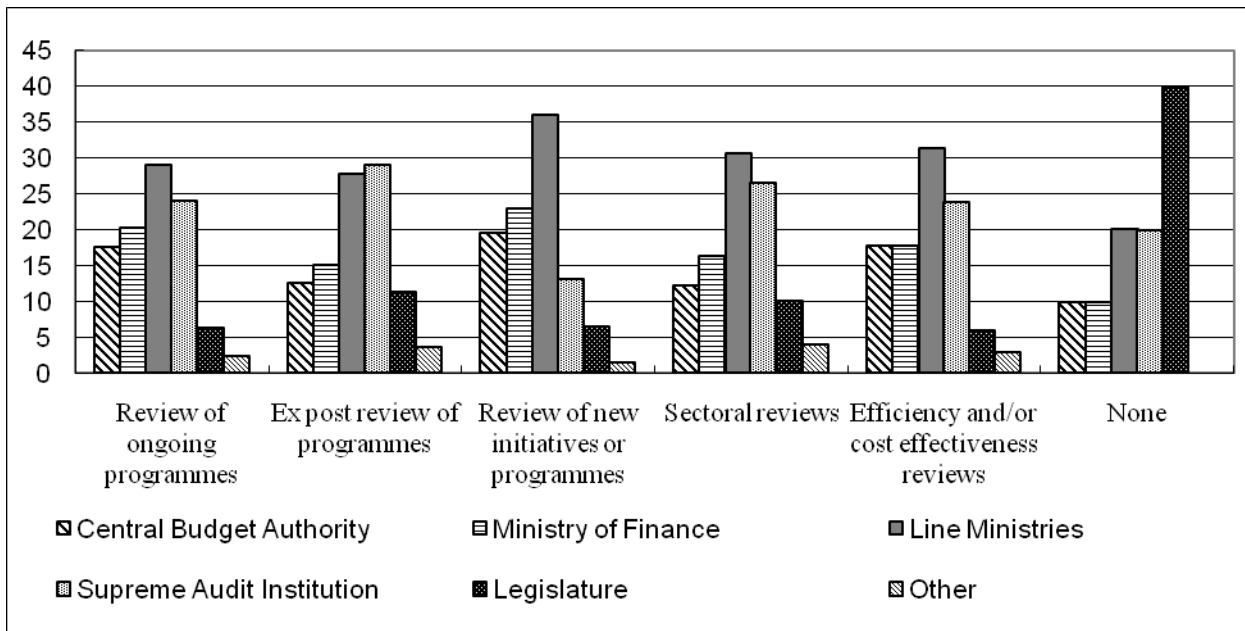
2005



Source: OECD 2005 Survey on PI in the Budget Process.

**Figure PER9. Types of evaluations commissioned and/or conducted in OECD countries by the following institutions (distribution of responses in percentage terms)**

2007



Source: OECD (GOV), 2007 Budget Practices and Procedures database.

## **Human resources management in government**

### ***Methodological framework***

*Key contacts:* Elsa PILICHOWSKI and Edouard TURKISCH, OECD GOV

Data have been collected through the OECD Strategic Human Resource Management in Government survey. A first survey on strategic human resources management in Government was carried out in 2002, and a new survey was carried out in 2006. Data gathered are chiefly qualitative in nature on the management of public employees. Respondents to the survey have mainly included OECD member country delegates to the Public Employment and Management Working Party of the OECD, who have collected the information requested for their own country.

The Human Resource Management survey was completed by 29 countries (all OECD countries excluding Greece). Unless mentioned otherwise, the data concern mostly the core civil service at the national/federal level of government. Definitions of the civil service, as well as sectors covered at the national/federal level of government, differ across countries.

**Participation of women in public employment**

*Key contacts:* Elsa PILICHOWSKI and Edouard TURKISCH, OECD GOV

Most OECD countries recognise that increasing the participation of women in the public service is a priority for equity purposes. It is also important in light of the increasing public sector staff departures due to retirement. As a consequence, many countries have established policies aimed at increasing female participation in the public workforce and especially at management levels.

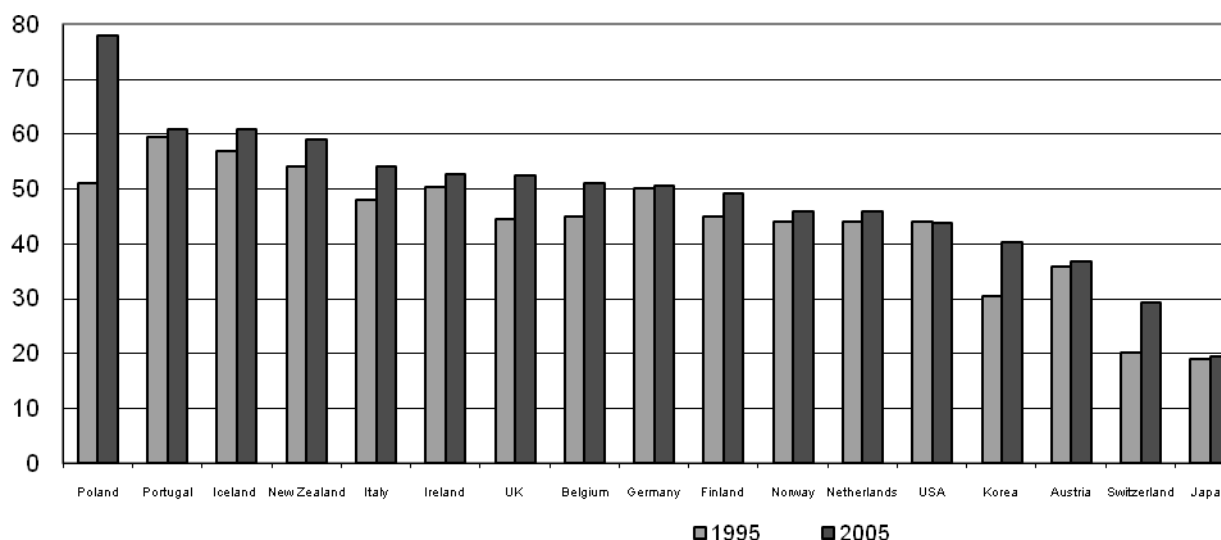
**Highlights**

The data show a persistent increase in women’s participation in public employment. However, the representation of women in the civil service differs widely across countries. At the national level of government, whereas women represent more than 50% of the public sector workforce in countries including Portugal, New Zealand, Ireland, United States or Belgium, this proportion is less than 30% in Switzerland or in Japan.

Apart from Finland, women are often much less represented at more senior levels. Here again, the situation differs widely across countries. Whereas they represent more than 75% of senior employees in Finland, the situation is the opposite in many other countries.

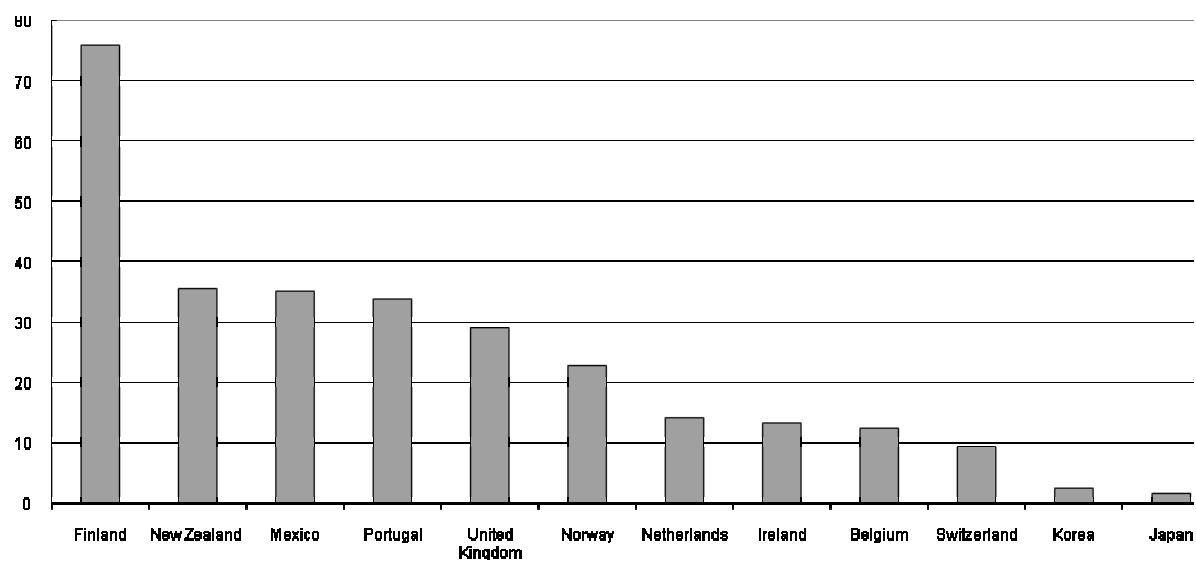
Women are usually better represented at lower levels or in administrative posts, with differences across countries that follow representation rates of women in the broader labour market of those countries.

**Figure HRM1. Representation of women in the civil service at the national/federal level in 1995 and 2005 (or closest year available)**



Source: OECD (GOV), 2006 Strategic Human Resources Management Survey.

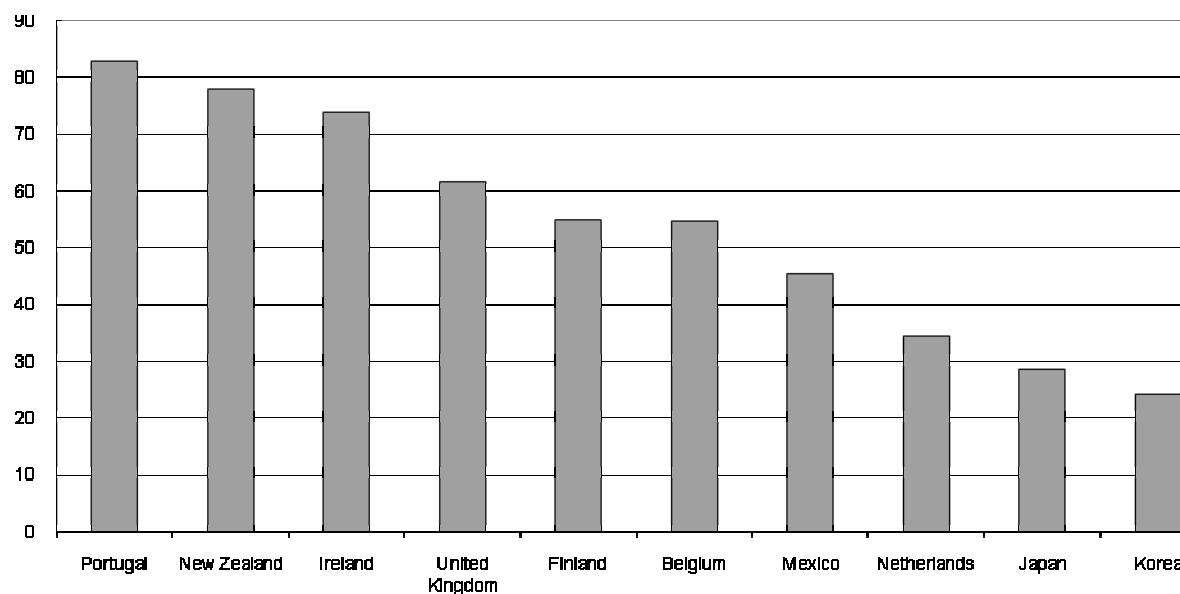
**Figure HRM2. Representation of women in senior positions in the civil service at the national/federal level, 2005**



Source: OECD (GOV), 2006 Strategic Human Resources Management Survey.

Note: The levels of senior positions are broadly comparable, but precise definitions vary across countries.

**Figure HRM3. Representation of women in administrative tasks in the civil service at the national/federal level, 2005**



Source: OECD (GOV), 2006 Strategic Human Resources Management Survey.



### *Ageing workforce in the public sector*

*Key contacts:* Elsa PILICHOWSKI and Edouard TURKISCH, OECD GOV

While the public sector must respond to the changing demands made by an ageing society, civil servants are themselves ageing, and the rapidly approaching exit of a large number of experienced staff through retirement must be managed. Significant staff departures are an opportunity to bring staff with new skills into government, decrease staff numbers and staff costs (as entry-level salaries are lower), and change the allocation of staff across sectors. However, this also poses a challenge, with the loss of capacity and the need to postpone the retirement of some key staff.

Unless met by a re-allocation of resources and more efficient working practices in government, the overall demand for labour in the public sector will increase steadily. To address this challenge, OECD countries are reforming their approach to public sector personnel management, aiming to better adapt the labour force to changing needs, maintain or improve the attractiveness of the public service, and strengthen the performance of public employees. The retirement of a significant share of public employees should be taken as an opportunity to progress further in this direction.

The age structure of the public service is important for workforce planning and pension forecasts.

#### **Definition and measurement**

Trend data is only available for a limited number of countries, due to a low response rate and also to difficulties in comparing data across years.

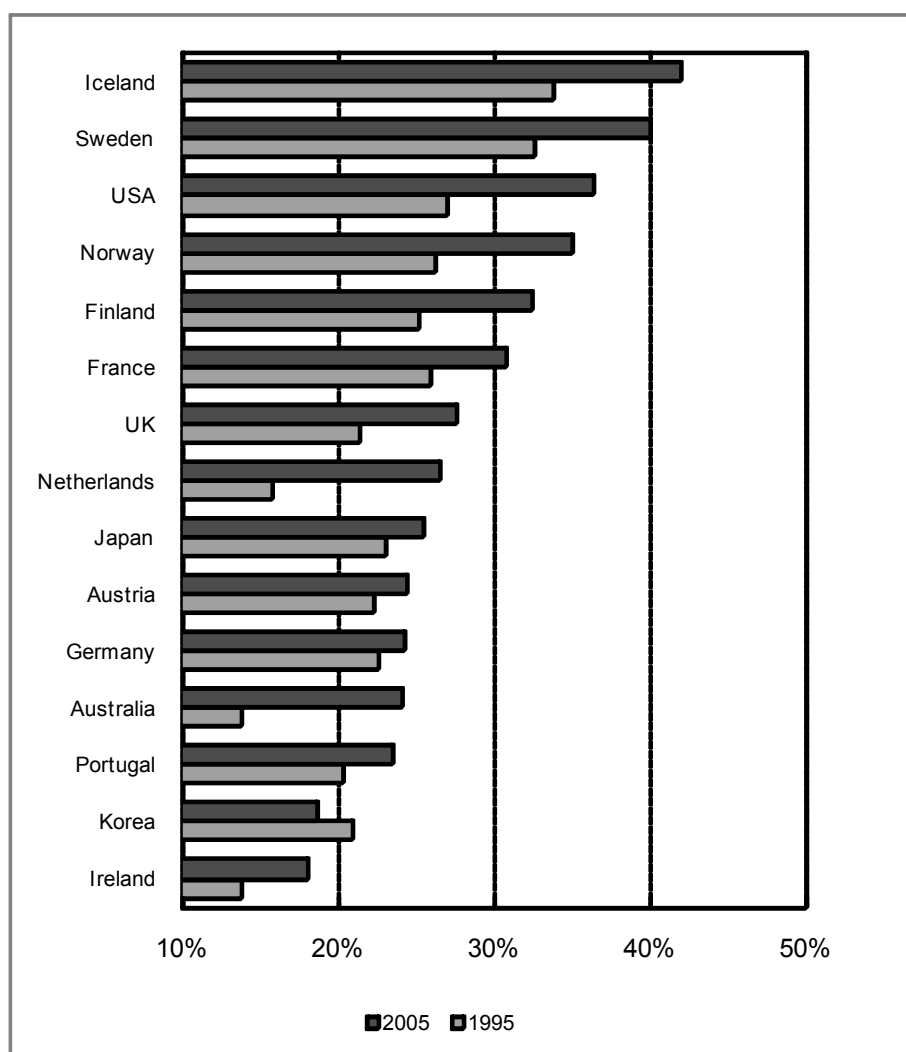
#### **Highlights**

In many OECD member countries, public sector workforces are ageing even more rapidly than the rest of society and the wider labour market.

Looked at by age group, the largest cohorts in the public services tend to be around 40-49 years old, with an important proportion of employees in the age band 50-54 and 55-59 depending on the retirement age. In sum, the proportion of young employees is far smaller in the public sector than in the private sector.

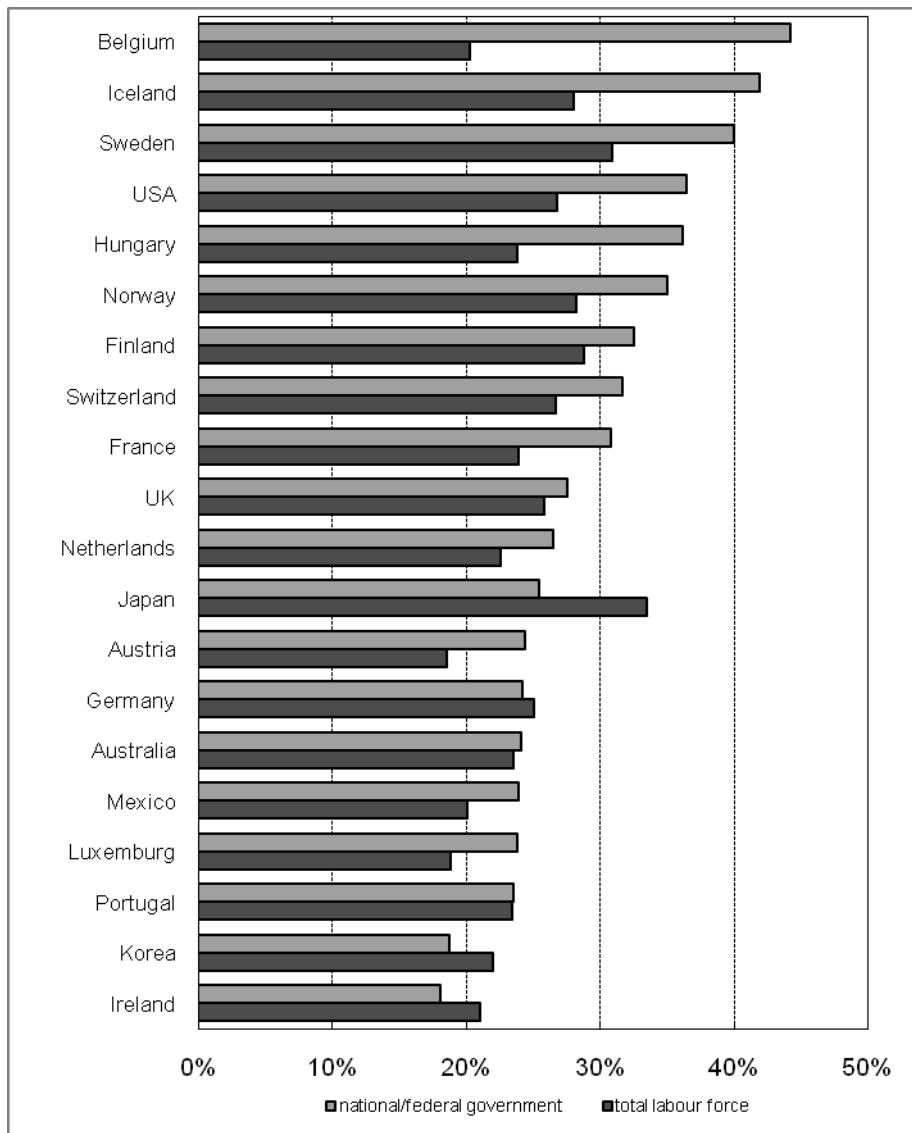
As with the general labour market, it is important to look at trends as well as current age proportions in the public service. Some countries are facing immediate challenges with increased departures (particularly Denmark, Finland, France, Germany and Portugal). However, the largest waves of retirement in those countries will start between 2009 and 2015 and will continue until 2020.

**Figure HRM4. Proportion of workers above 50 in the civil service at the national/federal level, in 1995 and in 2005 (or closest year available)**



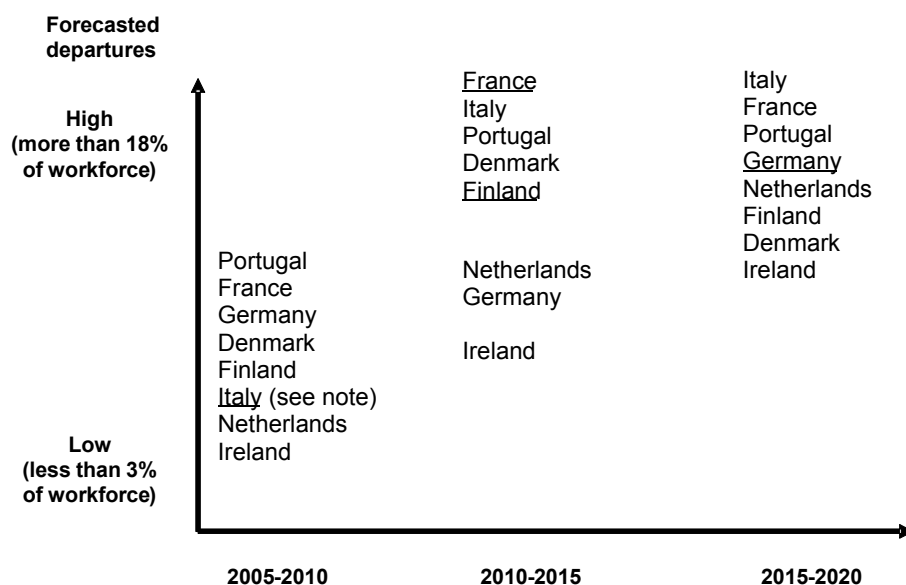
Source: OECD (GOV), 2006 Strategic Human Resources Management Survey.

**Figure HRM5. Proportion of workers above 50 in the civil service at the national/federal level and in the wider labour force in 2005 (or closest year available)**



Source: OECD (GOV), 2006 Strategic Human Resources Management Survey.

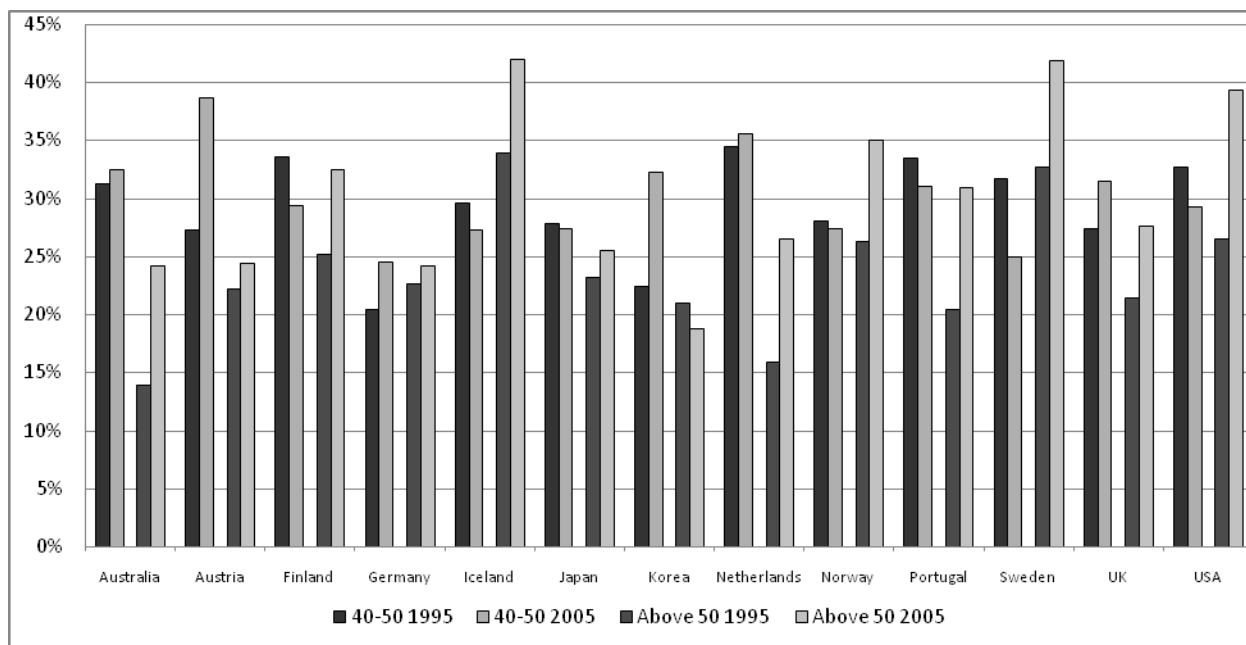
Figure HRM6. Forecasted departures due to ageing in the civil service at the national/federal level



Source: OECD (GOV), Ageing and the public service: Human Resources Challenge.

Note: Percentages are of the current workforce cumulative over the entire five-year periods and are indicative. The order of countries vertically reflects their relative position in the range. Countries which are underlined will start to face significant decreases in the proportion of economically active workers in the general labour force.

Figure HRM7. Proportion of workers between 40 and 50 and above 50 years old in the civil service at the national/federal level in 1995 and 2005 (or closest year available)



Source: OECD (GOV), 2006 Strategic Human Resources Management Survey.

### ***Stability of employment contracts and casual employment in government***

*Key contacts:* Elsa PILICHOWSKI and Edouard TURKISCH, OECD GOV

The stability of employment contracts, as well as the level of casual employment in the civil services, are key elements in the analysis of flexibility and coherence of public sector employment.

Almost all countries have a specific framework for public service employment at the national/federal level of government. Across countries, this framework differs more or less widely from the general labour employment, with little variation in Sweden and the United Kingdom at one end of the spectrum, and Austria, Belgium, France, Germany, Ireland, Italy, Japan, Korea, Luxemburg, Portugal, or Spain, with more legal protection against dismissal or life-long employment guaranteed, at the other end of the spectrum. However, this difference may be changing, and thus the use of contract staff in order to achieve flexibility must be seen in the context of a core public service employment framework that is itself providing more flexibility in any case.

#### **Definition and measurement**

The definitions of employees under the general employment framework in government and casual employment differ widely across OECD member countries. In general and depending on the country, casual employees are those employees that are not employed under the main employment framework and/or are under shorter term contracts than regular employees. Relatively few countries responded to this question in the OECD Survey of Strategic Human Resource Management in Government.

#### **Highlights**

Almost all countries mention that they have a specific framework for public service employment at the national/federal level of government. In general, the use of employees outside the general public service employment framework remains limited. The proportion of casual staff varies considerably from one country to another from just a few percentage points in the United Kingdom for example, to more than 20% of staff in Finland.

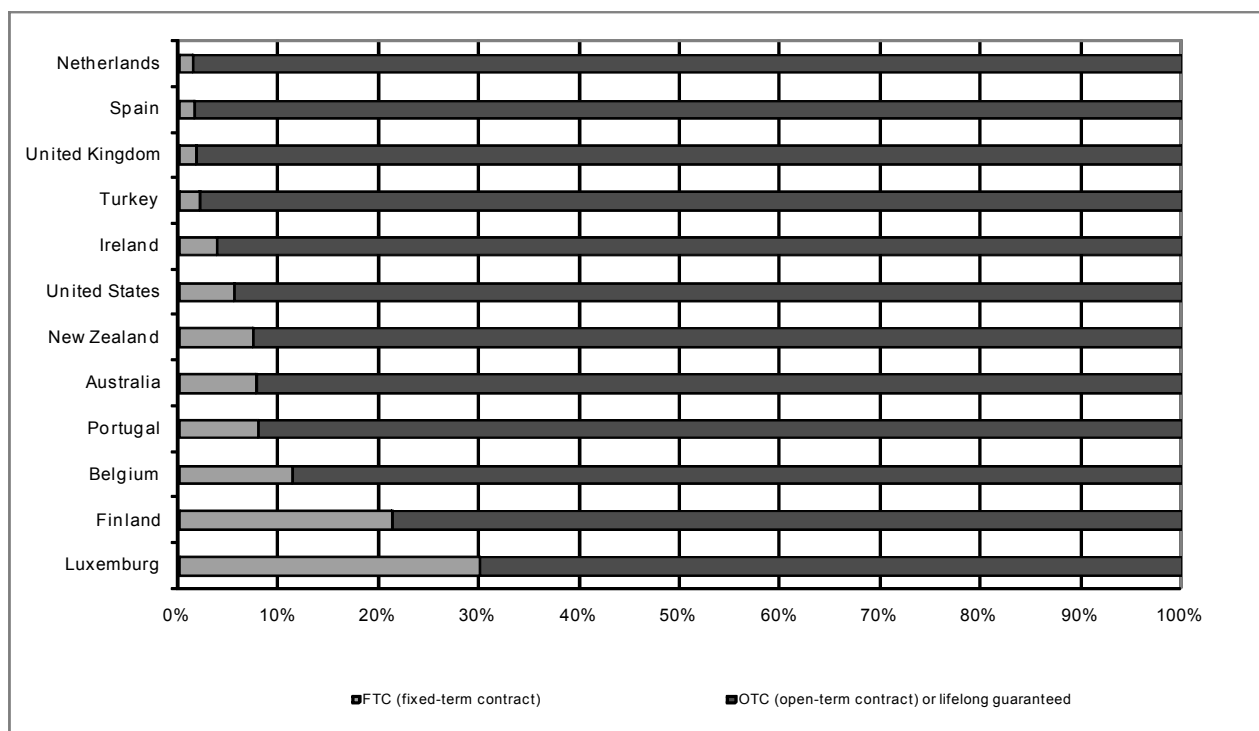
The proportion of fixed-term contracts within the public service also varies significantly across countries, and there is no relation between the type of civil service system (more career based or more position based) and the proportion of fixed-term contracts.

**Figure HRM8. Proportion of staff employed under general employment rules for government employees and outside of these rules in 2005 (or closest year available)**



Source: OECD (GOV), 2006 Strategic Human Resources Management Survey.

**Figure HRM9. Proportion of fixed term and open term contracts or lifelong guaranteed employment in the civil service at the national/federal level in 2005 (or closest year available)**



Source: OECD (GOV), 2006 Strategic Human Resources Management Survey.

***Part-time work in the civil service at the national level of government in selected OECD countries***

*Key contacts:* Elsa PILICHOWSKI and Edouard TURKISCH, OECD GOV

Work conditions in the civil service are a significant contributor to the attractiveness of the public sector as a career. Part-time employment has become increasingly widespread in the private sector of OECD members countries, and the same trend has occurred in the public sector.

**Definition and measurement**

The data below do not take into account the variations in the definitions of part-time work across countries, including variations of the number of hours part-time staff work.

**Highlights**

Over the last 15 years, work conditions have become more flexible in a number of OECD countries, with an increased use of part-time work or flexible working hours.

The proportion of part-time workers in the civil service at the national level of government has increased significantly in countries such as the Netherlands, Australia or Germany, and has remained steady or even decreased in Nordic countries such as Sweden, Norway (where the proportion was already relatively high) or Finland.

As expected, part-time work is more widespread in some sectors like education or health and more frequently used by women.

However, it seems that the proportion of part-time workers remains generally lower than in the private sector, and it is significantly lower in some countries such as Australia, Germany, the Netherlands, or the United States. The proportions of part-time workers in the public and the private sectors in Nordic countries (Norway, Sweden and Finland) are more similar.

**Table HRM1. Evolution of the proportion of part-time workers in the civil service at the national/federal level in selected OECD countries**

	Evolution of the proportion of part-time workers in the civil service at the national level of government in selected OECD countries			Proportion of part-time workers in the total labour force
	1995	2000	2005	2005
Netherlands	13.9%	15.9%	19.7%	35.7%
Norway	19.6%	16.8%	17.7%	20.8%
Sweden	15.0%	13.1%	14.9%	14.4%*
United Kingdom	8.7%	13.1%	17.6%	23.6%
Australia	4.0%	8.0%	11.0%	27.3%
Finland	7.5%	7.3%	7.6%	11.2%
Germany	2.7%	4.3%	6.8%	21.8%

Source: OECD (GOV).

Note: \* 2004.

### ***Prevalence of performance-related pay***

*Key contacts:* Elsa PILICHOWSKI and Edouard TURKISCH, OECD GOV

The introduction of performance related pay policies (PRP) has occurred in the context of the economic and budgetary difficulties faced by OECD member countries from the mid-1970s. Reasons for introducing PRP are multiple, but focus essentially on improving the individual motivation and accountability of civil servants as a way to improve performance. The introduction of PRP is one facet of a wider movement towards increased pay flexibility and individualisation in OECD public sectors. There is no single model of PRP in the public sector across the OECD.

#### **Definition and measurement**

Performance related pay can vary along several dimensions:

- the range of staff that it is applied to
- the nature of the targets and the incentives – individual or group
- the degree to which forced rankings are used
- the size of performance-related rewards

It can concern one-off bonuses as a variable part of pay, or merit increments in the basic part of the pay of public employees.

#### **Highlights**

Although models are diverse, a common trend in many countries is that PRP has spread from management level to cover many different categories of staff.

Eleven out of the 17 countries which have responded use some form of performance related pay. Of these countries, eight do so for most government employees, with Ireland and Norway using it just for senior staff. In the Netherlands it is used by only a few central government organizations.



Table HRM2. Prevalence of performance related pay in 2006

	Is performance related pay in use in your country?	If yes:		
		For most government employees	For senior staff only	Only in a few central/ national/ federal government organisations
Australia	Yes	Y		
Austria	No			
Belgium	No			
Canada	Yes	NA	NA	NA
Czech Republic	Yes	Y		
Denmark	Yes	NA	NA	NA
Finland	Yes	Y		
France	Yes		Y	
Germany	Yes	Y		
Greece	No			
Hungary	Yes	Y		
Iceland	No			
Ireland	Yes		Y	
Italy	Yes		Y	
Japan	Yes	Y		
Korea	Yes	Y		
Luxemburg	No			
Mexico	No			
New Zealand	No			
Netherlands	Yes			Y
Norway	Yes		Y	
Poland	No			
Portugal	No			
Spain	Yes	Y		
Slovak Republic	No			
Sweden	No			
Switzerland	Yes	Y		
Turkey	No			
United Kingdom	Yes	Y		
United States	Yes	Y		

Source: OECD (GOV), 2006 Strategic Human Resources Management Survey.

Note: NA: No data available.

Table HRM3. Bonuses vs. merit increments in 2006

	Do organisations mostly use:	
	One-off bonuses	Merit increments
Australia	Y	Y
Austria	No PRP	No PRP
Belgium	No PRP	No PRP
Canada	NA	NA
Czech Republic	Y	Y
Denmark	NA	NA
Finland	NA	NA
France		Y
Germany	Y	
Greece	No PRP	No PRP
Hungary		Y
Iceland	No PRP	No PRP
Ireland	Y	
Italy	Y	
Japan	Y	Y
Korea	Y	Y
Luxemburg	No PRP	No PRP
Mexico	No PRP	No PRP
New Zealand	No PRP	No PRP
Netherlands		Y
Norway	NA	NA
Poland	No PRP	No PRP
Portugal	No PRP	No PRP
Spain	Y	
Slovak Republic	No PRP	No PRP
Sweden	No PRP	No PRP
Switzerland		Y
Turkey	No PRP	No PRP
United Kingdom	Y	Y
United States	Y	Y

Source: OECD (GOV), 2006 Strategic Human Resources Management Survey.

Note: NA: No data available.

**Components of overall pay**

*Key Contact:* Elsa PILICHOWSKI and Edouard TURKISCH, OECD GOV

**Definition and measurement**

Within pay, it is important to distinguish basic salary (including seniority premium), “guaranteed” supplements/benefits and performance related pay. This has consequences for pay transparency, the attractiveness of the public sector as an employer and pension costs. Predictability in remuneration encourages competent staff to remain in a secure position.

**Highlights**

Earnings distribution across the different types of earnings varies extensively across governments. On average, performance related pay remains a relatively minor part of public servants’ overall earnings.

As Table HRM4 below highlights, in most OECD public services, base salary and guaranteed benefits constitute over 95% of total compensation.

**Table HRM4. Components of overall pay for national/federal government employees, 2005**

	<b>Basic salary (including seniority premium)</b>	<b>“Guaranteed” supplements/benefits</b>	<b>Performance-related pay</b>
Australia	77%	20%	3%
Germany	Currently: 99%; Later: 92%	. .	Currently: 1%; Later up to 8%
Ireland	98%	1%	1%
Italy	Basic pay is the most important part of total remuneration, also if in some administrations the "administration allowance", that is different among ministries, can reach 35% of the basic pay.		
Japan <sup>26</sup>	86.6%	13.4%	0%
Korea	48%	51%	1%
Mexico <sup>27</sup>	20%	80%	0%
Netherlands	90%	7%	3%
Sweden	99,3 %	0,7 %	0%
Switzerland <sup>28</sup>	90-95%	5%	1-6%
United Kingdom	Pay systems and settlements are now so diverse that any averages are meaningless or not applicable		
United States <sup>29</sup>	77%	22%	1%

Source: OECD (GOV), 2006 Strategic Human Resources Management Survey.

<sup>26</sup> Besides this, a diligent allowance that is a "Performance-related pay" is provided at average 1.45 months per year.

<sup>27</sup> This estimated data is for the middle and upper managers at central government level.

<sup>28</sup> For approximately 70% of employees, performance related pay amounts to 3% on average.

<sup>29</sup> Approximately.

### ***Pay compression in the civil service***

*Key contacts:* Elsa PILICHOWSKI and Edouard TURKISCH, OECD GOV

Public sector pay is a significant contributor to the attractiveness of the public sector as a career, particularly for technical specialists, and is of course a significant part of overall compensation costs. Vertical compression provides insights into the attractiveness of senior positions for existing staff seeking career advancement within the public sector. A highly compressed wage structure may reduce civil servants' incentives to pursue a long career in the civil service by reducing the appeal of promotions, and thus may adversely affect productivity. However, high pay compression could also be a result of higher-than-market-level salaries at lower levels of the organisation, or indeed a consequence of contracting out tasks at lower levels.

#### **Definition and measurement**

Vertical pay compression is the ratio between the medians of the first and ninth deciles of pay levels. The indicator can be distorted by the existence of significant in-kind benefits, if the monetary value is not reflected in the reported pay levels. Few countries have reliable data that allow the comparison of compression across countries.

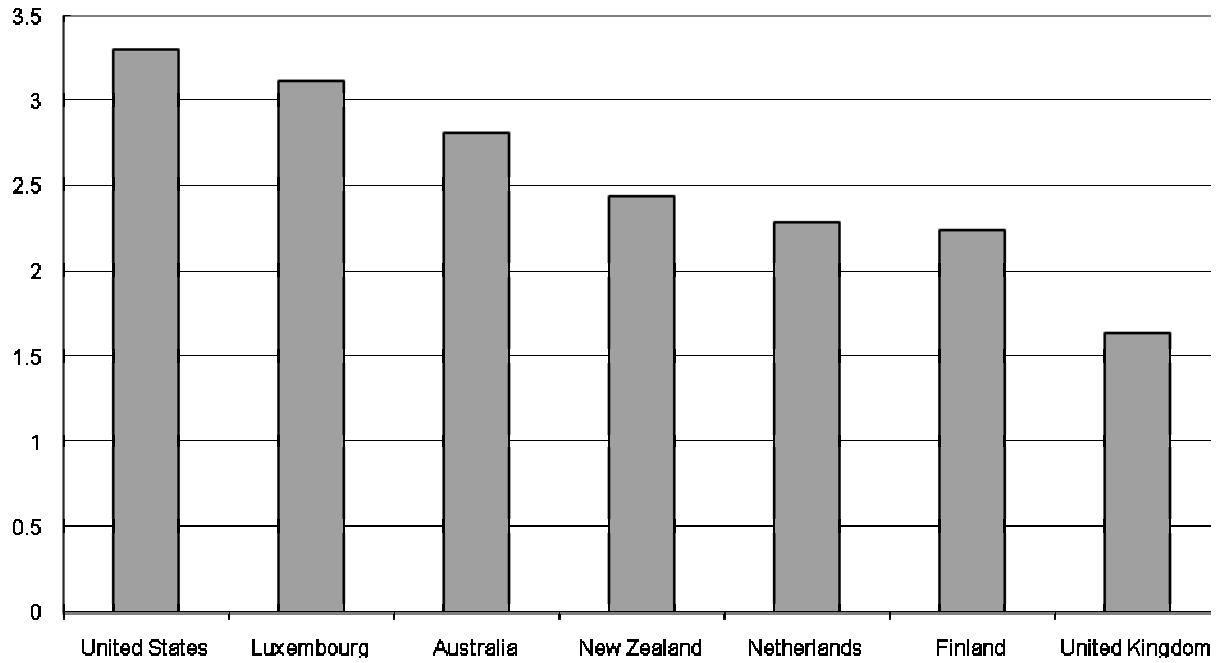
#### **Highlights**

In the civil service at the national/federal level, the picture is very mixed across countries. By comparing the recent trends in the dispersions of earnings, we can see a very diverse picture across countries, with increases in the United States and Australia, but decreases in Luxembourg, the Netherlands, Finland or the United Kingdom.

These figures cover different realities. Broadly, in the United States, there is a trend towards an even wider dispersion between all levels of salaries in the civil service, whereas in Australia, the relative increase in the gap between salaries is due to an increasing gap between the lower salaries and the rest.

Earnings distribution across the different types of earnings also varies extensively across governments. On average, performance related pay remains a relatively minor part of public servants' overall earnings.

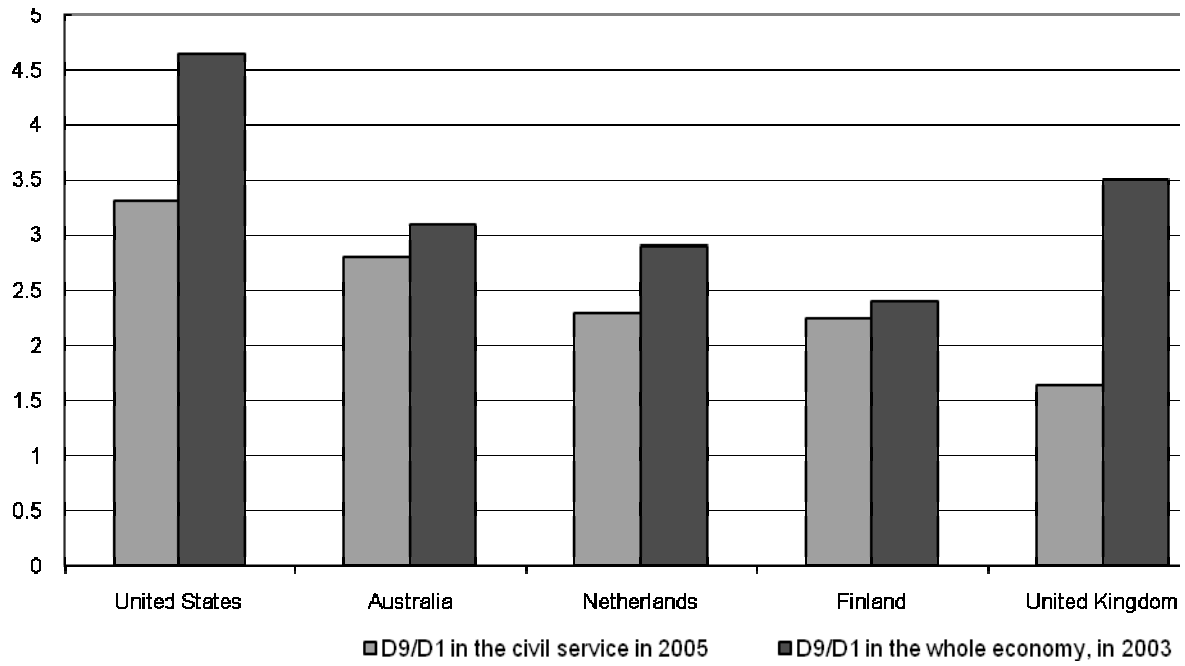
**Figure HRM10. Dispersion of earnings in the civil service at the national/federal level in selected OECD countries, 2005**



Source: OECD (GOV), 2006 Strategic Human Resources Management Survey.

Note: The ratio is measured by dividing the 9th deciles to the 1st deciles of earnings.

**Figure HRM11. Trends in the dispersion of earnings in the civil service at the national/federal level across OECD countries, 2003 and 2005**



Source: OECD (GOV), 2006 Strategic Human Resources Management Survey.

## Regulatory management quality

### *Methodological framework*

*Key contacts:* Stéphane JACOBZONE and Gregory BOUNDS, OECD GOV  
and Claire MIGUET, OECD Science and Technology

The concept of quality in regulatory management systems as developed by the OECD programme on Regulatory Reform fundamentally refers to the correspondence of a country's tools, institutions and policies to the OECD guidelines for good practice in this field<sup>30</sup>.

The dataset for this publication was derived from responses to questionnaires completed by OECD members in 1998 and 2005. These questionnaires surveyed members on the design of their systems of regulatory governance based upon the elements that the OECD had identified as good practice. Some mapping of responses was applied to account for differences in the framing of questions across the two survey instruments to enable comparisons to be made between the results of 1998 and 2005.

The construction of a composite indicator provides a more complete picture of the systems of member countries than would otherwise be gained by simply reporting the discrete responses to individual variables. The development of relevant composite indicators of regulatory quality rests on capturing appropriate key elements of regulatory quality through a series of related questions, and on devising a means of constructing the indicators through choosing how to frame the indicators, selecting questions to be grouped together and calibrating the weights to be employed.

This final step enhances the analysis of the data through a process of allocating weights to the components, according to their relative significance, based on their relationship to the core elements of the OECD principles discussed above. The allocation of weights was based on expert opinion and discussed and agreed with members.

Whilst the composite indicators enable us to order countries according to their responses, it should be noted that systems are never unassailable and that the presence of regulatory quality systems is not in itself a guarantee of regulatory quality in any particular country or of the quality of any particular regulation. Furthermore, countries which have recently introduced regulatory quality systems may not yet have reaped the benefits of improved regulatory quality. Accordingly, conclusions are not being proposed from the data about the relationship of regulatory quality management systems and regulatory quality *per se* for any particular country.

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<sup>30</sup> The analysis in this section is based on the 2007 publication *Regulatory Management Systems Across OECD countries – Indicators of Recent Achievements and Challenges*.

## ***Use of Regulatory Impact Analysis (RIA)***

*Key contacts:* Stéphane JACOBZONE, Gregory BOUNDS, OECD GOV  
and Claire MIGUET, OECD Science and Technology

Regulatory Impact Analysis (RIA) is a system of analysis focused on assessing the positive and negative effects of proposed and existing regulations. As employed in OECD countries it encompasses a range of methods, but at its core it is an evidence based approach to policy making. The OECD has identified that the conduct of RIA within an appropriate systematic framework underpins the capacity of governments to ensure that regulations are efficient and effective in a changing and complex world.<sup>31</sup> This message has been widely received among member countries where there has been a steady trend in the adoption of RIA since 1974.

### **Definition and measurement**

There are many elements which contribute to the robustness and effectiveness of RIA as a systematic means of improving regulation. The aim of this indicator is to identify the extent to which these elements are being applied consistently among member countries. They include whether RIA is: (i) conducted on all new regulation; (ii) required to be publicly consulted on and published; (iii) required by law; (iv) subject to independent quality assessment; and (v) applied to all regulatory instruments. Other salient features are the extent to which RIA routinely requires a quantitative analysis of costs and benefits, and assesses impacts on competition, market openness and small business. The most sophisticated RIA systems will include all the above elements and also extend to a consideration of the distributional effects across society, as well as including risk assessment in the evaluation of regulatory proposals.

### **Highlights**

The 2005 survey of Regulatory Quality Indicators of OECD countries suggests that all member countries now routinely carry out RIA on new regulation before it is made. However, the more interesting question is whether RIA is being done well. While the 2005 survey results suggest that the uptake of RIA since 1998 is now widespread, an examination of the detail in the responses also illustrates that the extent to which RIA is applied in practice to the development of regulation within member countries is highly variable.

It is difficult to get to the heart of whether RIA systems are functioning well or not just by looking at the components of the RIA systems. However, it is possible to group countries broadly according to how developed their RIA systems are, based on the extent to which they have embedded the various practices associated with systems of regulatory quality, and hypothesise that this results in better quality regulation. Based on their responses some countries have systems of RIA with multiple components, including the legal requirement that they are applied to all regulation, the inclusion of rigorous benefit-cost analysis, and the use of independent oversight. Other countries have fewer of the key elements considered to be best practice incorporated in their RIA systems.

Looking at the range of countries which report the use of explicit RIA processes in 2005, Korea, Mexico, Canada, the United Kingdom, Iceland, Germany, the Slovak Republic, Poland, Greece, Belgium, New Zealand, Finland, the United States, Italy, Austria and Australia have systems that include a number of the elements endorsed in the OECD guidelines. Countries which have fewer elements include Turkey,

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<sup>31</sup> 2005 OECD Guiding Principles for Regulatory Quality and Performance  
[www.oecd.org/dataoecd/19/51/37318586.pdf](http://www.oecd.org/dataoecd/19/51/37318586.pdf).

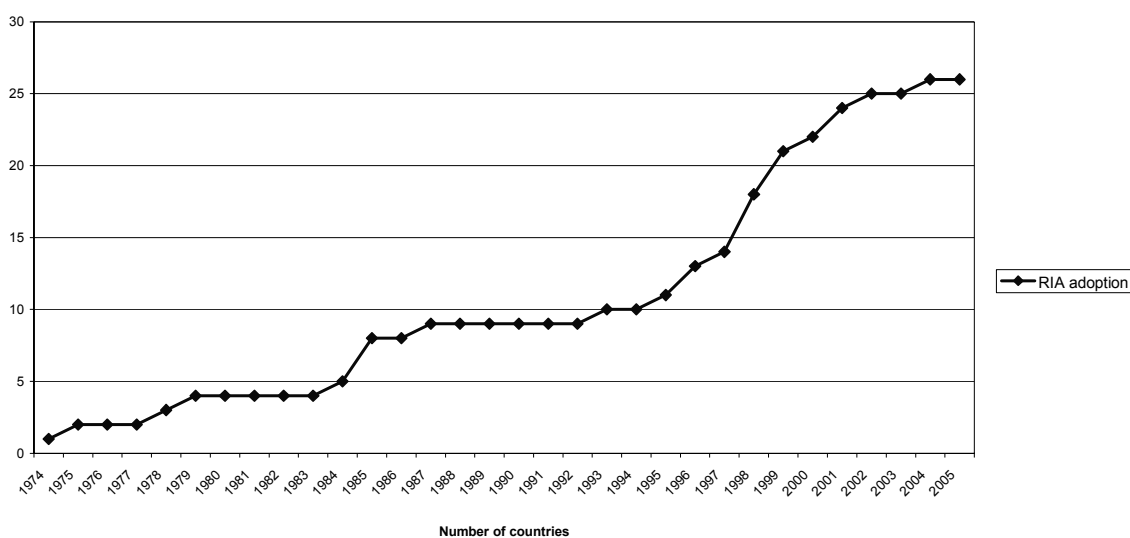


Japan, Portugal and France. The graph on the extent of RIA processes illustrates a slightly different order of countries when the issues that must be included in an RIA are considered, with the United Kingdom, the United States and Australia reporting the widest analytical requirements.

While it is clear that these systems have been introduced by countries with the intention of improving regulatory systems, the indicator does not provide information about the quality of the actual regulation in the countries. The effectiveness of RIA systems can be undermined by the absence of certain key factors, such as a lack of political will, inadequate training of regulators or the absence of an effective oversight body.

Nevertheless, the construction of a composite indicator of responses to questions in 1998 and 2005 covering the various elements of robust RIA systems suggests that, in general, RIA systems are becoming increasingly comprehensive across nearly all countries. Notably, some countries that have a longer history of RIA have more developed systems. However, there also appears to be a general trend towards the adoption of many of the elements of a robust RIA system particularly in newly designed systems of RIA. A more challenging survey goal will be to identify if this trend continues and proves to be effective in promoting and delivering regulatory quality.

**Figure RMQ1. Trend in RIA adoption across OECD countries**

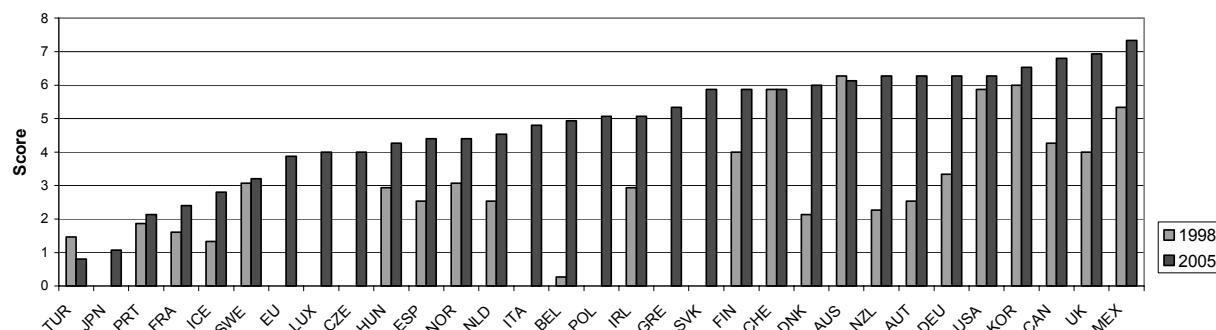


Source: OECD (GOV).

Note: This represents the trend in the number of countries with a formal RIA requirement (beyond a simple budget or fiscal impact). See Table RIA adoption in OECD Countries for exact date of country by country adoption.

Figure RMQ2. Uptake of overall RIA processes

1998-2005



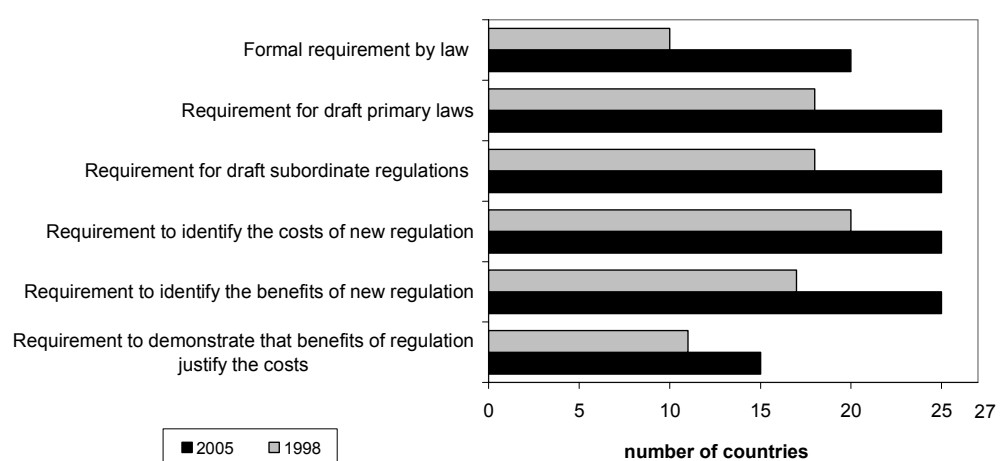
Is regulatory impact analysis (RIA) carried out before new regulation is adopted?  
 Is a government body outside the ministry sponsoring the regulation responsible for reviewing the quality of the RIA?  
 Is RIA formally required by law or by a similarly binding legal instrument?  
 Is RIA required for draft primary laws?  
 Is RIA required for draft subordinate regulations?  
 Are regulators required to identify the costs of new regulation?  
 Are regulators required to identify the benefits of new regulation?  
 Does the RIA require regulators to demonstrate that the benefits of new regulation justify the costs?  
 Are RIA documents required to be publicly released for consultation?  
 Is the RIA required to include assessments of other specific impacts: impacts on competition, impacts on market openness, impacts on small businesses, impact on specific social groups (distributional effects across society)  
 Is risk assessment required when preparing a RIA?  
 Are these reports published?

**Weights:**  
 if no=0, in some cases=0.25, always=0.5  
 if yes, weight=0.75  
  
 if no=0, in other selected cases & only for major reg=0.25, always=0.5  
 if no=0, in other selected cases & only for major reg=0.25, always=0.5  
 if no=0, in other selected cases & only for major reg=0.25, always=0.5  
 if no=0, in other selected cases & only for major reg=0.25, always=0.5  
 if no=0, in other selected cases & only for major reg=0.25, always=0.5  
 if no=0, in other selected cases & only for major reg=0.25, always=0.5  
 if no=0, in other selected cases & only for major reg=0.25, always=0.5  
 if no=0, in other selected cases & only for major reg=0.25, always=0.5  
 if no=0, in other selected cases & only for major reg=0.25, always=0.5  
 if no=0, in other selected cases & only for major reg=0.25, always=0.5  
 if no=0, in other selected cases & only for major regulation=0.125, always=0.25  
 if yes, weight=0.5

The total scores for this indicator have been normalised to a total of 8.  
 See Q11 / 2005 OECD regulatory indicators questionnaire

Source: OECD (GOV).

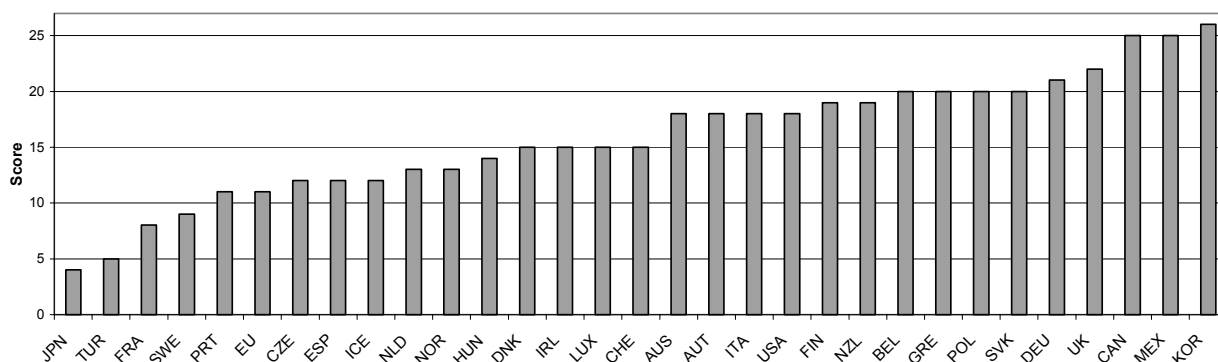
Figure RMQ3. Regulatory Impact Analysis: requirement for RIA



Source: OECD (GOV).

Notes: See Q1: d(iv),d(v),d(vi), 2005 OECD Regulatory Indicators Questionnaire, GOV/PGC/REG(2005)12/ANN1. The sample includes 27 countries. The responses of the EU, Luxembourg, Poland and the Slovak Republic could not be taken into account since no data were available for 1998.

Figure RMQ4. Explicit RIA processes in 2005



- a) Is regulatory impact analysis (RIA) carried out before new regulation is adopted?
- b) Is a government body outside the ministry sponsoring the regulation responsible for reviewing the quality of the RIA?
- c(i) Is there a clear "threshold" for applying RIA to new regulatory proposals?
- d(i) Is RIA formally required by law or by a similarly binding legal instrument?
- d(ii) Is RIA required for draft primary laws?
- d(iii) Is RIA required for draft subordinate regulations?
- d(iv) Are regulators required to identify the costs of new regulation?  
If yes: Does the impact analysis include the quantification of the costs?
- d(v) Are regulators required to identify the benefits of new regulation?  
If yes: Does the impact analysis include quantification of the benefits?
- d(vi) Does the RIA require regulators to demonstrate that the benefits of new regulation justify the costs?
- d(vii) Are RIA documents required to be publicly released for consultation?
- h) Are *ex post* comparisons of the actual vs predicted impacts of regulations made?
- i) Is there an assessment of the effectiveness of RIA in leading to modifications of initial regulatory proposals undertaken?

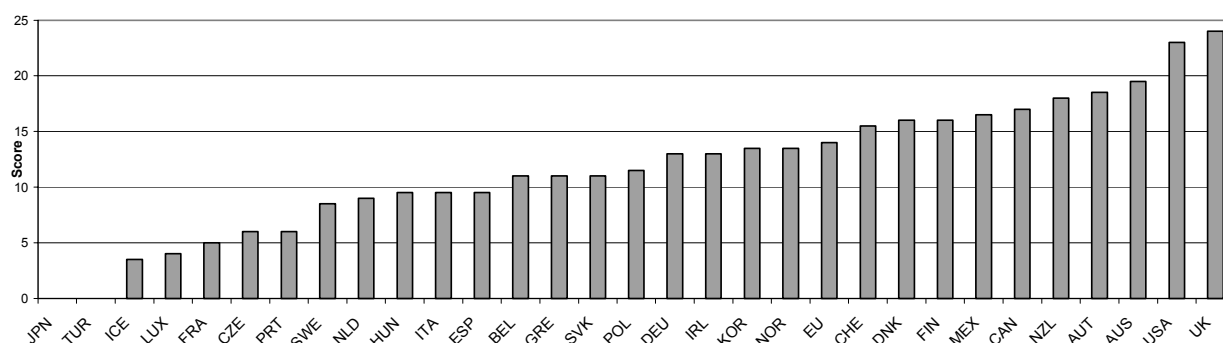
Weights:

- a) if no=0, in some cases=1, always=2
- b) if yes, weight=3
- c(i), if yes, weight=2
- d(i) to d(iv), if no=0, in other selected cases=1, only for major regulation=1, always=2
- d(viii), if no=0, in other selected cases=1, only for major regulation=1, always=2
- h) if yes, weight=1
- i) if yes, weight=1

See Q11 / 2005 OECD regulatory indicators questionnaire.

Source: OECD (GOV).

Figure RMQ5. Extent of RIA processes in 2005



d(ix) Is the RIA required to include assessments of other specific impacts: Impacts on the budget, impacts on competition, impacts on market openness, impacts on small businesses, impact on specific regional areas, impact on specific social groups, impact on other groups (charities, not for profit sector), impact on the public sector

Weights:

d(ix), Impacts on the budget, competition, market openness, small businesses, specific regional areas, specific social groups, the public sector: if no=0, in other selected cases=1, only for major regulation=1, always=2

d(ix), Impact on other groups (charities, not for profit sector): if no=0, in other selected cases=0.5, only for major regulation=0.5, always=1

e) Is risk assessment required when preparing a RIA? in all cases, for Health and safety regulation, for environmental regulation

If "yes": Does the risk assessment require quantitative modelling?

f(i) Are RIAs required to explicitly consider compliance and enforcement issues when preparing new regulations?

f(ii) Are reports on the level of compliance with the above RIA requirements prepared?

f(iii) Are these reports published?

e) if no=0, in other selected cases=0.5, only for major regulation=0.5, always=1

f(i) if yes, weight=1

f(ii) if no=0, ad hoc basis=1, regulary=2

f(iii) if yes, weight=2

Source: OECD (GOV).

### ***Quality of consultation procedures***

*Key contacts:* Stéphane JACOBZONE, Gregory BOUNDS, OECD GOV  
and Claire MIGUET, OECD Science and Technology

The quality of government consultation procedures is integral to the quality of regulation. In 1997, the OECD identified ten best practices for maximising the benefit from Regulatory Impact Assessment (RIA).<sup>32</sup> Among these was the observation that public involvement in RIA is essential for ensuring the quality of analysis and of the decisions that are subsequently taken. In many cases, parties that are likely to be affected by regulation will have access to better information than regulators about the costs and benefits of regulatory proposals. Proposals that are informed by public consultation are therefore more likely to be efficient and effective and less prone to the risk of regulatory failure. Transparency also encourages trust and promotes compliance with regulations. It is necessary therefore that consultation processes are built in at key stages of the regulatory process and that there is a facility for the outcome of consultation to influence the final regulatory proposal.

#### **Definition and measurement**

In practice there are many different mechanisms for engaging the public in the development of regulations. The most effective means will provide formalised opportunities for all affected parties (citizens and businesses) to be informed about the potential implications of proposals under consideration and to express a view. This depends upon having routine, structured mechanisms for consultation that permit adequate time periods for the consideration of all relevant regulatory proposals, whether made in legislation or regulation, and for the submission of views. Consultation will be less effective if it is *ad hoc* or confined to a select group.

For consultation to be effective, information about the regulatory proposals must reach the relevant groups and adequate time must be allowed for the public to consider and respond to regulatory proposals. There are no hard and fast rules about how consultation should be undertaken or the time period which should be allowed for responses. In general, however, a longer period should be permitted where the regulatory proposals are complex and consultation methods should identify and target interested groups to increase the likelihood of consultation being effective.

#### **Highlights**

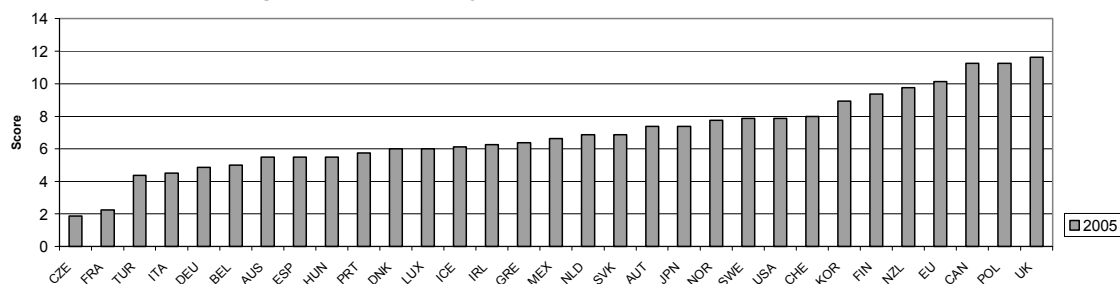
The survey results indicate that consultation on new regulation is a routine practice among OECD countries. However, the methods have changed from 1998-2005, and not in a uniform way. This reflects the fact that governments are looking for new, more effective ways of consulting with stakeholders. There is also considerable variation in the number of days that countries routinely permit for consultation on a new regulatory proposal. While the construction of the composite indicator generally allocates marginally higher weights to longer periods, there may also be diminishing returns to protracted consultation periods. Accordingly, it is difficult to specify an ideal period as a case by case approach is often warranted.

Reading the results, the United Kingdom, Poland, Canada, New Zealand, the European Union, Finland, Korea, Switzerland, Sweden, Iceland and the United States had slightly more developed standards for consultation processes according to the criteria used because they routinely required broad circulation of primary laws and subordinate regulatory proposals for public comment. At the other end of the scale, the Czech Republic, France, Turkey, Italy, Germany, Belgium, Australia, Hungary and Spain reported relatively less comprehensive consultation practices.

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<sup>32</sup> OECD 1997, *Regulatory Impact Analysis, Best Practice in OECD Countries* PUMA.

Figure RMQ6. Quality of consultation processes in 2005



a) Is public consultation with parties affected by regulations a routine part of developing draft primary laws?  
 b) Is public consultation with parties affected by regulations a routine part of developing draft subordinate regulations?  
 If the answer is "always" or "in some cases" to a) or b): Primary laws b(i) Is consultation mandatory?  
 If the answer is "always" or "in some cases" to a) or b): Subordinate regulation b(i) Is consultation mandatory?  
 b(ii) What forms of public consultation are routinely used: Primary laws & Subordinate regulation  
 - Informal consultation with selected groups? - Broad circulation of proposals for comment? - Public notice and comment?  
 - Public meeting? - Internet? - Advisory group? - Preparatory public commission/committee? - Other?  
 b(iii) Can any member of the public choose to participate in the consultation? Primary laws & Subordinate regulation  
 c(i) What is the minimum period for allowing consultation comments inside government?  
 c(ii) What is the minimum period for allowing consultation comments by the public, including citizens and business?  
 d(i) Are the views of participants in the consultation process made public? Primary laws & Subordinate regulation  
 d(ii) Are regulators required to respond in writing to the authors of consultation comments? Primary laws & Subordinate regulation  
 d(iii) Are the views expressed in the consultation process included in the regulatory impact analysis? Primary laws & Subordinate regulation  
 d(iv) Is there a process to monitor the quality of the consultation process? (e.g. surveys or other methods, please specify in comments) Primary laws & Subordinate regulation

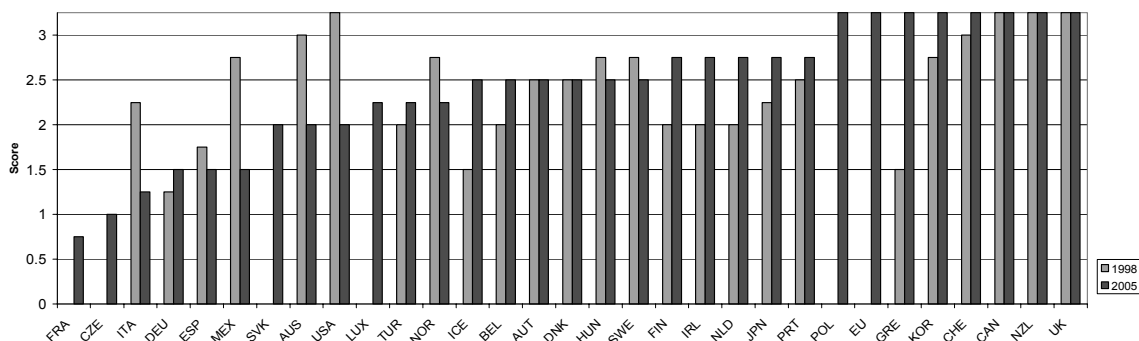
Weights:  
 if no=0, in some cases=0.5, always=1  
 if no=0, in some cases=0.5, always=1  
 if yes, weight=0.5  
 if yes, weight=0.5  
 if ticked, weight=0, 0.25, 0.5, 0.25, 0.25, 0.25, 0.25, 0.125  
 if yes, weight=0.5  
 c(i) if 1 week=0.125, 2 weeks=0.25, 3 weeks=0.375, 4 weeks=0.5  
 c(ii) if 2 weeks=0.125, 3 weeks=0.25, 4 weeks=0.375, 6 weeks=0.5, 8 weeks=0.375, 12 weeks=0.25  
 until end, if yes, weight=0.5 except d(ii)

See Q10 / 2005 OECD regulatory indicators questionnaire.

Source: OECD (GOV).

Figure RMQ7. Quality of consultation processes

1998-2005



Is public consultation with parties affected by regulations a routine part of developing draft primary laws?  
 What forms of public consultation are routinely used: Primary laws  
 - Informal consultation with selected groups?  
 - Broad circulation of proposals for comment?  
 - Public notice and comment?  
 - Public meeting?  
 - Advisory group?  
 Can any member of the public choose to participate in the consultation? Primary laws  
 Are the views of participants in the consultation process made public? Primary laws

Weights:  
 if no=0, in some cases=0.5, always=1  
 if yes, weight=0  
 if yes, weight=0.25  
 if yes, weight=0.5  
 if yes, weight=0.25  
 if yes, weight=0.25  
 if yes, weight=0.5  
 if yes, weight=0.5  
 if yes, weight=0.5

See Q10 / 2005 OECD regulatory indicators questionnaire

Source: OECD (GOV).

Notes: See Q10:c(i),c(ii) / 2005 OECD regulatory indicators questionnaire / GOV/PGC/REG(2005)12/ANN1. Regarding the minimum period for allowing consultation comments inside government: data are not available for Denmark, Spain, Canada, Greece, Japan and New Zealand. Regarding the minimum period for allowing consultation comments by the public, including citizens and business: data are not available for Portugal and Czech Republic.

### ***Facilitating licences and permits***

*Key contacts:* Stéphane JACOBZONE, Gregory BOUNDS, OECD GOV  
and Claire MIGUET, OECD Science and Technology

Administrative simplification is one of a group of processes which aim to reduce regulatory burden and improve the quality of regulation. Efforts in this area are directed at reducing the administrative burden of regulations by removing unnecessary paperwork requirements, reducing delays and streamlining application and licensing processes. An effective administrative simplification program can reduce the costs of compliance across government, thereby removing impediments to innovation and productivity and facilitating entrepreneurship and business activity. Processes to reduce and control administrative burdens differ from RIA in being focussed on existing regulation (the stock) rather than new regulation (the flow), and also in that it does not cover the economic costs of regulation, instead focusing on administrative costs. In this way administrative burden reduction is not a substitute for impact assessment. However, because it does not challenge the basis for regulation, it is not generally as controversial as more wide reaching reform activities. As a result, although it is unlikely to deliver the economic benefits of broader reform programmes, administrative burden reduction is usually easier for governments to implement and has become part of the standard apparatus for regulatory quality systems.

#### **Definition and measurement**

Measurement is becoming a key feature in administrative burden reduction with the proliferation of the standard cost model (SCM) initiative. Originally initiated in the Netherlands, the SCM is an accounting method that is being widely adopted across Europe. It involves the calculation of the costs of the administrative, or information burden, of regulations on a normally efficient business. This is then abstracted across the entire business sector in the economy. Typically, the SCM is accompanied by a burden reduction target (in monetary units) which is achieved through the consolidation and removal of information requirements, and the use of ICT and electronic record and reporting requirements.

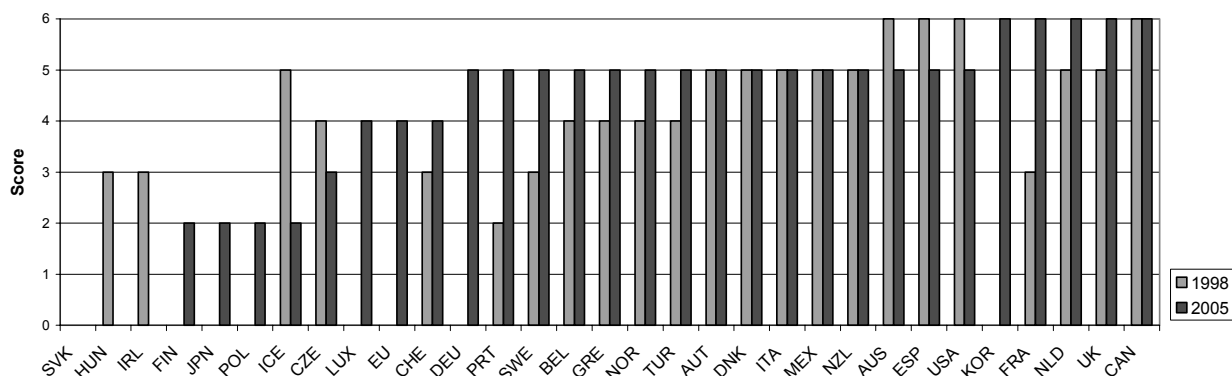
This composite indicator attempts to provide a picture of countries' relative efforts at administrative burden reduction by weighting the various initiatives according to their likely impact. It captures *ex post* and *ex ante* strategies undertaken by governments to reduce administrative burdens and facilitate licence and permits. The former includes the application of burden reduction targets across the entire economy, while the latter group includes one-stop shops to facilitate business to government interactions.

#### **Highlights**

The results for the analysis suggest that Southern European countries, such as Greece, Spain, France, Italy and Portugal, together with Korea and Mexico, put significant emphasis on this aspect of regulatory quality. While Sweden, Finland, Ireland, Japan, New Zealand and the Slovak Republic made limited use of them, the United States did not generally have recourse to any of these elements and data is missing for Australia and the EU. It appears that these particular tools were used to some extent at national level in countries such as Canada, the United Kingdom and Switzerland. However, for some countries, it should be cautioned that assessing the results of administrative burden reduction efforts only at national level might give an incomplete picture, as a significant share of licences and permits are awarded at a sub national or local level and programmes that are run at these levels of government to reduce these burdens that may not be identified in the survey.

Figure RMQ8. Reduction and control of administrative burdens

1998-2005



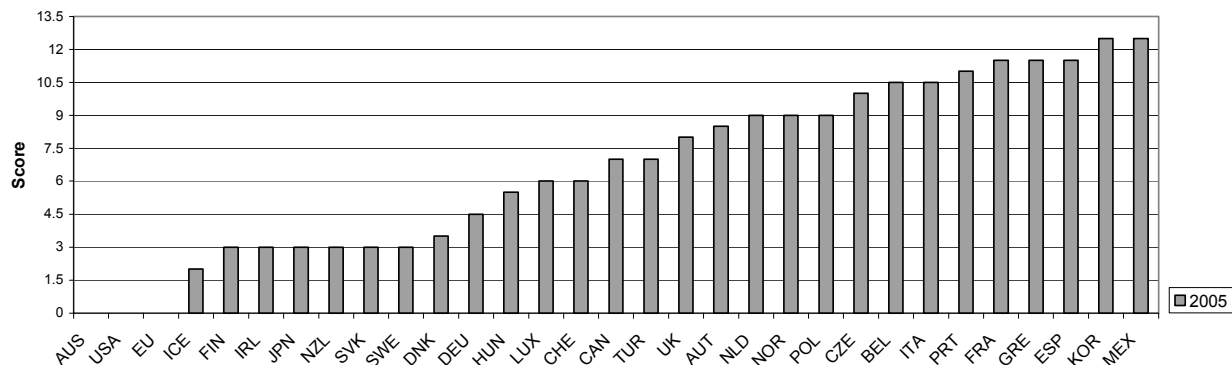
Is there an explicit government programme to reduce the administrative burdens imposed by government on enterprises and/or citizens? if yes, weight=2  
 If the answer is "yes": Does this programme include quantitative targets? if yes, weight=1  
 Which of the following strategies are used? if yes, weight=1  
 - Information and communication technologies for regulatory administration (e.g. electronic databases, online formats)  
 - Other streamlining of government administrative procedures if yes, weight=1  
 - Reallocating powers and responsibilities between government departments and/or between levels of government if yes, weight=1

See Q13 / 2005 OECD regulatory indicators questionnaire

Source : OECD (GOV)



**Figure RMQ9. Facilitating licenses, permits and administrative requirements in 2005**



Is a "silence is consent" rule used at all (i.e. that licences are issued automatically if the competent licensing office has not reacted by the end of the statutory response period)?  
 Are administrations obliged to provide the name of the person responsible for handling the application in any formal correspondence?  
 Are there single contact points ("one-stop shops") for getting information on licences and notifications?  
 Are there single contact points for accepting notifications and issuing licences (one-stop shops)?  
 Is there a programme underway to co-ordinate the review and reform of permits and licences at sub-national levels of government?  
 Has there been a clear decline in the aggregate number of licences and permits?  
 Is there a complete count of the number of permits and licences required by the national government (all ministries and agencies)?  
 Is there a program underway to review and reduce the number of licenses and permits required by the national government?

Weights:  
 if yes, weight=2  
 if yes, weight=0.5  
 if yes, weight=3  
 if yes, weight=3  
 if yes, weight=1  
 if yes, weight=2  
 if yes, weight=1  
 if yes, weight=1

See Q12 / 2005 OECD regulatory indicators questionnaire

Source : OECD (GOV)

## OUTPUT DATA

### Introduction

A number of output indicators from the health and education policy sectors are published here. Whilst in-depth analyses can be found in the sector reports themselves (*Education at a Glance* and *Health at a Glance*), the intention of highlighting them here is to demonstrate the potential of, and the need for, the development of output indicators for the machinery of public administration.

*Government at a Glance* proposes to develop and publish key intermediate output indicators for the machinery of public administration. As discussed earlier in this paper, measuring these is often less straightforward than for the more visible front line areas of government, such as the health, education, transport or criminal justice policy sectors. In the field of public administration, we need to look at the specific outputs of our part of the production chain in functional areas such as regulation, HRM, resource collection and budgeting. Outputs from these areas are intermediate outputs within the whole chain of producing public services, enabling front line services to be delivered to citizens. Relatively little research has been conducted into this area to date. As we move towards *Government at a Glance* over the next two years, indicators from this area will be added.

## Health

### *Average length of stay in hospitals for acute care*

*Key contact:* Gaetan LAFORTUNE, OECD Health

The average length of stay in hospitals (ALOS) is often treated as an indicator of efficiency. All other things being equal, a shorter stay will reduce the cost per discharge and shift care from inpatient to less expensive post-acute settings. However, shorter stays tend to be more service intensive and more costly per day. Too-short stays could also cause adverse effect on health outcomes or reduce the comfort and recovery of the patient. If this leads to a rising re-admission rate, costs per episode of illness may fall only slightly, or even rise.

#### **Definition and measurement**

Average length of stay (ALOS) for acute care refers to the average number of days (with an overnight stay) that patients spend in a public or private hospital. It is generally measured by dividing the total number of days spent by all patients in hospitals during a year by the number of admissions or discharges.

The proposed definition of “acute care” includes all the functions of care covered under “curative care” as defined in the System of Health Accounts Manual (OECD, 2000a). However, there are variations across countries in the functions of care included/excluded in “acute care”, thereby limiting data comparability (*e.g.* whether or not beds for rehabilitation, palliative care and long-term care are included).

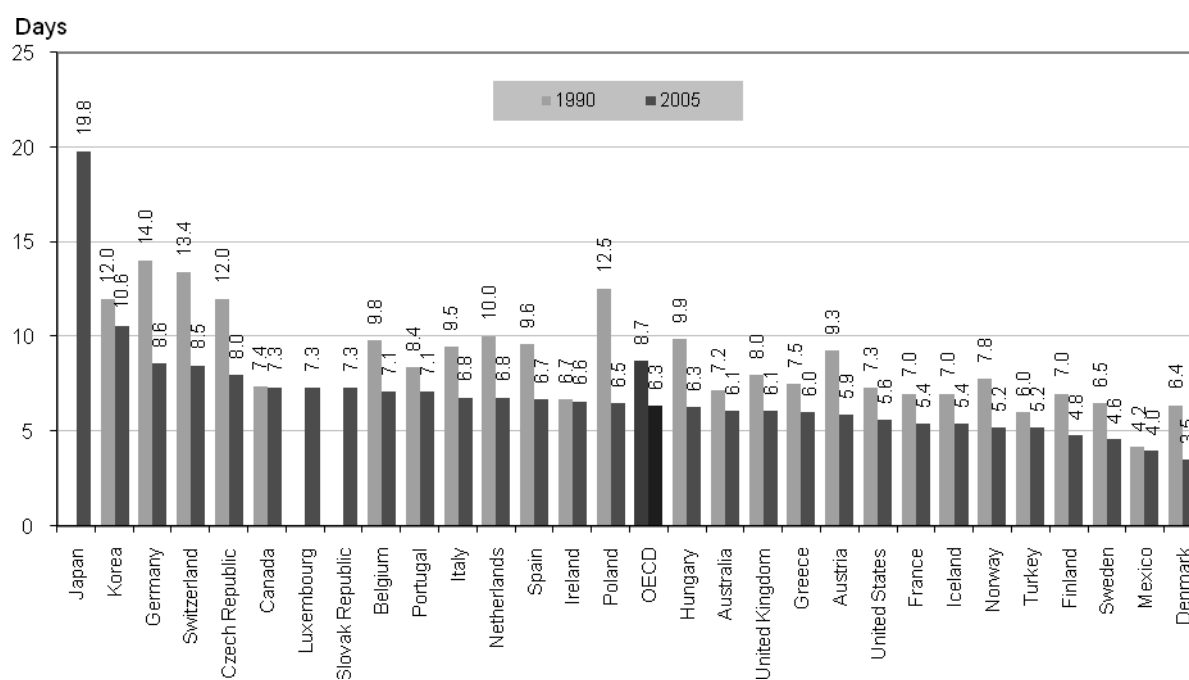
Cross-country comparisons should therefore be interpreted with caution.

#### **Highlights**

In 2005, OECD countries showed large variation in ALOS for acute care. This was relatively low (less than five days) in some Nordic countries (Denmark, Finland, Sweden) and Mexico, and relatively high (more than eight days) in Japan, Korea, Germany and Switzerland (Figure HEA.1). Several factors can explain cross-country differences. Short stays in Finland are linked, at least partly, to the availability of beds for convalescent patients in health centres (OECD, 2005a). Conversely, the high ALOS for acute care in Korea can be explained partly by the use of “acute care” beds for chronically ill patients (OECD, 2003b). In Japan, abundant supply of beds might have provided hospitals with incentives to keep patients longer (Jeong, 1994). Financial incentives inherent in hospital payment methods can also influence length of stay. For example, predominant bed-day payments in Switzerland have encouraged long stays in hospitals (OECD, 2006a).

Average length of stay for acute care has fallen in nearly all OECD countries – from 8.7 days in 1990 to 6.3 days in 2005 for the 25 countries for which consistent data over time are available (Figure 32.1). ALOS fell particularly quickly in countries which started with relatively high levels in 1990 (Germany, Poland, Switzerland, and the Czech Republic). Several factors explain this decline, including the use of less invasive surgical procedures and changes in hospital payment methods to prospective pricing systems and the expansion of early discharge programmes which enable patients to return to their home to receive follow-up care.

Figure HEA1. Average length of stay for acute care, 1990 and 2005 (or closest year available)



Source: OECD Health Data 2007.

***Hospital discharges***

*Key contact:* Gaetan LAFORTUNE, OECD Health

Discharge rates are an important measure of hospital activity. However, limits to data comparability make it difficult to analyse cross-country variation. Some countries include treatments not requiring overnight stays (same-day separations), and others report transfers across hospital units (see “Definition and measurement” below). In addition, hospital discharge rates do not take into account differences in case mix (the mix of the conditions leading to hospitalisation).

**Definition and measurement**

Discharge is defined here as the release of an inpatient from an acute care institution after admission for a period of hospitalisation. It normally includes deaths in hospital following inpatient care. Same-day separations are usually excluded, with the exceptions of the following countries which include same-day separations for all or part of the period: Austria (for the period 1989-2002), the Czech Republic (before 1995), Finland, France, Hungary (before 2004), Italy (after 2004), the United Kingdom and the United States. Transfers to other care units within the same institution are generally excluded, with the exception of the Czech Republic and Japan where these are included.

There are a few other limitations in the comparability of data on hospital discharges. Some countries do not cover the whole of the health service. For instance, data for Denmark, Ireland, Mexico, Poland and the United Kingdom are restricted to public or publicly funded hospitals only. Data for Portugal relate only to hospitals in Mainland (excluding the Islands of Azores and Madeira), and data on Spain cover only 85% of all hospitals. Ireland excludes discharges related to pregnancy and childbirth and certain conditions originating in the perinatal period. Healthy babies born in hospitals are excluded completely (or almost completely) in some countries (*e.g.*, Canada, Germany before 2004, the United States). The source of the information can also differ although most data come from hospital administrative records.

**Highlights**

In 2005, discharge rates were the highest in Austria (Table 34.1). Four of the next highest five countries included same-day separations (France, Finland and the United Kingdom) or transfers to other care units within the same institution (Czech Republic) in their data. Discharge rates were also high in Hungary and Germany. They were the lowest in Mexico and Turkey.

Discharge rates have increased over time in all the countries reporting same-day separations in the rate (Panel A and Panel B). In over half of the countries where same-day separations are excluded, discharge rates increased at least slightly between 1995 and 2005. The increase was particularly strong in Korea and Turkey, which started with relative low levels in 1995. It was also relatively strong in Norway and Germany. Discharge rates remained fairly stable in Portugal, Luxembourg and the Netherlands, while they fell in Canada, Ireland, Sweden, Iceland and Australia.

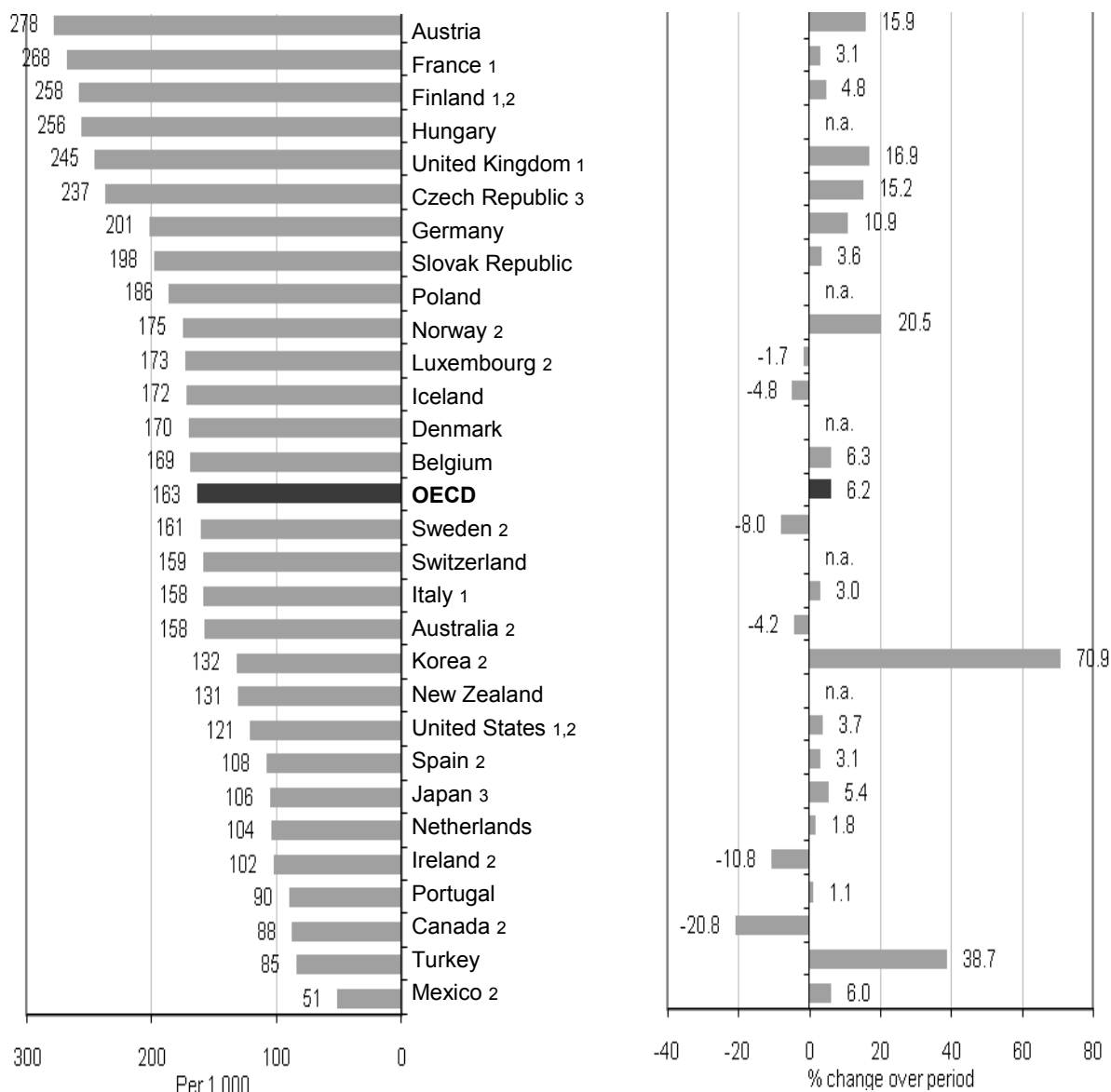
Trends in hospital discharges reflect several factors that are not easily disentangled. Demand for hospitalisation may grow as populations age. Elderly populations account for a disproportionately high percentage of overall hospital discharges in all countries; for example, in the United States, 24% of all hospital discharges in 2004 concerned people aged 75 years and over, up from 18% in 1990 (NCHS, 2006). Ageing is expected to drive an increase in demand for hospital inpatient services in the United States during the next ten years by almost 1% annually (Strunk *et al.*, 2006). However, population ageing may be a less important factor than changing practice patterns attributable to advancing medical technology. For example, hospital stays involving an angioplasty performed on persons aged 75 and over rose from 3.7 to

8.3 per 1 000 population between 1991-92 and 2001-02 in the United States (NCHS, 2006a). Caution is nonetheless required in interpreting trends in discharge rates. The development and diffusion of new technology may drive a rise in hospitalisation but also a reduction if it entails a shift from overnight to same-day procedures (Nallamotheu *et al.*, 2007). It is not possible to predict how hospitalisation would have evolved in the absence of such new treatments.

**Figure HEA2. Hospital discharges per 1 000 population, 2005 (or closest year available)**

**Panel A. Hospital discharges per 1 000 population, 2005 (or latest year available)**

**Panel B. Percentage change in hospital discharges, per 1 000 population, 1995 to 2005**



1. Includes same-day separations.
2. Excludes discharges of healthy babies born in hospital.
3. Includes transfers from one hospital unit to another.

Source: OECD Health Data 2007.

## ***Consultations with doctors***

*Key contact:* Gaetan LAFORTUNE, OECD Health

A typical output of health services is the number of consultations with doctors. The analysis of this indicator shows the potential of cross-country output measurement.

### **Definition and measurement**

Consultations with doctors refer to the number of ambulatory contacts with physicians (both generalists and specialists). Consultations may take place in doctors' offices or clinics, in hospital outpatient departments and, in some cases, in patients' own homes. In some countries (such as Australia, Canada, Denmark, the Netherlands and the United Kingdom) patients are required, or given incentives, to consult a general practitioner (GP) "gatekeeper" about any new episode of illness. The GP may then refer them to a specialist, if indicated. In other countries (such as Belgium, Japan or Switzerland) patients may approach specialists directly.

Estimates reported in OECD Health Data come from administrative sources in most countries, but in some (Italy, the Netherlands, New Zealand, Spain, Switzerland, as well as data on GP consultations for the United Kingdom) they come from health interview or household surveys (that is, they are self-reported). Estimates obtained from administrative sources tend to be higher than those obtained from surveys because of incorrect recall and non-response rates.

### **Highlights**

The reported numbers of consultation with all doctors per capita varied greatly across OECD countries in 2005, ranging from over 11 in Japan and Korea, and in the Czech Republic, Hungary and the Slovak Republic, to less than three in Mexico and Sweden (Figure HEA2). The OECD average was nearly seven consultations per year. Although differences in health status and economic factors such as out-of-pocket payments, physician density and the way that doctors are paid, are likely to play a part in determining these variations, it seems likely that cultural factors also play an important role. Japan and Hungary are among the countries with the highest consultation rates but they report very different levels of health status and have very different physician density. There are some signs that countries which pay their doctors mainly by fee-for-service tend to have above-average consultation rates, and countries which pay their doctors mainly by salary and capitation tend to have below-average consultation rates. However, other countries, such as Switzerland and the United States which pay mainly by fee-for-service, have below-average rates.

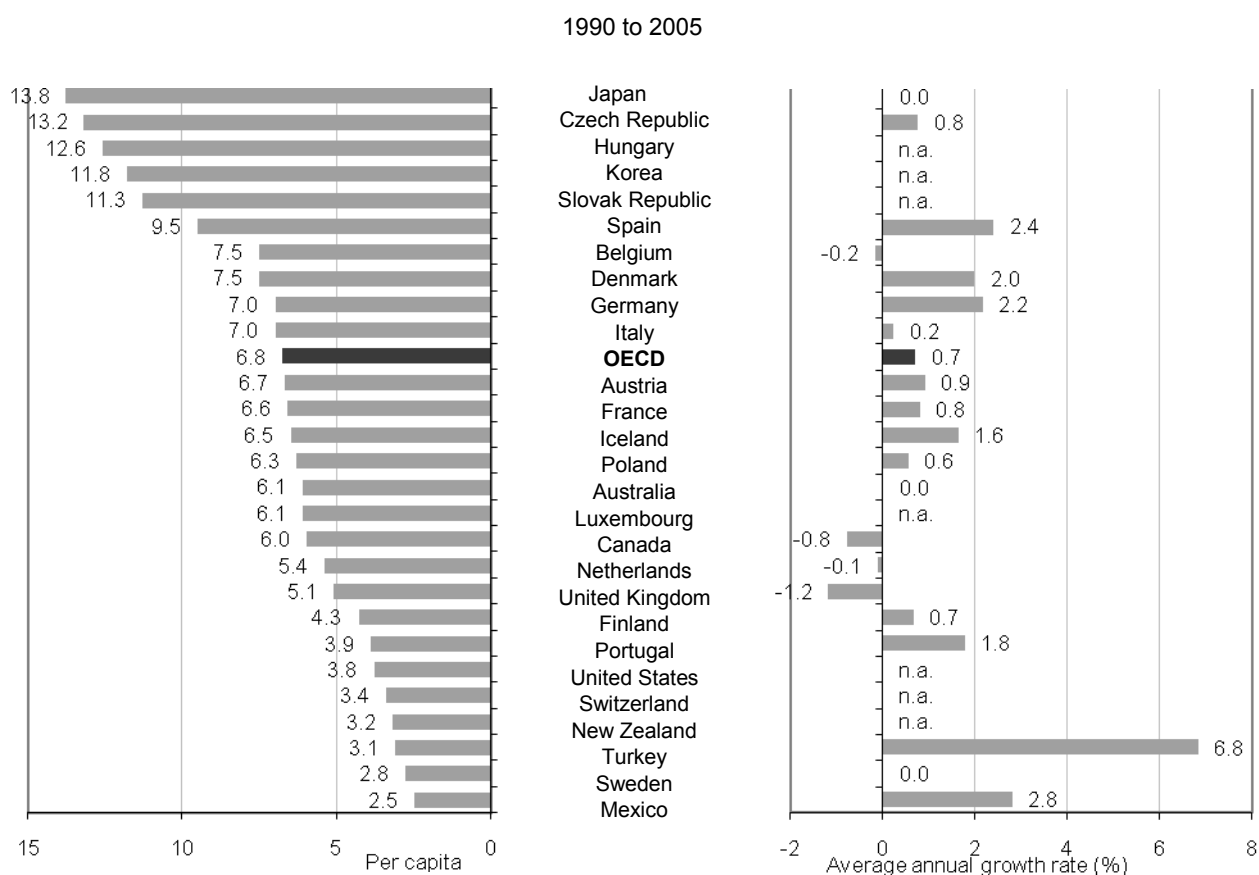
Consultation rates rose in most countries which reported data over the period 1990–2005. However, they fell modestly in Belgium, Canada, the Netherlands and the United Kingdom (Figure HEA3). Turkey reported the steepest rise in consultations per capita, at nearly 7% *per annum*, presumably as a result of a fairly rapid rate of increase in physician density and a sharp increase in public expenditure on health care over part of this period and improved access to health care for patients on low incomes under the Green Card system (Savas *et al.*, 2002). The average yearly increase across all the OECD countries reporting data was 0.7%.

Information on consultations can be used to estimate annual numbers of consultations per doctor across OECD countries. Figure HEA3 shows the variation in this statistic across OECD countries in 2005. It should *not* be taken as a measure of doctors' productivity, partly because consultations can vary in length and in effectiveness and partly because it excludes the work doctors do on inpatients, on administration and on research. Also, it is subject to some comparability limitations regarding the number of practising

physicians. Nevertheless, this statistic varies nearly nine-fold across OECD countries. Again, it is possible that some cultural factors play a part, because there is clustering of the two OECD Asian countries and the Central and Eastern European member countries at the top of the table. On average, there are 2 511 consultations per doctor per year across the OECD area, or about ten per working day.

Consultations per doctor fell between 1990 and 2005 in most OECD countries which reported data, because doctor numbers have been rising faster than consultations (Figure HEA4). On average, consultations per doctor fell by 0.9% *per annum* across OECD countries which reported data.

**Figure HEA3. Doctors consultations per capita, 2005 (or closest year available), and average annual growth rate in number of doctors consultations per capita**

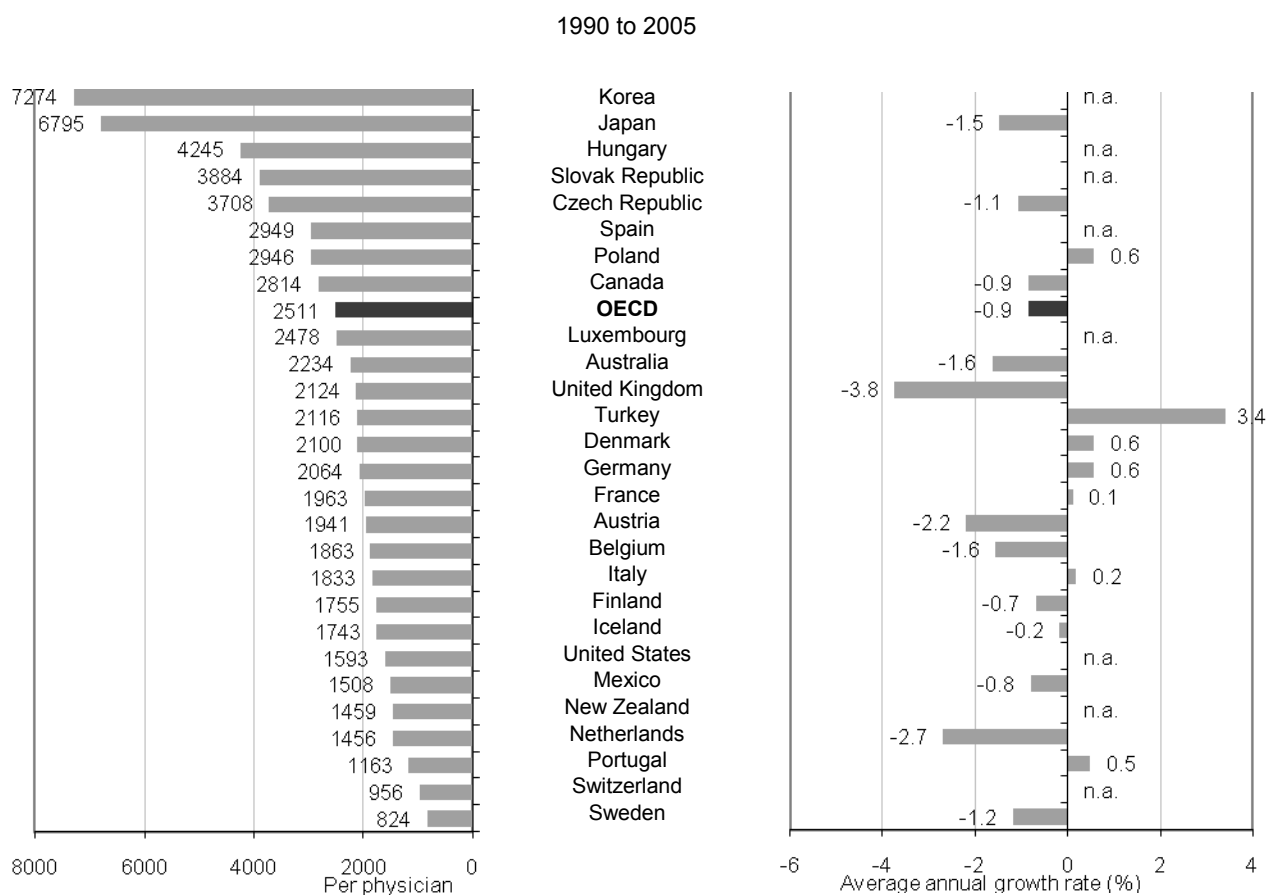


Note: In all charts, the figures for the Netherlands exclude contacts for maternal and child care. The data for Portugal and Turkey exclude visits to private practitioners and those for the United Kingdom exclude private consultations with specialists.

Source: OECD Health Data 2007.



**Figure HEA4. Number of consultations per physician, 2005 (or latest year available), and average annual growth rate in number of consultations per physician**



Source: OECD Health Data 2007.

## **Education**

### ***Number of years in education***

*Key contact:* Andreas SCHLEICHER, OECD EDU

The average number of years in education gives an indication of the amount of education a country provides and therefore is an output indicator. The age cohort 25-34 reflects the education output today, while the age cohort 55-64 proxies the output of education 30 years ago.

#### **Definition and measurement**

Data on population and educational attainment are taken from OECD and EUROSTAT databases, which are compiled from National Labour Force Surveys. Attainment profiles are based on the percentage of the population aged 25 to 64 years that has completed a specified level of education. The International Standard Classification of Education (ISCED-97) is used to define the levels of education.

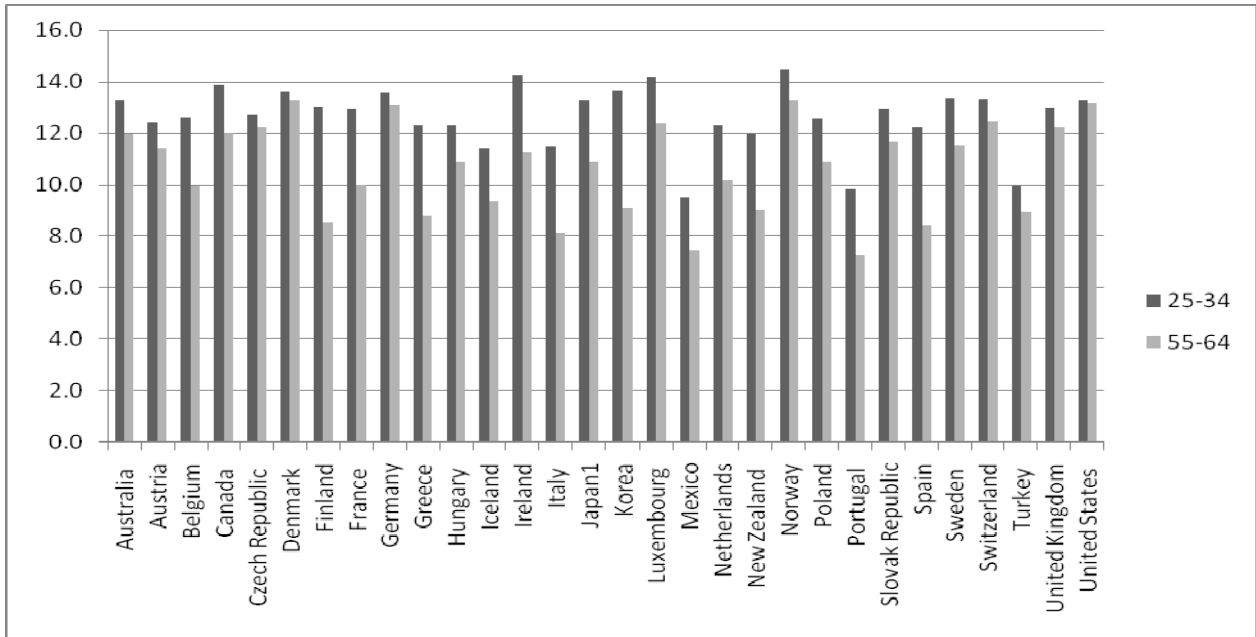
The calculation of the average number of years in formal education is based upon the weighted theoretical duration of schooling to achieve a given level of education, according to the current duration of educational programmes as reported in the UNESCO, OECD, and Eurostat (UOE) data collection.

#### **Highlights**

The average educational attainment of the adult population within OECD countries, considered in terms of years of schooling (of the existing programmes), is 11.9 years. For the 17 countries ranking above the OECD average, the number of years of schooling range on average from 12 to 13.9 years. For the 13 countries below the average the spread is greater, ranging from 8.5 to 11.8 years.

Differences seem to level out while countries develop and are never negative. This is an important lesson for output measurement. There is a limit to the level of output, which in this case is a natural limit. It is not feasible to keep pupils in education for increasingly more years. The main issue is finding an optimal level of service delivery rather than seeking ever more output. Moreover, when differences in the amount of education level out, the quality of education that pupils receive becomes more important. The competitive advantage of countries will lie in the quality of education rather than the amount of education.

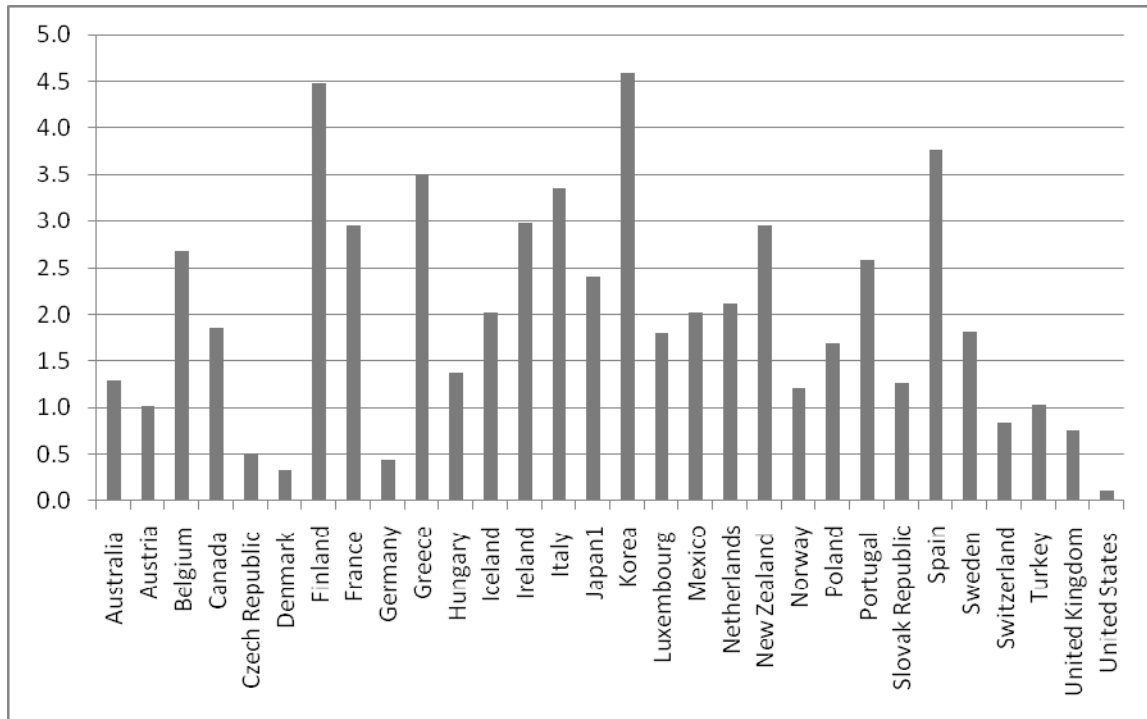
**Figure EDU1. Average number of years in formal education (2004) for two age cohorts**



Source: OECD (EDU).

**Figure EDU2. Change in average years in education between two age cohorts (25-34) and (55-64)**

2004



Source: OECD (EDU).

## **Graduation rates**

*Key contact:* Andreas SCHLEICHER, OECD EDU

This indicator shows the number of students completing upper secondary education programmes for the first time, as a percentage of the age group normally completing this level. Although not all of the graduates are in this age band, this calculation gives an indication of how many of today's young people are completing upper secondary education.

Rising skill demands in OECD countries have made qualifications at the upper secondary level the minimum credential for successful labour market entry. Upper secondary education serves as the foundation for advanced learning and training opportunities, as well as preparation for direct entry into the labour market. Although many countries do allow students to leave the education system at the end of the lower secondary level, young people in OECD countries who leave without an upper secondary qualification tend to face severe difficulties in entering the labour market.

High upper secondary graduation rates do not guarantee that an education system has adequately equipped its graduates with the basic skills and knowledge necessary to enter the labour market because this indicator does not capture the quality of educational outcomes. But these graduation rates do give an indication of the extent to which educational systems succeed in preparing students to meet the minimum requirements of the labour market.

### **Definition and measurement**

This is specific way of looking at output. It only counts output when it is successful (a graduated pupil). An alternative way is to look at the provision of services, regardless of whether pupils finish their training or not. In that case, one would count, for instance, the pupils following courses. The question of when to count something as output is a difficult issue in output measurement.

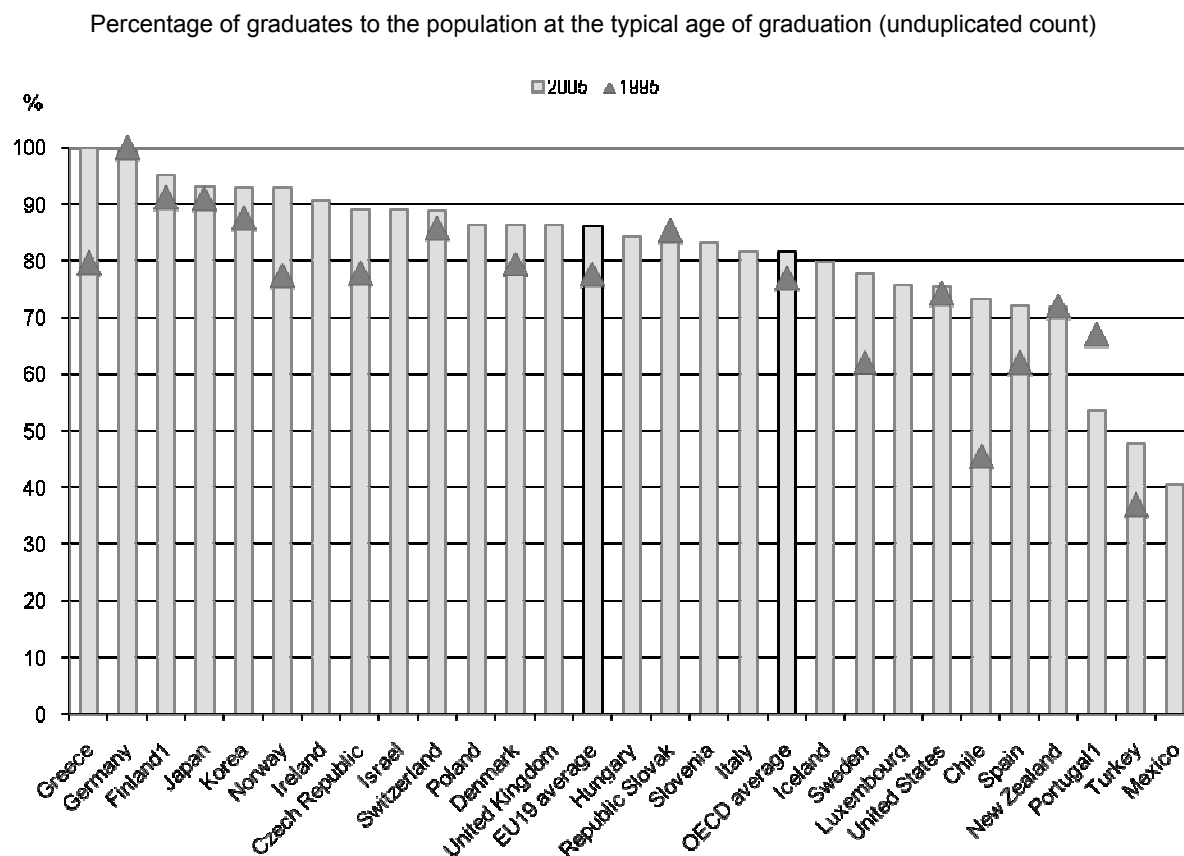
The data for the school year 2003-04 are based on the UOE data collection on education statistics administered annually by the OECD. Upper secondary graduates are those who successfully complete the final year of upper secondary education, regardless of age. In some countries, successful completion requires a final examination, and in others it does not.

Upper secondary graduation rates are estimated as the number of students, regardless of age, who graduate for the first time from upper secondary programmes, divided by the population at the age at which students typically graduate from upper secondary education. The graduation rates take into account students graduating from upper secondary education at the typical (modal) graduation ages, as well as older students (*e.g.* those in "second chance" programmes). The unduplicated total count of graduates is calculated by netting out those students who have graduated from another upper secondary programme in a previous year.

### **Highlights**

In 18 of 22 OECD countries and in two of the four partner countries for which comparable data are available, the ratio of upper secondary graduates to the population at the typical age of graduation exceeds 70%. In Denmark, Finland, Germany, Ireland, Japan, Korea and Norway, and the partner country Israel, graduation rates equal or exceed 90%. The challenge is now to ensure that the remaining fraction is not left behind, with the risk of limited job prospects that this may entail.

**Figure EDU3. Upper secondary graduation rates (2005, 1995)**



1. Year of reference 2004.

Countries are ranked in descending order of upper secondary graduation rates in 2005.

Note: Countries are ranked in descending order of upper secondary graduation rates.

1. Year of reference 2004.

Source: OECD (EDU).

## EFFICIENCY DATA

### Introduction

The difficulties in measuring efficiency and productivity in the public sector have been discussed briefly earlier in this document, and more extensively in the accompanying Technical Paper, “The Institutional Drivers of Efficiency in the Public Sector”. Nonetheless, work is advancing in this area, particularly in the tax administration, education and health policy sectors. Highlights of this work for the tax administration and education areas are published in this section. It is hoped that, over time, *Government at a Glance* will be able to showcase more fully the work being undertaken in this important field.

## Tax administration

### *Efficiency of tax administration: administrative costs to revenue collections*

*Key contact:* OECD Tax Directorate

It has become fairly common practice for revenue bodies to compute and publish (*e.g.* in their annual reports) a “cost of collection” ratio as a surrogate measure of the efficiency/effectiveness of administration.

In practice, however, there are a number of factors that inevitably come into play and influence the cost/ revenue relationship, but which have nothing to do with relative efficiency or effectiveness. Clearly, any analysis of movements in the ratio, as well as international comparison of ratios, should pay regard to these sorts of factors:

- **Differences in tax rates and structure:** Rates of tax and the actual structure of taxes all have a bearing on revenue and, to a lesser extent, cost considerations. For example, comparisons between high-taxing countries and low-taxing countries are hardly realistic given their respective tax burdens.
- **Differences in the range and nature of taxes administered by federal revenue authorities:** In some countries, more than one major tax authority may operate at the national level or taxes at the federal level are predominantly of a direct tax nature, while indirect taxes are administered largely by separate regional/state authorities. In other countries, one national authority will collect taxes for all levels of government, *i.e.* federal, regional and local governments (a number of EU countries).
- **Collection of social insurance, retirement contributions, etc.:** There are significant variations from country to country in the collection of social security contributions. Some countries do not have special regimes, while others make separate provision for them and have them collected by the main tax revenue collection agency. Other countries have them collected by a separate government agency. Given that social contributions are a major source of tax revenue for many countries, the inclusion/exclusion of social contributions in the revenue base for ‘cost of collection’ calculation purposes can have a significant bearing on the computed ratio.
- **Differences in the range of functions undertaken:** For example, in some countries 1) tax fraud investigations are undertaken by a separate government agency (whose costs are excluded from the “cost of collection” ratio), rather than the main revenue collection agency, and 2) the tax authority is also responsible for carrying out functions not directly related to tax administration (*e.g.* administration of customs laws, valuation functions, payment of certain welfare benefits).
- **Lack of a common measurement methodology:** There is no universally accepted methodology for the measurement of administrative costs, and tax authorities that publish a “cost of collection” ratio generally do not reveal details of the measurement approach adopted for their calculations.

### **Definition and measurement**

The cost of collection ratio is computed by comparing the annual costs of administration incurred by a revenue authority, with the revenue collected over the course of a fiscal year. It can be expressed as a percentage or as the cost of collecting 100 units of revenue.

Most tax authorities tend to publish the ratio for a number of years and, whilst bearing in mind all the factors listed above, changes in the ratio over time should reflect movements in relative efficiency and/or effectiveness. This arises from the fact that the ratio is derived from a comparison of inputs (*i.e.* administrative costs) to outputs (*i.e.* tax revenue collections); initiatives that reduce relative costs (*i.e.* improve efficiency) or improve compliance and revenue (*i.e.* improve effectiveness) will impact on the ratio.

### **Highlights**

Differences between OECD countries are substantial. The costs of the top three are significantly higher than the bottom. Italy needed 0.52 units for 100 units of revenue in 2004, while Poland needed 2.62.

In most countries, the ratio remained relatively stable in the period 2000-04. In five countries, the standard deviation around the average is considerably higher. In these countries, exceptional events have probably influenced the ratio. These countries are Canada, Japan and Mexico. The largest variation is found in the Netherlands and Poland.

However, it would be wrong to attribute differences to inefficiencies only, as explained above. Different kinds of factors can be distinguished which would require different policy responses. First of all, differences can be caused by measurement error. The main task here is to harmonise the measurement methodology. Secondly, differences can be the result of events outside of the tax administration's reach that influence the denominator, *i.e.* tax receipts. Exceptional economic growth and changes in the tax rate are the most common explanations for this. Thirdly, causes can relate to internal practices and structures. In this case, the learning potential is higher. A complex tax system is more expensive, but complexity is often the result of the political choice to use the tax system for policy making alongside its traditional function of revenue collection. Concretely, often countries opt for tax rebates rather than subsidies.



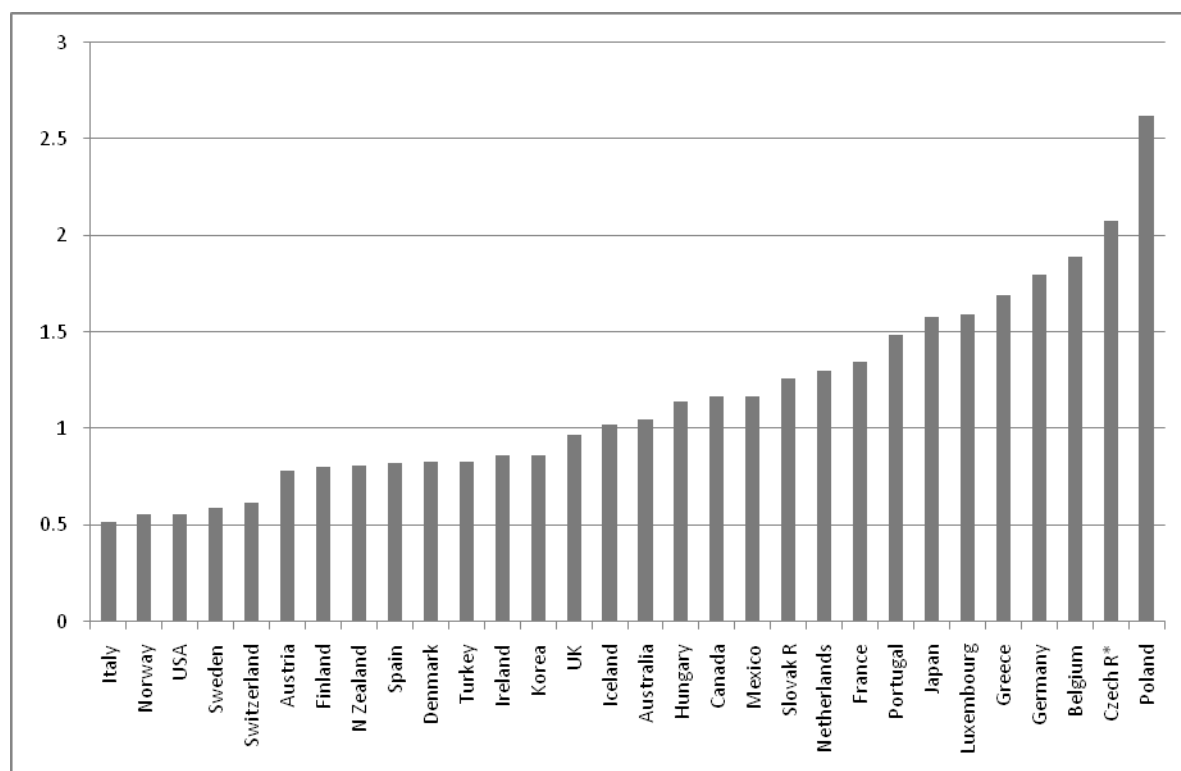
**Table TAX1. Comparison of aggregate administrative costs to net revenue collections /1**

Administrative costs/net revenue collections  
COUNTRY (costs per 100 units of revenue)

	2000	2001	2002	2003	2004
Australia		1.06	1.07	1.05	1.05
Austria	0.8	0.71	0.72	0.91	0.78
Belgium					1.89
Canada	1.07	1.08	1.2	1.33	1.17
Czech R*			2.08		
Denmark			0.73	0.87	0.83
Finland	0.73	0.77	0.82	0.82	0.8
France	1.4	1.41	1.44	1.41	1.35
Germany					1.8
Greece				1.65	1.69
Hungary	1.45	1.23	1.35		1.14
Iceland			1.12	1.06	1.02
Ireland	0.81	0.9	0.95	0.91	0.86
Italy				0.42	0.52
Japan	1.42	1.54	1.66	1.67	1.58
Korea	0.8	0.85	0.85	0.82	0.86
Luxembourg					1.59
Mexico	1.47	1.2	1.19	1.21	1.17
Netherlands	1.7	1.74	1.76	1.39	1.3
N Zealand	0.89	0.9	0.87	0.83	0.81
Norway		0.56	0.59	0.59	0.56
Poland	1.54	1.5	1.78	1.95	2.62
Portugal	1.6	1.61	1.68	1.51	1.49
Slovak R	1.3	1.43	1.46	1.45	1.26
Spain		0.81	0.78	0.83	0.82
Sweden	0.52	0.55	0.56	0.57	0.59
Switzerland				0.66	0.62
Turkey	0.83	0.81	0.72	0.74	0.83
UK	1.02	1.06	1.11	1.04	0.97
USA	0.43	0.46	0.52	0.57	0.56

Source: OECD (Tax Directorate).

Figure TAX1. Aggregate administrative costs to net revenue collections in 2004 or nearest year available



Source: OECD (Tax Directorate).

Note: Data from the Czech Republic is from 2002.

## Education

### *Efficiency levels in primary and lower secondary education*

*Key contact:* OECD Education Directorate

This indicator examines the relationship between resources invested and outcomes achieved in primary and lower secondary education across OECD countries and thus raises questions about the efficiency of their education systems. Internationally, much attention is paid to which education systems achieve most in terms of the quality and equity of learning outcomes, but there is also considerable interest in knowing which systems achieve most given the inputs provided.

#### **Definition and measurement**

Educational expenditure figures are taken from the UOE data collection on education statistics administered by the OECD. The student achievement scores are based on assessments administered in 2003 as part of the Programme for International Student Assessment (PISA) undertaken by the OECD. Cumulative spending per student is approximated by multiplying public and private expenditure on educational institutions per student in 2002 at each level of education by the theoretical duration of education at the respective level, between the ages of 6 and 15 years, with the results expressed in USD using purchasing power parities.

The estimates of efficiency have been taken from the papers produced by the OECD Economics Department as part of the project to assess public spending efficiency in primary and secondary education<sup>33</sup>. The estimates of possible efficiency savings relate to the median school in each OECD country in terms of PISA 2003 performance and are generated from a Data Envelopment Analysis (DEA) model assuming non-increasing returns to scale. The model uses the PISA score as the output variable and teacher-student ratio, computer availability, socio-economic and language backgrounds as the input variables. This work is currently in its exploratory stage, and thus only OECD-wide estimates of efficiency are published in this indicator.

It is important to keep in mind that there are substantial differences across countries in the proxy measures of efficiency and that such differences may explain at least part of the observed differences between countries in education outlays.

#### **Highlights**

As a first step towards investigating efficiency in education, Figure EDU4 presents a comparison between countries' actual spending per student, on average, with their average student performance in mathematics from PISA 2003. This shows a positive relationship between spending per student and mean mathematics performance. However, the relationship is not a strong one – expenditure per student in fact explains merely 15% of the variation in mean performance between countries. The data also suggests that moderate spending per student cannot automatically be equated with poor performance by education systems. This is due to the plethora of other factors which influence the relationship between spending per student and student performance, such as the organization and management of schooling, the quality of teachers and characteristics of students themselves. Some of these factors are of course outside the control of the education providers.

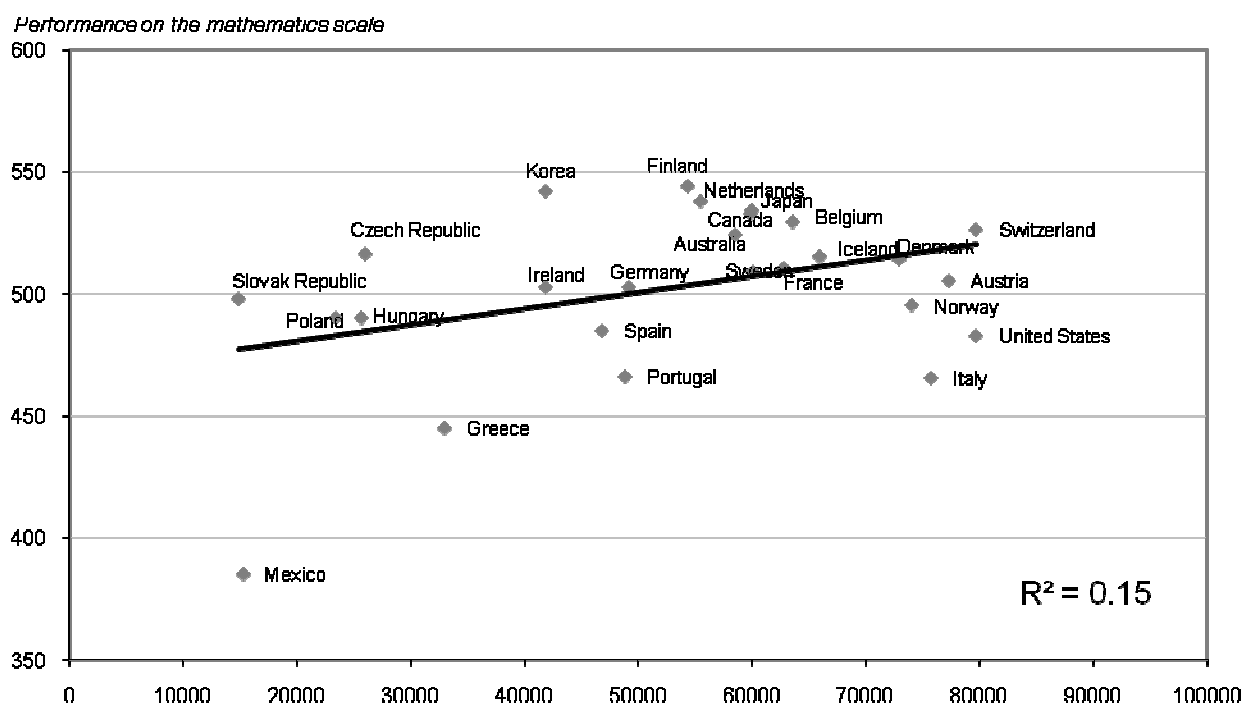
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<sup>33</sup> See "Performance Indicators for Public Spending Efficiency in Primary and Secondary Education", OECD Economics Department Working Paper No. 546, available online at [www.oecd.org/eco/Working\\_Papers](http://www.oecd.org/eco/Working_Papers)

Figure EDU5 shows the results of exploratory work to measure efficiency in primary and lower secondary education using a modelling approach. These results suggest that, across OECD countries, there is potential for increasing learning outcomes from these levels of education by 22% while maintaining current levels of resources. The scope for reducing the resources devoted to this level of education while maintaining the current levels of outcomes is slightly larger, at 30%. Differences in estimates of efficiency for different types of school (e.g. public and private) tend to be modest, when looking at the OECD as a whole, although potential efficiency savings are greater for smaller schools than for larger schools.

**Figure EDU4. Student performance and spending per student**

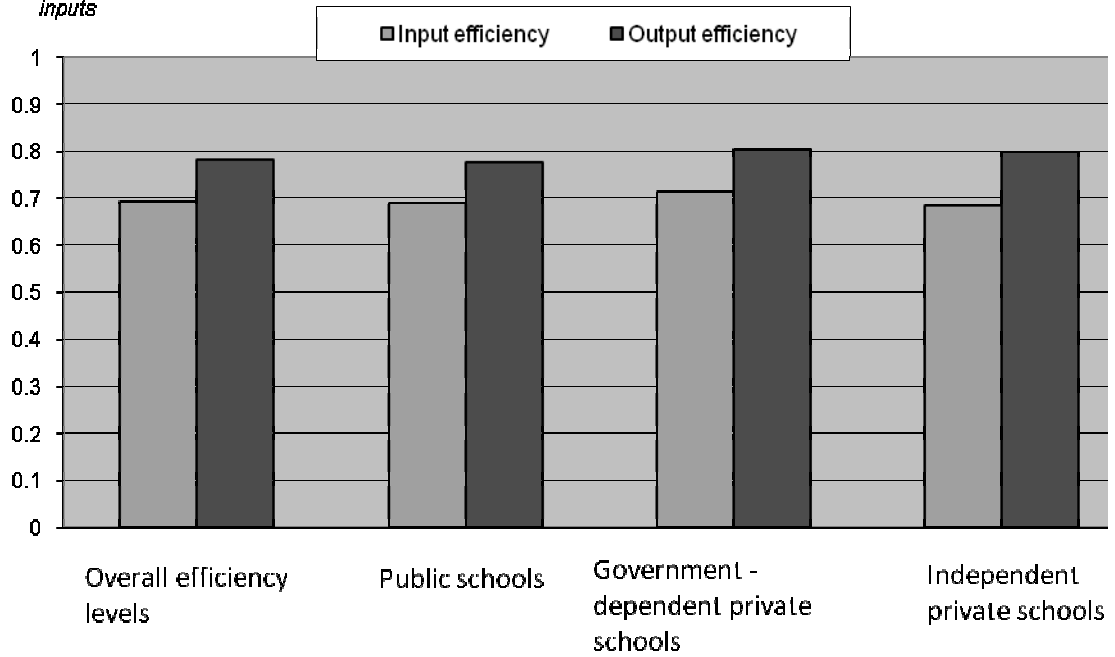
Relationship between performance in mathematics and cumulative expenditure on educational institutions per student between the ages of 6 and 15 years, in USD, using PPP



Source: OECD Education at a Glance 2007 ([www.oecd.org/edu/eag2007](http://www.oecd.org/edu/eag2007)).

**Figure EDU5. Efficiency levels in primary and lower secondary education**

*Input efficiency measures the extent to which inputs can be reduced while maintaining the same level of outputs and output efficiency measures the extent to which outputs can be increased with the same level of inputs*



Source: OECD, Education at a Glance 2007 ([www.oecd.org/edu/eag2007](http://www.oecd.org/edu/eag2007)).

**Table EDU1. Estimates of technical efficiency for primary and lower secondary public sector education**

	Input efficiency <sup>2</sup>	Output efficiency <sup>3</sup>	Number of schools
Overall level of efficiency	0.693	0.782	6204
<i>Of which:</i>			
Public schools	0.689	0.777	4834
Government-dependent private schools	0.715	0.805	672
Independent private schools	0.684	0.799	194
Public funds >50%	0.693	0.780	5469
Public Funds <50%	0.693	0.803	397
Small schools	0.669	0.770	3102
Large schools	0.712	0.794	3102

1. Efficiency estimates are for the median school in each OECD country in terms of PISA 2003 performance and are derived from a Data Envelopment Analysis assuming non-increasing returns to scale. The model uses the PISA score as output and teachers student ratio, computer availability, socio-economic and language backgrounds as inputs [see 'education data' sheet].
2. Indicates scope for scaling back without reducing the level of outputs.
3. Indicates scope for boosting outputs given the current levels of inputs.

Source: OECD Education at a Glance 2007 ([www.oecd.org/edu/eag2007](http://www.oecd.org/edu/eag2007)).

## HOT TOPICS

### **Productivity/efficiency estimation practices in central government annual budgeting**

*Key contacts: Zsuzsanna LONTI and Laurent NAHMIAS, OECD GOV*

Most OECD countries have mechanisms in place that aim to adjust appropriations in the annual budget for (expected) efficiency improvements. However, there is little systematic information available about the methods governments use to arrive at those estimates and how the social partners are involved in the negotiation process. The results of the pilot survey represent a first step in filling this knowledge gap.

#### **Definition and measurement**

A pilot survey has been conducted in ten member states in 2007 (Austria, Canada, Finland, France, Germany, Italy, Netherlands, Norway, Sweden, United Kingdom). Respondents were primarily officials from Ministries of Finance. The survey collected information on how national governments decide on productivity/efficiency assumptions and how they implement them. The survey is planned to be carried out in all OECD countries in 2008.

#### **Highlights**

Most countries require productivity/efficiency improvements from public sector organisations on an annual basis (Table HOT1). In Germany, the assessment of efficiency is part of the overall assessment of the budget proposals of the line ministries. In the Netherlands, efficiency improvements will mostly lead to budget cuts. Organisations are sometimes allowed to keep part of their efficiency gains in order to further improve efficiency and/or effectiveness, *e.g.* in Finland, where up to 50% of the savings can be retained.

Efficiency estimates can be across the board, sector, or organisation-specific (Table HOT2). Most countries combine an across the board estimate with a sectoral and organisational approach (Canada, Finland, the Netherlands, Norway and the United Kingdom). For instance, Canada and Finland both have different estimates for ministries together with an overall objective to increase efficiency by a given percentage. Other countries, such as France, Italy and Sweden only report organization-specific or sector-specific estimates. There are no countries that use only across the boards estimates.

Three countries have legally prescribed procedures (Austria, France and Norway). No country negotiates efficiency estimates with social partners. Most countries rely on a broad range of methods to calculate estimates (Table HOT3), apart from Italy, which relies on projections of past performance, and Sweden, which uses comparisons with the private sector. Finland and France report the use of all methods.

The survey also gives some indications on follow-up processes. Most countries keep track of their achievements and do regular evaluations/reviews. Italy and the Netherlands are the exceptions, but argue that efficiency is hard to measure and that spending limits suffice to control the departments. Five countries report that there are consequences for missing efficiency targets (Canada, Finland, Italy, Norway, United Kingdom). Some reported consequences are the reduction of operating budgets, scrutiny by parliament, political and public criticism, and the sanctioning of top managers through performance pay systems.

Most countries experience problems in estimation, arising from the lack of statistical data and reliable estimation procedures. Other problems that were reported include the lack of motivation and competence

in measurement, inadequate performance measurement especially with regards to the quality of output, the

	Annually	On an <i>ad hoc</i> basis	Other	No
Austria	X	X		
Canada		X		
Finland	X			
France	X	X		
Germany			X	
Italy	X			
Netherlands			X	
Norway	X			
Sweden	X			
United Kingdom	X			

lack of political support and the high level of independence of line ministries *vis-à-vis* central control.

**Table HOT1. Countries requiring public sector organizations to improve their productivity/efficiency, in 2007**

Source : OECD (GOV)

**Table HOT2. Estimates across-the-board or specific, in 2007**

	Across-the-board estimates	Sector/subsector specific estimates	Organization specific	Other
Austria	NA	X	X	
Canada	X	X	X	X
Finland	X	X	X	X
France		X	X	
Germany			X	X
Italy		X		
Netherlands	X	X		
Norway	X	X	X	X
Sweden			X	
United Kingdom	X		X	

Source : OECD (GOV).



Table HOT3. Methods used to calculate efficiency/productivity estimates, in 2007

	Comparison with efficiency gains in the private sectors	Statistical methods	Estimation based on amount of required savings	Projections based on estimates past performance	Other
Austria	NA	NA	X	X	
Canada	X		X		X
Finland	X	X	X	X	X
France	X	X	X	X	X
Germany		X		X	X
Italy				X	
Netherlands	X				
Norway		X	X	X	
Sweden	X				
United Kingdom	X		X	X	
Distribution (in %)	24.0	12.0	24.0	24.0	16.0

Source: OECD (GOV).

## Enhancing transparency in lobbying

*Key contact:* János BERTÓK, OECD GOV

The existence of powerful interests – corporate, private or other jurisdictions – that make efforts to influence government decisions, in particular policy making, legislation or the award of contracts, is a daily reality in modern democracies.

Increased public expectations of transparency and integrity in recent years have pushed lobbying onto the political agenda in North America, Europe and Asia. However, only very few countries have established specific rules to enhance transparency in lobbying, namely Canada, Hungary, Poland, the United Kingdom and the United States.

The figures selected highlight existing measures for increasing transparency in lobbying (Figure HOT1) as well as the type of information required to be disclosed (Figure HOT2).

### Definition and measurement

The data have been gathered through a survey completed in 2006 with the participation of central government ministries and agencies from all OECD countries. The survey reviewed governance arrangements aimed at enhancing transparency and accountability in lobbying, including key aspects of existing rules (*e.g.* their purpose, formal sources, information required for disclosure) as well as implementation and enforcement measures, such as registration and reporting, administering bodies and sanctions for lobbyists and public officials.

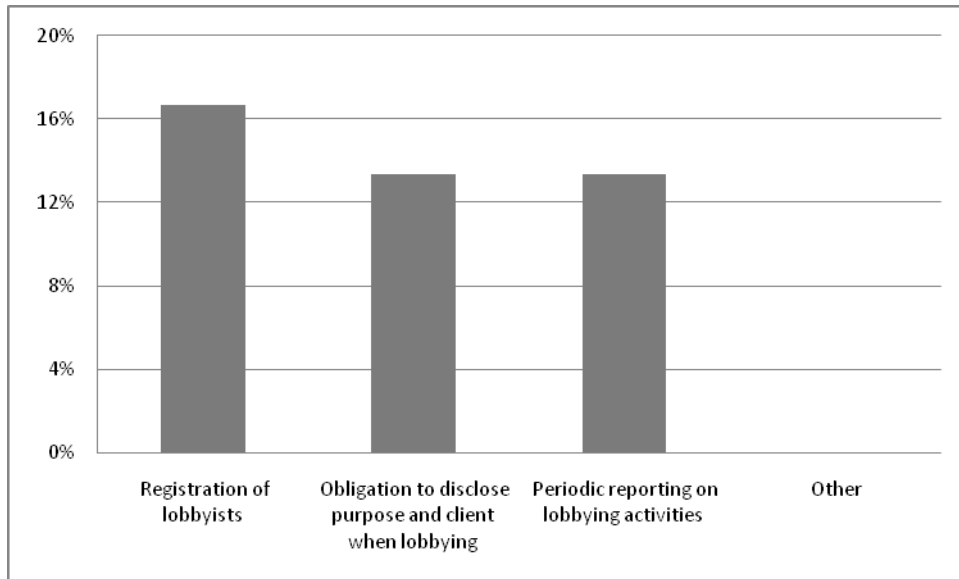
### Highlights

Existing rules on lobbying share a common approach – they focus principally on lobbyists rather than on public officials. Measures for increasing transparency are at the heart of lobbying regulations since the primary aim of rules is to increase transparency in order to maintain trust in government decision-making (Figure HOT3). Similar transparency standards to shed more public light on contacts between public officials and representatives of interest groups indicate shared expectations across the five countries with specific rules on lobbying. Transparency mechanisms also play a key role in putting rules into effect (Figure HOT5) and increase compliance, which is a common concern across countries. The primary source of rules is legal regulations although codes of conduct are also used (Figure HOT4).

Survey findings show no single definition for lobbying, while the status of administering agencies and penalties also vary according to the national context.

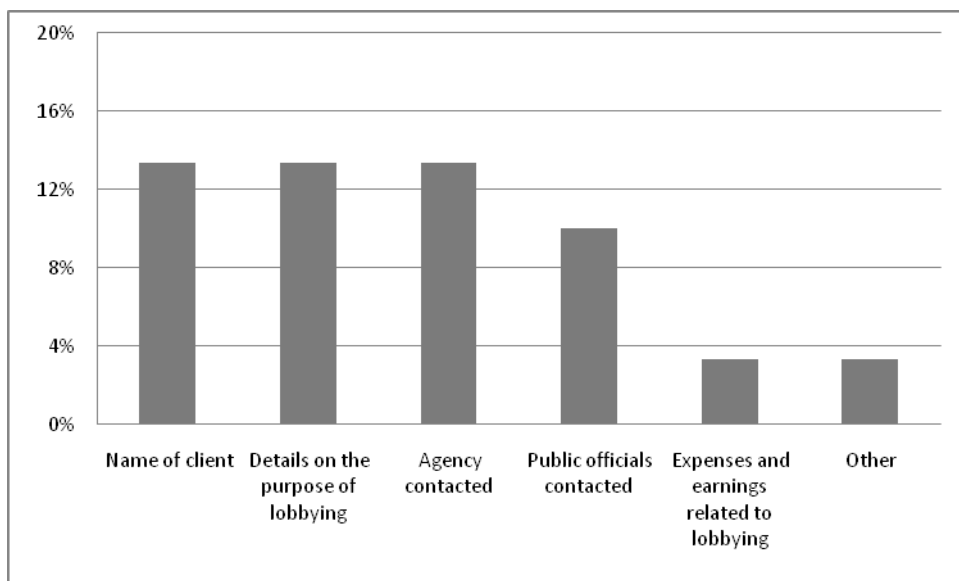
Survey data helped develop the draft Principles for Enhancing Transparency and Accountability in Lobbying to provide a framework of reference that could support policy debate when lobbying reaches the political agenda. The Principles provide policy makers and legislators with policy options to meet public expectations for transparency, integrity and efficacy when considering, drafting, debating and implementing regulations on lobbying.

**Figure HOT1. Measures for increasing transparency in lobbying (in % of all OECD countries)**



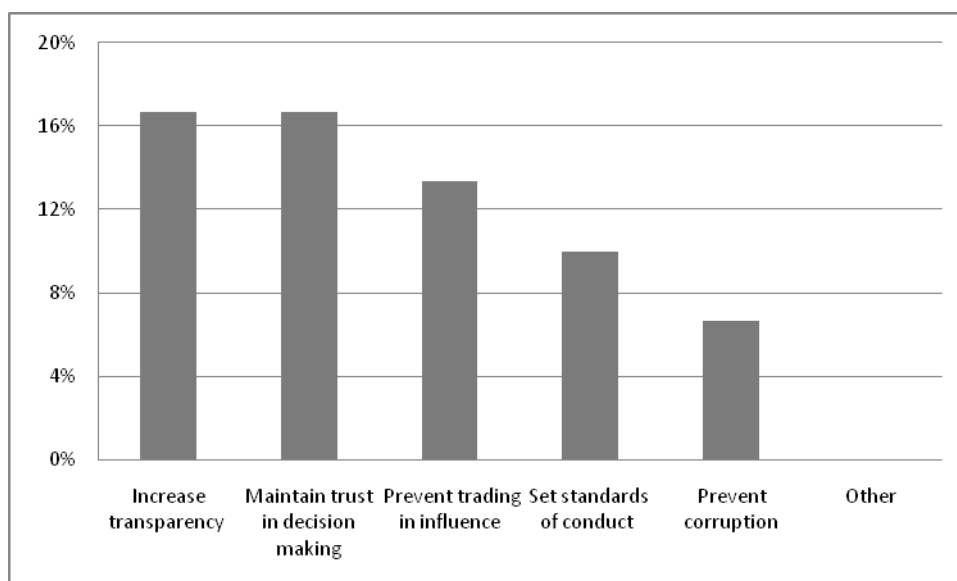
Source: OECD (GOV).

**Figure HOT2. Disclosed information on lobbying activities (in % of all OECD countries)**



Source: OECD (GOV).

**Figure HOT3. Purpose of rules on lobbying (in % of all OECD countries)**



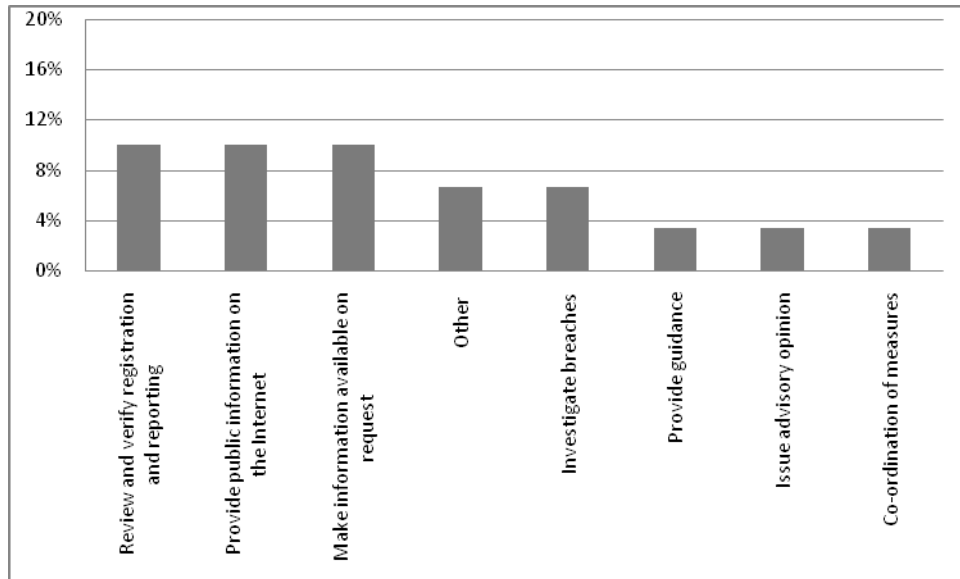
Source: OECD (GOV).

**Figure HOT4. Formal source of rules on lobbying (in % of all OECD countries)**



Source: OECD (GOV).

**Figure HOT5. Measures for administering rules on lobbying (in % of all OECD countries)**



Source: OECD (GOV).

## **Integrity in public procurement**

*Key contact:* Elodie BETH, OECD GOV

Public procurement, the purchase by governments and state-owned firms of goods and services, is a key economic activity of governments – estimated at around one-fifth of the amount of GDP in OECD countries (see Figure HOT6).

Of all government activities, public procurement is perceived as most vulnerable to corruption in almost all regions of the world, including OECD countries (see Figure HOT7). Corruption in public procurement distorts the efficient allocation of public funds and has an impact how tax payers' money is spent (see Figure HOT8).

### **Definition and measurement**

In order to define a framework for enhancing integrity in procurement, the OECD has taken an innovative approach by surveying country experiences on effective practices for enhancing integrity throughout the whole public procurement cycle, from needs assessment to contract management. The survey questionnaire was primarily targeted at procurement practitioners in charge of designing, supervising and managing procurement processes in central governments. Auditors, members of competition authorities and anti-corruption specialists were also involved.

The survey has taken a global view of procurement by including elements of good practice in OECD countries, as well as in Brazil, Chile, Dubai, India, Pakistan, Romania, Slovenia and South Africa. On the basis of the information collected in all OECD countries and in three observer countries through the questionnaire, good practices were reviewed by government officials, representatives from civil society and private sector at an OECD Symposium in November 2006. The Symposium was immediately followed by a Global Forum on Governance to identify further elements of good practice in non-member countries.

### **Highlights**

Three key drivers were found to enhance integrity in public procurement:

1. Transparency measures throughout the whole procurement cycle, from needs assessment to contract management.
2. Professional guidance for procurement officials as well as integrity management policies clarifying restrictions and prohibitions to prevent conflict of interest and corruption.
3. Strong accountability and control mechanisms, with the involvement of relevant stakeholders.

Although it is widely agreed that public procurement reforms should follow good governance principles, the survey highlighted that government efforts have largely focused on the bidding phase, leaving out grey zones and opportunities for corruption in needs assessment and contract management. If two-thirds of OECD countries indicated that open competition procedures must be used above the minimal threshold value in the bidding process, only one-third of countries communicate information to other stakeholders than the successful bidder in the contract management (see Figure HOT9).

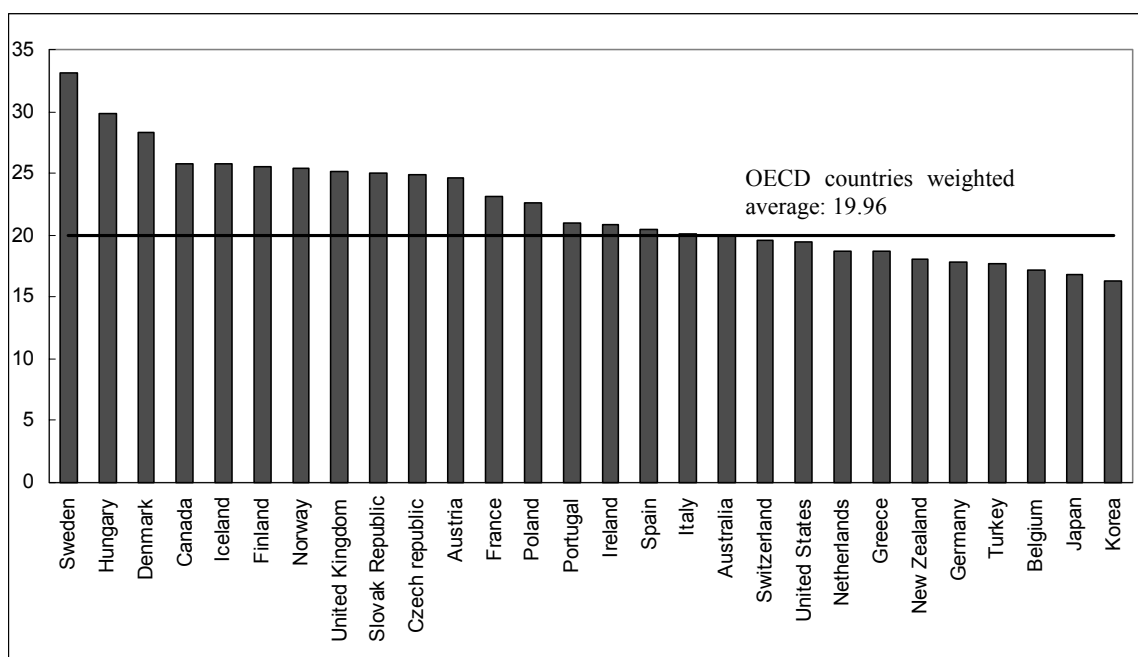
Countries have in the past decade introduced specific professional and ethical standards for procurement officials who are particularly vulnerable to corruption. The survey revealed that public procurement is a strategic profession that plays a central role in preventing mismanagement and,

potentially, corruption in the use of public funds. For instance, almost two-thirds of OECD countries have developed specific standards of conduct for procurement officials – in the form of laws, regulations, codes and guidelines (see Figure HOT10). In addition, all OECD countries have general standards of conduct for the whole public service.

Governments have reinforced their control and accountability mechanisms in recent years. The survey confirmed that public procurement is increasingly regarded as a core element of accountability of the government to the public on how public funds are used. In particular, recourse systems for challenging government decisions are a central mechanism for bidders and other stakeholders to verify the fairness of the public procurement process. In addition to traditional recourse to administrative or civil courts, almost half of OECD countries have created a mechanism to improve the efficiency of resolution of complaints dedicated to public procurement. To increase the number of recourse and provide alternatives to judicial decisions, 40% of OECD countries have set up a mechanism for dispute resolution to encourage informal problem solving (see Figure HOT11).

**Figure HOT6. Public procurement: a key economic activity of governments**

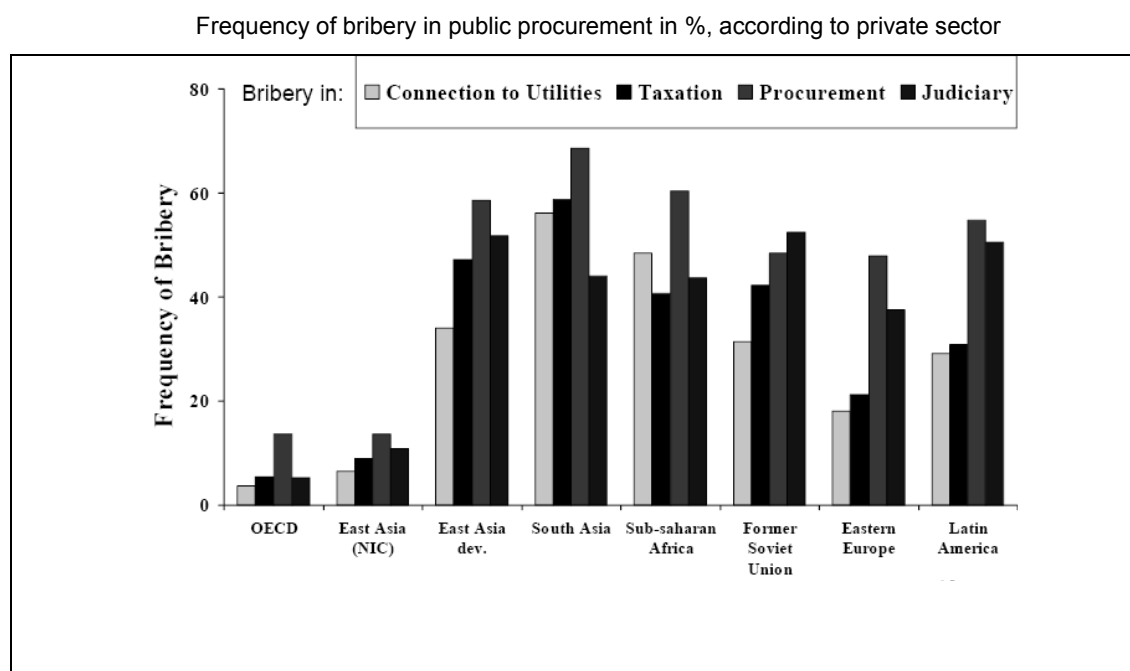
Public procurement in OECD countries as a % of GDP in 2002<sup>34</sup>



Source: OECD (2002), *The Size of Government Procurement Markets*, OECD, Paris.

<sup>34</sup> Total expenditures (consumption and investment), including compensation for employees and defence-related expenditure. The ratios of government procurement markets that are potentially subject to competition are estimated at 7.57% of GDP for OECD countries.

**Figure HOT7. A government activity perceived as highly vulnerable to corruption (data from 2005)**

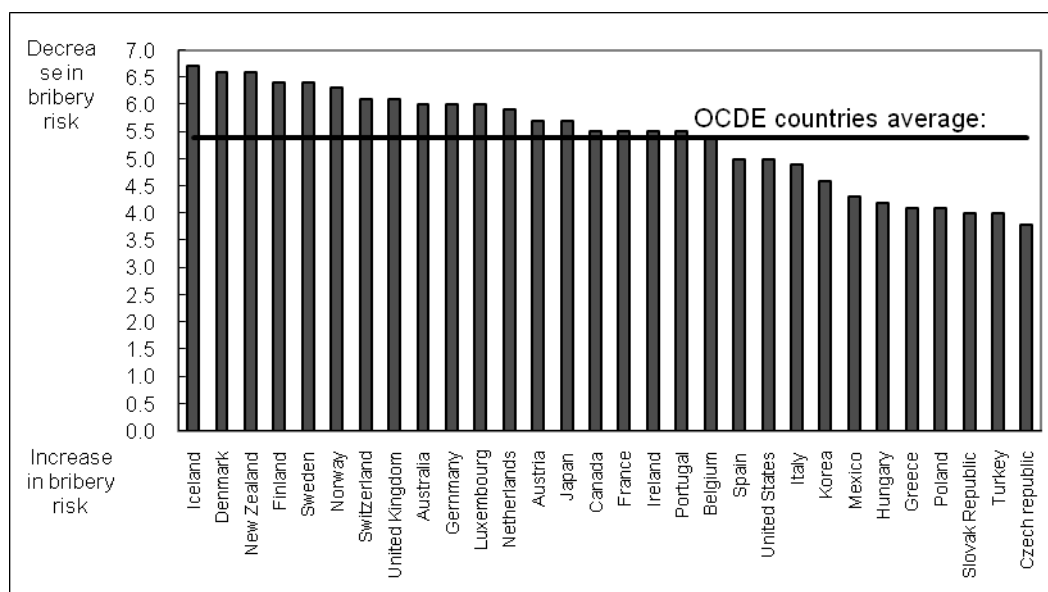


Note: Question asked to the firm: In your industry, how commonly firms make undocumented extra payments or bribes connected with utilities / taxation / awarding of public contracts / judiciary?

Source: Kaufmann (2006) based on Executive Opinion Survey 2005 of the World Economic Forum in OECD (2007), *Integrity in Public Procurement: Good Practice from A to Z*.

**Figure HOT8. Irregular payments in public contracts, in 2006**

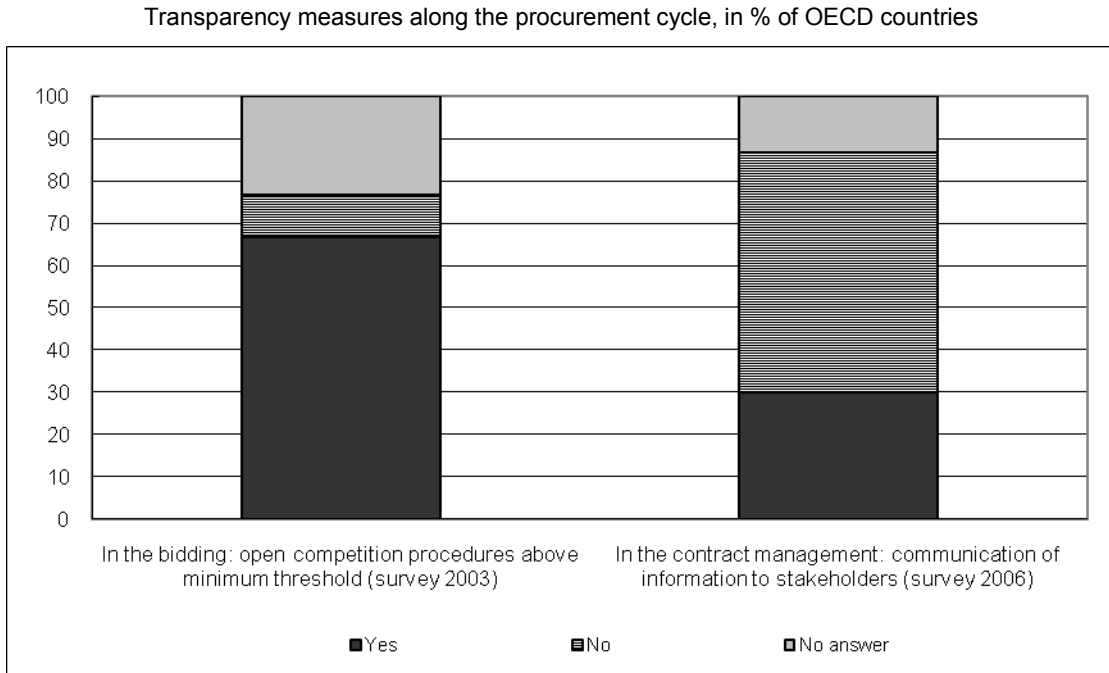
In your industry, how commonly would you estimate that firms make undocumented extra payments or bribes connected with awarding of public contracts (1 = common, 7 = never occur)?



Source: OECD (2007), *Integrity in Public Procurement: Good Practice from A to Z*, OECD, Paris, based on data from the World Economic Forum Executive Opinion Survey 2006.



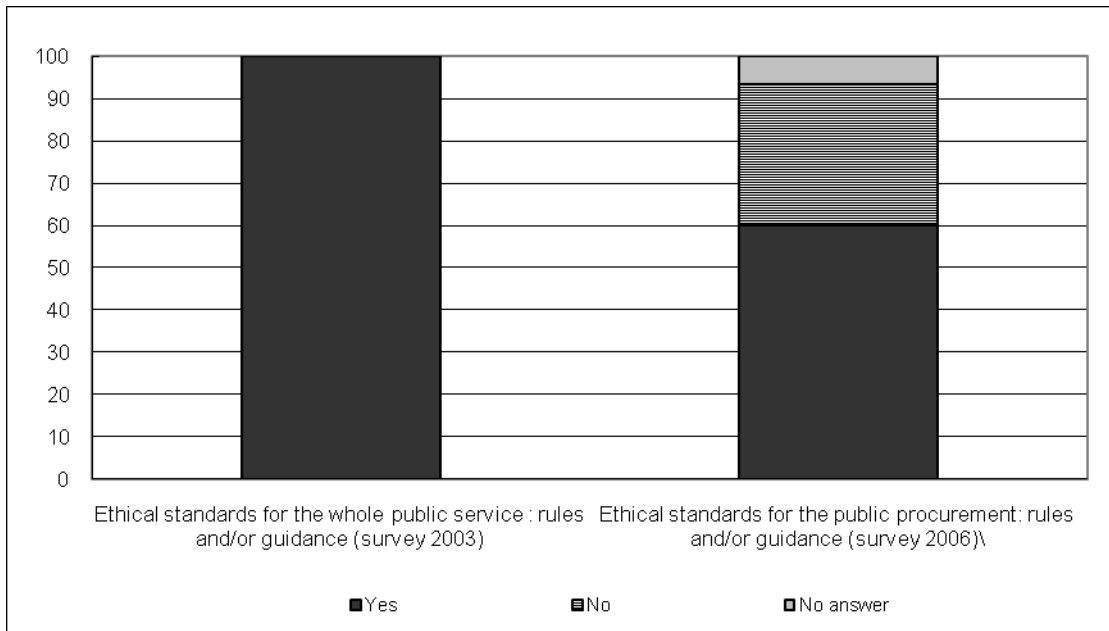
**Figure HOT9. Existence of measures for enhancing integrity in public procurement, in 2003 and 2006**



Source: 2003 OECD/World Bank Budget Practices and Procedures Database and OECD (2007), *Integrity in Public Procurement: Good Practice from A to Z*, OECD, Paris.

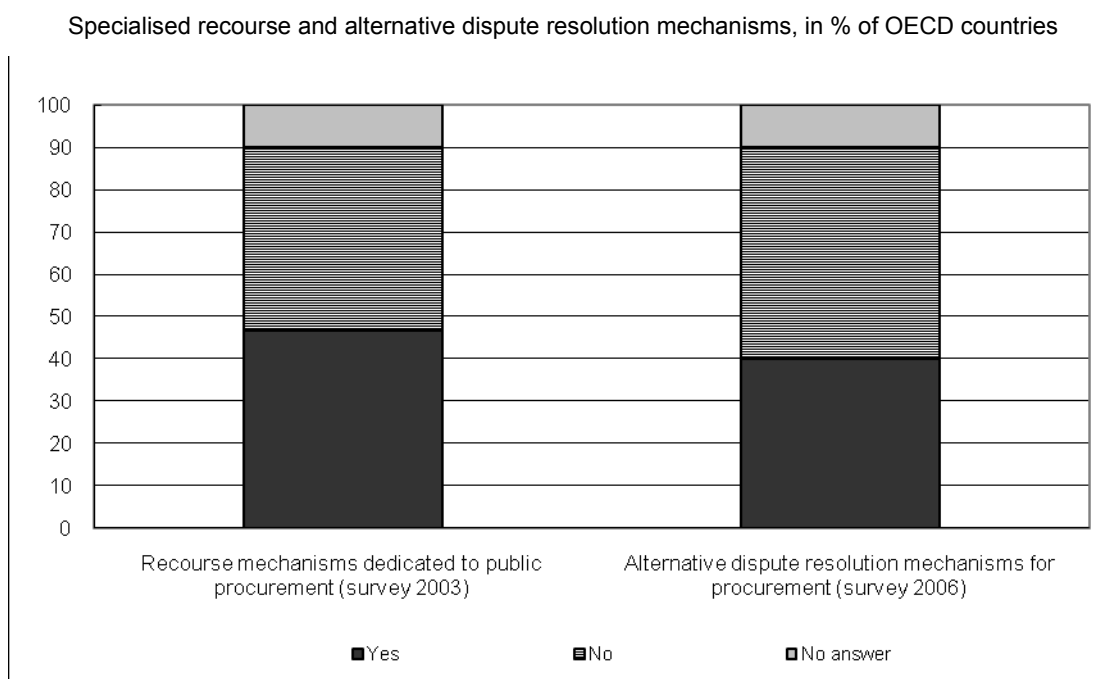
**Figure HOT10. Existence of measures for enhancing integrity in public procurement, in 2003 and 2006**

Ethical standards: General standards for the public service vs. specific standards for procurement, in % of OECD countries



Source: OECD (2007), *Integrity in Public Procurement: Good Practice from A to Z*, OECD, Paris.

**Figure HOT11. Existence of measures for enhancing integrity in public procurement, in 2003 and 2006**



Source: OECD (2007), Integrity in Public Procurement: Good Practice from A to Z, OECD, Paris.

**ANNEX I:****MEMBERSHIP OF STEERING GROUP**

<b>COUNTRY</b>	<b>NAME</b>	<b>TITLE/POSITION</b>	<b>MINISTRY</b>
AUSTRIA	Elisabeth DEARING	Director	Federal Chancellery Administrative Development, Div III/7
CANADA	Lee MCCORMACK	Executive Director	Treasury Board of Canada
FINLAND	Heikki JOUSTIE	Government Counsellor	Ministry of Finance Public Management Department
FRANCE	Xavier HURSTEL	Sous-Directeur	Ministère de l'Économie et des Finances Direction du Budget
FRANCE	Bernard BLANC	Chef de la mission des relations internationales	Ministère de l'Économie et des Finances
GERMANY	Marga PROEHL	Deputy Head of Public Administration Management Unit	Federal Ministry of the Interior (BMI)
ITALY	Pia MARCONI	Director General	Department of Public Administration
NETHERLANDS	Koos ROEST	Adviser on Strategic Policy	Ministry of the Interior & Kingdom Relations Directorate-General for Management of the Public Sector
NETHERLANDS	Peter VAN DER GAAST	Head of International Civil Service Affairs Division	Ministry of the Interior & Kingdom Relations Directorate-General for Management of the Public Sector
NORWAY	Morten STROMGREN	Senior Advisor, Economic Analysis Unit	Ministry of Government Administration & Reform
SWEDEN	Richard MURRAY	Chief Economist	Statskontoret
UNITED KINGDOM	Alison SHARP	Data Analyst & Data Manager	Cabinet Office, Prime Minister's Strategy Unit

## ANNEX II: METHODOLOGY FOR COFOG-SPECIAL

### **Purpose of COFOG-Special**

The national accounts distinguish a classification of government expenditures in terms of Functions of Government (COFOG) next to the economic classification. COFOG classifies government expenditures according to purpose of spending. COFOG does not make certain distinctions that are important for public finance analysts as well as for budget practitioners, namely distinctions on the basis of funding motives. In this light the Governance Directorate of the OECD has developed a “COFOG-Special” classification that does make these distinctions in addition to the ones of regular COFOG.

The purpose of the COFOG-Special classification is to add distinctions according to funding motive to regular COFOG. In particular three splits are added:

7. the split between individual goods and collective goods;
8. the split between cash transfers and goods in kind;
9. the split between individual goods in kind financed for distributive reasons;
10. individual goods in kind financed for allocative reasons<sup>35</sup>.

The splits are at the core of public finance theory and facilitate empirical work inspired by theoretical considerations. One can think for instance of the propositions that individual goods can in principle be allocated in an optimal way on the basis of marginal cost pricing whereas collective goods cannot and that cash transfers are often more efficient than goods in kind because they do not constrain the spending choice of the beneficiary. In spite of the theoretical relevance, empirical data that make these splits are lacking. Therefore papers based on public finance theory often have to work with data that are not entirely suitable. COFOG-Special is meant to bridge the gap.

Perhaps even more important than the theoretical considerations is that the mentioned splits are highly relevant from a practical point of view. Budget practitioners are interested in international comparison of expenditure patterns along these lines. The splits are relevant in practical discussions about reallocation of resources and structural reform (decentralisation, pricing of public services, outsourcing, privatization, the role of the private non-profit sector in the provision of public services, etc.). The COFOG-Special classification can also be helpful in the effort to improve efficiency in government. In particular the classification makes it possible to derive mode of production tables which show by which combination of inputs, certain outputs (goods in kind) are produced in various governments. Combination of these data with sectoral evaluations and case studies can shed light on possible roads to improvement of efficiency in government.

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<sup>35</sup> For the sake of simplicity COFOG-Special does not distinguish between goods and services and uses the term “goods” in every instance where the national accounts use “goods and services”.

## Methods

### *The structure of the COFOG-Special classification*

COFOG-Special splits the regular COFOG groups according to the individual/collective, cash/in kind criteria, and the individual goods in kind according to the allocative/distributive financing motive criterion. However some COFOG groups need not to be split because all their expenditures are similar in terms of the splits. This is for instance the case for Defence and for Public order and safety (all collective and in kind).

When applying the three-split criteria that characterize COFOG-Special, it appears that there are three kinds of expenditures on individual goods in kind that cannot be easily split according to the allocative or distributive financing motive, namely health expenditures, education expenditures and market subsidies. In fact, in all three cases both allocative and distributive financing motives may play a role. For this reason these expenditures are not split on this criterion. All other expenditures are split according to the three criteria. This leads to the basic structure of COFOG-special, shown in the following box.

#### **Box 1A. Structure of COFOG-Special**

- 
- 1. Collective goods
    - A. in kind
    - B. in cash
  
  - 2. Individual goods
    - A. in kind
      - a. allocative motive
      - b. distributive motive
      - c. health
      - d. education
      - e. market subsidies
    - B. in cash
- 

Imposing these splits upon (regular) COFOG leads to the expenditure classification COFOG-Special which is presented on the first page of this working paper.

### *Sources for the generation of COFOG-Special data*

The main source of COFOG-Special is regular COFOG. Regular COFOG consists of two levels. The 1st level COFOG splits government expenditure since the 2001 revision in ten groups<sup>36</sup>. The 2nd COFOG splits each first level group in maximal nine sub-groups. The regular COFOG classification is shown in annex 1. COFOG-Special makes use of both 1st level and 2nd level regular COFOG data. The 2nd level data make it possible avoid many approximations that would be necessary if only 1st level COFOG data were available<sup>37</sup>. Until recently 2nd level COFOG data were available in some national statistical offices, but were not collected by international organisations. Moreover, the 2nd level COFOG data were not well

<sup>36</sup> Regular COFOG has been thoroughly revised by the United Nations in 2001.

<sup>37</sup> At the time of the Reallocation project (see chapter 1 par. 6) such approximations were necessary because only 1st level COFOG data were available.

comparable between countries because the SNA guide and the IMF Manual on Government Finance Statistics (GFS)<sup>38</sup> do not provide much practical information on the application of the COFOG concepts. However, in 2005 EUROSTAT has established a task force to develop a manual on the application of COFOG and to collect COFOG data inclusive 2nd level data. Most EU countries, DG ECFIN of the EU, the Workgroup on the Quality of Public Finance of the EU, the OECD and the European Central Bank, participate in this task force. Until now the task force has met three times and made considerable progress. This working paper is based on the 2nd level COFOG data for five countries that are available as of June 2007.

The required 2nd level COFOG data are not available for non-European member countries of the OECD (Australia, Canada, Japan, Korea, Mexico, New Zealand, US). Efforts are under way to reach agreement with these countries about submission of these data to the OECD. Until these data are transmitted, COFOG-Special cannot be applied to non-European OECD countries.

In order to apply the COFOG-Special classification, use is made of two EUROSTAT tables, namely: 1) the cross-table of 1st level (regular) COFOG and the economic classification provided for all sub-sectors of Government (table 1102); 2) the cross-table of 2nd level (regular) COFOG and the Economic classification provided for general government expenditures (Table 1A).

Since the 2nd level (regular) COFOG data that are necessary for the application of COFOG-Special, are not yet available for the sub-sectors of government, the COFOG-special classification can temporarily only be applied to the sub-sectors on the basis of approximations. These approximations are explained below. Since 2nd level COFOG data for sub-sectors are sometimes already available in national statistical offices, the approximations have been tested for one country, where this is the case, namely France. The approximations turned out to be acceptable for France.

### ***The cash/in-kind split***

The cash/in-kind split is made as follows. As cash are considered:

- a. Other current transfers and capital transfers in 2nd level COFOG group *Foreign aid*. This group is called **Foreign aid transfers**.
- b. Other current transfers and capital transfers in 2nd level COFOG group *Transfers of a general character between different levels of government*<sup>39</sup>. This group is called **General purpose and Block grants**<sup>40</sup>.
- c. Property income expenditures in the 2nd level COFOG group *Public Debt transactions*. This group is called **Interest**.
- d. The cash part of the 1st level COFOG group *Social protection*. This group is called **Social cash transfers**.

The remainder of the 1st level COFOG groups from which the cash parts are split off is considered as in kind.

<sup>38</sup> The System of National Accounts (SNA) is established by the UN (most recently in SNA93), with the cooperation of the IMF, the OECD, the European Commission and the World Bank. The GFS Manual, established by the IMF, most recently in GFS2001, provides more information on COFOG, but no precise guidelines on application of each COFOG group.

<sup>39</sup> All other current transfers and capital transfers in other COFOG groups, except those in the 2nd level group *Foreign aid* (see under a) are considered as in kind because they are earmarked contributions.

<sup>40</sup> In General Government the transfers between levels of government are consolidated and thus eliminated from the data. This implies that at the level of General Government the group **General purpose and block grants** cannot occur.

Since 2nd level COFOG groups are not available for sub-sectors, approximations are required to identify the cash groups **Foreign aid transfers**, **General purpose and block grants** and **Interest**. These approximations are the following:

**Foreign aid transfers:** it is assumed that other current transfers and capital transfers in 2nd level COFOG group *Foreign aid* only exists at the level of central government, so that the General government number can be attributed to central government. Accordingly **Foreign aid transfers** at the sub-sectors of states, local government and social security are assumed to be zero<sup>41</sup>.

**General purpose and block grants:** it is assumed that apart from the (imputed) other current transfers and capital transfers in 2nd level COFOG groups *Basic research* and *Foreign economic aid*<sup>42</sup>, there exist no other current transfers and no capital transfers in 1st level COFOG group *General public services* than those in 2nd level COFOG group *Transfers of a general character between different levels of government*<sup>43</sup>. Accordingly, all other current transfers and capital transfers in the 1st level COFOG group *General Public Services* except the (imputed) other current transfers and capital transfers on *Basic research* and *Foreign economic aid*, are identified as **General purpose and block grants**.

**Interest:** it is assumed that there exist no other property income expenditures in the 1st level COFOG group *General Public Services* than those in 2nd level COFOG group *Public Debt Transactions*<sup>44</sup>. Accordingly, all property income expenditures in the 1st level COFOG group *General Public Services* are identified as **Interest**.

Since the cash/in-kind split is not available for the 1st level COFOG group *Social Protection*, an additional approximation is required to identify the cash group **Social cash transfers**. In the national accounts is available a relevant cash/in-kind split of the group Social benefits of the economic classification, namely in a) Social benefits other than social transfers in kind (D62), and b) Social benefits in kind (D631)<sup>45</sup>. From a test procedure on 5 countries<sup>46</sup> it turned out that on average around 75% of the expenditures on Social benefits occurred in the 1st level COFOG group *Social Protection*. In this light it seemed reasonable to approximate the cash/in-kind parts of the Social benefits component (D62 + D631) of this COFOG group by splitting this component proportional to the cash (D62) and in-kind (D631) parts of expenditures on social benefits in all COFOG groups<sup>47</sup>. In order to arrive at the cash and in-kind parts of the total 1st level COFOG group *Social protection*, the expenditures in all other groups of the economic classification (other than social benefits, for instance: employment, gross capital formation, etc.) within this COFOG group have been assumed to be in-kind. In formula this leads to the following cash and in kind parts of the 1st level COFOG group Social protection.

- cash:  $A_1 = A * B_1 / (B_1 + B_2)$ .
- in kind:  $A_2 = A * (B_2) / (B_1 + B_2) + a$

<sup>41</sup> The assumption was tested for the case of France and turned out to be acceptable (see § 15).

<sup>42</sup> Remember that all other current transfers and capital transfers on *Foreign economic aid* of General government are attributed to Central government (see this § above). The same is true for all expenditures on *Basic research*. (see § 26 below).

<sup>43</sup> The assumption was tested for the case of France and turned out to be acceptable (see § 15).

<sup>44</sup> The assumption was tested for the case of France and turned out to be acceptable (see § 15).

<sup>45</sup> To the in-kind part of Social benefits of the economic classification also belong Transfers of individual non-market goods or services (D632). These are transfers other than those granted under social security or social assistance arrangements, for instance for education. However this group is not relevant for the 1<sup>st</sup> level COFOG group *Social protection*.

<sup>46</sup> Germany, Japan, Denmark, Australia and Korea.

<sup>47</sup> A more precise approximation would have been possible if something could have been said about the cash or in kind nature of the second major COFOG component of Social benefits, namely *Health*. However, health expenditures are very diverse in terms of the cash/in kind split between countries (at least in the countries, treated in this working paper).

*in which:*

- A** = Social benefits (D62 + D63) in the 1st level COFOG group *Social protection* (source: table 1102)
- A<sub>1</sub>** = cash part of Social benefits (D62 + D631) in the 1st level COFOG group *Social protection*
- A<sub>2</sub>** = in-kind part of Social benefits (D62 + D631) in the 1st level COFOG group *Social protection*
- B<sub>1</sub>** = cash part of Social benefits (D62 + D631) in total expenditures (source national accounts)
- B<sub>2</sub>** = in-kind part of Social benefits (D62 + D631) in total expenditures (source national accents)
- A** = other expenditures than Social benefits in the 1st level COFOG group *Social protection* (source: table 1102)

### ***The individual/collective split***

The individual/collective split is made as follows. As expenditures for individual goods are considered:

- a. all expenditures on 1st level COFOG group *Recreation, culture and religion*, except those for intermediate consumption, compensation of employees and gross capital formation of 2nd level COFOG groups *R+D Recreation, culture and religion* and *Recreation, culture and religion not elsewhere classified*;
- b. all expenditures on 1st level COFOG group *Social protection*, except those for intermediate consumption, compensation of employees and gross capital formation of 2nd level COFOG groups *R+D Social protection* and *Social protection not elsewhere classified*;
- c. all expenditure on 1st level COFOG group *Health*, except those for intermediate consumption, compensation of employees and gross capital formation of 2nd level COFOG groups *R+D Health* and *Health not elsewhere classified*;
- d. all expenditure on 1st level COFOG group *Education*, except those for intermediate consumption, compensation of employees and gross capital formation of 2nd level COFOG groups *R+D Education* and *Education not elsewhere classified*;
- e. all subsidies in 1st level COFOG groups (e1) *Economic affairs*, (e2) *Environmental protection*, and (e3) *Housing and community amenities*.

All other 1st level COFOG groups as well as the remainder of the 1st level COFOG groups from which the expenditures for individual goods mentioned sub a to e above is split off, are considered as expenditures for collective goods.

The expenditures on intermediate consumption, compensation of employees and gross capital formation of 2nd level COFOG groups *R+D Recreation, culture and religion*, *R+D Social Protection*, *R+D Health* and *R+D Education* as well as *Not elsewhere classified Recreation, culture and religion*, *Not elsewhere classified Social protection*, *Not elsewhere classified Health* and *Not elsewhere classified Education* mentioned under 19 sub a, b, c and d, are taken together in a group which is called **Service regulation**. Added to this group are the expenditures on intermediate consumption, compensation of employees and gross capital formation of:

- a. the 2nd level COFOG groups *R+D Environmentalprotection* and *Environmental protection not elsewhere classified* of the 1st level COFOG group *Environmental protection*;
- b. the 2nd level COFOG groups *R+D Housing and community amenities* and *Housing and community amenities not elsewhere classified* of the 1st level COFOG group *Housing and community amenities*;



- c. the 2nd level COFOG groups: (c1) *General Economic, commercial and labour affairs*, (c2) *Agriculture, forestry, fishing and hunting*, (c3) *Mining, manufacturing, and construction*, (c4) *Other industries* and (c5) *R+D Economic Affairs*, and (c6) *Economic affairs not elsewhere classified* of the 1st level COFOG group *Economic Affairs*.

The subsidies in 1st level COFOG groups (1) *Economic affairs*, (2) *Environmental protection*, and (3) *Housing and community amenities* mentioned under 19 sub e are taken together in a group which is called **Market subsidies**. Added to this group are the subsidies in 1st level COFOG group *Recreation, culture and religion*. Subsidies in these four 1st level COFOG groups are put together because, in contrast to subsidies in other 1st level COFOG groups they are assumed to flow mainly to the (quasi-)corporate sector of the economy.

The split described in para. 19 under *a.* to *d.* is entirely consistent with the split between individual and collective goods that is made in the national accounts for final consumption expenditure. However, the latter split does not apply to gross capital formation, current and capital transfers, interest, and subsidies. This implies that the split described in para. 19 extends the split of the national accounts to expenditures that do not belong to final consumption expenditures<sup>48</sup>. Furthermore, the SNA93 definition of final consumption expenditure for individual goods describes the exception to the individual good character of the 1st level COFOG groups (a) *Education*, (b) *Health*, (c) *Social Protection* and (d) *Recreation, culture and religion* as: “except for expenditures on general administration, regulation, research, etc.”<sup>49</sup>. These excepted expenditures have been approximated by the expenditures for intermediate consumption, compensation of employees and gross capital formation of the 2nd level COFOG groups mentioned sub 20 (not elsewhere classified, R+D and some groups concerning industrial and agricultural policies).

The split described in § 19 under e) implies that subsidies in 1st level COFOG groups (1) *Economic affairs*, (2) *Environmental protection*, and (3) *Housing and community amenities* are split in a different way than expenditures for final consumption expenditure in these groups, because they are always treated as expenditures for individual goods. The reasons are twofold. First, subsidies in these groups are used to finance individual goods (think of environmental subsidies, public transport subsidies, subsidies to keep uncompetitive industries alive, etc.). One could reason that what these transfers are subsidising is the external or redistributive effect, not the individual good itself; the external or redistributive effect is collective. However, this is true for all goods that ESA95 defines as individual (health, education, social benefits). In all these cases the reason for public funding is the external or redistributive effect. Nevertheless these goods are defined as individual, because what counts is the nature of the goods, not the external or redistributive effect. Analogously, in COFOG-Special an energy conservation subsidy to a car-maker is considered as individual because a car is an individual good. Second, there is no reason to assume that the public funding share of a subsidised individual good has any relation to the size of the external or redistributive effect. Goods get subsidised because of rent seeking, political lobbying, etc. Perhaps there is no external or redistributive effect at all<sup>50</sup>.

Since 2nd level COFOG groups are not available for sub-sectors, an approximation is required to identify the expenditures on the collective good of **Service regulation** in sub-sectors. For that purpose, it is assumed that the proportion of **Service regulation** in the 1st level COFOG groups (a) *Economic affairs*,

<sup>48</sup> Note that the other current and capital transfers in 1st level COFOG group *General Public Services* which make up **Foreign aid transfers** and **General Purpose and block grants** have been put apart as cash transfers but they remain collective goods. Similarly, the property income in 1st level COFOG group *General Public Services*, which makes up **Interest** has been put apart as cash transfer but it remains collective.

<sup>49</sup> The same wording is used in ESA95.

<sup>50</sup> An alternative way of distinguishing between subsidies for individual and collective goods would be to treat consumer subsidies as expenditures for individual goods and producer subsidies as expenditures for collective goods. However, from an economic point of view this way of splitting makes little sense: in competitive markets all subsidies in the mentioned COFOG groups finally end up in the pocket of the consumer.

(b) *Environmental protection*, (c) *Housing and community amenities*, (d) *Recreation, culture and religion*, (e) *Social protection* (f) *Health* and (g) *Education* is identical in all sub-sectors to the proportion of **Service regulation** in these 1st level COFOG groups in General Government. The proportionality is assumed to be applicable for intermediate consumption, compensation of employees and gross capital formation separately.

*The split between individual goods in kind funded for distributive reasons and individual goods in kind funded for allocative reasons*

The split between individual goods in kind financed for allocative reasons (positive external effects) and individual goods in kind financed for distributive reasons (fair distributions of income) is made as follows. It is assumed that all expenditures on individual goods in kind in the 1st level COFOG group *Recreation, culture and religion* are exclusively based on allocative motives and that there are no expenditures on individual goods in kind in other 1st level COFOG groups that are exclusively based on such motives. Furthermore, it is assumed that all expenditures on individual goods in kind in the 1st level COFOG group *Social protection* are exclusively based on distributive motives and that there are no expenditures on individual goods in kind in other 1st level COFOG groups that are exclusively based on such motives.

### ***Renaming of COFOG-Special groups***

Apart from the three splits that COFOG-Special adds to regular COFOG, COFOG-Special deviates from COFOG in that the 2nd level COFOG group *Basic research* has been split off from 1st level COFOG group *General public services* to form the new group **Basic research**. Since 2nd level COFOG groups are not available for sectors, it is assumed that *Basic research* only exists in central government, so that the General government number can be attributed to Central government<sup>51</sup>.

Furthermore, for the sake of simplicity and in order to avoid using terms that have a different meaning in regular COFOG or in the economic classification, the remainder of *Economic affairs* has been renamed **Infrastructure and network services**, the remainder of *Environmental protection* has been added to the remainder of *Housing and community amenities* to form the new group **Environmental protection, development and community services**, the remainder of *Recreation, culture and religion* has been renamed **Non-market recreation, culture and religion** and the remainder of *Social protection* has been renamed **Social services**.

### ***Summary table***

The following table summarizes the methods that have been used to construct the COFOG-Special data that are presented in the following chapters.

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<sup>51</sup> The assumption was tested for the case of France and turned out to be acceptable (see para. 15). However, it is known that in at least one federal country (the USA), the sub-sector of states also contributes to the financing of basic research. This means that the procedure may lead to a certain overestimation of central government expenditure on basic research in those countries and an underestimation (namely at zero) of state expenditures for this purpose.

Table 1A. Methods used to construct the COFOG-Special Data

Collective/ individual	Cash/ in kind	COFOG-Special	Source (table 1101 and 1102)	
			COFOG 1st & 2nd level	Economic classification
<i>Collective goods</i>	<i>In kind</i>	<b>General governance services</b>	Remainder <i>General public services</i> (701)	All
		<b>Basic research</b>	<i>Basic research</i> (7014)*	All
		<b>Defence</b>	<i>Defence</i> (702)	All
		<b>Public order and safety</b>	<i>Public order and safety</i> (703)	All
		<b>Infrastructure and network services</b>	<i>Remainder Economic Affairs</i> (704)	All minus subsidies
		<b>Environmental protection, development and community services</b>	Remainder <i>Environmental protection</i> (705)	All minus subsidies
			Remainder <i>Public housing and community amenities</i> (706)	All minus subsidies
		<b>Service regulation</b>	<i>General economic, commercial and labour affairs</i> (7041)**	Intermediate consumption, compensation of employees, gross capital formation
			<i>Agriculture, forestry, fishing and hunting</i> (7042)**	Intermediate consumption, compensation of employees, gross capital formation
			<i>Mining, manufacturing, and construction</i> (7044)**	Intermediate consumption, compensation of employees, gross capital formation
			<i>Other industries</i> (7047)**	Intermediate consumption, compensation of employees, gross capital formation
			<i>R+D Economic affairs</i> (7048)**	Intermediate consumption, compensation of employees, gross capital formation
			<i>Not elsewhere classified Economic affairs</i> (7049)**	Intermediate consumption, compensation of employees, gross capital formation
			<i>R+D Environmental protection</i> (7055)**	Intermediate consumption, compensation of employees, gross capital formation
			<i>Not elsewhere classified Environmental protection</i> (7056)**	Intermediate consumption, compensation of employees, gross capital formation
			<i>R+D Housing and community amenities</i> (7065)**	Intermediate consumption, compensation of employees, gross capital formation
			<i>Not elsewhere classified Housing and community amenities</i> (7066)**	Intermediate consumption, compensation of employees, gross capital formation
			<i>R+D health</i> (7075)	
			<i>Not elsewhere classified health</i> (7076)**	Intermediate consumption, compensation of employees, gross capital formation
			<i>R+D Recreation, culture and religion</i> (7085)**	Intermediate consumption, compensation of employees, gross capital formation
	<i>Not elsewhere classified Recreation, culture and religion</i> (7086)**		Intermediate consumption, compensation of employees, gross capital formation	
	<i>R+D Education</i> (7097)**		Intermediate consumption, compensation of employees, gross capital formation	
	<i>Not elsewhere classified Education</i> (7098)**		Intermediate consumption, compensation of employees, gross capital formation	
	<i>R+D Social protection</i> (7108)**		Intermediate consumption, compensation of employees, gross capital formation	
	<i>Not elsewhere classified Social protection</i> (7109)**	Intermediate consumption, compensation of employees, gross capital formation		
	<i>Cash</i>	<b>Foreign aid transfers</b>	<i>Foreign economic aid</i> (7012) *	Other Current transfers and capital transfers
		<b>General purpose and block grants</b>	<i>Transfers of a general character between different levels of government</i> (7018)***	Other current transfers and capital transfers between sub-sectors
<b>Interest</b>		<i>Public Debt Transactions</i> (7017)	Property income	

Collective/ individual	Cash/ in kind	COFOG-Special	Source (table 1101 and 1102)	
			COFOG 1st & 2nd level	Economic classification
<b>Individual goods</b>	<b>In kind</b>	<b>Non-market recreation, culture and religion</b>	Remainder <i>Recreation, culture and religion</i> (708)	All minus subsidies
		<b>Social services</b>	Remainder <i>Social protection</i> (710)	All
		<b>Health</b>	Remainder <i>Health</i> (707)	All
		<b>Education</b>	Remainder <i>Education</i> (709)	All
		<b>Market subsidies</b>	<i>Economic affairs</i> (704)	Subsidies
			<i>Environmental protection</i> (705)	Subsidies
			<i>Housing and community amenities.</i> (706)	Subsidies
			<i>Recreation, culture and religion</i> (708)	Subsidies
	<b>Cash</b>	<b>Social cash transfers</b>	Cash part of <i>Social protection</i> (710)****	Social benefits

Notes \* The general government figure is attributed to central government (source table 1101). See § 17 and 26.

\*\* The figures for the sub-sectors are computed on the basis of the proportion of service regulation in the COFOG- special groups in general government, separately for intermediate consumption, compensation of employees and gross capital formation (source table 1101). See § 24.

\*\*\* For the sub-sectors estimated by taking all other current transfers and all capital transfers in 1st level COFOG Group *General Public Services* (706), except the (imputed) other current transfers and capital transfers on *Basic research* and *Foreign economic aid*. See § 17.

\*\*\*\* For the estimation of the cash part, see § 18.