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Potential for Savings and Efficiency Enhancement in Public Administration

Results of an International Benchmarking Analysis

A lean and efficient public administration system is considered an important location factor. Against the background of the perennial discussion on administrative reforms, WIFO has compared administrative costs in Austria with those of other EU and OECD countries. Even when taking into account diseconomies of scale of Austria as a small country, we find a medium to long term theoretical efficiency reserve of € ¾ to 2½ billion in Austria's general public administration. Another € ½ billion in efficiency gains could be achieved by reducing the complexity of legislation and administrative processes. However, substantial savings can only be realised if the institutional framework of administrative activity is fundamentally reformed.

The present article is based on sections of a WIFO study commissioned by the Austrian Federal Ministry of Finance: Hans Pitlik, Heinz Handler, Joseph Reiter, Angelika Pasterniak, Thomas Kostal, *Effizienz der Ausgabenstrukturen des öffentlichen Sektors in Österreich* (November 2008, 361 pages, 50 €, download 40 €, <http://www.wifo.ac.at/www/jsp/index.jsp?fid=23923&id=34659>). Angelika Pasterniak is a research assistant at Vienna University, Hans Pitlik is an economist at WIFO. The authors are thankful to Gunther Tichy and Margit Schratzenstaller for useful and constructive comments. The data were processed and analysed with the assistance of Dietmar Klose • E-mail address: Hans.Pitlik@wifo.ac.at

The demand for comprehensive administrative reform has been voiced repeatedly in Austrian political discussions over the past decades. The reform of public administration has been proposed perhaps most frequently as a way of achieving savings in the public sector. The assumption of the existence of savings potential is evidently based on the notion that Austrian bureaucracy is generally "too large" and/or "too expensive". Thus, in past decades Austrian governments have repeatedly declared the reduction of administrative expenditures – along with the preservation or improvement of the quality of public services – to be one of their main goals¹.

One of the most difficult steps in striving to achieve this goal is the quantification of the potential volume of savings ("savings potential" or "efficiency reserves") which could be achieved through sweeping reforms. However, we can obtain evidence of this volume by carrying out an international benchmarking analysis. The present study, which is based on sections of a comprehensive WIFO study on the efficiency of spending structures in Austria's public sector ("*Effizienz der Ausgabenstrukturen des öffentlichen Sektors in Österreich*", Pitlik *et al.*, 2008)², therefore mainly explores the question "How high are Austria's public administration expenditures?" using a benchmarking analysis to deduce the savings potential and efficiency reserves in Austria's public administration. The study draws on System of National Accounts (SNA) public sector data (based on ESA 95), which are better suited for time series analyses and

Purpose of this study

¹ Countless federal reform initiatives have been documented at <https://www.bmf.gv.at/Budget/Budgets/2007/beilagen/Verwaltungsreform.pdf>. A table of reform efforts at the regional level is provided in Grossmann – Hauth (2007).

² The present paper draws on data published after the completion of the study. However, the results of the WIFO study remain valid. In addition to an estimate of the efficiency enhancement potential in Austria administration, the study looks at public funding (subsidies, transfer of wealth). The results show that Austria's spending on public funding lies well above the international average, even under consideration of a series of structural influences on the amount of funding. In the area of subsidies and capital transfer, the study identifies an efficiency enhancement potential of € 3½ to 5 billion.

cross-country comparisons than administrative statistics, as they are based on an internationally standardised definition of the public sector (see, for example, *Grossmann – Hauth, 2006*).

A general problem in the quantification of cost and savings potential in public administration is that one must take into consideration varying, country-specific administrative duties and responsibilities, as well as differing socio-economic contexts ("environmental factors") for the fulfillment of these duties. Furthermore, the quality of administrative services may vary between countries – differences that would not be considered in an exclusively input-oriented analysis. The WIFO analysis discusses different definitions of administrative scope and places Austria's administrative cost position in an international context. In doing so, it isolates external cost-influencing factors, in particular for general public administration, and uses these to estimate savings potential. By contrasting the cost of general administration with indicators on administrative performance, we find that savings of up to € 2½ billion should be possible without any reduction in quality.

Criticism of the size and cost of public administration often starts with a look at total government expenditures. Based on the SNA definition of the government sector (federal government, provinces, municipalities and social insurance), Austria's public expenditure share of the GDP amounted to 48.4 percent in 2007. According to Eurostat, this made Austria the seventh highest ranking country in the OECD and the sixth highest in the EU 15.

However, the volume of government spending (2007 € 131.1 billion) is an insufficient benchmark for the cost of administration. The share of government expenditures is largely determined by monetary transfers of government to households and companies (such as pensions, unemployment benefits, subsidies, etc.); together, these amounted to € 69.4 billion or 52.9 percent of total government expenditures in 2007. The share of government expenditures also includes spending on debt servicing (€ 7.8 billion or 5.9 percent of total expenditures) and investments (2.8 billion or 2.1 percent), which cannot be interpreted as administrative expenditures.

In a broad definition, public administration includes all those institutions which have been commissioned with the administration or provision of public services³. This is based on the idea that administration has to implement measures decided at the political level. Economic theory legitimates government activities with a failure of private markets to supply certain socially desired goods (*Musgrave, 1959, Stiglitz, 2000*). At the same time, the government does not necessarily assume the role of a "production unit". The government's role, as derived from market failure theory, refers to the provision of (public) goods and services, not their physical production (*Ostrom, 1983, Grossecketter, 2001*). For most public services, therefore, the question regularly arises as to whether administration should become a producer or should be limited to a financing or guaranteeing function (*Naschold, 1995, p. 43ff, Schedler – Proeller, 2006, p. 35ff*). Essentially, this raises the question of the optimal range of services in the state sector (see the box "Transaction Cost Approach and Optimal Range of Services in the Public Sector"):

- In some cases, public administration acts as a service producer. Services are carried out directly by civil servants in the public health care system, schools and universities, the judicial system, the police, the national defense system and many areas of general interest. In addition to expenditures on the compensation of active civil servants, this involves the purchase of goods and services (for example, rental expenditures).
- The production of certain public services can, however, also be completely or partially delegated to the private sector (contracting out), and certain partial services can be carried out by private providers (outsourcing). When the production process – the provision of public services – is completely shifted to the pri-

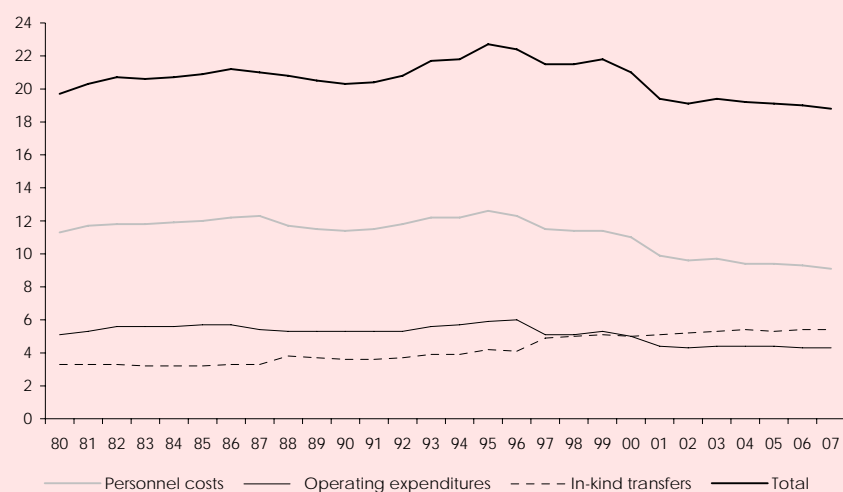
³ A generally recognised definition of administration has yet to emerge (see, for example, *Schedler – Proeller, 2006, p. 15*). Even in a simple negative definition, administration encompasses all state activities that do not fall into the categories of the legislation or judiciary.

Public administration as a production and provision unit

vate sector, the administration merely acts as a buyer of services or a financier of services in private demand. Such "intermediate services" also arise when services that the administration had previously produced on its own are carried out through outsourcing from the public budget. When the administration purchases social goods and services that are made directly available to private households free of charge or for a small fee (for example, in the form of deductibles in the public health care or education systems) from private suppliers or entities not formally belonging to the public sector (such as hospitals), then the SNA does not consider these expenditures to be intermediate services, but rather in-kind transfers⁴.

In this context, the OECD (*Pilichowski – Turkisch, 2008*) estimates the cost of administration as a production and provision unit as the sum of the personnel costs for active civil servants, expenditures on intermediate services (operating expenditures) and in-kind transfers⁵.

Figure 1: Running expenditures of total government sector administration in Austria
As a percentage of GDP



Source: WIFO calculations based on Eurostat.

Based on this broad definition, in relation to GDP, the running administrative costs of the production and allocation of public services in Austria increased significantly from 19.7 percent (1980) to 22.3 percent (1996), however, subsequently dropped to 18.8 percent of GDP by 2007. Figure 1 shows two clear structural breaks: in the course of the 1996-97 outsourcing of ASFINAG, regional hospitals and municipal utilities, the compensation of government employees dropped from 12.3 to 11.5 percent of GDP, and the operating expenditures fell from 6.0 to 5.1 percent of GDP. In 2000-01 the cost of personnel decreased from 11 to 9.9 percent, and intermediary consumption declined from 5 to 4.4 percent of GDP. Since then, based on the SNA definition, the personnel expenditures for active civil servants have further dropped to 9.1 percent of GDP (2007), while spending on intermediate services has stagnated at 4.3 to 4.4 percent of GDP. In contrast to the development of personnel costs and operating expenditures, in-kind transfers have increased from 3.3 percent

⁴ The categories of expenditures are therefore difficult to isolate, both in theory and in practice. For example, in certain countries (UK, Greece, Cyprus, the USA and Canada), in-kind transfers are not listed separately, but rather partly or completely included in the category of intermediate services.

⁵ Subsidies or capital transfers to individual market suppliers are excluded from the production and allocation expenditures of the public sector when these result in losses during the production of public services. This is consistent in the sense that these government payments are not being used directly in return for services. On the other hand this means that the real costs of service allocation are systematically underestimated when losses of private suppliers in the production of public services have to be regularly compensated for by transfers.

(1980) to 5.4 percent of GDP (2007), in part as a result of the outsourcing of hospitals and the transition to performance-orientated hospital financing⁶.

The savings to be achieved through outsourcing are clearly limited. This does not fundamentally speak against outsourcing, but rather for improved strategic guidelines and efficiency monitoring, as well as for a reduction of political influence on the operations of outsourced entities (*Pitlik et al., 2008*).

Table 1: Running expenditures of total government sector

2007

	Personnel costs	Operating expenditures	In-kind transfers	Total government sector administration	Total government sector administration
	As a percentage of GDP			As a percentage of primary expenditures	
Switzerland ¹	7.9	3.8	0.9	12.6	38.8
Korea ²	7.1	4.2	2.4	13.7	49.3
Luxembourg	7.3	3.1	4.8	15.2	40.4
Slovakia	6.8	4.6	4.5	15.9	47.7
Japan ²	6.3	3.5	6.3	16.1	45.0
Greece ³	11.0	5.2	0.0	16.2	41.1
Ireland	9.3	5.2	1.8	16.3	47.3
Romania	9.5	6.4	0.6	16.5	45.2
Lithuania	10.0	5.4	1.6	17.0	49.3
Poland	9.6	6.0	2.0	17.6	44.5
Spain	10.2	5.1	2.5	17.8	47.9
Estonia	10.0	6.5	1.4	17.9	50.6
Bulgaria	9.0	8.0	1.3	18.3	45.1
Latvia	11.5	6.3	0.5	18.3	49.2
Slovenia	10.6	5.9	1.9	18.4	44.8
Germany	6.9	4.2	7.4	18.5	45.1
USA ^{1 3}	10.1	8.4	0.0	18.5	54.7
Italy	10.7	5.2	2.7	18.6	43.1
Austria	9.7	4.3	5.4	18.8	47.2
Malta	13.0	5.4	0.6	19.0	48.6
Czech Republic	7.6	6.2	5.3	19.1	46.1
Cyprus	14.5	5.1	0.1	19.7	49.6
New Zealand ²	9.3	7.2	3.9	20.4	53.4
Norway	12.2	6.1	2.1	20.4	51.5
Canada ^{1 3}	11.6	8.9	0.0	20.5	48.6
Portugal	12.9	4.1	4.1	21.1	49.2
Hungary	11.5	6.7	2.9	21.1	54.7
Belgium	11.7	3.5	6.9	22.1	49.8
UK ³	10.9	12.2	0.0	23.1	45.8
France	12.9	5.1	5.6	23.6	47.5
Finland	12.9	9.0	2.2	24.1	52.6
Iceland ³	15.5	10.4	0.0	25.9	63.5
The Netherlands	9.2	7.2	9.6	26.0	60.3
Denmark	16.8	8.9	1.4	27.1	55.1
Sweden	15.1	9.4	3.0	27.5	54.0

Source: WIFO calculations based on Eurostat and the OECD. – ¹ 2006. – ² 2005. – ³ In-kind transfers not listed separately.

The structure of running general administrative expenditures differs significantly among EU and OECD countries (Table 1). The sum of wages, intermediate services and in-kind transfers in 2006 was lowest in Switzerland at 12.6 percent of GDP, followed by Korea, Luxembourg and Slovakia. In Austria it was situated in the mid-range at 18.8 percent of GDP (2007), similar to the figures for Germany (18.4 percent of GDP) and the USA (18.5 percent). Sweden had the highest running expenditures (27.5 percent of GDP) ahead of Denmark (27.1 percent), the Netherlands (26 percent), Iceland (25.9 percent), Finland (24.1 percent) and France (23.6 percent). The highest personnel expenditures were found in Denmark, Sweden and Iceland, in part surpassing 15 percent of GDP, while the lowest expenditures were found in Japan (6.3 percent of the BIP), Slovakia (6.8 percent) and Germany (6.9 percent). Despite the frequent expectation of high personnel costs in the Austrian public sector,

⁶ In 2007, 87 percent of in-kind transfers in Austria could be attributed to the public health care system (WIFO calculations based on data from Statistics Austria).

Austria's personnel costs lay below the unweighted EU-15 average for the entire period from 1980 to 2007.

Transaction Cost Approach and Optimal Range of Services in the Public Sector

Numerous models have been discussed for the organisation of the production of services in the public sector. Depending on the extent of the involvement of administration in the production and allocation process, we distinguish several different stages (e.g., *Schedler – Proeller*, 2006, p. 35ff).

- In the production model – which involves the greatest range of services – the civil servants provide and carry out the public services themselves. This is the conventional administrative model.
- In the financing model, the government limits itself to the complete or partial financing of services. The actual production of services is carried out by private suppliers.
- In the guarantee model ("Gewährleistungsverantwortung"), the government warrants that a service will be provided, but the process of service production and financing itself is still completely undetermined. It is, for example, conceivable that public services be carried out by non-profit organisations or by private suppliers subject to government supervision.

According to *Williamson* (1985), three transaction dimensions play a central role in the choice of organisational design: the specificity, frequency and uncertainty of transactions. The coordination within an organisation will tend to be more hierarchical the more specific the economic transaction relationship is, the more frequently transactions take place and the higher the risk of opportunistic behaviour on the part of the contract partner. With respect to the range of services in the fulfillment of public duties, the literature emphasises specificity and strategic relevance: the greater the specificity and strategic relevance, the more the government tends to take over the provision of these services itself (e.g., *Naschold*, 1995, p. 43ff, *Schedler – Proeller*, 2006, p. 207ff). A task becomes highly specific when (personnel or tangible) resources are exclusively used to carry out this task. Strategic significance applies to "higher" social goals (for example, social peace, freedom or legal security). Strategically significant fields should be covered in the form of service production that ensures high political dirigibility, for example in national defense or law enforcement. Areas such as the public health care or transportation systems, may have strategic significance, but can be covered by offers from private companies. In these cases, the relinquishment of own production and the takeover of financing responsibility – for example, in the form of service contracts with private providers – or a warranty of provision for the government and the taxpayers could be a more beneficial economic solution.

The question of which organisational design is more economically beneficial can, however, only be assessed when one also looks at costs resulting from opportunism within hierarchical structures. When the size of a (government or private) organisation increases, the problem of keeping opportunistic behaviour within the organisation in check increases (*Tirole*, 1994, *Williamson*, 1999). This is particularly true of the state sector, as it is difficult to maintain hierarchical political control over administration due to information asymmetries between political and administrative authorities. Economic bureaucracy theory (e.g., *Niskanen*, 1971, 1975, *Moe*, 1990) points towards poorly developed incentives for economically efficient activity in public administration. The result is one of dual inefficiency: first, in economic bureaucracy models the individual utility maximisation of the administrators is not directed at a minimisation of costs for a given administrative output. The bureaucratic output is therefore produced at excessive cost (X-inefficiency). Second, the result is the over-production of services (allocative inefficiency), the systematic over-staffing of authorities, the bloating of the administrative apparatus and bureaucratic over-regulation.

Differences in personnel costs among countries are also based on the fact that countries use private suppliers to produce public services in varying degrees of intensity. In the field of education, personnel costs in the sample vary from between 1.7 percent (Greece) and 5.2 percent of GDP (Portugal). In Austria, they rank above the average (3.3 percent) at 3.9 percent of GDP. Health care expenditures of over 3 percent of GDP are characteristic for countries with a nationalised health care system (Ireland –3.9 percent, Denmark –3.6 percent, UK –3.5 percent, Finland –3.3 percent, and Sweden –3.2 percent). Low personnel costs are typical of countries in which health care services are carried out under government regulatory supervision, but mainly provided by private suppliers. These include Germany, Luxembourg, Japan, Belgium and the Netherlands, which show public health care spending of 0.3 percent of GDP or less – as well as Austria, which spends 0.6 percent of GDP on public health care (since the transition to performance-orientated hospital financing, hospital expenditures have been assigned to the private sector). Personnel costs are relatively high in the social system in Scandinavian countries (4.9 percent of GDP in Denmark in 2006; 4.1 percent in Sweden). In Austria, personnel costs in the social security system only reached 0.4 percent of GDP.

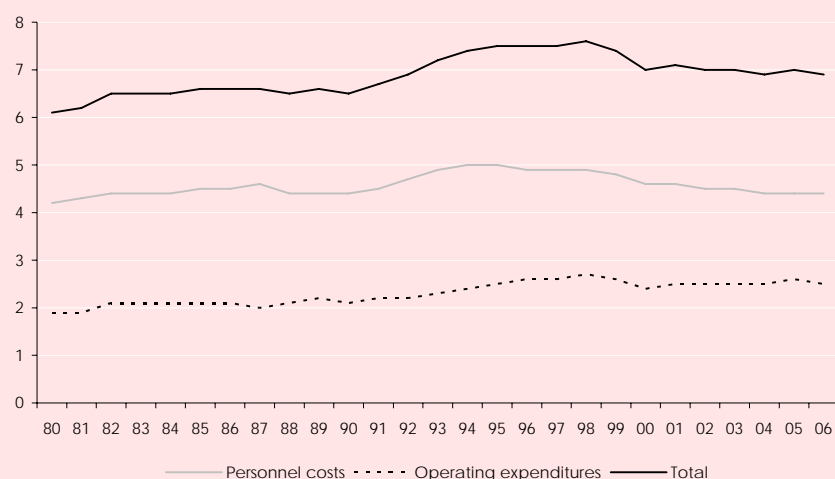
A more narrow definition of public administration costs is based on the statistical survey of the NACE sector "L Public administration, defense, social insurance" (core administration). Based on this definition, the administration of activities in the education, public health care and social security systems, as well as the public utilities and waste management industries, is also taken into consideration – not, however, executive activities. Through this focus, differences in expenditures resulting from differing institutional combinations of private and public service production are mapped less clearly.

The personnel costs and operating expenditures of Austria's core administration showed a slight upward trend until the mid-1990s (Figure 2). Between 1980 and 1998, running expenditures for core administration increased from 6.1 to 7.6 percent of GDP, and subsequently decreased to 6.9 percent of GDP by 2006. Personnel costs climbed significantly between 1980 and 1995 (+9.3 percent per year, nominally), however, between 1995 and 2006 they rose by only 1.8 percent per year. In relation to GDP, personnel costs increased from 4.2 percent (1980) to 5 percent (1995) and have since decreased again to 4.4 percent of GDP. Operating expenditures developed in a similar way. The share of GDP increased from 1.9 percent (1980) to 2.7 percent (1998) and has since decreased somewhat more to 2.5 percent (2006). The weight of operating expenditures in the overall running costs of core administration has therefore increased since 1980.

Core administration

Figure 2: Running expenditures of public core administration in Austria

As a percentage of GDP



Source: WIFO calculations based on Eurostat.

Running core administration expenditures have therefore vacillated much less significantly in the past years than have personnel costs and operating expenditures in other areas of public administration. While in these areas the running expenditures dropped noticeably as a result of budget outsourcing, such effects are less significant in core areas of public administration in Austria.

In an international benchmarking analysis (Table 2) Austria's running core administration expenditures fell into the mid-range at 6.9 percent of GDP, about 0.7 percent below the EU-15 average. Even after adjusting for differences in € purchasing power standards (€-PPS), per capita expenditures varied greatly. At €-PPS 3,701 per capita, Luxembourg shows the highest spending ahead of the Netherlands (€-PPS 2,818), while Austria fell into the broad mid-range at €-PPS 2,082.

Table 2: Running personnel costs and operating expenditures in core administration

2006

	Personnel costs	Operating expenditures	Personnel costs and operating expenditures	Per capita personnel costs and operating expenditures € per capita	Personnel costs and operating expenditures €-PPS per capita
	As a percentage of GDP				
Ireland	3.0	.			
Spain	4.1	.			
Romania ¹	3.5	1.6	5.1	189	409
Luxembourg	3.6	2.0	5.6	4,021	3,701
Norway	3.0	2.7	5.7	3,314	2,532
Poland ¹	3.7	2.1	5.8	415	720
Italy	4.4	2.2	6.6	1,661	1,614
Czech Republic	4.0	2.6	6.6	732	1,224
Germany	4.3	2.5	6.8	1,917	1,833
Slovakia	3.0	3.8	6.8	565	1,028
<i>Austria</i>	<i>4.4</i>	<i>2.5</i>	<i>6.9</i>	<i>2,153</i>	<i>2,082</i>
Estonia	3.7	3.3	7.0	686	1,126
Slovenia	4.1	3.2	7.3	1,098	1,501
Denmark ¹	4.5	2.9	7.4	2,847	2,115
Finland	3.7	3.8	7.5	2,367	2,061
Latvia	4.2	3.3	7.5	526	951
Lithuania	4.1	3.4	7.5	525	996
Sweden ²	3.6	4.2	7.8	2,509	2,126
Hungary ¹	5.4	2.4	7.8	684	1,121
France	5.4	2.7	8.1	2,291	2,116
Belgium ¹	5.9	2.3	8.2	2,373	2,241
Malta	5.0	3.2	8.2	1,020	1,487
UK ¹	4.0	4.6	8.6	2,577	2,306
Greece	5.8	3.0	8.8	1,680	2,011
Bulgaria	4.9	4.0	8.9	291	770
The Netherlands	4.4	4.7	9.1	2,988	2,818
Portugal ¹	6.8	2.8	9.6	1,362	1,635
Cyprus ¹	8.6	3.5	12.1	2,180	2,519
Average	4.5	3.1	7.6	1,633	1,718
EU 15	4.8	2.9	7.9	1,682	1,756

Source: WIFO calculations based on Eurostat. PPS... Purchasing Power Standards. – ¹ 2005. – ² 2004.

Differences in the cost of core public administration can also be attributed to the respective amount of expenditures on defense and domestic security and peace. Countries that spend a comparatively high amount on military and police (UK, Greece, Cyprus) exhibit correspondingly high personnel costs and operating expenditures in core administration. This definition of administration therefore also encompasses typical state sector production expenditures, even if the international comparison is most likely less distorted by outsourcing.

A third, even more narrowly delineated definition of administration is based on the interpretation of public administration as that body which is responsible for the general "business" of government organisations (general public administration). This includes general government and administrative offices, the financial system, foreign affairs, personnel administration and statistical services. In theory, spending on general public administration constitutes an integral part of government activities and derives from the fundamental justification of a democratically organised state (e.g., *Buchanan, 1975*). However, general public administration is suspected of harbouring a bureaucratically motivated desire for expansion, as it is particularly difficult to measure performance and control quality in this area.

Our analysis of general public administration expenditures draws on data from the functional classification of government expenditures (COFOG branch 1: "general public administration"). Running expenditures for supreme offices and authorities came to 1.3 percent of GDP in 2007, whereas in 1997 the share was 1.5 percent (Table 3). Expenditures on "general services" declined (from 1.3 to 0.9 percent of GDP). In total, personnel costs and operating expenditures dropped from 3.3 to 2.5 percent of GDP between 1995 and 2007.

General public administration

Simple comparison of expenditures

Table 3: Personnel costs and operating expenditures in general public administration in Austria

	Personnel costs		Operating expenditures		Personnel costs and operating expenditures	
	Million €	As a percentage of GDP	Million €	As a percentage of GDP	Million €	As a percentage of GDP
1995	3,588	2.0	2,404	1.3	5,992	3.3
Supreme authority	2,339	1.3	357	0.2	2,696	1.5
General services	1,130	0.6	1,187	0.6	2,317	1.3
1996	3,649	2.0	2,608	1.4	6,257	3.4
Supreme authority	2,386	1.3	352	0.2	2,738	1.5
General services	1,142	0.6	1,313	0.7	2,455	1.3
1997	3,631	2.0	1,855	1.0	5,486	3.0
Supreme authority	2,402	1.3	450	0.2	2,852	1.5
General services	1,113	0.6	598	0.3	1,711	0.9
1998	3,753	2.0	1,925	1.0	5,678	3.0
Supreme authority	2,464	1.3	486	0.3	2,950	1.5
General services	1,171	0.6	658	0.3	1,829	1.0
1999	3,978	2.0	2,230	1.1	6,208	3.1
Supreme authority	2,615	1.3	625	0.3	3,240	1.6
General services	1,238	0.6	754	0.4	1,991	1.0
2000	3,964	1.9	2,149	1.0	6,114	2.9
Supreme authority	2,588	1.2	556	0.3	3,144	1.5
General services	1,258	0.6	768	0.4	2,026	1.0
2001	3,947	1.8	2,173	1.0	6,120	2.9
Supreme authority	2,567	1.2	516	0.2	3,083	1.4
General services	1,260	0.6	904	0.4	2,164	1.0
2002	3,975	1.8	2,160	1.0	6,135	2.8
Supreme authority	2,572	1.2	586	0.3	3,157	1.4
General services	1,290	0.6	827	0.4	2,117	1.0
2003	4,058	1.8	2,095	0.9	6,153	2.8
Supreme authority	2,600	1.1	612	0.3	3,212	1.4
General services	1,337	0.6	820	0.4	2,157	1.0
2004	4,068	1.7	2,205	0.9	6,273	2.7
Supreme authority	2,513	1.1	626	0.3	3,138	1.3
General services	1,428	0.6	916	0.4	2,344	1.0
2005	4,189	1.7	2,253	0.9	6,441	2.7
Supreme authority	2,568	1.0	775	0.3	3,343	1.4
General services	1,481	0.6	890	0.4	2,371	1.0
2006	4,349	1.7	2,221	0.9	6,570	2.6
Supreme authority	2,664	1.0	825	0.3	3,489	1.4
General services	1,535	0.6	954	0.4	2,489	1.0
2007	4,473	1.6	2,187	0.8	6,659	2.5
Supreme authority	2,741	1.0	815	0.3	3,555	1.3
General services	1,578	0.6	998	0.4	2,576	0.9

Source: WIFO calculations based on Statistics Austria. Supreme authority: top-most government and administrative offices and legislative body, finance and tax administration, foreign affairs.

In an international comparison⁷, the personnel costs and operating expenditures of general public administration as a percentage of GDP (2006, Figure 3)⁸ ranged from 1 percent (UK) to 3.9 percent (Cyprus). Several countries (Ireland, New Zealand, Estonia, Denmark, Norway, Japan, Spain and the USA) showed shares below 2 percent of GDP. While Austria spends less than France (2.7 percent) or Italy (2.7 percent), it spends more than Germany (1.8 percent). The group of countries with the highest operating expenditures and personnel costs (over 3 percent of GDP) included, among others, Sweden, Finland, the Netherlands, Belgium and Greece. The unweighted average of the entire sample was 2.5 percent of GDP.

Figures on per capita personnel costs and operating expenditures also reveal significant differences between the countries of reference in the sample (Figure 4). Measured in €-PPS, the highest per capita costs were found in Luxembourg (€ 1,523), followed by the Netherlands (€ 1,048), Sweden (€ 1,036), Belgium (€958) and Finland (€ 954). Austria ranked sixth at €-PPS 767 per capita. Germany spent approximately 35 percent less at €-PPS 503 per capita; and Denmark showed costs of only

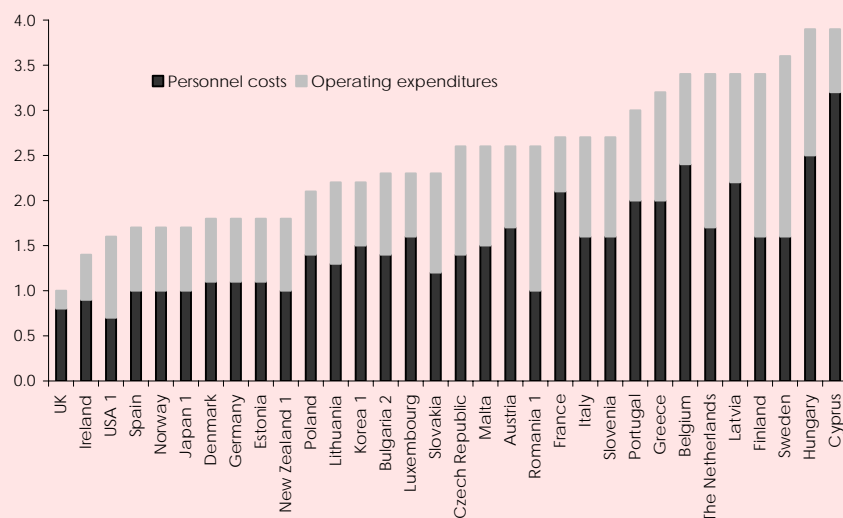
⁷ In an international comparison of expenditures using an (older) COFOG classification, *Kramer* (2003, p. 10) writes: "The international comparability of the field of 'general public administration' should be assumed to be less exact, because in national statistics this is sometimes handled as residual (not elsewhere classified)." Since then, the quality of the data has undoubtedly improved, however the general caveat still applies.

⁸ At the time of writing, figures were only available for five countries for 2007.

€-PPS 525 per capita. At the lower end of the scale, we find many of the new EU countries. In the EU 15, UK had the lowest spending at €-PPS 291 per capita.

Figure 3: Running personnel costs and operating expenditures in general public administration

2006, as a percentage of GDP



Source: WIFO calculations based on Eurostat and the OECD. Switzerland: no data available. – ¹ 2005. – ² 2004.

Figure 4: Per capita personnel costs and operating expenditures in general public administration

2006, in € and €-PPS



Source: WIFO calculations based on Eurostat and the OECD. Switzerland: no data available. – ¹ 2005. – ² 2004.

Differences in expenditures among countries suggest that structural factors play an important role in determining the running expenditures of general public administration. Above all, smaller countries spend a comparatively higher amount on general administration (Figure 4). A simple comparison of expenditures makes little sense when individual countries have cost advantages or disadvantages due to exogenous and barely controllable factors. In simple OLS estimates, the personnel costs and operating expenditures in general public administration for the year 2006 are regressed into several explaining variables that can influence cost structures:

- country prosperity (per capita income),

Structural influencing factors on general public administration expenditures

- size of population,
- state structure (federal or unitary),
- intensity of regulation (complexity of administrative duties).

The entire sample comprises 30 countries, for all of which relevant data are available. We look at whether a country's prosperity (measured as GDP per capita €-PPS) has an influence on administrative costs. In wealthier countries, expenditures could be higher because demands of the population on the administration increase with income ("public administration as a superior good"). Although the estimates do not indicate that there is a connection between per capita GDP and running administrative expenditures in per cent of GDP, there is clearly a highly significant statistically positive relationship between per capita GDP and per capita personnel costs and operating expenditures in general public administration. A per capita increase in GDP of €-PPS 1,000 appears to go hand in hand with a per capita increase in administrative costs of about €-PPS 25 (*Pitlik et al., 2008*).

In a government's general public administration we presumably find indivisibilities and economies of scale, so that per capita expenditures (personnel costs and operating expenditures) generally decrease with population size. This is because, based on the nature of administration as a collective good, the number of beneficiaries can be extended without any decline in quality. This would mean that smaller countries like Austria or the Netherlands have an inherent disadvantage of higher relative administrative costs, while populous countries like the USA, Germany, UK or Japan would tend to have correspondingly lower running personnel costs and operating expenditures in general public administration. Estimates provide a clear indication of the cost advantages of larger countries. Population size always correlates significantly negatively with personnel costs and operating expenditures of general public administration. This effect can explain a large portion of the differences in costs between smaller and larger countries: a reduction in population size by 1 million explains an increase in per capita expenditures of €-PPS 1 to 4 (95 percent confidence interval).

Countries with a federal state structure have an additional, regional level of administration compared to countries with a two-tiered structure. *Ceteris paribus*, the administrative costs of federal governments could therefore be higher than those of unitary governments (e.g., *Bretton – Scott, 1978*). At the same time, when intense competition in federal systems increases political incentives to boost efficiency in administrative bodies, this can contribute to a reduction in costs (e.g., *Brennan – Buchanan, 1980*). The precondition for this is that federal systems have at their disposal tax and political finance instruments, as well as sufficient autonomy in decision-making to enable such competition to arise.

In the present sample, we find federal systems in Germany, Belgium, Norway, Spain and the USA, in addition to Austria. However, we only observe strong federal competition in the USA (*Lonti – Woods, 2008, p. 27*). We have no COFOG data for Canada, Australia and Switzerland, which are also states with a distinct federal structure.

The regressions show no evidence of a connection between state structure and administrative costs. However, an influence of government organisation on administrative costs cannot be ruled out, as the estimation results could be attributed to the contradictory effects of the federal form of government organisation. Yet the technique of distinguishing between federal and unitary systems using simple dummy variables may not provide enough detail to clarify this relationship. Presumably, the specific organisation of the federal system plays an important role.

Administrative expenditures are also determined by the complexity of administrative rules. The more intricate the legislation the administration must enforce, the more costly its enforcement presumably becomes. Complicated tax legislation can, for example, increase the duration of processing, and detailed information and supervisory regulations, as in employment or trade law, can not only increase costs for companies, but also increase the cost of administrative activity.

Country prosperity

Population size

State structure

Intensity of regulation

However, a simple benchmark for the complexity of the rules of general administration is not available. As a proxy variable to test this hypothesis, we therefore use a regulation index devised by the Fraser Institute (*Gwartney – Lawson, 2007*), which rates the intensity of the regulation of goods and factor markets in a country on a scale of 0 to 10 (see the box "EFW Regulation Index of the Fraser Institute"). It appears plausible that the degree of regulation can provide an indication of the complexity of administrative processes⁹.

Indeed, the estimates deliver strong evidence for the suspected relationship between the intensity of regulation and administrative costs. Both in relation to GDP and in terms of per capita population, we find a highly significant statistical connection between the regulation index and personnel costs and operating expenditures of general administration. The costs of administration increase as regulation intensity increases. This indicates that de-regulation could contribute to a reduction in administrative costs. Calculations show that a reduction of regulation intensity in Austria could generate expenditure savings of about € ½ billion, bringing Austria down to the level of Ireland.

EFW Regulation Index of the Fraser Institute

The regulation index of the Vancouver-based "Economic Freedom of the World" (EFW) project measures the intensity of the regulation of product, capital and labour markets in a country. On the basis of a multitude of data on public interventions into private markets collected by international organisations and think tanks, the Fraser Institute has calculated the extent of regulatory intervention in these markets since 1996. The regulation index is, however, only one component in the comprehensive "Index of Economic Freedom". The latest edition is based on various sub-indicators on the intensity of public interventions in private markets. The index comprises three main components, which in turn consist of several sub-components:

- credit market regulation, such as regulations on competition between credit institutions, credit restrictions or government interest regulation,
- labour market regulation, such as regulations on minimum wage and dismissal protection, and social protection in employment and dismissal,
- business regulations, such as price control, regulations on enterprise foundation, licensing regulations, costs of tax compliance and bureaucratic costs (reporting requirements, etc.) for businesses.

An unweighted index is constructed based on 17 sub-components, whose values have been normalised to range from 0 to 10. Higher values show lower regulation intensity. In the most recent data collection for the year 2005, the spectrum of index values ranged from the highest regulation intensity in Greece (5.8) to the lowest in New Zealand (8.8). In the sample, Austria ranked among those countries with a relatively high regulation intensity (6.7).

Source: *Gwartney – Lawson (2007)*.

Austria's "structurally determined" expenditures do not deviate significantly from our theoretically expected value¹⁰. For Austria, based on the structural determinants of population size, country prosperity and intensity of regulation, we expect administrative expenditures of €-PPS 795 per capita for the year 2006, and find that a total of €-PPS 767 per capita were actually spent.

Theoretical potential for efficiency enhancement

⁹ Company reporting requirements are being examined particularly carefully at the moment in the course of the "Better Regulation" initiatives at the EU level (*European Commission, 2006*), in addition to being reformed in Austria. Based on the standard cost approach, the CPB has found related administrative costs for the Netherlands in 2002 to lie between 2.9 percent and 3.7 percent of GDP (*Kox, 2005, Gelauff – Lejour, 2006*). Using this result, *Kox (2005)* extrapolates highly varied costs for other EU countries. In Austria the administrative costs for companies lies significantly above the average at 3.6 percent to 4.6 percent of GDP. However, these are only initial findings and should be interpreted with a great deal of caution.

¹⁰ This method of proceeding corresponds with the first step of a stochastic frontier analysis. However, due to the small number of observations, the error components are not broken down into inefficiency vs. "normal" part.

The ratio between actual and expected values, based on *Heller – Tait* (1982), lies significantly below 1 for some countries – that is, based on their structure, we would expect higher administrative expenditures than we find in reality. Germany, Spain and Denmark only spend about 80 percent of their structurally determined values. Ireland spends 63 percent, and UK spends as little as 51 percent. From this result we can conclude that the general state administration of these countries operates "more efficiently" by way of comparison.

Such a comparison allows us to roughly estimate the theoretical potential for efficiency enhancement in Austria. Depending on the country of reference, this ranges between € ¾ and 2½ billion. In the medium and long term we therefore find broad potential for efficiency enhancement in Austria's general state administration. However, such an analysis cannot point towards the precise areas of administration where this potential lies.

International comparisons of administrative costs are only valid, the frequent objection goes, under the (untested) assumption that the quality of administrative services is identical and that the scope of duties of general public administration does not differ significantly from country to country. Countries with higher costs might, however, also be characterised by particularly good administrative performance.

The measurement of the performance of general public administration is fundamentally difficult, while we do have access to a series of objective performance indicators for the efficiency of the education and public health care systems (see, for example, *Afonso – St. Aubyn*, 2005A, 2005B, 2006A, 2006B, *Eugène*, 2007, *Sutherland – Price*, 2007). These include, for example, the PISA study results indicator for the overall health of the population. The output of general public administration cannot usually be attributed to individual measures, and frequently the desired outcome – the support of the realisation of social goals – cannot be measured with objective indicators. Performance is therefore usually only assessed by means of "soft" governance indicators (e.g., *Afonso – Schuknecht – Tanzi*, 2005, *SCP*, 2004, *Eugène*, 2007).

The concept of 'governance' encompasses the process of political decision-making and the administrative implementation of decisions (*UNESCAP*, 2008, see also *UNDP*, n.d.). Here, above all, the considerations of rule of law, transparency, the duration of administrative procedures and accountability are of utmost importance. For the quantification of these aspects, subjective data from surveys are often collected and coded, in order, for example, to assess the satisfaction of the overall population or select population groups with various aspects of administrative activity. Analyses of the efficiency of public administration generally draw on a selection of indicators from the following data sources (e.g., *SCP*, 2004, *Eugène*, 2007):

- Since 1996 the Institute for Management Development (IMD) has offered a comprehensive, synthetic performance indicator ("government efficiency"), which is calculated based on both objective data (e.g., fiscal indicators) and subjective data (expert surveys). It is based on five sub-indicators (public finance, fiscal policy, institutional and social framework conditions, and legal guidelines for businesses), as well as several sub-groups. Out of 73 individual indicators, only a small selection is relevant to the portrayal of governance (sub-group "state efficiency", for example, the effective implementation of government decisions, transparency, corruption, and bureaucratic regulations).
- Since 1996 the "Worldwide Governance Indicators" research project has collected indicators from the World Bank on the quality of political institutions. The quality of the implementation of government policy is particularly interesting for the assessment of administrative performance ("government effectiveness": see the box "The 'Worldwide Governance Indicators' Project (WGI): Government Effectiveness").

The performance of general public administration

- Since 1990, the "confidence in civil service" indicator has been measured at irregular intervals as part of the World Value Survey¹¹ and interpreted as "trust in government" (*van de Walle – van Roosbroek – Bouckaert, 2005*) or "trust in the public sector" (*van de Walle – van Roosbroek – Bouckaert, 2008*). It is thereby assumed that good performance is expressed in high satisfaction of the population and that this satisfaction leads to high confidence in public administration (*van de Walle – Bouckaert, 2003*).
- The governance sub-group indicator of corruption has been measured in the Corruption Perception Index (CPI) produced by Transparency International since 1995. This index aggregates results from other sources to estimate the level of corruption (among others, from the World Competitiveness Yearbook of the IMD) and currently ranks 180 countries with regard to "perceived" level of corruption (CPI 2008).

The "Worldwide Governance Indicators" Project (WGI): Government Effectiveness

The "Worldwide Governance Indicators" project has measured governance indicators for 212 countries over the period 1996 to 2007. It distinguishes six dimensions of governance:

- political voice and accountability,
- political stability and absence of violence or terrorism,
- government effectiveness,
- regulatory quality,
- rule of law,
- corruption control.

These indicators are calculated based on 35 data sources from 32 different organisations (survey institutes, expert commissions, NGOs and international organisations). The individual indicators of these data sources are collected in surveys and reflect the opinions of a large number of companies and the population, as well as country experts. They are aggregated using an "unobserved components" model¹² and scaled to values between –2.5 and +2.5, where a higher value indicates better performance. Furthermore, standard deviations are given for the governance indicators.

The government effectiveness indicator measures the quality of public services and bureaucracy, the administration's independence of political influence and the quality of the formulation and implementation of policies. Its calculation is based on 49 individual indicators from 19 distinct data sources, including key data from the World Economic Forum and the Institute for Management Development.

Source: Kaufmann – Kraay – Mastruzzi (2008), <http://info.worldbank.org/governance/wgi/index.asp>.

In general, Austria's thus measured administrative performance lies above the average of 33 EU and OECD countries, in some cases even in a high-ranking position (Table 4). Austria shows particularly good performance according to the IMD indicators. Based on the government efficiency indicator, Austria ranks in the upper third of countries of reference (rank 7), and even higher based on the "state efficiency" indicator (rank 4). From this data group, the *SCP* (2004) picks three indicators¹² for the examination of government performance, the fourth being the CPI. In a new WIFO calculation of this selection of indicators, Austria ranks sixth, but takes a lower position based on the government effectiveness and CPI indicators (positions 13 and 11, respectively). Austria's performance is relatively weak when measured with the "confidence in civil service" indicator (rank 23). Denmark lies ahead in all indicators, as do generally Switzerland, Iceland and Australia.

¹¹ The World Values Survey Association coordinates a socio-scientific expert network that examines socio-cultural and political change in the form of surveys (<http://www.worldvaluessurvey.org>).

¹² Effectiveness of the implementation of government decisions, bureaucracy and transparency.

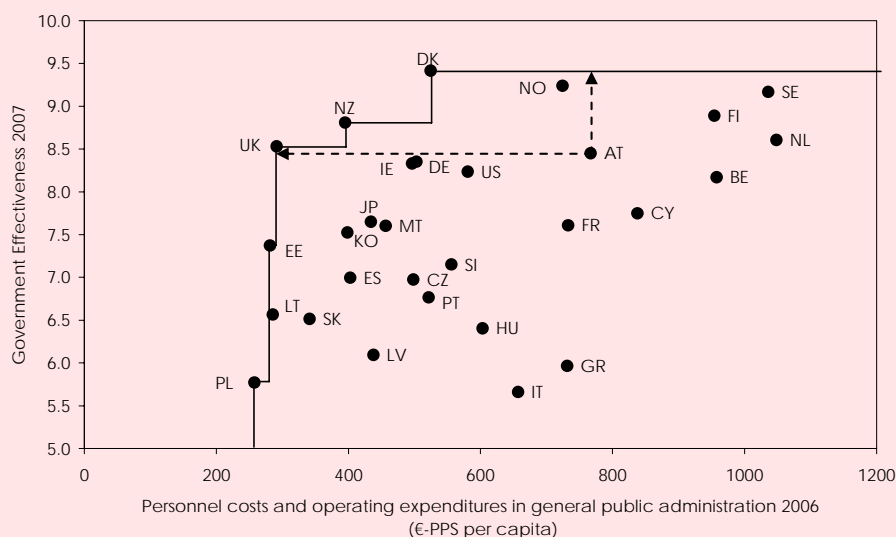
Table 4: Indicators for the measurement of administrative performance by international comparison

	Austria's rank	Ranks 1 to 5
Government Efficiency (IMD 2007)	7	Switzerland, Denmark, Ireland, New Zealand, Australia
State Efficiency (IMD 2007)	4	Denmark, Iceland, Switzerland, Austria, Australia
Government Effectiveness (Weltbank 2008)	13	Switzerland, Denmark, Norway, Sweden, Iceland
Corruption Perception Index (Transparency Int. 2008)	11	Denmark, Sweden, New Zealand, Finland, Switzerland
Confidence in the Public Service (World Values Survey; most recently available figure)	23	Korea, Ireland, Luxembourg, Iceland, Denmark
Quality of public administration 2007 (Definition as in SCP 2004)	6	Denmark, Iceland, Switzerland, Sweden, Australia

Source: World Bank 2008, IMD 2007, Transparency International 2008, worldvaluessurvey.org 1995-2001. For the purpose of comparability, the calculation of rank is based on a sub-sample of 33 EU and OECD countries for each indicator (without Latvia, Malta, Cyprus, Turkey and Mexico).

According to *van de Walle* (2004) no single indicator is optimal for a comparison of the performance of public administration. In empirical examinations of administration efficiency, "flashy models" might therefore be calculated using "muddy data" for lack of a better alternative, and the significance of these results could be over-estimated. However, *van de Walle* (2004, p. 6) considers the government effectiveness indicator particularly useful for a performance comparison. *Kaufmann – Kraay – Mastruzzi* (2008) also consider the World Bank indicators for use in country comparisons and for a comparison of the development of administrative performance over time. Therefore, for the exemplary depiction of the connection between administrative performance and monetary input, the government effectiveness indicator of the World Governance Indicators project (scaled to values between 0 and 10) is juxtaposed with the per capita personnel costs and operating expenditures of general public administration¹³.

Figure 5: Efficiency of general public administration



Source: World Bank 2008, Eurostat, OECD, WIFO.

¹³ Other performance indicators correlate significantly with the government effectiveness indicator, but are only available for a limited data sample. An efficiency analysis using, for example, indicators of the IMD, would deliver similar results due to the high correlation between the government effectiveness indicator and the IMD indicators.

According to the "free disposal hull analysis"¹⁴, based on its good performance within the country sample (rank 8 out of 29), Austria is situated close to the efficiency frontier in output and – due to the high allocation of resources – relatively far from the efficiency frontier when it comes to input (Figure 5). Ireland, UK and Germany perform similarly to Austria with a low level of expenditures: Germany spent 0.8 percent of GDP in 2006 – €-PPS 264 per capita, while Ireland spent € 271 per capita less for personnel costs and operating expenditures in general public administration. The difference to UK is greater, with UK showing €-PPS 476 per capita (or 1.6 percent of GDP). Denmark exhibited significantly better performance with much lower per capita expenditures.

The results are largely comparable to the findings of similar efficiency studies (in particular that of *Afonso – Schuknecht – Tanzi, 2005, SCP, 2004*). The performance of Austria's administration is relatively good by international comparison, but lags behind that of northern European countries. At the same time, the distance to the efficiency frontier is significant where input is concerned.

Even if measurements of administrative efficiency are not beyond criticism due to the use of "soft" (subjective) performance indicators, they quite uniformly support the results of isolated comparisons of expenditures, based on which Austria's general public administration shows sizable potential for savings when compared with countries with comparable performance (quality of governance).

A lean and efficient public administration is considered a significant location factor in international competition (e.g., *European Commission, 2008*). Against the background of an ongoing discussion on administrative reform and savings potential in civil service, the Austrian Institute for Economic Research (WIFO) has compared Austria's administration costs with those of other EU and OECD countries. The analysis looked at several different definitions of administration. Regardless of which definition was chosen, Austria generally assumed a position in the international mid-range.

Above all, due to outsourcing from public budgets, the running personnel costs and operating expenditures in the public sector in Austria have been significantly reduced since the mid-1990s in Austria, however, these "savings" have at least partly been compensated for with an increase in spending on in-kind transfers (and on subsidies). In the more narrow definition of "core administration", where outsourcing plays a much less significant role, expenditures were only slightly reduced.

An international comparison in general public administration (government and administrative offices, finance administration, general planning services, etc.) shows savings potential. The running personnel costs and operating expenditures lie in the upper mid-range of the EU 15. Austria shows much more per capita savings potential than Germany or Denmark. Even when taking into consideration possible cost disadvantages of Austria as a small country, we find a theoretical efficiency reserve of between € ¾ and 2½ billions, depending on the country of reference selected. The assumption here is that the quality and range of administrative services in general public administration does not differ significantly between countries.

Even in the context of international comparisons of performance and efficiency, Austria's general public administration shows sizable efficiency reserves. Although results based on "soft" performance indicators are not beyond criticism, all of the studies examined, as well as the comparison of current data, create a unified picture, pointing toward significant potential to reduce expenditures. With a similar administrative performance to UK, Ireland or Germany, Austria spends a significantly greater amount of funds on general public administration. When compared to that of UK or Ireland, Austria's input efficiency points toward a potential of a similar dimension to that found using cost comparisons.

¹⁴ The FDH analysis is a non-parametric technique used for calculating efficiency frontiers and values. The efficiency frontier envelops data points on a "step-by-step" basis. Efficiency scores are calculated as a relation between actual data points and the distance to the efficiency frontier. An introductory overview of methods of efficiency measurement in the public sector can be found, for example, in *European Commission (2008)* und *Mandl – Dierx – Ilzkovitz (2008)*.

Summary and conclusions

We exclude from administrative costs in the state sector any expenditures arising in companies as a result of carrying out reporting duties or fulfilling basic administrative duties at their own expense (e.g., payment of taxes or social contributions). Here, administrative public service costs are generated, but not included in public spending. Even within Austria's general public administration, however, through a reduction of the complexity of legislation and administrative processes, Austria could achieve savings of up to € ½ billion.

The present analysis of medium and long term efficiency reserves indicates that there is an overall savings potential, but does not indicate which individual measures can be implemented in order to realise this potential. International expenditure and efficiency comparisons are also not suited for locating short term and specific savings options. A next step would be to examine the framework of administrative action. Substantial efficiency gains and savings can only be realised in administration when the institutional sources of the deficits are removed.

In contrast to the search for individual measures, reforms of the incentive structures in administration do not aim to identify savings potential from the outside, but rather to mobilise efficiency enhancing potentials within the bureaucratic system. This process aims to strengthen institutional incentives for the cost-efficient use of public funds, in particular through a general consolidation of spending and financing competencies (see, for example, *Pitlik*, 2007). The long term potential for increased efficiency can therefore not be realised without a fundamental state reform. In the short term, on the contrary, the implementation of institutional reforms can even lead to additional costs, for example through the re-organisation of administrative offices.

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*Potentials for Savings and Efficiency Enhancement in Public Administration**Results of an International Benchmarking Analysis – Summary*

The standard exercise of conjecturing the savings potentials in public administration draws on a general notion that Austria's bureaucracy is "too big" and/or "too expensive". Against the background of a perennial discussion of administrative reform we compare the cost of public administration in Austria with administrative expenditures in other EU and OECD countries. Irrespective of the chosen definition of public administration cost, Austria almost always ranks at an average position in international comparisons. An international assessment in the "General Public Affairs" category yields high potential savings. Taking into account a small country's natural disadvantages in realising economies of scale in general public administration, we infer potential efficiency gains of € 750 million to 2.5 billion in Austria. For the calculations it is assumed that the quality and quantity of administrative services do not differ internationally. Moreover, comparative analyses of administrative performance and efficiency point at similar efficiency reserves in general public administration. Our estimates also lead to the conclusion that a reduction of the complexity of regulation rules and administrative procedures can produce further cost savings of € 500 million.