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CHAPTER 13

EFFICIENCY OF PUBLIC EXPENDITURE IN LATIN AMERICA

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Traditionally characterized by discussions involving the size of public expenditure and the degree of intervention in productive activity, the debate on the role of the government in the economy is being addressed from new angles by the more recent academic literature. One of these lines of research is related to the evaluation of the efficiency of public spending, both as regards the quality of the services delivered (administration, health, education and infrastructure) and in relation to the results achieved in terms of social equity, stabilization and growth. The most recent references in the area are the empirical studies of Afonso, Schuknecht and Tanzi (2005; 2006) who, in comparisons involving, respectively, industrialized countries and a set of emerging countries, built and evaluated indicators for performance of the services and efficiency of public expenditure. In spite of being subject to some limitations, the indicators built and the techniques used in the evaluation of relative efficiency revealed that the marginal returns of public expenditures are decreasing regardless of the group of countries considered. In short, spending is more efficient in nations where the public sector is comparatively smaller.

In the present analysis, we will extend the type of investigation proposed by Afonso, Schuknecht and Tanzi (2005; 2006), henceforth referred to as AST, with a view to evaluating the efficiency of public spending in a comparison involving Latin America countries in the recent period (1998-2003). The main motivation for the study comes from the fact that some of the larger countries of the region (such as Argentina, Brazil, Chile, Colombia and Mexico) adopted, along the eighties and nineties, structural reforms encompassing both the public sector and other sectors and institutions related to fiscal balance and improvement of economic activity. Such reforms were market-oriented and were characterized,

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among others, by the following aspects: greater decentralization in the provision of public services (local government level); privatisation of state-owned companies; liberalization of international trade and of the financial system. After some years, it is argued that continuous economic growth and greater social equity are goals that remain to be reached in most of the countries in the region. Thus, a quantitative/comparative research can help provide a more precise assessment of the differences among Latin American countries regarding the efficiency of public expenditure. In particular, in the comparison with the countries that led the adoption of reforms in the region, and where the reforms went deeper, as appears to be the case of Chile and Mexico.

The text is divided into six more sections. The next one describes the methodology used. Section 3 lists a set of criticisms to one of the methods used for efficiency evaluation, the Data Envelopment Analysis (DEA). The fourth section briefly discusses the profile of public expenditure in Latin America during the period evaluated. Sections 5 and 6 present the empirical results and the last section presents the final considerations.

1 METHODOLOGY AND MODEL

The present analysis follows the same approach proposed in the AST studies. The reasons for such choice were: i) the fact that the results presented by AST are quite direct and have a strong intuitive appeal; ii) there are few methods in literature that carry out quantitative/comparative analysis of spending efficiency between countries. First of all, the way the terms performance and efficiency are understood in the text should be noted. Performance is associated with results achieved (or outcomes, in the technical jargon) in the various areas where the public sector is present. Efficiency, in turn, is a measurement of the relation between the performance achieved and the resources employed in a certain government area.

Initially, based on economic and social indicators and indicators referring to the size of government expenditure, composite indicators for the performance and efficiency of the public sector in each country were built. After that, and also based on performance in certain areas and the expenditures of the public sector, the technique of Data Envelopment Analysis (DEA) was applied in the calculation of the public expenditure relative efficiency scores. The latter technique is a non-parametric method and, therefore, it does not require knowledge of the distributions of objective or subjective probabilities of the variables under consideration. Finally, with the computation of the composite indicators and the scores obtained through the DEA method, surveys were done to rank the 21 Latin American countries that make up the sample.

In the construction of composite indicators, it is assumed that the performance of the public sector depends on a set of economic and social indicators. Using a notation very similar to that adopted by AST (making some alterations as appropriate), we have it that for a country i that has j government areas, the performance of the public sector will be measured by:

$$\begin{aligned} DSP_i &= \sum_{j=1}^{n} DSP_{ij} \\ DSP_{ij} &= \Im(I_k) \\ dDSP_{ij} &= \sum_{k}^{n_1} \frac{\partial \Im}{\partial I_k} dI_k \end{aligned} \qquad (1)$$

Where:

DSPi = global performance of the public sector in country i (composite performance indicator);

DSPij = performance of the public sector in area j of country i (performance sub-indicator);

I_k = relevant economic or social indicator;

$\Im(.)$ = well behaved function that links the indicator to the performance of the public sector;

d(.) = total differential;

$\partial(.)$ = partial differential;

n = number of government areas (in our analysis, n = 5);

n_1 = number of relevant indicators for the government area under consideration;

It should be noted that the performance in each one of the government areas (*DSPij* depends on one or more economic or social indicators (I_k). Thus, an improvement of the overall performance of a country's public sector (*DSPi)* will depend on better levels for those indicators.

Following the same approach as AST, we built performance sub-indicators that can be grouped in two classes:

a) The opportunity sub-indicators reflect the influence of the fiscal policies on individual opportunities and the good functioning of the

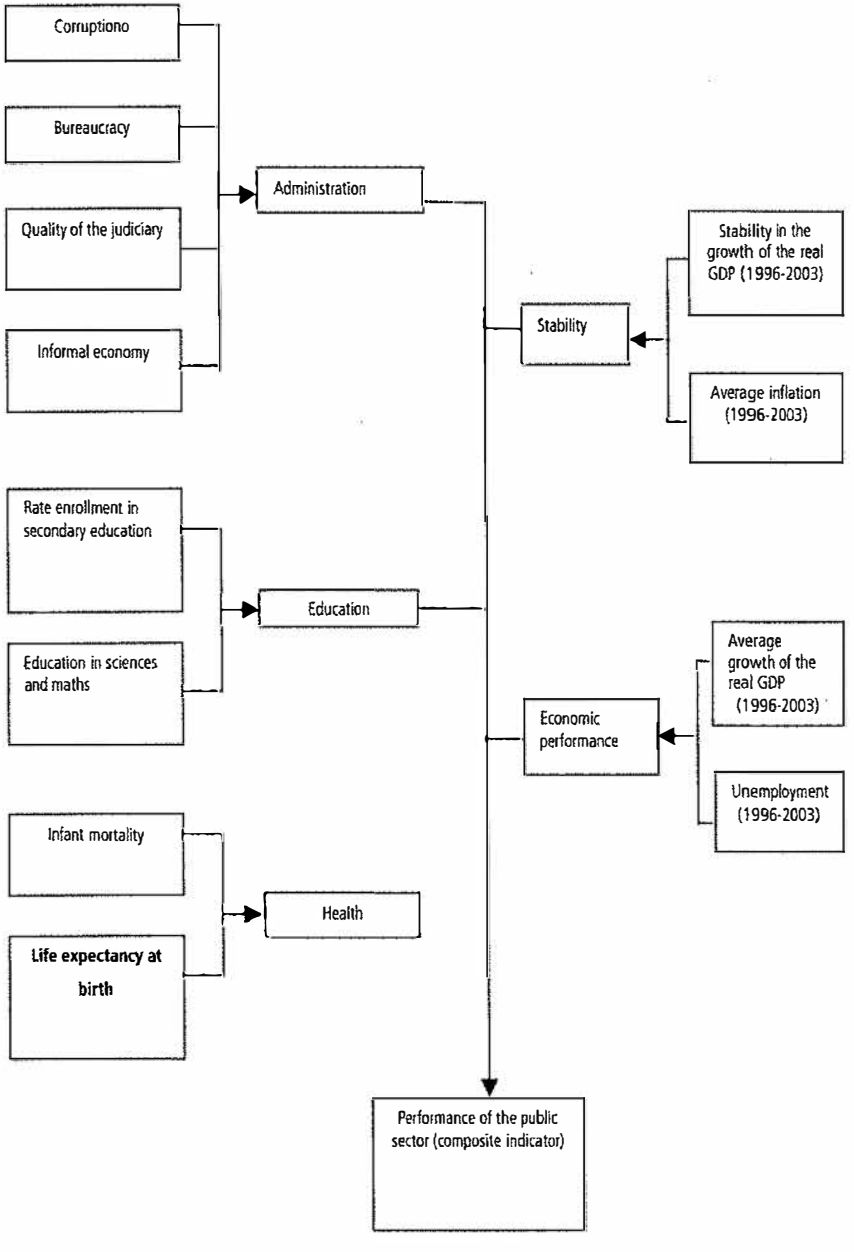
markets. This group includes the sub-indicator for the areas of Administration, Education, Health and Infrastructure.

b) The "Musgravean" sub-indicators are related to the three primary functions provided by the public sector according to economist Richard A. Musgrave. They are: Social equity, Stability and Economic growth.

In this paper, the sub-indicators related to infrastructure and social equity were not considered due to lack of information, until now, on the public expenditures in these two areas for some of the countries of the sample. Thus, the composite performance indicator of the public sector (*DSPi*) will be computed by simple arithmetic average of five sub-indicators: Administration, Education, Health, Stability and Economic performance. Picture 1 summarizes the structure of the composite indicator. In the Annex, the primary data used in the construction of each sub-indicator and their respective sources are tabulated.

FIGURE 1

Structure of the composite performance indicator of the public sector. Opportunity Sub-indicators of "Musgravean" Sub-indicators



Prepared by the author.

The efficiency sub-indicators were obtained from the performance measurements, taking into account the category of the public expenditure related to the government area in question. Thus, we have it that efficiency in the j–th government area of country i will be measured as follows:

$$ESP_{ij} = \frac{DSP_{ij}}{GSP_{ij}} \tag{2}$$

And the composite efficiency indicator will be given by:

$$ESP_i = \sum_{j=1}^{n} ESP_{ij} = \sum_{j=1}^{n} \frac{DSP_{ij}}{GSP_{ij}} \tag{3}$$

Where:

GSP_{ij} = public expenditure in area j of country i

As regards the data envelopment analysis (DEA) technique, its application consists of obtaining a convex production frontier from the set of observations on: i) the government's consumption (input) and ii) the performance sub-indicators (outputs). The frontier is built from the resolution of a linear programming problem. There are two types of choice or orientation in setting up this problem:

Input-oriented, where one determines how much of each input can be proportionally reduced without changing the output obtained.

Output-oriented, one calculates how much output can be proportionally increased without changing the inputs used.

The two approaches result in the same response when there are constant returns to scale, but they have different results when variable returns to scale are used. AST (2006) claim that, although there are variable returns to scale for the analysis of efficiency of the public sector, linear programming will identify the same sets of efficient or inefficient units (countries).

The problem in using input-oriented linear programming and variable returns to scale is described below:

$$\begin{vmatrix} \underset{\theta,\lambda}{Min}\theta \\ s.a. \begin{vmatrix} -y_j + Y\lambda \geq 0 \\ \theta x_j - X\lambda \geq 0 \\ n1'\lambda = 1 \\ \lambda \geq 0 \end{vmatrix} \end{vmatrix} \quad (4)$$

Where:

y_j is a vector of outputs (mx1) where m is the number of outputs

x_j is a vector of inputs (pxn) where p is the number of inputs

Y is a matrix of outputs (mxn), where n is the number of sectors;

X is a matrix of inputs (pxn), where n is the number of sectors;

q is a scale that measures technical efficiency (efficiency score);

ë is a vector (nx1) of constants that measures the weights used to calculate which countries are inefficient;

n'1 is a vector of ones. Restriction $n1'\lambda = 1$ guarantees the convexity of the frontier and is related to the hypothesis of variable returns to scale.

Note that q measures the distance between the country and efficient border, being that:

If q = 1, the country will be at the frontier and will be efficient

If q < 1, the country will be below the frontier and will be inefficient.

It should be noted that, since the DEA uses linear programming techniques, it has the benefits and limitations of these methods. In the next section, the DEA is briefly criticised.

2 CRITICISM TO THE DEA METHOD[1]

The method used by AST (2006) is not free from criticisms, including the important ones listed below.

1. Co-author Waldery Rodrigues Júnior is responsible for this section.

2.1 Indifference with regard to orientation

AST (2006, page 21) claim that

> since the computation uses linear programming not subject to statistical problems such as simultaneous equation bias and specification errors, both output and input-oriented models will identify the same set of efficient/inefficient producers or DMUs... In fact, and as mentioned namely by Coelli et al. (1998), the choice between input and output orientations is not crucial since only the two measures associated with the inefficient units may be different between the two methodologies.

The linear programming method does not necessarily result in the same results when the type of orientation is changed. The set of countries that will be considered inefficient may the same, but the calculation of the distance in relation to the frontier changes completely and therefore so do the considerations made on efficiency.

2.2 Distance to the efficient frontier taken as isometric

AST (2006), as well as a significant part of the relevant literature for our study, assume that the distance to the frontier is a *linear and isometric concept:* the country that is one unit away from the frontier is 10 times less inefficient than the country that is ten units away from the frontier. This hypothesis disregards the non-proportionality inherent in these economic concepts. That is, it does not consider that it is increasingly more difficult for the addition of a unit in the input to generate the same amount of output (formally, decreasing gains or negative second order derivatives).

2.3 Specification errors eliminated *ad gloriam* by the linearization of the optimisation problem

The fact that the program is linear does not guarantee that the model is badly specified, that the chosen sectors are the ones that really explain the efficiency or inefficiency of the public sector.

2.4 Time lag of the same size

There is also the hypothesis that the expenditures in the various sectors have a lag in relation to performance in similar periods. But this hypothesis is not reasonable for some countries. The effect of investment on education and health can be felt in different time periods in the future.

2.5 Weights λ

Finally, different balances can lead to (very) different results, being that the correlations between different country rankings generated might not be substantially far from 1.

3 DATA: PROFILE OF THE EXPENDITURES

Table 1 presents some components of public expenditure for the countries considered in the sample. Some differences between the nations of the region are found:

TABLE 1

Public expenditure in the 21 countries of the sample: government consumption, health and education (in % of the GDP). Average in the 1998-2003 period

Country	Government consumption[1]	Education[2]	Health[3]
Argentina	12.97	4.28	4.76
Bolivia	15.29	5.94	3.77
Brazil	19.42	4.23	3.32
Chile	12.37	4.00	2.86
Colombia	20.44	4.64	6.46
Costa Rica	13.73	4.84	5.21
Ecuador	11.21	1.37	1.72
El Salvador	10.11	2.60	3.52
Guatemala	6.82	1.65	2.11
Haiti	7.13	1.50	2.66
Honduras	12.53	4.20	3.46
Jamaica	15.85	6.10	2.83
Mexico	11.48	5.12	2.67
Nicaragua	11.17	3.56	3.64
Panama	13.61	4.58	5.06
Paraguay	11.73	4.64	2.93
Peru	10.49	3.10	2.34
Dominican Rep.	7.84	2.30	2.12
Trinidad e Tobago	13.38	4.00	1.58
Uruguay	12.78	2.72	3.46
Venezuela	13.06	4.60	2.70
Average	12.54	3.81	3.29
Standard deviation	3.40	1.36	1.23
Maximum	20.44	6.10	6.46
Minimum	6.82	1.37	1.58

Prepared by the author.

Notes: [1] Final consumption of the general government. Average in 1998-2003 period. Sources: IMF, International Financial Statistics 2006; ECLAC, Statistical Yearbook for Latin America and the Caribbean 2005.

[2] Current and capital expenditures of the general government in education. Average in 1999-2003 period. Sources: UNESCO Institute for Statistics (UIS); ECLAC, Statistical Yearbook for Latin America and the Caribbean 2005.

[3] Expenditure of the general government in health. Average in 1998-2003 period. Source: WHO, 2006 World Health Organization Report.

a) Regarding government consumption, Colombia and Brazil present the highest figures (around 20% of the GDP), above the average of 12.5% in the period. On the other end, Guatemala and Dominican

Republic present the lowest figures of consumption, averaging less than 10% in the period.

b) Public expenditure on education presents slightly more variability (standard deviation) that the health expenditure. Countries such as Equator, Haiti and Guatemala spend less than 2% of the GDP in education.

4 RESULTS: COMPOSITE INDICATORS OF PERFORMANCE AND EFFICIENCY

Table 2 presents the values obtained for each one of the sub-indicators, as well as the calculation of the composite performance indicator for each country. One can see some difference in relation to the countries that obtained the highest values for the opportunity and "Musgravean" sub-indicators.

a) In the first class, the best performance results (higher values for the opportunity sub-indicators) were reached by Chile, Costa Rica and Uruguay, with above- average values for the areas of Administration, Education and Health.

b) Regarding the "Musgravean" sub-indicators for the areas of Stability and Economic Performance, the highest results were obtained by Panama (due to the lowest average rate of inflation in the last years among the countries of the sample) and Guatemala (lowest average unemployment rate) respectively.

Two composite performance indicators were calculated.

a) The first (DSP1) is an arithmetic average of the five sub-indicators and shows Panama as the best-performing country due to the high value obtained for the stability sub-indicator and above-average values in the other areas.

b) Indicator DSP2 consists of the arithmetic average of the three opportunity sub-indicators and indicates Chile as the best-performing country.

TABLE 2

Performance indicators for the 21 countries of the sample

Country	Administration	Education	Health	Stability	Economic performance	DSP1[1]	DSP2[2]
Argentina	0.81	1.27	1.03	0.78	0.39	**0.85**	**1.03**
Bolivia	0.73	1.04	0.93	1.30	1.32	**1.06**	**0.90**
Brazil	1.20	1.18	0.99	1.08	0.77	**1.04**	**1.12**
Chile	1.39	1.23	1.06	1.11	1.23	**1.20**	**1.23**
Colombia	1.10	1.02	1.02	0.67	0.52	**0.86**	**1.04**
Costa Rica	1.21	1.12	1.06	0.60	1.45	**1.09**	**1.13**
Ecuador	0.80	0.92	1.03	0.39	0.77	**0.78**	**0.91**
El Salvador	1.16	0.85	1.00	1.96	1.02	**1.20**	**1.00**
Guatemala	0.79	0.62	0.97	1.42	2.27	**1.21**	**0.79**
Haiti	0.67	0.68	0.84	0.82	0.58	**0.72**	**0.73**
Honduras	0.84	0.74	0.98	0.71	1.48	**0.95**	**0.85**
Jamaica	1.08	1.15	1.01	1.08	0.31	**0.93**	**1.08**
Mexico	1.04	0.95	1.03	0.62	1.80	**1.09**	**1.01**
Nicaragua	1.00	0.80	0.99	0.88	1.04	**0.94**	**0.93**
Panama	1.05	1.05	1.03	3.43	1.09	**1.53**	**1.04**
Paraguay	0.84	0.81	1.00	0.74	0.55	**0.79**	**0.89**
Peru	0.87	1.01	0.99	1.06	0.98	**0.98**	**0.96**
Dominican Rep.	1.15	0.76	0.97	0.63	1.32	**0.97**	**0.96**
Trin. and Tobago	1.29	1.31	1.00	1.03	1.60	**1.25**	**1.20**
Uruguay	1.27	1.24	1.04	0.41	0.24	**0.84**	**1.18**
Venezuela	0.72	0.94	1.03	0.27	0.06	**0.60**	**0.89**
Average	1.00	0.99	1.00	1.00	0.99	**1.00**	**1.00**
Maximum	1.39	1.31	1.06	3.43	2.27	**1.53**	**1.23**
Minimum	0.67	0.62	0.84	0.27	0.06	**0.60**	**0.73**

Prepared by the author.

Notes: [1] DSP1 corresponds to the arithmetic average of the five sub-indicators.

[2] DSP2 corresponds to the arithmetic average of the sub-indicators for Administration, Education and Health.

Table 3 presents the results referring to the computation of the sub-indicators and the composite efficiency indicator. Similarly to that was done for the performance indicators, two composite efficiency indicators were calculated. In general, it is observed that the countries that reached the highest values for indicators ESP1 and ESP2, and are therefore the most efficient, present the lowest values for government expenditures. It is the case of Guatemala (highest value for ESP1) and Ecuador (highest ESP2), which present average-below values for some performance sub-indicators (see table 2), but also have a profile of public expenditure below the regional average (see table 1). Such results suggest that public expenditure has little return vis-à-vis performance in Latin American countries, which is consistent with the evidence found in AST both for developed countries and emerging countries in Europe.

TABLE 3
Efficiency Indicators for the 21 countries of the sample

Country	Administration	Education	Health	Stability	Economic performance	DSP1[1]	DSP2[2]
Argentina	0.78	1.13	0.71	0.75	0.38	**0.75**	**0.87**
Bolivia	0.60	0.67	0.82	1.06	1.08	**0.84**	**0.69**
Brazil	0.77	1.06	0.99	0.70	0.50	**0.80**	**0.94**
Chile	1.41	1.17	1.22	1.12	1.24	**1.23**	**1.27**
Colombia	0.67	0.84	0.52	0.41	0.32	**0.55**	**0.68**
Costa Rica	1.11	0.88	0.67	0.55	1.32	**0.91**	**0.89**
Ecuador	0.90	2.55	1.97	0.43	0.86	**1.34**	**1.81**
El Salvador	1.43	1.25	0.93	2.43	1.27	**1.46**	**1.21**
Guatemala	1.45	1.43	1.51	2.61	4.17	**2.23**	**1.46**
Haiti	1.18	1.73	1.04	1.45	1.02	**1.28**	**1.32**
Honduras	0.84	0.67	0.93	0.71	1.48	**0.93**	**0.82**
Jamaica	0.85	0.72	1.17	0.85	0.25	**0.77**	**0.92**
Mexico	1.14	0.71	1.27	0.67	1.97	**1.15**	**1.04**
Nicaragua	1.13	0.86	0.89	0.99	1.17	**1.01**	**0.96**
Panama	0.97	0.87	0.67	3.17	1.01	**1.34**	**0.84**
Paraguay	0.90	0.67	1.13	0.80	0.59	**0.82**	**0.90**
Peru	1.04	1.24	1.39	1.26	1.17	**1.22**	**1.22**
Dominican Rep.	1.85	1.26	1.51	1.02	2.11	**1.55**	**1.54**
Trin. and Tobago	1.21	1.25	2.08	0.96	1.50	**1.40**	**1.51**
Uruguay	1.24	1.74	0.99	0.41	0.24	**0.92**	**1.33**
Venezuela	0.69	0.78	1.25	0.26	0.06	**0.61**	**0.91**
Average	1.06	1.12	1.13	1.08	1.13	**1.10**	**1.10**
Maximum	1.85	2.55	2.08	3.17	4.17	**2.23**	**1.81**
Minimum	0.60	0.67	0.52	0.26	0.06	**0.55**	**0.68**

Prepared by the author.
Notes: [1] ESP 1 corresponds to the arithmetic average of the five sub-indicators.
[2] ESP 2 corresponds to the arithmetic average of the sub-indicators for Administration, Education and Health.

A graph helps illustrate the combined performance and efficiency indicators (picture 2). According to the graph:

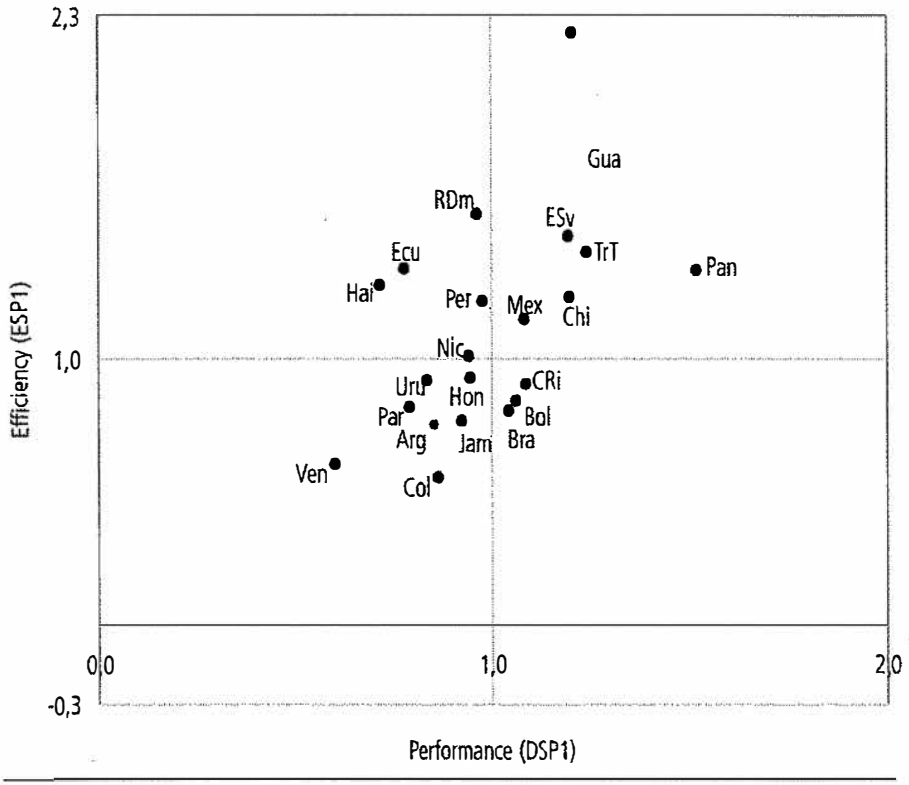
a) Efficient countries and with good performance are: Guatemala (Gua), El Salvador (Esv), Panama (Pan), Trinidad and Tobago (TrT), Chile (Chi) and Mexico (Mex).

b) Efficient countries, but with bad performance are: Dominican Republic (RDm), Ecuador (Ecu), Haiti (Hai), Peru (Per) and Nicaragua (NIC).

c) Inefficient countries, but with good performance are: Costa Rica (Cri), Bolivia (Bol) and Brazil (Bra).

d) Inefficient countries and with bad performance are: Venezuela (Ven), Colombia (Col), Uruguay (Uru), Paraguay (Pair), Argentina (Arg), Honduras (Hon) and Jamaica (Jam).

FIGURE 2
Performance versus efficiency



Prepared by the author.

5 RESULTS OF THE DEA ANALYSIS

Table 4 presents the results for the input-oriented efficiency coefficients obtained considering the performance sub-indicators as measurements of output, and government consumption as measurement of input. The results are presented in two cases according to the number of sub-indicators considered.

TABLE 4

Results of the data envelopment analysis (DEA)

Country	Output= all five performance sub-indicators. Input=government consumption. Variable returns to scale		Output=sub-indicators for Administration, Education and ealth.Input= government consumption. Variable returns to scale	
	Efficiency score (θ)	Ranking	Efficiency score (θ)	Ranking
Argentina	0.988	10	0.988	6
Bolivia	0.706	18	0.688	18
Brazil	0.613	20	0.613	20
Chile	1.000	1	1.000	1
Colombia	0.505	21	0.505	21
Costa Rica	1.000	1	1.000	1
Ecuador	0.916	13	0.916	10
El Salvador	1.000	1	0.895	12
Guatemala	1.000	1	1.000	1
Haiti	0.997	9	0.984	7
Honduras	0.621	19	0.621	19
Jamaica	0.735	17	0.734	17
Mexico	1.000	1	0.917	11
Nicaragua	0.751	16	0.751	16
Panama	1.000	1	0.790	14
Paraguay	0.762	15	0.762	15
Peru	0.982	12	0.976	9
Dominican Rep.	1.000	1	1.000	1
Trin. and Tobago	1.000	1	1.000	1
Uruguai	0.984	11	0.984	8
Venezuela	0.792	14	0.792	13
Average	0.874		0.853	

Prepared by the author.

In case 1, where the 5 performance sub-indicators were considered, the following are on the efficiency frontier (score of 1): Chile, Costa Rica, El Salvador, Guatemala, Mexico, Panama, Dominican Republic and Trinidad and Tobago. Colombia presented the lowest relative efficiency score (0.505), which means that it could reduce by about 50% its government resources without altering the performance of the public services. Brazil ranks second-last (twentieth among the 21 countries considered, with a score of 0.613) and could save around 40% of its resources without altering the results of the indicators. The mean score of 0.874 indicates that, on average, the governments of Latin American countries could be more efficient, using around 13% less resources. In comparison with the results obtained in the computation of the composite efficiency indicator ESP1, the main difference seems to be in relation to Costa Rica, the country that presented a score of 0.91 for that indicator (therefore, below the average of 1.10 for efficiency, see table 3) but is on the efficiency frontier according to the DEA analysis.

In the second case, considering only the opportunity sub-indicators, five countries are on the frontier (Chile, Costa Rica, Guatemala, Dominican Republic and Trinidad and Tobago), suggesting that the efficiency criterion becomes stricter when considering only the areas of Administration, Health and Education. Of the eight countries previously considered as efficient in case 1, three dropped below the frontier: El Salvador (could save around 10% of its inputs), Mexico (around 8%) and Panama (21%). Colombia and Brazil maintained the last positions, with the same scores as in case 1. On average, the countries could use around 15% less public resources. That is, in case 2 the set of countries was relatively more inefficient.

6 FINAL CONSIDERATIONS

Performance measurements of public services and efficiency of government expenditure are unquestionably useful in determining how good the macroeconomic measures adopted in a certain country are in the comparison with other countries of a specific group or of the same region. In this study, we carried out a quantitative analysis of performance and efficiency concepts for a set of 21 countries in Latin America. Although the results can be questioned to some extent, in particular because of the great difficulty in separating the impact of public expenditure from other influences that can affect some of the performance sub-indicators, a precise (not necessarily exact)[2] quantification of those concepts is achieved regarding the public sector. While some results obtained match intuition (Chile and Mexico, the most advanced countries in the region, are on the efficient frontier in at least one of the cases), others defy common sense (several countries in Central America have performance and efficiency above the regional average) and should be interpreted with caution. In any case, this is an analysis still in progress in the Coordination of Public Finances of IPEA, and it can provide bases for other empirical studies where the methodological corrections/suggestions made here are described.

In the case of Brazil, a direct result is achieved. The country could save around 40% of its inputs to produce the same output (using DSP1 or DSP2). It is a very bad performance, particularly when one takes into account that it is relative to the set of countries in the region. However, it should be noted that the study did not take into account performance in relation to social equity. Perhaps this is one of the areas where the country has advanced more in the last years due to the achievement of economic stability in the late nineties and the increase of social programs considered as low cost and high impact.

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2. Exactness + Precision = Accuracy.

ANNEX

TABLE A.1

Primary data used in the construction of the performance sub-indicators

Country	Corruption		Bureaucracy	Qual. Judiciary		Informality	Education		Health	
	1	2	3	4	5	6	7	8	9	10
Argentina	3.1	3.3	1.7	1.6	1.8	4.4	3.8	81.3	74.3	17.2
Bolivia	2.5	2.4	2.0	1.8	2.3	6.0	2.9	71.2	63.8	63.0
Brazil	4.7	4.8	2.7	4.2	3.7	4.7	3.6	74.9	70.3	35.0
Chile	5.2	3.6	3.2	4.2	4.2	2.1	3.7	78.6	77.7	8.9
Colombia	4.4	4.0	2.3	3.4	3.4	4.2	3.6	55.3	72.2	20.0
Costa Rica	4.8	3.9	2.2	4.5	4.3	3.7	4.4	52.7	78.6	12.5
Ecuador	2.7	3.3	1.8	1.6	1.8	4.4	3.2	50.4	74.2	27.0
El Salvador	3.6	4.8	3.4	3.0	3.4	4.9	2.9	48.6	70.6	29.0
Guatemala	3.1	2.0	2.1	2.0	2.1	5.2	2.4	29.7	67.0	39.0
Haiti	2.5	2.8	2.5	1.3	1.5	7.2	2.2		51.4	81.0
Honduras	3.0	3.5	1.9	2.0	2.2	4.8	2.4		67.6	33.0
Jamaica	5.4	3.3	2.3	4.4	4.0	5.9	3.4	75.4	70.7	17.0
Mexico	3.8	4.8	2.3	2.8	3.1	4.6	2.8	62.6	74.5	25.0
Nicaragua	4.0	3.0	2.4	1.9	2.3	3.2	3.1	39.0	69.5	34.0
Panama	3.7	2.6	2.5	2.5	2.9	3.1	3.4	63.0	74.7	20.0
Paraguay	2.6	3.0	2.7	2.0	2.2	5.7	2.5	51.1	70.8	23.0
Peru	2.7	3.7	2.3	2.3	2.8	5.7	2.8	69.2	69.8	33.0
Dominican Rep.	4.1	4.0	3.1	3.3	3.0	4.1	3.0	35.5	67.2	33.0
Trin. and Tobago	5.3	3.1	2.7	5.2	4.6	3.8	4.6	72.0	69.9	20.0
Uruguai	5.9	4.3	2.1	5.2	4.1	3.8	4.1	73.2	74.8	14.1
Venezuela	2.9	2.1	1.7	1.3	1.5	4.7	2.9	59.2	73.6	17.0

Country	Stability	Economic Perform.		
	11	12	13	14
Argentina	6.9	4.7	0.9	15.8
Bolivia	1.6	4.7	3.1	5.0
Brazil	1.5	8.5	1.9	8.8
Chile	2.6	4.3	3.8	7.3
Colombia	2.5	12.4	1.5	15.5
Costa Rica	3.1	11.7	4.4	6.0
Ecuador	3.6	35.2	2.3	10.7
El Salvador	0.9	3.7	2.7	7.1
Guatemala	1.1	7.4	3.3	2.2
Haiti	1.7	16.8	1.5	
Honduras	2.3	13.2	3.0	4.0
Jamaica	1.4	9.7	0.4	14.9
Mexico	2.7	14.1	3.7	3.3
Nicaragua	2.0	8.7	3.9	12.2
Panama	2.5	1.0	4.3	13.6
Paraguay	2.5	9.5	0.4	7.7
Peru	2.6	4.7	2.7	7.9
Dominican Rep.	3.5	9.3	5.7	15.4
Trin. and Tobago	3.5	4.1	7.0	13.1
Uruguai	5.7	13.4	-0.2	13.4
Venezuela	5.7	36.4	-1.1	13.2

Sources: World Economic Forum, Global The Competitiveness Report 2002-2003.
ECLAC, Statistical Yearbook for America Latin and the Caribbean 2005.
World Bank, World Development Indicators (WDI).
IMF, World Economic Outlook 2004 and 2006.
LABORSTA, ILO Bureau Statistics.

Notes: [1] Irregular payments related to favourable sentences. 1=common; 7=never occur.
[2] Frequency of additional payments or bribes in the last 3 years. 1= increased significantly; 7=decreased significantly.

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(continuation)

[3] Administrative regulations. 1=many; 7=few.
[4] Independence of the judiciary in relation to the government. 1=highly influenced; 7=totally independent.
[5] Efficiency of the set of laws. 1=inefficient (subject to manipulation); 7=efficient (neutrality).
[6] Percentage non-official business. 1=less than 5%; 2= from 6 to 10%; 3= from 11 to 20%; 9=more than 70%. In the calculation of the indicator, index I was used, such that I = 9 – percentage of non-official business.
[7] Quality of education in sciences and mathematics. 1=below and far from other countries; 7=among the best of the world.
[8] Net rate of enrolments in secondary education. Values referring to 2002.
[9] Life expectancy at birth (years). Values referring to 2002.
[10] Infant mortality rate (per 1000 births). Values referring to 2002. In the calculation of the indicator, infant survival rate = 1000 – infant mortality rate was used.
[11] Standard deviation of the real GDP growth rate in the 1996-2003 period. In the calculation of the indicator, the reverse of the standard deviation was used.
[12] Average inflation rate in the 1996-2003 period. In the calculation of the indicator, the reverse was used.
[13] Average growth rate of the real GDP in the 1996-2003 period.
[14] Average unemployment rate in the 1996-2003 period. In the calculation of the indicator, the reverse was used.