

10. EFFICIENCY, EFFECTIVENESS AND PERFORMANCE OF THE PUBLIC SECTOR

Diana Marieta MIHAIU¹
Alin OPREANA²
Marian Pompiliu CRISTESCU³

Abstract

The current economic situation determined by the effects of the crisis is causing the governments of the countries worldwide to streamline their processes in terms of collecting revenue from the state budget and then redistributing it on the principle of performance and economic efficiency. In this sense the comparative analysis of the efficiency in the public and private sector is the starting point for studying the role of efficiency, effectiveness and performance regarding the economic governance of resources utilization by the public management for achieving medium and long-term objectives of economic recovery and sustainable development of national economies. Public sector performance score for UE countries (PSP_{UE}), which represents the objective of the current work, aims to quantify and present the real situation in terms of public sector performance.

Keywords: public expenditure, efficiency, input, output, outcomes

JEL Classification: H0, D61, G14

1. Efficiency in the public sector versus private sector efficiency

In general sense, the efficiency can be achieved under the conditions of maximizing the results of an action in relation to the resources used, and it is calculated by comparing the effects obtained in their efforts. Measuring the effectiveness requires: a) estimating the costs, the resources consumed the effort, in general, found in the literature as the input; b) estimating the results, or the outputs; c) comparing the two.

¹ "Lucian Blaga" University of Sibiu, Email: cindea_diana@yahoo.com.

² "Lucian Blaga" University of Sibiu, Email: aopreana@yahoo.com.

³ "Lucian Blaga" University of Sibiu, Email: marian.cristescu@ulbsibiu.ro.

When speaking of efficiency, most times it regards the private sector, the public sector being almost universally designated as ineffective. This statement, however, requires to be carefully considered so as not to fall into the trap of any unfounded speeches. Without trying to create a rift between the public and the private sector, or give rise to the latter's dislikes, we wonder who said that the public sector is inefficient in comparison to the private one? The answer is simple; the representatives of the private sector are those who show off their outstanding achievements in comparison with the alleged low level of those from the public sector. Then, starting from this assumption, it could infer the fact that the private sector is setting a trap for the public sector, winning the sympathy of the people and having as final purpose the extension of the "territory" towards those areas most wanted, under the pretext of inefficiency?

A second problem that arises is related to the full comparability of the two sectors, so as to be able to compare the effectiveness of each one of them. Even a simple analysis reveals that the two sectors are not interchangeable. The objectives pursued by the public and private organizations are different, so, the private sector aims for profit, while the public sector seeks not only to obtain economic benefits, but also to obtain social benefits, with the stated primary objective to ensure the public welfare (see Figure 1). The private projects seek especially to obtain economic benefits, showing a reduced concern for the social and environmental issues, but nowadays many companies are starting to improve the mentality trying to place the social responsibility vision with the one of obtaining profit. The private projects in exchange may not pursue the economic benefit, substituting it with one of a social nature.

Figure 1

Public organisations versus private organisations

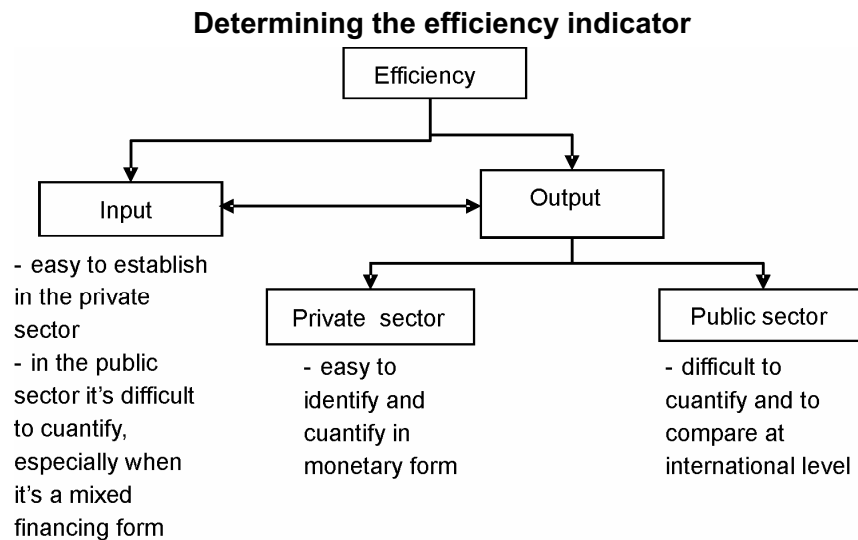
| Public organisations | Private organisations |
|--|--|
| Are usually monopolies | Operating on competitive markets |
| Serve the citizens | Maximize the investment's profit |
| Are driven directly or indirectly by politicians, which should reflect the interests of the citizens | Leaders of companies are responsible to shareholders, to the boards; they seek profit maximization |
| State organizations are more rigid due to the process of decision making and implementation | Are more flexible, easier to manage because the decision is taken by a single leader |
| Distribute, redistribute and regulate resources | Produce and distribute resources |
| Are sometimes poorly funded, more or less | Are financed under its productivity or if investment the decision is feasible |
| Citizens are often poorly informed and suspicious of government | Investors and shareholders are well informed and the ongoing activities of the company and the market evolve |

Source: Kotler P., Lee N., 2008, p.18.

The efficiency is provided by the relationship between the effects, or outputs such as found in the literature, and efforts or inputs. The relationship is apparently simple, but

practice often proves the contrary, because identifying and measuring inputs and outputs in the public sector is generally a difficult operation.

Figure 2



In many cases the direct and immediate economic benefit is missing in the public sector. For example, if a school is built in a village the efforts involved in this investment can be easily identified: all costs incurred for the construction, the material basis, the wages, etc. But under what form are the benefits in this case? Can we identify direct economic benefits? The answer is "no"; in which case we meet only social benefits, such as: increasing literacy, ensuring better labor market, higher living conditions, difficult to quantify in cash. So, in conclusion, we can say that the economic efficiency of this investment is zero, starting from the definition of the efficiency (effects/effort), precisely because the effects are difficult to assess in money. When building a highway by the public sector the investment may be considered ineffective if we refer to the increased time of recovering the initial investment from the future cash flows generated by the collection of highway taxes, but the objective of the investment is not only one of economic nature (tax collection), but it considers reducing the number of road accidents and reduce traveling time. So in this case the calculated efficiency is much lower than the real one.

If we analyze the effectiveness of a private sector's investments we can see that it can be determined much more easily. For example, when building a shoe factory, the efforts are represented by the direct and indirect costs of formal operation of the plant. The effects in this situation are the annual profits obtained, a thing very easily determined by accounting and the efficiency indicator can also be obtained easily.

An important public benefit is the concern for human life and for quality of life. Because of these social needs the need for the public sector is felt, as this offers the society services which the private sector couldn't or wasn't interested in offering

because of the lack of economic benefit. Providing insurance services for national defense, maintaining the public order, spatial planning, disaster prevention and control are one attribute of the state, without which no nation could exist. These types of public services needed, cannot be provided by the private sector because they don't have the economic power for sustaining them, their majority brings no profit, so there is no interest in providing such services from the private sector, and not in the least it would be a quite great risk for the people that these services belonged to the private sector (Scutaru, 2009).

The efficiency in the public sector could be compared with that obtained in the private sector only when the objectives are identical; and even in this case it's not fully comparable because the public sector develops complex projects, which take into account not only the economic benefits but also social problems such as (Stoian M., Ene N.C., 2003):

- requiring a company to use low prices even below the costs for some local collectivities determined, in order to redistribute incomes;
- setting that some equipments or products to be acquired by the public companies in domestic production, regardless of price, in order to balance the balance of payments;
- establishing that the institutions and/or public companies not to reduce headcount, although it is oversized, for not to increase the number of unemployed and give rise to some social problems;
- imposing the building of an industrial objective in an area economically disadvantaged to obtain a more balanced regional development;
- requiring that the public companies use some local technologies in order to reduce the economic dependence on external.

When we speak of efficiency, most analysts refer to the economic efficiency, taken from the private sector and subjected to analysis in the public sector, in order to illustrate the so-called inefficiency of the latter. The efficiency in the public sector must thus be seen as an amount between the economic efficiency and the social-environmental one. Also, the time horizon for measuring the efficiency obtained should be adjusted to the investment. Usually the private sector seeks the economic effectiveness on a short-term (annual profit), while most public sector investments generate results over a longer period of time, these future flows of efficiency are often ignored in the analysis. In order to apply the measuring techniques of the efficiency from the private sector to the public one its objectives must be measured quantitatively accurately, which is a rare situation. The difficulty of measuring the efficiency in the public sector is largely caused by the inability to quantify accurately the effects (outputs) because they are direct but also indirect due to the externalities which they generate, but also due to the clear and accurate non-statement of the objectives.

The public sector performance versus the private sector

Opinions AGAINST the public sector:

- the public sector envisages employment, while the objective of the private sector is to achieve high productivity;

- in the public sector the overall activity is usually assessed, while in the private sector each company is analyzed separately;
 - the public sector tends to waste the public money, while the private sector aims to reduce costs;
 - in the public sector the employees are generally not redundant, that is why their need for labor is low.
- Opinions AGAINST the private sector:
- the private sector is profit-driven, even if for many this means compromising the quality of the products or services;
 - the public sector hardly spends money on social responsibility, research and development;
 - the private sector brings numerous damages to the public sector through tax evasion.

As it is mentioned in 2005 in a study by David Hall and Emanuele Lobina from The Greenwich University it cannot be said that there is a significant difference in efficiency between public and private organizations. Following a study conducted both in the developed countries but also in the developing and in transition ones, it is impossible to express a relevant conclusion in terms of efficiency in the two sectors, as the ineffectiveness of an organization is not entirely influenced by its ownership (Hall D., Lobina E., 2005). Analyzing the processes of privatization in the UK, Massimo Florio concluded that they had no visible effect over an organization's performance and the net gain is zero, given the transfer of value from workers to owners (Florio, 2004).

2. Efficiency, effectiveness and performance in the public sector

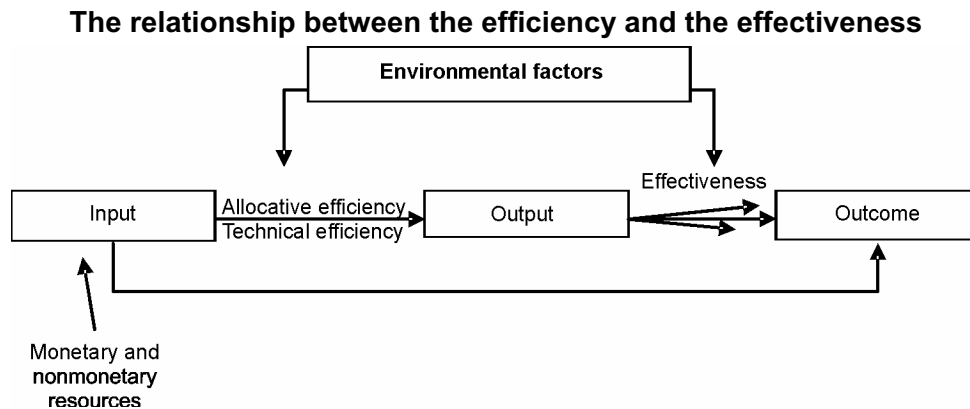
As seen in the previous subsection, the efficiency is an indicator that is obtained by reporting the outcome effects to the efforts made. *The efficiency of public expenses implies a relation between the economic and social effects resulted from implementing a program and the effort made to finance that program.*

The effectiveness is the indicator given by the ratio of the result obtained to the one programmed to achieve.

Peter Drucker believes that there is no efficiency without effectiveness, because it is more important to do well what you have proposed (the effectiveness) than do well something else that was not necessarily concerned (Drucker, 2001, p.147). The relationship between efficiency and effectiveness is that of a part to the whole, the effectiveness is a necessary condition to achieving efficiency.

Ulrike Mandl, Adriaan Dierx and Fabienne Ilzkovitz in the paper *The effectiveness and efficiency of public spending* indicate that the efficiency and effectiveness analysis is based on the relationship between the inputs (entries), the outputs (results) and the outcomes (effects).

Figure 3



Source: Mandl U., Dierx A., Ilzkovitz F., (2008): *The effectiveness and efficiency of public spending*, p.3.

As it can be seen in Figure 3, the efficiency is given by the ratio of inputs to outputs. The authors mentioned above distinguish between the *technical efficiency* and the *allocative efficiency*. The technical efficiency implies a relation between inputs and outputs on the frontier production curve, but not any form of technical efficiency makes sense in economic terms, and this deficiency is captured through the allocative efficiency that requires a cost/benefit ratio. The effectiveness, in terms of this study, implies a relationship between outputs and outcomes. In this sense the distinction between the output and the outcome must be made. For example, for education, an output is represented by the degree of literacy, and the outcome can be the level of education of the active population of that country. Thus, the effects resulted from the implementation of a program (outcomes) are influenced by the results (outputs), as well as by other external factors. Therefore, effectiveness, illustrating the success with which resources were used in order to achieve the objectives pursued, is harder to achieve than efficiency, since the latter is not influenced by outside factors (Mandl U., Dierx A., Ilzkovitz F., 2008).

The direct factors of influence of the efficiency are:

- *The inputs.* In the public sector the resources are much harder to quantify than in the private sector, because most of the times the public services overlap and resources from several sources are used. But, in general, the inputs are given by the expenses incurred for the project/service in matter.
- *The outputs.* They are more difficult to quantify in the public sector than the inputs, because they can have both an economic and a social dimension. In the private sector the outputs have a market value; they are easily evaluated, while in the public sector this process is cumbersome, and involves much more forecasting. To evaluate the outputs from the non-market sector, which is the public sector, we must first define some indicators that will be evaluated, and through which a level of efficiency will be determined. The mechanism is complicated and kind of vague in some areas.

The effectiveness has as influence factors the outputs, the outcomes and the environmental factors. The latter, the environmental factors (such as lifestyle and various socio-economic influences) exercise a major influence over the effectiveness. The quality of the public administration is a factor that affects both the efficiency with which the public money are used and the effectiveness. That is why in many EU countries a reform has been launched in the public administration in order to improve the efficiency. The public administration reform, which was also implemented in Romania covered mainly: simplifying the organizational structures, increasing use of the IT technologies involved in reducing costs and optimizing information flows, a human resources management reform, adopting the budgeting based on programs. The corruption is another external factor that influences the effects of public policies.

The effects covered by a project (the outcomes) are often achieved within a longer horizon, and more outputs are needed in order to achieve an outcome. For example, the economic growth, which is an outcome of the economic policy of a country, requires several years and several results to be achieved, such as low inflation, and more investments.

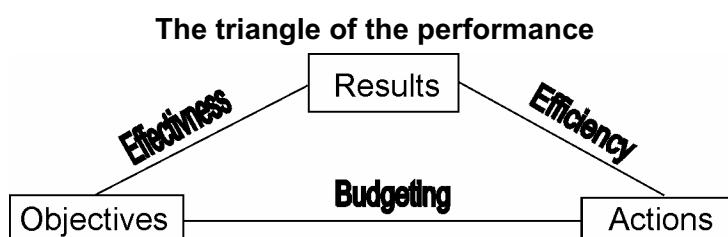
In the opinion of M. Profiroiu, *the performance* in the public sector implies a relationship between objectives, means and results, so performance *is the result of the simultaneous pursuit of efficiency, effectiveness and a corresponding budget* (Profiroiu M., 2001, p.8)

In the paper *Cadrul de analiză a performanțelor sectorului public* ("The analysis of public sector performances"), A. Profiroiu and M. Profiroiu have illustrated possible performance evaluation methods of a public organization. Establishing a public organization's performance is difficult, caused by the difficulties that exist in the definition of performance: the first difficulty appears from the meaning of the concept of performance; the second appears from the way the performances are obtained, and the third from evaluating the performance. Measuring the public sector performance, in the conception of the authors, implies taking into consideration the distinction between: the means used (inputs), the process (throughput), the product (output) and the effect achieved (outcome). Performance assessment can be achieved through some measurement categories (Profiroiu, M., Profiroiu, A.):

1. *Measuring the resource economy*, which can be determined by comparing the purchase price of the inputs with the designated value.
2. *Measuring the costs*, which involves measuring in monetary expression the resource consumption in order to provide a particular product or service.
3. *Measuring the efficiency*, which takes into account the obtained result in relation to the resources used, and a project is effective if the maximum results are achieved with a given level of resources, or if it uses the minimum resources for a certain level of the result.
4. *Measuring the effectiveness*, which is quantified by the ratio of the actual result to its expected level. The process of measuring the effectiveness faces difficulties concerning the assessment and the quantification of the results, which often have non-physical form, and cannot be directly measurable. The results of the public projects can have both economic and social nature.

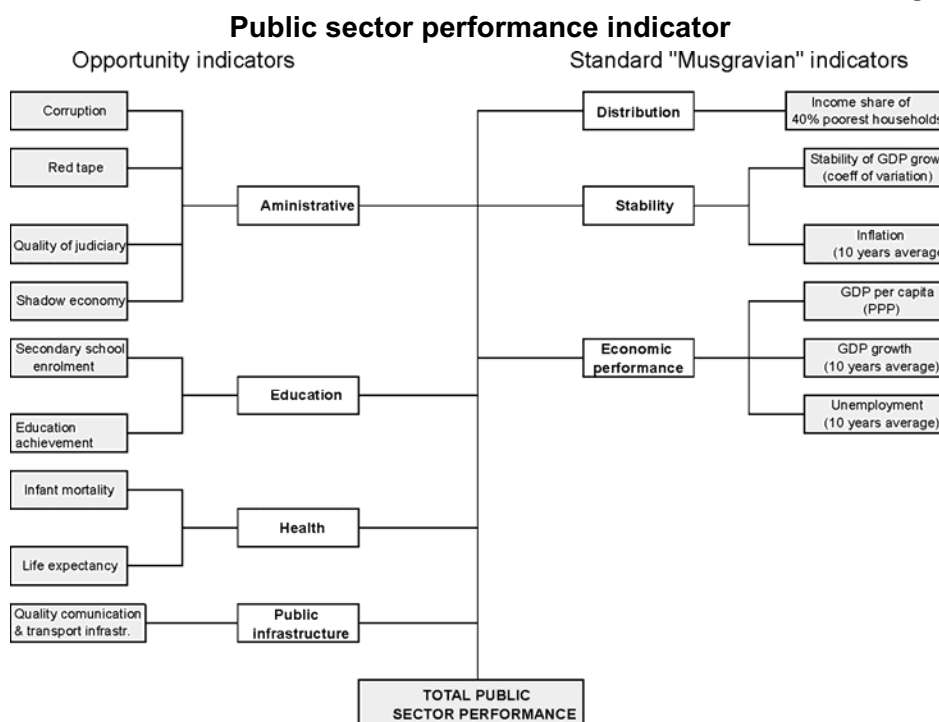
5. *Measuring the quality of services*, which is designed to follow the degree to which the public product/service satisfies the requirements of the citizens. In this sense, the quality includes the effectiveness of a project. The deficiency of this method consists in the fact that the quality is a vague concept and far too complex that is not sufficiently reflected by indicators. The concept of quality encompasses not only the quality of the product/service offered, but also the quality of the production process and the quality of the system.
6. *Measuring the financial performance*
7. *Measuring the overall performance*

Figure 4



Source: Florișteanu E., *Eficiența și eficacitatea în sectorul public*, p.1.

Figure 5



Source: Afonso A., Schuknecht L., Tanzi V., (2003): *Public sector efficiency: An international comparison*, European Central Bank, Working Paper no. 242/July 2003, p.10.

Afonso A., Schuknecht L., Tanzi V., in their paper *Public sector efficiency: An international comparison*, propose for measuring the overall public sector performance an indicator (PSP), obtained on the basis of a set of seven sub-indicators, each of them developed themselves on indices, as shown in Figure 5.

It is noted that he proposed four sub-opportunity indicators: the performance indicator in education, health, public infrastructure, administrative performance of the government, and took three sub-indicators from Musgrave, which reflect the goals which should be pursued by any government: stability, distribution, economic performance.

Increasing the efficiency and the effectiveness of public expenses not only have a major influence over maintaining the fiscal discipline pursued by the Stability and Growth Pact, but diminishes the budgetary constraints, and could get the same results with less expenditure, or at the same level of public expenditure, superior results.

3. Obtaining the scoring function for measuring the public sector's performance

In the following section we will elaborate a score function which will measure the performance of the public sector based on the proposed indicators by Afonso A., Schuknecht L., Tanzi V. in Figure 5. The objective of the next study is to elaborate a score function regarding the performance of the public sector at the level of member states of the European Union (except Malta, which is eliminated due to lack of data).

The score function will contain seven indicators, four opportunity indicators and three "Musgravian" indicators; however, each indicator is composed of a variable number of sub-indicators weighted equally in the construction of the parent indicator.

The general form of the score function measuring the performance of the public sector in EU, according to the indicators proposed by Afonso, Schuknecht and Tanzi and self-elaborated methodology is:

$$f(x) = \alpha_1 * X_1 + \alpha_2 * X_2 + \alpha_3 * X_3 + \alpha_4 * X_4 + \alpha_5 * X_5 + \alpha_6 * X_6 + \alpha_7 * X_7,$$

where: α_i = importance related coefficient

x_i = indicators of the public sector's performance

In order to obtain the importance related coefficients (α_i) the following formula was used:

$$\alpha = \frac{p + \Delta p + m + 0.5}{-\Delta p' + \frac{N}{2}},$$

where: p = sum of obtained in line score of the used criteria

Δp = difference of the used criteria score and the last level criteria score

m = the number of criteria that have a lower number of points than the used criteria

N = the number of used criteria

$\Delta p'$ = the difference between the used criteria score and the first level criteria score

The score is obtained after the matrix calculation of the level of importance of each indicator compared to the other indicators by determining coefficient of the determination, calculating according to GDP per capita. Weights or importance-related coefficients obtained are presented in the following table:

Table 1

Determining the importance related coefficients

| | X1 | X2 | X3 | X4 | X5 | X6 | X7 | Points | Level | Coefficien |
|----|-----|-----|-----|-----|-----|-----|-----|--------|-------|------------|
| X1 | 0.5 | 0.4 | 0.3 | 0.4 | 0.5 | 0.5 | 0.3 | 3.0 | 3 | 1.084 |
| X2 | 0.5 | 0.5 | 0.3 | 0.5 | 0.5 | 0.5 | 0.3 | 3.5 | 5 | 1.904 |
| X3 | 0.6 | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 | 0.5 | 4.3 | 7 | 3.326 |
| X4 | 0.5 | 0.4 | 0.3 | 0.5 | 0.5 | 0.5 | 0.3 | 3.2 | 4 | 1.414 |
| X5 | 0.5 | 0.4 | 0.3 | 0.4 | 0.5 | 0.5 | 0.3 | 3.0 | 2 | 0.857 |
| X6 | 0.4 | 0.4 | 0.3 | 0.4 | 0.4 | 0.5 | 0.3 | 3.0 | 1 | 0.625 |
| X7 | 0.6 | 0.6 | 0.4 | 0.6 | 0.6 | 0.6 | 0.5 | 4.2 | 6 | 2.989 |

Source: Authors' personal computations.

After determining the importance coefficients, the following score function for measuring performance of the public sector (PSP_{UE}) in UE was obtained:

$$PSP_{UE} \text{ SCORE} = 1.0848 \times X_1 + 1.9045 \times X_2 + 3.3264 \times X_3 + 1.414 \times X_4 + 0.857 \times X_5 + 0.6253 \times X_6 + 2.9896 \times X_7$$

where:

X₁ = **administrative**, which is composed of 4 sub-indicators: **corruption** (for quantifying this sub-indicator, we used the Corruption Perception Index calculated by the International Transparency Agency); **red tape** (for quantifying this sub-indicator we used the following indexes: Starting a Business, Registering Property and Dealing with Construction Permits constructed and calculated in the annual report Doing Business); **quality of judiciary** (in measuring this sub-indicator we used the Enforcing Contracts, which measure the efficiency of the judicial system in solving a commercial dispute, published in the annual report Doing Business); **shadow economy** (this sub-indicator shows the GDP percentage of underground economy and is based on the OECD reports).

X₂ = **education**, which consists of 2 sub-indicators : **secondary school enrolment**, taken from the UNESCO statistics and **education achievement**, constructed upon the results obtained by the EU member states at the PISA test in 2006 for science, mathematics and reading. The PISA test evaluates the results obtained by 15-year-old children in the three mentioned domains and is applied once every three years; the next results, of the year 2009, will be achieved in December 2010 by the OECD.

X₃ = **health**, which is composed of 2 sub-indicators: **infant mortality** and **life expectancy**, both calculated and published by the World Health Organization.

X₄ = **public infrastructure**, which has one sub-indicator – **quality communication and transport infrastructure** – and for its quantification we used the results published by World Economic Forum, results for the second pillar of competitiveness, infrastructure.

X₅ = distribution, which is based on one sub-indicator, *inequality of income distribution*, which is the ratio of total income received by the 20% of the population with the highest income to that received by the 20% of the population with the lowest income, using data published by Eurostat.

X₆ = stability, indicator based on equal weights of the following 2 sub-indicators: *stability of GDP growth* (coefficient of variation) and *inflation* for the period 2000-2009.

X₇ = economic performance, which was based on 3 sub-indicators: *GDP per capita* (PPP), *GDP growth* and *unemployment* for the last 10 years, during 2000-2009.

X₁, X₂, X₃ and X₄ are named by Afonso, Schuknecht and Tanzi as opportunity indicators, while X₅, X₆ and X₇ represent the Musgravian Indicators.

Standardization of the data was achieved by positioning the indicators and sub-indicators values against the best value.

Contrary to Afonso, Schuknecht and Tanzi, who gave equal importance to all seven indicators in measuring the performance of the public sector, the score function (PSP_{UE}) determined in the present study is giving a priority attention to health, followed by economic performance, education, public infrastructure, administration, distribution and stability, respectively.

By applying the score function at the EU level (except Malta), the following results regarding the level of the public sector performance were obtained and centralized in the next table:

Table 2

The values of the PSP_{UE} score function in UE (without Malta)

| | PSP SCORE | ADMINISTRATIVE | EDUCATION | HEALTH | PUBLIC INFRASTRUCTURE | DISTRIBUTION | STABILITY | ECONOMIC PERFORMANCE |
|----------------|-----------|----------------|-----------|--------|-----------------------|--------------|-----------|----------------------|
| LUXEMBOURG | 9.8729 | 0.44 | 0.61 | 0.99 | 0.92 | 0.83 | 0.59 | 0.86 |
| SWEDEN | 9.4834 | 0.62 | 0.79 | 0.99 | 0.94 | 0.97 | 0.72 | 0.46 |
| FINLAND | 9.1840 | 0.77 | 0.95 | 0.82 | 0.98 | 0.89 | 0.69 | 0.41 |
| NETHERLANDS | 9.0217 | 0.48 | 0.98 | 0.74 | 0.88 | 0.85 | 0.66 | 0.60 |
| SLOVENIA | 8.9355 | 0.41 | 0.80 | 0.98 | 0.79 | 1.00 | 0.31 | 0.51 |
| AUSTRIA | 8.8556 | 0.74 | 0.76 | 0.74 | 1.00 | 0.92 | 0.68 | 0.51 |
| FRANCE | 8.7835 | 0.79 | 0.74 | 0.83 | 1.00 | 0.92 | 0.78 | 0.36 |
| DENMARK | 8.7503 | 0.68 | 0.80 | 0.73 | 0.95 | 0.94 | 0.86 | 0.45 |
| IRELAND | 8.6340 | 0.62 | 0.90 | 0.74 | 0.62 | 0.76 | 0.60 | 0.64 |
| GERMANY | 8.4857 | 0.73 | 0.81 | 0.74 | 0.98 | 0.83 | 1.00 | 0.33 |
| CYPRUS | 8.4421 | 0.45 | 0.81 | 0.74 | 0.83 | 0.83 | 0.45 | 0.60 |
| BELGIUM | 8.2396 | 0.51 | 0.89 | 0.74 | 0.88 | 0.83 | 0.64 | 0.40 |
| CZECH REPUBLIC | 8.0696 | 0.36 | 0.74 | 0.80 | 0.68 | 1.00 | 0.53 | 0.49 |
| GREAT BRITAIN | 7.9242 | 0.72 | 0.74 | 0.69 | 0.79 | 0.61 | 0.66 | 0.47 |
| ESTONIA | 7.8978 | 0.48 | 0.87 | 0.65 | 0.77 | 0.68 | 0.47 | 0.53 |
| PORTUGAL | 7.4371 | 0.44 | 0.55 | 0.82 | 0.86 | 0.56 | 0.82 | 0.33 |
| SPAIN | 7.3088 | 0.42 | 0.65 | 0.74 | 0.79 | 0.63 | 0.44 | 0.41 |
| GREECE | 7.1081 | 0.29 | 0.52 | 0.82 | 0.67 | 0.58 | 0.40 | 0.47 |
| SLOVAKIA | 7.0448 | 0.44 | 0.57 | 0.62 | 0.62 | 1.00 | 0.38 | 0.48 |
| LITHUANIA | 7.0115 | 0.45 | 0.58 | 0.64 | 0.74 | 0.58 | 0.44 | 0.50 |
| HUNGARY | 6.9814 | 0.46 | 0.65 | 0.62 | 0.65 | 0.94 | 0.35 | 0.41 |
| ITALY | 6.9101 | 0.30 | 0.53 | 0.83 | 0.58 | 0.67 | 0.83 | 0.30 |
| LATVIA | 6.5563 | 0.40 | 0.64 | 0.56 | 0.64 | 0.47 | 0.45 | 0.49 |
| POLAND | 6.3844 | 0.29 | 0.70 | 0.63 | 0.39 | 0.67 | 0.45 | 0.41 |
| ROMANIA | 5.5721 | 0.29 | 0.44 | 0.54 | 0.36 | 0.49 | 0.24 | 0.52 |
| BULGARIA | 5.5382 | 0.29 | 0.44 | 0.56 | 0.42 | 0.52 | 0.20 | 0.45 |

Source: Authors' personal computations.

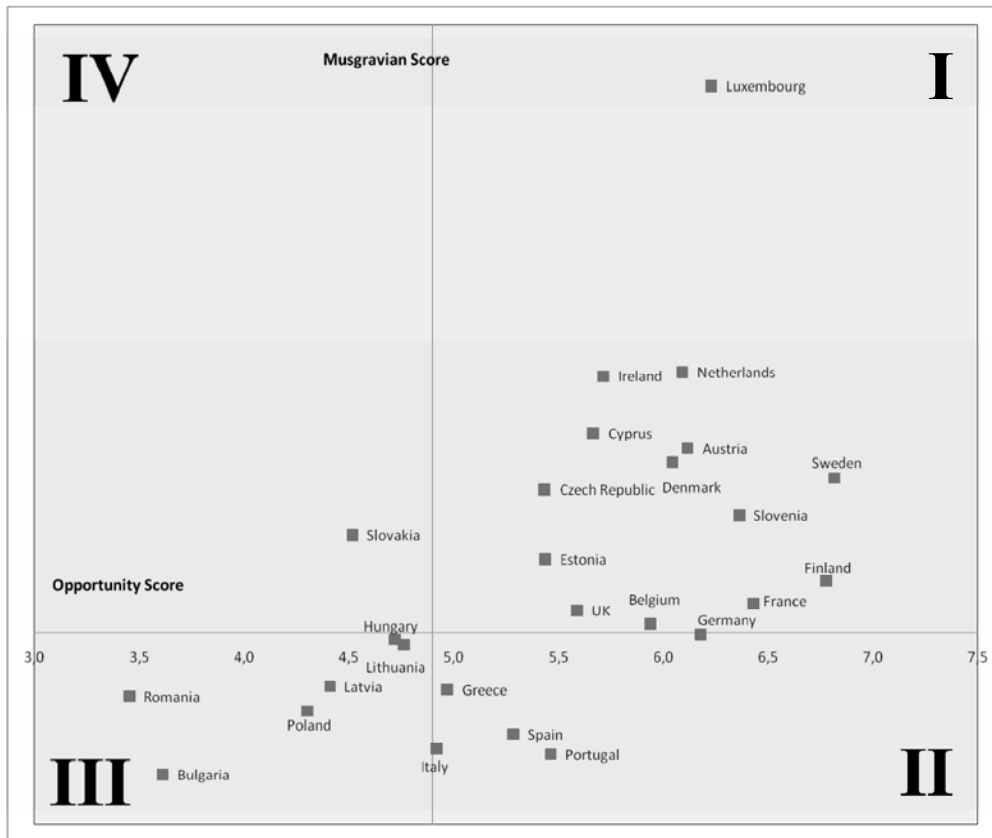
The mean PSP for EU is 7.8628 and the maximum value is 12.2015, unrecorded by any Member State. The highest value of the score function was obtained by Luxembourg (9.8729), followed by Sweden and Finland with 9.4834 and 9.1840, respectively; these States are the top 3 in terms of public sector performance. On the opposite side was Bulgaria with a score of 5.5382, Romania (5.57211) and Poland (6.3844).

3.1. The situation of the public sector’s performance in the European Union

Further, for a more accurate analysis and a better graphical view of the situation of the public sector’s performance in the EU, a graphical representation was achieved according to the opportunity indicators and the Musgravian indicators.

Chart 1

Graphic representation of the PSP score based on the opportunity and Musgravian indicators



From the chart above, four quadrants can be distinguished with the following meaning:

- **Quadrant I: high performance**

- **Quadrant II: medium performance**, with opportunity indicators higher than average.
- **Quadrant III: low performance**, with opportunity and Musgravian indicators below average.
- **Quadrant IV: medium performance**, with Musgravian indicators higher than average, and opportunity indicators below average.

States located in quadrants II, III and IV, which show an average performance (quadrant II and IV) and a low performance (quadrant III), are in a difficult economic situation caused by sovereign debt crisis, as a result of uncontrolled growth of budget deficit.

3.2. The public sector's performance in Romania

Referring to the value of the score function, which measures the performance of the public sector achieved by Romania (5.5721), it can be stated that this value is much lower than the maximum score of 12.2015, and than the average value of 7.8628. The graph below shows the performance of the public sector in Romania against the EU average. It can be easily noticed that the total score of Romania (the blue line) is below the EU average (the red line), and by analyzing the components, Romania has the first six indicators below the EU average, and only the 7th indicator, i.e. economic performance, is above average.

Table 3

PSP for Romania against the UE average

| Countries | PSP Score | Administrative | Education | Health | Public Infrastructure | Distribution | Stability | Economic Performance |
|-------------|-----------|----------------|-----------|--------|-----------------------|--------------|-----------|----------------------|
| ROMANIA | 5.5721 | 0.41 | 0.61 | 0.74 | 0.50 | 0.67 | 0.33 | 0.72 |
| Average PSP | 7.8628 | 0.68 | 0.98 | 1.03 | 1.05 | 1.06 | 0.78 | 0.66 |

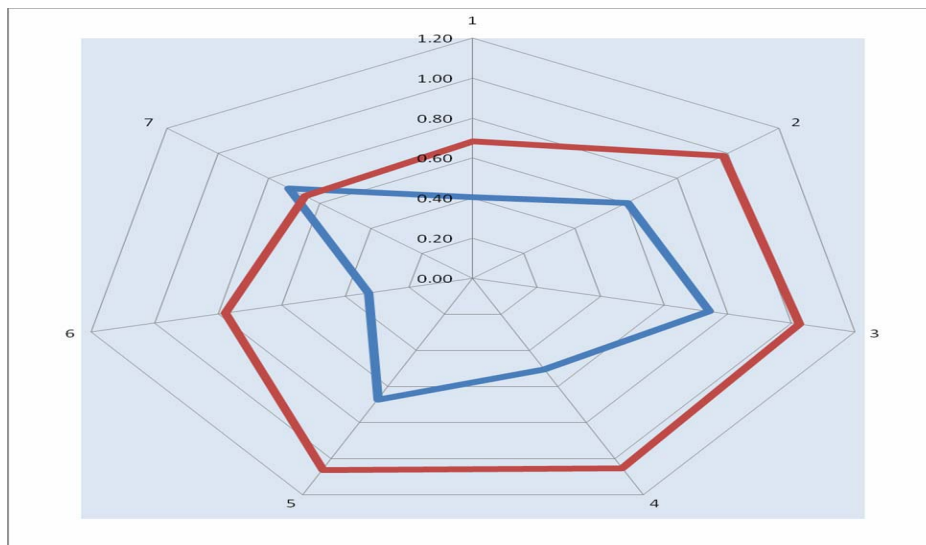
Source: Authors' personal computations.

Romania must implement a mix of economic and social policies in order to reach the EU average and diminish the gap, because there is a large range between Romania and the country with highest score obtained with the public sector's performance function. Romania has to recover a lag of about 68% in terms of quality of the government and administration against the EU average, 62% for education; and it is behind by 38% regarding the quality of health indicators. In relation to the infrastructure, it should double its present performance; income distribution is very uneven; economic stability is severely affected by the current economic crisis, which caused a noticeable economic decline, and due to the inflationary period of 2000-2003, which were included in the present analysis. But in terms of economic

performance, Romania exceeds the EU average by 8 percent, due to sustained real growth of GDP during 2001-2008 (in 2001 growth rates of the real GDP was 5.7% compared to the EU27 average of 2% ; in 2004 real GDP growth rate in Romania was at a level of 8.5%, whilst in EU27 the average was of 2.5%; in 2008 Romania registered a GDP growth rate of 7.3%, compared to the EU 27 level of 0.7%).

Chart 2

Public sector performance score function for Romania versus the UE average



4. Conclusions

In the new global economy, policy makers need to initiate collective reflection at all costs, in anticipation in the public sector's performance. Decision makers should create more efficient economic programs to anticipate future social-economic changes. Also, regarding the public sector, key decision makers must find a way to better communicate the final results and the measurable impact on the performance of the public sector through the use of complex instruments. From another point of view, policy makers need to find ways to increase the performance of the public sector by addressing the following priority issues:

1. Increasing economic stability;
2. Improving the quality of public infrastructure;
3. Incrementing administrative performance by fighting corruption, reducing state bureaucracy, increasing the quality of justice and strongly reducing the shadow economy with at least 13 percentage points of GDP;
4. Increasing the quality and performance of education;
5. Extending the distribution of income and reducing disparities in income between different categories of population in Romania;

6. Augmenting the performance of the health system;
7. Obtaining visible results regarding economic performance.

Today, more than ever, a package of bold measures is needed, which will lead to a more efficient public sector activity and to an increased public sector performance.

PSP score, which represents the objective of the current work, aims to quantify and present the real situation in terms of public sector performance. Furthermore, through this PSP score, one can find the necessary measures regarding these packages, but also a hierarchy of these measures, in order to increase the performance of the public sector.

Finally, we can state that efficiency in the public sector is a problem which most governments have to face, and which is determined, mainly, by the existence of some major deficits, a bureaucracy that makes it hard to collect money to the budget and their redistribution as soon as possible, but also as a result of implementing some public programs which are based on some performance objectives. Thus, the optimal dimensioning of the public sector's management and staff is the starting point for obtaining real performances that have an impact over the private sector (which also contributes to the state budget with taxes and may lead to increasing the state's revenue). First, this optimum sizing should be done by considering the performance criteria given by various models and methods to measure the performance in the public sector. In this way, major important performances could be obtained and this will have a positive impact on medium and long term over the private sector and hence over the entire economy.

References

- Afonso A., Schuknecht L., Tanzi V., (2003), "Public sector efficiency: an international comparison", European Central Bank, Working Paper No. 242/July 2003, pp.10-12.
- Afonso A., Schuknecht L., Tanzi V., (2006), "Public sector efficiency: evidence for new EU member states and emerging markets", European Central Bank, Working Paper No. 581/January 2006.
- Drucker, P. (2001), *Eficiența factorului decizional* ("The efficiency of the decision makers"), Bucuresti: Editura Destin.
- Hall D., Lobina E. (2005), "The relative efficiency of public and private sector water", PSIRU, Business School, University of Greenwich, September 2005, p. 3.
- Mandl U., Dierx A., Ilzkovitz F., (2008), "The effectiveness and efficiency of public spending", European Commission, Directorate General for Economic and Financial Affairs, pp. 3-4.
- Profiroiu, M., Profiroiu, A.: "Cadrul de analiza a performantelor sectorului public" ("The analysis of public sector performances"), In *Economie teoretica si aplicata*, pp. 44-47.
- Profiroiu, M. (2001), *Managementul organizatiilor publice* ("The management of public organisations"), Bucuresti: Editura Economica.

- Scutaru, C., (2009), "Marketingul pentru sectorul public" ("Marketing for public sector"), In *Calitatea Vieții*, 1-2: 63.
- Stoian M., Ene N. C (2003), "General și particular în evaluarea eficienței în sectorul public" ("General and particular in evaluating the public sector efficiency"), In *Administrație și Management Public*, nr.1: 32.
- http://eacea.ec.europa.eu/education/eurydice/key_data_en.php
- <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/>
- <http://www.doingbusiness.org/>
- http://www.oecd.org/statsportal/0,3352,en_2825_293564_1_1_1_1_1,00.html
- http://www.uis.unesco.org/ev.php?ID=2867_201&ID2=DO_TOPIC
- http://www.who.int/whosis/whostat/EN_WHS10_Part2.pdf
- <http://www.weforum.org/en/media/publications/CompetitivenessReports/index.htm>