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# Public oversight and performance measurement in public sector entities

Јавни надзор и мерење перформанси у ентитетима јавног сектора

**Sunčica Milutinović**
University of Novi Sad, Faculty of Economics in Subotica, Subotica, Republic of Serbia,
suncica.milutinovic@ef.uns.ac.rs https://orcid.org/0000-0002-2155-602X

**Ivana Medved** *
University of Novi Sad, Faculty of Economics in Subotica, Subotica, Republic of Serbia,
ivana.medved@ef.uns.ac.rs https://orcid.org/0000-0002-8675-7404

**Dragomir Dimitrijević**
University of Kragujevac, Faculty of Economics, Kragujevac, Republic of Serbia, dimitrijevicd@kg.ac.rs
https://orcid.org/0000-0001-8049-9451

**Abstract:** The existence of the public sector is conditioned by meeting the needs of citizens for public goods and services. Business under constant public scrutiny poses challenges to public sector entities in the form of effectiveness and efficiency in providing services on the one hand, and achieving satisfactory financial performance on the other. Measuring the performance of entities in the public sector can be problematic precisely for the reason that it is necessary to measure the performance of entities whose operations are aimed at meeting public needs and not at making a profit. Therefore, the goals of these entities are taken as a starting point when establishing an adequate performance measurement system. Bearing in mind that the public sector is at the service of the citizens of a country, the question of measuring business performance, as well as the question of public supervision in public sector entities, arises. State audit, financial management and control and internal audit, as elements of public supervision, should ensure fair and true presentation of results and performance of business in public sector entities.
**Keywords:** citizens, public goods, measures, supervision, audit.
**JEL classification**: H83

**Сажетак:** Постојање јавног сектора условљено је задовољавањем потреба грађана за јавним добрима и услугама. Пословање под константном лупом јавности пред ентитете јавног сектора поставља изазове у виду ефективности и ефикасности у пружању услуга, с једне стране, и постизања задовољавајућег финансијског учинка, с друге. Мерење перформанси ентитета у јавном сектору може бити проблематично управо из разлога што је потребно измерити перформансе ентитета чије је пословање усмерено на задовољење јавних потреба, а не на остваривања профита. Због тога се полази од циљева ових ентитета приликом успостављања адекватног система мерења перформанси. Имајући у виду да је јавни сектор у служби грађана једне земље, поставља се питање мерења перформанси пословања, као и питање јавног надзора у ентитетима јавног сектора. Државна ревизија, финансијско управљање и контрола и интерна ревизија, као елементи јавног надзора, требали би да обезбеде поштено и истинито приказивање резултата и перформанси пословања у ентитетима јавног сектора.
**Кључне речи:** грађани, јавна добра, мерила, надзор, ревизија.
**ЈЕЛ класификација:** H83

* Corresponding author

## Introduction

Performance measurement in the public sector is complex, because it is associated with numerous methodological problems of expressing certain quantities, as well as the specifics of the functioning of entities from this sector. The specificities of these entities lead to the fact that it is not possible to use measures whose calculation is based on profit, such as rates of return (profitability) and a number of other financial measures that are derived from and based on the accounting concept of profit (for example, net profit per action). In addition, many public sector entities have such goals that the effectiveness of their achievement can hardly be monitored by quantitative measures. With them, the lack of a single, relatively satisfactory quantitative and comprehensive performance indicator stands out as a serious control and management problem, as in profit-oriented entities, the profitability rate is usually treated as such a measure (Krstić et al., 2011).

In order to establish an adequate performance measurement system, it is necessary to start from the objectives of the public sector entity (Balabonienė & Večerskienė, 2015). The primary objective of most public sector entities is to deliver services to the public, rather than to make profits and generate a return on equity to investors. Consequently, their performance can only partially be evaluated by examining their financial position, financial performance and cash flows (CIPFA, 2016). Depending on the field of activity, each entity in the public sector defines its own goals. For the largest number of entities, the following goals may be relevant: maximizing the volume of public services provided from available resources, targeted (purposeful) use of resources aimed at better meeting wider social needs, maximizing income and financial surpluses, fully covering costs and minimizing subsidies, maximizing the possible volume of funds for achieving the set goals, maximizing the satisfaction of citizens, i.e. users of services and goods, as well as achieving the image of a socially responsible entity in the public (Krstić et al., 2011). In addition, the realization of other (non-financial) goals, such as quality and fairness in the provision of services, or innovativeness (Arundel et al., 2019; Maqdliyan & Setiawan, 2023), is equally important for these entities. The primary task of public sector entities is to meet the needs of citizens, providing them with services of appropriate quality that are not market profitable, but, on the other hand, they are expected to achieve positive financial results, so that the government can reduce the expenses for their financing. Performance measurement in the public sector is a continuous process that involves assessing the success of implementing government programs, while performance measures represent standards for determining the degree of achievement of government goals and policies (Glavaški et al., 2022). The main goal of the measurement is to improve the entity's performance in the following period.

Business performance in the private sector can be expressed in economic and financial measures, such as income, profit, growth, productivity, etc. (Čupić & Vržina, 2024). However, the presentation of achieved performance in economic and financial measures in public sector entities is not expedient if they are not acceptable to political actors, that is, if they are not compatible with political goals (Akhtari, Moreira & Trucco, 2022). In other words, if economic success is not in line with other social interests, it has no significance for evaluating the success of entities in the public sector. To this should be added the fact that the objectives set before the operations of these entities are often in conflict. For example, the focus on success expressed through economic and financial indicators can negatively affect other performances (Živanović, 2020). The question of the size of the positive financial result is also specific in public sector entities. In profit-oriented private sector entities, a higher positive net financial result generally means higher business success. On the other hand, in the public sector the net result should usually be relatively small, i.e. slightly above zero, because a large net result can signal to those who provide financial resources that such an organization has not provided certain necessary services or goods that were required of it, and that she primarily took care of earning interests. However, if a public sector entity shows a high loss, then it has not justified the trust of the state, which can lead to a reduction in goals and programs. Therefore, although financial performance is not the dominant goal of public sector entities, their monitoring and measurement is still necessary.

## 1. Performance-based budgeting

It is known that public sector entities are financed by the state, that is, from the state budget. In most public sector entities, there is little opportunity to determine the optimal level of spending (investment). In such a situation, the management of the public sector entity tries to spend as much as the approved budget allows, although the budgeted amounts may be higher compared to the objectively required spending amounts. For this reason, many entities have the characteristics of operationally inefficient organizations, so the need to change this way of looking at these entities is justified. To this end, great importance is attached to budget control, that is, control of the economy of spending in relation to the financial plan (approved budget) of the public sector entity. This is especially pronounced in situations where certain entities financed by the state have the problem of receiving an increase in the sum for financing year after year.

Information on the achievement of budgeted goals is particularly important for deciding on the size of investments in the public sector and certain parts of that sector. Governments may be particularly interested in evaluating the effects achieved by investing in certain segments of the public sector of particular importance, in order to “reduce public organizations’ exposure to shocks and support governmental resilience” (Anessi-Pessina et al., 2020). Similar information may be requested by other institutions and individuals who provide funds for other types of non-profit organizations, as it is their legitimate right to know how economically their invested money is spent (Krstić et al., 2011).

Recently, in professional circles, there has been a desire to reform the traditional approach to the budgeting process in public sector entities, that is, to move it towards results-based budgeting, i.e. achieved performances. Such budgeting systems require a more developed system of performance measures, which, in addition to input (investment) measures, also includes more difficult to measure output measures (effects, results), measures of the quality of services provided, measures of effectiveness and measures of efficiency. Their adequate application is very important as a support in the process of defining the planned – budgeted goals, i.e. control of budget execution, because this is the assumption of adequate allocation of resources in the coming period. Without adequately set performance measures, management in public sector entities can allocate resources only based on subjective attitude or feeling, personal ambition or as a kind of response to certain political pressure.

The performance budgeting system establishes a cause-and-effect relationship between allocated and spent budget funds and achieved results. This system aims to improve the economy, efficiency and effectiveness of public expenditure, and to link the financing of public sector entities with the results they achieve by performing their activities. The basis of budget planning in this system is to define the objectives of the functioning of public sector entities (i.e. budget beneficiaries). The mentioned activity is important in order to evaluate the success/failure of budget beneficiaries in the realization of the defined goals in the following stages of the budget procedure. It is also necessary to obtain and include information on performance in the budget procedure, because this activity represents a key "link" of budgeting according to performance. At the same time, information on performance includes information on the achieved performance, but also information on the costs that were needed to achieve it (Dimitrijević, 2016).

Performance budgeting can be implemented in the state apparatus of a country only if crucial changes in the political and administrative culture have previously been completed, i.e. if other systemic preconditions such as (Dimitrijević, 2016):

- existence of a medium-term budget framework in order to ensure a greater degree of macroeconomic stability and fiscal sustainability of the country;
- applying a top-down approach, i.e. from top to bottom in budget planning;
- existence of a developed control environment for effective management of results and fiscal risks;
- introduction of special agencies that will professionally and responsibly assist the government in monitoring the realization of the results in accordance with the set goals through operational, that is, effective implementation and control of appropriations;
- adequate budget classification (program classification of public expenditures) in accordance with the performance management system;
- quality budget reporting with the application of modern information technology; and
- objective formulation and introduction of performance indicators of spent budget funds.

In addition, the success of performance-based budgeting requires the integration of communication, values and goals among those involved in the process, without illusionary constructs (Mauro et al, 2021).

The general theoretical consensus is that explicit performance contracting requires (1) that goals be specified unambiguously in advance; (2) that the organization be able to select undistorted performance measures, i.e. metrics that provide incentives that are adequately aligned with the organization's ultimate objectives; and (3) that organizational actors know and control the production function that transforms efforts into results, and be able to predict the likely outcomes of alternative courses of action. Speklé & Verbeeten (2014) used the term ‘contractibility’ to refer to the degree to which these three cumulative conditions can be met simultaneously. According to these authors, examples of highly contractible activities in the public sector include garbage collection or the exploitation of a public swimming pool. In contrast, low contractibility is present when actors are unable to fully specify the attributes of satisfactory performance, or when the manager’s systematic influence on the ultimate outcome is restricted or unknown.

## 2. Performance measures in public sector entities

According to one of the many classifications, performance measures in the public sector can be defined as: inputs, activities, outputs, and outcomes. *Inputs* are the resources needed to produce goods, and typically include employees, equipment, office supplies, raw materials, components, technology, and money. If the process of creating goods is relatively well organized, the financial-accounting system can simply express the value of inputs in the amount of costs necessary for their acquisition, such as employee salaries, supplier payments, etc. If, for example, the object of analysis is the municipal police, the input criteria can be the number of police officers, the number of cars, the annual budget, and the number of reports received per year per thousand inhabitants.

*Activity* measures allow the assessment of the stage or the entire process of conversion of inputs into outputs. They are usually easier to evaluate than input, output and outcome measures, although it should be borne in mind that activity does not necessarily mean effectiveness (higher output or better outcome), such as the collection of property tax may be slower despite the shorter time of preparation and delivery of the tax decision.

*Outputs* are goods created by a public sector entity and can be in the form of physical products and services (for example, the number of community police field trips). While measuring output in the form of products is relatively simple, measuring output in the form of services can be very complicated, especially if their immediate user cannot be identified, such as public lighting service can be measured as the number of functioning street lights or the length of a lighted highway. Input and output measures are often linked to the objective of assessing the efficiency or productivity of the entity, so the object of measurement can be the number of calls per municipal police officer (ratio of output to input) and costs per onsite intervention (ratio of input to output), but also the ratio of the numbers of decisions and officials (ratio of output and input) and the number of local self-government officials per thousand inhabitants (ratio of input and output).

The *outcomes* of the activities of public sector entities are external influences on the direct users of the entity’s goods or all citizens. Measuring these outcomes can be difficult if the good is subject to collective consumption (for example, public lighting) or if it meets the needs of individuals for whom it is not intended (for example, a prison). In the case of prisons, the output measures are the number of nights spent in prison, the number of prison escapes and the number of prisoners who have gained additional qualifications, while the outcome measures for society are an increase in the sense of security and a reduction in future crime rates (reduction in recidivism). Measuring outcomes in the public sector can be very challenging because individuals place emphasis on different characteristics of output. For example, the benefits of functioning municipal police for citizens can be clean streets, less noise or free sidewalks. Also, the outcome can be realized several years after the output has been delivered, so the question arises of the right moment of its measurement. Finally, the outcome can be the result of the action of several agents or subjects, i.e. co-productions. For example, not only municipal police, but also citizens who take care of waste disposal and/or report violations by other citizens or organizations contribute to communal order. Co-production contributes to an increase in output and outcomes, and can be understood as the use of free inputs, which contributes to a fictitious increase in the efficiency of public sector entities. Thus, it may seem that the communal police unit that covers the territory where better educated citizens live is more efficient than others simply because better educated citizens are more careful about proper waste disposal and report violations more often; however, it may be true that other communal police units achieve better outcomes when co-production (citizen action) is neglected.

In addition to the mentioned inputs, activity measures, outputs and outcomes, some more complex performance measures can be used that are the result of combining the previously ones (Stančić & Čupić, 2019):

- economy determined from the ratio of costs and inputs (for example, cost per employee or office);
- productivity determined from the ratio of the output and one input that contributed to its creation (for example, the number of closed restaurants per one field trip of market inspectors, the number of tax rulings issued per employee per month);
- efficiency as a ratio of output and costs of all inputs that contributed to its production (for example, cost per tax ruling, cost per onsite intervention);
- effectiveness as a ratio of outcome and output (for example, number of citizen appeals per hundred issued tax rulings); and
- cost effectiveness as a ratio of outcomes and costs (for example, cost per person who moves from the group of unemployed to the group of employed).

## 3. Public supervision and other control mechanisms in public sector

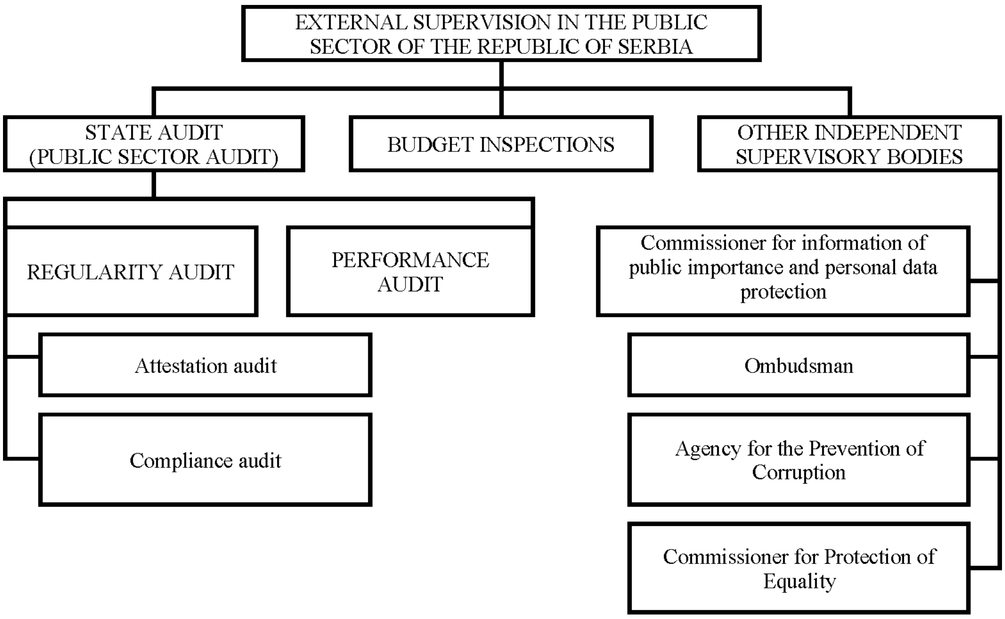
Performance measurement in the public sector is a complex, demanding and time-consuming technical task. An aggravating circumstance is the fact that budget users – public sector entities - often have no motive to reduce costs while respecting the requirements of frugality and rationality and thus contribute to the socially optimal effect of public spending. Precisely for the aforementioned reasons, it is extremely important to establish adequate control mechanisms of budget users in order to prevent false presentation of results and activities that are the subject of measurement and evaluation. The following mechanisms of control in the public sector are known in the world: external supervision (state audit) and internal supervision (internal financial control). In the Republic of Serbia, there is also the Treasury Administration. It was established by the Law on the Budget System and is an integral part of the Ministry of Finance of the Republic of

Serbia, and it started working in 2005. The Treasury Administration is managed by a director appointed by the government, who is responsible for their work to the Minister of Finance. Through its operations, the Treasury Department should ensure a stable and transparent budget policy, the functioning of the public finance system, and constantly improve the efficiency in the disposal of taxpayers' funds.

## 3.1. External supervision (state audit)

External supervision in the public sector is often identified with state audits (or public sector audits), but it has a broader meaning and, in addition to state audits, also includes budget inspections and other independent supervisory bodies. One of the most important control mechanisms for the proper and efficient use of public funds in democratically governed countries is the state audit or public sector audit. For the legal and efficient functioning of the public sector of a country, the existence of institutional, professional and independent external control over the disposal of public funds and state property is of particular importance (Krstić & Bonić, 2017). State audit can be defined as a special type of parliamentary control of the legality of spending public financial resources and management of public assets performed by competent state bodies and institutions (Sretenović & Janković Andrijević, 2015). Within the scope of the state audit, two types of audits are carried out: regularity audit and accomplishment audit (see Figure 1).

*Figure 1: Forms of external supervision in the public sector of the Republic of Serbia*




*Source: illustration by the authors.*

A regularity audit provides reasonable assurance as to whether the financial statements have been prepared in all material respects in accordance with the framework for financial reporting in the public sector, whether they give a true and fair view of the condition and operations of the entity subject to the audit, and whether the transactions and decisions made in the entity are in accordance with the law and regulations. It is also called a traditional public sector audit and includes the following two components: an attestation audit and a compliance audit. The focus of an attestation audit is determining the accuracy of the data contained in the financial statements. In other words, this audit assesses whether the financial statements correctly reflect the financial activities and financial condition of the public sector entity under review. The opinion that the state auditor expresses during this audit concerns whether budget funds were spent in accordance with the budget and whether they were managed in an efficient manner. In the focus of a compliance audit is the aspiration to identify cases of illegal transactions. The compliance audit means audit of the compliance of the public sector entity's operations with the budget on the one hand, and with valid professional, legal and internal accounting regulations, on the other. The opinion that the state auditor expresses during the compliance audit may be part of a separate audit report or may be contained in the confirmation audit report and is then located below the auditor's opinion on the confirmation audit. In practice, an integrated audit approach is generally applied, which implies the simultaneous implementation of an attestation audit and a compliance audit.

A performance audit is more recent and its development leads to the sublimation of traditional audit, which leads to an integral, i.e. complete, approach to public sector audit. The performance audit examines and evaluates the efficiency, effectiveness and economy of collecting and spending financial resources and managing state assets. The purpose of this audit is to improve the performance of various public sector entities with its recommendations and reports, and to contribute to greater success in protecting the public interest. Management functions and activities, programs, projects and provided services of the subject of audit are the basic areas of performance audit. Unlike other types of state audit, the performance audit is performed only after noticing a problem to which the attention of state auditors is directed.

Both in countries with a developed market economy and institutions of a democratic parliamentary system, as well as in transition countries, the Supreme Audit Institution (SAI) plays a significant role in achieving the stability of the country's financial system (Gørrissen, 2020). Through its overall activities, and especially its audit reports, the SAI should instill confidence in the parliament, citizens of the country and other interested parties. The SAI provides assurance to the parliament (to which it is responsible) and the citizens of a country that public funds are used effectively, efficiently and economically and that the financial statements and operations of public sector entities are in accordance with professional and legal regulations.

In order to respond to the demands placed before it, the SAIs in all countries, including in the Republic of Serbia, must be institutionally independent, which is regulated by the Lima Declaration, that is, by the constitution and law of each country. In accordance with the provisions of the law regulating its jurisdiction, it performs external audits of direct and indirect users of public funds of the Republic of Serbia and represents the highest state authority for auditing public funds in the Republic. Auditor titles in the public sector are state auditor and authorized state auditor. State auditor and authorized state auditor are independent professionals who hold a certificate for the title of state auditor, i.e. authorized state auditor and meet other requirements prescribed by law (Zakon, 2018).

## 3.2. Internal supervision

With the appearance of numerous public sector reforms in the developed countries of the world, at the end of the 20th century and the beginning of the 21st century, a trend of decentralization of internal supervision appeared. The aim of decentralization is to improve the responsibility of the management structures of the public sector and to improve the effectiveness and efficiency of the use of public resources (Felício et al., 2021). With this trend of decentralization, internal supervision gains importance, because it controls the management of budget funds and prevents their irrational and uneconomic spending (Krstić & Bonić, 2017).

The basic components of internal supervision in the public sector of the Republic of Serbia are (Zakon, 2023):

- financial management and control of users of public funds;
- internal audit of users of public funds, and
- harmonization and coordination of financial management and control and internal audit performed by the Ministry of Finance – Central Unit for Harmonization (CUH hereinafter).

*Financial management and control* includes a system of policies, procedures and activities that is established, maintained and regularly updated by the head of the organization, and which, by managing risks, provides assurance to a reasonable extent that the goals of the organization will be achieved in a proper, economical, efficient and effective manner (Zakon, 2023). This system includes all public funds, including funds from the European Union. The system of financial management and control is established in all entities of the public sector – users of public funds and at all levels within the organizational structure of the entity, regardless of the number of employees and the size of the entity. Users of public funds in the Republic of Serbia have a legal obligation to establish a system of financial management and control and to organize it as a system of procedures and responsibilities of all persons employed in the entity.

*Internal audit* in the public sector is an advisory activity that provides independent objective assurance with the purpose of contributing to the improvement of the business of users of public funds (Zakon, 2023). Internal audit checks and evaluates the functioning of the financial management and control system using risk-based audit programs. Internal audit helps the users of public funds in achieving their goals by applying a systematic and disciplined approach in evaluating the financial management and control system in relation to the following:

- risk identification, risk assessment and risk management by managers of all levels with users of public funds;

- business compliance with laws, internal acts and contracts;
- reliability and completeness of financial and other information;
- efficiency, effectiveness and economy of business;
- protection of assets and data (information); and
- completing tasks and achieving goals.

Internal audit is organizationally independent and directly responsible to the manager of the user of public funds. Internal audit provides advisory services consisting of advice, guidance, training, assistance or other services aimed at increasing value and improving the management process of a given organization (Bonić, Jakšić & Mijić, 2018). The head of the internal audit is obliged to cooperate and coordinate the work of the internal audit with the external audit. Internal audit in the public sector of the Republic of Serbia is performed by internal auditors who have passed the exam for obtaining the professional title of authorized internal auditor in the public sector, and in accordance with the professional training program (Pravilnik, 2023). The Minister of Finance issues a certificate to the candidate who has passed the exam, and the CUH maintains the Register of authorized internal auditors in the public sector.

Table 1 compares external and internal supervisory bodies in the public sector according to their main attributes.

*Table 1: Comparison of external and internal supervisory bodies*

| Attributes | State audit | Financial management and control | Internal audit |
|---|---|---|---|
| *Frequency* | Periodically, systematically, according to programs | Continuously | Periodically, systematically |
| *Supervisory authority* | Supreme Audit Institution | Management and employees | Organizational unit for internal audit |
| *Supervison type* | External independent supervision | Supervision built into the organization | Internal supervision |
| *Goals and objectives* | Assurance, reassurance, providing recommendations | Ensuring the smooth running of business processes | Assurance, reassurance, providing recommendations |
| *Orientation* | Financial statements, regulatory compliance, economical and efficient spending of public funds | System management | System results |
| *Consequences of implemented actions* | Recommendations, misdemeanor and criminal reports | Corrective actions | Recommendations |
| *Function (role)* | Control and advisory | Management | Advisory |

*Source: adjusted according to Krstić & Bonić (2017)*

## Conclusion

One of the key goals of every state administration is to increase the efficiency of public sector entities. Taxpayers, i.e. citizens, are the main financiers of the public sector and their expectations are unequivocal, namely socially responsible behavior and efficient operations of all public sector entities. The efficiency of the public sector means that it is more efficient the higher the quality of public services it provides to citizens, and the lower their price. Taxpayers will feel the first the consequences of inefficient operations through an increase in tax expenditures, which further leads to a decrease in income available for consumption. In addition to reducing the citizens' income, high public expenditures have a negative impact on the economic growth of the economy, which will, in the following period, indirectly have a negative impact on the level of income of citizens. The mentioned is called the double negative consequence of the inefficiency of the public sector.

An inefficient public sector means that budget users provide services at prices higher than those economically justified. This further implies that higher public expenditures require higher tax payments (higher tax rates), which consequently leads to lower economic growth. In this way, an inefficient public sector reduces the taxpayers' utility in two ways. On the one hand, it reduces their utility through lower income due to higher tax payments. On the other hand, it reduces their utility through lower future income due to low economic growth.

Adequately set performance measures that correspond to the objectives of public sector entities are important because without them there are no conditions for the fair allocation of resources in public sector entities. Establishing a cause-and-effect relationship between allocated and spent budget funds and achieved results is possible only in the performance budgeting system. The most common performance measures found in public sector entities are inputs, activities, outputs and outcomes. In addition to the mentioned basic measures, more complex performance measures can be used, which are the result of combining the previously mentioned measures.

Due to the specificity of financing, public sector entities do not have enough motivation to contribute to the socially optimal effect of public spending by respecting the requirements of thrift, rationality and efficiency of spending. Therefore, in addition to the performance measurement system, it is necessary to build an adequate control system, the so-called public oversight to prevent false representation of results and performances that are the subject of measurement, evaluation and reporting. State audit and internal financial control are the two most widespread control mechanisms in the public sector (in the Republic of Serbia there is also a Treasury Administration). State audit includes regularity audit and accomplishment audit, while internal financial control consists of financial management and control and internal audit (in the Republic of Serbia there is also a body of the Ministry of Finance that harmonizes and coordinates financial management and control and internal audit).

External and internal supervisory bodies in the public sector have the same general goal - increasing the efficiency of public sector entities, which is, as mentioned earlier, the key goal of every state administration. However, there are differences between the aforementioned supervisory bodies in terms of frequency, jurisdiction, function, goals, objectives, and focus on the subject of supervision. The listed differences are desirable, because they allow viewing the same object of supervision, but from several different angles, all with the aim of searching for the best values that public sector entities can provide to citizens for their invested money.

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