

# Implementing Performance-Based Budgeting in Republic of Moldova

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This article includes a research on budgeting based performance, and proposes a system of performance indicators that assess the linkage between the policies and annual budget law, the compliance of global budgeting performance to European principles in the area of public financial management, and the impact of public financing on economic growth. The analysis of performance indicators shows the linkages between the policies, and budgeting, as well as budgeting performance in compliance with European principles in this area.

**Keywords:** budgetary, programs, performance, performance indicators, public financial management, European principles.

**JEL code:** H61, H72

## 1. Introduction

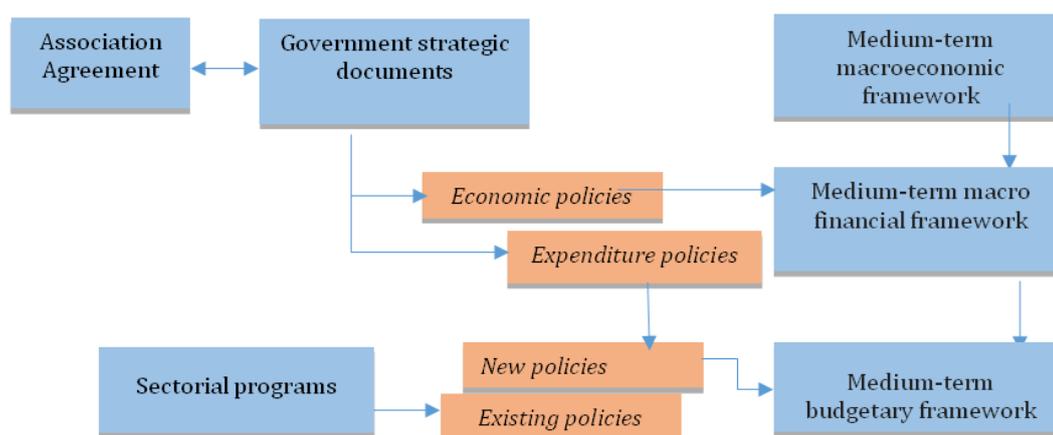
In the past decade, Moldova has implemented important reforms in public financial management (PFM), including the medium term spending framework (2002), the system of internal financial control (in 2010), the state budget for the year 2014 based entirely on programs. At the same time, it modernized the legal and regulatory framework related to the budget, including the adoption of *Public Financial Management Reform Strategy 2013-2020*, the *Law on public finances and budgetary fiscal accountability* [1] and the *Methodological set on elaborating, approving and amending the budget* (2014). As a result of reforms, it was implemented a new system of PFM, which ensures the integration of budgetary decisions with the performance of public sector; a better control of funds received by public authorities by monitoring the use of funds; a performance measurement of budget programs implementation; and accountability of government for implementing efficient programs. However, the PFM system in Moldova still does not provide the expected efficiency and effectiveness in the use of public financial resources. The experience shows that not all its components fully meets international and European standards. The purpose of this article is to research performance-based budgeting concept, instruments that ensure budget performance and to develop a system of systemic performance indicators from the perspective of compliance of the national system of public financial management to the European principles.

## 2. Performance-based budgeting concept

Performance-based budgeting is defined as a form of budgeting that associate funds allocated for achieving measurable results, it is a system that aims to transform budgeting into a tool for maximizing the efficiency and effectiveness of the state, using non-financial information in the budget process [3]. In the concept of performance-based budgeting, performance is defined by economy (savings), efficiency and effectiveness (model of 3E's) in the production of government services [5]. The economy refers to the cost of services production. A high or low cost still does not indicate government performance, efficiency therefore apply showing the relation between resources (inputs) and outputs (products or services), and effectiveness that indicate the extent to which the government has achieved its goals and objectives. In recent years, the 3E model was updated by including other aspects: assessing service quality and sizing inputs and outputs. *We conclude* that the concept of budgetary performance has been developed from the concept of efficiency, being enhanced during the time. Today's performance is measured on the following dimensions: inputs, activities, efficiency, effectiveness, services quality, financial performance and system performance (overall). In the

decision-making process at the institutional level it can be identified three categories of performance: a) the performance of public sector which refers to performance evaluation of public sector as a whole and its components [4]; b) the performance of the organization (public entity) which refers to the performance of public authorities funded from the public budget; this performance can be measured by summing the performance of programs/sub-programs implemented by the public entity; c) *the performance of the budget program/sub-program* [2] which represents the activity result of budgetary entities on the implementation of goals, objectives and performance indicators of the programs/sub-programs.

The performance-based budgeting model establish the linkage between government policies and budgetary resources allocation, in particular by introducing medium-term budgetary framework (MTBF) as a tool for strategic planning of public spending. MTBF implementation in Moldova has contributed substantially to improving the quality of the budget process, especially it helped the public expenditure planning. MTBF combines top-down approach in setting financial targets with bottom-up calculation of costs for government programs. A description of this process is shown in Figure 1.



**Figure 1. Process connection between government policies and MTBF**

*Source: developed by the authors.*

Connection quality between public policies and the annual budget is presented by the suitability of the medium-term budgetary framework public expenditure limits and the volume of public expenditure in the adopted annual budget.

### 3. Measuring budgetary systemic performance

According to the approach of budget performance in the public sector from the performance-based budgeting model, in budget documents, in addition to financial indicators of the budget there is also included performance information. This information, called non-financial indirectly measures the future performance. Additionally, it could also include direct indicators that explicitly measure the performance of public services (performance contracts) and activity indicators of budgetary entities for some specific sectors (education, health etc.).

In the mentioned context, corresponding to the identified dimensions, budgetary performance measures inputs (resources), activities of budget entities, the efficiency of budgetary allocations, services (products) and the results of budget programs (analyzing whether programs meet the objectives formulated), effectiveness on targets / objectives. Systemic performance characterizes the performance of the entire system of public finance. It has many dimensions in the institutional form (format): performance at budget programs level, at budget entity level and at national (government) level or entirely on public sector or its components (including central government). Budgetary performance is measured (evaluated) using direct and indirect indicators, both quantitative and qualitative. Currently, in our country it was approved the methodological bases for evaluating the performance of budgetary programs that are being implemented. At the same time, the regulatory framework and methodology for performance evaluation of public institution/authority and the systemic performance of the Government is missing. In Moldova the methodological framework refers to the evaluation of performance on budget programs, while establishing the system of indicators of performance for programs/sub-programs is a responsibility of each ministry. Here to mention that at system level there are no unified standards. Regulations and methodical guidelines on budget performance evaluation at public authority as a whole are missing, including the ministry level. Also,

there are no legal provisions, regulations and methodological guidelines that would facilitate the assessment of budgetary performance as a whole for the country and for the ministry entirely, using a system of performance indicators, according to European principles in the PFM.

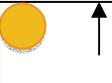
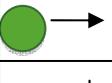
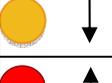
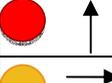
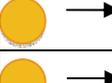
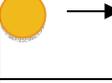
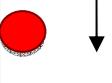
The systemic budgetary performance evaluation methodology proposed includes the description of methodological issues (and technical) of development of budgetary performance indicators, the defining of performance indicators system and the requirements for the performance report. The methodology proposed is in line with OECD/SIGMA approach for systemic performance evaluation of governmental sector in developing European countries, using a system of performance indicators [7].

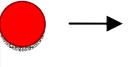
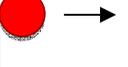
The system of performance indicators is deemed for measuring the systemic performance in the following three aspects:

- *The connection between public policy and the state budget* - by determining the degree of connection between the medium-term budgetary framework targets and the annual state budget;
- *Compliance of public finance management system to European principles* - by defining the level of connection of national financial and non-financial indicators to the same average EU's indicators (and/or other member states of the EU) on the elements of the public finance management;
- *The impact of public spending on key macroeconomic indicators* - by identifying key value changes of macroeconomic indicators (especially GDP) caused by budgetary funds use, especially public expenditure.

In this context, the methodological approach proposed includes the use of *quantitative methods* that measure the performance of the budget system using a system of performance indicators (system of quantitative indicators presented in Table 1) and *qualitative methods* that measure the degree of compliance of PFM relevant components in a developing country to European principles on the public sector as a whole, using scores on a scale from 1 (lowest result) to 5 (highest result).

**Table 1. Application of the Methodology of measuring the systemic budgetary performance: Scorecard on situation for budget year 2014**

Performance Indicators (PI)	Calculation Method, data for 2014	Data	Situation
<b>I. Connectedness of public policies and state budget</b>			
PI 1. Ration between public expenditure (CP) planned in MFBT and in annual state budget (CBS), %	$IP1 = \frac{CP \text{ din ES}}{CP \text{ din CDTM}} * 100$ $CBTM \text{ 2012} - 2014$	109,9	
<b>II. Compliance of PFM system to European principles</b>			
PI 2. Ratio between state budget initial approved and emended by revenue (VBS) and expenditure (CBS), %	$IP2^1 = \frac{CPS \text{ inițiale}}{CPS \text{ precizate}} * 100;$ $IP2^2 = \frac{VPS \text{ inițiale}}{VPS \text{ precizate}} * 100$	106,8 106,4	
PI 3. Ratio between the budget revenue (VB) planned and collected in the most recent year, %	$IP3 = \frac{VB \text{ efectivă}}{VB \text{ planificată}} * 100$	98,3	
PI 4. Ratio between the budget expenditure planned and spent in the most recent year %	$IP4 = \frac{CB \text{ efectivă}}{CB \text{ planificată}} * 100$	94,7	
PI 5. Average difference between Cash Flow (FB) planned and spent monthly, %	$IP5 = \frac{FB \text{ alocate}}{FB \text{ planificată}} * 100$	3,2	
PI 6. public debt (CD) serving cost (DP) as a share of GDP (PIB), %	$IP6 = \frac{CD \text{ DP}}{PIB} * 100$	0,5	
PI 7. Ratio between the public debt effective and planned target, %	$IP7 = \frac{DP \text{ efectivă}}{DP \text{ planificată}} * 100$	96,1	
PI 8. Efficiency of the government spend public revenues	IP8 = Score estimated by <i>The World Economic Forum in Global Competitiveness Report 2014</i> (1=inefficient; 7=most efficient)	2,6	
PI 9. Public authorities that allow personnel units (NAP <sup>2</sup> ) for the intern audit subdivisions (SAI) as a share of total number of authorities (NAP), %	$IP9 = \frac{NAP^2}{NAP} * 100$	50	

PI 10. Public authorities that developed intern audit plans (PAI) in compliance with legal provisions, %	$IP10 = \frac{NAP\ PAI}{NAP} * 100$	100	
PI 11. Quality of intern audit reports (RAI)	IP11=Score estimated by SIGMA in the <i>Report on Measurement of the Principles of Public Administration Moldova 2015</i> .	0	
PI 12. Court of Accounts budget as a share of state budget, %	$IP12 = \frac{CP\ alocate\ CC}{CPS} * 100$	0,09	
PI 13. Extern audit recommendations implemented by the controlled public authorities (NRAE1) in the total number of recommendations (NRAE2), %	$IP13 = \frac{NRAE1}{NRAE2} * 100$	49,2	
PI 14. Level of modernization of procurement tools and methods estimated by non-governmental organizations (NGOs), %	IP14 estimated by <i>Transparency International - Moldova or NGOs</i>	...	
<b>III. Impact of financial indicators on GDP</b>			
PI 15. Dependence between modification of public expenditure and GDP	Graphical comparison of public expenditure annual variation in % and economic growth rate in %.	23	
PI 16. Dependence between modification of revenue and GDP	Graphical comparison of public revenue annual variation in % and economic growth rate in %.	22	

Note. Color shows: green - good, yellow - satisfactory, red - unsatisfactory; direction: up - improvement, horizontal - unchanged, down - deterioration.

Source: elaborated by the authors using the source [6].

The information presented in Table 1 (columns 1 and 2) characterizes the *methodological framework* of performance indicators system designed to assess the systemic budgetary performance, i.e. at national level. The system proposed by the authors contains **16 performance indicators** that correspond to the main elements of public finance management. The methodological framework includes description of budgetary performance indicators, data sources and method of calculation for each indicator. Data source is the State Budget Law, the Ministry of Finance reports and reports by various independent organizations. The actual values of systemic budgetary performance indicators will be analyzed, interpreted graphically and used to *prepare the Performance report* at national level. The report should include the progress towards achievement of budgetary performance targets, and the degree of compliance with European principles and identify the impact on GDP and other macroeconomic indicators.

Focusing on system performance analysis is useful for the analysis of public authorities and public sector activities. It indicates the quality of PFM, especially in comparison with European best practices. It is noteworthy that systemic budgetary performance analysis has some application limitations, especially in managerial decision making at the budget entity.

#### 4. Applications of systemic performance evaluation methodology

The methodology was tested for fiscal year 2014 (using data from the source [8]), the results being presented in a *Scorecard* that reveals the situation using the "traffic light" method (Table 1). The quality of the state budget is given by the difference between the budget approved by the annual Law on State Budget (plan originally adopted, usually before the start of the fiscal year) and the amended budget during the budget year (the plan includes indicators of the last amended budget). Analysis shows that during 2012-2014, the state budget was amended three times each year by adopting amendments to the annual state budget law, due to changes in the economic situation. Analysis of the linkage between policies and budgetary law reveals a 10 to 17% discrepancy of public expenditure included in the MTBF versus those planned in NPB. The discrepancy is higher for public spending compared to public revenues and for the budget deficit it is the most significant.

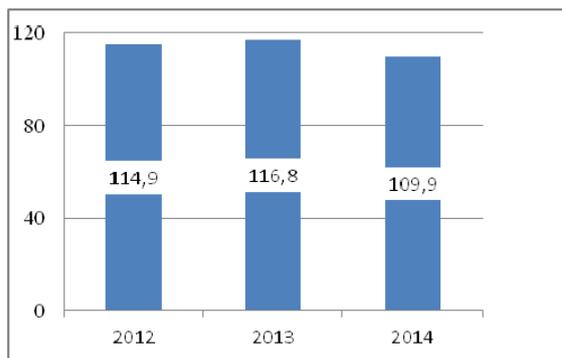


Fig.2. The ratio between public expenditure planned in the MTBF and in annual budget law, %.

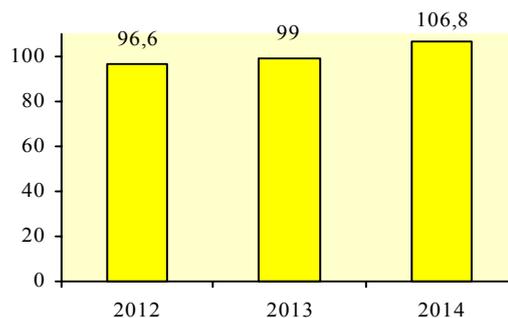


Fig. 3. Ratio between effective revenues and originally planned in the annual budget law, %.

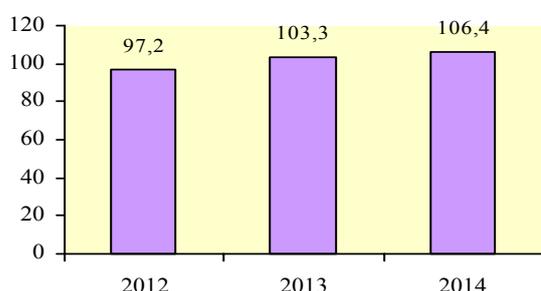


Fig. 4. Ratio between effective expenditures originally planned in the annual budget law, %.

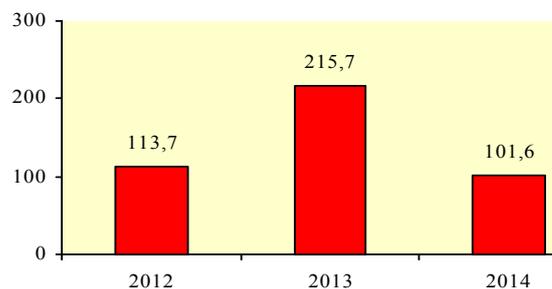


Fig. 5. The ratio of the effective budget deficit and that initially adopted, %.

Source: developed by authors based on state budget data.

Data shows the following trend of planning: revenues were overstated for the years 2012-2013 and then reduced during the fiscal year. Irrespective of the revenue situation, expenditures were increased, which led to increasing budget deficit discrepancy between the original adopted and the corrected one.

The quality indicators were assessed for each of the 16 European principles in the PFM using scoring system. Depending on the situation in the field and the results of performance indicators on PFM's components, the progress in implementation of each European principle in the field was evaluated with a certain score, where 1 is the lowest result and 5 - the highest result (Figure 6).

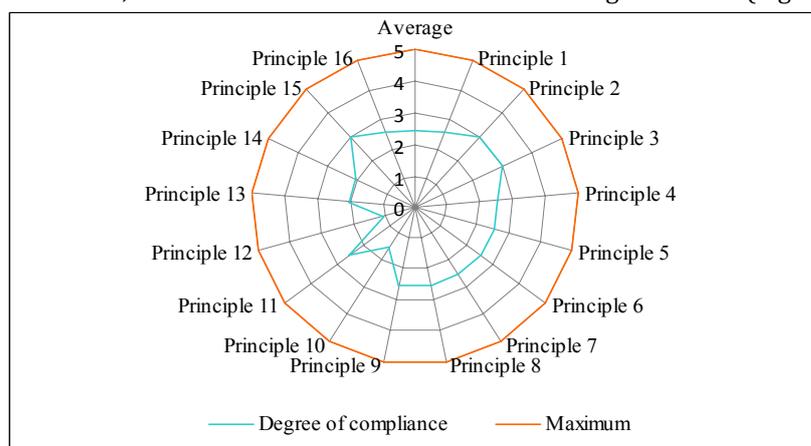


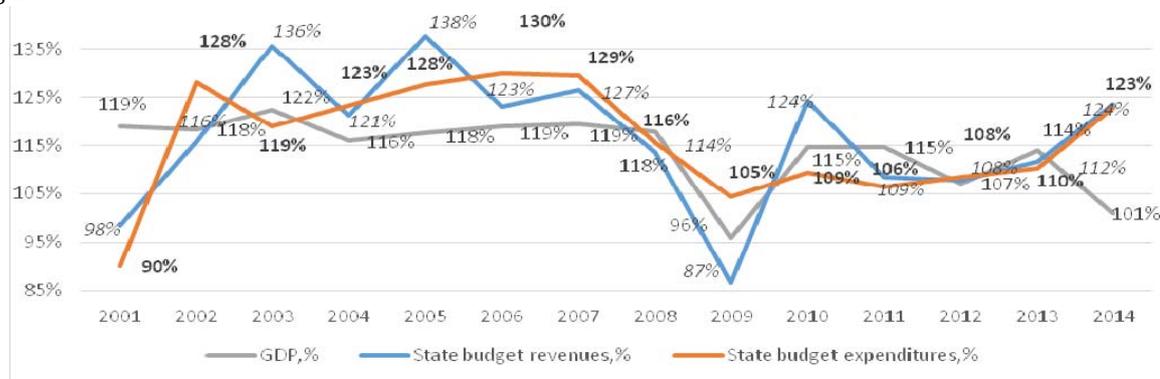
Figure 6. Difference between the level of Moldova's PFM and European principles.

Source: developed by authors.

MFP components compliance evaluation results to European principles reveal an average score of 2.4 points (5 points maximum) representing a moderate level. A higher level of compliance with European principles is observed on components such as program-based budgeting and in line with

MTBF, public debt management, implementation of financial management and internal control, external audit. Meanwhile, components such as public procurement - the compliance to European principles is relatively low, given that the legal framework (legal and regulatory) has not yet been fully harmonized with the EU acquires.

A dynamic comparison of state budget revenues and expenditures and GDP is shown in Figure 7.



**Figure 7. Evolution of state budget revenues and expenditures share in GDP, %.**

Source: developed by the authors based on data BOOST of MF and NBS.

The analysis shows that for the period under review, there are three stages in the evolution of state budget revenues and expenditures and GDP. Stage 2000-2004, which is characterized by a relatively low level of public sector size; stage 2005-2008, with a higher level of public sector size, due to increased public financial resources and external resources included the state budget which previously were not included; stage 2010-2014, with the reduced financial size due to the 2009 financial crisis and implementing the policy of reducing public expenditure and the number of staff in budget entities.

## 5. Conclusions

Systemic budgetary performance analysis indicates that the state budget is generally developed based on MTBF, ensuring it a satisfactory linkage between policies and budget. Assessment of Moldova PFM's components compliance to European principles reveals an average score of 2.4 points (5 points maximum) representing a moderate level compared with the European principles. Thus continuing the reform will help to increase the degree of PFM compliance. At the same time, analysis of the impact of budgetary and fiscal policies on GDP allows us to conclude that public expenditure indicator of NPB does not fully reflect the scope laid down in the Government's strategic documents. Public expenditures should be increased according to the local gross domestic product, but analyzing the linkage between GDP and BPN expenditures it indicates that spending had increased mainly on account of external financial sources.

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