

Opportunistic government behavior: How controlling approaches in public management can prevent it

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Abstract

The article is devoted to features of opportunistic government behavior and the use of the controlling approach to reduce it. The purpose of the article is to identify the influence of opportunistic behavior of the government bureaucracy on the economic development of the countries of Central and Eastern Europe, and to justify how the use of controlling approaches in public management can prevent it. Three hypotheses are discussed in the paper. Hypothesis 1: The low efficiency of government bureaucracy adversely affects economic growth. Hypothesis 2: The low efficiency of the government bureaucracy is caused by manifestations of opportunistic behavior. Hypothesis 3. The use of controlling approaches in public management helps to reduce the risks of opportunistic behavior of the government bureaucracy and increases the efficiency of its activities. The methodology consists of hypothetico-deductive reasoning and a comparative assessment of the effectiveness of government bureaucracy. The article contributes to the theory of controlling public funds. The results of the study are the basis for further research on the development of controlling in the public sector.

Keywords: controlling, public sector, public funds, government bureaucracy, opportunistic behavior.

Streszczenie

Opportunistyczne zachowanie rządu. Jak stosowanie podejść z zakresu controllingu w zarządzaniu publicznym może temu zapobiec

Celem artykułu jest określenie wpływu oportunistycznych zachowań biurokracji rządowej na rozwój gospodarczy krajów Europy Środkowej i Wschodniej oraz uzasadnienie, w jaki sposób stosowanie podejść z zakresu controllingu w zarządzaniu publicznym może temu zapobiec. W artykule sformułowano trzy hipotezy. Hipoteza 1: Niska efektywność biurokracji rządowej wpływa niekorzystnie na wzrost gospodarczy. Hipoteza 2: Niska skuteczność rządowej biurokracji jest spowodowana przejawami oportunistycznych zachowań. Hipoteza 3. Wykorzystanie podejść z zakresu controllingu w zarządzaniu publicznym pomaga zmniejszyć ryzyko oportunistycznych zachowań biurokracji rządowej i zwiększa skuteczność jej działań. W artykule dokonano analizy zjawiska i porównawczej oceny skuteczności biurokracji rządowej. Artykuł przyczynia się do rozwoju teorii kontroli funduszy publicznych. Może on stanowić podstawę do dalszych badań nad rozwojem controllingu w sektorze publicznym.

Słowa kluczowe: controlling, sektor publiczny, fundusze publiczne, biurokracja rządowa, zachowania oportunistyczne.

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Introduction

Controlling in the public sector is a relatively new area of research. It has become relevant in connection with the growing need to increase the efficiency and effectiveness of the use of public funds. Reducing the effectiveness of using public funds leads to growing discontent in society, a discrediting of the government, and falling trust in it.

The low efficiency of using public funds is often associated with the opportunistic behavior of the government bureaucracy. The results of the opportunistic behavior of the government bureaucracy are the growth of corruption, the absence of the rule of law, and the decline in the effectiveness of government regulations in general.

The sphere of public finance is highly susceptible to the problem of opportunistic behavior by both taxpayers and governments. This is particularly pronounced in low-income countries and is due to many factors, including low government accountability and general dissatisfaction with the standard of living. It is particularly important at present that, when masses of conflicting information affect the decisions of taxpayers and government, the influence of opportunistic behavior on the functioning of the public sector is minimized. All decisions in the field of public finance management should first be evaluated in terms of the impact not only on the country's economy but also on the behavior of taxpayers. In addition, different behavioral options of the state bureaucracy, to which taxpayer funds are transferred to management, should also be considered when developing management systems in the public sector. Proper control allows deviations in indicators that show problems and risks in the use of public funds to be detected, but it does not always prevent future issues. Thus, the control function should be expanded; it should ensure not only the detection of violations but also the management of deviations. This would make it possible to prevent the risks of opportunistic behavior from those officials responsible for the use of public funds and from those responsible for auditing public funds. This explains the feasibility of using controlling approaches in managing public funds. This direction in the management of public funds was called New Public Management (NPM). Its purpose is not only to identify violations in the use of taxpayers' funds but to prevent violations in the future. Most often, this result is achieved through increased accountability in the management of public funds, as well as reducing corruption.

The purpose of the article is to identify the influence of opportunistic behavior of government bureaucracy on the economic development of the countries of Central and Eastern Europe, and to justify how the use of controlling approaches in public management can prevent it. Three hypotheses are discussed in the paper. Hypothesis 1: The low efficiency of the government bureaucracy adversely affects economic growth. Hypothesis 2: The low efficiency of the government bureaucracy is caused by manifestations of opportunistic behavior. Hypothesis 3: The use of controlling approaches in public management helps to reduce the risks of opportunistic behavior of the government bureaucracy and increases the efficiency of its activities.

The methodology consists of hypothetico-deductive reasoning and a comparative assessment of the effectiveness of government bureaucracy. The positive economic

approach was used to describe the background of the opportunistic behavior of government bureaucracy. The paper is organized as follows: The second part is devoted to a literature review regarding government effectiveness in general, and the role of e-governance at present. The third part describes the methodology of the research and sources of data. The results of the calculations and their discussions are presented in the fourth part.

The article contributes to the theory of controlling public funds. The results of the study are the basis for further research on the development of controlling in the public sector.

1. Literature review

Since the purpose of the article involves the study of the signs of opportunistic behavior of the government bureaucracy and the possibility of using controlling approaches to reduce them, the literature review is divided into two parts. The first part is devoted to the nature of opportunistic behavior and its manifestations by the government bureaucracy. The second part is devoted to the possibilities of using controlling in the public sector in order to reduce the risks of the opportunistic behavior of the state bureaucracy.

1.1. Opportunistic behavior and its signs in the activities of the government bureaucracy

The modern definition of opportunistic behavior was given by Williamson (1985). Later, different variants of opportunistic behavior and its causes were investigated in the publications of Shleifer (2005), Akerlof (1994), and Rothschild and Stiglitz (1976). Opportunistic behavior appears as a desire to increase people's own benefit at the expense of other members of society. The risks of opportunistic behavior are always higher when there is asymmetry of information. If we consider the relationships between the government and the taxpayers, then the principal-agent relationships here arise in two directions. In the case of taxpayers paying taxes, the principal is the government, and the taxpayers are the agents; they have more information, and there is always a risk of opportunistic behavior (the non-payment of taxes) from their side. From the side of the government, the risk of opportunistic behavior arises when disposing of taxpayers' funds (for example, government purchases through friendly companies in order to receive bribes or kickbacks). The high risk of opportunistic behavior in government procurement is described by Crowley and Hancher (1995).

The risks of opportunistic behavior in the public sector are associated not only with economic gain but also with ethical issues, as described by Rubin (1982) and Field (2007), as well as the problems of the imperfection of state institutions (Cardenas, Carpenter, 2008). The distinctive features of opportunistic behavior in the countries of Eastern and Western Europe have been investigated by Höhmann and Malieva (2002).

Many researchers attribute the risks of opportunistic behavior in the public sector to corruption, as described by Arifin et al. (2015), poor quality of government regulation

(Aidt et al., 2010), low transparency and accountability of government activities, a lack of rule of law, etc. (Alt, Lassen, 2006; Coviello et al., 2011). The existence of such a connection is explained by the fact that the low level of transparency contributes to the deepening of information asymmetry, and such phenomena as corruption, the absence of the rule of law contribute to the concealment of negative trends in public administration. As a result, a favorable environment is created for opportunistic behavior from the side of a government. Therefore, changes in public administration should be aimed at reducing the risks of opportunistic behavior of a government bureaucracy. The introduction of controlling approaches in the field of public administration can also contribute to reducing the risk of opportunistic government behavior.

1.2. Controlling and its implementation in the public sector

Many fundamental papers about controlling features, principles, and functions have been written by German researchers (Reichmann, Wagenhofer, 2006; Becker et al., 2011). In the second half of the twentieth century and at the beginning of the twenty-first century, interest in the use of controlling technologies, especially in financial management (Mensch, 2001), increased significantly, which is explained by the objective need to change the approaches to managing different systems in a variable environment. After the 2008 financial crisis, the relevance of controlling increased not only in the business sector but also in the public sector, resulting in a change in the focus of the use of controlling technologies in the public sector. From the management of exclusively financial flows, it has moved into the field of coordinating financial and information flows, and it is managed on the basis of efficiency. In our opinion, such changes will continue to take place in the future, and the scope of controlling funds will continue to expand.

The study of Western economists in the last quarter of the twentieth century and the beginning of the twenty-first century increasingly focused on controlling as a new philosophy of management at the macro level. Thus, Makadam et al. (2005) studied the problems of governance and solutions in the public sector with the use of controlling elements. Meanwhile, Berman and Wand (2000) examined aspects of the use of controlling instruments in the system of public management, namely in the context of local government reforms.

The main indicators of developing a new approach to public management were the results of the New York Bureau of Municipal Studies. Researchers identified the primary use of performance indicators for administrative activities. It was proven that efficiency is the best solution to the problems of corruption and incompetence (Schachter, 1989).

One of the first fundamental research papers devoted to the need for change in the approaches to public administration by considering behavioral aspects was the publication by Simon (1976). In his paper, it was argued that the principles of public administration applied at that time were not scientifically substantiated. He posited in a paper

in 1947 that public administration should be based on the results of scientific observations that consider human behavior. In fact, the results of his work created a theoretical and methodological basis for further research in the field of public administration. He adhered to the general tendencies of behaviorism, structural functionalism, and system theory, and he also used the theoretical foundations of the welfare economy and decision-making theory.

In the middle of the twentieth century, the study of the behavioral aspects of management became more prominent. Sociological research on organizational behavior and leadership found that people are complex when making decisions (Schein, 1965). It was also found that other leadership methods are possible, apart from classical and policy-making, and that organizations can be structured not only mechanically but also in organic ways (Burns, Stalker, 1971). In practice, these approaches were not applied in a pure form, but they gave impetus to the further application of behavioral approaches in management studies in the public sector.

Buchanan was one of the first who explained the role of social choice in the development of an economy and the reaction of economic agents on political decisions (Buchanan, Tullock, 1962). In addition, he and others used methodological individualism as the main theoretical approach. They sought to explain that social phenomena depend on various aspects of the behavior of individuals. This approach understands that individuals, using the available information, pursue their own goals and actions according to how those actions merit themselves individually. This conception of rationality differs from that which was substantiated by Simon. Furthermore, in terms of public choice, rationality is not limited in comparison with the theoretical point of optimality. Rational behavior is when a person makes decisions according to his knowledge of the situation.

Proponents of the theory of public choice assessed the modern state at that time as being a result of public administration. Their theoretical explanation of representative democracy showed that the use of the rule of a simple majority without constitutional guarantees can lead to the exploitation of a minority by a majority. The majority then has the power to take advantage of their access to taxpayer funds, some of which were paid by the minority, and thus the concept of public interest or common good is highly questionable (Downs, 1957; Buchanan, Tullock, 1962). Supporters of the theory of public choice further proved that trends in the inefficient use of resources and the exploitation of certain groups are reinforced by traditional budgeting through the mechanism of government bureaucracy (Niskanen, 1971). Researchers have also demonstrated that bureaucratic organizations, defined as organizations that are not market-driven though they operate partially within some markets, may have serious shortcomings. From the point of view of public choice, these disadvantages include a strong tendency to accumulate public resources with the intention of performing approved projects or tasks. However, due to a lack of open scrutiny, those projects are not accomplished, yet the money vanishes (Tullock, 1965; Downs, 1966).

The classical and neoclassical approaches to public administration were not challenged by the theory of social choice alone. Even during the heyday of the neoclassical

approach in public administration, some researchers opposed the dominant stream of behavioral and positivist studies. In management issues, the school of human relations, based on the concept of Maslow, sought to put people in the control center (McGregor, 1960). However, several scholars argued that the division of facts and values removes public administration from its vital roots in political philosophy (Appleby, 1947; Harmon, Mayer, 1986).

The ideas of the new public administration were presented by the initiators of the New State Administration movement (Marini, 1971). The New State Administration was mostly criticized by the classical and neoclassical public administration. All theorizing about the political-administrative dichotomy, the separation of facts and values, and accountability in representative democracy were, in their view, a direct path to repression and the alienation of power (Harmon, 1971; White, 1971). That is why there was an idea to change the objectives of public administration, transforming it into result-oriented management.

The transformation of public administration, which began in the 1970s, continues to this day. It should be noted that many corporate sector controlling instruments have been implemented in the public sector, in particular, zero-based budgeting (Lerner, Wanat, 1992), goal management (Sherwood, Page, 1976), performance measurement and accounting techniques (Henry, 1990), and rational strategic management (Wechsler, Backoff, 1986). Controlling management approaches are focused on collecting and analyzing information to find optimal solutions to managerial problems. These approaches were based on the ideas of the rational behavior of taxpayers and representatives of state bureaucracy, without paying sufficient attention to behavioral approaches.

In fact, elements of controlling approaches in the public sector began to be used in the last century, but ideas for taking into account behavioral effects in public administration became popular only at the end of the 20th century. In 1980, Peters and Waterman (1982) proved that advanced American companies do not use a rational management style. They are more focused on creating their own corporate culture and developing humanistic management strategies. This work has motivated many researchers to answer the question of how much it is possible to apply such a style of management in the public sector. Milakovich (1991) and Swiss (1992) focused on overall quality management while the papers of Moore (1995) are devoted to the concept of cultural-oriented strategic management. At the end of the twentieth century, many researchers focused on the behavioral aspects of different parts of management accounting and controlling. For example, Hopwood (1976) wrote about how human behavior can affect management accounting while Otley (1977), Campbell (1985), and others focused more on the behavioral aspects of budgeting. Also, many economists have discussed how individual behavior could cause anomalies in different areas of the economy (Chen et al., 2006; Akbas et al., 2015, Thaler, 2015).

The behavioral aspects of budgeting in the public sector were one of the first issues that became interesting for researchers. Public sector budgeting is an integral part of

a democratic government. Public sector budgeting refers to the political and technical process of reconciling the distribution of funds – primarily taxpayers' funds (Lawson, 2015).

Further research on controlling development in the public sector and its behavioral aspects concentrates on three main areas. The first area of research is focused on the possibility that controlling approaches can reduce the unethical behavior of government bureaucracy (Langevin, Mendoza, 2013; Alford, O'Flynn, 2012). The second area of research concerns the political aspect of public administration (Green-Pedersen, 2002), while the third area focuses on the use of controlling approaches to manage public funds in selected areas (education, health care, etc.) and at different levels (state and municipal) (Dickinson et al., 2015; Janati et al., 2017; Gash, 2018).

The need to use new approaches in public administration, including controlling ones, is caused by the risks of opportunistic behavior of the government bureaucracy, which often leads to the inefficient use of public funds. In turn, this causes discontent on the part of taxpayers and a wave of opportunistic behavior from their side.

2. Methodology

Three hypotheses are stated in this paper.

Hypothesis 1: The low efficiency of the government bureaucracy adversely affects economic growth.

Hypothesis 2: The low efficiency of the government bureaucracy is caused by manifestations of opportunistic behavior.

Hypothesis 3: The use of controlling approaches in public management helps to reduce the risks of opportunistic behavior of the government bureaucracy and increases the efficiency of its activities.

The methodology of the research was as follows:

1. The positive economic approach was used to describe the background of the opportunistic behavior of government bureaucracy.
2. Hypothetico-deductive reasoning was used to identify and clarify problems.
3. A comparative assessment of the effectiveness of government bureaucracy was carried out using the indicators of Governance and Institutional Quality, which are published by the World Bank. Raw data are available at <https://info.worldbank.org/governance/wgi/#home>. The Worldwide Governance Indicators are available for over 200 countries and territories, covering the period from 1996 until now. Indicators include voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, the rule of law, and control of corruption. According to the World Bank Information, these aggregate indicators combine the views of a large number of enterprises, citizens, and expert survey respondents in

industrial and developing countries. They are based on over 30 individual data sources produced by a variety of survey institutes, think tanks, non-governmental organizations, international organizations, and private sector firms.

These indicators are publicly available and allow cross-country assessments. The data was organized in the form of panels. Panel data makes it possible to combine spatial (in our case, countries) and time series (in our case, annual government performance indicators). This makes it possible to build more meaningful models for studying the causal relationship between different variables. Panel data allows us to take into account the individual heterogeneity of the objects under study. In addition, panel data contain many observations; they are characterized by greater variation and less collinearity of the explanatory variables; they give a greater number of degrees of freedom and provide greater efficiency of the estimates.

The analysis was carried out using R software. Four models were used for the analysis, specifically: pooling, random, within, and between.

For the third hypothesis, an empirical analysis was not used, since there is not enough information to create a database of the analyzed countries.

3. Results

Hypothesis 1: The low efficiency of the government bureaucracy adversely affects economic growth.

The sample consists of data from 16 Eastern and Central European countries for 16 years (from 2002 until 2017). The panel is strongly balanced, which means that each country has indicators for each year included in the sample. The total number of observations is 256.

The dependent variable is GDP growth per capita (GDPGROWTH). The independent variables are:

CONTROLCORRUPTION – control of corruption;

GOVERNEFF – government effectiveness;

POLISTAB – political stability;

REGQUALITY – regulatory quality;

RULELAW – the rule of law;

ACCOUNTABILITY – accountability.

The variables were tested for multicollinearity in R using the “corpcor” and “mctest” packages. The function `cor2pcor(cov(x))` calculates a correlation matrix for the dataset. The correlation matrix below shows that the pair-wise correlation among all the explanatory variables is not very high. It means that there is no multicollinearity among the independent variables (Table 1).

Also, the “vif” function was used to calculate variance inflation factors. The calculations showed that for each variable, the variance inflation factor is lower than 5. The results of testing the first hypothesis are presented in Table 2.

Table 1. Results of test for multicollinearity

| | [1] | [2] | [3] | [4] | [5] | [6] |
|-----|-------------|------------|-------------|-------------|-----------|-------------|
| [1] | 1.00000000 | 0.3778859 | 0.28333085 | -0.12686081 | 0.2866817 | -0.06234643 |
| [2] | 0.37788591 | 1.0000000 | -0.27932709 | 0.40581253 | 0.3948570 | 0.10839255 |
| [3] | 0.28333085 | -0.2793271 | 1.0000000 | 0.01498393 | 0.3950394 | 0.55691303 |
| [4] | -0.12686081 | 0.4058125 | 0.01498393 | 1.0000000 | 0.2609031 | -0.17931220 |
| [5] | 0.28668167 | 0.3948570 | 0.39503941 | 0.26090308 | 1.0000000 | 0.21404560 |
| [6] | -0.06234643 | 0.1083925 | 0.55691303 | -0.17931220 | 0.2140456 | 1.0000000 |

Source: calculated by authors.

Table 2. Results of the regression analysis:
how GDP growth depends on government effectiveness indicators

| Items | Dependent variable: | | | |
|-----------------------|------------------------------|------------------|-------------------------|------------------------|
| | GDPGROWTH | | | |
| | Pooling | Random | Within | Between |
| CONTROLCORRUPTION | 2.7*** (0.9) ^a | 2.7*** (0.9) | 7.8*** (2.0) | 0.8 (0.8) |
| GOVERNEFF | -3.0*** (1.1) | -3.0*** (1.1) | -3.2 (2.1) | -3.1*** (0.9) |
| POLISTAB | 1.8*** (0.5) | 1.8*** (0.5) | 2.8*** (0.9) | 1.3** (0.5) |
| REGQUALITY | 2.5** (1.2) | 2.5** (1.2) | -1.7 (2.2) | 2.9** (1.0) |
| RULELAW | -4.7*** (1.4) | -4.7*** (1.4) | -9.6*** (2.5) | -1.8 (1.2) |
| ACCOUNTABILITY | 0.4 (0.8) | 0.4 (0.8) | -1.1 (1.9) | -0.6 (0.7) |
| Constant | 3.0*** (0.3) | 3.0*** (0.3) | | 3.0*** (0.3) |
| Observations | 256 | 256 | 256 | 16 |
| R2 | 0.2 | 0.2 | 0.2 | 0.9 |
| Adjusted R2 | 0.2 | 0.2 | 0.1 | 0.8 |
| F Statistic | 9.2*** (df = 6; 249) | 55.4*** | 8.6*** (df = 6; 234) | 12.4*** (df = 6; 9) |
| p-value for the model | 0.01 | 0.01 | 0.01 | 0.01 |

^a Numbers in parentheses are standard errors.

Note for each variable: *p < 0.1; **p < 0.05; ***p < 0.01

Source: calculated by authors, based on World Bank Data.

The models are statistically significant, and the hypothesis was confirmed. The statistical significance is confirmed by the value of the F statistic and p-value. This means that GDP per capita growth depends on the performance indicators of the state bureaucracy. Control of corruption, government efficiency, political stability, and the rule of law have the greatest impact on GDP per capita growth.

A comparison of the performance of the four models follows. R-sq “between” reflects the quality of the fit regression and is quite high (0.9). This means that a change in the time averages for each country has a more significant effect on each variable than the temporal variations of these indicators relative to the average.

The “within” regression allows the elimination of unobservable individual effects from the model. R^2 is 0.2. It can be concluded that within our model, individual differences are more pronounced than dynamic ones. This argues in favor of individual effects being viewed against the end-to-end assessment model.

The models were tested using the Wald and Hausman tests. The p-value in the Hausman test is 0.03272. The chi-squared value generated by the Wald test is greater than the chi-squared value in the standard table. The results obtained allow that in our case, a model with fixed individual effects is suitable for the conclusion.

The results indicate that a high level of efficiency of the government bureaucracy, a low level of corruption, as well as an effective legal system and political stability have a positive effect on the growth of GDP per capita. Therefore, for countries with higher bureaucracy efficiency indicators, the best economic growth indicators are more common.

Hypothesis 2: The low efficiency of the government bureaucracy is caused by manifestations of opportunistic behavior.

The quality of the government bureaucracy is measured using Worldwide Governance Indicators. In this research, we assume that the effectiveness of the government bureaucracy depends on the control of corruption, the regulation quality, the rule of law, and the accountability of the government. The dependent variable is an indicator of government effectiveness (GOVERNEFF). The independent variables are regulatory quality (REGQUALITY), control of corruption (CONTROLCORRUPTION), the rule of law (RULELAW), and accountability (ACCOUNTABILITY). The data were organized as panel data, and they include 256 observations (indicators of government effectiveness from 16 Eastern and Central European countries for 16 years, from 2002 until 2017). The same database was used as for hypothesis 1. The results of the analysis are presented in Table 3.

The models were tested using the Wald and Hausman tests. The p-value in the Hausman test is 0.04412. The chi-squared value generated by the Wald test is greater than the chi-squared value in the standard table. In our case, the results allow that a model with fixed individual effects is suitable for conclusions. The results of the analysis show that the first model is the most suitable for further analysis. As can be seen from Table 3, the control of corruption, regulatory quality, and the rule of law have the greatest impacts on the effectiveness of government bureaucracy. Those indicators also show the risk of opportunistic behavior of a government. If the control of corruption is low and the rule of law is not effective, the risk of a government’s opportunistic behavior will increase.

Table 3. Results of the regression analysis: how government effectiveness depends on the control of corruption, regulatory quality, the rule of law and accountability

| Items | Dependent variable: | | |
|-----------------------|---------------------------|------------------|--------------------------|
| | GOVERNEFF | | |
| | Pooling | Random | Within |
| CONTROLCORRUPTION | 0.3*** (0.05) | 0.3*** (0.1) | 0.3*** (0.1) |
| REGQUALITY | 0.3*** (0.1) | 0.1* (0.1) | 0.1 (0.1) |
| RULELAW | 0.3*** (0.1) | 0.5*** (0.1) | 0.5*** (0.1) |
| ACCOUNTABILITY | -0.005 (0.05) | -0.01 (0.1) | -0.01 (0.1) |
| Constant | 0.1*** (0.02) | 0.2*** (0.01) | |
| Observations | 256 | 256 | 256 |
| R2 | 0.85 | 0.6 | 0.5 |
| Adjusted R2 | 0.85 | 0.6 | 0.4 |
| F Statistic | 891.9*** (df = 5; 250) | 449.3*** | 40.5*** (df = 5; 235) |
| p-value for the model | 0.01 | 0.01 | 0.01 |

Note: *p < 0.1; **p < 0.05; ***p < 0.01

Source: calculated by authors, based on World Bank Data.

Corruption is one of the key risks associated with the inefficient use of taxpayer funds. In addition, it is one of the signs of opportunistic behavior. The implementation of controlling approaches in the public sector should help to reduce the risk of corruption. Controlling public funds has the same basis as the controlling of corporate finance. Therefore, tracking the performance of government bureaucracy helps to indicate possible problems. For example, increases in tax evasion could be a result of growing corruption in the public sector.

Regulatory quality is also a key factor in the efficiency of the state bureaucracy. The provision of high-quality regulations, again, based on controlling approaches, helps to prevent opportunistic behavior on the side of the state bureaucracy under the management of public funds (Cooper, 1991). Good quality regulations are expected to result in the proper use of taxpayer funds. It should be noted that the controlling approach in the public sector is not just limited by control and analysis; it is extended to developing accountability and transparency.

According to the World Bank indicators, in low-income countries, the extensive expansion of bureaucracy and business reduces the efficient functioning of the government. In some countries, according to research, business actively cooperates with the political elite, and often such cooperation is based on ensuring the maintenance of narrow self-interests (Fedosov, Paientko, 2017).

The effectiveness of the bureaucracy is ensured when the government represents the interests of the entire society, and the bureaucracy can promote the implementation of these interests as an independent mediator, whose effectiveness is under the control of society.

The government bureaucracy must act as an impartial mediator between society and the state, professionally performing its duties. However, this balance is violated in cases where the responsibilities of the bureaucrats are unclear, there is a duplication of functions, and the selection of personnel for work in the bureaucratic system is carried out not on professional grounds but based on personal ties. Despite the significant risks of failure in a bureaucracy, it is obvious that western bureaucracies can function and solve public problems very effectively.

The heart of a government bureaucratic apparatus is the people employed within, and it is exactly their behavior that determines the effectiveness of its functioning for society. In Europe, generally, government bureaucratic service provides certain privileges (explicit and implicit, official and unofficial). The list of such privileges varies over time; for example, it could be guaranteed employment with an adequate level of wages, state social guarantees, the right to use state-owned residential real estate, privileged pensions, special services, etc. However, when government officials use their access for the distribution of financial flows or state natural resources to increase their personal well-being, this constitutes an abuse of power. Most of these informal benefits are accessed by senior officials of the bureaucratic apparatus, and their opportunistic behavior creates a negative image of the bureaucracy. So, hypothesis 2 is confirmed.

Hypothesis 3: The use of controlling approaches in public management helps to reduce the risks of opportunistic behavior of the government bureaucracy and increases the efficiency of its activities.

The introduction of controlling approaches in the management of taxpayer funds provides prevention of their ineffective and inappropriate use, not only through the control of misuse but also through the growth of accountability and transparency. One of the most important aspects of controlling implementation in the public sector is understanding the differences between controlling and control. Control provides detection of violations. Controlling provides prevention of violations in the management of funds of taxpayers. This may be due to the establishment of causal links between the performance of the relevant government agencies and the funds for their maintenance, or to ensure public accountability of government officials for the inappropriate use of taxpayers' funds.

The use of controlling approaches occurs in different ways in different countries, but a general tendency can be identified. The essence of this trend lies in the fact that controlling approaches are primarily implemented where the risk of opportunistic behavior on the part of the state bureaucracy is higher, namely in the field of public procurement (Buscaglia, 2003; Amaral et al., 2009; Auriol et al., 2011) and the financing of public goods (Rose, Peiffer, 2012; Majette, 2019).

Thain and Wright (1992) analyzed the extent to which the basic functions of planning, distributing, controlling, and evaluating government spending are formulated and implemented. The authors used four sets of criteria: 1) the relationships of the participants in the process of distributing funds; 2) how a public spending decision-making system allows governments to achieve spending goals; 3) what the direct participation of ministers in the overall decision-making process is, and how they determine the relative priority of both general government expenditures and their composition; 4) the distribution of expenses between departments and agencies.

Considering that the mobilization of taxpayers' funds and their further distribution is controlled by central budget agencies (in most countries, they are the ministries of finance and the treasury), controlling approaches should be implemented primarily in the management of these organizations. First, the use of controlling approaches implies a connection between the conditions for financing central budget agencies and the results of their activities. This, in turn, requires changes in the innermost culture of such organizations (Wanna et al., 2003). A similar idea is presented in the article by Sheetal et al. (1999), in which the authors study how the use of incentives for tax officers influence the level of corruption in the field of tax mobilization. The results of the study showed that simply paying bonuses is not enough, since corruption in the upper layers of management does not allow ordinary officers to work fully. The results of this study indicate that the introduction of controlling approaches should be systematic and necessarily affect the results of the top management of organizations. In addition, the use of controlling approaches involves disaggregating the functions of public authorities and partially transferring them to external providers who are subject to full accountability (Alford, O'Flynn, 2012). Also, the introduction of controlling approaches requires changes in the internal culture of the bureaucratic organizations themselves, whose activities should be focused on the service of society, and not to the contrary (Dickinson, 2014)). Achieving this effect, in our opinion, also requires government accountability and high-quality government regulation.

Controlling implies a change in approaches in the audit of public funds. The audit should evaluate not only the targeted use of taxpayers' funds but also their effectiveness. Thus, the idea of accountability itself becomes much broader; it is important not only to inform taxpayers about the amounts of taxes collected and spent but also about the effectiveness of the expenses (Leeuw, 1996).

One type of controlling approach is to limit public service consumers' direct contact with officials. This is achieved by introducing electronic services in management. Firstly, these electronic services reduce the risk of corruption (there is no direct contact

with an official). Secondly, electronic services help to increase the transparency of the quantity and quality of services provided (Arfeen, Khan, 2009).

The introduction of controlling approaches is due to changes in the institutional environment that affect the behavioral habits of the state bureaucracy. That is why accountability can be considered one of the leading characteristics of new public management (Bakhtaki, 2007). Controlling approaches in public funds management aim to enhance both performance and accountability by adopting governance and accountability mechanisms from the private sector.

In the traditional approach of accountability, politicians and civil servants are answerable to elected authorities, but, in this approach, they should also be liable to people. Therefore, in NPM, there is a shift in accountability from the political to the managerial sphere and from input and processes to output and outcomes.

Public sector governance concerns accountability tasks in relation to the specific goals of this sector. They are not limited to service delivery (e.g., the cost and quality of services) but also include the impact of the policies on the community or society at large (e.g., policy outcomes or value for tax money). Governance includes various types of mechanisms, particularly structures that clarify the responsibilities of the various stakeholders as regards the organization, approaches that foster the capabilities for meeting these responsibilities, and tools such as systems for internal control and external accountability.

Conclusions

Three hypotheses were tested in the paper.

Hypothesis 1: The low efficiency of the government bureaucracy adversely affects economic growth.

Testing the first hypothesis was conducted empirically. For this, a sample of indicators was compiled from 16 countries and eight years (2002–2017). The GDP per capita was chosen as the resulting value, and the indicators of the effectiveness of the state bureaucracy were selected as independent variables. The hypothesis was confirmed. In countries with a high level of efficiency of the government bureaucracy, GDP growth per capita is higher.

Hypothesis 2: The low efficiency of the government bureaucracy is caused by manifestations of opportunistic behavior.

The second hypothesis was tested empirically. For the test, the same database was used as for the first hypothesis. The dependent variable is the indicator of government effectiveness. The independent variables are regulatory quality, the rule of law, and accountability. The independent variables are regulatory quality (REGQUALITY), the control of corruption (CONTROLCORRUPTION), the rule of law (RULELAW), and accountability (ACCOUNTABILITY). The control of corruption, regulatory quality, and the rule of law have the greatest impacts on the effectiveness of government bureaucracy. Thus, the second hypothesis was confirmed.

Hypothesis 3: The use of controlling approaches in public management helps to reduce the risks of opportunistic behavior of the government bureaucracy and increases the efficiency of its activities.

Controlling approaches are gradually being introduced in the management of the public sector. It can be seen on the example of managing public funds in the form of taxpayer funds. The researched publications devoted to controlling approaches in public management suggest that controlling ideas are first implemented in the areas of tax collection and public procurement.

Controlling approaches in the area of tax collection are aimed at reducing the risk of corruption, and hence the risk of the tax base eroding. Controlling approaches in public procurement are aimed at increasing the transparency and accountability of government activities. Achieving a higher level of transparency and accountability can be achieved by changing the approach to auditing public funds, focusing on efficiency and not on the targeted use of funds. Also, an important aspect is the support of the rule of law that ensures the high quality of state regulation. Thus, the third hypothesis is confirmed.

The problem of transforming the bureaucracy is a problem that is not so much organizational as moral. It is important to realize that the key is to be between the functions of bureaucracy and the ideas of the public good, with the interests of society at the center, not the politicians' and oligarchs'. Being a part of state power, the government bureaucracy is objectively linked with the notion of service to society. Therefore, the obvious antidote to bureaucratic pathologies is government transparency, the openness of clear and understandable financial information, and the availability of this information to any and all interested parties.

This paper has several limitations that will be eliminated in the future:

1. The sample size will be increased.
2. The hypotheses will be tested separately for high- and low-income countries.
3. Additional indicators of economic freedom will be tested.

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