THE ROLE OF FINANCIAL CONTROL OVER INCREASING THE EFFICIENCY OF USING BUDGET FUNDS

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ABSTRACT
In the context of modern globalization and economic integration financial control is one of the key components for the implementation of important areas of public administration and state policy, which not only serves as the mechanism for carrying out the verification of the accuracy of the financial documenting process, detection of violations in fiscal legislation and financial discipline and notification of such cases, but also as an important instrument for the management of finances and economic processes through it. Financial control is a control system of legislative and executive authorities over all financial entities, i.e. financial activities of the government, enterprises and organizations. Its purpose is to ensure the successful implementation of the state’s economic policy, help shape financial resources in all spheres of the national economy and effectively utilize them. Since the importance of financial control has increased dramatically in the modern day, the importance of financial control is also rising considerably. Financial control is a dynamic process that always has new features, and therefore it should hold a firm and decent place at the research object of the science of economics in the long term regardless of the degree of knowledge, especially in transition economies. Financial control is both a crucial part of financial management and a prerequisite for the effectiveness of financial system governance. Under current conditions, organization and implementation of effective state control over a deeper study of the general issues of financing budget expenditures, budget formation and particularly use of budget funds, including the role of financial control in increasing the efficiency of use of budget funds has not been sufficiently studied. This issue is particularly relevant in terms of efficient use of budget funds, improving the quality of governance in the budget sphere and the transition to international standards of budget formation and execution. The article studies and classifies the factors influencing the effectiveness of the state financial control on budget expenditures, and provides directions for enhancing the role of financial control in improving the effectiveness of the use of budget funds. The results obtained from the study provide an objective basis for the assessment of financial control in increasing the efficiency of budget expenditures.

Keywords: budget funds, efficiency, financial control, modern globalization

1. INTRODUCTION
The solution of the problem of financial control development makes essential the formation of the state financial control system, which allows to project and implement the mechanism of allocation of state resources to top priorities for society, manage state expenditures, improve supervision, develop various levels of state financial control bodies based on international standards and regulate the interaction between them. It should be borne in mind that financial control is a dynamic process that always has new features, and therefore it should hold a firm and decent place at the research object of the science of economics in the long term regardless of the degree of knowledge, especially in transition economies. Since the importance of financial control has increased dramatically in the market economy, the importance of financial control is also rising considerably. Unlike the administrative domination system, the economic functions of the state in the market economy that are based on the principles of democratic governance are significantly restricted, which stimulates economic freedom, but the acquisition of such freedom should by no means lead to arbitrariness and harmful results.
Therefore, in the context of new economic relations, the importance of the state control over the economy is increasing. Being based on the constitution and relevant legislation, the purpose of the state financial control, which is one of the main forms of financial control, is to directly control the implementation of the state’s financial policy, ensuring financial stability in the country, and establishment and use of the state budget and extra-budgetary funds. Currently state financial control is exercised by legislative and executive bodies of the country, financial and tax authorities, treasury system and other state bodies. Treasury and tax authorities play a very important role among those bodies. The financial control system carries out state financial control over the purposeful and efficient spending of the state budget, and extra-budgetary funds of the purposeful budget funds and budget organizations, as well as the loans received under state guarantee. The state financial supervision is also carried out by control and inspection offices, chief accountancies and financial departments of separate ministries and committees. We believe that there is a need for the restoration, renewal and improvement of the old control system at the stage of globalization of economic development. Improving financial control should, first and foremost, involve the organization and functioning of the most up-to-date controls, the coordination of the control system and increasing its impact.

2. LITERATURE REVIEW

Many world scholars have applied to the study of financial supervision and control over execution of the state budget. The state budget mainly serves to finance the public sector in the economy, which produces public goods and services. The public sector provides a lot of significant services to the community (McKenzie, 1988). It acts as an over-compensating function. That is, it does things that the market economy cannot do or does not have enough stimuli to implement. Musgrave and Musgrave (1976) have classified the functions of the public sector as follows:

- resource allocation – provision of social benefits and services;
- income distribution – regulation of wealth or income distribution in society to comply with the principle of fairness;
- stabilization – use of tax policies to achieve high employment, price stability and economic growth.

Delving into the issue of financial control, Oshisami and Dean (1984) argue that since financial supervision is the basis of political power, the control over finances should be reflected in the constitution of all countries in order to prevent the possibility of abuse. In general, the term "control" is one of the basic principles of governance. Control contributes to the efficient utilization of resources to achieve the objectives set out in the defined plan (Lucey, 1996; Ekwonu, 1996). Koontz, Donnel and Wiehrick (1980) also define control in a similar way – as a means to measure and correct the activity of the subordinates in order to ensure that such activity is consistent with the plan. At the same time, they have divided the financial control into three stages: defining standards; determining the quality of the use of such standards; aligning deviations from standards and plans (Koontz, Donnel and Wiehrick, 1980). Financial control is one of the basic and essential types of control in the field of public finance management. Financial control ensures economical and efficient use of financial resources taken at real value in order to achieve the assigned goals more effectively (Oshisami, 1992). Ball et al (1999); Bartel (1996); Asselin (1995); Premchand (1989); Hogye (2004); Martinez-Soliman (2003); Sahgal (2001) and Ahsan (1994) stated in their studies that in order to increase the efficiency of financial control over public funds the financial supervision institution must be isolated from other administrative institutions, in other words, it should be an independent institution. Financial management is as old as the government (McKinney and Howard, 1979). It is one of the main functions of managing the state, which carries the leader towards the
society. In addition, it is the only function that affects every servant. There is a link between financial transparency and the required level of management (Sutcliffe, 2002) and financial transparency positively affects macroeconomic stability (Idasa, 1998). In particular, in order for effective budget control and regulation of monetary transactions, the government should have a proper working accounting and reporting system (Asselin, 1995). Finances and financial control are closely linked to the state budget. The state budget plays a significant role in government management and planning (Mckenzie, 1998). Each government decision has a budgetary nature. In particular, the decision-making process pretty much entails allocation of scarce resources to alternative uses (Stedry, 1979). The state budget is a financial plan covering government spending and the sources of funding thereof (Mckenzie, 1998), or the most valuable and authoritative project or map of resource allocation (Pollack, 1999). The budget is a process that reflects the purpose and expenditure of financial resources over a period of time (Akinola and Asein, 1998). The budget is a plan of spending an amount and/or monetary value for a future period. It usually demonstrates planned or targeted income and the planned or targeted costs (Pogue, 1989). The importance of budgeting is increasing with increasing demand for power distribution between legislative and executive bodies (McKinney and Howard, 1979, Premchand, 1989 and Wapmuk 2001). The budget acts as a bridge between legislative and executive bodies (Wildavsky, 1979). Budget is the only and most important manifestation of government policies that provide for the implementation of programs and plans set by the government's legal entities. It is also a control tool for the parliament and a key guiding document that represents the responsibility before the taxpayers. Budgeting is a dynamic and continuous process. It is a cycle and it has four phases: planning and preparation, legislative review, execution and audit (McKinney and Howard, 1979 and Hendrick and Forrester, 1999). The execution of each budget is also an executive responsibility (Burkhead, 1959). Financial control over the use of budget funds is absolutely necessary. Spending of the allocated financial resources for the intended purposes and the legitimate activities of funds are checked during financial control (Knighton, 1979). At the same time, due to the expenditure limitation, financial control focuses on full compliance of spending with the expenditure plan and efficient use of financial resources. The distribution of financial resources plays an important role in fulfilling the functions by the political authorities. For this reason, supervision in accordance with the norms is not only important to guarantee the effective utilization of public funds, but also to force the government and the authorities in general to be responsible in their actions (Speck, 2003). The role of financial reporting in financial supervision is expressed as a key element of the responsibility of public institutions (Henley et al., 1993).

3. DATA AND METHODOLOGY
The data have been collected from the State Statistical Committee and the website of the Ministry of Finance of Azerbaijan. There are numerous established and stable relations between various economic indicators in economics. The dependences between the economic indicators in economic systems are not functional, they are correlation type dependences. Detection, evaluation and analysis of such dependences, including the construction of mathematical expressions of dependences and assessing their parameters are one of the key sections of econometrics. If a change in one of the economic indicators will lead to a change in the distribution of the other, then such dependency is statistical and it is called correlation dependence. This type of dependence is expressed as:

\[ M (y/x) = f(x) (I) \]

and is called regression function of Y on X. In this case, X is a non-dependent variable or regressor, and Y is a dependent variable.
Research is called double regression when learning the dependence of two RDs. Based on the above considerations, it can be concluded that the linear regression (theoretical linear regression equation) means the linear function of the dependent variable y between x. The expression:

\[ Y = \beta_0 + x\beta_1 + \varepsilon_i \]  

(2)

is called the theoretical linear regression model; \( \beta_0, \beta_0 \) are the theoretical parameters of the regression (theoretical ratios) and \( \varepsilon_i \) is the random displacement.

4. CURVE MODELS

One or more different models for the evaluation of the curves can be chosen. Curves can be selected according to the data distribution, scatter graph. But at the same time, the attention is mainly focused on the compliance and reliability features of the statistical indicator model when finding the parameters with the least squares method (LSM). The adapted R-squared indicates the model's accuracy, and its value is between 0 and 1. The accuracy of the calculation increases as the result approaches 0. t-statistical measures the significant volatility of the model. It specifies the degree of compatibility of the variable to the model. t-statistical should be greater than 2, so that the coefficient is considered a reliable indicator. A greater t-statistical indicates that the variable is more significant in the equation. F-statistical indicates the accuracy of the equation used in model. A greater F-statistical means a more reliable model. F-statistical should be greater than 4 for the model to be considered acceptable. The probe (F-statistical) indicates the probability that the model is wrong.

The following equation models are available.

<table>
<thead>
<tr>
<th>Linear</th>
<th>( Y = b_0 + (b_1\times X) )</th>
<th>where b0 is a constant, b1 is regression coefficient for free X. The range is modeled as X linear function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logarithmic</td>
<td>( Y = b_0 + (b_1\times \ln(X)) )</td>
<td>where ( \ln() ) is a natural logarithmic function</td>
</tr>
<tr>
<td>Inverse</td>
<td>( Y = b_0 + (b_1/X) ).</td>
<td></td>
</tr>
<tr>
<td>Quadratic</td>
<td>( Y = b_0 + (b_1\times X) + (b_2\times X^{**2}) )</td>
<td>where ** is the exponentiation operator. If b2 is positive, then the curve is rising, if it is negative, the curve is downsloping. Can be used for modeling of increasing or decreasing ranges.</td>
</tr>
<tr>
<td>Cubic</td>
<td>( Y = b_0 + (b_1\times X) + (b_2\times X^{**2}) + (b_3\times X^{**3}) )</td>
<td>If b3 is positive, then the curve is rising, if it is negative, the curve is downsloping.</td>
</tr>
<tr>
<td>Exponentiation</td>
<td>( Y = b_0\times(X^{**b_1}) ) or ( \ln(Y) = \ln(b_0) + (b_1\times\ln(X)) )</td>
<td>If b0 is positive, then the curve is rising, if it is negative, the curve is downsloping.</td>
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<tr>
<td>Power</td>
<td>( Y = b_0\times(b_1\times X) ) or ( \ln(Y) = \ln(b_0) + (\ln(b_1)\times X) )</td>
<td>If b0 is positive, then the curve is rising, if it is negative, the curve is downsloping.</td>
</tr>
<tr>
<td>S-shaped</td>
<td>( Y = e^{**}(b_0 + (b_1/X)) ) or ( \ln(Y) = b_0 + (b_1/X) )</td>
<td>where e is the basis of natural logarithm. If b1 is positive, then the curve is rising, if it is negative, the curve is downsloping.</td>
</tr>
</tbody>
</table>
Logistic  -  \[ Y = 1/(1/u + (b0*(b1**X))) \]
or \[ \ln(1/y - 1/u) = \ln (b0) + (\ln(b1))*X \]
where \( u \) is the upper boundary, limit of the price, the indicator. If \( b1 \) is negative, then the curve is rising, if it is positive, the curve is downsloping.

Growth  -  \[ Y = e^{(b0 + (b1*X))} \]
or \[ \ln(Y) = b0 + (b1*X) \]
If \( b1 \) is negative, then the curve is downsloping, if it is positive, the curve is rising.

Exponential  -  \[ Y = b0* (e^{(b1*X)}) \]
or \[ \ln(Y) = \ln(b0) + (b1*X) \]
If \( b1 \) is negative, then the curve is downsloping, if it is positive, the curve is rising.

5. CURRENT STATE OF STATE BUDGET EXPENDITURE UTILIZATION IN AZERBAIJAN

Increasing budget revenues and optimizing expenditure are important macroeconomic priorities of all states. In the current systemic crisis, these issues, particularly the efficient, cost-effective and effective use of state budget expenditures, are of particular importance. In the medium and long term, in order to optimize the budget framework and increase tax revenues from the non-oil sector in the overall structure of budget revenues in Azerbaijan, it is important that the fiscal sustainability issues are assessed in the context of the overall macroeconomic framework, as well as by taking into account the principle of unchangeable real costs defined in the “Long-term strategy on the management of oil and gas revenues”. It would also be a positive step to use the fiscal gap indicator to estimate the actual long-term view of the economy in terms of natural resource dependency. This parameter is an indicator of the ratio that is calculated by taking into account priorities of the current and future fiscal policy on the long-term and bringing to the real value between the review and the revenue and expenditure of the state budget. This indicator is appropriate for measuring fiscal sustainability. The global financial crisis does not shy away from Azerbaijan, which is closely integrated into the global economic system. Measures taken in Azerbaijan with regard to financial control provide maximum protection against these variables. Normalization of some costs in the budget, strengthening of financial administration and a more responsible approach are the main principles of an efficient and cost-effective approach to the use of public funds. And serious financial discipline and purposeful saving are financial sources too.

Table 1: State budget revenues

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Total revenues</td>
<td>316.9</td>
<td>714.6</td>
<td>2055.2</td>
<td>11403.0</td>
<td>15700.7</td>
<td>17281.5</td>
<td>19496.3</td>
</tr>
<tr>
<td>Natural persons’ income tax</td>
<td>22.8</td>
<td>94.0</td>
<td>317.4</td>
<td>590.2</td>
<td>715.7</td>
<td>813.0</td>
<td>859.7</td>
</tr>
<tr>
<td>Profit (income) tax of legal entities</td>
<td>86.3</td>
<td>125.9</td>
<td>355.4</td>
<td>1429.9</td>
<td>2134.0</td>
<td>2252.0</td>
<td>2374.8</td>
</tr>
<tr>
<td>Land tax</td>
<td>0.8</td>
<td>6.7</td>
<td>15.3</td>
<td>35.3</td>
<td>30.6</td>
<td>33.1</td>
<td>35.4</td>
</tr>
<tr>
<td>Property tax</td>
<td>0.9</td>
<td>11.8</td>
<td>40.4</td>
<td>101.8</td>
<td>103.9</td>
<td>105.1</td>
<td>125.1</td>
</tr>
<tr>
<td>Value Added Tax</td>
<td>30.6</td>
<td>190.8</td>
<td>599.9</td>
<td>2082.5</td>
<td>2222.7</td>
<td>2366.9</td>
<td>2710.0</td>
</tr>
<tr>
<td>Excise tax</td>
<td>17.7</td>
<td>22.4</td>
<td>141.0</td>
<td>514.9</td>
<td>480.2</td>
<td>531.5</td>
<td>593.3</td>
</tr>
<tr>
<td>Mining tax</td>
<td>0.0</td>
<td>50.4</td>
<td>53.5</td>
<td>130.1</td>
<td>129.8</td>
<td>125.8</td>
<td>121.5</td>
</tr>
<tr>
<td>Taxes related to foreign economic activity</td>
<td>8.9</td>
<td>63.4</td>
<td>205.2</td>
<td>291.8</td>
<td>433.1</td>
<td>592.5</td>
<td>675.2</td>
</tr>
<tr>
<td>Other taxes</td>
<td>62.9</td>
<td>9.0</td>
<td>28.1</td>
<td>90.3</td>
<td>140.6</td>
<td>157.6</td>
<td>161.5</td>
</tr>
<tr>
<td>Other revenues</td>
<td>86.0</td>
<td>140.2</td>
<td>299.0</td>
<td>6136.2</td>
<td>9305.4</td>
<td>10306.5</td>
<td>11842.1</td>
</tr>
</tbody>
</table>

Source: www.stat.gov.az

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The revenues of the state budget for the studied period of 1995-2017 have increased by 52.12% to 16516.7 million manats. Total revenues have increased by 23.11% in 2017 compared with 2000, 8.03% in comparison with 2005, and 1.49% in comparison with 2010, whereas they have declined by 15.3% in comparison with 2013, 5.6% in comparison with 2015, and 5.5% in comparison with 2016. Similarly, this situation is observed in all revenue sources.

<table>
<thead>
<tr>
<th>Table 2: State budget expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economy</td>
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<tr>
<td>Education</td>
</tr>
<tr>
<td>Healthcare</td>
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<tr>
<td>Social protection</td>
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<tr>
<td>and security</td>
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<tr>
<td>Activity in the field</td>
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<tr>
<td>of culture, art,</td>
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<tr>
<td>information,</td>
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<tr>
<td>physical education</td>
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<tr>
<td>and other categories</td>
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<tr>
<td>Science</td>
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<tr>
<td>Judicial power, law</td>
</tr>
<tr>
<td>enforcement and</td>
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<tr>
<td>prosecution</td>
</tr>
<tr>
<td>Supporting legislative and executive authorities, local self-government bodies</td>
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<tr>
<td>Other expenses</td>
</tr>
</tbody>
</table>

Source: www.stat.gov.az
The expenditures of the state budget for the studied period of 1995-2017 have increased by 40.93% to 17538.0 million manats. Total expenditures have increased by 22.95% in 2017 compared with 2000, 8.19% in comparison with 2005, and 1.49% in comparison with 2010, whereas they have declined by 8.2% in comparison with 2013, 1.5% in comparison with 2015, and 1.1% in comparison with 2016. Similarly, this situation is observed in all revenue sources.

6. ECONOMETRIC ANALYSIS
Based on the results calculated with the PASW Statistics 18 and EViews 9 software packages, the following time dependent models of the state budget expenditures have been obtained.

Total expenditures: $Y = 4743.48 - 2495.28x - 306.36x^2 - 7.46x^3$  
$R^2 = 0.963$  
$F = 168.837$

Expenditures on the economy: $Y = 2710.79 - 1548.86x - 190.61x^2 - 5.19x^3$  
$R^2 = 0.899$  
$F = 56.816$

Education: $Y = 294.95 - 125.68x + 17.73x^2 - 0.41x^3$  
$R^2 = 0.983$  
$F = 381.326$

Healthcare: $Y = e^{(2.888 + 0.179x)}$  
$R^2 = 0.932$  
$F = 288.439$

Social protection and security: $Y = e^{(3.819 + 0.188x)}$  
$R^2 = 0.983$  
$F = 56.816$
### Activity in the field of culture, art, information, physical education and other categories

\[ Y = e^{(2.023 + 0.183x)} \]

\[ R^2 = 0.958 \quad F = 488.334 \]

### Science

\[ Y = 29.989 - 15.01x + 1.98x^2 - 0.05x^3 \]

\[ R^2 = 0.969 \quad F = 199.216 \]

### Judicial power, law enforcement and prosecution

\[ Y = 186.48 - 85.32x + 11.11x^2 - 0.23x^3 \]

\[ R^2 = 0.985 \quad F = 417.391 \]

### Supporting legislative and executive authorities, local self-government bodies

\[ Y = e^{(2.811 + 0.165x)} \]

\[ R^2 = 0.968 \quad F = 651.192 \]

### Other expenses

\[ Y = 1023.11 - 510.77x + 58.61x^2 - 1.13x^3 \]

\[ R^2 = 0.979 \quad F = 240.525 \]

*Note: t-statistic is shown in brackets.*

 Statistical indicators show the model’s compliance and reliability. The adapted R-squared indicates the model’s accuracy, and its value is between 0 and 1. The accuracy of the calculation increases as the result approaches 0. 0.899-0.985 adapted R-squared means 89.9% to 98.5% of the change is explained by the change in the economic indicator. t-statistical measures the significant volatility of the model. It specifies the degree of compatibility in the model. t-statistical should be greater than 2, so that the coefficient is considered a reliable indicator. A greater t-statistical indicates that the variable is more significant in the equation. F-statistical indicates the accuracy of the equation used in model. A greater F-statistical means a more reliable model. F-statistical should be greater than 4 for the model to be considered acceptable. The probe (F-statistical) indicates the probability that the model is wrong. Models were chosen on this basis.

### 7. CONCLUSION

Efficient and cost-effective use of budget funds is one of the substantial modern-day fiscal requirements. Proper planning and effective execution of state budget expenditures also requires improvement of the normative base in this field. Improvement and unified coding of the existing regulatory and legal acts governing the state financial control and financial and budgetary system will serve to solve problems and improve performance in both areas. Coding of a legal framework that regulates broad-based activities is the most common approach and is characteristic of the top stage of development. Nearly twenty codes are valid in Azerbaijan and these codes successfully ensure implementation of multisectoral activity in the relevant field in a flexible and coordinated manner. From this point of view, the adoption of the Budget Code will ensure both budgetary processes that are the main financial operations, and the regulation of the control over those operations as a single complex.
LITERATURE: