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PERFORMANCE AUDIT OF UKRAINIAN DEBT MANAGEMENT: ORGANIZATION AND METHODOLOGY

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АУДИТ ЕФЕКТИВНОСТІ УПРАВЛІННЯ ДЕРЖАВНИМ БОРГОМ УКРАЇНИ: ОРГАНІЗАЦІЯ ТА МЕТОДИКА

We have substantiated the necessity and importance of performance audit of public debt management to ensure the debt security and financial stability of the country. On the basis of processing of economic literature and normative legal acts, we have presented the essence, purpose, tasks and approaches to the classification of performance audit of Ukrainian debt management. We have analyzed the main budget and economic indicators that characterize the efficiency of Ukrainian debt management, which were previously classified into two groups: debt security indicators and debt stability indicators. We have provided economic interpretation of calculated indicators of public debt management efficiency. We have identified the main problems of organizational and methodical nature concerning performance audit of public debt management efficiency in Ukraine and presented suggestions to strengthen the efficiency of the use of audit procedures, which will facilitate the formation of prerequisites for ensuring debt security and financial stability of the country over the long run.

Обтрунтовано необхідність та важливість аудиту ефективності управління державним богом для забезпечення боргової безпеки та фінансової стійкості країни. На основі опрацювання економічної літератури та нормативно-правових актів наведено сутність, мету, завдання та підходи до класифікації аудиту ефективності управління державним боргом України. Проаналізовано основні бюджетні та економічні показники, характеризують рівень ефективності управління державним боргом України, попередньо класифіковано на дві групи: показники боргової безпеки та показники боргової стійкості. Надано економічну інтерпретацію розрахованим показникам-індикаторам управління державним боргом. Ідентифіковано організаційно-методичного характеру щодо проведення аудиту ефективності управління державним боргом в Україні та наведено пропозиції щодо посилення дієвості застосування аудиторських процедур, що сприятиме формуванню передумов для забезпечення боргової безпеки та фінансової стійкості країни в довгостроковій перспективі.

Ключові слова: державний фінансовий контроль, державний аудит, аудит ефективності, державний борг, валовий внутрішній продукт, управління державним боргом, аудит ефективності управління державним боргом.

Key words: state financial control, state audit, performance audit, public debt, gross domestic product, public debt management, performance audit of public debt management.

Problem statement. The existence of public budget deficit, covered at the expense of external and internal borrowings, is a common occurrence for countries with different levels of economic development. However, under the condition of inefficiency of public debt management, there is a threat to the stability of the financial and economic system of the state, fiscal burden on business entities is increasing, there is a crisis of non-payment, which ultimately negatively affects the socio-economic development of the state. In order to ensure balanced management of public debt and minimize the risks arising from the attraction of credit resources, the use of modern methodological approaches in analyzing the correlation of key budget and economic indicators, which will enable identification of the strengths and weaknesses of the country's debt policy, is becoming ever more relevant. In accordance with Ukrainian legislation, such evaluation is carried out by the state financial control body with mandatory public disclosure of its results and guidance on improving the management of public debt.

Analysis of recent research and publications. Practical and theoretical aspects of public debt management and evaluation of its efficiency have been researched in the works of scientists, in particular: V. Bazylevych, O. Baranovskyi, V. Varenyk, T. Vakhnenko, O. Kyrylenko, I. Lutsenko, B. Pinto, O. Tymoshenko, A. Turgo, I. Fedorovych, A. Khomutenko, V. Khomutenko and other economists [1-12]. However, at the current stage, organizational-methodical and practical aspects of the application of audit procedures in assessing the efficiency of public debt management are not sufficiently developed, which determines the relevance and timeliness of undertaken study.

The purpose of the study is to analyze the organization and methodology of performance audit of public debt management in Ukraine and find ways to improve it.

Presentation of basic study material. Over the past few years a steady tendency towards the growth of external and internal public debt has emerged in Ukraine as a result of worsened political and economic situation in the country. Thus, over the past five years, Ukrainian public debt has increased from 584.1 to 2141.7 billion UAH or by 3.7 times, which creates a real threat to the stability of the financial and economic situation in the country (Fig. 1). The revaluation of hryvnia to foreign currencies and the excess of expense amount for debt repayment over the amount of borrowing proceeds led to a partial decrease in debt and warranty liabilities in the first half of 2018. At the same time, the high share of debt nominated in foreign currency, under the conditions of devaluation expectations, increases the risks of increasing the amount of public and guaranteed public debt and the costs for its repayment and servicing in the future.

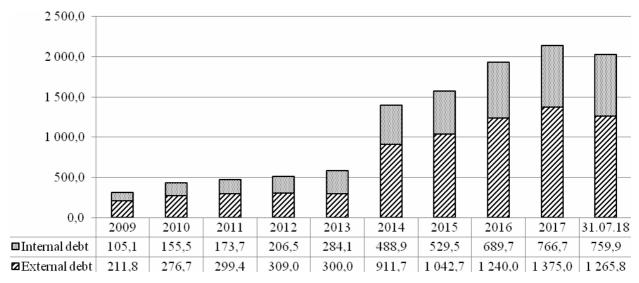


Fig. 1. Dynamics of public and guaranteed public debt of Ukraine (the end of the year), 2009-2018 (billion UAH)

Source: made by the author according to the data given by the Ministry of Finance of Ukraine

and National Bank of Ukraine [4; 5]

In accordance with the requirements of the Budget Code of Ukraine [1], the public debt at the end of the budget period can not exceed 60.0% of gross domestic product (hereinafter - GDP), and the budget deficit is 3.0% of GDP. At the same time, the public debt of Ukraine as of December 31, 2017 reached 2141.7 billion UAH, which is 71.8% of GDP and exceeds the debt threshold of 351.9 billion UAH. (Fig. 2).

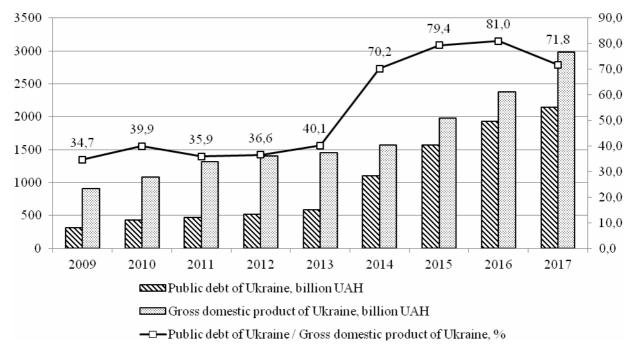


Fig. 2. Dynamics of public debt and gross domestic product of Ukraine, 2009-2017 (at the end of the year)

Source: made by the author according to the data given by the Ministry of Finance of Ukraine

and National Bank of Ukraine [4: 5]

Analyzing the ratio of the growth rates of public debt and GDP growth in recent years, it may be concluded that government borrowings were not aimed at modernizing the economy, technical re-equipment of enterprises, they did not contribute to economic growth, and led to an increase in debt dependence. The main reasons for the increase of Ukrainian debt were a difficult political situation, an annual increase in the public budget deficit and a deficit of the balance of payments.

The costs for servicing and repaying public debt is also rapidly increasing, which contributes to significant risks for their timely and full implementation. Thus, according to the Accounting Chamber of Ukraine [6], more than a quarter of the public budget expenditures carried out in the first half of 2018 were paid by the public and guaranteed public debt, which increased by 73.4% compared to the previous year, which creates a threat to the stability of the economic situation and financial security of the country.

It is worth pointing out that the availability of public debt can be useful in the period of steady economic growth, when the policy of borrowings is aimed at investment purposes. And, on the contrary, in the phase of economic recession, the budget deficit significantly worsens the state of public finances, increases the risk of debt crisis, which leads to a deterioration of the general state of the economy [11, p. 171]. This is also certified by the data of the International Monetary Fund (Fig. 3). Thus, some economically developed countries have a rather high level of public debt relative to GDP, however, pursuing an effective economic policy they provide sustainable development of the national economy and ensure the financial stability of the country.

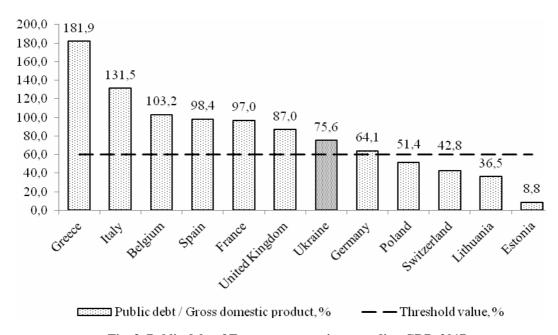


Fig. 3. Public debt of European countries regarding GDP, 2017

Source: made by the author according to the data of the International Monetary Fund [12]

Taking into account that the policy of state borrowings in Ukraine is characterized by the lack of systematic and blurry goals, the attraction of additional state loans does not contribute to the improvement of the economic situation, and leads to increased debt dependence of the state and low efficiency of using the attracted resources. Under such conditions, the issue of improving financial control in the field of public debt management is of particular importance, which is inextricably related to the need for an audit of public debt.

Public debt audit is a financial control aimed at assessing the effeciency of using public borrowings through an analysis of key budget and economic indicators to determine debt security and debt sustainability of the country.

The implementation of performance audit of public debt management is due to the need to increase the results rating, efficiency of state financial control and improvement of the performance of executive authorities in relation to the attraction and use of government borrowings. In addition to the control function, the performance audit carries out an important information function, providing the public with accurate and comprehensive information on the results of government activities, the effeciency of using the borrowed funds [10, p. 39].

The public debt audit involves examining the following issues:

- clarity and transparency of the role, responsibilities and objectives of all subjects of public debt management;
- publicity of objectives of public debt management;
- disclosure of all special features of debt procedures;
- informing the society about the past, current and projected fiscal and financial activities of the government;
- regular publication of indicators of public debt, providing information on contingent liabilities of the state [10, p. 39].

Currently, in Ukraine, in accordance with the legislation, an internal and external performance audit of public debt management conducted by state financial control bodies at various levels of government is carried out: internal audit - by the Ministry of Finance of Ukraine; external audit - by the Accounting Chamber of Ukraine (Fig. 4).

PERFORMANCE AUDIT OF PUBLIC DEBT MANAGEMENT Internal audit External audit Subjects Ministry of Finance of Ukraine Accounting chamber of Ukraine Regulatory and Legal Support 1) The procedure for monitoring 1) INTOSAI Standards [3]; the risks related to the management 2) Methodical recommendations of the public (local) debt [8] calculating for the level economic security of Ukraine [7] 1) budget risk; 1) indicators of debt security (ratio 2) currency risk; of public debt to GDP, average 3) interest rate risk; weighted bond yield of domestic Performance government loan, EMBI index, 4) liquidity risk; measures of public debt management 5) the risk of refinancing; official ratio of international efficiency 6) the risk related to the reserves to gross external debt; management of public debt 2) debt sustainability ratio (liquidity ratio, solvency ration of the country, debts of public, financial and private sectors)

Fig. 4. System of performance audit of public debt management in Ukraine

Source: made by the author

The internal audit of the public debt is carried out by the Ministry of Finance of Ukraine in accordance with the approved Procedure for monitoring the risks related to the management of the public (local) debt [8].

When exercising control over the risks related to the management of public debt, the Ministry of Finance of Ukraine:

- carries out an assessment of risks in order to minimize them;
- determines the optimal ratio of expected government expenditure on debt management to risks;
- conducts debt management operations [8].

Risk assessment related to debt management is carried out by controlling interest, currency, budgetary risks, as well as refinancing and liquidity risks.

The Ministry of Finance of Ukraine annually approves the debt management program for the relevant year and publishes it within a month after the beginning of the relevant budget period on the official website. The debt management program can be reviewed in the event of significant changes in the domestic market of government securities and/or bonds of local loans and global capital markets, in the macroeconomic situation, budget-tax, monetary-credit and currency policy, as well as other reasons that may significantly complicate or make it impossible to perform.

The Ministry of Finance prepares a report on the execution of the debt management program for the reporting budget period no later than three months after the end of the budget period and publishes it on the site.

The report on the implementation of the debt management program should contain the following information:

- the state of the debt at the end of the reporting budget period;
- situation and main tendencies in the domestic market of government securities and/or bonds of local loans and world capital markets, significant changes in the macroeconomic situation during the reporting budget period;
 - results of risk assessment related to debt management at the end of the reporting budget period;
- implementation of the scheduled activities and achievement of the indicators specified in the debt management program, as well as the reasons and justification for the deviations of such indicators [8].

The task to conduct performance external audit of public debt management is charged to the Accounting Chamber of Ukraine. Assessing the activities of public debt management bodies is an important task for performance audit. Based on this analysis, the strengths and weaknesses of the public debt management institution are identified.

Performance audit of public debt management involves the study of the following issues:

- 1) clarity and transparency of the role, responsibilities and objectives of public debt management institutions;
- 2) publicity of objectives of public debt management;
- 3) disclosure of all significant aspects of public debt management operations;
- 4) informing the society about the past, current and projected fiscal and financial activities of the government;
- 5) regular publication of indicators of public debt, providing information on contingent liabilities of the state [11, p. 181].

The sources of information for calculating the criteria and indicators of public debt audit are: financial statements of the State Treasury Service of Ukraine, the Ministry of Finance of Ukraine, the Accounting Chamber of Ukraine, the National Bank of Ukraine, materials of the reports of participants in the budget process; results of operational control, inspections of budget execution for the reporting year; materials of research organizations; data on the availability of legislative and regulatory base; system of debt load indicators. The common feature for all debt information systems is that they provide the function of collecting, recording, storing and analyzing data and documents relating to borrowings, debt components, its servicing and repayment, information on guarantees provided, etc. Based on these data there are regular statistical and financial statements on the state of public debt, debt operations and liabilities [10, p. 44-45].

In the process of performance audit of public debt management, the correlation between key budget and economic indicators is analyzed, which enables to determine the strengths and weaknesses of the country's debt policy. In most countries, the main group of debt policy indicators includes the volume of public debt and its ratio to GDP. However, it should be noted that the volume of public debt and, in fact, its dynamics do not give a comprehensive picture of the state and prospects of using the resource of government borrowings while financing the budget. In this connection, there is a need for a comprehensive analysis of the ratios of various economic indicators and the calculation of generally accepted criteria in order to follow the current needs of the state in funds to ensure the fulfillment of functions and to predict the possibilities of timely repayment and servicing of public debt in the future.

To analyze the efficiency of country's debt policy, it is necessary to use a number of indicators. INTOSAI [3] standards provide using two groups of indicators for assessing the public debt: the first group is used to assess the level of debt safety and security of the country; indicators of the second group are used to determine the debt sustainability of the country.

Taking into consideration the system of indicators for assessing the efficiency of public debt management in Ukraine, presented in Fig. 4, we will calculate the levels of debt security and debt sustainability of the country.

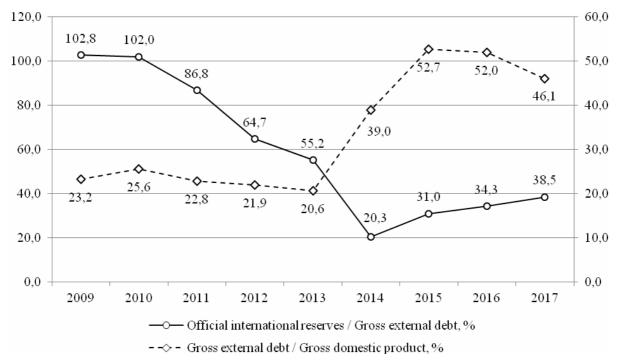


Fig. 5. Dynamics of indicators of debt security of Ukraine, 2009-2017. (at the end of the year)

Source: made by the author

As can be seen from Fig. 5, during almost the entire period, the ratio of official international reserves to gross external debt did not meet the established criteria (recommended value> 100.0%). Only in 2009 and 2010 this indicator was within the limits of recommended values. It is worth mentioning the positive dynamics of the indicator over the last four years, indicating an improvement in the possibility of repayment of external debt at the expense of the international reserves of the state.

The ratio of gross external debt to GDP is one of the main indicators that summarizes all external debt liabilities of the country [9, p. 370-371]. Based on the calculations made, it can be concluded that the external component in the general debt structure occupies a dominant position and increases Ukrainian debt dependence on external financing. During the analyzed period, the value of this indicator increased by more than 2 times and significantly exceeded the maximum permissible limits (recommended value $\leq 30.0\%$). So, in 2017 the value of this indicator was 46.1%, which is by 22.9% more than in 2009, which indicates a decrease in the financial strength of the country. Significant growth in the indicator over the last years is due to an increase in external financing from the International Monetary Fund and other external lenders.

The analysis of Ukrainian solvency ratio shows that during 2009-2017 most of the indicators did not meet the recommended values. As it can be seen from Table 1, the percentage of international reserves to a short-term debt of the country shows a clear tendency to decrease during the period under study. The current value of the ratio of the country's gold and foreign exchange reserves to a short-term debt in 2017 was 40.2%, which is a negative sign of public debt management. The reasons for the decline are sustained debt growth and a decrease in the level of international reserves of the state. The decrease in the level of international reserves indicates worsening of the government's debt policy and may lead to a breach of the timetable for debt repayments of Ukraine to external lenders.

The ratio of public external debt to annual exports of goods and services shows the ability of the state to cover its external debt liabilities at the expense of export earnings, which are received in foreign currency. The value of this indicator in 2017 was 123.4%, that is 1.23 US dollar of external public debt was due to 1 US dollar received from exports of goods and services. It certifies the country's failure to pay off its external debt at the expense of export earnings and indicates a low level of debt sustainability.

As to the level of external debt per person in Ukraine, it can be stated that there is a violation of the maximum permissible limits. Anxiety causes an increase of this indicator by 329.1 dollars. The United States or 39.9% over the years 2013-2017, which was the result of an increase in external debt and a decrease in the population. A significant level of external debt per one person shows a debt sustainability deterioration and a negative sign of the efficiency of public debt management.

Table 1.

Dynamics of debt sustainability indicators of Ukraine, 2009-2017.

	Dynamics of debt sustainability indicators of Ukraine, 2009-2017.												
№	Indicators	Threshold limit value		Year									
		World	Ukraine	2009	2010	2011	2012	2013	2014	2015	2016	2017	
Liquidity ratio													
1	The ratio of gold and foreign currency reserves to short-term public debt,%	100,0	100,0	67,0	70,0	54,0	57,0	41,0	13,3	25,9	32,9	40,2	
2	The ratio of short-term debt to total debt, %	-	1	58,2	63,5	64,6	69,4	70,5	81,1	78,4	66,6	61,2	
Solvency ratio													
1	The ratio of total public debt to GDP, %	≤50-60,0	≤60,0	34,7	39,9	35,9	36,6	40,1	70,2	79,4	81,0	71,8	
2	The ratio of external debt to GDP, %	-	≤25,0	23,2	25,6	22,8	21,9	20,6	20,3	31,0	34,3	38,5	
3	The level of external debt per person in Ukraine, USD	≤200,0	≤200,0	576,9	759,2	821,1	848,1	824,0	902,5	1010,0	1068,6	1153,1	
4	The ratio of public external debt to annual exports of goods and services, %	≤170,0	≤70,0	49,1	54,0	40,4	37,4	48,2	76,7	122,7	135,9	123,4	
5	The ratio of internal debt to GDP, %	-	≤30,0	11,5	14,4	15,3	15,7	19,1	31,2	26,7	28,9	25,7	
Indicators of state sector													
1	The ratio of government debt according to government securities to GDP, %	≤30,0	1	14,0	18,0	16,4	16,3	19,1	27,0	27,4	29,4	26,1	
2	The average term for repayment of public debt, years	2,3	6,4	3,6	3,7	4,1	4,6	4,7	4,5	4,1	3,8	4,2	

Source: calculated by the author on the basis [4; 5; 11; 12]

Indicator of the ratio of external debt to GDP in 2017. increased to 38.5% against 23.2% in 2009 (normative value ≤ 25.0), which indicates the complexity of placing government debt on the domestic market of the country and the growth of credit resources received from international financial and credit organizations and other countries.

The ratio of government debt according to government securities to GDP reflects the level of development of

the debt securities market of the state and their share in the total amount of public debt to GDP. During the analyzed period, the dynamics of this indicator tended to increase. This indicator characterizes the increase in the share of debt securities of the state, which involves additional financial resources in the budget [9, p. 372].

The average term for repayment of public debt indicates the stability of the financial position of the state to the risks of debt refinancing. In 2017, the average term for repayment of Ukraine's public debt was 4.2 years, which exceeds the permissible figure of 1.9 years and reflects the term of government obligations to international financial institutions.

In general, the audit of debt security and debt sustainability in Ukraine indicates a significant dependence of the state on external and internal credit resources. Among the key macroeconomic factors that have contributed to the critical rise in debt burden in recent years in Ukraine there is a significant devaluation of the hryvnia, a reduction in domestic consumer demand due to inflationary processes and unemployment, an increase in the state budget deficit and a negative balance of payments. In order to reduce Ukraine's debt dependence and efficient use of credit resources, it is appropriate to ensure transparency and targeted use of funds received from international financial organizations and on the basis of bilateral agreements with other states, develop a long-term forecast of debt security indicators, provide control over the return and servicing of external resources for the purpose financing of economic development of the state.

Based on the assessment of debt security and debt sustainability, public auditors evaluate the effectiveness of public debt management, which is presented in the text of the audit report with recommendations for improving the efficiency of public debt management, which is approved by the Ministry of Finance of Ukraine and published on the website of the Accounting Chamber.

Conclusions and perspectives of further research. To improve the efficiency of the audit of the effectiveness of public debt management in Ukraine, it is advisable to solve a set of tasks, namely:

- to improve the regulatory framework for conducting an audit of the effectiveness of public debt management and the distribution of powers and responsibilities of the audit team for the preparation and results of its implementation on the basis of INTOSAI standards;
- develop a methodology for conducting public debt audit that describes the stages of its implementation, a system of budget and economic indicators, indicators of the efficiency of public debt management, the application of methods of financial control in the process of performing audit procedures and summarizing the results of the audit;
- To form an adequate system of accounting and reporting on debt obligations of the state in terms of their types with coverage of all participants in the process of managing the public debt;
- develop a mechanism for the formation and use of information support for the process of managing the public debt, technology for monitoring debt obligations and ways of operational exchange of information flows among all participants in the management process.

Successful resolution of the above tasks will contribute to the development of a methodology for auditing the effectiveness of public debt management, which will ensure the formation of forums for securing debt security and financial sustainability of the state in the long run.

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