THE IMPACT OF THE PUBLIC DEBT OF A COUNTRY ON THE SUSTAINABLE DEVELOPMENT OF ENTREPRENEURSHIP

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Abstract. It is substantiated that as of today the transition to the concept of debt sustainability, which affects the sustainable development of entrepreneurship, is dominant over other areas. The purpose of the study is scientific substantiation of the ways of transformation of debt management in Ukraine, taking into account the experience of EU countries, strengthening of the medium-term aspect of public and state-guaranteed debt management for the purpose of enhancement of sustainable development of entrepreneurship. An analysis of the best practices of the member states of the European Union, in particular the new member states of the European Union, regarding the experience of debt management, which is relevant for Ukraine, was carried out. On the basis of statistical indicators, it is substantiated that these countries in the implementation of public debt management strategy have effectively made the transition to debt management based on the concept of debt sustainability. The use of mechanisms and tools of the concept of debt sustainability in debt management allowed countries such as Hungary, Poland, Bulgaria, Latvia to significantly improve key debt indicators and indicates the correctness and feasibility of using this approach in modern conditions. It is proven that the main area of improving public debt management in Ukraine is the formation of a systematic approach to risk management on the part of the authorized body. This approach should include continuous monitoring of the full range of debt operations, analysis of the reasons, which led to deviations from the planned indicators and the application of the necessary management decisions aimed at the unconditional achievement of debt policy objectives.

Keywords: sustainable development; entrepreneurship; public debt; management strategy; debt sustainability


JEL Classifications: K23, Q01
1. Introduction

The formation of effective management of public and state-guaranteed debt is one of the most important tasks in the area of public finance. With the help of government borrowing, additional financial resources are obtained, which can be used to implement public investment programs, finance other national needs, not provided with income. The use of state guarantees for loans of economic entities makes it possible to ensure the implementation of economic projects, which have an important social impact.

At the same time, in Ukraine since 2008, in times of crisis, borrowings have been used mainly to solve current budget problems, and state guarantees have not become an effective tool for economic growth (Sirenko et. al (2020)). This has led to a significant increase in the debt burden, at which the national economy is no longer able to work effectively.

Budget expenditures for public debt service have grown significantly, in 2018 their amount was 12/4 % of the revenue side of the State Budget of Ukraine (Husarevych (2019)). This state of the debt area requires new approaches to debt management, revision of the range of financial instruments, use of best practices of post-Soviet countries, which became members of the EU, improvement of debt risk assessment and monitoring, deepening cooperation with international financial organizations to stabilize the debt area and get out of the pre-default state.

The study of the range of tools for improving the management of public debt and state-guaranteed debt becomes especially relevant in the current conditions, because such effective management can increase the sustainability of the budget system, provide additional impetus to the national economy of Ukraine.

The sustainable development of entrepreneurship is influenced by macro-environmental factors, in particular financial ones. The increase in the public debt of country leads to a tight tax policy: increase in taxes, increase in the range of taxes, abolition of benefits and subsidies, constant tax monitoring of business activities. This is a disincentive to business development. The reputation capital of country is also decreasing, which significantly reduces the reputation capital of entrepreneurs in the global competitive market. All this leads to social destabilization at the macro level, and, as a consequence, increased migration abroad, reduced birth rates — reduced labor resources, both qualitatively and quantitatively.

2. Literature review

The problem of public debt management became more relevant in the second half of the 20th century, when states became unable to accumulate in the budget enough of their own financial resources to fully perform their functions and began to make loans in domestic and foreign markets (Lee & Ng (2015)).

At the present stage of market relations, public borrowing is considered as an objectively existing source of covering the budget deficit. Such financial resources are traditionally used by the governments of many countries to finance the budget deficit, provide long-term material resources for large investment projects on a national scale, as well as to create a certain standard in the domestic financial market — debt securities with the highest level of reliability (Owusu-Nantwi & Erickson (2016)). If such resources are directed to effective investment projects, then the invested funds and the public loan can be repaid at the expense of the flow of funds generated by the project, and in national economy the effect of increase in scale of the latter remains.

As of today, it should be noted that debt obligations, which relate to the area of public debt and state-guaranteed debt, are an organic component of the financial systems of the vast majority of countries, effective tools for financial macroeconomic regulation and implementation of economic strategy (Ahlborn & Schweickert (2018)).
The budget capacity of each country, the state of foreign exchange reserves and, as a consequence, the stability of the national currency, the level of interest rates, the investment climate, the nature of the behavior of all segments and participants of financial market, etc. depend on the nature of borrowings, repayments, debt service, and the current approach to public debt management.

Part of the scientists (Gómez-Puig M. & Sosvilla-Rivero (2018)) emphasizes that public debt is characterized by a certain amount of public debt, usually in national currency, to creditors on a certain date. Another part of scientists (Arčabić et. al (2018)) emphasizes the fact that public debt is a set of financial obligations of the state in the form of certain financial instruments (agreements) used to establish a certain type of relationship between our state, on the one hand, and economic entities of other sectors of the economy and foreign creditors, on the other.

Within the framework of these relations, free financial resources are provided by creditors in the form of a loan for use to the state of Ukraine, and it must repay and service this loan within the terms established in the agreements. Typically, financial instruments are government securities such as internal government bonds (IGB) and external government bonds (EGB) (Shkolnyk & Koilo (2018)).

The main reasons for the creation and increase of public debt are (Bondaruk et. al (2018)):
- the need to increase government expenditures in the absence of growth in government revenues;
- the need to reduce the tax burden (discretionary fiscal policy) without a corresponding reduction in government expenditures;
- maintaining the stability of the national currency by attracting funds from external creditors or international financial organizations;
- action of automatic stabilizers during the economic crisis: cyclical reduction of tax revenues when it is necessary to increase or at least maintain the level of social transfers;
- manifestation of debt risks, which leads to a decrease in the possibility of debt restructuring and the need for additional borrowing;
- the impact of political business cycles.

The appearance of debt is usually one of the consequences of the need to finance the budget. Theoretically, there are two options of such financing: monetary and debt ones, each of which has its advantages and disadvantages (Kim et. al (2017)). The use of monetary instruments to finance the budget leads to an increase in money supply and ultimately to rising inflation. The direct use of monetary financing is usually restricted by law. However, the creation of conditions for rising inflation indirectly affects the budget deficit, because it increases budget revenues through indirect taxes (including VAT), the amount of which is related to the price level.

The use of debt instruments to finance the budget leads to an increase in the debt burden and expenditures related with public debt service (Mencinger et. al (2015)). This, in turn, can lead to an increase in the state budget deficit if economic growth is insufficient.

Along with the significant achievements of scientists, further scientific research to solve debt problems in the context of dynamic changes in the state of the government borrowing market, the development of the national economy in conditions of global instability remains relevant.

At the present stage of economic development of Ukraine it is important to take into account the achievements of world financial thought, outline the conceptual foundations of new approaches to debt management, use best practices of crisis management within the concept of debt sustainability to increase budget transparency, create preconditions for reducing the debt burden of economy of Ukraine and its gradual exit from the crisis.
3. Research Methodology and Data

A set of general scientific and special methods was used to achieve the purpose of the study. In particular, with the help of the dialectical method of cognition, which allows to analyze economic phenomena in the process of development and interconnection, the economic essence of public debt as a component of public finance was studied. The substantiation of the categorical framework was carried out on the basis of the method of scientific abstraction. The method of historical-logical and comparative analysis was used to study the historical stages of formation of the public debt policy of Ukraine, graphical financial analysis was used to study trends in formation of public debt. Methods of analysis and synthesis, induction and deduction were used to justify the advantages of medium-term debt policy.

The information base of the study is the laws and regulations of Ukraine on the budget and public debt, materials of the Ministry of Finance of Ukraine, the State Statistics Service of Ukraine, the National Bank of Ukraine, the World Bank, the IMF, Eurostat, statistical yearbooks and newsletters.

The purpose of the study is scientific substantiation of the ways of transformation of debt management in Ukraine, taking into account the experience of EU countries, strengthening of the medium-term aspect of public and state-guaranteed debt management for the purpose of enhancement of sustainable development of entrepreneurship.

4. Results

Improving the management of public debt and state-guaranteed debt is an important task of public financial policy. The right guidelines for the management process increase the efficiency of the public finance system and reduce the negative impact of internal and external factors.

However, any management process may have certain risks of implementation of decisions, when these risks occur, the financial and economic effect of management may decrease. This fully applies to the area of public debt management, which, in accordance with the legislation of Ukraine, operates on the principles of unconditional fulfillment of debt obligations. The latter determines the priority of debt policy measures in the implementation of public financial policy. The whole set of measures to manage public debt and state-guaranteed debt must comply with the principle of macroeconomic stability: for a long time to ensure the resilience of the economy to internal and external threats and, at the same time, maintain the ability to sustainable economic growth.

However, as of today in Ukraine debt transactions have not become an instrument for achieving macroeconomic stabilization. The use of borrowed funds to meet current problems destabilizes public finances and the economy as a whole. Expenditures on public debt service are growing every year, which, in turn, requires a further increase in government borrowing.

It is necessary to take into account the fact that debt management is not a separate part of public administration. The debt area is closely related with the area of monetary relations, the taxation system, the efficiency of state expenditures, the level of the state budget deficit, the influence of foreign economic factors, etc.

For Ukraine, the process of rapprochement with the European Union is a strategic direction of foreign and domestic policy, modernization of the economy, attracting foreign investment, improving financial mechanisms and the budget system. The implementation of integration tasks causes appropriate changes in the formation and implementation of public debt policy. The appropriate policies of EU member states are based on the principles set out in the Stability and Growth Pact (2018).
One of the important provisions of the pact is the restriction on the ratio of public debt and state-guaranteed debt to GDP, which is set at 60%. With regard to the debt area, the EU public finance management system also has the principles of avoiding excessive state budget deficits and constant control over the budgetary parameters of each member state (Treaty of Maastricht on European Union (1992)). In the event that a member state exceeds the general government debt to GDP of 3%, certain measures of influence may be applied to it.

If these indicators are higher than established ones and stable from year to year, the European Commission launches the so-called Excessive Deficit Procedure, which provides for a fine of up to 0.2% of GDP. The European Commission does not take measures to influence the government if the excessive budget deficit is reduced year after year, or if the deficit is exceeded once, but in the future is within the specified limits.

The implementation of such approaches in the financial policy of Ukraine is an urgent, important, but quite difficult task. For a long time, the budget is formed with a significant level of deficit, which causes an increase in debt, creates the preconditions for increasing financial risks. In particular, this is evidenced by the analysis of the dynamics and structure of public debt and state-guaranteed debt during 2010–2020.

For Ukraine, the real deterioration in the economic area and the growth of debt began at the end of 2008 and at the beginning of 2009. During this period, the execution of the state budget was complicated by both internal and external risks associated with the provision of tax revenues, mobilization of revenues from privatization, placement of external government bonds.

The dynamics of the state-guaranteed debt of Ukraine during 2010-2020 is presented in Figure 1. As you can see, the growth of state-guaranteed debt began in 2009 after the beginning of the global financial crisis. For example, if this figure as of the end of 2008 amounted to UAH 58.7 billion, in 2009 it rose immediately to UAH 90.9 billion.
During 2010-2012, the amount of state-guaranteed debt gradually increased and was UAH 108.8 billion at the beginning of that period and UAH 116.3 billion at the end of that period. Only in 2013, the amount of state-guaranteed debt slightly decreased to UAH 104.2 billion. Starting from 2014, the amount of state-guaranteed debt began to increase again — at the end of that year it reached UAH 153.8 billion. Later on, the growth of state-guaranteed debt was more dynamic. This indicator amounted to UAH 237.9 billion in 2015, UAH 278.9 billion — in 2016, UAH 308.0 billion — in 2017. In 2018, it remains almost unchanged compared to 2017 — UAH 308.1 billion. The main factor of the dynamic changes in the state-guaranteed debt indicator were changes in the amount of external state-guaranteed debt. As can be seen, in the general structure of the guaranteed debt for 2009–2018, the external guaranteed debt averaged 87.0 \%.

Another assessment of the debt policy for the provision of state guarantees may be presented by the level of the ratio of the guaranteed debt to the nominal GDP of Ukraine. This indicator also changed dynamically during 2010–2020 (Figure 2).
Fig. 2. Dynamics of the state-guaranteed debt of Ukraine during 2010-2020

Source: based on Ukraine Government Debt (2021)

For example, if in 2010 the ratio of the guaranteed debt to GDP was 6.2 %, in 2009 it increased to 10.0 %. Later on, namely in 2012–2016, it did not exceed 10 %. At the same time, in 2017 and 2018 the level of the ratio was 12.0 % and 11.7 %, respectively. As of the end of 2019, this indicator decreased again to 10.3 % and to 8.7 % in 2020.

Analysis of the dynamics of state guarantees during 2007–2020 is presented in Figure 3 "Dynamics of state guarantees in Ukraine during 2007–2020", and it indicates the growth of this component of the debt burden in 2011 and 2015.
As shown in Figure 4, during 2010-2016, in most member states of the European Union there was a gradual decrease in the level of the ratio of guaranteed debt to GDP. Thus, in Austria this indicator in 2012 was 38.2%, and in 2016 — 20.5 %. In Belgium, this ratio was characterized by the following indicators: In 2010, — 17.2 %, and in 2016 — 10.9 %. In the United Kingdom the ratio was 27.4 % and 8.3 %, respectively, in Greece — 25.3 % and 6.1 %, respectively. The most noticeable changes have taken place in the debt policy of Ireland. For example, in 2010 the ratio of guaranteed debt to GDP was 96.0 % of GDP, and in 2016 only 1.9 %.
Significant changes in guaranteed debt indicators of Iceland were due to a gradual reduction in support for the Housing Guarantee Fund, which had a share of about 80% in its structure (Iceland. Selected Issues: IMF Country Report (2005)). The purpose of this fund was to provide cheap credit resources to low-income citizens of Iceland to provide them with housing. In addition to guaranteeing the above housing fund, the government of Iceland provided guarantees to state-owned companies operating in the energy sector on floating rate loans.

At the same time, there were countries in the European Union, which increased the ratio of guaranteed debt to GDP during this period. For example, this applies to Malta — from 11.8% in 2010 to 14.1% in 2016, Poland — from 5.3% to 7.1%, respectively. The lowest level of the ratio of state-guaranteed debt to GDP at the beginning of 2017 was recorded in Bulgaria — 0.5%, Estonia — 1.5%, Latvia — 1.5%, Lithuania — 0.9% and the Czech Republic — 0.3%. At the same time, since 2012, Slovakia has not provided state guarantees at all.

In Finland, the largest amounts of state guarantees were provided through a special guarantee agency “Finnerva”. The share of guarantees provided through this institution in the total amount of state guarantees in Finland was about 80% at the beginning of 2017. In the total amount of state guarantees provided through Finnerva, the main part (about 84%) was provided to such sectors of the economy as telecommunications, shipbuilding, and forest industry (Overview of Central Government Risks and Liabilities (2016)).

According to the experience of post-Soviet countries, new EU members, the debt burden due to state-guaranteed debt does not exceed 10% of GDP. Therefore, in Ukraine it is necessary to develop a program to reduce this indicator at least to this value.
guarantees and distribution of such risks between the state, creditors and borrowers. With change (2011)), which only partially covers the risks related with the provision of state guarantees. To update the Regulation, it is necessary to include in its provisions the definitions of currency risk, interest rate risk, refinancing risk and budgetary risk. In this case, the issue of state guarantees will cover the full range of risks of government debt, which are scattered in various regulations.

According to the analysis of statistical information on the implementation of budget programs related to the use of state guarantees, there are significant shortcomings in the organization of the expenditure planning process. During 2012–2019, there were cases when the indicators of actual implementation of these programs were only half, and less than the planned volume.

This applies to such budget programs as “Fulfillment of debt obligations on loans obtained under the guarantee of the Cabinet of Ministers of Ukraine for the development of a network of public roads”, “Fulfillment of debt obligations on loans attracted under state guarantees for the implementation of Cyclone-4 projects” and “Creation of the national satellite communication system”, as well as “Servicing and repayment of liabilities under state guarantees for capital expenditures by budget managers”. The results of the implementation of planned indicators of the other programs were slightly better, but only in some cases they were close to 100 %. Thus, the Ministry of Finance of Ukraine, together with other budget managers, has a task to improve the methods of planning of budget programs related to the provision of state guarantees. As a result of these measures, the efficiency of allocation and use of budgetary resources should improve and stimulate the socio-economic growth of the country as a whole.

Ukraine does not yet use the “debt sustainability” approach, the debt risk control system is not risk-oriented, there is no risk ranking (low, medium, high) and accordingly there is no clear understanding of what to focus on first and how to manage public debt risks to further minimize them. The current methodology for determining risks also does not provide for the assessment of changes in risks under the influence of random changes in external and internal factors (no stress testing). Therefore, in Ukraine, when improving approaches, the considerations of international financial organizations, which have proven themselves well in practice, should be taken into account in the first place (Demchuk et. al (2020)).

Table 1 shows the results of forecast calculations for the economy of Ukraine until 2022 according to the IMF methodology for establishing the values of key macroeconomic indicators that affect the change in the ratio of public debt to GDP. The main assumption in the forecast is that the amount of gross public debt relative to GDP after 2018 will gradually decrease. Until 2016–2017, the government debt of Ukraine was accumulated through borrowings received from international financial organizations and other creditors.

<table>
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<th>Table 1. Some debt, economic and market indicators of the economy of Ukraine according to the IMF methodology, % of GDP</th>
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<td>Nominal gross public debt incl. state guarantees</td>
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<td>Gross financing needs</td>
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<td>Real GDP growth, %</td>
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<td>Inflation (GDP deflator), %</td>
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<td>Nominal GDP growth, %</td>
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<td>Effective interest rate, %</td>
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Source: author's calculations according to Debt Sustainability Analysis (2020)
Assumptions about trends of changes in nominal GDP, in turn, suggest its growth at a moderate rate. Thus, during 2021–2024, it will fluctuate in the range of 8.7 %–7.3 %. The increase in real GDP for the same period will range from 3.9 % to 4.1 %. This is one of the reasons why the ratio of public debt as a whole to GDP will decrease in the forecast period, to 49.8 % in 2024. Debt management problems that may arise when reaching this mark in the ratio are currency and credit risks that lead to changes in public debt, in particular in foreign currency, as currently IFOs are the main creditors of Ukraine. This affects the dynamics of public debt as follows:
- real GDP growth reduces the level of debt burden;
- growth of gross financing needs determines the growth of future borrowings;
- growth of inflation leads to increased expenditures on public debt service.

In the course of debt management, it is necessary to form a systematic approach to synchronized management of public and state-guaranteed debt in Ukraine (in the EU it is already applied). This will allow to gradually reduce the debt burden on the economy of Ukraine to an optimal level.

5. Discussion

Thus, state guarantees are an important tool for financing public expenditures, which is actively used by the Government of Ukraine. A characteristic feature of this process, which reduces the effectiveness of state guarantees, is the lack of medium-term and long-term strategic priorities. There was no thorough assessment of the effectiveness of the use of loans and borrowings obtained under state guarantees in the framework of certain projects. Therefore, the formation of management decisions on state guarantees requires an updated approach, which will allow to obtain detailed information on the feasibility of providing such guarantees and evaluate the results of using this tool.

The provision of state guarantees is a debt-generating factor, this process should be constantly monitored by relevant government agencies and, above all, the Ministry of Finance of Ukraine. Such control should be exercised on a systematic basis in conjunction with public debt management decisions. Under such conditions, there appears a need to improve the procedure for developing a medium-term public debt management strategy by including in it the issues related to state-guaranteed debt. This is in line with the provisions of the Budget Code of Ukraine and, subject to implementation, will allow comprehensive control of the range of issues of debt policy of our state. The updated procedure for strategy development should also take into account the need to involve the National Bank of Ukraine in this process, which does not yet have such an opportunity.

The shortcomings of the functioning of the area of state-guaranteed debt identified during the study indicate the need to improve regulatory mechanisms, which will allow to improve the processes of selection of projects financed by loans secured by state guarantees, increase the responsibility for preparing the necessary calculations and reporting on project implementation. As a result, this will allow to significantly reduce state budget expenditures and increase the efficiency of support for important socio-economic tasks of state policy.

To reduce the risks of implementation of measures to improve the management of public and state-guaranteed debt of Ukraine, it is necessary to bridge the gaps in the legislative field, which are manifested in the comparison of Ukrainian and European legislation.

In accordance with the legislation of the EU member states, the formation of the government borrowing program is based on medium-term economic and fiscal forecasts (Shahor (2018)). Assessment of the EU experience shows the important role of the system of analytical calculations in the process of formation and implementation of public debt management strategy. The main issues of such a strategy are reducing the state budget deficit, reducing the share of debt instruments denominated in foreign currency, increasing the share of long-term debt instruments, etc.
The practice of public debt management of EU member states demonstrates the important role of planning and forecasting, which should cover the entire sector of public administration (Chen et. al (2017)). The formation of macroeconomic forecasts should be carried out in different scenarios. When developing a system of medium-term planning and forecasting in EU member states, it is taken into account that the budget process goes far beyond the preparation and implementation of the budget within one year. Therefore, budget plans and programs related to government borrowing are drawn up in accordance with the medium-term budget forecast (Arai et. al (2018)).

In turn, the medium-term budget forecast should include information on forecast budget and key economic indicators, description and assessment of possible policy measures aimed at achieving the desired goals, assessment of the impact of changes in key economic indicators on the budget and public debt, information on medium-term monetary objectives and their relationship with exchange rate stability.

Conclusions

The experience of the use of state guarantees by the governments of the member states of the European Union has been assessed. It can be noted that during 2010–2016 in most member states of the European Union there was a gradual decrease in the level of the ratio of guaranteed debt to GDP. Examples of this trend are the financial policies of Austria, Belgium, the United Kingdom, Greece and other EU countries. According to the experience of post-Soviet countries, new EU members, the debt burden due to state-guaranteed debt does not exceed 10% of GDP. Therefore, in Ukraine it is necessary to develop a program to reduce this indicator at least to this value.

It is determined that the main direction of improving the management of public and state-guaranteed debt is to create a systematic approach to the formation of management decisions by the relevant public authorities, which takes into account the best practical experience of European Union member states. This approach should include ongoing monitoring of the full range of debt transactions and, in the event of significant changes, analysis of the factors that led to deviations from the planned indicators and taking corrective actions to achieve the objectives of the debt policy.

Such changes should be reflected in the policy documents of the Ministry of Finance on public and state-guaranteed debt management in the medium term. This principle will make it possible to optimize the expenditures of the state budget taking into account the changes taking place in the monetary area and in the area of foreign economic relations. In order to improve the situation, the Ministry of Finance of Ukraine, together with other budget managers, needs to improve the methods of planning of budget programs related to the provision of state guarantees.

The assessment of the experience in the use of state guarantees by the governments of the member states of the European Union allows to note that during 2010–2016 in most member states of the European Union there was a gradual decrease in the level of the ratio of guaranteed debt to GDP. Examples of this trend are the financial policies of Austria, Belgium, the United Kingdom, Greece and other EU countries. The level of debt burden of the new EU member states at the expense of guaranteed debt does not exceed 10% of GDP. Ukraine should focus on these countries.
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