

“State’s debt sustainability management: case of Ukraine”

Fedir Zhuravka  <https://orcid.org/0000-0001-8368-5743>

 <http://www.researcherid.com/rid/P-4821-2014>

Hanna Filatova  <https://orcid.org/0000-0002-7547-4919>

Oleksandr Podmarov

Khaled Aldiwani

Fathi Shukairi  <https://orcid.org/0000-0003-0381-4707>

AUTHORS

ARTICLE INFO

Fedir Zhuravka, Hanna Filatova, Oleksandr Podmarov, Khaled Aldiwani and Fathi Shukairi (2018). State’s debt sustainability management: case of Ukraine. *Public and Municipal Finance*, 7, 1-7. doi:[10.21511/pmf.07\(4\).2018.01](https://doi.org/10.21511/pmf.07(4).2018.01)

DOI

[http://dx.doi.org/10.21511/pmf.07\(4\).2018.01](http://dx.doi.org/10.21511/pmf.07(4).2018.01)

RELEASED ON

Wednesday, 16 January 2019

RECEIVED ON

Monday, 19 November 2018

ACCEPTED ON

Friday, 21 December 2018

LICENSE



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/)

JOURNAL

"Public and Municipal Finance"

ISSN PRINT

2222-1867

ISSN ONLINE

2222-1875

PUBLISHER

LLC “Consulting Publishing Company “Business Perspectives”

FOUNDER

LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

11



NUMBER OF FIGURES

2



NUMBER OF TABLES

1

© The author(s) 2021. This publication is an open access article.



BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"
Hryhorii Skovoroda lane, 10, Sumy,
40022, Ukraine

www.businessperspectives.org

Received on: 19th of November, 2018

Accepted on: 21st of December, 2018

© Limited Liability Company
"Consulting Publishing Company
"Business Perspectives", 2018

Fedir Zhuravka, Doctor of
Economics, Professor, Department of
the International Foreign Relations,
Sumy State University, Ukraine.

Hanna Filatova, Ph.D. Student, Sumy
State University, Ukraine.

Oleksandr Podmarov, Ph.D. Student,
Sumy State University, Ukraine.

Khaled Aldiwani, Ph.D. Student,
University of Customs and Finance,
Dnipro, Ukraine; Higher Institute of
Science and Technology, Libya.

Fathi Shukairi, Ph.D. Student,
University of Customs and Finance,
Dnipro, Ukraine; National oil
corporation, Libya.

Fedir Zhuravka (Ukraine), Hanna Filatova (Ukraine), Oleksandr Podmarov (Ukraine),
Khaled Aldiwani (Libya), Fathi Shukairi (Libya)

STATE'S DEBT SUSTAINABILITY MANAGEMENT: CASE OF UKRAINE

Abstract

Nowadays one of the relevant problems of economic development of Ukraine is the excessive increasing of the public debt that has a number of negative consequences for the financial system of the country. The article is devoted to the research of state's debt sustainability concept. Special attention is paid to the development of an effective system of debt sustainability management.

The aim of the article is to study the theoretical bases of the state's debt sustainability, investigate scientific and methodological approaches to its management, analyze the public debt and debt sustainability of Ukraine. In order to achieve that goal, the following scientific methods were used: analysis and generalization, decomposition analysis, comparison and compilation.

The authors analyzed the structure of the debt sustainability management system: objects, subjects, key principles, objectives, methods, instruments, etc. The list of key indicators of debt sustainability was substantiated and the authors compared their normative values in Ukraine and in world practice. Besides, the state and structure of public debt and the ratio of government debt to GDP were scrutinized. The obtained results proved the debt crisis deepening in Ukraine.

Keywords

debt, public debt, debt sustainability, debt sustainability management, indicators, Ukraine

JEL Classification H60, H63

INTRODUCTION

Nowadays the debt situation in Ukraine can be characterized as crucially unstable. Rapid growth of the public debt in recent years, inappropriate implementation of the debt obligations policy, increasing of foreign exchange risks of public debt, high cost of new loans attracting, and significant amount of potentially dangerous contingent liabilities of the state actualize debt sustainability problems. This requires the necessity to develop adequate methods of the debt stability management, as the effective debt policy can increase the level of financial stability and will allow to reduce the size of state budget deficit and endorse the economic health of the country.

The existence of public debt, its size, placement and methods of repayment affect directly or indirectly almost all aspects of the economic life. This makes public debt not only a means of raising funds for financing state needs, but also an important instrument of the financial policy of the state, ineffective use of which can lead to a disruption of the stable functioning of the economy. Thus, there is a need to conduct new scientific researches on the selected topic.

1. LITERATURE REVIEW

In general, the problems of the formation and management of public debt can be attributed to one of the most studied issues in the scientific economic literature. Starting with Smith, Ricardo, Keynes, Malthus, the essence of public debt and its impact on the country's economic development were studied (Volkova, 2017).

Modern scientific researches are focused mainly on the assessment of the public debt level, on the issues of debt security of the country, study of methodological approaches to the system for assessing its level, debt policy.

For example, Los et al. (2015), Markiv et al. (2016) and Karapetian (2011) study the problems of the public debt policy and its relationship with debt management.

Yefymenko et al. (2014) explore public debt and debt sustainability through the prism of fiscal sustainability. Fedorov (2009) and Kostiuk et al. (2010) investigate the mechanisms of public debt management.

However, it should be noted that despite the significant scientific contribution to the study of public debt, the research of the concept and essence of debt sustainability, its management mechanisms are in the stage of formation. The term debt sustainability is usually studied by academics simultaneously with such definitions as "debt policy", "solvency", "debt security" and even is identified with the them.

Antonov (2017) characterized debt sustainability as such a debt policy that does not allow unrestricted increase in the ratio of public debt to the GDP.

Moreover, it should be noted that there is no single method or a mechanism for managing debt stability, which can be used by each of the states. There are certain guidelines for managing public debt, in general, but the debt sustainability management procedure should be developed for each country individually, considering its peculiarities, economic, political, social aspects etc. In this context, we consider referring to Raynhart and

Rogoff's (2011) reasonable opinion that safe levels of debt for some countries may be critical to others and the mechanisms for managing public debt are ineffective (Reinkhart & Rogoff, 2011).

Considering the intensive development of the theoretical and methodological basis related to public debt and debt sustainability, it is worth noting that, at the same time, a number of issues (formation of a holistic view on the management of debt stability of the state, as well as studying the state of debt stability in Ukraine, considering the specifics of modern economic transformations) remain not tackled.

2. AIMS

The goal of the article is to study the theoretical bases of the state's debt sustainability, investigate scientific and methodological approaches to its management, analyze the public debt and debt sustainability of Ukraine.

3. METHODS AND DATA

To achieve the goal in the scientific research, the following scientific methods were used: analysis and generalization – to study the current state of debt sustainability in Ukraine, as well as trends of debt sustainability management systems; decomposition analysis – to determine the essence and formalization of the concept "debt stability", comparison and compilation – to analyze foreign and national experience of debt sustainability indicators calculation. These methods intend to identify the challenges and perspectives of Ukraine's economy to achieve optimal debt sustainability.

The information and factorial basis of the study contains the legislation of Ukraine, reports and analytical information of the Ministry of Finance of Ukraine, scientific articles, data of the international financial organizations etc.

4. RESULTS

The analysis of the essence of the concept of debt sustainability of the country based on the defini-

Source: Compiled by authors considering Volkova (2017).



Figure 1. Tasks of the state's debt sustainability management system

tions of various scholars provides the opportunity to formulate, in our opinion, a general definition of “debt stability” – the ability of the country to fulfill its debt obligations, without requiring the relief of the burden of debt or accumulation of debt, at the same time, the necessary and sufficient conditions of its availability are:

- no expected debt restructuring and the minimum acceptable levels of macroeconomic, fiscal, etc. types of risks (vulnerabilities) associated with debt;
- eliminating the possibilities for the Ponzi game, when the borrowing state accumulates debt faster than its ability to serve;
- no discrepancy between the accumulated debt amount and the level of income of the state (the state accumulates the debt, despite the need to reduce the budget for its maintenance, for a constant external environment).

The similar definition of debt sustainability is comprised in the IMF program documents and in the IMF's Manual on Public debt Statistics.

Governance of debt sustainability is a complex system of methods, instruments and instruments of the state's financial policy, which are used by authorized institutions to ensure the ability of the

state to fulfill its obligations in a timely and complete manner (Kostiuk et al., 2010).

The system of debt sustainability management is directed at ensuring the needs of the state in debt financing at the expense of its structure, which includes entities, objects, methods of management, is characterized by the stated purpose, tasks and functions in the conditions of a defined strategy, legal support and authority, responsible for the implementation of debt policy.

The subjects of the system include institutions, organizations, in which, in accordance with the current legislation, the responsibility for debt sustainability and public debt is assigned. International practice indicates the priority of assigning such functions to specially created bodies that are accountable to the government (in the case of an agent model of debt management), the government itself (government model), or central bank (banking model). The Ministry of Finance of Ukraine, the Cabinet of Ministers of Ukraine, the National Bank of Ukraine, and the State Treasury of Ukraine participate in the management of debt sustainability in Ukraine (Los & Usyk, 2015).

Objects of the system of debt sustainability management of the state in modern conditions are debt obligations of external or internal nature, classi-

fied by the type of creditor or type of debt instrument, in terms of terms, currencies, types of interest rates that accompany their circulation, etc. (Antonov, 2017).

The tasks of the debt sustainability management system are shown in Figure 1.

In order to manage debt sustainability effectively, certain principles must be followed: optimality of the structure, unconditionality, risk minimization, planning and forecasting, maintaining financial independence, transparency and publicity of information.

The management of debt sustainability aims at achieving a stable economic development of the state, maintaining financial independence, ensuring the necessary GDP growth rate, curbing inflationary processes, ensuring full employment, etc.

However, it should be noted that the management of debt stability of the country cannot be implemented without assessment and analysis that ensures the objectivity of information and has a positive impact on the quality of government decision making in the area of public debt.

A range of indicators is used to assess debt sustainability. We would like to note that there is neither a single, unified system of debt sustainability indicators, nor a single approach to define their limit values. In world practice, the choice of adequate indicators of debt sustainability is carried out with consideration of certain conditions peculiar to the country, in particular:

- level of income: low, medium and high;
- type of economic system: developed and developing;
- effectiveness of financial institutions, etc.

International financial organizations regularly evaluate debt sustainability for certain groups of countries, in particular, borrowing countries, in the preparation of programs of cooperation and in monitoring their implementation (Antonov, 2017).

Analyzing the work of leading scientists and international experience, it can be noted that, in general, the standard methodology for assessing debt sustainability comprises the following steps:

- 1) analysis of the level of debt load (the size of the debt itself, payments for it, sources of fulfillment of obligations, etc.);
- 2) calculation of debt sustainability indicators, debt risk analysis based on indicative limit indicators of the size of government debt and expenses for its servicing;
- 3) the development of proposals on the country's debt strategy aimed at achieving optimal debt sustainability (Markiv et al., 2010).

It should be noted that the list of indicators of debt stability (Table 1) is not imperative, that undoubtedly assesses the level of debt stability of the state. Scientists define the composition of these indicators in a different way.

Table 1. The system of debt sustainability indicators

Source: Compiled by authors considering Los and Usyk (2015).

No	Indicators of debt sustainability	Normative value	
		Ukraine	World practice
1	The ratio of total public debt to GDP, %	< 60	< 55
2	The ratio of government external debt to GDP, %	< 40	< 25
3	The level of external debt per capita, USD	< 200	< 200
4	The ratio of the state external debt to the annual exports of goods and services, %	< 150	< 70
5	The ratio of interest payments on servicing external debt to annual exports of goods and services, %	< 25	< 12
6	The ratio of interest payments on external debt servicing to the state budget revenues, %	< 20-25	< 20
7	The ratio of internal debt to GDP, %	< 30	< 30
8	The ratio of aggregate payments for domestic debt servicing to the state budget revenues, %	< 25	< 25
9	Government debt for government securities to GDP, %	< 30	< 30
10	International reserves for short-term debt (Grispin's indicator)	> 100	> 100
11	International reserves for aggregate payments on repayment and servicing of external debt (Guidotti's rule)	> 100	> 100
12	The average maturity of the state debt, years	≤ 2.3	≤ 2.3

Source: Compiled by authors on the basis of MFU (n.d.).

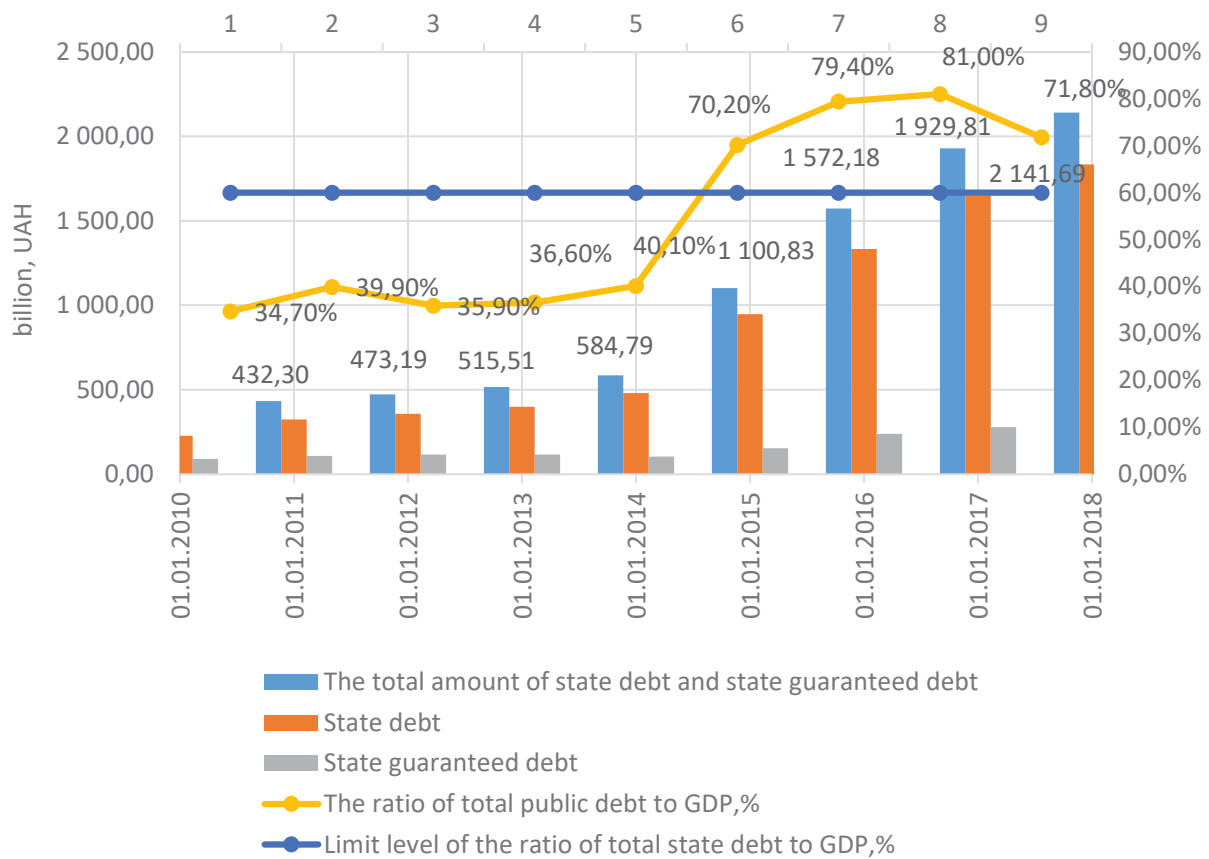


Figure 2. The dynamics of the state and state-guaranteed debt of Ukraine in 2010–2018

The average terms of the state debt of Ukraine by 2018 is 8.1 years (domestic debt is 10.3 years, while the state external debt is 6.2 years).

Let's analyze the dynamics of the state and state-guaranteed debt of Ukraine for 2010–2018, as well as one of the main indicators of debt sustainability of the country – the ratio of public debt to GDP (Figure 2).

The tendency towards the growth of Ukraine's public debt has been traced over the past few years, it is determined by the high foreign exchange risk of external debt, the unstable situation with the re-financing of debts of previous years, and the pressure of debt payments on public finances.

Since 2014 there has been a sharp deterioration of debt stability, which can be characterized as the expansion of the debt crisis. Thus, the total amount of state and state-guaranteed debt for 2014–2018 has increased almost fourfold.

The volume of state and state-guaranteed debt increased from UAH 432.30 billion (34.7% of GDP) at the beginning of 2010 to UAH 2,141.69 billion (71.8% of GDP) at the beginning of 2018, crossing the marginal level of the debt security indicator state in 60% of GDP, and state debt – from UAH 227.0 billion (24.9% of GDP) to UAH 1,833.71 billion (61.5% of GDP), respectively.

The factors that caused the growth of public debt for that period were:

- economic recession;
- severe political crisis and military conflict;
- the existence of social and other obligations of the state, which are obligatory for implementation, despite economic instability (first of all, it is providing the population with energy carriers, fulfilling obligations on payment of pensions, etc.);

- providing budget support to state enterprises and banks (in particular, JSC “Oschadbank”, JSC “Ukreximbank”, NJSC “Naftogaz of Ukraine”, Deposit Guarantee Fund of individuals). For example, in 2014, the deficit of NJSC Naftogaz Ukrainy, whose financing, with no other sources available, was mostly due to government borrowing, amounted to 5.7% of GDP, and the general deficit (balance) of the national government and NJSC Naftogaz of Ukraine was approximately 10.3% of GDP (Los & Usyk, 2015);
- financing at the expense of state borrowings of a significant deficit of the state budget, formed under the influence of substantial growth of defense expenditures, debt servicing, etc.

Particular attention should be paid to a significant increase in the volume of external debt in Ukraine. A significant devaluation of the national currency

during 2010–2018 led to an increase in the part of the debt denominated in foreign currency and the corresponding payments for it. The state and state guaranteed external debt grew from UAH 300.02 billion (51.4% of the total state and state-guaranteed debt), in 2013 to UAH 1,375.0 billion, at the end of 2017 (64.2 % of the total state and state guaranteed debt). These processes increase the risks of Ukraine’s dependence on foreign financing. Foreign state debt has recently chronically outperformed Ukraine’s foreign exchange reserves, and by October 31, 2018, it was compensated by them only on 35.5%.

Also, it should be noted that the state debt of Ukraine is rather “expensive” in servicing. The need to finance a budget deficit with no access to cheap financial resources in the financial markets forced to borrow at high interest rates. Therefore, during 2013–2018 there was a significant increase in the cost of servicing public debt.

CONCLUSION

Debt stability is the ability of the state to fulfill its obligations to repay and service borrowed financial resources without increasing the debt burden and without requiring debt restructuring. At present, Ukraine is experiencing a situation of availability and deepening of the debt crisis, which manifests itself in excess of indicators of the state and structure of the public debt of normative values, and indicators of debt sustainability are critical. The reasons for such a situation are: the current socio-economic crisis, chronic budget deficit, devaluation of the hryvnia, contradictions in the system of public administration.

The authors consider that the complex task of public debt management should comprise operational, tactical and strategic measures not only of the actual debt policy, but also considering the influence of debt factors, the interconnected effect of instruments of the fiscal, monetary, investment, foreign trade and other types of economic state policy.

Therefore, in order to solve existing problems in Ukraine, the following measures should be proposed: to create a flow of foreign investment, to increase revenues, to strengthen cooperation with the governments of the countries and international financial institutions; to increase the level of coordination in the field of debt stability between the subjects of the system of debt sustainability management of the country; to intensify structural reforms in the public administration sector aimed at increasing the efficiency of the use of budget funds.

REFERENCES

1. Antonov, M. (2017). Управління борговою стійкістю держави [Upravlinnia borhovoïu stiikistiu derzhavy] (Ph.D. Thesis). Retrieved from <http://essuir.sumdu.edu.ua/handle/123456789/55586>
2. Fedorov, V. A. (2009). Державний борг як ознака сучасної держави [Derzhavnyi borh yak oznaka suchasnoi derzhavy]. *Aktualni problemy derzhavy i prava*, 50, 444-452.
3. Karapetian, O. (2011). Боргова стійкість України: критерії оцінювання та особливості методології [Borhova stiikist Ukrainy: kryterii otsiniuvannia ta osoblyvosti metodolohii]. *Visnyk*

- Ternopil'skoho natsionalnoho ekonomichnoho universytetu*, 3, 49-57.
4. Kostiuk, N., Borodii, L., & Khytruk, N. (2010). Особливості управління державним зовнішнім боргом [Osoblyvosti upravlinnia derzhavnym zovnishnim borhom]. *Vinnytskyi torhovelno-ekonomichnyi instytut KNTEU*, 2, 54-60.
 5. Los, V. V., & Usyk, V. I. (2015). Теоретичні основи управління борговою безпекою [Teoretychni osnovy upravlinnia borhovoio bezpekoio]. *Molodyi vchenyi*, 2(2), 153-156. Retrieved from http://nbuv.gov.ua/UJRN/molv_2015_2%282%29__38
 6. Markiv, H., Syniavska, L., & Rubay, O. (2015). Вплив державного боргу на боргову безпеку України [Vplyv derzhavnoho borhu na borhovu bezpeku Ukrainy]. *Ahrarna ekonomika*, 7(3-4), 29-37. Retrieved from http://nbuv.gov.ua/UJRN/ae_2015_8_3-4_7
 7. Ministry of Finance of Ukraine (MFU) (2018). Середньострокова стратегія управління державним боргом на 2018–2020 рр. [Serednostrokovna stratehiia upravlinnia derzhavnym borhom na 2018–2020]. Retrieved from <https://www.kmu.gov.ua/storage/app/media/17-presentation-2018/08.2018/strategiya-upravlinnya-derzhavnim-borgom-na-2018-2020-roki.pdf>
 8. Ministry of Finance of Ukraine (MFU) (n.d.). Статистичні матеріали щодо державного та гарантованого державою боргу України [Statystichni materialy shchodo derzhavnoho ta harantovanoho derzhavnoio borhu Ukrainy]. Retrieved from <https://www.minfin.gov.ua/news/borg/derzhavnyi-borh-ta-harantovanyi-derzhavoiu-borh>
 9. Reinkhart, K., & Rogoff, K. (2011). *This Time Is Different: Eight Centuries of Financial Folly* (528 p.). W.: Princeton University Press.
 10. Volkova, O. (2017). Теоретичні питання боргової стійкості держави [Upravlinnia borhovoio stiikosti derzhavy]. *Ekonomika ta derzhava*, 1, 37-40.
 11. Yefymenko, T., Yerokhina, S., & Bohdan, T. (Eds.) (2014). Боргова стійкість державних фінансів [Borhova stiikist derzhavnykh finansiv]. K: DNNU "Akad. fin. upravlinnia".