MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

SUMY STATE UNIVERSITY

Educational and Research Institute of Business, Economics and Management

Department of International Economic Relations

"Admitted to the defense"
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«10» December 2024

QUALIFICATION PAPER

It is submitted for the Master`s degree

Specialty 292 "International Economic Relations"
on the topic "DEBT SECURITY MANAGEMENT IN UKRAINE"

Student group МБ.м-31 ____________ Anton Chelnyk
(signature)

It is submitted for the Master's level degree requirements fulfillment.

Master's level degree qualification paper contains the results of own research. The use of the ideas, results and texts of other authors has a link to the corresponding source

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Sumy, 2024

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
SUMY STATE UNIVERSITY
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TASKS FOR MASTER'S LEVEL DEGREE QUALIFICATION PAPER

(specialty 292 "International Economic Relations")
student 2 course, group IB.m-31
(course number) (group's code)
Anton Chelnyk
(student's full name)

1. The theme of the paper is «DEBT SECURITY MANAGEMENT IN UKRAINE» approved by the order of the university from 03.12 2024 № 1255-VI.

2. The term of completed paper submission by the student is 10.12.2024

3. The purpose of the qualification paper is to develop theoretical fundamentals, improve scientific and methodological approaches, and develop practical recommendations for managing Ukraine`s debt security
4. The object of the research is the system of economic relations between the subjects of the financial system in the process of managing the debt security of the state
5. The subject of research is scientific and methodological bases and practical tools for managing Ukraine`s debt security
6. The qualification paper is carried out on materials of State Statistics Service of Ukraine, data of the Ministry of Finance of Ukraine, the National Bank of Ukraine, etc.
7. Approximate qualifying bachelor's paper plan, terms for submitting chapters to the research advisor and the content of tasks for the accomplished purpose is as follows:

Chapter 1: Theoretical foundations of debt security management
(title, the deadline for submission)

Chapter 1 deals with: 1) Essence of public debt security; 2) Influencing factors of the state`s debt security; 3) Risks in the public debt management system

Chapter 2: Evaluation of the debt security of Ukraine
(title, the deadline for submission)

Chapter 2 deals with: 1) Analysis of state and structure of public debt; 2) Calculation of the integral index of debt security

Chapter 3: Revising the management of debt security in Ukraine
(title, the deadline for submission)

Chapter 3 deals with: Reforming of debt security management in Ukraine

8. Supervision on work:

Chapter	Full name and position of the advisor	Date, signature	
		task issued	task accepted
1	As.Prof. I.Ye. Yarova	01.11.2024	10.11.2024
2	As.Prof. I.Ye. Yarova	11.11.2024	27.11.2024
3	As.Prof. I.Ye. Yarova	28.11.2024	06.12.2024

9. Date of issue of the task: 20.10.2024.

SUMMARY

of Master’s level degree qualification paper on the topic

« DEBT SECURITY MANAGEMENT IN UKRAINE »

student Anton Chelnyk

(full name)

The bachelor’s degree qualification paper spans 34 pages, including a reference list of 30 sources. The work includes 4 tables and 7 figures.

The paper addresses Ukraine's unstable debt situation, characterized by substantial public debt, unfavorable borrowing terms, inefficient use of funds, suboptimal currency composition of public and guaranteed debt, and unsatisfactory debt security indicators. Given that debt security is crucial for maintaining sovereignty, ensuring stable national operations, and fostering socio-economic development, the relevance of the study is evident.

The primary goal of this paper is to develop theoretical foundations, improve scientific and methodological approaches, and provide practical recommendations for managing Ukraine’s debt security. This goal is achieved through the following tasks:

- Analyzing the concept of “debt security of the state.”
- Identifying factors influencing national debt security.
- Investigating risks that arise in managing debt security.
- Assessing the state and structure of Ukraine’s public debt.
- Calculating and evaluating the integral debt security index for Ukraine.
- Exploring approaches to reform the debt security management system.

The study employs various research methods, including analysis, synthesis, logical generalization, statistical analysis, and comparative analysis.

The following conclusions were drawn:

1. A new definition of “public debt security” was proposed, identifying it as part of a state's financial and economic security, characterized by an optimal debt level and structure that ensures financial stability, sovereignty, solvency, and a strong credit rating.
2. A system of internal and external factors influencing the optimal public debt management strategy was determined.
3. Public debt risks were classified into six categories: market risk, prolongation risk, liquidity risk, credit risk, settlement risk, and operational risk.
4. The analysis of state and structure of public debt in Ukraine during the period of 2012-2021 was performed. For a full assessment of debt security, the amount of total debt, as well as the shares of its internal and external components, are determined. A graphic analysis of the dynamics of the public debt volume has led to the conclusion that the debt situation in Ukraine is unstable and that the public debt has increased significantly in recent years.
5. The integral indicator of debt security for 2011–2021 was calculated. The results showed that the debt burden remains at a “critical” level.

The findings of this study can be applied to improve the process of public debt management in Ukraine.

Keywords: PUBLIC DEBT, PUBLIC DEBT MANAGEMENT, DEBT SECURITY, LOANS, UKRAINE.

Year of Master’s level qualification paper fulfillment is 2024.

Year of Master’s level paper defense is 2024.

CONTENT

INTRODUCTION

The global financial system has experienced notable transformations in recent years. In today's world, nearly every nation relies on debt in some capacity. This dependence on borrowed funds often arises from a shortage of domestic financial resources needed to address budget deficits, execute projects, stabilize the national currency, and more. When managed effectively, debt can serve as a catalyst for economic growth. However, excessive and poorly regulated debt accumulation can jeopardize a nation's economic independence and burden its economy. A high level of public debt, borrowing on unfavorable terms, inefficient utilization of credit funds, a suboptimal currency composition of public and guaranteed debt, and weak debt security indicators collectively highlight an unstable debt situation in Ukraine. Ensuring debt security is essential for maintaining sovereignty, fostering the smooth operation of a nation, and promoting sustained socio-economic development. These concerns underscore the significance of the research topic.

The focus of this research is the system of economic relationships among financial system participants in the management of national debt security.

The study's scope encompasses the scientific and methodological foundations and practical tools for managing Ukraine's debt security.

The primary goal of the research is to establish theoretical principles, enhance scientific and methodological approaches, and propose actionable recommendations for improving Ukraine's debt security management.

To achieve the stated goal, the following tasks were undertaken:

- Analyze the concept and definition of "debt security of the state."
- Identify the factors influencing national debt security.
- Examine the risks associated with managing debt security.
- Evaluate the current status and structure of Ukraine's public debt.

- Calculate and interpret the integral indicator of Ukraine's debt security index.
- Investigate strategies to reform Ukraine's debt security management system.

The theoretical foundation of this study is built upon core principles of economic theory, finance, monetary and credit systems, public finance, economic forecasting, and econometrics, supplemented by scholarly research on assessing national debt security. Various research methods were employed, including analysis, synthesis, logical generalization, statistical and comparative analysis, among others.

The study's informational basis relies on Ukraine's legislative and regulatory framework, statistical data from the State Statistics Service of Ukraine, reports from the Ministry of Finance of Ukraine, the National Bank of Ukraine, and the State Treasury Service of Ukraine. It also incorporates materials from international organizations such as the World Bank, International Monetary Fund, and the Organization for Economic Cooperation and Development, along with analytical reviews from Bloomberg and academic contributions from both domestic and international researchers.

The qualification work is structured into an introduction, three main chapters, a conclusion, and a list of references.

1 THEORETICAL FOUNDATIONS OF DEBT SECURITY MANAGEMENT

1.1 The nature of public debt security

Debt security has been a focal point for major international financial organizations, including the International Monetary Fund (IMF), the World Bank (WB), and the Organization for Economic Cooperation and Development (OECD), as well as for researchers across various time periods. In Ukraine, efforts to formalize the concept of "debt security" are still in their early stages. These efforts aim to establish its criteria, indicators, management approaches, tools, and the key determinants for achieving debt security, all within the broader context of ensuring the sustainability of public finances [2, 4].

The issue of debt security has long been a subject of interest for economists and management professionals, given its pivotal role in ensuring macroeconomic stability and fostering balanced public financial development. Contemporary research by both domestic and international scholars predominantly addresses three key areas: evaluating public debt levels, defining the concept of a nation's debt security, and developing methodological frameworks for assessing debt levels and shaping debt policy.

For instance, V.P. Kudryashov [8], N.S. Pedchenko [12], and others have explored the formulation of national debt policies and their alignment with debt management strategies. V. Sulzhenko [19] examines public debt and debt security through the lens of budgetary sustainability, while V.D. Bazylevych [3] and I.O. Liutii [10] have analyzed mechanisms for managing public debt effectively.

The concept of "debt security of the country" is interpreted in both broad and narrow contexts within the scientific literature. In a narrow sense, debt security refers to achieving an optimal balance among its components, such as debt servicing and repayment obligations. In a broader sense, it encompasses not only the debt levels that sustain the country's socio-economic stability and the ideal balance between external and internal debt but also the efficient utilization of borrowed funds. This includes ensuring the adequacy of debt to address the nation's priority socio-economic needs and maintaining debt levels that pose no risk to the financial system or national sovereignty.

As outlined in the Methodological Recommendations for Calculating the Level of Economic Security of Ukraine [15], debt security is defined as the level of internal and external debt, considering the cost of servicing it, the efficiency of utilizing borrowings, and achieving an optimal balance between them. This level should adequately meet socio-economic demands without endangering national sovereignty or compromising the stability of the domestic financial system.

Despite extensive research, there is still no unified agreement on the definition of debt security. To consolidate the perspectives of various economists, we have summarized key findings. Based on this analysis, the following characteristics of the concept of "debt security" can be identified (Figure 1.1).

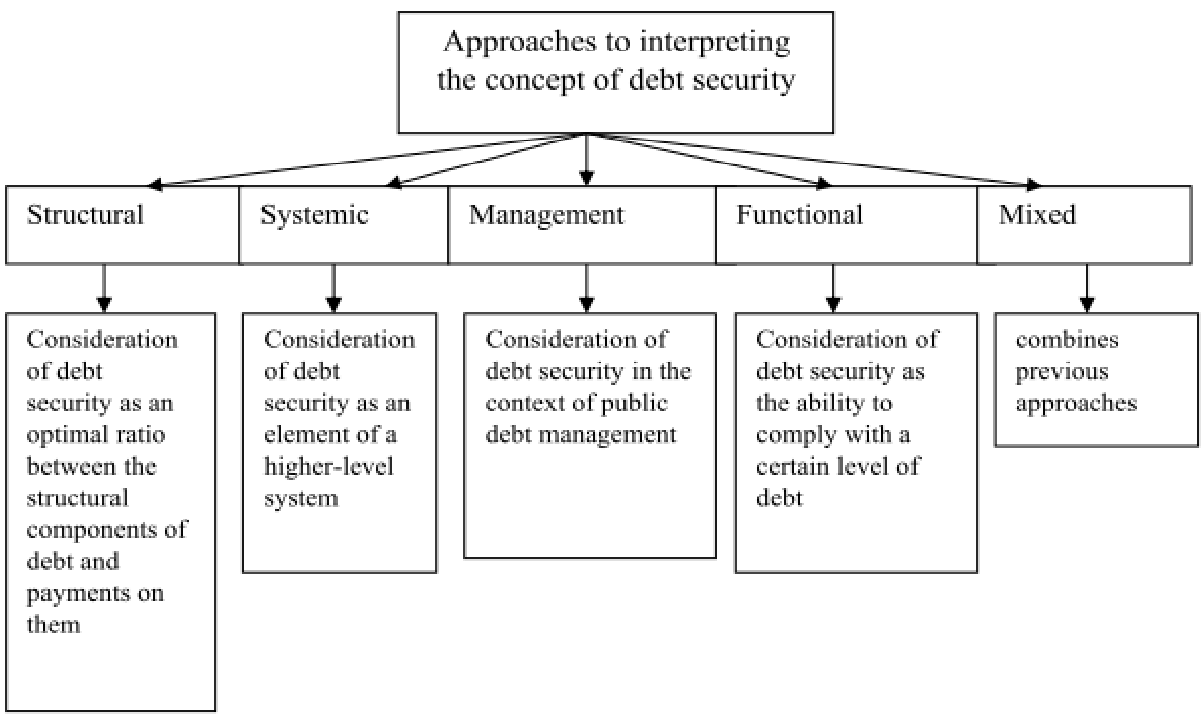

Figure 1.1 – Methods to define the concept of debt security

Source: compiled by the author based on [2,4]

Based on the summarized approaches, we propose our own definition of "public debt security." It should be regarded as an integral component of a state's financial and economic security, defined by the optimal level and structure of public debt. This includes considering the cost of debt servicing to ensure the stability of the country’s financial system, uphold its financial sovereignty, and maintain an adequate level of solvency and credit rating.

1.2 Factors influencing the debt security of the state

The determination of an optimal public debt management strategy is heavily influenced by a range of factors that directly impact the level and dynamics of the state's debt security (Figure 1.2). While Figure 1.2 outlines key factors affecting debt security, it is important to note that this list is not exhaustive.

Several elements play a crucial role in safeguarding a country's debt security, including the total debt level and its composition, the state’s established macroeconomic policy, and the institutional capacity of government entities to operate efficiently. Other critical factors include the country's reputation as a borrower, its credit rating, the presence of a comprehensive regulatory framework for managing debt obligations and borrowed funds, the effectiveness of the public debt management system, and ensuring that credit support aligns with the terms and amounts specified in the budget parameters, among others.

Given the direct and immediate relationship between the state budget deficit and the level of public debt, it is essential to consider the perspective of N.V. Chub [3] when analyzing the factors influencing a state's debt security. Chub highlights the risk of forming a "debt spiral" in situations where there is no effective public debt management system or a balanced debt policy, often stemming from a chronic imbalance in the state budget.

Figure 1.2 – Variables that affect the public debt security

Source compiled by the author based on [1,4]

It is crucial to consider both the structural and cyclical components of the state budget balance. Factors such as the balance of payments and trade balances play a significant role in determining the availability of foreign currency to meet external debt obligations and influence exchange rate dynamics, which, in turn, impact external debt security.

Political instability is another key factor affecting debt security. Even in a stable macroeconomic environment, political uncertainty can raise concerns about a government's commitment to honoring its debt obligations. Many scholars emphasize that political risk is influenced by the country's legal framework, constitutional order, judicial system, protection of investors' and creditors' rights, the efficiency of government institutions, and the level of corruption.

Additionally, the state of global capital markets, characterized by their liquidity and stability, remains a vital factor, as previously noted.

It is important to highlight the interconnected nature of internal and external debt security factors, as borrowing sources are often interchangeable. For instance, internal borrowings can be utilized to meet external debt obligations, while external borrowings can be allocated for domestic payments. A state budget surplus inherently enhances debt security, as it provides a direct source for debt repayment. In such scenarios, the need for additional borrowings—at least equivalent to the surplus amount—is eliminated, resulting in a natural reduction of public debt.

However, a significant limitation of the standard approach to assessing debt sustainability lies in its inability to fully account for the intricate and reciprocal relationships among key indicators. For example, when forecasting the public debt-to-GDP ratio, it is challenging to accurately measure the impact of the debt burden on GDP or to comprehensively factor in the bidirectional influences between these variables.

1.3 Challenges associated with the management of public debt

The primary goal of public debt management is to fulfill the government's financing requirements while minimizing debt servicing costs over the medium and long term, all while maintaining an acceptable level of risk. A well-defined risk management strategy is essential for creating secure debt structures, especially considering the severe macroeconomic and reputational consequences of defaulting on government obligations. These consequences include increased future debt servicing costs, potential insolvency of enterprises and banks, reduced long-term credibility, and diminished government capacity to mobilize both domestic and external resources to address a debt crisis.

Strategic decisions in public debt management must account for several types of risks, including market, credit, operational, settlement, liquidity, and prolongation risks. A summary of these risks and their key characteristics is provided in Table 1.1.

Table 1.1 – The risks of the public debt management

Type of Risk	Description	Implications
Market Risk	Price fluctuations, including interest and exchange rates.	Higher costs of servicing debt obligations.
Prolongation Risk	Difficulty in extending debt or doing so under less favorable terms.	Inability to secure new borrowing; increased debt costs.
Liquidity Risk	Difficulty or inability to sell government securities.	Higher transaction costs; reduced balance of liquid assets.
Credit Risk	Failure to meet obligations fully or on time.	Loss of investor confidence; restricted future borrowing capacity.
Settlement Risk	Delayed settlements for reasons other than default.	Reputational damage; financial penalties.
Operational Risk	Errors in transactions or failures in internal controls.	Reputational damage; financial penalties.

Market risk encompasses risks arising from price fluctuations, including changes in interest rates, foreign exchange rates, and commodity prices. For both domestic and foreign currency-denominated public debt, shifts in interest rates influence debt servicing costs. This impact is evident during the issuance of new debt, refinancing of fixed-rate debt for a new term, and at rate adjustment dates for floating-rate debt, as specified by the fixing schedule.

Floating-rate debt is generally considered riskier than long-term fixed-rate debt, even though the latter often incurs higher servicing costs. However, over-reliance on long-term fixed-rate debt also carries risks due to uncertainties in future financing needs and the necessity of servicing substantial debt obligations. Additionally, if interest rates decrease in the future, existing debt may become relatively expensive to service compared to new, lower-cost borrowing options available in the market.

Foreign currency-denominated debt further exacerbates the volatility of servicing costs in local currency due to unpredictable exchange rate fluctuations. Moreover, government bonds with embedded put options, which allow investors to demand early redemption, can heighten both market risk and rollover risk.

Prolongation risk refers to the possibility that debt may need to be extended due to rising servicing costs or, in extreme situations, the inability to extend it at all. When considered in the context of increasing interest rates, this risk can be viewed as a subset of market risk. However, because the inability to roll over debt or a substantial increase in servicing costs can trigger or worsen a debt crisis, resulting in significant economic losses, rollover risk is typically treated as a distinct category. Addressing this risk is especially critical for developing countries [12].

Liquidity risk can be divided into two types. The first involves transaction costs faced by investors when selling debt instruments, particularly in situations where the number of potential buyers has sharply declined or when overall market trading volumes are insufficient. This type of risk is particularly relevant in the context of managing liquid assets as part of public debt management.

The second type of liquidity risk arises when the government's liquid asset reserves decrease due to unexpected expenditures or difficulties in securing funds through short-term borrowing. This situation can strain the government's ability to meet financial obligations and maintain debt stability.

Credit risk arises when borrowers fail to meet their obligations in a timely and complete manner, including the repayment of both principal and interest. This risk is particularly significant in public debt management involving liquid asset administration. It is also relevant in scenarios such as the acceptance of bids at government securities auctions, contingent liabilities, and derivative contracts.

Settlement default risk pertains to the potential losses the state may incur as a result of delayed or failed settlements with counterparties for reasons other than outright default.

Operational risk encompasses various subcategories, including transactional errors at different stages of execution, shortcomings or failures in the internal control system, reputational risks, legal risks, security breaches, or natural disasters. These risks may necessitate the use of liquidity reserves to mitigate their effects and address the resulting challenges.

2. EVALUATION OF THE DEBT SECURITY OF UKRAINE

2.1 Examination of the current state and framework of public debt

One of the most pressing issues in Ukraine's financial system in recent years has been the critical condition of public debt. The escalation of the debt burden to dangerous levels, reliance on excessive borrowing under unfavorable conditions, and the inefficient utilization of funds have heightened economic vulnerability and significantly hindered the country's development.

An examination of Ukraine's public debt reveals that external debt constitutes a substantial portion of its structure – 62% of the total debt, with 58% accounted for by direct debt and 92% by publicly guaranteed debt as of January 1, 2022 (Figure 2.1).

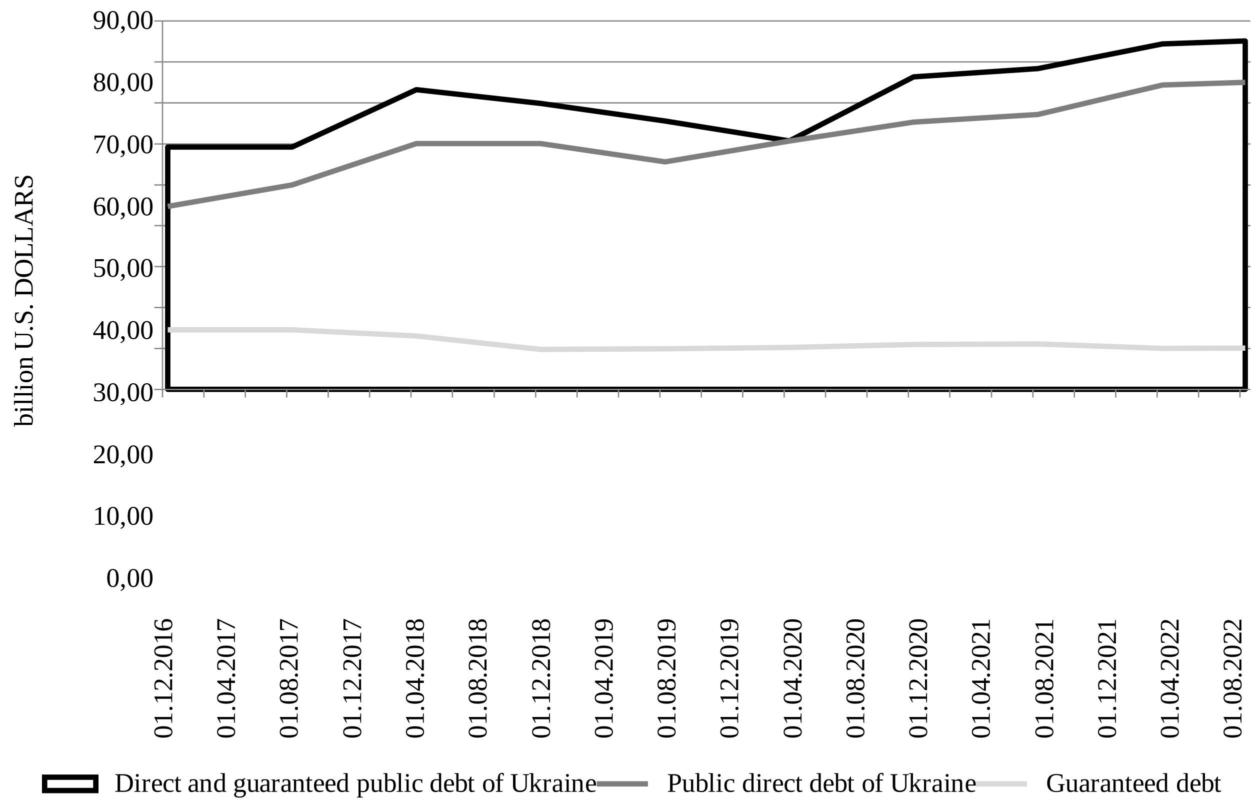

Figure 2.1 – Total public debt dynamics, USD billion

Source: compiled by the author based on data from the Ministry of Finance of Ukraine

Several factors contributed to the growth of public debt during the analyzed period:

- A deep economic recession.
- A severe political crisis combined with a military conflict.
- The state's binding social and other obligations, even amidst economic instability, including meeting energy needs and fulfilling pension commitments.
- Budgetary support provided to state-owned enterprises and banks, such as JSC Oschadbank, JSC Ukreximbank, Naftogaz of Ukraine, and the Deposit Guarantee Fund. For instance, in 2014, Naftogaz of Ukraine's deficit, primarily financed through public borrowing due to a lack of alternative sources, amounted to 5.7% of GDP. This contributed to a total deficit (balance) for the general government sector and Naftogaz of Ukraine of approximately 10.3% of GDP.
- Financing the substantial state budget deficit, driven by increased defense spending and debt servicing costs, through public borrowing.
- Addressing the challenges posed by the COVID-19 pandemic [109].

The currency composition of Ukraine's total public debt and its changes over the past five years are illustrated in Figure 2.2. As of January 1, 2022, the US dollar dominates the public debt structure. However, the share of debt denominated in hryvnia is also significant at 33.12%, followed by 15.34% in SDRs (IMF special drawing rights). A reduction in the proportion of foreign currency debt indicates a corresponding decrease in debt servicing expenditures in foreign currency.

An analysis of public debt by creditor groups (Figure 2.3) reveals that domestic government bondholders constitute the largest creditor group, accounting for 37.60% of the total as of August 2020. The domestic market includes treasury bonds of varying maturities, ranging from 12 months to 15 years, as well as bonds issued by state-owned enterprises, such as PJSC JSB Ukrgasbank and Ukravtodor.

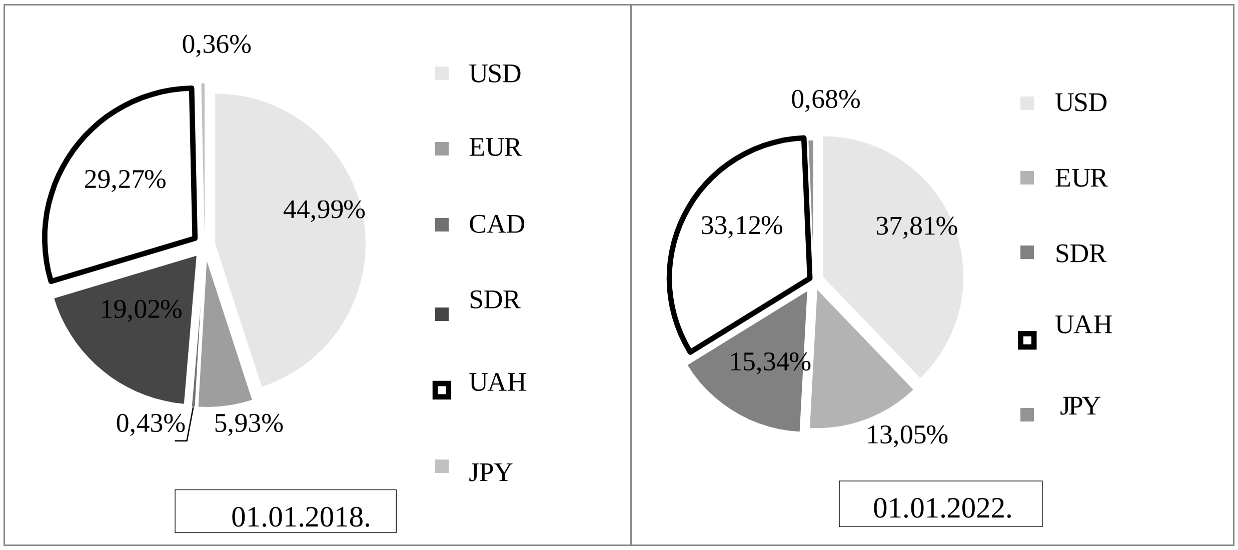

Figure 2.2 – Currency composition of Ukraine's public and publicly guaranteed debt

Source: compiled by the author based on data from the Ministry of Finance of Ukraine

The total debt from securities issued on the domestic market reached UAH 879.16 billion (equivalent to USD 32 billion).

In the overall structure of public debt, holders of government securities in foreign markets account for 28.63%, representing debt tied to government bonds.

As of January 1, 2022, Ukraine's primary creditors among international financial organizations (IFOs) include:

- The International Monetary Fund (UAH 358.66 billion / USD 13.05 billion).
- The International Bank for Reconstruction and Development (UAH 146.69 billion / USD 5.34 billion).
- Loans from IFOs constitute 28.49% of the total public debt, amounting to UAH 666.15 billion.

Among Ukraine's priority creditors are foreign commercial banks and other financial institutions, such as the China Development Bank, the Export-Import Bank of Korea, and Deutsche Bank AG. Their share in the total debt structure is 3.19%, or UAH 74.59 billion (USD 3.05 billion equivalent).

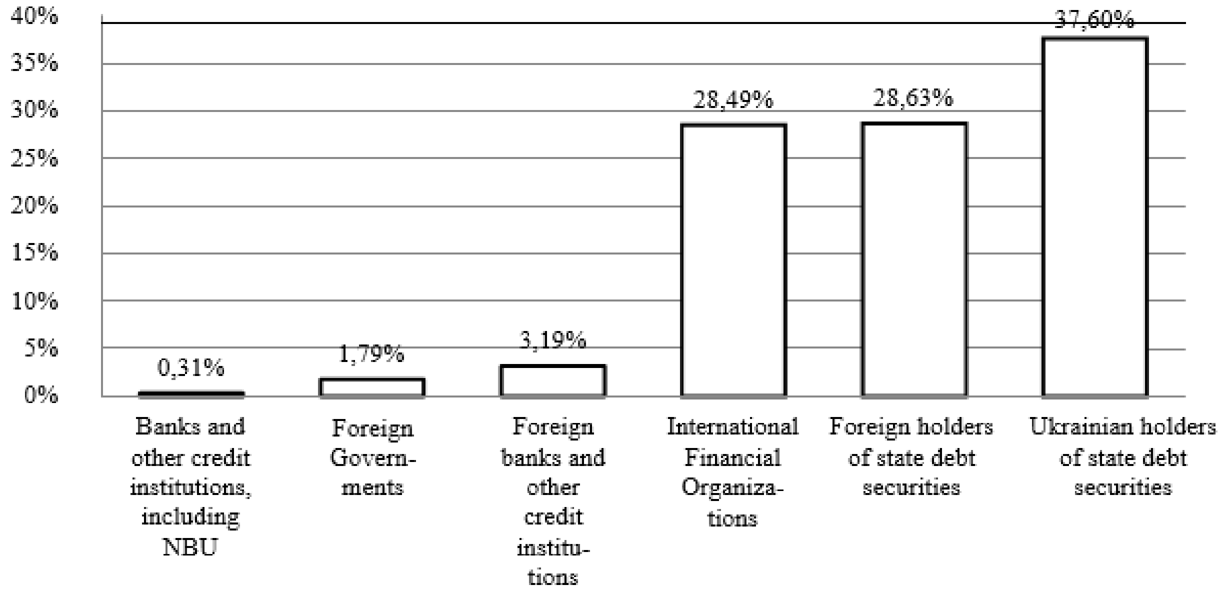

Figure 2.3 – The composition of Ukraine's public and publicly guaranteed debt categorized by creditor groups as of January 1, 2022.

Source: compiled by the author based on data from the Ministry of Finance of Ukraine

The foreign governments that have provided loans to Ukraine primarily include Japan, Germany, the Russian Federation, and the United States. The total value of these loans amounts to UAH 41.85 billion, equivalent to USD 2.71 billion.

2.2 Calculation of the integral indicator of debt security

To evaluate economic security in both foreign and domestic practices, researchers often utilize integral coefficients of economic security alongside thresholds for individual indicators. These thresholds, encompassing both quantitative and qualitative measures of a country's development, are crucial. Failing to adhere to these thresholds can result in negative and destructive trends within the economy. Achieving a high level of economic security requires that all indicators remain within the acceptable limits of their designated thresholds.

The legal framework for calculating the integral indicator of economic security, including its components such as debt security, is outlined in the Methodological Recommendations for Calculating the Level of Economic Security of Ukraine. This document specifies a range of indicators used to assess debt security as part of the state’s overall economic security. Each indicator is categorized into levels of variation: small, medium, and critical.

The procedure for identifying the integral indicator is illustrated in Figure 2.4.

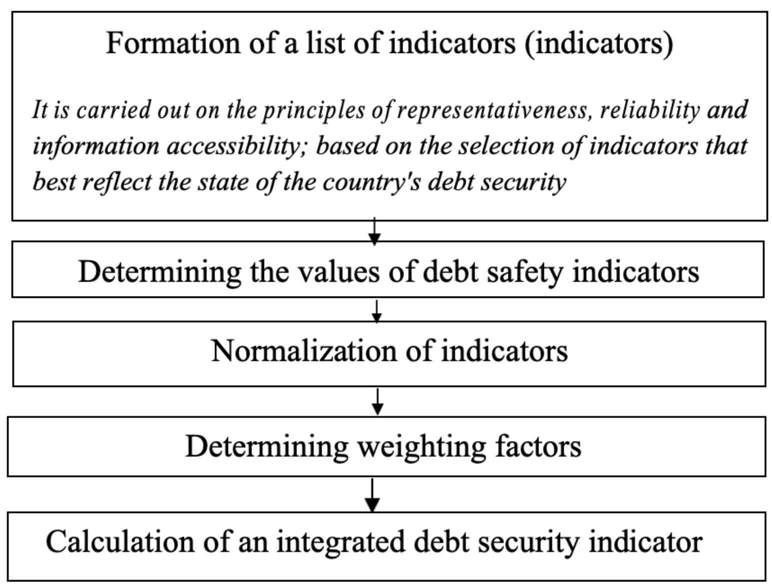

Figure 2.4 – Phases involved in assessing the integral indicator of national debt security

Drawing on international practices for establishing indicators to assess a nation's debt security, we will cluster and evaluate the most relevant indicators. These indicators, unlike those outlined in the Methodological Recommendations, offer a more comprehensive reflection of Ukraine's debt security status. This approach enables an analysis of key potential threats and sources of instability, forecasts their future dynamics, and facilitates the calculation of an integral debt security index.

It is important to highlight that the evaluation of these indicators involves comparing Ukraine's actual values against established thresholds. The proposed analytical framework can effectively address all potential risk sources related to debt security by considering their interdependencies, quantifying relevant risks, and presenting the results visually.

The subsequent step in calculating the integral indicator involves determining the weighting factors, which are typically derived through expert evaluations.

To compute the integral indicator of Ukraine's debt security, we will assign an equivalent weighting coefficient of 0.07 to each of the selected fourteen indicators. This approach is based on the premise that each indicator exerts an equal influence on the overall assessment of the state's debt security.

The results of the calculation can be interpreted using the normalized values of the integral index, as presented in Table 2.1.

Table 2.1 – Debt security levels

No	The value of the integral index	The state of debt security
1	0-0,19	Critical
2	0,20-0,39	Dangerous
3	0,40-0,59	Unsatisfactory
4	0,60-0,79	Satisfactory
5	0,80-1,00	Optimal

The risk levels of debt security indicators can be categorized as follows:

- Low Risk (indicator value between 1 and 0.8): The country's debt indicators remain below the established thresholds.
- Medium Risk (integral indicator value between 0.79 and 0.6): A maximum of

two indicators exceed the threshold level, but both current and forecasted values remain within acceptable limits.

- High Risk (integral indicator value between 0.59 and 0.4): Three or more debt indicators surpass the threshold level, although the country is still able to meet its debt obligations without significant difficulty.
- Extremely High Risk / Pre-Crisis State (integral indicator value between 0.39 and 0): Threats to debt security are evident, including issues with public debt levels, its structure, and debt servicing costs, with several indicators exceeding their thresholds.

Based on the selected indicators, the integral debt security values for Ukraine were calculated for the period from 2011 to 2021.

Table 2.2 – Values of the integral indicator reflecting Ukraine's debt security from 2011 to 2021.

Year	The value of the integrated debt security index, %.	The state of debt security
2011	0,21	Dangerous
2012	0,47	Unsatisfactory
2013	0,44	Unsatisfactory
2014	0,36	Dangerous
2015	0,33	Dangerous
2016	0,24	Dangerous
2017	0,29	Dangerous
2018	0,32	Dangerous
2019	0,34	Dangerous
2020	0,36	Dangerous
2021	0,38	Dangerous

Figure 2.5 presents a petal chart summarizing the assessment of debt security and associated risks in Ukraine from 2011 to 2021. In this chart, markers closer to the center indicate a higher risk of destabilization in specific areas of the debt burden.

The core principle of the methodology for assessing the integral debt security indicator is to measure the country's overall debt security during a specific time frame using a single, generalized metric. While individual debt security indicators highlight specific threats and destabilizing factors that merit separate analysis, their interconnected effects collectively determine the overall outcome. This integrated approach allows for a comprehensive evaluation of the country's debt security level.

Figure 2.5 – The indicator of the integral debt security over 2011–2021 period

The calculations indicate that at the start of 2022, Ukraine's integrated debt risk indicator stood at 0.38, categorizing the nation within the high-risk group.

3. REVISING THE MANAGEMENT OF DEBT SECURITY IN UKRAINE

In the modern context, public debt functions as both an economic and financial instrument through which the government fosters a network of material interests aimed at strengthening the state. When managed effectively, public debt can contribute to the financial, economic, and political stability of a nation.

However, substantial public debt levels, particularly with a significant share denominated in foreign currency, combined with excessive budgetary pressure from peak debt repayments, pose serious challenges. Limited access to external financing—largely due to uncertainty surrounding continued credit support from the IMF and other international donors—further exacerbates the situation. The absence of effective tools for managing public borrowing, along with a lack of a comprehensive system for assessing and analyzing debt risks, undermines the financial stability of the state.

Addressing these challenges requires a comprehensive set of measures in the formulation and implementation of public debt policy, including:

- Establishing an early warning system for crisis detection, which involves mandatory calculation of debt security indicators and regular assessments of how economic development factors impact public debt.
- Increasing the share of domestic debt instruments in budget deficit financing by encouraging domestic investors (both individuals and legal entities) to purchase government bonds, thereby reducing exchange rate risks.
- Limiting the proportion of floating-rate liabilities and short-term debt in the total structure of external public debt.
- Diversifying domestic borrowing sources by stimulating the development of the domestic stock market. This includes ensuring the functionality of the derivatives market, regulating the activities of intermediaries (agents and brokers), and strengthening accountability for their actions.

- Enhancing the capacities of the insurance market to support risk mitigation and debt management.

Ukraine's economy was severely impacted by the global financial crisis, with real GDP contracting by nearly 15% in 2009. To address the crisis, the government entered into a Stand-By Arrangement with the IMF in late 2008. A second agreement followed in 2010, prioritizing fiscal sustainability as the program's primary objective. Since then, fiscal sustainability and debt management have remained key topics in economic policy discussions between the IMF and the Ukrainian government, including negotiations in 2012 and 2013 and subsequent talks on establishing a new IMF program.

To effectively counter debt-related threats, the economic security system must:

- Establish conditions where borrowing is not only economically justified and financially manageable but also creates opportunities for economic growth and development in the areas of investment and lending. Inefficient borrowing and poor utilization of credit resources can lead to excessive debt accumulation, burdensome servicing costs, and financial dependence, posing significant threats to financial security.
- Mitigate risks associated with public borrowing, including exchange rate risks, liquidity risks (inability to refinance or repay debt due to insufficient funds), interest rate risks (unfavorable changes in borrowing costs), deflationary and inflationary risks, and political and investment risks (failure to convert borrowed resources into productive investment capital).
- Maintain a balance between domestic and foreign debt, as well as between short-term, medium-term, and long-term obligations. This balance will ensure the efficient distribution of debt repayments over time, avoiding concentrated repayment periods that could strain public finances.

To address the challenges of overcoming Ukraine's excessive debt burden, it is essential to resolve a range of regulatory, methodological, organizational, and informational issues while ensuring alignment with international principles.

In the area of information support (Table 3.1), key priorities include reforming the current Public Debt Management Strategy and improving practices for disclosing public debt data. This involves introducing international standards for public debt performance audits, developing robust systems for assessing, monitoring, and forecasting debt security, and enhancing the transparency and comprehensiveness of information disclosed about public debt obligations.

Table 3.1 – Challenges in information and methodological support for the advancement of the debt security management system in Ukraine

Direction	Key issues
1. Underdeveloped system of debt security assessment	1. Ukraine's debt sustainability is not assessed. The calculation of certain debt security indicators is not carried out systematically
2. Significant time lags, lack of transparency, and incomplete data on the state debt	2. Ensuring that data on public and publicly guaranteed debt, quasi-fiscal operations, and local government loans are published in an integrated database in a complete and timely manner
3. Absence of a monitoring and forecasting system of debt sustainability	3. The underdevelopment of these systems does not allow for timely identification and response to macroeconomic shocks and the impact of destabilizing factors on the level of public debt and its security
4. No methodology for assessing the impact of factors on debt security over different time horizons	4. The development of methodology, principles, procedures, and reporting forms for assessing short-, medium-, and long-term debt security is a trend in developed countries and should be implemented in Ukraine
5. Failure to take into account the best international practices of accounting for the state budget balance and operations	5. The need to implement a budget accounting system based on accrual basis of accounting in order to establish a high-quality and complete system of accounting for the financial position of the state, its assets and liabilities

In addition to information-related challenges—such as the absence of systems for monitoring, evaluating, forecasting, and transparently disclosing data on debt sustainability – issues related to the development of a methodological framework for generating reliable information on debt indicators are becoming increasingly critical.

These challenges primarily stem from the failure to incorporate international best practices, statistical standards, and disclosure requirements established by organizations such as the IMF and the World Bank regarding a country's debt obligations.

Furthermore, measures to enhance debt security should include the following:

- Adoption of the Law "On the State Debt of Ukraine", which will define the key provisions regarding the country's internal and external debt at the legislative level.
- Development and substantiation of a strategy for the effective utilization and allocation of borrowed financial resources by the state.
- Implementation of an efficient mechanism for replacing certain borrowing sources with others to optimize debt structure.
- Pursuing a coordinated public debt management policy to ensure consistency and efficiency in managing obligations.
- Continuous monitoring and adjustment of managerial decisions related to debt security within the broader system of ensuring national economic security.

CONCLUSIONS

This qualification work focuses on the concept of a country's debt security, as the excessive growth of public debt remains one of the most pressing challenges in Ukraine's current stage of development, leading to numerous adverse effects on the nation's financial system. Special emphasis is placed on the creation of an effective system for assessing and managing debt security.

The study advances the theoretical foundations, enhances scientific and methodological approaches, and provides practical recommendations for improving the management of Ukraine's debt security.

The main conclusions of this work are as follows:

- Systematization of approaches to debt security. The various interpretations of the concept of debt security were systematized into structural, systemic, managerial, functional, and mixed approaches.
- Proposed definition of "public debt security". The author introduced a new definition of public debt security, considering it as an integral component of the state's financial and economic security. It is characterized by the optimal level and structure of public debt, factoring in servicing costs, to ensure financial system stability, financial sovereignty, and an appropriate level of solvency and credit rating.
- Identification of influencing factors. A system of internal and external factors affecting public debt management strategy was identified to define the optimal approach.
- Classification of public debt risks. Risks within the public debt management system were categorized into market risk, prolongation risk, liquidity risk, credit risk, settlement risk, and operational risk.

- Analysis of public debt in Ukraine. An in-depth analysis of the state and structure of Ukraine's public debt was conducted, including the total debt and its internal and external components. A graphical analysis of debt dynamics highlighted the instability of the debt situation in Ukraine and the significant increase in public debt in recent years.
- Calculation of the integral debt security indicator. The integral debt security indicator was calculated for the period 2011–2021, and the findings revealed that the debt burden is in a "critical" state.
- Approaches to reforming debt security management. The final section outlines recommendations for reforming the debt security management system in Ukraine.

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