This monographic research was conducted by the staff of the Department of Finance and Banking Technology of Technical University of Georgia. Monographic research is dedicated to the study of the challenges and prospects of the financial and banking sectors of Georgia in the modern global world.
The results of the research are presented in two parts (17 chapters). In the first part – "Challenges and Perspectives of the Financial Sector of Georgia" - the following 10 chapters are presented. Part Two – "Challenges and Perspectives of the Banking Sector of Georgia" - Includes the following 7 chapters.
The book is designed for a wide range of readers: for scientific and practical figures, professors and students of higher education institutions. It will be useful for employees of the country's legislative and executive bodies, for all those interested in the problem of financial and banking.

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Georgia's Finance-Banking Sector in the Modern Global World

Challenges and Perspectives of the Financial-Banking Sector of Georgia in the modern global world

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Georgian Technical University
Faculty of Business Technology
Department of Finance and Banking Technology

Collective Monograph (Volume I)

GEORGIA'S FINANCE-BANKING SECTOR IN THE MODERN GLOBAL WORLD

Challenges and Perspectives of the Financial-Banking Sector of Georgia in the modern global world

AUGUST 13, 2023
Georgian Technical University
Tbilisi, 0160, Georgia

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In the first part – "Challenges and Perspectives of the Financial Sector of Georgia" - the following 10 chapters are presented: Georgian State Transfer Policy Under Public Finance Reform Condition; Municipal Participation Budgeting in Georgia: Challenges and Perspectives; Methodical and Organizational Basics for the Implementation of Municipal Participation Budgeting in Georgia; Methodological Foundations and Challenges of Gender Budgeting in Georgia; Gender Budgeting in the Field of Health and Social Protection of Georgia; Peculiarities of Georgia's Tax Policy: Analysis, Assessment and Recommendations; Assessment of the Risk of Legalizing Illegal Income and Financing of Terrorism (Risk -Based Approuch); Fintech Startups in Georgia: Challenges and Ways to Overcome them; Features of the Financial Capabilites and Behavior of the Population in Georgia; Loan Liabilities and Debt Burden of the Population in Georgia: Analysis and Assessment.

Part Two – "Challenges and Perspectives of the Banking Sector of Georgia" - Includes the following 7 chapters: Determination of the Factor of Mutual Influence of the Risks Acting on the Banking Business at the Same Time, and the Establishment of A Formula for Calculating its Amount; Georgia's Banking System During A Pandemic; Banking Financing of Green Economy: Tools and Regulation Mechanisms; Features of the Use of Logistics in the Field of Banking Services and Estimation of the Optimal "Golden" Interval Between "Working" and Liquid Assets of A Commercial Bank; Lending of Tourism Business; Problem of Correction in the Formula of Irving Fisher "For the Quantitative Calculation of the Monetary Mass Requered for Circulation"; The Impact of Labor Migration On the Banking Sector and the Economy of Donor Countries as a whole.

The book is designed for a wide range of readers: for scientific and practical figures, professors and students of higher education institutions. It will be useful for employees of the country's legislative and executive bodies, for all those interested in the problem of financial and banking.

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Abstract. The scientific article, based on the latest literary sources and rich factual materials, discusses such an important issue of financial science and economic practice as public finance reform and state transfer policy in Georgia. In particular, the current state of public finance reform and state transfer policy in self-governing cities are studied and evaluated here; ways to deepen public financial reform and improve state transfer policy are identified.

Keywords: public finance, budget process, program budget, tax revenues, local budget, equalization transfers, transfers policy, non-financial assets.

1. Introduction

Georgia began conducting budget reforms in 2004, as it was necessary to create a modern and robust public financial management system, which organized specific principles and defined the powers of every person involved in the budgetary processes. Simultaneously, problems arose during the review of budget policy priorities, which could be solved only through the best international practices in fiscal operations.

2. Research results and discussion

In recent years, significant changes have taken place in Georgia in terms of local finances, which were reflected in various ways in developing local self-government and financial decentralization.

A significant stimulus to the decentralization process was the ratification of the European Charter of Local Self-Government by Georgia in October 2004, thus committing the government to the Council of Europe to decentralize its governance system and carry out local self-government reform. The Law of Georgia on Local Self-Government Budget enforced in January 2007, regulating issues scattered around in various laws and regulations before the adoption of this law: principles of forming the budget of the local self-government unit; preparing, submitting, reviewing, approving, executing, auditing, supervising, reporting, evaluating and controlling the draft budget; budgetary powers of representative and executive bodies, and others.

The Law of Georgia “Budget Code of Georgia” took effect in January 2010 [1]. It repealed the previous Law of Georgia on a budget of the Local SelfGovernment Unit. Adoption of the Budget Code defined the principles of the formation of the budget system of Georgia. It regulated the rules of preparation, review, approval, budget execution, reporting and control of draft budgets of the state, autonomous republics and local self-governing units, and budget relations of different levels of government. One of the issues that were a novelty for the selfgoverning units was the consideration of the principle of socio-economic equalization which was reflected in the law by the formula of equalization transfer [2]. Based on the calculation of the formula (from on various data and parameters), the amount of money allocated from the state budget for a specific self-governing unit is calculated.

Following the ordinance of Georgia's Finance Minister, a new budget classification GFSM 2001 was approved for all the budget levels in 2010. It replaced the budget classification that had been in force since 2004 [3]. With the new budget classification's approval, the annexes were defined, which carried out a detailed breakdown of the categories of economic and non-financial assets of expenditures and operations on them at lower level codes than those presented in the classification. In 2011-2019, the budget classification items were refined in terms of compatibility with the public procurement classifier. Thus, the process of improving the budget classification still continues.

In 2011, Georgia's Finance Ministry developed a program budget-making methodology [4], which provides issues related to the program budget-making and reporting process for all parties involved in the budgetary processes. This methodology was updated in 2015 with more detailed new regulations. These regulations recommend that organizations develop programs and sub-programs, prepare relevant cost estimates, determine expected interim and final results, and performance evaluation indicators based on their medium-term plans, sector strategies, and available resources [5].

The Organic Law of Georgia "Local Self-Government Code" enforced in July 2014 [6]. Under the law, municipality authorities prepare, discuss, approve, amend a budget, evaluate budget execution reports, manage budgetary finds, treasury operations, and transactions. Local self-government units have relevant functions and powers which are realized mainly by their budget. The budget of a self-governing unit meets budget priorities and needs of local populations. The same budget is the instrument by which the local authorities realize the central government's powers delegated to them.

Since January 2015, all budget levels, including that of the budget organization, were fully integrated into the unified electronic system (treasury, budget), both at the planning and execution stage, except for public schools and preschool institutions. Their inclusion was planned in 2018, however, along with the draft state budget for 2018, a draft legislative amendment to the budget code was submitted to the parliament, which provided for the inclusion of public schools and preschools in the unified treasury area since 2019.

In 2016, Georgia’s Finance Ministry developed an investment project management methodology [7], which sets out the rules and procedures for developing investment projects, defining stakeholders' roles and responsibilities for all stages of the public investment management process before launching investment projects. The Guide allows us to evaluate the various capital investments proposed or consistently prioritize tasks in the strategic planning and budgetary process. In 2016, another legislative change was prepared in the Georgian Budget Code, the Local SelfGovernment Code, and several regulations in Georgia's 2017 state budget.

The amendments imposed additional restrictions on the expenditure portion of state and municipal budgets from 2017 to ensure compliance with the Economic Freedom Act's fiscal rules and limits [8]. There is also an obligation to reduce and optimize administrative costs for central and local governments. Regulations were tightened, which provided for the need to consider the information provided by Georgia’s Finance Ministry regarding tax revenue forecasts when planning budgets by municipalities. The regulations were extended to the part of labor remuneration in 2018 and the budget planning for 2019-2021. Under regulations, it is not allowed to increase the remuneration fund without an agreement with the Ministry of Finance.

In 2018, at the Ministry of Finance initiative and with the support of the World Bank, the evaluation of public finances management reform in self-governing units by PEFA (Public Expenditure and Financial Accountability) standards began. Three municipalities were selected as pilots: Tbilisi, Batumi, and Martvili. This evaluation system is a comprehensive public financial management monitoring system that achieves budgetary discipline, optimal allocation of resources, and improved service quality, while a transparent and streamlined general financial management system ensures budget performance results at three levels: (1) an effective control mechanism; (2) budget planning and execution of planned priorities, and (3) rational management of budgetary resources.

Under the Local Self-Government Code, the budgets of local self-government units divide into two groups: (1) Municipal budgets - a total of 64 municipalities; (2) Budgets of self-governing cities - a total of 5 self-governing cities.

The following self-governing units received the status of the self-governing city: Tbilisi, Kutaisi, Batumi, Rustavi, Poti [6]. Reception of the status of a selfgoverning city in some cases entails privileges. For example, privilege in the introduction of fees: there are types of income (local travel permit, parking), which operate only in the self-governing city. Privilege in the Equalization Transfer Calculation Formula: the law recognizes that the projected growth rate of expenditures and non-financial assets is distributed among self-governing cities and municipalities as follows: 63% - 5 self-governing cities; 37% - 64 municipalities [2].

Two out of the five self-governing cities have special status: Tbilisi - the capital of Georgia and Batumi - the administrative center of the Autonomous Republic of Adjara. Due to this status, these self-governing cities have a significant privilege in the equalization transfer calculation formula.

Under the Georgian Budget Code, the budget of a self-governing unit is independent of the store of other self-governing bodies and the republican accounts of the state and autonomous republics. To fulfill the legislation's competencies, besides its revenues, the local self-government receives funding from the central government in the form of transfers [1]. The equalization transfer is vital in the formation of the revenue part of the budgets of self-governing units. The equalization transfer is allocated annually from the state budget following the rules defined by the Budget Code and is calculated by a unique formula, the areas of use independently determined by the self-governing unit.

Consequently, the transfer calculation rule is crucial for both local finances and local socio-economic development.

Under the current law, the Minister of Finance of Georgia has the sole authority to approve the Equalization Transfer Calculation Instruction (including the status and support ratios used in the calculation) [2]. By introducing different coefficients to be used in the formula and changing their volumes within the approved instruction, he can significantly impact the importance of equalization transfers. Consequently, one of the main problems of equitable distribution of equal transfer is the limited legislative regulation of its calculation rule.

In 2020, the state budget of Georgia [9] ensures a total of 705 080.0 thousand GEL in the form of equalization transfers for local self-governing units, which is 50 317.7 thousand GEL more than the previous year (8% increase), and 105 748.0 thousand GEL more compared to the data of 2018 (18% increase). The largest part of the allocated equalization transfer (61%) is distributed on five self-governing cities -427 840.4 thousand GEL (67% in 2017, 58% in 2018, 67% in 2019), and the remaining 39% among the remaining 64 municipalities. - 277 239.6 thousand GEL.

The volume of equalization transfers for self-governing cities decreased by 3% n 2020. However, by 2020 there is an increase in equalization transfers in selfgoverning towns, which is caused by the change in the coefficients used in the calculation of the equalization transfer formula and the fact that the calculated equalization transfers and tax revenue total forecast is less than the 2019 forecast. Consequently, we have an increase in equalization transfer volumes in self-governing cities.

In 2019, the largest share (75.4%) of equalization transfers to self-governing cities belonged to Tbilisi, while 24.6% - to the rest of the self-governing cities; Rustavi has the smallest share - 2.4%, while Poti did not receive any transfer at all.

Tbilisi differs from other self-governing units by its status (capital). The existing equalization model puts Tbilisi in an advantageous position compared to other cities and it is necessary to reconsider the methods of calculating the coefficients in the equalization transfer formula.

The analysis of the revenue structure of the self-governing cities' budgets gives us a clear picture that an upward trend characterizes the budget revenues, although the degree of their financial independence has not increased. Grants have a 30-60% share of the income of self-governing cities in the 2017-2020 budgets.

In 2020, the largest share in the volume of grants issued to self-governing cities (63.9%) falls on Tbilisi, while 36.1% belong to other self-governing cities. Poti had the smallest share - 0.8%.

There is also a significant imbalance in the volume of grants per capita. In 2020, the largest share has Batumi and Tbilisi, mainly the result of an extensive work of equalization, capital, and special transfers. Poti has the lowest rate. It is logical as Poti has received only targeted, particular, and capital transfers used to exercise delegated authority and for a specific purpose. Significant imbalances of equalization transfers per capita also show up. Tbilisi has the largest share, and Poti has the smallest share in 2020.

3. Conclusion

Based on the state transfer policy analysis, we can conclude that the volume of completed transfers equals almost half of the entrances to the self-governing cities. The problem is the inequality between the self-governing cities and the degree of their dependence on the central government.

We believe that one of the most essential tasks of the state government is to pursue an effective transfer policy in the country, which should ensure a fair distribution of financial resources between individual municipalities. Therefore, the equalization transfer formula should be reviewed regularly to calculate the transfer due to objective criteria to ensure a fair equalization system.

Finally, although a large part of revenues is the equalization transfer received from the state budget, it is still important to plan realistically for other revenue sources (tax revenues, additional revenues, decrease in non-financial assets).

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I.2. MUNICIPAL PARTICIPATORY BUDGETING IN GEORGIA: CHALLENGES AND PERSPECTIVES

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Abstract. The article explores, based on the latest literary sources, an important issue in financial theory and economic practice, namely the problems and prospects of municipal participatory budgeting in Georgia. It emphasizes that the process of participatory budgeting is an innovative model for proper governance that promotes inclusive democracy, leads to the modernization of the public sector, increases accountability of the executive branch to the public, and represents an effective process of democratic dialogue and decision-making between the government and the population.

It is shown that municipal participatory budgeting has been introduced in Georgia in two forms: the "Civil Budget" participatory budgeting project and the VOICE participatory budgeting project. Each has its strengths, weaknesses, and challenges. Conclusions and recommendations are drawn regarding the ways of developing participatory budgeting models implemented in Georgia.

Keywords: inclusive democracy, participatory budgeting, civil budget, participatory democracy, participatory modernization model.

1. Introduction

Since the 1990s, the formulation "participatory budgeting model" or "participatory budgeting process" has increasingly appeared in scientific discourse, which was more closely associated with the activities of local government bodies, although later it was associated with other spheres, such as educational and/or social service organizations. As a result, we have the reality that various models of participatory budgeting are being actively implemented in an increasing number of cities, municipalities, and organizations around the world, more and more people are involved in the processes, and both the population and the state benefit more.

The participatory budget process is one model of participatory democracy in which the population decides what to allocate municipal and state budget funds and then checks the effectiveness of the use of the allocated resources.

This approach to the state budgeting process allows citizens to identify, discuss, and prioritize projects to be funded by public spending and empowers them effectively to make real decisions about how money is spent.

The local specifics of a particular municipality, the combination of goals and objectives declared by its executive and representative authorities, provide the diversity that currently characterizes the models of participatory budgeting. As a result of their systematization, a typology of participatory budgeting was developed in 2012 [1], through which all the existing models were described and the following six models of participatory budgeting were identified:

⇐ Participatory Democracy Model;
⇐ Proximity Democracy Model;
⇐ Participatory Modernization Model;
⇐ Multi-Stakeholder Participation Model;
⇐ Neo-Corporatism Model;
⇐ Community Development Model.

All six practical models differ in territorial and thematic characteristics, as well as the subjects of the process and the levels of their involvement, and each of them reflects the features or legislative environment characterizing a particular municipality, where the model was developed and implemented.

On the basis of the study of existing practice, it has been established that out of 6 practical models of participatory budgeting, the most widespread in the world are Participatory Democracy Model, Proximity Democracy Model, and Community Development Model, which is due to a greater focus on social justice; with a certain uniformity of legislation defining the powers of local government; extensive use of formal and informal instruments of direct democracy in the processes.

The diversity of types of participatory budgeting models in the world is due to the following main characteristics:

Territorial characteristic - participatory budgeting is primarily understood as a financial and management tool tied to a specific territory. In the context of local self-government, the territorial base includes a micro district, district, city, or at least a regional scale.

Thematic characteristic - an alternative to the territorial model is a thematic model of participatory budgeting, which is based on the context of priority issues, such as transportation, environment, housing, education, local economic development, and others. Issues and topics within the thematic model of participatory budgeting can change over time.

Characteristic of the process actor -- within the framework of the participatory budgeting model based on the actor of the process (specific strata of society), budget resources are intended for the unprotected and vulnerable, or at least for some social groups (for example, youth, women, elderly, migrants, sexual and religious minorities, etc.).

In real practice, participatory budgeting models with a combination of territorial and thematic types are most often used.

It is indicative that the success or failure of implementation of participatory budgeting does not depend on the number of population in the settlement, nor on the size of its budget.

Global practice shows that participatory budgeting can be integrated into any size of residential area. For example (a) in a village where a few hundred residents live - Curahuara de Carangas (Bolivia); (b) in one of the urban districts of a city - 49th Ward of Chicago (USA); (c) in average-sized cities with a population of less than 100,000 - Ilo (Peru); (d) in million-strong cities - Rosario (Argentina); (e) in very large (several million-strong) cities - Paris, Berlin, London.

The practice also shows that the success or failure of participatory budgeting is not necessarily dependent on the magnitude of municipal budgets. Its implementation may be successful in very poor cities/settlements where public resources are severely limited, as well as in very wealthy municipalities[1].

Porto Alegre was the first city in the world to introduce participatory budgeting in 1989, and it still functions effectively today. The implemented model represents one form of hybrid democracy, combining the processes of direct and participatory democracy. In other existing models, the combination of these and other factors also provide the existing diversity of participatory budgeting models, which is so attractive to a government oriented towards modernization and effective change when it makes the political decision to offer this management model to its fellow citizens.

Since then, 33 years have passed. During this time, a number of large and small towns and municipalities have attempted to use citizen engagement methods. As a result, today, in 1500 cities and towns around the world, local budget planning is based on

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[1] For example, participatory budgeting has been introduced in a number of African cities, whose annual budget per capita is 3 US dollars, as well as in European and Brazilian cities, where the same characteristic ranges from 500 to 1000 US dollars.

participatory budgeting principles. This method has found particularly wide use in Latin America (Brazil and Peru) and Europe (Spain and Scandinavian countries).

2. Research results and discussion

The global trend of implementing participatory budgeting could not pass by Georgia unnoticed. Its use as one of the models of citizen engagement at the local self-government level began in 2015 in the Marneuli Municipality in the form of a civic (participatory) budget project. The Polish fund "Another Space" provided technical and methodological support for this project. The project was implemented in partnership with the local organization "Unified Caucasus" and the Marneuli Municipality.

As part of the project, 1.5 million laris were allocated from the municipality budget for the purposes of the civic budget. The municipality was divided into 6 zones, civic support councils were created, and the population was informed about the topics and forms in which applications should be submitted. The winning project proposal was reflected in the budgets of the following year as a result of the selection of applications. Throughout all three years, the activity of the population was high, and the number of submitted project proposals was growing. However, in 2018, the implementation of the specified project was halted by Marneuli Municipality.

Since 2016, the mentioned model has also been implemented in Gori Municipality, and here the Ministry of Foreign Affairs of the Republic of Poland provided technical and methodological assistance. This program was implemented in Gori Municipality until the merger of the city of Gori and the Gori community in 2017. However, since 2018, the civic budgeting project was revived in Gori Municipality, and since 2019, budget planning is carried out using the model introduced in previous years.

In 2016-2017, as part of the "Supporting Democracy" program, the implementation of the same model of participatory budgeting was also planned in the municipalities of Haragauli and

Tetritskaro self-governing communities, but for a number of reasons, the planned work was not carried out.

At the same time, in March 2016, Rustavi Municipality City Hall started implementing the EU-funded project - "Participatory Budgeting in the City of Rustavi".[2] To this end, it was planned to conduct information campaigns, surveys of the population, pieces of training for the training of employees of the mayor's office, and informative meetings with the population, necessary to establish the principles of participatory budgeting.

Since 2018, the implementation of a different model of participatory budgeting in the city began in three municipalities. As part of the "Open Government" initiative supported by the USAID project "Governance for Georgia's Inclusive Development (GGI)" in Kutaisi, Batumi, and Akhaltsikhe, a proven model of participatory budgeting is being implemented in Estonia, which is based on the use of Internet technologies and the VOLIS voting system (a local system of democratic procedures) developed by the Estonian Academy of Electronic Governance[3].

In the same year 2018, the Tbilisi City Hall proposed its own model of participatory budgeting to citizens, launching the project "Your Idea to the City Mayor" [2]. This project is also based on internet technologies and represents another attempt by the Tbilisi City Hall to implement an innovative idea bank. Any citizen could submit their projects electronically, and after technical expertise, they were put up for voting on the website. In case of receiving a sufficient number of votes (2500 votes from registered voters in Tbilisi) within 60 calendar days, it would be sent to the city mayor for a final decision.

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[2] The project "Participatory budgeting in the city of Rustavi" was implemented in partnership with the Association of Municipalities of the Netherlands and the International Advice Center for Municipalities. http://rustavi.gov.ge/

[3] Academy of Electronic Management, Estonia.https://www.ega.ee/

Kedi Municipality will begin implementing participatory budgeting tools in 2020, but as of yet, they have been working with partner organizations since 2019 to develop a methodology/model based on participatory principles, with input and agreement from interested parties from various sectors (local residents, civic organizations, the business community, etc.).

In this model, the participation of the City Council in the planning of the participatory budgeting process has been increased, as well as the rules for the creation and activity of the Participatory Budgeting Council of Kedi Municipality are described in detail [3].

Now we will discuss in more detail and evaluate two options of participatory budgeting introduced in the municipalities of Georgia; (1) Participatory Budgeting Project "Civil Budget"; (2) Participatory Budgeting Project VOLIS.

In 2015, the "Civil Budget" joint budgeting project was implemented in Marneuli Municipality, followed by Gori Municipality in 2016. The project aimed to involve citizens in the decision-making process at the local government level, taking into account their interest in the distribution and expenditure of municipal budget funds [4].

In Gori Municipality, as part of the Civil Budget project for 2018-2019, the Civil Budget Council considered 167 project initiatives submitted by the population. Out of those, 75 project initiatives were approved by the Civil Budget Council and then selected by the Representative Council for solving various tasks in the municipal area.

The process of planning the Civil Budget consists of several stages:

1. The preparatory stage of the project - the preparatory stage of the project is divided into 3 main subprocesses:

(a) *Definition of the geographic area of the project* - the project's scope includes the grouping and integration of all named points within the municipality into geographic zones, which in Marneuli

Municipality were referred to as zones, while in Gori it corresponds to an administrative unit and which corresponds to the existing internal administrative division of the municipality. This approach was necessary to better manage and distribute available resources more efficiently and equitably.

(b) *Definition of financial resources and project rules* - within the project, the city hall allocates a certain amount of financial resources from the municipal budget forecast for the next year, the amount of which is determined based on the size of the geographical zone. The same amount of financial resources is allocated to all zones, regardless of the number of residents in that zone. It also determines how many projects can be financed in one zone. Within the participatory budget, project proposals of various themes are possible, including infrastructure, youth, educational or cultural, social, sports, and others.

(c) Consolidation of project management structures - Effective project management of the municipal budget project will be carried out through the consolidation of three management structures: an administrative unit coordinator[4], a representative body of the administrative unit[5], and a municipal budget committee[6].

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[4] The coordinator is designated by the mayor of the municipality to communicate, inform, and coordinate with the residents of each administrative unit within the municipality. According to regulations, the coordinator's function is performed by the representative of the mayor of the municipality.

[5] The coordinator is designated by the mayor of the municipality to communicate, inform, and coordinate with the residents of each administrative unit within the municipality. According to regulations, the coordinator's function is performed by the representative of the mayor of the municipality.

[6] According to the mayor's instructions, the municipal budget will be created by the employees of the structural units of the municipality, whose responsibility it is to implement technical, financial, and administrative tasks related to the projects identified by the population. The purpose of their work

2. Stage of submission of project proposals- citizens who have reached the age of 18 and reside in the territory of the municipal entity have the right to participate in the civic budget program.

Citizens submit application forms for project initiatives within the civic budget program to the municipality. The proposal can be submitted both individually and in groups.

Residents can present projects that fall within the competence of the municipality's self-government, which does not exceed a specific amount allocated for a particular administrative unit, and serve the public good.

The project should be presented in a special application form. In addition to the author, at least 10 stakeholders living in the same territorial unit where the project will be implemented must sign the form.

The coordinator in the administrative unit assists the residents in filling out an application form for the municipal budget project initiative as needed. During the application period, the authorized person (the main coordinator) of the municipality checks the technical accuracy of the declared project initiatives. Based on the budget allocation, in the final stage, it is possible to negotiate changes in funding for declared projects with the author of the initiative.

3. Stage of selection of project proposals - the authorized person of the municipality (chief coordinator) submits applications for project initiatives to the Civil Budget Council for consideration according to the following criteria:

a) legal aspects (whether the municipality is authorized to implement the submitted project initiatives);

b) technical aspects (technically, how far is it possible to implement project initiatives);

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is to assess the technical and financial feasibility, deadlines, and relevance of the proposed projects, as well as to conduct expert evaluations based on the verification of their actuality.

c) Technical aspects (how technically feasible are the project initiatives for implementation);
d) Project implementation timeline (compliance with proposed project timelines within feasible limits);
e) Does the implementation of the project serve the public interest (how relevant are the proposed project initiatives for the administrators in charge).

As a result of the verification, the approved project initiatives will be submitted to the municipal budget for further discussion with the aim of allocating funds through the representation of the administrative units.

Based on the prioritization of projects identified in the initial stages of the program, the consensus will be reached on specific project initiatives, which will be represented in the municipal and municipal budgets, taking into account the allocations from the public budget for the city. These initiatives will be selected based on the priorities identified in the public budget and will be included in the municipal budget for the following year at the request of the mayor of the municipality.

The "City Budget" project, based on the participation of the municipality, represents the main initiative aimed at implementing an 8-year test of a model based on urban specificity in municipalities of a similar type, which was identified in Georgia as a city, as well as in urban-type municipalities [5].

The positive aspects of the model are as follows: (1) to ensure high citizen engagement in the project, a formal structure defined by the Local Self-Government Code is used - the Advisory Council under the mayor, as well as an informal tool - representative councils of the administrative unit; (2) theoretically, the population can submit project proposals taking into account the requirements of various topics and specific themes; (3) the municipality's website ensures maximum transparency of project implementation and unlimited access to information; (4) The interest of the population in the project is quite high [6].

The accuracy of the model represents the following features: (1) The project does not utilize formal and informal forms of citizen engagement, including among them collective initiatives, community-based organizations (CBOs), Local Action Groups (LAGs), and the common interest of homeowners; (2) The involvement of the local population in the processes is low; (3) The presented results indicate the ineffective protection by the local authorities responsible for the municipality's name, with a lack of support provided for the housing and thematic interests of the residents; (4) Only citizens registered in the municipality's territory can participate in project proposals and voting within the model. Direct participation in participatory budgeting procedures by residents of another country or municipality is not allowed; (5) The model does not provide for additional procedures to monitor the author's (group members') implementation of the project works planned by the participatory budgeting process; (6) The funds allocated within the project are tied to internal administrative units of the municipality, settlements, communities, and depend on the population of a particular settlement [7].

The main challenges of the model are: (1) correctly informing the population about the initiated projects; (2) low trust and indifferent attitude of the population; (3) implementation of selected project proposals of improper quality; (4) effective display of the results of the project.

If we evaluate the participatory budgeting project of the municipality's "Civil Budget" on the spectrum of public participation and the Arnstein scale of citizen participation, then it corresponds to the level of "consultation" according to both standards.

As previously mentioned, since 2018 the Open Government Partnership (OGP) initiative has been implementing a participatory budgeting project in the municipalities of Batumi, Kutaisi, and Akhaltsikhe, which was based on the participatory budgeting model implemented in Estonia, and uses the internet platform VOLIS (Local Democracy Agency) developed by the e-Governance Academy[7].

The objectives of the mentioned model are: (a) to enable local government bodies to make efficient decisions quickly, easily, and with less financial costs, for which computer software is used; (b) full information about the decisions of local government bodies should be made available to the public, and the population should be encouraged to participate in the aforementioned processes.

The mentioned model aims to provide innovative ideas and necessary project proposals for resolving problems existing in the municipality's territory, quickly, easily, and with less financial cost, using computer software. The full information on the decisions made by the local self-government bodies should be conveyed to the public, and the population should be encouraged to participate in the aforementioned processes. The implementation of the best projects through electronic voting by registered voters on the municipality's territory, which will be reflected in the budget of the following year, is the main objective of this model.

VOLIS is a working environment for members of the City Council and City Hall based on modern digital and communication technologies. It provides information to all interested parties about what information and by whom the project proposal was submitted, and how and by whom a specific proposal was received. Agendas and voting results are available and meeting reports are automatically generated [8].

The main characteristics of the information system are: managing the procedure of electronic submission of project applications and supporting documentation; managing all types of projects, including multi-format electronic documentation; providing various informational support for participating in meetings, including virtual participation; providing electronic voting with identity

[7] Internet platform Volis website,https://www.volis.ee/

verification; automatic generation of session reports; conducting webcasting of sessions and maintaining an archive of recordings; other digital functions.

The participatory budgeting process consists of several stages that ensure public awareness and active involvement in the processes. The works defined by the Regulations on Participatory Budgeting of Batumi Municipality were taken as a description of the tasks. The cities of Akhaltsikhe and Kutaisi have slightly different procedures, but the general approaches are the same:

1. Preparatory stage - in the preparatory stage, the Civil Budgeting Council of Batumi Municipality City Hall carries out the following types of work: (a) Specifies the financial resources to be allocated in the municipal budget for the next year to finance the best project proposals identified through the participatory budgeting process; (b) Determines the thematic areas, evaluation criteria, and the number of project proposals to be financed within the framework of the participatory budgeting process; (c) Plans and actively carries out an information campaign on the project.

2. The stage of identifying and analyzing project proposals is divided into 3 sub-processes:

(a) Submission of project proposals by citizens - as part of the participatory budgeting process, all citizens of Georgia (or groups of citizens) registered in the municipality can submit project proposals. Citizens can submit project proposals in the form established by the municipality mayor not only through the VOLIS electronic platform but also in Batumi municipality service centers. Additionally, all applicants have the opportunity to express their opinions and comments on project applications published through VOLIS.

(b) Technical analysis of project proposals - the relevant departments of the municipality will study the submitted projects and make a selection based on the following pre-determined criteria: they reflect the creation of a public good; the projects must be implemented within the geographical area of the municipality; the measures

provided in the project proposal must fall within the municipality's competence; the budget of the project proposal should not exceed the maximum amount of project financing determined within the framework of participatory budgeting; in case the activities planned in the project proposal include infrastructure works, the property must be owned by the municipality.

Applications for projects that meet the established technical requirements and whose activities specified in the application can be implemented within the next year will be presented to the Mayor's Advisory Council of the municipality for feasibility assessment. However, a project application that does not meet the established requirements will be excluded with a detailed reason for why the project was not selected for the next stage. At the time of the development of this study, the aforementioned model began to function in the municipalities of Kutaisi and Akhaltsikhe, where the stage of submitting project proposals took place. In the case of Akhaltsikhe, it can be seen that project initiatives mainly related to the construction and rehabilitation of roads, restoration and reconstruction of ritual structures, and support for sports development.

There is a slightly different picture in the Kutaisi Municipality. Here, more attention was paid to the popularization of culture, city improvement, and construction/restoration of infrastructure objects, which fully reflects the main distinguishing features of these municipalities. Kutaisi is a large, urbanized, well-maintained city that pays great attention to the development of culture. However, both examples also reflect the fact that these two municipalities face similar problems, the solutions to which require unequivocal involvement of the population.

(c) Final analysis of project proposals - the Advisory Council of the Mayor of the Municipality, in collaboration with the relevant departments of the municipality, conducts a final analysis of the projects and selects the best proposals to participate in the public voting procedure.

When selecting project applications, attention should be paid to the following circumstances: the size of operating costs after project implementation; long-term consequences of project results; connection or duplication of activities provided in the project application with municipal programs; gender aspect of activities provided in the project application; correspondence of the purpose and tasks of the project application to the development strategy of the municipal entity; the number of people involved in the project and/or using the project results; the number of expenses for project implementation; the geographic area of project implementation. Project applications are selected by the Advisory Council by voting. The project application that collects the most votes based on the voting procedure will be recommended for participation in the public voting procedure[8].

3. Decision-making stage - projects to be considered in the next year's budget will be identified by the citizens from the project applications selected by the Advisory Council using the VOLIS electronic platform and on the basis of the direct voting procedure.

All citizens with electoral rights registered in the territory of the municipality can participate in the voting[9].

The results of the voting to identify the best projects are approved by the Mayor's Office Advisory Council and sent to the mayor for inclusion in the next year's budget.

The main difficulty in evaluating the participatory budgeting project VOLIS is the fact that the projects in Georgia are being implemented in a test mode and the entire cycle determined by the procedure has not yet been completed. Accordingly, based on the

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[8] In the case of the Akhaltsikhe municipality, there are 3 project proposals, and in the case of the Batumi municipality, there are 10 project proposals.

[9] Participation in voting in the Batumi municipality is allowed from the age of 16.

Georgian reality, the difficulties and challenges that may arise when implementing this model are not yet visible.

The positive aspects of the model are as follows: (1) to ensure high citizen engagement in the project, both a formal structure defined by the Local Self-Government Code - the Mayor's Advisory Council, and an informal tool from a legislative point of view - universal electronic voting of municipal residents, which is provided by the VOILS internet platform, are used. (2) The funds allocated within the project are not tied to internal administrative units of the municipality, the work in settlements and districts, as well as the number of residents in a particular settlement. (3) in theory, residents can submit project proposals on various topics; (4) The results regarding the selected project proposals reflect a clearly expressed will of the entire municipal entity through voting, rather than the interests of the population of any particular settlement or district, or supporters of a particular topic. (5) Internet platform VOLIS ensures the maximum ease of implementation of the project and population and unlimited access to information.

*A weakness of the model is the following: (*1) in order to ensure greater citizen engagement and effective communication in the project, formal and informal forms of citizen involvement such as general settlement assemblies, local action groups (LAG), community-based organizations (CBO), and condominium associations are not used; (2) low involvement of civil society in the processes; (3) The model does not take into account additional procedures for monitoring the implementation of the works planned through participatory budgeting process by the author of the project proposal (group members); (4) only citizens registered in the municipality can participate in project proposals and voting within the framework of the model. Direct participation in participatory budgeting procedures is not allowed for residents of other countries or municipalities; (5) The model relies entirely on the internet platform VOLIS, which requires access to the internet in municipal areas and familiarity with information technology from citizens. Furthermore, despite high mobile internet usage in Georgia, the system is not adapted for use on smartphones and tablets, which reduces the participation of residents in the participatory budgeting process; (6) The electronic signature system attached to the electronic identity card of Georgian citizens is currently not being used for reliable and secure voting using the VOLIS internet platform. The use of the latter is associated with significant difficulties, as it has not yet gained wide acceptance, and there is no tradition of its use among the population. Additionally, the use of electronic signatures requires additional investments in setting up technical support (card readers).

The main challenge of the model is the following: (1) proper informing of the population about the initiated projects; (2) low trust and indifferent attitude of the population; (3) implementation of selected project proposals of inadequate quality; (4) effective reflection of the results of project implementation.

If we evaluate the participatory budgeting project of the municipality, according to the spectrum of public participation it corresponds to the "consulting" level, and according to Arnstein's scale of citizens' participation, it corresponds to the "heart winning" level.

3. Conclusion

Based on the conducted research, it is possible to draw conclusions and recommendations on how the participatory budgeting models introduced in Georgia can be developed:

(1) Various vulnerable groups should be actively involved in the budget process, and it is particularly important to ensure the participation of young people by defining thematic priorities and developing relevant project proposals.

(2) It is extremely important to conduct an information and awareness-raising campaign before making a decision, where the population is provided with information about the basic principles of

budgeting, the socio-economic situation in the municipality, and thematic priorities are developed along with project proposals.

(3) High involvement of civil society and giving it a controlling function is often perceived as a risk of politicizing processes. However, this is the only way to conduct effective and fruitful dialogue in society, and direct involvement of the population, in turn, will contribute to slowing down confrontations in society.

(4) In order to increase the legitimacy of project proposals, acceptable forms of direct public participation in voting should be selected: this can either be done using electronic systems or through the traditional voting process. However, when using the latter, it is important to ensure maximum openness of polling stations in settlements, so that the population can participate in the process.

(5) The lack of an accountability process cannot ensure an increase in public trust in participatory budgeting, as they may not know what the outcome was. It is even more important to engage project proposal authors in evaluating implemented projects.

(6) Finally, it is desirable to include a mechanism for the involvement of donors in the implementation of the project budget, including financial contributions to project activities and the revitalization of community engagement in planned activities.

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I.3. METHODICAL AND ORGANIZATIONAL BASICS FOR THE IMPLEMENTATION OF MUNICIPAL PARTICIPATION BUDGETS IN GEORGIA

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Abstract. Based on the latest literature and factual materials, the article consistently explores an important issue of financial theory and economic practice, namely the methodological and organizational foundations for the implementation of participatory budgeting in the municipalities of Georgia.

The article discusses the questions about what characteristics and requirements should be taken into account when choosing a model of municipal participatory budgeting, who are the subjects, their rights and obligations, procedures that need to be developed, as well as the principles of work on which the process of choosing a model of participatory budgeting should be based.

Keywords: participatory budgeting, city-type municipality, subsidized municipal unit, Deming cycle, urban development, civil society, project proposal.

1. Introduction

Since the 1990s, the formulation "participatory budgeting model" or "participatory budgeting process" has increasingly appeared in scientific discourse, which was more closely associated with the activities of local government bodies, although later it was associated with other spheres, such as educational and/or social service organizations. As a result, we have the reality that various models of participatory budgeting are being actively implemented in an increasing number of cities, municipalities, and organizations around the world, more and more people are involved in the processes, and both the population and the state benefit more.

The participatory budget process is one model of participatory democracy in which the population decides what to allocate municipal and state budget funds and then checks the effectiveness of the use of the allocated resources.

This approach to the state budgeting process allows citizens to identify, discuss, and prioritize projects to be funded by public spending and empowers them effectively to make real decisions about how money is spent.

The local specifics of a particular municipality, the combination of goals and objectives declared by its executive and representative authorities, provide the diversity that currently characterizes the models of participatory budgeting. As a result of their systematization, a typology of participatory budgeting was developed in 2012, through which all the existing models were described and the following six models of participatory budgeting were identified: Participatory Democracy Model; Proximity Democracy Model; Participatory Modernization Model; Multi-Stakeholder Participation Model; Neo-Corporatism Model; Community Development Model.

Out of 6 practical models of participatory budgeting, the most widespread in the world are Participatory Democracy Model, Proximity Democracy Model, and Community Development Model, which is due to a greater focus on social justice; with a certain uniformity of legislation defining the powers of local government; extensive use of formal and informal instruments of direct democracy in the processes.

The practice also shows that the success or failure of participatory budgeting is not necessarily dependent on the magnitude of municipal budgets. Its implementation may be successful in very poor cities/settlements where public resources are severely limited, as well as in very wealthy municipalities.

The global trend of implementing participatory budgeting could not pass by Georgia unnoticed. Therefore, based on international practice and the experience of Georgia, it is necessary to discuss the main aspects of the implementation of the participatory budgeting model in order to better adapt to the characteristics of a particular municipality in our country.

2. Research results and discussion

2.1.Factors affecting the effectiveness of the implementation of the participatory budgeting model. According to the study, when implementing a particular model of participatory budgeting, it is necessary to take into account several main factors that have the greatest impact on the effectiveness of the model implementation, based on the realities of Georgia. These factors include (1) the urban structure of the municipality; (2) the size of the municipality's budget; (3) the development of civil society[10].

The urban structure of a municipality. Based on the territorial arrangement system of Georgia, there are a total of 76 municipalities[11]. Of these, 71 are self-governing communities and five are self-governing cities. Accordingly, three types of municipalities are distinguished:

1. An urban municipality[12]. When implementing participatory budgeting in city-type municipalities (self-governing

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[10] Each factor and its combination determine what problems we may encounter when implementing participatory budgeting and how effective the process itself will be.

[11] The presented number of municipalities does not include the Autonomous Republic of Abkhazia and the 4 occupied municipalities in the Shida Kartli area: Akhalgori, Tighvi, Eredvi, and Kurti municipalities.

[12] Municipalities of this type are self-governing cities: Tbilisi, Rustavi, Kutaisi, Poti, and Batumi.

cities), the main challenges of the model[13] are the high concentration of the population in a small territory; less self-organization of the population, and a low level of communication in urban areas, neighborhoods, and within the neighborhood; a nihilistic attitude to the processes taking place in the municipality; a low level of awareness about the processes taking place in the municipality; a high level of politicization of society; A large number of citizens live in the township who are not registered voters in the municipality, which raises the question of allowing these citizens to participate in the municipal budget process; The need to implement large and costly infrastructure projects [1].

When implementing participatory budgeting in urban-type municipalities (self-governing cities), *strengths* include the following circumstances: a relatively high desire of citizens for democratic governance; a sufficiently developed civil society, which is an important factor in solving problems at the local level; a large volume and less deficient budget of the municipality; municipality management is more inclined to introduce new initiatives and innovative methods in management; the ability to use developed.

These advantages can be effectively used with the use of e-Government tools and the involvement of active citizens and interest groups to implement a specific model of participatory budgeting.

2. A Rural municipality.[14] When implementing participatory budgeting in rural municipalities (self-governing communities), the main challenges of the model are the conservatism of citizens and increased resistance to innovation; simultaneously with a nihilistic attitude to the processes taking place and a high level of politicization;

[4] Each challenge and its combination creates logistical problems, making it difficult to reach target groups and involve the masses in the decision-making process.

[5] Municipalities of this type are represented by small self-governing communities, such as Ambrolauri, Tianeti, Kazbegi, Ninotsminda, Chkhorotsku, and others.

with a low level of the municipality's own budget revenue and strong dependence on targeted and equalizing transfers from the central budget; with a complex socio-economic background; The rural township is home to a large number of voters who have moved to other regions of Georgia, as well as temporarily or permanently moved to live abroad.

The strengths of participatory budgeting in rural settlements are the following: a sufficiently high level of self-organization of citizens within districts and communities; a high level of communication-based on family ties; a high level of involvement of residents in common cause based on archetypes of behavior historically developed in the community; the possibility of achieving visible results with small investments; less need for large and costly infrastructure projects.

These advantages can be leveraged by using direct communication tools and engaging formalized and informal community groups to implement a particular model of participatory budgeting.

3. *Mixed municipality*[15]. A mixed-type municipality has both the problems and advantages typical of both urban and rural municipalities. In such municipalities, as a rule, the center of the municipality (city or town) has the characteristics of an urban-type municipality, and the rest of the settlements correspond to the rural type. Accordingly, the implementation of participatory budgeting should take into account these circumstances and choose an appropriate model.

The size of a municipality's budget. Depending on the size of the budget revenues in Georgia, the following types of municipalities can be distinguished:

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[6] Such municipalities are represented by self-governing communities such as Telavi, Zugdidi, Marneuli, Khashuri, Gori, Samtredia, and others.

1. Subsidized municipalities.[16] A number of municipalities in Georgia suffer from a lack of budget revenues when exercising their powers and are subsidized municipalities. On the one hand, the municipality's own revenues are low due to the absence of large economic agents on the territory of the municipality and the tax policy determined by Georgian legislation. At the same time, most of their budget is formed at the expense of financial resources coming from the state budget at the expense of equalizing and targeted transfers. Because of all this, the availability of financial resources necessary for the participatory budgeting process is very low. On the other hand, it is precisely this circumstance that should push the leadership of the municipality to the result-oriented and effective planning of activities and finances. A participatory budgeting process can help a municipality's leadership to better prioritize and focus its scarce resources on the most pressing issues. In the case of subsidized municipalities, it is possible to use the model of participatory budgeting, which is better adapted to address thematic (for example social, youth, gender, and vulnerable groups) issues [2].

2. Less subsidized and/or under-subsidized municipalities[17]. A number of municipalities in Georgia do not suffer from a shortage of budget revenues. As a rule, these are municipalities with large urban settlements of urban type. Revenues derived from taxes and local levies of economic entities in the municipality (including large ones) allow for the efficient provision of public services to the population, applying for funding for infrastructure, social, cultural, and other types of projects. As a result, in a participatory budgeting process, a municipality's leadership can safely allocate significant financial resources and promote the involvement of the population in the

[7] Municipalities of this type are represented by self-governing communities such as Tsalenjikha, Chkhorotsku, Ninotsminda, and others.

[8] Municipalities of this type are represented by: self-governing cities - Tbilisi, Poti, Batumi; Self-governing communities - Marneuli, Bolnisi, Kazbegi and others.

redistribution process. On the other hand, access to resources may encourage municipal leaders to prioritize their own allocation without involving the population and to direct resources to projects that the population not only does not support but even opposes.

Civil Society Development. According to the level of development of civil society (non-governmental organizations, business associations, trade unions, organized groups of citizens, etc.), the following types of municipalities can be distinguished in Georgia***:***

1. Municipalities with highly developed civil society[18]. Civil society is very well developed in some municipalities of Georgia. Civil society organizations have an influence on the decision-making process at the municipal level, actively cooperate both with the population and local self-government bodies, and have networks and external relations at the local level; They enjoy high authority and trust of the population. Also, civil society has the desire and often the resources to actively support the participatory budgeting process, to help the municipality with information and educational campaigns. On the other hand, there is a danger that in the case of a strong civil society, a number of active organizations will try to gain influence over the participatory budgeting process. To reduce this risk, a form of participatory budgeting should be chosen that ensures, on the one hand, high involvement of civil society and, on the other hand, covers the associated risks [3].

2. Municipalities with less developed civil society[19]. In those municipalities of Georgia, where the level of development of civil society is low, the municipality leadership actually loses an active partner in the process of participatory budgeting. Therefore, it will be forced to shift the entire burden of logistics and information support within the process onto its own shoulders. The management of the

[18] Municipalities of this type are self-governing cities such as Tbilisi, Rustavi, Kutaisi, Poti, and Batumi.

[10] Municipalities of this type are represented by self-governing communities such as Tsalenjikha, Chkhorotsku, Ninotsminda, and others.

municipality is also deprived of an external controller who will point out problems that arise in the process and jointly try to fix them. Therefore, a form of participatory budgeting should be chosen, where a low or medium level of involvement of civil society is determined, on the other hand, in this situation, precisely within the framework of the selected model, the process of participatory budgeting can contribute to the formation of a strong civil society in the municipality, to make thematic groups (vulnerable groups, disabled people, the elderly and others) to form at the formal level and to gain knowledge, experience, and authority within the process.

2.2. Principles and requirements of participatory budgeting. Any model of participatory budgeting should adhere to the following operational principles: (1) The model's design and implementation procedures should be based on good governance principles, including transparency and accountability; (2) All processes of the model should follow the PDCA cycle (Plan, Do, Check, Act) also known as the Deming cycle, which ensures effectiveness and compliance with relevant legislation; (3) Customized procedures should consider the specific context of a particular municipality and its geographical characteristics, including urban structure, budget size, and population participation; (4) During the planning stage, the active actors and stakeholders of the model should be identified and their rights and responsibilities defined. It is essential that each process within the model has its responsible executor/accountable entity. Additionally, an independent organization or agency responsible for process management, monitoring, and evaluation should be established; (5) The model should fully comply with the laws of Georgia and the established forms of citizen participation. If existing forms are considered insufficiently effective in engaging the population in processes, the legislation of Georgia allows for alternative forms that better meet the requirements of citizen participation.

2.3. Models of participatory budgeting by types of participation. Based on the results of the assessment and typology of existing participatory budgets at the international and Georgian levels, we can identify three types of participatory budgeting models:

1. Procedure of the community-type participatory budgeting model. The procedures of this model are oriented towards the active involvement of small groups within the municipality, for which the territory of the municipality is divided into smaller operational areas (zones). These areas may correspond to existing administrative divisions or historically defined thematic criteria. It is also important to consider the inclusion of diverse groups (socially vulnerable, youth, newcomers, women, elderly, PWDs, and others) in the model. The participation of a larger number of small groups in decision-making and the implementation process is crucial for a more effective and diversified allocation of funds on various projects.

The participatory budgeting model of the territorial type is characterized by the following main features: (a) The model is more focused on local, specific residential areas and the resolution of their problems, with a greater emphasis on infrastructure development/renewal projects. (b) It involves the implementation, discussion, and coordination of interzonal and subzonal project initiatives. (c) The selection of such project initiatives, which will mainly address the existing problems of the entire municipality, is more challenging.

Some of the weaknesses of the model are the high logistical and organizational effort and the availability of human resources, but these issues can be corrected by optimizing the size of the area and planned work, as well as additional support from various actors (donors, non-governmental and humanitarian organizations, local businesses in social responsibility) through the involvement of human, material and financial resources.

The drawbacks of the model can be overcome by excluding certain types of infrastructure projects (e.g., road construction, outdoor lighting, sewage, water supply, etc.) from the line item of the participatory budgeting and transferring them to other budget items. Thus, the achievement is innovative, socio-cultural, and more focused on the needs of vulnerable groups [4].

2. Thematic type participatory budgeting model procedures. Within the framework of the thematic model, all project proposals must comply with a pre-defined topic (social assistance and allowances, support of youth and elderly population, development of school readiness and non-formal education system, development of certain skills of adults, etc.) [5].

The thematic model of participatory budgeting is characterized by the following *main features*: (a) The model is primarily focused on addressing issues at the municipal level, through which services are provided to the entire population of the municipality. Projects can be implemented within a specific locality, but in such cases, the entire municipality should benefit, not just the residents of that particular area; (b) In some cases, this model, as implemented in different countries, excludes the implementation of infrastructure projects that provide benefits exclusively to a single territorial unit.

One of the disadvantages of this model is that the population is less ready to actively participate in the process of solving problems at the municipal level. Hence the importance of the awareness campaign. Only a well-organized and active campaign ensures the high involvement of the population.

Civil society is a very important actor in this model. Its role is all the more important the larger the budget. The involvement of active representatives of civil society in the development of model procedures and control processes will only have a positive impact on the effectiveness of the model.

3. Procedures of the model of participatory budgeting of the mixed type. The mixed participatory budgeting model is a compilation of the two previous models: the model allows for discussion and voting on both community proposals and thematic projects. Therefore, from the very beginning, it should be determined which part of the PB budget will be allocated to the needs of the community and which part to thematic project proposals.

The mixed-type model of participatory budgeting is characterized by the following *main features*: (a) the model is focused both on solving local problems of one particular settlement or community, as well as on the development of projects to be implemented within the municipality as a whole; (b) the main actor of the model should be the active representatives of the civil society, from which the implementing, regulatory and controlling formal bodies will be formed; (c) The structural units of the municipality are involved in the process as supporting actors who will carry out the expertise and logistical support of the project proposal.

As practice shows, the involvement of the population within the mixed model is high, as a socially active person can participate in the process of budgeting in the role most convenient for him (controlling, organizational, or group of development of project proposals). As a result, the readiness of the population to participate in the processes and trust in the actual results is high under the competent management of the processes.

Nevertheless, in the above model, the influence of entities formed from the population on the final decision is small, because under current Georgian legislation, the mayor/governor of the municipality is responsible for developing the budget, and the developed budget is approved by the city council, so they actually have leverage over the final decision [6].

2.4. The procedure for selecting a participatory budgeting model. As we have already mentioned above, when choosing a model of participatory budgeting, it is necessary to take into account the socio-cultural and geographical features of a particular municipality. As part of this process, several basic issues should be discussed, and, based on the results, a model adapted to the municipality should be selected:

1. The amount of funding for the participatory budgeting process by the municipality in the next budget year. The amount of available funds determines the amount of funds needed to implement project proposals in the next budget year, as well as the amount of work needed to develop information and education activities and the project proposal under development.

As a result of the analysis, the approximate answers reflecting the amount of financing of the participatory budgeting process are "small" and "large", after which the desired model is determined by additional questions. The given answers, in turn, determine the subsequent questions: if the answer is "low" you go to question №2, and if "high" - to question №3. Ultimately, it is important that all three questions are answered.

Georgian and international practice shows that in those models of participatory budgeting, where small financial resources are allocated, the intended goal - maximum involvement of the population - has not been achieved. At the same time, those models where large amounts of financial resources are available require more attention and external control.

Therefore, it is important to determine from the beginning what financial resources will be available when choosing a model. For the participative budgeting process, the funds needed to finance the outreach campaign and other logistical costs should be allocated. At the same time, it is necessary to carry out at least three budgeting cycles in order to be able to evaluate both the model itself and the effectiveness of the works to be implemented.

2. The type of urban development of the municipality. As we mentioned above, the type of urban development of the municipality reflects the logistical problems that arise in the implementation of the model, the difficulties of delivering information to the target groups, and the involvement of the masses in the decision-making process.

As a result of the analysis, the probable answers reflecting the urban development of the municipality are "rural type", "urban type" and "mixed type". As Georgian and international practice shows, the type of urban development has a great influence on the participatory budget model. What can be easily achieved in a city-type settlement is associated with very large logistical, human, and financial costs in rural municipalities with difficult terrain (and not only), which directly limits the effectiveness of the model: (a) In most cases, in rural and mixed-type municipalities, depending on their specificity, it will be more appropriate to introduce a model of participatory budgeting that ensures high involvement of the population of historically existing communities and small settlements. This is due to the close ties of relatives and acquaintances within the community, and the experience accumulated within the framework of community mobilization projects historically formed in the community and implemented by the efforts of various municipal or donor organizations. It is also important that the standard forms of ensuring citizens' participation defined by the Local Self-Government Code (general meeting of the settlement, meetings with the mayor/governor, and petition) are better adapted to the specifics of small settlements and communities and are actively used by the municipality's leadership; (b) In city-type settlements there are less close social ties between the population, that is why it is important to involve the civil society as much as possible in the process.

3. The level of development of civil society. As mentioned above, an analysis of the level of development of civil society is important for choosing a model suitable for high-budget funding and/or urban-type settlements. In these models, civil society is included both as a subject of monitoring of the process and as a subject of outreach campaigns. Moreover, active representatives of civil society have skills in developing project proposals and experience in implementing such types of work [7].

As a result of the analysis, the probable answers reflecting the level of civil society development are "high" and "low". As Georgian and international practice shows, in the model of participatory budgeting, where civil society is developed, the involvement of citizens is high, the implementation of projects is effective, and the spending of public funds is efficient. Such models represent a mixed type of participatory budgeting, where project proposals correspond to both thematic and community-type processes, which ensure low risks.

At the same time, regardless of the size of the municipality's budget and/or the municipality's urban development, if the level of civil society development is low, in order to minimize logistical risks, it is preferable to select only participatory budgeting thematic models. Within such a model, the processes are easier to manage, and the methods of direct democracy can be used for decision-making (for example, municipal voting, including the use of electronic systems).

At the same time, it should be taken into account that what can be easily achieved in an urban settlement is associated with very large logistical, human, and financial costs in the case of rural and mixed-type municipalities, which directly limits the effectiveness of the model.

2.5. Work procedures of the participatory budgeting model. Any model of participatory budgeting consists of various working procedures, which must comply with a set of methods and approaches that characterize this particular model. At the same time, it is necessary to comply with the principles of good governance and to ensure their effectiveness and compliance with the law as much as possible.

Regardless of which model is chosen, the sequence of work must be very clearly established and detailed in the work procedures, and the actors responsible for it must be clearly identified. At a minimum, any model should have the following work procedures: (1) population group meetings; (2) outreach campaign; (3) development and submission of project proposals; (4) voting and final decision; (5)

evaluation of the participatory budgeting process and work procedures.

1. Group meetings of the population. One of the important working procedures of participatory budgeting is group meetings of the population. The purpose of these meetings is to identify problems and priorities at the local and municipal levels through the involvement of the population and to identify ways to solve them.

Depending on the model, group meetings of the population can be held: (a) at the level of a community, village, township, or city with a small area or a historically formed district; (b) at the village, district, and/or city level; (c) at the municipality level; (d) in specific vulnerable population groups.

All decisions at group meetings must be made by voting and/or other methods of direct democracy. The type of voting and how the results are determined must be determined in advance and set forth in the voting procedures for group meetings with the public. At a minimum, the ballot should identify (a) budget priorities for the next year; (b) problems at the local and municipal level; (c) possible solutions to the problems identified; and (d) representatives of the population who will be involved in the work of the entities created by election.

Conducting and facilitating group meetings should be provided by the subject introducing participatory budgeting. Besides, the active participation of public mobilizers, representatives of the mayor's office, and deputies of the city council in this activity is possible. Active participation of non-governmental organizations is also possible. But it must not reduce the level of involvement and influence of citizens on decision-making.

Maximum attention should be paid to the gathering of citizens in places for which: (a) citizens' meetings should be held in places easily accessible to the public so that they do not have to travel long distances; (b) school buildings should be used as much as possible for meetings with young people; (c) transportation services will be provided to vulnerable groups to attend both thematic and general meetings, if necessary [8].

2. Informational and educational campaign. As part of the participatory budgeting process, it is mandatory to conduct an outreach campaign as intensively and extensively as possible. The purpose of the campaign is to raise public awareness of the rules and principles of participatory budgeting, to provide information about the development of the state budget, and multifaceted, reliable, and up-to-date information about the budgeting process.

The outreach campaign should be conducted throughout the entire budget period. It is important from the very beginning to determine both the work plan and the organization responsible for implementation and allocate the appropriate amount of financial and human resources.

As part of the outreach campaign, the following should be planned:

- Providing information on participatory budgeting (including up-to-date information on objectives, principles, working procedures, and ongoing processes). It is also important that information about submitted project proposals be provided in as broad and detailed a manner as possible;
- *Supply of reference and outreach materials.* The materials should reflect the information and results of the implementation of various projects planned within the budget of the previous year, as well as financing from the municipal and central budgets;
- *Providing information about public and municipal budgeting rules.* Provide reference and informational materials that reflect the rules for developing public and municipal budgets and municipal projects;
- *Providing reference and information materials*. Materials should reflect the information and results of various projects planned under the previous year's budget, as well as those financed from the municipal and republican budgets;

What the working procedures of the outreach campaign will be depends entirely on the model chosen. For example: (a) If the model is based only on the extensive use of the Internet system and less attention is paid to the gathering of population groups, it is important that all available communication and media tools are provided to disseminate detailed information about the current participatory budgeting processes and the project proposals submitted; (b) If proposal development and final decision-making is the mandate of a participatory budgeting entity, it is important that their members are trained in the rules and requirements of municipal budgeting.[20]

3. Development and submission of project proposals. Working procedures for the development and submission of project proposals must reflect the approaches and characteristics initially incorporated into the chosen model of participatory budgeting: (a) who is the subject of submission of project proposals - only citizens or also represented by groups of citizens are acceptable; (b) submission of proposals for documentation is carried out through the Internet system or in the documentary form. The latter issues, on the one hand, are purely technical, but they need to be well understood when developing working procedures.

It is important to use all possible ways to submit project proposals and to be as close to the voters as possible. For example: additionally, project proposals can be submitted in schools located in localities and in the service centers of the Ministry of Justice, for which, on the one hand, procedures must be developed from the beginning and, on the other hand, appropriate funds and human resources must be allocated.

4. Voting and making final decisions on project proposals. The main requirement of participatory budgeting is the determination

[20] At any stage of the campaign, it is possible and desirable to involve representatives of non-governmental organizations and donor organizations.

of project proposals for funding by citizens through voting, which can be implemented using the following model:

- *Directly by citizens using traditional voting procedures.* This model requires large logistical, human, and financial costs, although its level of legitimacy is the highest. In addition, it is possible to achieve the maximum involvement of vulnerable groups by arranging a special polling station for them;
- *Directly by citizens using electronic voting procedures.* This model is similar to the previous one and relies on information and communication technologies, for which websites and phone applications are used. The drawback of this model is the low level of skills in using information and communication technologies for certain groups of the population and technical problems with access to the Internet in some municipalities;
- *Participatory budgeting by representative bodies composed of citizens and, in some cases, elected using voting procedures.* Depending on who has the right and duty to make the final decision on project proposals within the selected model of participatory budgeting, an appropriate procedure should be developed. The content of the procedure also depends on the method of voting - electronic or traditional.

The decision itself can be made by the following type of voting: (1) single-choice voting, when a citizen chooses only one project proposal that is most acceptable to him; (2) multiple-choice voting, when a citizen chooses several project proposals that are most acceptable to him; (3) multiple-choice voting, when a citizen chooses several project proposals in the ballot, prioritizing them in the ballot[21].

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[21] In order to make the budgeting process even more effective, it is possible to use several voting rules, which will be adapted to each work procedure and the rights and duties of the subject.

How many projects will be included in the municipality's budget for next year depends on the amount of funds allocated and other parameters and must be determined in advance.

5. Evaluation of the participatory budgeting process and working procedures. Evaluation of the participatory budgeting process and working procedures should be carried out to improve the model of participatory budgeting, increase efficiency, and gain and strengthen public confidence. Evaluation procedures are carried out by the supervisory body of participatory budgeting policies and processes. The evaluation should look at how thoroughly the procedures were followed, whether there were any systemic problems and/or complaints from actors involved in the processes, how existing problems were resolved, and how effectively the allocated funds were spent. Particular attention should be paid to the effectiveness of the outreach campaign and the involvement of vulnerable groups in the processes [9].

The content of each procedure depends entirely on the specifics of a particular municipality, but depending on the chosen model, if necessary, it is possible to add other procedures, which will further increase the effectiveness of the planned work.

3. Conclusions

When implementing a specific model of participatory budgeting, it is necessary to take into account several main factors, which most affect the effectiveness of the model's implementation, based on the reality of Georgia. These factors include (a) the urban arrangement of the municipality; (b) the size of the municipality's budget; (c) the development of civil society.

Any participatory budgeting model should be based on the following operating principles: (a) good governance principles should be respected in the model design and implementation procedures; (b) all model procedures should be based on the so-called PDCA cycle (Deming cycle). This cycle ensures the effectiveness of the procedural management system and compliance with applicable legislation; (c) the established procedures should take into account the context and geographical characteristics of the particular municipality; (d) the actors of the model should be clearly identified and their authority clearly defined at the planning stage; (e) the forms of citizen involvement defined by Georgian legislation and additionally should be used to the maximum extent possible.

Taking into account the international practice and experience in the field of participatory budgeting in Georgia, there are three types of participatory budgeting models: the model of participatory budgeting of the community type; the model of participatory budgeting of the thematic type; the model of participatory budgeting of the mixed type.

When selecting a model of participatory budgeting, the socio-cultural and geographical features of a particular municipality should be taken into account. As part of this process, several basic issues should be discussed, and based on the results choose a model adapted to the municipality: the amount of funding of the participatory budgeting process by the municipality in the next budget year; the type of urban development of the municipality; the level of development of civil society.

Any participatory budgeting model should have at least the following operating procedures: (a) group public meetings; (b) an outreach campaign; (c) development and submission of project proposals; (d) voting and final decision; (e) evaluation of the participatory budgeting process and operating procedures.

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I.4. METHODOLOGICAL FOUNDATIONS AND CHALLENGES OF GENDER BUDGETING IN GEORGIA

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Abstract. On the basis of the latest literary sources and rich factual information, the present scientific article refers to the consistent discussion of such topical issues of the financial theory and practice as methodical foundations and challenges of gender budgeting in Georgia.

Based on the current legislative guidelines in Georgia, considering the gender aspect is discussed as one of the components of result-oriented budgeting, it is considered one of the most effective mechanism of gender budgeting for the budgeting system of Georgia as it ensures the maximum integration of gender equality policy goals in the decision-making process at all levels of the budget system and at all stages of the process.

Keywords: gender Budgeting, gender significance index, program budget, gender perspective, gender mainstreaming, gender equality**.**

1. Introduction

Gender budgeting means the involvement of the aspects of gender equality in the budgeting process of the country and distribution of budgetary resources that will facilitate the integration of gender mainstreaming[22] in all areas or sectors. According to the

[22] Gender perspectives determine the impact of gender on people's abilities, their social roles and relationships.

complexity of the gender budgeting, there is no universal approach to it and the used approach and institutional framework are based on the specific features, as a rule [1].

More detailed, due to the definition of the Council of Europe "gender budgeting includes considering of gender mainstreaming in the process of budgeting. It covers the assessment of the budget in terms of gender, integration of gender perspectives at all the levels of budgeting process and distributing of incomes and expenses for facilitating of gender equality" [2].

Similarly, the Organization for Economic Co-operation and Development (OECD) explains that "gender budgeting involves integrating a clear gender vision into the overall context of the budget process through appropriate procedures and analytical approaches to support gender equality policies" [3].

It should be noted that gender budgeting does not mean the creation of different budgets for women and men or the division of beneficiaries in the gender context, but it is the formation of a gender-oriented budget process, which implies compliance of budget allocations with gender equality policies in the country [4].

Based on the classification proposed by the Organization for Economic Cooperation and Development (OECD, the following approaches to gender budgeting can be considered [3]:

► *At the stage of budget formation:* Preliminary assessment of the gender impact of individual measures / programs, unified assessment of the budget impact on gender equality in the baseline scenario, qualitative assessment of gender needs.
► *In a unified budgeting framework:* Considering gender aspects when planning results as one of the components of result-oriented budgeting; specific requirements for funding gender-important programs in resource allocation; separation of beneficiaries of individual measures in terms of gender.
► *At the stage of budget fulfillment/control:* Ex-post assessment of the gender impact of individual measures, gender audit of the

budget, consideration of the gender aspect as one of the directions of analysis in the unified analysis of the state budget fulfillment.

In terms of institutional arrangement, the international experience of gender budgeting distinguishes between two possibilities for the formation of agencies responsible for gender budgeting: inside-government and outside-government [5]:

- On the one hand, the unequivocal advantage of having government agencies responsible for gender budgeting (as is the case in Australia, Belgium, Austria and some other EU countries) is unrestricted access to data, as these agencies have a direct influence on budget decisions and resource allocation. Both generating and collecting complete factual data required for automated and non-automated gender analysis[23]. However, such an arrangement is often characterized by high-quality bureaucracy and challenges to transparency.
- On the other hand, the main disadvantage of the existence of agencies responsible for gender budgeting outside the government is the access to data and information that is essential for the analysis of fiscal policy in the gender context, as it is in some countries in the United Kingdom and in each countries of the European Union. However, this institutional arrangement clearly stimulates the involvement and discussion of civil society in this area, which is an important prerequisite for identifying systemic challenges to the government's economic and social policies.

Finally, in addition to the fact that gender budgeting is one of the most important components of an effective budget policy, its

[23] Information collection is the gathering of information with existing tools. Information generation is the creation of appropriate tools for data collection. For example, student achievement rates are automatically accumulated. And, the analysis of these indicators of student achievement in the gender context, which will create secondary data, is considered as information generation. This clearly distinguishes between primary data, which is often automatically collected, and secondary data, which is generated based on primary data.

macroeconomic significance is also essential. This, as well as the country's budget policy as a whole, is directly related to the impact of gender budgeting on the level of productivity of the economy, growth and equitable /fair distribution of resources. Besides this, gender budgeting is one of the important preconditions for evaluating the efficiency of budget spending and it significantly contributes to the creation or refinement of relevant statistical databases [6].

2. Research results and discussion

The specific methodology of analysis in the field of gender budgeting is not provided by the budget framework in Georgia. However, according to the existing legislative guidelines, regarding the gender aspect is considered as one of the components of result-oriented budgeting. In particular, the order N385 of July 8, 2011 of the Minister of Finance "On approving the methodology for drawing up the program budget" states: “According to the specifics of the program, depending on the need, in relation to gender-sensitive programs, it is important to single out the indicator of evaluation in the gender aspect of the program as one of the program evaluation indicators”. Accordingly, the methodology provides a basis for using the presented approach of gender budgeting in the budget management process of Georgia [7].

Consideration of gender aspects in the state budget includes: defining the expected results / result evaluation indicators of the state budget programs in this direction based on the unified policy of gender equality, assessing the quality of the gender significance of the state budget programs, it includes assessing the baseline indicators and targets for high-gender gender-specific programs, and reporting on the results and indicators achieved to promote gender equality for the above-mentioned state budget implementation phase.

At present, the effective implementation of this process is associated with challenges such as: correct definition of the basic concept, lack of criteria for determining the quality of the program gender, the selection of a mandatory level of program classification.

Taking into account the above-mentioned challenges, the first stage of our analysis aims to present a unified framework for assessing the level of gender significance of Georgian state budget programs in the form of a gender significance index proposed by the Budget Office of the Parliament[24].

The second phase of the analysis aims to analyze the existing objectives of the programs and the evaluation indicators of the results / outcomes of the programs for high gender importance programs and to present the recommended indicators that can be used by the spending agencies to evaluate the gender achievement of the specific program.

According to the secondary data analysis, the Ministry of Finance approved amendments to the Program-Budget Methodology Regulation [8], which states that “Due to the specifics of the program, concerning gender-sensitive programs, it is important to include an evaluation indicator in the gender aspect of the program as one of the indicators for evaluating the program”[25].

According to the Resolution №125 of the Government of Georgia (February 28, 2019, within the priorities of the Medium Term Action Plan for 2020-2023, while describing measures of planning factors to be implemented by state budget spending agencies, it is

[24] The significant index of gender of programs proposed by the Parliamentary Budget Office is based on a capability approach that considers five categories of gender equality: equal opportunity in the formation of public and private life, equal opportunity when forming a political and social system, an equal opportunity in living and working in a protected and clean environment, equal opportunity for in terms of physical inviolability. The index, based on an assessment of the impact of the capabilities of each program in the state budget on the above categories, provides an opportunity to identify programs of high and substantial importance for ensuring gender equality.

[25] It should also be noted that the methodology of the program budget determines the limit of the number of indicators for each expected result (no more than 5 indicators).

desirable to consider the gender assessment indicators of all program or sub-program [9].

Based on these records, it is clear that under the current legal framework, there is no obligation to consider gender aspects at all stages of the budget process, which therefore does not consider the stages as a whole and requires gender aspects to be considered (if it is necessary) only when developing indicators. Based on these records, it is clear that under the current legal framework, there is no obligation to take into account gender aspects at all stages of the budget process, which therefore does not consider the stages as a whole and requires gender aspects (if it is necessary) only when developing indicators. While the indicator is a measure of results evaluation, the result is derived from the goal, and the goal, in turn, should be an integral part of the strategic policy.

According to the program budgeting methodology:

- ✓ "Performance appraisal indicator is defined as the achievement of the result expressed in measurable (quantitative or / qualitative) indicators, determines the effectiveness of the implementation of the program / sub-program / event".
- ✓ "Expected outcome is the result of programs, it is global in content. This is the situation that must arise as a result of the implementation of a pre-planned and analyzed policy".

It is also clear from these definitions that the process should start mainly with policy planning and analysis, gender mainstreaming should be integrated at each stage of the budget process and not just during the development of the indicator.

It is also important to distinguish two main concepts, the definitions of which are proposed by the European Institute for Gender Equality (Concepts and definitions/European Institute for Gender Equality):

- ➔ *Gender relevance* - the question of whether a particular law, policy or program is relevant / or sutable in terms of gender relations or gender equality.

➔ *Gender-sensitive* - policies and programs that address the differences in the lives of women and men and, at the same time, help eliminate inequalities and redistribute resources accordingly; Consideration of gender measures in policy analysis.

The main issue that arises in the analysis of state budget programs today is how and by what criteria this or that program is considered gender sensitive or what is meant by such general records as “according to the specifics of the programs” and “according to necessity”.

Consequently, this general record in the methodology does not guarantee that the development of relevant gender indicators will be mandatory for gender-important programs. This is necessary in order to better identify the target groups of the programs and to implement the programs in accordance with the relevant gender needs in the state-funded fields such as education, health, social protection, economy, infrastructure and almost all spheres of public life [10].

The second issue that is important for the gender analysis of budget programs is the relevant and appropriate indicators in the programs. The above mentioned methodology states that “the outcome indicator should measure a goal that is realistic and achievable. When developing evaluation indicators, it should be taken into consideration that they should be: specific, measurable, achievable, relevant and timed. In addition, it is stated that “performance evaluation indicators can be quantitative, cost-based, qualitative, effictive and all of them must meet the principle of verifiability”, Also, “increase”, “improvement”, “perfection” are not evaluation indicators selected by the above criteria. Especially since it does not contain a unit of size and it is impossible to be monitored”.

This issue can be regulated by collecting the necessary data in order to achieve the implimentation of realistic measurable indicators. To ensure this, at the initial stage it is possible to plan appropriate measures to create the necessary databases for the development of a system of indicators in the medium term.

Consequently, when talking about gender indicators, it is important to produce gender statistics, as gender statistics is an important tool for ensuring gender equality. Gender statistics are the most reliable source for making evidence-based decisions. Statistics are evidence, information that allows policymakers to see and recognize the real picture of the difference between women and men and its impacts in all areas and pushes them to make appropriate, gender-sensitive decisions and also to make legislation more gender-sensitive. As for a gender indicator is a statistical measure that shows a change in a particular context over a period of time.

Gender indicators can be *quantitative* (based on the statistics processed due to gender and related to the number or percentage of people or organizations of a particular gender involved in a particular activity), as well as *qualitative* (in addition to the information on the number of members of a particular gender, the quality of their involvement and service is also important). Accordingly, this indicator is based on the evaluation of experiences, attitudes, thoughts, feelings due to gender. This is an analysis of gender inequality where quantitative processes cannot be explained [11].

Quantitative and qualitative indicators allow to evaluate the gender results of the relevant project activities during the monitoring and evaluation phase to achieve the goals of gender equality. In addition, gender indicators make it possible to assess changes in relationships between women and men, their status or condition within a specific policy, program or actions..

183 state budget programs were evaluated according to the Gender Index developed by the Budget Office of the Parliament of Georgia [12]. Out of this, based on the calculation of the Gender Importance Index, 9 budget programs were identified as having the highest scores and therefore classified as essentially high on gender equality, while 17 programs were classified as high importance on gender equality.

It is important to note that the document prepared by the Budget Office also included an analysis of the goals, expected outcomes and evaluation indicators of the programs of substantially high and significant importance based on the index. The document also provided as a proposal the indicators for the evaluation of possible final and intermediate results in the gender aspect for the above-mentioned programs according to the budget priorities and information about the basic data needed for the evaluation of these indicators.

In view of all the above, the analysis of all the programs envisaged in the 2020 state budget, which according to the index were considered to be essentially high and high importance programs was carried out. The relevant programs were also compared to 2019 for comparison.

Analysis of the information provided in the budget format of the program reveals that the picture has not changed substantially in relation to the respective programs and in most of them the gender aspects are still not presented according to the program description as well as the purpose, results and evaluation indicators. This confirms the fact that during the development of the program, these programs were not considered and discussed in the context of gender-sensitive programs by the relevant agencies, accordingly, the evaluation indicator in the aspect of gender of the program was not highlited as one of the indicators of the program evaluation.

The analysis showed that out of the programs of high importance, the evaluation indicator in the gender aspect is not presented in any of them, the individual programs include a fragmentary record about gender. The following four programs might be named as examples: Develop and manage state policies to provide legislative and legal support to the country's interests, including criminal justice reform (26 01), development / enhancement of public order and international cooperation (30 01), managing of IDP, labor, health and social protection programs from the occupied territories (27 01), Office of the Public Defender of Georgia (41 01).

As for the programs of high importance according to the Gender Importance Index, it should be noted that in 2020 and 2019 only three programs [crime prevention, probation system development and re-socialization of ex-prisoners (26 06), vocational education (32 03) and the Labor and Employment Reform Program (27 05)] include a gender-based assessment indicator. The Labor and Employment System Reform Program (27 05), in addition to the indicator, also includes gender aspects in the description and purpose, as well as within the expected final outcome.

Also noteworthy are the programs that were not considered as essentially high and high importance programs according to the Gender Office Index of Budget Office, but they include separate gender aspects themselves in both 2020 and 2019. In particular, these programs are: election activities (06 04), social protection of the population (27 02), pension provision of the population (27 02 01), social assistance to target groups (27 02 02), state care, victims of human trafficking provision of protection and assistance (27 02 05), livelihood program (27 06 05), health protection of the population (27 03), public health protection (27 03 02), early detection and screening of diseases (27 03 02 01), maternal and child health (27 03 02 08), retention of IDPs in settlements and improvement of their living conditions (27 06 03), promoting the development of the agricultural sector (31 05 12), dairy modernization and market access program (DiMMA) (IFAD) (31 05 12 03), development of infrastructure of general education institutions (32 07 01).

Finally, unlike in 2020, we find gender aspects in the 2019 state budget in the final outcome evaluation indicators in relation to a program such as: management, control, communication and computer systems (29 04); training of highly qualified personnel for law enforcement agencies, retraining, digitization of archival funds, scientific research activities and citizen services (30 04).

3. Conclusion

The following main conclusions are formed as a result of the research:

1. According to the current legal framework in Georgia, the obligation to take into account gender aspects does not apply to all stages of the budget process, which therefore does not consider the stages of the process as a whole and requires taking into account gender aspects (if it is necessary) only when developing indicators.

2. Gender indicators can be both quantitative and qualitative. .Quantitative and qualitative indicators enable the assessment of gender outcomes of the relevant project activities at the monitoring and evaluation stage and the achievement of gender equality goals. In addition, gender indicators provide an opportunity to assess the relationship between women and men, changes in their status or status within a specific policy, program or action.

3. Out of 183 state budget programs evaluated by the Gender Index developed by the Budget Office of the Parliament of Georgia, based on the calculation of the Gender Index, 9 budget programs were identified as having the highest evaluation and, therefore, are classified as essentially high quality and 17 to ensure a program of high importance.

4. The analysis of all the programs envisaged by the 2020 state budget of Georgia, which were considered to be essentially high and important programs according to the index and the comparison of the respective programs with 2019, showed that the picture has not changed substantially and the programs / sub-programs fragmentaly include records on gender. In most of them, the record is found only in the description and purpose, therefore it is not presented in the result and the result evaluation indicator and in some cases the record is only at the indicator level.

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I.5. GENDER BUDGETING IN THE FIELD OF HEALTH AND SOCIAL PROTECTION OF GEORGIA

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Abstract. Based on the latest literary sources and rich factual material, the scientific article consistently discusses topical issues of financial theory and practice, gender budgeting in the healthcare and social protection of Georgia.

It has been established that health care and social orientation have a high gender significance. At the same time, the study shows that the state budget programs of Georgia do not contain gender sensitivity. Most programs and sub-programmes do not include gender sensitivity; several programs are distinguished by gender sensitivity, there are also some goals set in terms of gender aspects, however they are mostly in the form of statistics and do not adequately reflect gender needs.

It is substantiated that the goals set in the health and social protection programs of the state budget of Georgia and the indicators of intermediate and final results require more specification in accordance with the principles of the program budgeting methodology in general, as well as considering additional gender aspects.

Keywords: gender budgeting, program budgeting, gender sensitivity, infrastructure project, gender gap, gender impact, gender analysis.

1. Introduction

Gender plays an important role in the origin and spread of certain diseases/pathologies and their treatment and well-being. This is due to biological differences between the sexes and socio-economic and cultural factors that influence the behaviour of women and men and their use of health services.

According to the European population, women generally live longer than men in all parts of Europe, and more men die than women of working age (15-64 years). However, because women live longer, they live longer with age-related disability than men. Consequently, across Europe, women spend less time in good health than men, as measured in years of healthy living [1].

As the population ages, the incidence of chronic diseases (diabetes mellitus, mental disorders, depression) increases, especially among women. Some conditions (breast, osteoporosis, eating disorders) are more common in women, while others (endometriosis, uterine disorders) are exclusive to women. Similarly, some diseases (coronary heart disease, lung problems), as well as diseases caused by traffic accidents, are more common in men, and some (related to the prostate) are exclusively in men [2].

In addition to biological, social norms also affect the health status of women and men in different ways. Women are less involved in activities hazardous to health, and comorbidities are also less common in women. On the other hand, compared to men, they are more susceptible to diseases often not recognized and evaluated by health systems. These illnesses include, for example, depression, eating disorders, trauma from domestic accidents and sexual abuse, and diseases associated with old age [3].

In general, it can be said that women are better than men, aware of the state of their health and are more active in using health services. There are several reasons for this: (a) a reproductive role; (b) their "caring" role (care for children, the elderly and/or caring for dependent people with disabilities); (C) their large proportion in the entire older population; D) Gender stereotypes.

It is also important that men, due to their lifestyle and customs, tend to take more risky behaviour, they receive higher doses of emissions of physically or chemically hazardous substances. Men, at the same time, see doctors less when they are sick, and when they do, they report symptoms less. At the same time, health issues are given less attention than women, and they have less knowledge in this area [4].

Research shows that sometimes women and men receive different diagnoses and, therefore, different treatments for similar problems. For example, women diagnosed with such complaints by a doctor are more likely to be diagnosed with depression, and men with stress [5].

The issue of health is also important in terms of reproductive and sexual health. Women and men should be informed and have access to safe, effective, convenient and acceptable family planning methods of their choice. They must have access to appropriate health care services to ensure women have safe pregnancies and childbirth.

In Europe, the health sector is predominantly male. Women occupy lower positions in the sector (e.g. nurses and midwives) and are a minority among senior professionals (doctors, dentists). Women are also underrepresented in leadership positions in the sector. In addition, due to the high involvement of women in the health sector, special attention should be paid to gender-sensitive training and education.

The state must take into account that the needs, resources, limitations and opportunities of citizens are largely determined by socio-cultural factors (including gender) and, therefore, these factors must be taken into account when planning policies. Without this, the policy is ineffective and unproductive.

In general, gender analysis is of particular importance in the social sphere. It is believed that the integration of gender issues in social areas such as health and social care is associated with the availability of relevant skills and therefore, gender is more pronounced than, for example, in the private sector and agriculture, which are more related to opportunities. An analysis of government subsidies or other social spending shows that when, for example, spending on health and social welfare is cut, it makes a gender difference - the increased burden falls on households and mainly on women. Such a burden can be, for example, the time they spend on care and household chores. This issue is closely related to gender budgeting [6].

Gender budgeting involves incorporating gender equality considerations into a country's budget process and reallocating budgetary resources to facilitate gender mainstreaming in all areas or sectors. Due to the complexity of gender budgeting, there is no universal approach. The approach used and the institutional structure are usually based on the characteristics of a particular country.

Due to the urgency of the problem, the purpose of our study is to analyze and evaluate gender budgeting in the field of healthcare and social security in Georgia.

Well-known methods have been developed to assess the value of gender equality in health and social care, such as: (1) One Health tool developed under the International Health Partnership; it also includes analysis, evaluation and financing of the health nutrition system with the use of different scenarios; (2) "Cost of social protection" ("Calculation of the minimum cost of social protection"), which evaluates the closure of different social programs, and checks their similarity and validity in case of increasing the social program; (3) Reproductive Contraceptive Instrument (UNFPA).

There are two important outcomes of gender budgeting in health care:

►*Social equity and equity in the health sector:* integrating gender into patient-centred policies improves patient outcomes, resulting in the more targeted use of resources where they are most needed, and services received are better suited to the different needs of women and men;

► *A better understanding of gender and health care workers:* A better understanding of the complexity of women and men's health needs helps identify key implications for women and men. This is important to combat the inequalities relevant social groups face, such as socially excluded, lonely older people, single parents and women living in poverty.

The Beijing Platform for Action emphasized the importance of gender budgeting in the social sector. In particular, interested developing and developed countries have agreed that, on average, 20% of the official development assistance budget and 20% of the state budget's social programs should consider a gender vision.

When evaluating capital projects, the following five main stages of gender budgeting are distinguished:

- Analysis of the situation of women, men, girls and boys in the relevant infrastructure sector;
- Assessing the gender sensitivity of policies, programs, legislation and past projects
- Evaluation of the implementation of gender-sensitive activities and project proposals at the expense of budget allocations;
- Monitoring the distribution of allocated funds, as well as services provided to the relevant target groups;
- Assess the impact of the respective infrastructure project and the changed situation compared to the first phase.

The following two methods for analyzing gender budgeting of infrastructure projects are known:

Gender-Disaggregated Beneficiary Assessment: data for this estimator can be obtained through relevant surveys, household interviews, focus group discussions, direct observation, case studies and other methods. The main questions to be explored should be divided into gender, geographic region, level of education, the status of opportunity, and other relevant categories.

Gender Expenditure Analysis: This method involves evaluating relevant budgets and policies in a gender-responsive manner to assess the allocation of resources to boys/men and girls/women. The main point of this method is to understand what gender influences the funded project has.

2. Research results and discussion

According to the National Statistical Office of Georgia, as of January 1, 2022, the population of Georgia is 3688.6 thousand people (48% men, 52% women) and has been increasing by an average of 0.04% annually over the past five years. Over the past decade, on average, more boys are born each year than girls, and therefore the sex ratio at birth (male/female) is 1.08, while at the same time, the average annual sex ratio at death (male/female) is 1.05. This means that the number of men, both in terms of fertility and mortality during this period, is higher than that of women.

The coefficient of natural increase (per 1000 population) is -3.8 as of January 1, 2022, this indicator has been decreasing by an average of 20% annually since 2014, more precisely, the difference between births and deaths is decreasing and the ratio of this difference to the total population decreases with the number (natural increase rate). If we consider this indicator by regions of the country, then during 2021, in all regions, except for the municipality of Tbilisi, the Autonomous Republic of Adjara, Samtskhe-Javakheti and Kvemo Kartli, there was a negative difference between births and deaths.

The average age of the population increased in 2022 compared to 2002 for both men (from 33.9 to 36.1 years) and women (from 37.9 to 40.4 years), which led to an increase in the average age of the population during this period for both sexes (from 36 to 38.3 years). In terms of life expectancy (life expectancy at birth (year) disaggregated by sex), at the end of 2021, this figure is 71.4 years for both sexes, of which 75.4 years for women and 67.5 years for men. However, this indicator for both sexes has slightly decreased over the past five years (for comparison: 72.7 years in 2016 and 71.4 years in 2021).

One of the most important gender indicators in health and social protection is the level of infant mortality. According to the State

Statistics Service, compared with 2016, infant mortality will decrease by 94 units in 2021 (from 507 to 413). And the mortality rate for children under five years old (per 1000 live births) for both sexes is slightly reduced (from 10.7 to 10.0).

One of the most important gender indicators in health and social protection is the level of infant mortality. According to the State Statistics Committee, compared to 2016, infant mortality will decrease by 94 units in 2021 (from 507 to 413). However, the infant mortality rate (per 1,000 live births) for both sexes did not change and remained at 9.0, while the infant mortality rate (per 1,000 live births) for both sexes decreased slightly (from 10.7 to 10.0).

In 2015-2020, among the causes of death for both men and women (on average 45% of women and 38% of men) were diseases of the circulatory system, as well as a large proportion of tumours and diseases of the respiratory system. The top five causes of death for women also include "diseases of the digestive system", and for men - "injury, poisoning and some other effects of external causes." Suicides increased by 34% in 2020 compared to 2015 and reached 248 cases of both sexes. In recent years, on average, more than 80% of suicides are committed by men. It is noteworthy that in 2020, compared to 2015, the number of deaths (26%) and injuries (2%) as a result of road traffic accidents decreased. However, in the case of single women, the number of victims increased by 6% during this period.

In 2020, compared to 2015, the number of AIDS cases with “initial diagnosis (one)” decreased by 33% (33.8% in women and 32.7% in men), reaching a total of 181 for both sexes. About 75% of AIDS cases each year occur in men. As for TB cases, over the same period, the incidence rate for both sexes decreased by 28% (26% for women and 29% for men) and reached 1467. About 70% of TB cases occur annually in men.

Gender-relevant are age coefficients that measure the population aged 0-14 years and 65 years and older for every 15-64 years or show the number of children and elderly dependents of the working-age population, which reached 54.1 as of January 1, 2022. Among them, 31.2 is the load factor by the age of young people, 22.9 is the load factor by the age of the older people. This number has been growing over the years. In general, in the case of the older people and children, the load rate in women is higher than in men. With individual children, the load factor is higher for men, and older children, for women.

It is also important to observe a country's household statistics for gender analysis of its social background. According to the 2014 census, there are about 1,109,130 households in the country, the average household size (number of people living in it) is 3.3, and this figure is approximately equal for urban (3.3) and rural (3.4) settlements. At the same time, the number of single-member households in the country is quite large (193,874 for both sexes), of which 63% are single women and 37% are single men.

It is also important to classify the head of household by sex according to the type of household. According to the 2015 survey, if in all types of households, women were called heads on average 33% of the time, and men - 67% of the time, then according to the same 2019 survey, these figures became 35% and 65%, respectively. In almost all types of households, the head is mainly a man, the proportion of women is mainly high, among widows, in other types of households, men and women are equally fixed. This figure is somewhat different in the case of urban and rural areas. If in 2015, the distribution of heads of women and men on average for all types of households in the city was fixed at 36% and 64%, then in 2018, this figure changed by 40% and 60%, respectively. The same indicators in the case of rural areas in 2015 amounted to 29% and 71%, respectively, and have remained at the same level for many years.

In terms of employment and economic activity in general, the economically active population (activity rate) for women is significantly lower than for men (for example, 56% and 74%, respectively, in 2021). This is why women have lower unemployment and employment rates than men.

In this regard, it is also interesting to consider the average monthly nominal wages of employees by type of activity and gender. The average salary of both sexes in 2015 was 900.4 lari, and in 2020 - 1191.0 lari. Men's salary is, on average, 1.5 times higher than women's (in 2020, 1,407.7 lari and 952.2 lari, respectively.

In this regard, it is also interesting to consider the average monthly nominal wages of employees by type of activity and gender. The average salary of both sexes in 2015 was 900.4 lari, and in 2020 - 1191.0 lari. The salary of men is, on average, 1.5 times higher than that of women (1,407.7 lari and 952.2 lari, respectively, in 2020). The difference between salaries has slightly decreased compared to 2015. In areas such as "financial and insurance activities", "health and social services", "professional, scientific and technical activities", "public administration and defence; Mandatory social protection "The gender wage gap has widened over this period and is still significantly higher. These differences are narrowing in areas such as wholesale and retail trade, real estate, administrative and support services, education, and more. For many years only in one sector, "Electricity, gas, steam and air conditioning", women's wages were higher (by an average of 1.1 times) than men's.

Gender differences are also fixed in terms of income and expenses incurred during the month. In general, men's incomes are generally higher than women's incomes, the same can be said about the expenses incurred. It is noteworthy that in men and women with different indicators of relative poverty, a similar indicator is observed over the years. However, for both indicators, the poverty rate in both cases will decrease in 2020 compared to 2015.

As of 2021, the total number of pension and social package recipients is 971,648, of whom 65% are women and 35% are men. The share of women and men differs between pensioners and recipients of social packages. 71% of the 745,001 people receiving the pension are women, while 63% of the 226,647 people receiving the social package are men.

It should also be noted that according to the Social Services Agency, for example, in 2019, on average, more than 70,000 people received a monthly state pension supplement due to their permanent residence status in a high-mountainous settlement. There are approximately twice as many women among these persons as men; and in the same mountain village, the number of recipients of additional payments to the social package with permanent residence status exceeds 13 thousand every month, of which about 60% are men and 40% are women.

According to the Social Services Agency, on average, 56% of the recipients of the planned component of outpatient services are women and 44% are men. In total, in 2019, 588,551 patients and 685,182 cases of illness were registered as beneficiaries of the universal health program, and the amount of compensation amounted to about 132 million lari. Thus, the cost of one treatment case will be, on average, 198 GEL for both sexes, and the cost of one patient will be 224 GEL. Although the number of female and male patients eligible for the program is roughly evenly distributed, during this period, the amount reimbursed per unit in the case of men is approximately 8-9% higher than the amount reimbursed for women in the department.

Notably, the number of doctors in 2019 increased by 30% compared to 2015 and reached 31,746 people. In terms of the number of doctors, there are about 1.5-2 times more female doctors annually than male doctors.

An analysis of Georgia's current health and social situation shows that these areas are of gender importance. Therefore, when planning and budgeting government programs, it is necessary to take into account the current situation and current gender needs, as well as analysis of international experience and research for the implementation of effective and adapted policies for relevant population groups [7].

Regarding the gender analysis of medical and social programs provided for by the state budget, it should be noted that the priority "Affordable, high-quality healthcare and social security" includes nine budget programs according to the state budgets for 2019 and 2020 and the attached materials: LEPP - Pension Agency; Management of IDP, labour, health and social protection programs from the occupied territories; Social protection of the population; Public health protection; Rehabilitation and equipment of medical institutions; Labor and Employment Reform Program; Providing medical services to the system of the Ministry of Internal Affairs of Georgia and the State Security Service of Georgia; LEPP - State Service for Veterans Affairs; A(A)IP - Georgian Solidarity Fund [8].

For this priority, due to the magnitude of the priority, we find a very small entry in terms of gender relevance in the priority description part, also only in the 2019 budget and the attached country key data and directions document for 2019-2022, where we read that "special attention will be paid to the health of mothers and children";"vaccination of children according to the national vaccination schedule will continue; Provide pregnant women and children with a supply of pharmaceutical products necessary for the healthy development of the next generation". As for the description of the above priority in the state budget for 2020, as well as the medium-term vision for the priority, document provided for 2020-2023, they do not contain an entry on gender significance.

As world experience shows, due to the high gender significance of the healthcare and social protection sphere, the information available on the priority should include a gender vision and make it understandable [9].

3. Conclusion

In summary, it can be noted that the healthcare and social services sectors are of great gender importance, however, the analysis of the submitted budget laws shows that the state budget programs of Georgia do not disclose gender sensitivity. Most programs and sub-programmes are not gender sensitive, several programs differ in their gender relevance, there are also some targets set in terms of gender, however these are mostly presented in the form of statistics and do not adequately reflect gender needs. The goals, milestones and outcomes set in the program need to be more specific, in accordance with the principles of the program budgeting methodology in general, and considering additional gender aspects.

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I.6. PECULIARITIES OF GEORGIA'S TAX POLICY: ANALYSIS, ASSESSMENT AND RECOMMENDACIONS

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Abstract. The article highlights such important issues of economic theory and economic practice as the challenges of tax policy formation in Georgia, based on the latest sources and rich factual materials.

It has been established that the country's tax policy should be aimed at bringing benefits to the economy, which, first of all, lies in leaving more resources for business in order to give it the opportunity to expand its production and create new jobs.

Keywords: Tax Policy, Tax Pressure, Fiscal Policy, Budget Revenues, Budget Expenditures, Direct Taxes, Indirect Taxes.

1. Introduction

In order to achieve the economic success of the country, it is necessary to conduct a reasonable tax policy. Often part of the government's tax policy is manipulation through tax pressure, during which the government artificially encourages economic activity. Unfortunately, such policies are often violent and discriminatory and do not provide economic benefits[26].

In this article, our goal is to discuss a tax policy that encourages economic growth in the country, inflows of investment, and job creation.

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[26] For example, the introduction of restrictive import taxes, which often makes products more expensive for the local population and reduces the freedom of choice, thus reducing the quality of products.

2. Research results and discussion

The research revealed that the tax and fiscal policy of the country should be directed to the benefit of the economy, which, first of all, lies in leaving more resources for the business in order to give it the opportunity to expand its production and create new jobs. This will be followed by the expansion of the economy, acceleration of turnover and the adoption of new technologies in the long term, greater distribution of responsibility to citizens, and, in general, the encouragement of savings [1].

Tax policy is an integral part of the country's economic policy. However, the selection of the economic policy corresponding to the country's economy is a very difficult issue, because proper tax policy ensures the fulfillment of the income of the country's budget and the proper tax system is the basis for the functioning of a strong state[27] [2].

Considering the experience of the European Union countries, it is necessary to develop a scientifically substantiated and argumentative country's long-term tax policy, which will be in line with the strict requirements of fiscal and budgetary policy [3].

It is noteworthy that the increase in budget expenditures is important for ensuring the living standards, education, health, and safety of the population [4]. For this purpose, the country's budget needs additional funds, which can be attracted in the form of taxes. Taxes are the main source of the formation of monetary resources of the state and therefore the main attention should be paid to the issues of formation and taxation.

The tax reform implemented in 2004-2007 was very important in terms of tax policy challenges in Georgia, as a result of which 16 different taxes were abolished in the country and the existing tax rates

[27] The solution to the country's socio-economic problems is directly related to tax policy.

were reduced. As a result of this reform, annual average economic growth exceeded double digits in 2005-2007.

The law on Economic Freedom Act, adopted in 2011, was a step forward in the country's tax policy, which contributed to the strengthening of the government's spending and tax discipline. According to this law, the expenditure of the state budget may not exceed 30 percent of the gross domestic product (GDP) of the same year, the deficit of the state budget may not be more than 3 percent of GDP, the volume of the public debt may not exceed 60 percent of GDP, no new taxes or rates may be imposed without taking public opinion into account. This law played a major role in ensuring the stability of the country's economy.

In addition, since May 2017, the government has taken one important step towards liberalization of Economic Policy and launched the Estonian model of Corporate Income Tax in the country, according to which the company would be exempt from Corporate Income Tax in case of profit reinvestment. Therefore, fiscal threats are increasing in the country, which may lead to a budget deficit.

The Georgian legislation allows filling this deficit by increasing the excise tax. Unfortunately, the increased excise tax is further hurting the poor population, as the increased excise tax on fuel leads to an increase in transportation service costs, which ultimately leads to higher prices for primary consumption goods. This increases living costs, which puts a heavy burden on the poor population.

The International Monetary Fund (IMF)disapproves of this attitude of the government of Georgia towards excise tax and recommends the reduction of state expenditures and increase of marginal income tax for high-income individuals.

Despite GDP growth and inflow of foreign direct investments, the Georgian economy is experiencing a high unemployment rate, the investments are mainly focused on the financial and construction sectors, while the manufacturing sector remains stagnant.

It is possible to get the country out of this situation by establishing a comprehensive development strategy, the role of the right, and income growth-oriented tax policy.

Types and rates of taxes applicable in Georgia are as follows(Tax Code of Georgia, 17/09/2010):

- ► Personal Income Tax - 20%;
- ► Corporate Income Tax: distributed profit is taxed - at the rate of 20%, while reinvested profits are not taxed;
- ► Value Added Tax - 18%;
- ► Excise;
- ► Property tax: < 1%;
- ► Import tax: on average 5%, 12% or fixed on certain goods.

It is noteworthy that Georgia has low tax rates and in this regard, it ranks second in the world. But we should also note that low taxes cannot have a substantial impact on the country's prosperity and rapid economic growth.

It is noteworthy that since 2007, Georgia has introduced a flat personal income tax in order to alleviate the tax burden and expand the taxable base and, regardless of the level of income, has released the top 20% personal income tax.

As a result of this policy, inequality in the country has increased even more and the coefficient of GINI by 2020 amounted to 0.36. In terms of inequality, Georgia is one of the leaders among the post-soviet countries. In addition, if we take into account the fact that the unemployment rate in the country is high and it was 18.5% in 2020, and the number of people in the country with income below USD 1.90 per day (absolute poverty rate against USD 1.9 per day in 2011 PPP) in 2019 was 3.8% and Georgia ranks first among its neighbors in the region [5].

The above-mentioned indicators clearly indicate the need to reform tax policy.

In this regard, the possibilities of income tax reform are especially noteworthy. By reforming the individual personal income tax base, it is possible: to make personal income tax more equitable and to mobilize additional financial resources in the budget, which will allow the government to direct these additional resources indirectly to low-income members of society and the development of the country's economy.

In order to bring the standard of living of the Georgian population closer to the European Union average, we need accelerated economic growth. In order to achieve and maintain rapid economic growth, it is necessary to form a competitive and fair tax system adapted to the European Union tax policy.

Based on the "Georgia-European Union Association Agreement", in the presented article we have focused on the analysis of value-added tax (VAT) in the European Union and the directions for its improvement in Georgia[28].

Overall value-added tax is a common-state indirect tax[29], which is collected in the state budget at all stages of production and distribution of goods (services). The VAT collection scheme was developed in 1954 by the French economist Maurice Lauré, and today this tax is introduced in 137 countries.

The European Union has set minimum and maximum limits for the VAT rate, which implies that the VAT rate cannot be less than 15%, and the reduced VAT rate - less than 5%, and the maximum limit cannot exceed 25%. In addition, it should be taken into account that VAT rates are divided into categories, in particular, rates on food products are much lower than on luxury items.

The European Union directive on the VAT system (2006/112/20) was adopted on 28 November 2006 and entered into force on 1 January 2007. Under these directives, the European

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[28] We paid attention to VAT because the existence of VAT in the country's tax system is one of the mandatory requirements for its membership in the European Union.

[29] The burden of paying VAT is ultimately borne by the customer and it is known as indirect tax.

Commission only sets a framework for participating countries and within this framework, each country determines rates on its own.

Each country participating in the European Union is obliged to follow two basic rules: first - standard rates should apply to all goods and services, and second - all countries have the right to apply one or two reduced rates to goods and services specified in the directives.

This directive applies the so-called exceptions or "special rates", under which countries in transition are allowed to make certain deviations from the main directives. This clearly shows how European Union countries use indirect taxes to reduce social inequality in society.

The experience of the European Union countries should be taken into account by the Georgian authorities in order to gradually get closer to the European Union tax policy by introducing amendments to the relevant tax legislation. Unfortunately, the standard VAT tax rate in Georgia is 18% and the country has no experience of using the progressive scale of indirect taxes, which should become one of the main directions of progressive tax policy formation in the future.

At the present stage, the agenda of economic reform of the country has put the need to regulate the formation and spending of financial resources through modern methods. Approaches to the formation of fiscal policies of regions and municipalities are also changing substantially.

Therefore, many legislative acts require major changes. In particular, revenues from major regional sources in the country are concentrated in the central budget and only a small part remains in local self-government budgets. This is the main reason why the planned indicators of budget revenues of self-governing units are not fulfilled.

In this regard, the experience of the European Union should also be taken into account, where a significant part of the financial revenues mobilized in the country is in the hands of regional government bodies [6].

The issue of the ratio of direct and indirect taxes in the structure of tax revenues in the country should also be regulated. Knowing the experience of developed countries, it becomes clear that it is characterized by certain peculiarities. For example, in the United States, direct taxes prevail, while in France - indirect taxes do. The situation in Germany and Italy is relatively balanced.

In the process of reforming the country's tax policy, it should be taken into account that the mobilization of the tax revenue base should be carried out through the promotion of business activities and not only based on administrative and legislative norms.

The Tax Code of Georgia requires improvement in terms of tax administration. Despite the fact, that many amendments have been made to the current Tax Code in the last decade, the survey of business representatives shows that the practice of tax inspections in the country creates great problems for business entities. Tax inspections are often carried out for several months and there are problems with the normal rhythm of the activities of enterprises, the company finds it difficult to communicate with the banking sector, participate in tenders, etc. Considering the above-mentioned, the term "reasonable term" specified in the tax code should be amended and the practice of conducting tax inspections should be restricted within the defined framework.

According to the Association Agreement with the European Union, the integration of individuals in business processes becomes important in the country. The recognition of this issue is raising the turnover threshold for the status of a small entrepreneur to 500,000 GEL in the Tax Code. Unfortunately, the threshold rate of GEL 100,000 in the VAT remained unchanged in the Tax Code. It is inadmissible, on the one hand, to give a natural person preferential status and, on the other hand, to impose exactly the same tax rate of the VAT as for a non-status-paying entity.

3. Conclusion

In conclusion, the country's tax policy must respond to the principles of regulating the economy within the country, maintaining social balance in society, and eliminating inequality between individual groups.

Reforming the tax policy in the country should promote inclusive growth and stability of the economy, redistribution of unequal tax revenues, and thus the creation of new jobs. Both the World Bank and the International Monetary Fund are urging countries to engage their governments more actively in redistributing their incomes in order to achieve inclusive economic growth.

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I.7. ASSESSMENT OF THE RISK LEGALIZATION ILLEGAL INCOME AND FINANCING OF TERRORISM (RISK-BASED APPROACH)

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Abstract. The financial system of the country occupies an important place in the development and stability of the modern economy of the country. Its effective and reliable operation contributes to the sustainable development of the economy. Much attention is paid to the study of the issues of combating money laundering and financing of terrorism and the factors affecting it. To date, the efficiency and stability of the financial system significantly depends on the existence of mechanisms and systems for combating the legalization of illegal income and their proper functioning.

Keywords: Money laundering, Financing of terrorism, Risk, Commercial bank, Financial institution.

1. Introduction

The main principle of money laundering control in a financial organization is the risk-based approach, according to which the organization groups its products and clients into low, medium and high risk categories. The basis of risk determination is the identification and assessment of risk factors relevant to money laundering and terrorism financing by the organization. Money Laundering and Terrorism Financing (ML/FT) Risk Assessment is an outcome or process based on a methodology agreed between the parties and which aims to identify, analyze and understand ML/TF risks.

Today, the problems of fighting against terrorism and money laundering are quite relevant. In modern conditions, there are many ways to legalize illegal income, starting from placing cash in bank accounts for their further transfer, ending with the purchase of valuables and real estate. Illegal financial funds can also circulate through the implementation of a number of complex international financial transactions. Money laundering schemes in different countries are different, often change, and therefore, at any moment in time, it is impossible to determine a complete and unambiguous list of money laundering methods and mechanisms. The world's agenda includes the problems of combating the legalization of illegal income, prevention of money laundering in the banking system, evaluation of the effectiveness of its prevention, implementation of control, and other important issues.

The purpose of this article is to reveal the peculiarities of money laundering in the financial organizations of Georgia and to determine the ways to improve its management. After studying the activities of international organizations fighting against money laundering and financing of terrorism and the recommendations and standards developed by them, the similarities and qualitative differences of the ways of fighting against money laundering in Georgia have been identified.

Every day, the methods and money laundering schemes used by money launderers are becoming more sophisticated and financial transactions are becoming more complex. There is no specific or uniform methodology for money laundering and they use different methods. Money laundering threats are present everywhere, but developing countries are particularly attractive to money launderers due to several factors. these are: Poverty; Inequality; Weak state institutions; Easy access; Shadow economy; Corruption; Unstable social and economic environment.

Correspondent relations should be considered high risk in terms of money laundering and terrorism financing, which is due to the large volume of transactions and the specificity of the relationship. During a correspondent relationship, a financial institution carries out transactions for the benefit of clients of another financial institution.

Accordingly, there is an indirect relationship with clients, against whom the financial institution has not directly taken preventive measures. This, in turn, complicates the effective monitoring of business relations and the detection of suspicious/unusual transactions. Within the framework of the correspondent relationship, the correspondent financial institution relies on the preventive measures taken by the respondent institution. Accordingly, it is particularly important that the correspondent bank assesses the suitability of the respondent bank and implements adequate measures to assess and manage risks.

A historical overview and main elements of the legalization of illegal income are provided. The characterization of the money laundering process is discussed and studied: phases, methods, ways. Typologies of money laundering are characterized. Overview of key features of organizational and group-wide risk analysis for money laundering and terrorism financing.

The international experience and practice of combating money laundering and legalization of illegal income is analyzed.

2. Research results and discussion

One of the important and fundamental issues is the process of establishing the identity of the client by the financial institution, which means: Identifying the client; Understanding the client's activities and cash flow; Identification of risks related to the client.

Accountable persons should carry out customer identification and verification, both when establishing a business relationship and when concluding a one-time transaction. Identification of a person is necessary if:

- Transfer of money or the sum of related transfers exceeds 3000 GEL or its equivalent in foreign currency;

- The amount of the interconnected or one-time transaction is more than 15,000 GEL or its equivalent in foreign currency;
- Doubt arises in relation to the identification data of the client;
- There is a questionable deal;
- For the identification of a natural person, at least the following information should be obtained: first and last name; citizenship; date of birth; place of residence; ID card (passport) number and citizen's personal number according to the ID card (passport); If a natural person is registered as an individual entrepreneur - relevant registration date, number, registering authority, taxpayer identification number.

High-risk jurisdictions should be defined as at least attention zones and also, depending on sectors, offshore zones defined by the order of the President of the National Bank. If the client's legal or actual address (Place of residence) is in a high-risk jurisdiction, enhanced preventive measures should be taken (Table 1).

Table 1

List of high-risk jurisdictions

#	**Country**
1	Islamic Republic of Afghanistan
2	Republic of Albania
3	Barbados
4	Commonwealth of the Bahamas
5	Republic of Botswana
6	Republic of Ghana
7	Gibraltar
8	Commonwealth of Dominica
9	Republic of Iraq
10	Republic of Vanuatu
11	Republic of Zimbabwe
12	Turks and Caicos Islands
13	Jamaica
14	Republic of Yemen
15	Islamic Republic of Iran

16	Cayman Islands
17	Kingdom of Cambodia
18	Republic of Colombia
19	Democratic People's Republic of Korea
20	Republic of Mauritius
21	Republic of the Union of Myanmar
22	Federal Republic of Nigeria
23	Republic of Nicaragua
24	Islamic Republic of Pakistan
25	Republic of Panama
26	Republic of Seychelles
27	Saint Vincent and the Grenadines;
28	Syrian Arab Republic;
29	Republic of Tajikistan
30	Republic of Uganda

Source: Financial Monitoring Service of Georgia

High-risk activities include the activities of both legal entities and individuals. For example, if the client owns or manages a high-risk business, this should be considered as one factor in its risk assessment.

Table 2

High-risk activities

1	Professional service providers
2	Persons carrying out gambling activities
3	Persons carrying out activities related to precious metals, precious stones and their products, antiques and works of art
4	Persons related to the production and/or trade of weapons and ammunition, military equipment and transport (parts).
5	Persons related to the production and/or trade of chemical substances
6	Persons associated with the production and/or trade of nuclear reactor materials
7	Organizations whose activities are not focused on making a profit
8	Sports clubs
9	Investment funds/companies
10	Holding companies
11	Asset management companies
12	Companies providing trust services
13	Companies with a trust-legal relationship

14	Real estate agents
15	Binary options trading companies

Source: National Bank of Georgia

According to the Law of Georgia "On Promotion of Preventing Money Laundering and Financing of Terrorism", accountable persons are obliged to submit a report to the Financial Monitoring Service of Georgia about a suspicious transaction or the preparation, conclusion or attempt to execute such a transaction. In addition to suspicious transactions, according to the law, the Financial Monitoring Service of Georgia defines the types of transactions on which the accountable person must submit a report to the service [1].

National Bank of Georgia actively participated in the process of developing the "2019 Report on the Assessment of Money Laundering and Terrorism Financing Risks in Georgia", where, in addition to the risks in the banking and non-banking sectors, attention was focused on the assessment and analysis of risks related to innovative services and supply channels [2]. In 2019, National Bank of Georgia was actively involved, according to the 4th European Union Directive, in the process of updating the law of Georgia "on the promotion of prevention of money laundering and financing of terrorism". The Department of Money Laundering Inspection and Supervision conducts an annual self-assessment of its activities, the purpose of which is to ensure the continuous development of the supervisory approach, to monitor the implementation of the annual supervisory plan and to evaluate the effectiveness of the department's activities. In order to evaluate the department's activities and increase the effectiveness of supervisory approaches, during 2019, a survey of the banking sector was carried out, within the scope of which the effectiveness of supervisory approaches was also evaluated and, at the same time, the needs of representatives of the financial sector were determined [3].

In order to remotely assess the compliance of commercial banks' compliance control systems with the anti-money laundering and terrorism financing legislation, as well as the requirements established by the National Bank and international best practices, starting from 2021, banks operating in Georgia will provide the National Bank with a commercial bank compliance control system supervision questionnaire [4].

In 2021, based on the analysis of the best practices of the EU countries, changes were made to the rules for determining and imposing monetary fines for the non-banking sectors under the supervision of the National Bank, which led to a significant increase in the effectiveness of the sanctions regime for the non-banking sector. According to the amendments, the violations were divided into particularly serious, serious and less serious categories, and for the violation of each category, a sanction corresponding to the severity of the violation was determined, as well as fines were determined for repeated and systematic violations [5].

In 2021, the number of transactions carried out by call centers was still high. Similar companies are created mainly to establish contact with potential customers abroad, who are offered to buy various products, make investments, play on currency rates and binary options, etc. In the case of a fraudulent call center, the victim either fails to receive the pre-arranged service at all or receives a much lower quality service (the so-called "Boiler Room Scam") or loses the amount with which the so-called made an investment (the so-called "Investment Scam") [6].

As a result of the analysis of the reporting forms received in 2022 and the processing of other information sought by the service, the Financial Monitoring Service of Georgia identified and transferred 84 cases to the relevant structural units of the Prosecutor's Office of Georgia, the Ministry of Internal Affairs, the State Security Service and the Revenue Service in accordance with the Law of Georgia "On the Promotion of Prevention of Money Laundering and Financing of Terrorism" (including 10 cases on the alleged case of possible financing of terrorism, and 1 case on the possible circumvention of sanctions imposed on one of the countries) [7].

3. Conclusion

On the basis of the information studied and analyzed by us, as well as the conducted research, we can formulate the following conclusions:

1. Proper functioning of the system for timely identification and proper assessment of ML/TF risks faced by the organization/financial group creates the basis of a risk-based approach and allows the accountable person to make informed decisions about a number of key directions required for risk management and to develop an adequate internal control system.
2. It is important for the accountable person to have properly analyzed the importance of developing and implementing an effective system for assessing, managing and communicating ML/TF risks at the level of their own organization/group, since in the presence of weak governance mechanisms, the potential negative consequences can be large-scale for the organization and lead to financial, reputational, legal and financial risks, and this, in the end, threatens the long-term and stable development of the organization. It is important to analyze international experience and adapt it to reality.
3. Financial institutions need to have a good understanding of AML/CFT risks. They should analyze the risks of the clients and the operations they carry out. Financial institutions that are members of a banking or other financial group should have effective internal systems and control mechanisms designed to manage ML/TF risks.
4. It is important that the employees of the customer service department are fully informed about the instructions and procedures defined by the AML policy. Also, regarding transactions subject to monitoring, they should know exactly in which case the KYC questionnaire accepted by the international

standard is filled out. For this, it is necessary to provide appropriate training to the employees.

5. Financial institution representatives should demonstrate a more or less adequate understanding of the risks associated with correspondent relationships, politically active persons and high-risk jurisdictions and an appropriate level of knowledge of enhanced measures to manage these risks.

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I.8. FINTECH STARTUPS IN GEORGIA: CHALLENGES AND WAYS TO OVERCOME THEM

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Abstract. The article, based on the latest literary sources as well as rich factual data, examines the important issue of economic theory and business practice such as the potential of Georgian fintech startups, including its experience, challenges, and prospects.

It covers the programs and directions of existing state-supporting organizations for Georgian startup businesses, while also discussing the financing mechanisms in place for startup businesses. Finally, the article also goes over recommendations targeted at the business sector to help it succeed.

Keywords: financial technology, global economy, startup business, fintech startup, financial industries, blockchain, open banking.

1. Introduction

The advancement of technology is far from slowing down and on the contrary, seems to be accelerating at a faster rate with each passing day. With this in mind, it is crucial for business fields to be able to keep up with the ongoing progress. Being able to match the fast development of technology is convenient not only for businesses but also for consumers since it makes both the supply and consumption chains run more efficiently and orderly. Fintech plays a big, if not decisive, role in coordinating these processes.

Financial technology, also known as fintech for short, by combining innovative technologies competes with traditional financial methods. In other words, it is a progressive industry that uses technology to improve its financial performance; whether it is by using smartphones to run mobile banking, using cryptocurrencies, or any other means. Fintech companies consist of startups, established financial institutions as well as technology companies. Their objective is to change or enhance the quality of financial services provided by already existing companies.

Fintech encompasses software, a range of applications, and innovative business models. It is also essential to note that artificial intelligence is integral in these industries. They often deal with the processing of big data sets and are in need of robotic process automation, both of which are within the scope of IAs. Moreover, machine learning algorithms have been used as useful prediction tools for changes in stock markets. These models help financial industries to better understand their customers, by observing their behavior over a span of predetermined time[30].

When it comes to fintech, one of the main trends is directly related to how people perceive their financial affairs. The development of technology has changed both consumer's behavior and the way people consume money. In this regard, the coronavirus pandemic also played an important role, since online transactions and services became even more relevant. Thus, increasing the need for new applications and programs.

In addition, the global economy grew three times in size since the year 2000. It became much much more integrated and interconnected thanks to developments in technology and fintech. As it can be observed, financial sectors affect everyone, and yet many do not know the way these industries operate. Fintech has the potential to make the interactions with the financial industries run smoother for the consumers. Any financial instrument has its pros and cons and the

[30] It should be noted that these technologies are used by banks more and more often, and all this is done to improve the service.

role of fintech would be to provide people with accurate information, including the advantages and disadvantages of certain financial services [1].

It's interesting to observe the impact coronavirus has had on fintech, or even how fintech has countered the effects of the pandemic on the economy. 2020 was truly the year of paradigm shifts. The pandemic and the lockdowns that came with it left people questioning their financial security and looking for alternative ways to generate income. In other words, when the economy suffered and unemployment rose, the perception of "money" also changed. People became more inclined to use cashless payments and take advantage of new applications. At the same time, the financial industry also shifted further towards the use of new technologies[31]. Therefore, the coronavirus has highlighted the need for fintech even more.

One thing is evident, "fintechization" has been actively going on for several years now and as a result similar financial services are available and accessible almost everywhere. With the list of available services growing, the same trend will persist. The lockdowns caused by the pandemic showed us the necessity of such technologies. Not to forget that the demand for data collection and processing is also increasing, providing a new, massive revenue stream, and yet again fintech plays a crucial role in making all of this happen.

2. Research results and discussion

As the research has shown, banks do not necessarily consider technological advancements as a threat to their own activities, and on the contrary, enthusiastically join in on to adapt to these changes in hopes of benefiting from the advantages of digital solutions themselves [2].

A survey by the Hong Kong Institute of Monetary, Credit and Financial Research (HKIMR) reveals that banks at present and even

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[31] In general, technology is a tool that helps people in times of need and will help even more in the future.

for a span of next five years view fintech not as a threat, but as an opportunity for growth. Many banks have already been actively deploying technologies such as mobile banking, open banking API, machine learning and cloud computing, but the majority is not interested in crowdfunding or new credit platforms, which, in their opinion, will lead to the outflow of monetary resources from credit-financial institutions to the unorganized market of loan capitals.

Fintech is widely seen as an effective tool to reduce costs, improve customer service and grow. While the technological revolution is viewed as an excellent opportunity in fields like trade finance, corporate lending and deposit services to evolve. The impact of fintech is unequivocal: banks that intensively use financial technologies are characterized by significant cost reductions and sharp increases in both revenues and assets.

The representatives of the traditional banking sector are confident that as a result of adapting to these new conditions, they will be able to reclaim the leading roles, which excludes the potential threats from new competitors. Virtual banks, on the other hand, welcome the idea of traditional banks and fintech companies cooperating. They are more in favor of banks and fintech companies becoming partners, and even more so of traditional players in the financial field moving to secondary positions.

There are many ways for fintech companies to introduce new approaches and substitute the traditional financial operations, from more efficient buying-selling of private properties, improved retirement savings plans to replacing billions of internal combustion engine cars with electric cars. Needless to say, they should continue to focus on innovation and revolutionary products for both consumers and businesses.

Nowadays, worldwide there are approximately 25,000 fintech companies involved in the financial industry. The time when all financial operations were managed only by big and influential banks is over. In fact, in the last decade alone, numerous fintech startups have successfully and efficiently responded to the challenges of the 21st century and consequently established themselves in the financial and commercial market.

They do so by focusing on a specific customer issue, addressing it, and by designing a product that makes their lives easier. Not to mention that customers are guaranteed with the safety and security of using the latest technology. Most fintech companies entered the markets to create alternative systems for both consumers and businesses. Ever since, they have improved and refined a range of products, and made numerous systems more accessible for their users. With all this in mind, it should come off as no surprise that startups have been able to acquire quite a large number of customers, one of the best examples of this phenomenon are PayPal, Square and Adyen.

As surprising as it might seem, some fintechs are even trying to become banks. According to the 2019 McKinsey Global Banking Review, most banks are seeing lower returns on their equity and have been experiencing lower growth rates in their sectors compared to rate of growth of GDP for over the past decade. Naturally, the question of why fintechs would want to become banks arises.

We are all witnesses of the fourth industrial revolution as it emerged. Electrification and digitization will be a concomitant process of our life. The number of devices connected to the Internet and in turn to each other will keep growing exponentially. In the next 25 years, as the generations continue to change, $30-50 trillion will be transferred from the so-called "boomers" to the new generations. During this time, the role of fintechs in the financial world will grow as their creativity, innovation and insight become more needed.

Such fundamental shifts give rise to many new opportunities for startups to come up with ways of changing or even implementing new financial systems to adapt to modern times. They can change the world for the better by eliminating some socio-economic barriers existing in financial industries. Moreover, fintech companies are the ones responsible for thinking about a sustainable future which includes reducing greenhouse gas emissions, replacing more than a billion internal combustion engine cars with electric cars, etc. Overall, fintechs allow for endless pathways for development.

Next, we would like to highlight 3 successful and large-scale fintech companies in the world:

(1) ***Stripe*** – the most valuable fintech company in the US and the second most in the world, the startup is currently valued at $95 billion, which is more than the market capitalization of Gazprom, Airbnb, Uber, Daimler, Booking.com, BP, General Motors and other companies. Their clientele already include names like Microsoft and Zoom. As with almost all tech companies, 2020 was a successful year for Stripe, during which its market capitalization increased from $35 to $95 billion. Its founders are Irish brothers who dropped out of MIT (Massachusetts Institute of Technology) and Harvard to devote all of their resources entirely to the development of this startup. Today, their total assets exceed 19 billion US dollars.

(2) The second fintech in the list is ***Klarna,*** valued at $31 billion. The Swedish startup was founded by Sebastian Siemiatkowski, Nikolas Adalber and Victor Jacobson, whose total assets now exceed $2.2 billion. Back in 2005, when their idea first emerged it was rejected by almost all investors and even took the last place in one of the competitions. Today, Klarna is responsible for operating the "buy now, pay later" model and cooperates with such major retail companies as IKEA, H&M and Etsy. According to Forbes, its value has tripled during the pandemic. In 2011 in Sweden, 40% of the money spent in e-commerce was paid by consumers with the help of Klarna. This business model provides different online platforms with various online payment options. Their goal is to create a simple and safe system for users, which has already been implemented in 15 countries. The organization already employs 3,500 people and has entered markets in countries such as: the USA, the UK, France, Spain, Switzerland, Denmark, Finland, etc, making it one of the largest representatives of the so-called "Post-Payment" industries.

(3) The third most valuable fintech is San Francisco-based cryptocurrency trading platform called ***Kraken,*** valued at $20 billion. According to Forbes, it ranks first in the European market by transaction volume, and second in the US after Coinbase.

These placements in the rankings are clear indicators of fintech potentials in the global market. Indeed, there are countless opportunities for startups to emerge. The gaps arising in service industries are filled by the solutions provided by Fintech companies. This is beneficial not only for consumers, but also for the banks themselves, as observed in the US.

According to Galt & Taggart research, in 2021, the local e-commerce market in Georgia grew 3.2 times and amounted to ₾137.9 million. However, it is worth mentioning that fintechs in our country are actively involved in other areas as well.

Although registration and monitoring of fintech companies taken separately is not done in Georgia, to see the overall picture, it would be interesting to look at the data of the registered payment service providers.

According to National Bank of Georgia, registered payment service providers, which we can refer to as fintechs, carried out operations worth ₾6.1 billion in 2021 alone, which is ₾638 million more than in the previous year. This means that there was an increase of 13% in operations served by the sector. As for the data of the first six months of 2022, compared to the same period last year, the increase is much higher and observed to be equal to 52%. In total this increase amounted to ₾3.79 billion.

The first stage of open banking in Georgia has been implemented which means that banks have already been obliged to share information. From 2023, it is highly likely that fintechs will also get involved in the process, giving rise to more competition and consequently availability of diverse financial services in the market. If the current process continues to run smoothly, along with the rise in the number of payment providers, the rate of processed transactions will increase.

According to the National Bank of Georgia, financial technologies can bring many benefits, which we have well understood. Not only does it make the financial intermediation cheaper, faster, more efficient and convenient for customers but also increases competition and offers better potential for expansion than traditional financial services would. Expansion in the scale means taking the services outside the country. Part of the current strategic vision is to offer a comfortable and convenient platform for Georgian and international companies to test their products and expand across the region [3].

It should be noted that the market has been growing significantly every year, in 2018, payment providers carried out ₾4.6 billion worth of operations, and in 2021, as mentioned above, the total volume was ₾6.1 billion. The potential of fintechs in Georgian markets can be backed by other numbers and statistics as well. Georgia has been in the leading position for contactless payments per capita for a long time now. However, if we observe the dynamics of the years, we will see that the popularity of this direction is escalating quickly. Relaying once again on the data provided by the National Bank, in 2018, payments with debit cards amounted to ₾4.8 billion, and in 2021, this number doubled and exceeded ₾10.2 billion. The figures for the first six months of 2022 are no less encouraging, amounting to ₾6.1 billion.

With the fintech ecosystem developing significantly in Georgia in the past recent years, there is a growing trend of Georgian fintech startups emerging and an increase in the relevance of the services offered by fintechs.

It is worth noting that some fintech startups have already managed to offer their services not only to local consumers, but have expanded their services globally. For this reason, the article will provide some insight below into these Georgian startups that have entered the international markets [4].

(1) One such good example is ***Kernel,*** which is a platform for simple invoicing and financial tools. Through Kernel, users are able to easily manage their invoices. In addition, it also allows calculations of taxes and various financial indicators, through which users can easily and successfully evaluate their businesses and make better financial decisions.

Kernel was founded in December 2019 by Beka Dalakishvili, Beka Zzhuladze and Gustav Groth. During its short existence, the kernel has already achieved a number of important successes. One of them was getting into the 500 Global acceleration program, which has significantly increased the company's capabilities. As a result, Kernel today operates in India and the Philippines, in addition to Georgia and also plans to enter countries such as Nigeria and Pakistan in the future.

(2) When talking about fintech startups that have entered both the Georgian and international markets, ***Citypay.io*** also deserves a notable mention. Founded by Beka Kemertelidze and Eralf Hatipoglu, the platform is a kind of digital payment gateway for businesses to receive payments in cryptocurrencies. It is worth noting that it is convenient for transactions both online and at physical stores.

As of today, Citypay.io supports more than 300 businesses, and just a few months ago, it was able to offer its services to businesses on the global market by providing fast and efficient communication to specific segments of Eastern European countries. The company planned to enter the Ukrainian market, however, the ongoing war has halted this process for the time being.

(3) ***Payze,*** another Georgian fintech startup, which has innovated online means of receiving money by providing the most simplified integration tools for those who sell products or services in the online space. The startup was jointly founded by Gega Tsurtsumia, Kakha Gelashvili and Gega Topadze.

The startup has also achieved significant success since participating in the acceleration program of 500 Global. In particular, it became a member of the world's most popular accelerator, Y Combinator.

Since the beginning, the company's main focus was on Central Asia. In March the startup managed to enter the Uzbekistan market. Like Citypay.io, Payze also had plans to enter the Ukrainian market, however, this process, for the same reason, was temporarily delayed for them as well.

Integration of AIs into financial institutions has not always been so easy before the pandemic. However, the need to stay at home has greatly advanced this process. Financial institutions and their partners are committed to both automating banking services and making them more customer-centric.

In 2021, important steps were taken in this direction. It is interesting to see what fate awaits fintech in 2022:

Digital Banking: Digital banking is no longer an alien concept. Its use has been increasing significantly in 2020 and 2021. As fintechs predict digital banking will continue to stay relevant due to the fact that it offers an improved customer experience by providing faster and more efficient services. Statista estimates show that 64.6% of US citizens will use online banking in 2021, making it a transformative tool in finance. Furthermore, it is anticipated that this figure will increase since digital banking will become the most needed digital product worldwide.

Robotic Process Automation (RPA): RPA uses digital robots or programs (bots) to automate routine, repetitive activities previously performed by humans. It differs from artificial intelligence in that it does not require the power of the "human mind" to operate.

Many businesses have already implemented RPA technology in pursuit of saving their resources and improving accuracy. It is used for simple tasks such as: data entry and information processing.

RPA is a great way of reducing operational costs for fintech businesses. Moreover, if used properly, it allows more opportunities for the workforce to focus on more innovative and valuable activities [5].

Augmented Reality/Virtual Reality (AR/VR): Although the use of VR in financial technology is still growing at a slow pace, it is still possible to invest in stocks through VR. AR is an excellent example of how consumers can use fintech and modern technologies to maximize their investments.

While most experts agree that there are still years ahead before VR becomes more viable in fintech, companies have already started experimenting with the technology to explore its potential. According to Goldman Sachs Research expert Heather Bellin, virtual and augmented reality will be more than a $80 billion industry by 2025.

Blockchain: Blockchain technology has completely changed the way the fintech industry operates. Banks and financial institutions are increasingly employing this latest technology due to one of its many advantages - ensuring occurrence of safe transactions.

As the most important financial innovation for digital transactions, its management is distributed, which means that the blockchain is controlled by a specific person, company, government or bank.

According to a report by Business Insider Intelligence, approximately 48% of banking representatives believe that Blockchain technology will have the biggest impact on banking in 2022 and beyond. By 2025, it is estimated that the size of the blockchain market will increase to 39.7 billion.

Voice payment: Voice payments allows people with smartphone voice recognition software and digital assistants such as Siri, Google Assistant or Amazon Alexa to not only check their balance but also to make transactions [6].

Voice payments are most likely to be utilized in stores where the card and terminal will no longer be needed. This type of payment has an advantage since it can also assist visually impaired people in making cashless payments [7].

Biometric Security: Biometric technology is playing an increasingly important role in financial technology innovation since identity verification is required for most transactions. Biometrics are used to simplify account access, authenticate online transactions, and even change passwords.

Authentication methods such as facial recognition software, voice analysis or fingerprint scanners will play an increasingly important role in the future of banking security.

Other, more advanced examples of biometric technology relay on recognition of palm vein patterns, eye color, and even retinal scanning. Through use of these new security methods, financial institutions can eliminate the need for passwords and PINs, which are often considered less safe.

RegTech (Regulatory Technology): The use of technology to track regulatory compliance is known as RegTech. Regulatory technology solutions automate data monitoring and reporting with tools that have the ability to process large data sets or even unstructured information. These technologies also help financial institutions stay abreast of changes in different jurisdictions around the world.

3. Conclusion

To conclude, fintech is becoming an increasingly large and multi-faceted industry, which means that there are many predictions and trends surrounding it. It will be possible, in the near future, to see the above examples put into practice more as their relevance increases with the field developing faster with each passing day.

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I.9. FEATURES OF THE FINANCIAL CAPABILITIES AND BEHAVIOR OF THE POPULATION IN GEORGIA

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Abstract. The article, based on the latest literary sources and rich factual materials, analyzes the peculiarities of the financial behavior of the population in Georgia, defines the segmentation of the Georgian population according to financial ability and money management style.

Six segments of Georgian population are represented according to financial capabilities. These segments are grouped under three corresponding socioeconomic statuses. Last three segments are grouped under the socioeconomic status of financially adapted and it comprises 28.3% of Georgian population. Another two segments are grouped under the socioeconomic status of more or less financially adapted and it comprises 35.9% of Georgian population. The remaining segment, i.e. 32.4% of Georgian population, has socioeconomic status of being into financial hardship.

We used 23 theses (related to a money management) for in-depth analysis of techniques of money management that are widely-spread in Georgian population. We analyzed conclusions of above-mentioned theses and identified the following 6 segments of Georgian population according to the style of money management: financially responsible (34%); with financial fears (22%); with business thinking

(12%); burdened with debts (16%); wasteful (11%) and "shopaholic" (5%).

Keywords: financial behavior, socioeconomic status, financial responsibility, financial fears, business thinking, burdened with debts, wasteful, shopaholic.

1. Introduction

Individual's reasonable financial activity determines his/her financial condition in a short-term and a long-term perspective. Certain activities, such as delay of paying taxes or buying financial product without preliminary comparison, may negatively impact individual's financial condition and correspondingly, his/her financial welfare. Therefore, it is important to study population's financial activities and segment it according to financial resources and a style of money management.

The current article is based on a data gathered in Georgia with participation of research organization "Sonari" [1] and with support from Development Facility of the European Fund for Southeast Europe (EFSE DF). The initiative belongs to Georgian National Bank. Data was gathered from a whole country by means of direct interviewing of 1100 respondents (with age above 18). A stratified cluster selection technique was used and selection was made according to types of regions and settlements (city/village). Points of selection were established in direct proportion to population and respondents were selected randomly from households on the basis of "principle of last birthday". Field works have been conducted from 1st April to 25th April of 2020. Data is weighted according to region, age and gender.

Methodology of a study is based on 2015 year guideline of estimation of financial education and financial participation. The guideline belongs to International Network of Financial Education of Organization of Economic Cooperation and Development (OECD/INFE) [2]. Survey of OECD/INFE includes questions of several types and helps us determine positive and negative financial activities of a population, such as consideration of several choices before buying a financial product, payment of taxes on time, budgeting, money saving and loans.

2. Research results and discussion

In the scope of the study, six segments of population of Georgia were selected on the basis of financial capabilities:

- Barely live from month to month (32.4% of population);
- Money is enough for food, but to buy clothes is a huge problem (28.2%);
- It is hard to buy TV or refrigerator with our resources or credit (17.7%);
- Money is enough to buy electric appliances, but we can't afford a new automobile (16.0%);
- We can buy everything with our resources except country-house or flat (9.8%);
- We don't have material difficulties and we can buy country-house or flat (2.5%).

Afterwards, the above-mentioned segments were combined under the socioeconomic statuses:

The last three segments were grouped under the socioeconomic status of financially adapted, because these people can satisfy the basic demands, such as buying food or clothes. Besides, they have comparatively big consumer opportunities. This segment comprises 28.3% of Georgian population.

Another two segments have relatively limited consumer opportunities, but these people can also satisfy the basic demands somehow. So these two segments can be grouped under socioeconomic status of more or less financially adapted. They comprise 39.9% of Georgian population.

And finally, one third of Georgian population, i.e. 32.4% has financial difficulties. This segment was grouped under the socioeconomic status of being in financial hardship.

In the process of development of initiatives of financial education, interesting and practical ideas can be generated by means of population's segmentation according to a style of money management. For this purpose, our study used 23 theses related to money management. These theses help us study popular techniques of money management in details.

On the basis of analysis of conclusions of above-mentioned theses, we identified the following 6 segments of Georgian population according to the style of money management:

- ► financially responsible;
- ► with financial fears;
- ► with business thinking;
- ► burdened with debts;
- ► wasteful;
- ► "shopaholic".

Interestingly, the lowest scores of financial education are associated with segments of "shopaholic", wasteful and burdened with financial fears. Segment with financial fears has the most limited financial resources. Therefore, its experience (as consumer) is scarce. On the other side, wasteful and "shopaholic" respondents have experience of so-called "active expenses". Financially responsible segment (34% of population) is the most prevalent in Georgia. Then we have segments burdened with debts (16%) and with financial fears (22%).

Below we describe each segment in details.

Financially responsible segment: Respondents from this segment agree to the following theses:

- Pay taxes on time;
- Try to pay debt as soon as possible, because it disturbs me;
- Carefully consider whether a product is affordable before buying;
- Loan money only in the emergency situation;
- Money is hard to get, so it must be spent carefully;

▪ Thoroughly control and plan my finances.

Financially responsible segment is the most prevalent in Georgia (34.3%). Members of the corresponding segment are characterized with practical financial activities. They carefully spend money, control their finances. Besides, they have habit to meet their liabilities on time and skill to plan finances. This segment is less inclined to buy financial products. Loan liabilities are too disturbing for them and they try to free themselves from debts as soon as possible. 61% of this segment is comprised with women, average age is 47.6, but most of them are above 65.

Probability to meet them in Guria, Adjaria and Shida Kartli is high. In Kakheti and Qvemo Qartli, it is hard to find this segment and it is almost impossible in Samtskhe-Javakheti.

Financially responsible segment has a high score of financial education and it is 63.0 out of 100 (Table 1).

Table 1

The general indicators of financial education of financially responsible segment

Financial education	Financial activity	Financial attitude	Financial education (scale of 100 scores)
Score			
4.71	5.37	3.15	58.8

Segment with financial fears: Respondents of this segment agree to the following theses:

- I'm often nervous whether I can meet the current, basic financial demands;
- My financial condition doesn't allow me to make many things that are important for me.

It is interesting that the segment with financial fears is on the second place (21.6%) in Georgia. This segment is characterized with scarce financial resources and sense of fear or insecurity towards the financial issues. 53.4% of this segment lives in villages and it is a quite large proportion if we take into account that in reality only 43% of Georgian population lives in villages. Average age of this segment is

46.1 and also most of respondents with age group 56-65 belong to the same segment.

Besides, majority of this segment is unemployed and most of them live in Samtskhe-Javakheti, Kakheti and Qvemo Qartli. In Tbilisi and Imereti, share of this segment is below average. Share of women is above average in this segment, as well as in the financially responsible segment.

Score of financial education of segment with financial fears is below average and comprises 56.2 out of 100 (Table 2).

Table 2

The general indicators of financial education of the segment with financial fears

Financial education	Financial activity	Financial attitude	Financial education (scale of 100 scores)
Score			
4.26	4.52	3.02	56.2

Segment with business thinking: Respondents of this segment agree to the following theses:

- I have long-term financial aims and I try to achieve them;
- I always distribute monthly income to make some saving even if it's not very big;
- I'm ready for minor risks, when I gather money or make some investment.

Segment with business thinking comprises only 11.7% of population. Average age of this segment is the lowest and comprises 41.1. Balance of age groups is disturbed and inclined towards the age group 18-45. Therefore, probability to meet age group 18-45 in this segment is significantly higher than average. In this segment it is almost impossible to meet individuals above 66.

Men with business thinking are more than women in the country. Most frequently you will meet this segment in Tbilisi (37.7%), then we have Qvemo Qartli (12.3%) and Samegrelo (11.5%). Probability to meet this segment in Qartli, Adjaria and Mtskheta-Mtianeti is low and in Guria such probability is almost equal to zero.

Individual with business thinking distributes his/her income such that it is possible to make some savings. His/her financial plans are long-term and he/she doesn't fear reasonable risks. Correspondingly, this segment is the most stable financially.

Segment with business thinking has the biggest score of financial education, particularly 65.5 out of 100 (Table 3).

Table 3

The general indicators of financial education of the segment with business thinking

Financial education	Financial activity	Financial attitude	Financial education (scale of 100 scores)
Score			
4.89	6.19	2.69	65.6

Segment burdened with debts: Respondents of this segment agree to the following theses:

- At this moment I have excessive debts;
- I need debts for self-support from wage to the wage;
- I always try to distribute monthly income, but in spite of this, I spent everything senselessly.

This segment is burdened with debts and barely lives from wage to wage. Besides, it is hard to manage scarce financial resources in spite of repeated attempts. 80% of this segment has the current loan.

If we take into account a type of settlement and gender, this group is close to average, but the main differences are age and regional distribution. In this segment, number of individuals above 66 and from age group 18-25 is significantly lower that average. However, share of age group 36-55 is more than average.

If we take into account a region, then this segment mainly lives in Mtskheta-Mtianeti, Shida Qartli and Samtskhe-Javakheti.

The score of financial education of the segment burdened width debts is lower than country's average and comprises 57.7 out of 100 (Table 4).

Table 4

The general indicators of financial education of the segment burdened with debts

Financial education	Financial activity	Financial attitude	Financial education (scale of 100 scores)
Score			
4.49	4.79	2.84	57.7

Wasteful segment: Respondents of this segment agree to the following theses:

- It is more pleasant for me to spend money, than to save it for the long-term purposes;
- I live for today and think less about tomorrow;
- Money is for spending.

Young people (from age group 18-25) are often representatives of this segment and share of men is significantly higher than women.

If we take into account a region, then representatives of this segment often live in Tbilisi and Samegrelo. Probability to meet this people in Shida Qartli or Samtskhe-Javakheti is almost equal to zero.

Wasteful segment thinks that it must live for pleasure and money is made for this purpose. Representatives of this segment live for today, think less about tomorrow and orient on short-term goals. Therefore, this segment seldom saves any money.

The score of financial education of wasteful segment is the lowest and comprises 49.2 out of 100 (Table 5).

Table 5

The general indicators of financial education of the wasteful segment

Financial education	Financial activity	Financial attitude	Financial education (scale of 100 scores)
Score			
4.43	4.19	1.70	49.2

"Shopaholic" segment: Respondents of this segment agree to the following theses:

- Sometimes I buy things spontaneously, unexpectedly and only lately I understand that it wasn't affordable for me;

- It irritates me, when people constantly distribute and count money;
- If I wish something too much, I will lend money.

"Shopaholic" segment is a wasteful in its nature. "Shopaholics" prefer consumer needs over financial resources, lend money to satisfy their desires, make spontaneous decisions when buying products and people, who always distribute and count money, are irritating for them. Wasteful segment is oriented on spending money, but "shopaholics" are concentrated on the particular consuming temptations.

It is interesting that share of men is once again higher in this segment. If we take into account an age group, number of respondents from age group 18-35 is higher than average, but number of respondents from age group 56-65 is small.

Basically we can meet this segment in Samtskhe-Javakheti, Samegrelo, Qvemo Qartli, Guria and partially Imereti. Probability to find this segment in Mtskheta-Mtianeti and Shida Qartli is almost equal to zero. In difference from wasteful segment, share of "shopaholics" from Tbilisi is lower than in other segments.

The score of financial education of "shopaholics" is quite low and comprises 50.2 out of 110 (Table 6).

Table 6

The general indicators of financial education of the "shopaholic" segment

Financial education	Financial activity	Financial attitude	Financial education (scale of 100 scores)
Score			
3.99	3.82	2.74	50.2

3. Conclusion

Data accumulated as a result of the study is important for development of certain standards and indicators of population's financial activity, as well as for development and implementation of particular programs in the scope of national strategy of financial activity.

Responsible activities, such as paying taxes on time and consideration of financial resources before buying any product, are widely-distributed in population, but often we meet activities that have undesirable financial results.

Consumer must have habit to make private and household budget, as well as it is important to make savings and develop long-term aims. Financial decisions must be part of generalized financial plan and not spontaneous or unadvised activities.

There is positive dependence between healthy culture of saving and financial welfare. Population without culture of saving often gets in a situation, when new loan is necessary to redeem another one.

Special means are necessary to support beneficial financial activities and gather reliable or comparative data. Such means may be resource centers, web portals and mobile channels. Besides, it is recommended to launch campaigns about benefits of savings, as well as develop and distribute mechanisms to support savings.

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I.10. LOAN LIABILITIES AND DEBT BURDEN OF THE POPULATION IN GEORGIA: ANALYSIS AND ASSESSMENT

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Abstract. This scholarly article, based on the latest literary sources and rich factual materials, discusses such important issues of financial education as the debt obligations and debt burden of the population.

It has been proven that interest-free loan from friends and bank loan prove to be the most widely-used loan sources by the Georgian respondents, with 42% of people borrowing interest-free from a friend, and 39% borrowing from a bank. In terms of popularly, bank loan is followed by pawnshop loan (18%), payday loan (12%), and MFI loan (11%). In general, middle-income households prove to be the most active borrowers, followed by higher-income households. Interest-free loan from a friend/family is the most popular amongst low- to middle-income respondents and thus, it is likely that such loans are predominately given in small amounts.

The data obtained through this research is highly useful for setting approximate baseline and benchmarks within the frames of the National Strategy for Financial Education, and for developing financial literacy programs.

Keywords: loan source, loan liabilities, debt burden, financial education, online loan.

1. Introduction

In recent years, the issue of financial obligations and debt burden of the financial population has occupied a priority place in the political agenda of many countries.

The data collected as a result of the present study allows us to study the current level of debt and debt burden of the population in the country, indicates which segments of the population need special attention, identifies gaps in debt and debt burden, and helps to set standards and debt for the national strategy, as well as for individual programs to be implemented within it.

Within the framework of the research, 1100 respondents (age: 18+) were interviewed by face-to-face survey method across the country. A stratified cluster sampling method was used used. The selection was made according to the regions and the type of settlement. Sampling points were selected in proportion to the population; adults were randomly selected in households based on the „last birthday principle" (adults who had the birthday most recently were chosen as respondents). The fieldwork was conducted between April 1 and April 25, 2020.

In addition to basic frequency analysis, this research includes factorial analysis and the statistical analysis using the Affinity Index.

2. Research results and discussion

One of the goals of this research household borrowing trends and the estimated level of the debt burden. According to the survey, 53% of the population has a current home loan, while 37% of respondents say that no one is currently using a loan in their household.

The most widespread loan type used during the past year in Georgia is an interest-free loan from relatives. For 39% of the respondents, the main loan source is a bank; for 18% - the most common loan source is a pawn shop. 12% of those surveyed have a payday loan ("an online credit") experience, while 11% have borrowed money from microfinance organizations and 3% -from private moneylenders. Out of those 12% who got a payday loan during the last year, 7% still have a current payday loan in the amount of 350 GEL on average (Table 1).

Table 1

Loan source during the last year (percent of cases)

Answer to the loan source	percent
Refused	3
We have not taken a loan	27
Payday ("online") lender	12
Microfinance organization	11
Bank	39
Pawn shop	18
A private person - interest-bearing debt	3
Friend/relative/colleague - interest-free debt	42

In total, the segment that has loan-bearing experience has approached on average 1.7 loan sources. In the regional profile, the average number of loan sources is highest in Imereti - 2.18 sources, and lowest in Shida Kartli - 1.4 sources (Table 2).

Table 2

Distribution of loan sources by region (average)

Name of the region	Number of loan sources
Imereti	2.2
Kakheti	1.8
Kvemo Kartli	1.7
Mtskheta-Mtianeti	1.7
Tbilisi	1.7
Samtskhe-Javakheti	1.6
Adjara	1.6
Guria	1.5
Samegrelo	1.5
Shida Kartli	1.4

If we look at average monthly household loan payments from income perspective, we will see that for households with monthly income up to 550 GEL (550 GEL being 75% of the median monthly household income in the country), the average monthly loan payment amounts to 32% of their monthly income. For households whose monthly income falls between 551 and 900 (900 being 125% of median household monthly income in the country), the average monthly loan payment amounts to 48% of the household income.

Further, households whose income is between 901 and 1500 GEL pay about 38% of their income to service the loan, while for households with the income of 1501+ GEL/month, the average monthly loan payment amounts to 36% of their income.

Within the frames of the study, we looked separately at lump sum payments that households make to service payday ("online") loans. These payments, along with monthly household payments on all other types of credit, are presented in Tables 3 through 6.

Table 3

Household Monthly Installment on the loan

Highlights	Currency: GEL
Mean	393
Median	226
Minimum	10
Maximum	9.081
Standard deviation	560
Quantity	581

Table 4

A single down payment made by a household to repay an "online loan"

Highlights	Currency: GEL
Mean	350
Median	300
Minimum	50
Maximum	1500
Standard deviation	274
Quantity	80

Table 5

Monthly installment of households according to loan income

Average household monthly income (profile)	Mean	Median	Standard deviation	Quantity

Up to 550 GEL	178	147	142	255
551 - 900 GEL	351	300	237	145
901+ GEL	636	500	560	143

Table 6

Uniform contribution made by households to repay the "online loan" according to the income

Average household monthly income (profile)	Mean	Median	Standard deviation	Quantity
Up to 550 GEL	276	234	234	29
551 - 900 GEL	317	300	215	21
901+ GEL	438	347	274	21

It is interesting to look at the range of PTI (payment-to-income ratio) of households within different income bands in order to assess their relative indebtedness levels. While it would normally be expected that the PTI increases with the increase of family income, our analysis revealed that the middle-income families (with monthly household income between 551 and 900 GEL) have the highest PTI ratio and thus, are the most burdened by current liabilities (Table 7).

Table 7

In terms of household PTI revenues

Average household monthly income (Profile)	**Mean**	**Median**
Up to 550 GEL	40%	34%
Up to 550 GEL	48%	41%
901+ GEL	37%	29%

It is noteworthy that middle-income households often borrow from non-bank financial institutions, such as pawn shops and "online" lenders, which may not be checking the creditworthiness of their clients at all or not as thoroughly as banks do, leading this segment to excessive levels of debt (Table 8).

Table 8

Loan sources by income categories

Total %	from 783 respondents	Current loan	Friend … debt without interest	A private person	Pawn shop	Bank	Microfinance organization	Payday (Online) credit agency
53.2%	Up to 550	43.6%	64.2%	2.5%	23.0%	47.6%	13.0%	10.0%
18.8%	551-900	70.0%	62.4%	2.0%	29.3%	60.9%	15.8%	25.0%
11.5%	90 -1500	64.6%	47.8%	3.5%	30.8%	65.6%	10.2%	31.6%
3.6%	1501-2000	67.5%	52.6%	3.8%	16.0%	78.6%	16.5%	11.8%
4.9%	2001 and more	65.2%	49.7%	6.2%	14.4%	80.9%	30.5%	15.3%

Further, it must be noted that generally, when analyzing household income and expenditures, we may encounter certain inaccuracies, as far as respondents may not be willing to disclose full and detailed information on their income and expenditures; to add, respondents may also not be sufficiently informed about the liabilities and revenues of their household members.

Looking at loan sources for households with different income levels provides interesting insights. The use of bank loans increases significantly with the improvement of income levels. There is a higher probability of encountering people who have a bank loan in the segment whose household monthly income is above 1501 GEL than in the households that fall in other income bands. Further, 65.6% of households with monthly income between 901 and 1500 GEL, and 60.9% of households with monthly income between 551 and 900 GEL currently have a bank loan (Table 8). It should be noted that none of the formal loan sources are particularly common in a segment with a monthly income of up to GEL 550; 64.2% of this segment has an interest-free loan from a friend or relative.

An interesting picture is given by the current loan liabilities in demographic terms. There is almost no traceable difference between household loan exposure levels in a gender profile: 53.2% of males and 52.3% of females reported having a loan (Table 9).

Table 9

Current loans in demographic terms

Highlights	Points
GENDER	
Female	53
Male	52
AGE	
18 -25 year	51
26-35 Years	62
36-45 Years	66
46 - 55 Years	59
56 - 65 Years	43
66 and more	32
EDUCATIONAL LEVEL	
University-level education	55
Technical education	54
Complete secondary school	51
Some secondary school level	43
EMPLOYMENT	
Self-employed	65
In paid employment	70
Apprentice	50
Looking after the home	57
Looking for work [unemployed]	52
Retired	32
Unable to work due to sickness or ill-	40
health	45
Not working and not looking for work	27
Student	13
Pupil	50
Refused	
EMPLOYMENT GROUPED	
Employed (Apprentice included)	68
Not working	44
Refuse	50
REGION	
Imereti	66
Tbilisi	49
Adjara	58
Kakheti	41
Kvemo Kartli	60
Guria	63
Shida Kartli	44
Mtskheta - Mtianeti	92
Samegrelo	34

Samtskhe-Javakheti	54
<u>SETTLEMENT TYPE</u>	
City	51
Village	55
<u>LANGUAGE GROUP</u>	
Georgian-speaking	53
Other languages	46
<u>ECONOMIC STATUS</u>	
We can buy house	59
We can buy everything except house	56
We can buy everything except for a new…	64 59
We find it difficult to buy a TV	48
Buying clothes is a big problem	47
We can hardly make ends meet	41
Don't know	
Total	53

The proportion of those respondents who has a loan in a household increases steadily from the age of 18 till the age of 46. 51% of those between the ages of 18 and 25 have a loan in a household, as opposed to 66% of the respondents between the ages of 36 and 45. Starting with the age of 46 and up, household loan exposed proportion starts to drop again; only 32% of the respondents whose age is 66 and up have a loan in a household. Again, we must take into account that we may be facing certain inaccuracies when analyzing this data, as the respondents may not be fully informed about the liabilities of their household members. It is noteworthy that with the improvement of education levels, the household loan exposure generally increases as well. In particular, 55% of those with the university education have a loan in a household, while the same is true for only 43% of those with incomplete secondary school education.

If we group the employed respondents of all occupations together (excluding the self-employed segment), we will see that the respondents in this group are most inclined to having a loan in a household. More specifically, 70% of this group has a loan in a household. This segment is followed by a self-employed segment, 65.3% of these respondents having a current liability. If we group unemployed respondents together, we can see that 44.2% of them have a current loan, which is a rather low number, when compared to 68.2% of the total employed segment (including self-employed) that has a loan.

55% of the rural population has got a current loan, as opposed to 51% of the urban population. Mtskheta – Mtianeti, Imereti and Guria are three regions with the highest loan exposure. The least loan exposed region is Samegrelo, where only about 34% of the surveyed audience has a current loan. 53.4% of Georgian speakers currently have a loan, while the same is true for only 46.1% of non-Georgian speakers in Georgia.

The proportion of current loan holder households increases with the improvement of economic status. In particular, as you can see from Table 9, the loan exposure steadily increases from the segment that can hardly make ends meet up to the segment that can buy anything except a new car with their own funds or credit (from 47% to 64%), while in the upper economic classes, the loan-holders' proportion steadily decreases, yet still stays above the country's average figure.

3. Conclusion

The research found that interest-free loan from friends and bank loan prove to be the most widely-used loan sources by the Georgian respondents, with 42% of people borrowing interest-free from a friend, and 39% borrowing from a bank. In terms of popularly, bank loan is followed by pawnshop loan (18%), payday loan (12%), and MFI loan (11%). In general, middle-income households prove to be the most active borrowers, followed by higher-income households. Interest-free loan from a friend/family is the most popular amongst low- to middle-income respondents and thus, it is likely that such loans are predominately given in small amounts. It is noteworthy that none of the formal loan sources are particularly popular in the low-income segment (with monthly income of up to 550 GEL). Further, household loan exposure generally increases in proportion with the improvement of education levels, employment, and economic status; to illustrate, 55% of those with university education, and 68% of the employed population have a loan in a household, while the same can only be said about 43% of those with incomplete secondary school education and 44% of the unemployed persons.

Household debt levels: It is interesting to look at the PTI (payment-to-income ratio) ranges of families within different income bands to assess their relative indebtedness levels. While it would normally be expected that the PTI increases with the increase of household income, the results of the study revealed that the middle-income families (with monthly family income between 551 and 900 GEL) have the highest PTI ratio and thus, are the most burdened by current liabilities. This finding may be partially due to the finding that middle-income households often borrow from non-bank financial institutions, such as pawnshops and "online" lenders, which may not check the creditworthiness of their clients at all or as accurately as banks do, leading these segments to excessive borrowing. In addition, when discussing household indebtedness levels, it must be taken into account that the residents may not disclose full amounts of their liabilities and income, or may not be sufficiently informed about the liabilities and income of other household members.

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PART II. CHALLENGES AND PERSPECTIVES OF THE BANKING SECTOR OF GEORGIA

II.1. DETERMINING OF THE FACTOR OF MUTUAL INFLUENCE OF THE RISKS ACTING ON THE BANKING BUSINESS AT THE SAME TIME AND ESTABLISHMENT OF A FORMULA FOR CALCULATING ITS AMOUNT

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Abstract. The paper indicates that we can argue and discuss for a long time about the types of credit risk, its essence, classification, assessment methods and means of their reduction, but in this case our goal is to investigate, analyze and show how the credit risk analysis of a potential bank borrower is carried out in modern banking practice and in their assessment, what a special phenomenal problem was revealed. It is indicated that in today's valid norms and calculation formulas, the values of the risks simultaneously affecting the banking business are simply gathered (summed up) and the factor of their influence on each other is not taken into account, as such, the phenomenon is confirmed in the formula for calculating the annual inflation rate and in the formula for reducing the amount of the monthly interest rate charged on the use of credit to a quarterly basis. In the present work, it is proposed to clarify the problem of the mutual influence of risks acting on the banking business at the same time and

to take into account the mentioned phenomenon in the calculation formula.

Keywords: Risk allocation decision, Risk-Management, Investment liquidity risk, Risk portfolio, Money market, Capital market.

1. Introduction

In general, it can be noted that there are mainly the following types of risks: market risk, liquidity risk, operational risk, percentage risk, currency risk, business risk, settlement risk, legal risk, reputational risk, credit risk, global risk, regional risk, sectoral risk, client risk, business risk, payment risk, project risk, collateral risk and others.

It should be noted that the goal of the bank's policy in relation to financial management is to organize clear processes for effective management of financial risks, to establish mandatory limits and limit parameters for each type of risk, to implement balancing between types of interrelated risks. Complete balance is impossible here, as actions taken to reduce some risks have the effect of increasing others.

It should also be noted that the factors of the high rate of interest in the country are, on the one hand, the lack of financial resources, and on the other hand, high entrepreneurial risk, which doubles during bank lending, as entrepreneurial risk is combined with credit risk.

It should also be noted that all types of risks are interconnected and have a corresponding impact on the bank's activities. A change in any one risk practically leads to a change in all other risks, thus affecting the stability and reliability of the bank, and thus all of the above makes it difficult to select the methodology and methods for assessing each specific risk level.

2. Research results and discussion

For general regulation of banks' activities, including limiting the impact of certain types of risks on it, mandatory economic norms and limits are used by the National Bank of Georgia (NBG) as a supervisory body. In addition, when considering the given problem, the norms of those risks, which determine their permissible limits, have the greatest importance. Consider some practical examples of them:

Example 1: Formula for determining the bank's overall risk level (**N_r**) - It is presented below in the following form, where we especially want to point out that in the calculation formula, the indicators of the bank's permissible total risk (internal banking risks can be: structural, client composition, settlement, emission, malfeasance of bank employees, active and passive operations and capital, i.e. balance sheet, credit, interest rate, currency, refinancing, unbalanced liquidity, insufficient diversification of operations, i.e. banking specialization risks) are simply added together and an important factor of their mutual influence, as the mentioned circumstance in the formula for calculating the annual inflation rate, is the influence of monthly inflation rates on each other - Neglected [2: 247-255]:

$$\boldsymbol{N_r = (R1 + R2 + \cdots + Ri + \cdots + Rn) \times E/K}$$

Where: N_r – is the level of total risk allowed by the bank;

Ri - the risks of the bank i – according to operations or taking into account risk-weighted assets (i = 1, 2, … , n);

E - are global risks (external risks);

K is the capital of the bank.

Let's assume that the banking business is simultaneously affected by 5 different types of risk, each with a limit equal to 5 units, then based on the formula for determining the overall risk level of the bank:

$$\boldsymbol{N_r = (5 + 5 + 5 + 5 + 5) \times 5/12 = 10.25}$$

The acceptable criterion level of the bank's overall risk is therefore set within 10 units:

- N = (0 – 5) - The bank's risk level is low, which it can ignore for some time;

- N = (5 – 10) - Is the average level of risk, which requires careful attention from the banking institution;
- N = 10 is a high level of risk, above which the bank may go bankrupt.

Example 2: Economic norm established for commercial banks kk1 (primary capital ratio) - stipulates that the bank's primary capital must be at least 8 percent of the risk-weighted assets, where the risk-weighted assets are only added together [3: 282].

Example 3: economic norm established for commercial banks kk2 (supervisory capital ratio) - stipulates that the initial capital of the bank must be at least 12 percent of risk-weighted assets [3: 282], where risk-weighted assets are still simply collected (summed up).

In all three examples above - in the acceptable level of the bank's overall risk, also, as a result of delving into the structure of the calculation formulas of economic norms (kk1 and kk2) established for commercial banks, our attention was focused on such a factor that in the formulas - the values of simultaneous risks (R1 + R2+ ... + Ri + ... + Rn) and the results of risk-weighted assets are simply summed up (collected) and the qualitative factor of their direct impact on each other (phenomenon) is not considered, as the mentioned factor is included in the formula for calculating the annual rate of inflation: $[(1 + r_{month})^n – 1] \times 100\%$ [1: 48]. For example, if monthly inflation during the year is equal to 9%, then the level of annual inflationary depreciation is not (9% x 12 months) = 108%, but as a result of taking into account the degree of direct impact of monthly inflation values on each other, it will be equal to:

$$
\begin{aligned}
[(\mathbf{1}+\boldsymbol{r_{month}})^{\boldsymbol{n}}-\mathbf{1}]\times\mathbf{100\%} &= [(\mathbf{1}+\mathbf{0.09})^{\mathbf{12}}-\mathbf{1}]\times\mathbf{100\%}\\
&= (\mathbf{1.09^{12}}-\mathbf{1})\times\mathbf{100\%} = (\mathbf{2.813}-\mathbf{1})\times\mathbf{100\%}\\
&= \mathbf{1.813}\times\mathbf{100\%} = \mathbf{181.3\%}
\end{aligned}
$$

That is, taking into account the degree of direct impact of the inflation values of different months during the year on each other (as opposed to simply adding up their values or multiplying them by 12 months), the value of the real growth coefficient in this case is a multiple of (181.3 : 108) = 1.6.

As the monthly inflation of 9% in the country is very high and unrealistic, the authors have discussed below the real monthly inflation in Georgia under the conditions of 3-7% and taking into account the degree of direct influence of the monthly inflations on each other, the tabular data and growth coefficients of the calculation of the real annual inflation are calculated (Table 1).

Table 1

Data for calculating the real annual rate of inflation, taking into account the influence of monthly inflation on each other

Monthly inflation in percentages:	**Depreciation by annual inflation is not (r_{month} x 12)**	**Annual inflation will be calculated: $[(1 + r_{month})^{12} – 1]$ x 100%**	**The growth rate is equal to:**
Monthly inflation 3%	(3 x 12) = 36%	$[(1 + 3)^{12} -1]$ x 100% = = 42,6%	K = 42,6 / 36 = =1,2
Monthly inflation 4%	(4 x 12) = 48%	$[(1 + 4)^{12} -1]$ x 100% = = 60,1%	K = 60,1 / 48 = =1,3
Monthly inflation 5%	(5 x 12) = 50%	$[(1 + 5)^{12} -1]$ x 100% = = 75,6%	K = 75,6 / 50 = =1,3
Monthly inflation 6%	(6 x 12) = 72%	$[(1 + 6)^{12} -1]$ x 100% = = 101,2%	K = 101 / 72 = =1,4
Monthly inflation 7%	(7 x 12) = 84%	$[(1 + 7)^{12} -1]$ x 100% = = 125,2%	K = 125 / 84 = =1,5

From the given tabular data, it can be seen that when the monthly inflation varies from 4% to 6%, the values of the growth coefficient, taking into account the influence of the monthly inflation indicators on each other, range from 1.3 to 1.4, that is, the average value of the growth coefficient is equal 1.35.

The formula for calculating the amount of interest payment on the use of credit by legal entities can also be used as an argument confirming the modification of the given formula. It is known that the payment of interest on the use of credit by individual entrepreneurs - monthly, and by legal entities - monthly or quarterly is legally permissible. The recalculation of the interest amount from the monthly value to the quarterly value is carried out based on the following formula:

$$\boldsymbol{J = [(1 + i/12) \times 3 - 1] \times 4}$$

where: J - is the amount to be paid quarterly based on the annual interest rate in interest;

i - annual interest rate expressed in decimals.

Let's assume that the annual loan rate is equal to 24%, that is, i = 0.24, then the quarterly interest rate will not be equal to (2% x 3 months) = 6%, but:

$$\boldsymbol{J = [(1 + 0.24/12) \times 3 - 1] \times 4 = [(1 + 0.02) \times 3 - 1] \times 4}$$
$$\boldsymbol{= (3.06 - 1) \times 4 = 2.06 \times 4 = 8.24\%}$$

Therefore, during the quarter (3 months), the expected growth coefficient of the influence of the monthly interest rate on each other will be equal to: (8.24 : 6.0) = 1.37.

As a result of using the materials and methods thus studied and discussed, according to our research Taking into account the mutual impact of the risks that actually act on the banking business at the same time, the total value of the risk must be increased (reinforced) at least by a multiple of 1.35, i.e. by at least 35%, and the formula for determining the criterion level of the bank's overall risk admissibility can already be formulated as options:

Option 1: The formula for determining the bank's overall risk level (N_r) - can be formulated as follows:

$$\boldsymbol{N_r = 1.35 \times (R1 + R2 + \cdots + Ri + \cdots + Rn) \times E/K}$$

By inserting the conditional limit values of various risks affecting the banking business at the same time, according to the formula determining the overall risk level of the bank, it will be equal to:

$$\boldsymbol{N_r = 1.35 \times (5 + 5 + 5 + 5 + 5) \times 5/12 = 1.35 \times 25 \times 0.166 = 5.6\ (\textit{and not}\ 10.25)}$$

And the acceptable criterion level of the overall risk of the bank, therefore, within the framework of 6 units, will be determined as follows:

- N = (0 – 3) - The bank's risk level is low, which it can ignore for some time;
- N = (3 – 6) - Is an average level of risk, which requires careful attention from the banking institution;
- N = 6 - There is a high level of risk, above which the bank may go bankrupt.

Option 2: The formula for determining the overall risk level of the bank (N_r) - taking into account the factor of mutual influence of the risks simultaneously affecting the business and using the architectonics (construction) of the formula for calculating the annual inflation rate, it can be formulated as follows:

$$\boldsymbol{N_r} = [(\mathbf{1} + \boldsymbol{R_{ave}})^{\mathbf{12}} - \mathbf{1}] \times \mathbf{100}\%, \boldsymbol{from\,which}$$

$$\boldsymbol{N_r} = [(\mathbf{1} + \boldsymbol{R_{ave}})^{\mathbf{12}} - \mathbf{1}] \times \mathbf{100}\% = [(\mathbf{1} + \mathbf{0.05/5})^{\mathbf{12}} - \mathbf{1}] \times \mathbf{100}\%$$
$$= [(\mathbf{1} + \mathbf{0.01})^{\mathbf{12}} - \mathbf{1}] \times \mathbf{100}\%$$
$$= (\mathbf{1.138} - \mathbf{1}) \times \mathbf{100}\% = \mathbf{0.138} \times \mathbf{100}\%$$
$$= \mathbf{13.8}\, \boldsymbol{unit}\ (growth\ 13.8 \div 10.25 = 35\%)$$

Which is a 34.7% increase of the result (10.25 units) obtained by summing up the values of simultaneously acting risks in Nr's current formula, that is, it confirms the phenomenon of almost 35% growth of simultaneous acting risks.

Option 3: Formula for determining the bank's overall risk level (N_r) - Taking into account the factor of mutual influence of risks acting simultaneously on the business and based on the modernization of the formula for converting the amount of loan interest from the monthly value to the quarterly value, it can be formulated as follows:

$$\boldsymbol{N_r} = \left[\left(\mathbf{1} + (\boldsymbol{R1} + \boldsymbol{R2} + \cdots + \boldsymbol{Ri} + \cdots + \boldsymbol{Rn})\right) \times \mathbf{3} - \mathbf{1}\right] \times \mathbf{4}$$
$$= [(\mathbf{1} + \boldsymbol{R_{ave}}) \times \mathbf{3} - \mathbf{1}] \times \mathbf{4}$$

By inserting the same data into the given formula, the result obtained is identical to option 2:

$$\boldsymbol{N_{r=}}[(\mathbf{1} + \boldsymbol{R_{ave}}) \times \mathbf{3} - \mathbf{1}] \times \mathbf{4} = [(\mathbf{1} + \mathbf{0.24/12}) \times \mathbf{3} - \mathbf{1}] \times \mathbf{4}$$
$$= [(\mathbf{1} + \mathbf{0.02}) \times \mathbf{3} - \mathbf{1}] \times \mathbf{4} = [(\mathbf{1.02} \times \mathbf{3}) - \mathbf{1}] \times \mathbf{4}$$
$$= (\mathbf{3.06} - \mathbf{1}) \times \mathbf{4} = \mathbf{2.06} \times \mathbf{4}$$
$$= \mathbf{8.24}\%\ (growth\ 8.24 \div 6 = 37\%$$

A recalculation of the value of risk-weighted assets and capital adequacy ratio calculation is also carried out, taking into account the factor of mutual impact of simultaneously acting risks (growth factor K = 35%) (Table 2):

Table 2

Simplified illustration of risk-weighted assets and capital adequacy ratio calculation

A) Balance (for example, in thousand GEL)			
Assets:		Passives:	
Cashier	20	Deposits	242
Cash in the bank	60	Authorized capital	12
Mortgage credit	90	Net Retained Earnings	2
Other loans	100	Total capital	14
Total Assets:	270	Total Passives:	270
B) Risk-weighted assets and capital:		b) Risk-weighted assets and capital (option considering the author's coefficient of mutual influence of simultaneously acting risks of 1.35):	
1) Total capital	14		14
2) Risk-weighted assets:			
Cash (Zero Weight of Risk) 20 x 0,00 = 0	0		0
Cash in bank (Risk weight 20%) 60 x 0,20 = 30	30	(30 / 1,35) = 23	23
Mortgage loans (Risk weight 50%) 90 x 0,50 = 45	45	(45 / 1,35) = 33	33
Other credits (Risk weight 100%) 100 x 1,00 = 100	100	(100 / 1,35) = 74	74
3) Total assets weighted according to risk	175	(175 / 1,35) = 130	130
C) Capital adequacy ratio defined as:		C) Capital adequacy ratio defined as: Taking into account the author's coefficient of mutual influence of simultaneously acting risks of 1.35:	

(Total capital) / (Risk-weighted assets) = 14 / 175 = 0,08 i.e 8%	8%	(Total Equity) / 1.35 x (Risk Weighted Assets) = 14 / (175 / 1,35) x 1,35 = = 14 / (130 x 1,35) = 0,08 i.e 8%	8%

3. Conclusion

Considering the above, it is possible to make the following conclusions:

1. It is determined that in the formula for calculating the bank's general risk norm, the values of credit risks are simply collected (summed up) and the factor of their influence on each other is not taken into account, as such a phenomenon is confirmed in the formula for calculating the annual inflation rate and in the formula for reducing the amount of the monthly interest rate charged on the use of credit to a quarterly base.
2. The adjusted formula (Nr) for calculating the degree of acceptability of the bank's overall risk is proposed, where the factor of mutual influence of different risks operating simultaneously according to the bank's operations is taken into account, namely:
   - Its meaning can be: or it can be formulated taking into account the architecture of the formula for calculating the annual inflation rate:

$$\boldsymbol{N_r = [(1 + R_{ave})^{12} - 1] \times 100\%,\ from\ where}$$

$$\begin{aligned} \boldsymbol{N_r} &= \boldsymbol{[(1 + R_{ave})^{12} - 1] \times 100\%} \\ &= \boldsymbol{[(1 + 0.05/5)^{12} - 1] \times 100\%} \\ &= \boldsymbol{[(1 + 0.01)^{12} - 1] \times 100\%} \\ &= \boldsymbol{(1.138 - 1) \times 100\% = 0.138 \times 100\%} \\ &= \boldsymbol{13.8\ unit}\ (growth\ 13.8 \div 10.25 = 34.6\%) \end{aligned}$$

   - Or the formula for converting the monthly loan interest rate to a quarterly one will be established taking into account the architecture:

$$N_{r=}[(\mathbf{1}+\boldsymbol{R_{ave}})\times\mathbf{3}-\mathbf{1}]\times\mathbf{4}=[(\mathbf{1}+\mathbf{0.24/12})\times\mathbf{3}-\mathbf{1}]\times\mathbf{4}$$
$$=[(\mathbf{1}+\mathbf{0.02})\times\mathbf{3}-\mathbf{1}]\times\mathbf{4}$$
$$=[(\mathbf{1.02}\times\mathbf{3})-\mathbf{1}]\times\mathbf{4}=(\mathbf{3.06}-\mathbf{1})\times\mathbf{4}$$
$$=\mathbf{2.06}\times\mathbf{4}=\mathbf{8.24}\%\ (growth\ 8.24\div 6=37.3\%)$$

3. It has been confirmed that if the reality of the mutual influence of simultaneously acting risks on the banking business is recognized, then the mandatory norms in force today (where only the sum of the values of simultaneously acting risks is provided for in the formulas for calculating the coefficients) must undergo appropriate changes, which ultimately will affect the tandem entities operating in the banking sector - creditor banks. And the debtor will become the starting point for more reliable cooperation of borrowers and the perfect implementation of classic management tools - planning, analysis, regulation, control.

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II.2. GEORGIA'S BANKING SYSTEM DURING A PANDEMIC

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Abstract. The impact of the pandemic has significantly reduced economic activity and increased financial stability risks worldwide.

The financial system of Georgia was prepared to handle the shock of the pandemic and maintained resilience thanks to the financial stability policy that has been implemented in recent years. Previous capital requirements imposed by the National Bank of Georgia and the profits made by commercial banks have allowed banks to accumulate sufficient capital buffers to address stressful situations.

As for the liquidity of the financial market and the stability of the financing sources of commercial banks, the National Bank of Georgia has ensured this by introducing pre-pandemic liquidity coverage and net stable funding ratios.

Most importantly, Georgia's financial system is now stable against the backdrop of uncertainty associated with the pandemic.

Keywords: Financial system, Pandemic, Stability, Sustainability, National Bank of Georgia, Banking system.

1. Introduction

The policies pursued by central banks and governments to address the recession and the existing challenges caused by the pandemic were immediate, timely and reliable.

In the banking sector, most banking operations have gone smoothly, despite the problems outlined above. Banks have accelerated and effectively implemented technology, demonstrating unprecedented flexibility, resilience and sustainability. Above all, banks have played a decisive role in stabilizing the economy and implementing government incentive and assistance programs.

The adequate level of capital in the banking prior to the pandemic was of great help in mitigating the negative effects of the crisis and should contribute to the development of the global economy.

2. Research results and discussion

In order to mitigate the negative impact of the pandemic on the financial system and to stimulate the economy, the National Bank of Georgia has adopted prudential measures, both at the macro and micro levels, and developed a temporary supervisory plan. The temporary supervisory plan implies to use the capital and liquidity buffers of the banking sector during the financial stress.

Capital requirements for commercial banks have been reduced. Banks are able to use foreign currency buffers for GEL liquidity management and by doing so, maintain the total liquidity demand. The National Bank of Georgia ensures an appropriate level of liquidity in the financial system.The National Bank has launched swap operations to provide liquidity to the banking system.

The National Bank continues to work to increase the sustainability of the financial system. The National Bank monitors the current situation and uses all instruments to reduce the impact of the pandemic shock on the financial system. It is noteworthy that there is still high uncertainty regarding the timing of the end of the pandemic, as well as in assessing the impact of the pandemic on the financial sector.

Currently, the country's financial sector is healthy. It has accumulated sufficient capital and liquidity buffers to mitigate the shocks caused by the pandemic. Due to the pandemic, it is expected the share of non-performing loans will increase, but that commercial banks have already created reserves for possible losses.

Georgia remains sensitive to global economic and financial trends, as it is a small open economy with a high rate of dollarization, a current account deficit, and a growing dependence on international financial flows.

The Georgian banking sector undoubtedly has elevated concentration, although it does not limit competition. This is positively confirmed by the downward trend in interest rates.

A supervision strategy was developed in early 2020 to aid Georgia in advancing a sustainable, stable, and reliable financial system. Its ultimate goal is to define strategic priorities for 2020-2022 and plan related activities to achieve these priorities.

One of its main components is to promote the development of a sustainable financial technology ecosystem. This, of course, will encourage innovation in the financial sector [1].

In order to encourage competition in the financial sector, as well as to introduce new players to the market, the National Bank has established a Financial Innovation Office. It is a communication channel between financial technology innovators and regulators. The mission of the Office is to promote responsible innovations in the financial sector and to help Fintech organizations perceive the supervisory approach of the National Bank's regulations.

The National Bank of Georgia has also established Regulatory Laboratory Framework. It will help financial sector entities to test an innovative service and/or product in the supervised environment and the real-time regime [2].

The National Bank of Georgia is considering the issue of digital bank licensing. The emergence of digital banks as new players in the financial sector in Georgia will promote the development of digital ecosystems and innovative business models, as well as increase competition.

Because of the fact that commercial banks have switched to a remote operating mode, operational risks have increased considerably. It is noteworthy that cyber-risks in the financial sector in Georgia have not increased significantly, but there have been attempts at fraud. It should be noted that cyber-security oversight requirements entered into force in 2019.In addition, the National Bank of Georgia has established a relevant cyber-risk oversight unit to study and mitigate cyber-risk in the financial sector.

According to the data of 2019, the total operating loss of Georgian commercial banks is 22.4 million GEL, which is 2% less than the total loss for 2018. The pandemic is expected to increase the risks of cyber-attacks. Therefore, the financial sector needs to be prepared for them [3].

Sustainability issues can be a source of financial risk. The goal of financial risk management is to ensure financial stability. Assessing/studying the impact of risks related to sustainable development on financial stability and financial institutions is the responsibility of central banks and financial supervisors.

Table 1

Indicators of Georgian Commercial Banks(End of period, Billion of GEL)

Period	Total Assets	Loans to Non-Financial Sector and Households	Loan Loss Reserves	Equity Capital	Non-bank Deposits
01. 2019	38,8	26,4	1,32	5,18	22,59
02. 2019	38,9	26,4	1,34	5,26	22,91
03. 2019	39,4	26,8	1,35	5,29	23,14
04. 2019	40,0	26,7	1,38	5,26	23,13
05. 2019	41,2	27,6	1,39	5,18	23,94
06. 2019	43,1	28,7	1,41	5,22	24,64
07. 2019	44,4	29,3	1,45	5,31	24,96
08. 2019	44,9	29,6	1,44	5,42	25,30
09. 2019	45,8	30,1	1,43	5,48	25,57
10. 2019	46,3	30,8	1,45	5,52	26,27

11. 2019	46,5	31,4	1,47	5,59	26,25
12. 2019	47,2	31,9	1,35	5,75	26,24
01. 2020	46,7	31,9	1,36	5,86	26,47
02. 2020	46,2	31,6	1,35	5,96	26,52
03. 2020	50,1	35,0	2,53	4,98	28,88
04. 2020	49,1	34,2	2,51	5,05	27,58
05. 2020	49,4	34,2	2,51	5,13	28,22
06. 2020	49,3	33,8	2,44	5,20	28,77
07. 2020	51,1	34,5	2,45	5,28	30,54
08. 2020	51,0	34,5	2,43	5,38	30,93
09. 2020	54,3	36,4	2,49	5,46	32,84
10. 2020	53,9	36,4	2,44	5,63	32,28
11. 2020	55,9	37,4	2,45	5,74	33,59
12. 2020	56,9	38,2	2,44	5,85	34,63

In early 2021, the National Bank of Georgia signed a Cooperation Agreement (CA) with the International Finance Corporation to support the development of sustainable financing. Its goal is to support the National Bank in developing a sustainable financing system, including developing sustainable financial products and managing environmental and social issues in Georgia [4].

One of the important changes in the banking system of Georgia is that the National Bank has been authorized to implement resolution of a commercial bank. Since January 1 of this year, the Supervisory Authority has had a full-fledged basis for the rehabilitation and reorganization of commercial banks, which will make a great contribution to the stability of the financial system of Georgia [5].

In the event of difficulties for a commercial bank, the dispute resolution mechanisms allow the National Bank to react at an earlier stage. If the measures taken fail, the resolution calls for the restructuring of the commercial bank so as not to jeopardize the country's financial stability.

As of January 1, 2021, there were 15 commercial banks in Georgia, including 14 foreign-owned banks.In December 2020, as compared to the previous month, the total assets of commercial banks (in current prices) increased by 966.9 million GEL, or by 1.73%, and as of January 1, 2021, they constituted 56.9 billion GEL (Table 1).

Table 2

Income, expenses and profit dynamics of Commercial banks of Georgia (End of period, Thous. of GEL)

Period	Income	Expenses	Net Profit
01. 2019	352 007	276 926	67 755
02. 2019	324 452	261 442	55 743
03. 2019	360 245	269 868	75 104
04. 2019	357 612	284 370	64 196
05. 2019	359 832	288 359	63 984
06. 2019	345 001	309 542	33 993
07. 2019	386 658	297 051	82 672
08. 2019	383 690	262 597	110 106
09. 2019	380 552	273 615	96 620
10. 2019	399 564	301 127	87 886
11. 2019	394 811	305 197	83 557
12. 2019	452 796	299 671	132 019
01. 2020	410 942	305 938	96 026
02. 2020	383 296	272 958	100 030
03. 2020	405 960	1 485 337	-943 130
04. 2020	352 422	266 702	80 297
05. 2020	362 625	301 914	53 353
06. 2020	386 356	234 973	136 789
07. 2020	398 676	330 439	63 493
08. 2020	399 955	293 344	96 363
09. 2020	441 697	373 735	64 641
10. 2020	442 057	250 527	166 189
11. 2020	433 708	337 933	84 481
12. 2020	464 343	349 423	100 730

The equity capital of the banking sector is 5.85 billion GEL, which makes up 10.28% of the commercial banks total assets.

The net profit of commercial banks in 2020 amounted to 99.26 million GEL, which is almost 10 times less than in 2019 (953.63 million GEL).

Table 3

Non-cash payments by method of payment order initiation and money transfers dynamics (2019-2020)

Period	Internet Banking (Volume)	Internet Banking (GEL)	Mobile Banking (Volume)	Mobile Banking (GEL)	Money Transferts Inflow (Thous. of USD)	Money Transferts Outflow (Thous. of USD)
01. 2019	1 652 349	6 633 634 297	760 583	224 477 234	115 693,0	15 506,0
02. 2019	1 787 548	6 891 649 883	830 723	232 861 320	125 467,8	17 737,6
03. 2019	2 015 642	7 564 462 017	1 045 701	273 504 067	138 383,5	18 534,3
04. 2019	2 126 583	7 850 238 460	1 046 092	296 795 695	137 118,0	19 131,3
05. 2019	2 161 267	8 008 568 248	1 172 898	331 965 788	145 783,5	20 453,0
06. 2019	2 035 491	7 922 150 566	1 183 694	346 728 360	143 634,5	17 467,8
07. 2019	2 556 888	8 668 676 850	1 222 269	432 541 477	154 526,2	19 238,2
08. 2019	1 957 916	7 723 359 180	1 220 632	403 054 859	146 424,1	19 033,5
09. 2019	2 032 580	8 120 463 497	1 288 147	421 325 493	149 765,7	20 465,6
10. 2019	2 156 445	8 467 322 902	1 438 806	457 319 537	153 208,1	22 456,6
11. 2019	2 032 094	8 028 273 273	1 551 658	432 066 857	151 042,6	21 880,1
12. 2019	2 344 525	11 483 237 861	1 765 225	510 206 149	172 270,4	25 520,1
01. 2020	1 808 881	7 363 586 409	1 551 359	407 247 886	125 635,7	18 465,3
02. 2020	1 850 580	7 186 741 513	1 727 818	440 192 107	137 325,5	21 711,5
03. 2020	1 942 312	8 529 052 845	1 771 491	513 074 550	125 865,4	20 409,2
04. 2020	1 516 866	6 367 220 767	1 756 573	405 224 180	79 078,5	9 999,8
05. 2020	1 672 782	6 225 877 449	2 029 203	511 459 579	131 845,5	13 567,9
06. 2020	1 795 741	6 972 304 792	2 180 253	582 136 839	169 235,0	21 900,7
07. 2020	1 963 548	8 464 435 347	2 278 840	627 766 837	188 723,0	22 234,8
08. 2020	1 994 262	8 936 686 894	2 433 308	860 073 767	184 207,8	23 117,9
09. 2020	1 888 823	8 624 854 926	2 418 731	714 846 586	192 721,0	25 054,6
10. 2020	1 926 399	8 947 871 182	2 573 852	725 115 435	181 729,2	23 870,2
11. 2020	1 856 413	8 240 651 699	2 686 864	740 745 089	169 936,5	21 869,1
12. 2020	2 175 114	11 471 313 134	3 365 429	899 162 376	199 678,9	24 663,2

Because of the pandemic, 2020 was a challenging year for commercial banks (Table 2). In March they suffered 943.1 million in losses. Banks' net profit in December was 100.73 million GEL, which is 16,249 million GEL more than in November (84.48 million GEL), and 31.29 million GEL less than in the corresponding period of the previous year (132.02 million GEL).

Table 3 presents the dynamics of Internet and mobile banking, as well as payments before the pandemic and during the pandemic period 2019-2020. Remarkable in terms of remittances (inflow/outflow) is the month of April 2020, when the inflow of remittances amounted to only 79 078 thousand USD, and outflows - 9 999.8 thousand USD.

3. Conclusion

Generally, we may say that today, as a result of the reforms carried out in previous years, the National Bank of Georgia has many, and most importantly, effective monetary and macro-prudential policy instruments. Georgia's financial system is generally stable and has accumulated enough reserves to help the economy overcome the crisis faster and with less loss.

The National Bank of Georgia should promote competition in the financial sector. We also believe that the framework of the recent resolution is a timely step.

The National Bank will continue to work actively to ensure sustainability and stability of the financial system.

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II.3. BANKING FINANCING OF GREEN ECONOMY: TOOLS AND REGULATION MECHANISMS

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Abstract. The aim of the research is to generalize and systematize the results of scientific research on the participation of banks in financing the green economy. In the context of the historical approach, the authors apply the methods of critical analysis, logical generalization, systematization, and grouping. The research is based on scientific publications by foreign authors. As a result, the authors substantiated the correlation of the concepts “green”, “sustainable”, “responsible” bank, and identified that such green financial instruments as green bonds, in some countries - green loans, green deposits, green leasing, and green insurance are being introduced into banking practices.

Keywords: green economy, green loans, green financial instruments, sustainable development, stimulating banking regulation.

1. Introduction

Over the past few decades, the attention of the world community has been focused on shifting the vector of development of economic processes and relations towards the rational and environmentally friendly use of natural resources. In June 1992, at the UN Conference in Rio de Janeiro, the concept of "sustainable development" was formulated, i.e. development in which the satisfaction of the needs of living people is achieved and the possibility of meeting the needs of future generations remains.

The adoption of the concept of "sustainable development" necessitated the search for ways to achieve sustainable goals, the definition of directions for the transformation of economic relations, the emergence of a new term: "green economy". Green is understood as an economy that improves human well-being and ensures social justice, significantly reduces risks to the environment, and presupposes a favorable interaction between environmental, social development and economic growth.

The transition to a green economy requires a large amount of resources, including financial. This transition contributes to the transformation of the world financial system, the creation of new institutional structures, a change in the financial architecture, the redirection of financial flows, the introduction of new financial instruments into circulation, the formation of a regulatory framework, prudential regulation, and a new culture of management of financial institutions. These transformations are called "greening the financial system". Support for sustainable development by the financial system should have a positive effect on financial stability and can play a key role in finance.

One of the directions of transformation of the global and national financial architecture is the formation of a "green" banking system like a "network" of financial intermediaries: "green" banks, development banks, as well as commercial banks with separate eco-financial divisions. The financial policy of banks, focused on achieving sustainable goals of society, is a tool for creating opportunities for the development of a "green" economy.

Since the 90s. XX century banks promoted sustainable development by financing first environmental and then social projects. During the same period, the practice of doing business, including banking, is expanding in accordance with the Concept of Corporate Social Responsibility (CSR / CSR, Corporate Social Responsibility). In 1991, Deutsche Bank (Germany), HSBC Holdings, National Westminster Bank (Great Britain), Royal Bank of Canada and

Westpac Banking Corporation (Australia) adopted the United Nations Environment Program Financial Initiative (UNEP FI), aimed at integrating environmental approaches into the operations and services of the financial sector. At the beginning of 2020, this program was supported by about 170 banks around the world, including leading international banks, regional leaders, development banks and banks specializing in financing environmental and social projects. The ongoing processes of "greening" the banking system have led to the special relevance of theoretical understanding of the role of banks in financing the "green" economy, the need to generalize and systematize the results of relevant scientific research.

The structure of the article includes the following elements: evolution of the concepts of “green”, sustainable, responsible bank and banking, an overview of “green” financial instruments used in banking practice, and instruments for regulating responsible banking by the banking regulator. Finally, the main findings are summarized and directions for future research are identified.

2. Research results and discussion

2.1. Banks financing the green economy: development of terminologe: The "greening" of the financial system contributed to the development of the theoretical apparatus of banking, the introduction of the concepts of "green", "sustainable", "responsible" banking into scientific circulation.

The first references to green banking as an environmentally oriented bank are associated with triode’s Bank, founded in 1980 in the Netherlands. In 1990, triode’s Bank embarked on a Green Fund strategy to finance environmentally friendly projects, later called green initiatives. Following the example of triode’s Bank, banks around the world are starting to implement green initiatives in their activities. In this regard, "green" banking was defined as any form of banking services, thanks to which the country and the nation receive environmental benefits, "green" banking is engaged in "green" banks.

Officially, “green” banking has existed since 2003. Despite the fact that the banking business is inherently environmentally neutral, the original idea of a “green” bank was to minimize environmental damage from the bank's activities (reduce paper consumption, switch to electronic document flow, use of alternative energy sources, etc.). Also, banks could voluntarily participate in financing individual environmental projects.

In 2007, a new financial instrument appeared on the world financial market - climate and “green” bonds, the first issuers of which were Development Banks. Later, separate “green” Development Banks began to be created as government financial institutions. A 2015 Organization for Economic Cooperation and Development (OECD) report defines a green bank as a publicly owned company created specifically to facilitate private investment in low-carbon, climate-resilient infrastructure and other green sectors such as water and waste management; the green bank's mission is to leverage innovative finance to accelerate the transition to clean energy and combat climate change.

In the studies of the last decade, the “green” bank is considered not only as a state, but also as a commercial financial institution [1, 2], acting as one of the instruments of the “green” economy, promoting environmentally sustainable and socially responsible investments, ensuring the attraction of entrepreneurs to environmentally friendly production by financing environmental projects [3, 4].

Research on "green" banking is carried out in two directions: internal and external [5]. The focus of the internal direction of research is the internal bank organizational business processes to reduce the negative impact on the environment [6-8]; in the focus of the external - the attraction and provision of financial resources for the "green" economy [9-11].

In addition to the terms "green banking", "green bank" in the scientific literature uses the terms "sustainable banking" and "sustainable bank".

Interest of researchers in the interpretation of a “sustainable bank” is determined by the dissemination of the Concept of sustainable development, which becomes relevant not only for banks, but also for other stakeholders. Banking policies, communication and transparency, environmental investments and environmental risks are becoming the central and interrelated components of the term “sustainable bank”.

An analysis of the definitions of a “sustainable bank” in the scientific literature allows us to single out several approaches that do not contradict each other, which are based on the internal and external directions of research on “green” banking, and develop them in relation to sustainable banking. The first approach focuses on the bank's awareness of its role in sustainable development and the implementation of activities aimed at achieving sustainable goals. Such studies are devoted to the problems of transformation of the bank's business processes, its financial policy, the development of operations with "green" financial instruments and their impact on the bank's efficiency, as well as the problems of forming a new internal culture of management, including risk management, information disclosure [12, 13].

The second research approach to the term “sustainable bank” focuses on the external performance of the bank, which has a positive impact on people and the environment as a result of the adaptation of classic banking products and services to new social needs [14-16]. Such a bank integrates ESG[32] (Environmental. Social. Governance)

[32]Environmental, Social and Governance (ESG) criteria are a set of performance standards for companies and banks that they use to test potential investments. Environmental criteria take into account how the company operates in the field of environmental protection. Social criteria take into account how a company or bank manages employees and works with

criteria into its activities, paying attention to environmental risk management, socially responsible investments and their impact on the environment [17-20].

Sustainable banking plays a triple role, contributes to the development of "sustainable business thinking" by providing financial resources to economic agents, in some cases financial advice for new projects or initiatives, is aimed at supporting non-governmental organizations and government programs for the development of a new sustainable model of the national economy, improves the banking reputation and image, demonstrating interest in the development of a "green" economy; characterized by the transparency of environmental information and communication.

During the UN General Assembly on September 22-23, 2019 in New York, 132 banks from 49 countries around the world (180 banks in 2020) signed “Principles For Responsible Banking” to help any bank - regardless of the stage of its inclusion in the process of achieving sustainable development goals - to bring its business strategy in line with the goals of society. The implementation of the "Principles" is aimed at the formation and development of a stable (that is, ensuring the achievement of society's goals) banking system. These principles include:

- ► *the principle of alignment,* which implies the adaptation of the bank's business strategy to the needs and goals of society within the framework of national and regional requirements related to sustainable development;
- ► *the principle of impact and target setting,* implying a reduction in negative impact on the environment and a reduction in environmental and social risks associated with the activities of the bank itself; the implementation of the principle implies the

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customers. Management criteria relate to company management, executive compensation, audit, internal control and shareholder rights. The history of investing in accordance with ESG criteria begins in 2004.

publication by banks of the goals of activity in the environmental and social spheres, to which the greatest attention of the banking management will be directed;

- *the principle of working with clients and customers,* which involves building mutually beneficial relationships with customers in such a way that, as a result of interaction, the goals of sustainable development are achieved and the prosperity of present and future generations is ensured;
- *the principle of stake-holders,* which implies an active position of banks in relations with stakeholders in consultation, various interactions and cooperation to achieve common goals;
- *the principle of governance and culture,* which consists in effective intra-bank management and the formation of a culture of responsible banking;
- *the principle of transparency and accountability,* which implies that banks regularly check their individual and collective implementation of the Principles of Responsible Banking, provide transparent reporting with characteristics of positive and negative impacts on the environment, as well as assess their contribution to achieving the goals of society.

Thus, in 2019 representatives of the international banking community adopted the term “responsible bank”, the activity of which can be defined as “responsible banking”. Research on the use of the terms “green”, sustainable and responsible banking in the scientific literature leads to the following conclusions. It combines the concepts of banks' awareness of the need to carry out activities taking into account the minimization of harm to the environment. The term “green” bank is used in relation to both state “green” development banks and commercial banks, the terms “sustainable” and “responsible” bank - in relation to commercial banks.

Substantively, “sustainable banking” is a broader concept, it includes “green” banking: the activity of a “green” bank is aimed at minimizing the negative impact on the environment, while the activity of a sustainable bank contributes to the achievement of sustainable development goals not only in environmental, but also in the social sphere.

"Responsible bank" is a more formalized concept through the highlighted principles than sustainable and "green" in relation to commercial banks. Responsible banking can be characterized as the perfect form of sustainable banking, which has received official international recognition, implemented on certain principles.

2.2. Banks and green financial instruments: The adoption by the world community of the concept of sustainable development led to the formation of a new terminological apparatus, which implies the addition of "green" to the established economic and financial terms, filling them with new content. The terms "green" finance, "green" investments, "green" financial instruments are used to denote relations related to the accumulation of funds and their subsequent direction for the implementation of projects of environmental and social orientation, including with the participation of banks.

The scientific literature distinguishes between two approaches to the interpretation of "green" finance and "green" investment. Representatives of the first approach identify both terms [21]. Representatives of the second approach distinguish these terms: "green" finance represents a wider range of relationships [22]. Finance is green when it participates in financing public and private green investments, ensures the implementation of public policies that encourage environmental projects, and is a component of the financial system that is associated with green investments.

For the banking sector, green finance is defined as financial products and services that take environmental factors into account in lending decisions, monitoring and risk management, provided to promote environmentally responsible investments and incentivize low-carbon technologies, projects, industries and businesses.

Green financial instruments can be defined as financial assets and financial liabilities used by economic agents to achieve sustainable development goals. The “green” financial instruments for which the bank acts as a counterparty include “green” loans, “green” bonds (bonds), “green” deposits, “green” leasing, “green” insurance [23, 24].

There are differences in the use of certain “green” financial instruments by different banks. Development banks have historically been issuers of “green” bonds, directly lending to environmental projects, and sustainable, responsible commercial banks, their “green” structural divisions adapt their classic financial assets and liabilities to achieve sustainable goals.

"Green" credit is any type of credit instrument that is provided exclusively for financing or refinancing, in whole or in part, new and / or existing available environmental projects [25, 26]. Green credit is the link between cleaner industries and financial institutions.

Depending on the category of the borrower, there are two main types of "green" loans: loans to organizations in strategic sectors (performing strategic national objectives), and loans to other organizations [27]. Depending on the lending mechanism, direct green lending[33] and green on-lending[34] are distinguished.

To provide "green" loans, banks can form syndicates. "Green" loans improve the quality of total bank loan portfolios, help to reduce credit, reputational and legal risks of the creditor bank [28], improve its image, increase its competitiveness [29].

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[33] Direct “green” lending is carried out by providing funds by banks with state participation directly to “green” companies with a large amount of funds requested. Commercial banks can also independently carry out direct lending, depending on the demand for bank financing of green projects of borrowers. With direct lending, banks organize the issuance of a loan, control its repayment, and the execution of the terms of the loan agreement by the borrower.

[34] With green lending, government funds are initially directed to a financial company, for example, the National Development Bank, and then to commercial banks that finance green companies.

According to Bloomberg, in 2018 the volume of green loans (including guarantees and letters of credit) exceeded USD 99 billion; at the end of 2019 - at least USD 81 billion.

"Green" loans are provided by banks in accordance with the developed and approved credit policy. The Bank can provide in the credit policy for "green" credit products with attractive terms for borrowers (including the type of loan, term, interest rate and amount), thereby stimulating the creation and development of environmentally friendly and energy-saving industries and enterprises, influencing the change in the structure of social production, the ratio of dirty, or brown, and green businesses, contributing to green growth. At the same time, banks can “punish” enterprises that violate the norms and laws on environmental protection or energy conservation, by stopping lending, refusing to lend to projects without a positive environmental effect, thus controlling the adoption of environmental risks by borrowers [30].

Green credit policy can be developed and implemented not only by responsible banks, but also by the state [31]. The "green" credit policy of the state defines strategic sectors, priority sectors (for example, energy conservation, renewable energy sources, clean technologies), for the implementation of projects in which "green" loans should be provided by both commercial banks and development banks [32].

In addition to “green” loans, “green” financial instruments of “green” Development Banks and responsible banks rightfully include climate and “green” bonds[35], which are debt securities, from the placement of which the funds received are used to finance environmental and climate projects. Banks can finance new and

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[35] A green bond is a type of climate bond that is labeled green by the issuer, which means that the bond complies with the principles developed by the International Association of Capital Markets: use of funds, the process of selecting and evaluating projects for financing, revenue management and reporting.

refinance existing environmental projects with funds raised by securitizing assets into green bonds and then placing green bonds among third-party investors [33]. Bonds backed by commercial mortgages on green buildings have lower spreads compared to bonds backed by otherwise otherwise comparable real assets [34]. As of the end of 2019, financial institutions around the world issued about USD 86 billion of green bonds, of which about USD 31 billion were issued by development banks and about USD 55 billion by other banks[36].

In contrast to the "green" loan, which is a bank financial asset, transactions with "green" bonds form not only financial assets, but also financial liabilities of banks, since in the bond market banks act as both an issuer and an investor [35, 36]. Placing funds by banks in "green" corporate bonds necessitates the formation of financial market structures that assess the environmental risks of issuers of "green" bonds, assigning appropriate ratings [37]. Encouraging banks to place funds in "green" bonds should be carried out in parallel with stimulating businesses to invest in environmentally significant projects, including through the development and application of a "green" fiscal policy by the state [38], the formation of an effective regulatory framework [39, 40].

The development of transactions with "green" bonds will contribute to the development of the financial market both in the world and in Georgia, and will also increase investment activity in the economy. The National Bank of Georgia defines the banking sector as one of the main participants in the domestic green finance market, since it is banks that can have a stimulating effect on the formation and development of the green bond market.

2021 was the first year commercial banks of Georgia filled out the ESG forms, which are now available on the NBG’s webpage. This section summarizes the main findings from these forms and

[36] Green Bonds. Global State of the Market 2019 (2020). URL: https://www.climatebonds.net/files/reports/cbi_sotm_2019_vol1_04c_0.pdf.

highlights Key Performance Indicators (KPIs) on ESG for the Georgian financial system[37]. The disclosed information includes qualitative information such as business model, policies and due diligence, risk management, and quantitative information regarding the KPIs related to different ESG issues.

Analysis of the ESG related information from fifteen commercial banks shows that the ESG practices vary across the institutions. There are few commercial banks that are quite advanced in terms of sustainable finance and ESG risk management practices and they also have other social and environmental policies in place. On the other hand, there are some banks that have not implemented the ESG policies yet, but are in the process of developing or plan to develop their ESG policies in the near future. Detailed results separately on E, S and G are presented below.

E – Environmental: The information from the ESG reporting forms indicates that the majority of the commercial banks do not have a definition or classification system for green loans and thus, do not have data on it. Only 6 out of 15 commercial banks provided data on green loans. Among these six banks, most do not have a formal definition or classification system for green loans and only include loans related to energy efficiency and renewable energy projects in their reporting.

In 2020, the reported volume of green loans amounted to around GEL 405 million (USD 123 million[38]), most of which were denominated in USD. Among those banks that provided data on green loans, the share of green loans in the total loans issued during 2020, on average, was around 5%, ranging from 1% to 11%.

As for the total amount of green loans outstanding as of the end of 2020, it stands at around GEL 1.4 billion (USD 416 million).

[37] For more detailed information regarding each commercial bank, please visit: https://nbg.gov.ge/en/financial-stability/esg-reporting-and-disclosure.
[38] The value is calculated using the end of Dec. 2020 Gel/USD and Gel/EUR exchange rates.

The share of USD denominated loans, in this case, is even higher (71%). As of the end of 2020, the share of green loans in the total outstanding portfolio, on average, is around 6%, with the highest share of around 17%.

It should be noted that given the fact that most of the banks did not report green loans, as they do not have green loan definitions, these numbers are underestimated. Apart from that, most of the commercial banks that reported green loans data only included loans related to energy efficiency and renewable energy projects. This, once again, indicates the need for a common classification system and highlights the importance of having a green Taxonomy. Once the NBG adopts the SF Taxonomy and banks start applying it, green loan figures are expected to change and become more accurate and consistent.

As of the end of 2020, none of the commercial banks has ever issued green debt securities.

In terms of environmentally friendly activities, most banks have initiated some practices, mostly related to replacing vehicles with internal combustion engines with hybrid or electric cars and improving the energy efficiency of their offices and buildings. Apart from that, the majority of the commercial banks have waste management policies in place, mainly related to recycling, reducing, and separation. Only 3 out of 15 banks calculate and report Green House Gas (GHG) emissions, and even fewer has some specific target in this regard.

S – Social: The social part of the KPIs includes questions related to diversity in the workplace, training and education, customer privacy and satisfaction, workplace health and safety and other related topics.

There are around 23 thousand people employed in the Georgian banking sector. In terms of gender diversity, as of the end of 2020, 67% of all employees were women. This result is quite similar across all commercial banks. However, the share of females in senior management (board of directors, supervisory board) stands at lower level and is 24%, on average. Apart from that, in this case, the difference among banks is more apparent - there are some banks with less than 15%, while there are some outliers with 50-60%. As for the gender structure at the middle management level, by the end of 2020, on average, women held 43% of these positions. The numbers are consistent across banks.

In the Georgian banking sector, the highest share of employees (44%) are in the 20-30 age group. Next comes the 30-40 age group with a share of 36%. Age distribution has a similar pattern among commercial banks in Georgia. Regarding the employment of people with disabilities, only four banks indicated positive numbers, and the average share is around 0.5%. On the other hand, nine banks specified that at least some of their branches are adapted fully or partially and have special facilities and dedicated infrastructure for customers with disabilities.

During 2020, all commercial banks have provided training for their employees, however, the coverage varies. There are few banks where only 20% or fewer employees have attended the training. More than half of commercial banks have organized training for 70% or more of the employees, while some of them even covered the whole personnel. The difference regarding average expenses on training per employee is also evident.

The average employee turnover rate[39] in the Georgian banking sector is around 12%. The numbers across banks are quite different, ranging from 2% to 27%.

In terms of workplace health and safety, 87% of banks indicated that they have corresponding policies and procedures in place. Such policies include Occupational Safety Management Plan, Labor safety policy, Emergency action plan, among others. Apart

[39] annual turnover rate = 100*(number of employees who left)/ ((beginning + ending number of employees)/2)

from this, training on fire safety, emergency response, and other occupational safety issues is provided to the employees on a regular basis. Amid the recent pandemic, some banks also developed Covid-19 related policies as part of workplace safety.

G – Governance: The information provided in the ESG reporting forms indicates that the majority of commercial banks (eight banks) have a designated officer or body responsible for overseeing environmental and social policies and practices. Apart from that, nine banks reported that they have some ESG policies and procedures in place. In most cases, it is related to ESG risk management practices. However, some banks have also incorporated ESG consideration into their strategy. Moreover, results show that if there is an ESG policy in a bank, the Supervisory board approves it.

Besides the ESG risk management policies, most of the banks have also established policies related to ethics, business integrity, anti-bribery, etc.

Sequential steps have been made to improve the Georgian capital market environment. The recent reform of the state pension fund, representing a source of long-term financing of unprecedented scale, previously not seen in Georgia, is expected further to deepen the domestic capital market. In addition, NBG and the Government of Georgia are currently working on a reform to transform the relevant legal and regulatory requirements. These reforms ensure the approximation of Georgian regulatory principles to those of the European Union.

Even though green and sustainable bonds have not been issued in the local bond market, Georgian companies have started issuing these types of bonds in foreign stock exchanges:

► *JSC Georgia Global Utilities issued First Georgian Green Bond* - In July 2020, JSC Georgia Global Utilities ("GGU") issued USD 250 million green bond. The Notes were listed on the Global Exchange Market of the Irish Stock Exchange. The proceeds of the Notes will be used to refinance all existing debt of renewable energy and water assets of GGU and to finance capital expenditures in the water supply and sanitation business, including rehabilitating the water supply and sanitation system in Tbilisi and neighboring municipalities. The Notes are qualified as 100% Green. The environmental and social status of the relevant GGU activities was reviewed with the help of a qualified independent advisor. The activities were found to include a B+ environmental and social risk category. The second-party review of GGU's Green Bond Framework was provided by Sustainalytics.

- *Symbiotics launches first Sustainability Bond in Georgia with JSC MFO Crystal* - In May 2021, Symbiotics, a market access platform for impact investing, arranged the first Sustainability Bond ever issued in Georgia by raising USD 5 million in Georgian Lari equivalent for Crystal. The Sustainability Bond is listed on the Luxembourg Green Exchange, and the proceeds will be distributed over a 3-year period through social and green eligible loans and will be used towards the promotion of sustainable development, SME funding, energy efficiency, and renewable energy. The Social loans will be granted to microenterprises and SMEs to promote their development and support employment in the country. The Green loans will be used for financing energy efficiency, renewable energy, clean transportation, and sustainable agriculture projects.
- *SC Georgia Railway issued USD 500 million Green Bond* - In June 2021, JSC Georgian Railway (GR), a state-owned railway company in Georgia, issued USD 500 million 7-year green bond, listed on the London Stock Exchange. This is the first Green Bond issued by the company. GR's Green Bond Framework is aligned with Green Bond Principles, as validated by S&P Global. The bond proceeds will solely be used to refinance the Company's existing eurobond issued in 2012.

Such "green" financial instruments as "green" insurance, "green" leasing and "green" deposits are currently at the stage of formation, their use is being tested in banking practice, including Georgian.

Banks that are actively involved in the formation of sustainable development and a "green" economy must be ready to accept the changes that will arise in their activities in connection with the change in the paradigm of development of the economy as a whole. At first glance, changes in the bank's activities towards responsible business conduct are associated with additional costs and risks, including the risks of organizational changes. However, after the introduction, these changes will act as the driving forces of the bank's development, ensure its attractiveness in the eyes of investors and clients, and open up new market opportunities.

Researchers are unanimous in the opinion that the development of "green" financial instruments of banks is extremely important, if not decisive, for the development of "green" technologies, financing of clean production, creation of "green" jobs, ensuring the implementation of the Concept of Sustainable Development [41, 42]. In the existing economic realities, despite the presence in society of a fully formed understanding of the need for a responsible attitude to nature, the declaration by states of the goal of increasing the well-being of the population, a significant transformation of the entire system of social production is required. Certain responsible participants in the green economy need government support, including in the form of fiscal policy that stimulates economic agents, and for the banking sector - in addition to the system of incentive banking regulation and supervision.

2.3. Regulation of green banking: Banks operate in a regulatory environment, their activities, including green, are subject to regulation. In different countries, the function of banking regulation and supervision is assigned to the central bank or a specially created body, and can also be implemented by them jointly. Banking regulators, with appropriate government policies, are able to facilitate the channeling of financing to environmental projects by regulating the activities of banks, for which regulatory instruments can be applied.

Depending on the type of policy implemented in relation to responsible banking by the financial mega-regulator independently or jointly by several financial regulators, all regulatory instruments can be divided into instruments of monetary policy and macroprudential policy.

Within the framework of monetary policy, differentiated parameters of such instruments as operations on the open market, interest rates, direct quantitative restrictions, and mandatory reserve requirements can be applied.

In quantitative easing for green lending, the central bank uses banks' green financial assets in open market transactions and differentiates interest rates for transactions with responsible and other banks. The use of instruments is constrained by the lack of labeled "green" bonds, the lack of an established practice of assessing the "green" financial assets of banks. However, the preliminary announcement of the regulator's intention to include "green" requirements of banks in the composition of assets for which additional liquidity can be obtained will stimulate issuers to identify suitable assets and issue "new" green loans, which, in turn, can be refinanced through "green" bonds [43–45].

Direct quantitative restrictions as an instrument of monetary policy aimed at stimulating responsible banking can be implemented through the introduction of credit quotas, or limits. Credit quotas are fixed requirements for the structure of a bank's loan portfolio, establishing the obligation of banks to form part of the portfolio with loans with specified characteristics, to strategic industries or borrowers from certain geographic areas. Minimum mandatory quotas may be set for green projects in the banking portfolio, while maximum possible limits for carbon-intensive projects. However, a mandatory “hard” quota could potentially cause serious market distortions, lead to a green credit bubble and threaten financial stability.

Since 2019, The National Bank of Georgia began work on the adoption of regulations in the field of "green" financing and by 2022 plans to develop national rules and standards for the verification of "green" financial instruments: Differentiation is aimed at encouraging banks to issue "green" obligations required reserves. Reduced reserve requirements may be envisaged for issued green bonds and attracted green deposits.

In addition to monetary instruments, macroprudential policy instruments can be used to regulate responsible banking. However, the main goal of the regulator should remain the goal of ensuring financial stability. Macroprudential regulation of responsible banking is carried out in two directions: through the differentiation of prudential norms and through increasing the transparency of the market.

The most easy-to-use tool is the norms for the formation of provisions for possible losses on credit requirements, or insurance reserves. The reduced rates of insurance reserves for the "green" requirements of banks established by the regulator are a way of encouraging "green" investments in comparison with conventional investments, since they reduce the cost of reserves, have a positive effect on the profits of banks.

Requirements for bank capital and its sufficiency, as well as requirements for the formation of insurance reserves, can be differentiated depending on the type of bank and the characteristics of its credit investments. The introduction of reduced risk ratios for green credit claims reduces the aggregate amount of bank risk. As a result, “green” loans, investments in “green” bonds, investments in environmental projects will exert less pressure on capital than alternative investments of the bank [46].

Green macroprudential regulation in Brazil, China, India, Vietnam, Nigeria, Indonesia is mandatory; in Mexico, France, Belgium, Germany, Turkey, Japan, South Africa, and a number of other countries - is voluntary; in Russia, the USA, Canada, Great Britain, Australia, Argentina, Saudi Arabia, and a number of European countries it was submitted by the regulator for discussion [47].

When implementing macroprudential policies, climate change and environmental risks should be taken into account as factors that can lead to financial instability. To eliminate the impact of systemic environmental risk on financial and banking stability, increased reserve rates for bank credit requirements to brown industries and industries, environmental capital surcharges, and increased risk ratios for bank claims to carbon-intensive and related sectors can be established. Limitations of the risk of concentration of "green" claims in the banking portfolio for individual counterparties, certain industries or geographic regions can also be introduced, and climate stress testing can be carried out.

Developing the practice of implementing the Basel II international capital agreement to ensure market discipline, following the recommendations of the Task Force on Climate-related Financial Disclosures (TSFD), the regulator pays attention to the transparency of information on environmental financial risks, adopted by banks, which provides a framework for "green" macroprudential regulation and stress testing.

Another incentive tool for regulating responsible banking is the issuance of guidelines on green lending. Despite country differences, the guidelines usually include recommendations for assessing environmental risks as well as incentive schemes for green finance. The most famous are the Green Credit Guidelines issued in 2012 by the China Banking Regulatory Commission (CBRC) as part of the government's green credit policy. The guidelines recommend that banks include in their credit policies targets for green loans, adjust the terms of their provision China's experience has shown that, in order to achieve a positive macroeconomic environmental impact, guidelines of a recommendatory nature must be complemented by differentiation of prudential norms.

A macroprudential regulator works to foster a culture of responsible banking, including environmental and climate change issues on its agenda, signaling the importance of these issues, presenting the results of ongoing research on the green agenda for public comment, organizing educational workshops for bankers and investors, which allows to solve potential lack of knowledge on green finance, which has been identified as holding back the proliferation of risk management practices. Finally, the involvement of central banks in discussing standards and methods for interacting with government policies aimed at developing a green economy also plays an important role in the search for internationally agreed approaches to greening the financial system.

Thus, banking regulators and supervisors, central banks have at their disposal a wide range of tools to influence the decisions of banks to participate in financing the green economy, as well as to encourage banks to create and use in practice green financial instruments. However, at the moment it is too early to make an unambiguous conclusion which regulatory instruments or policies are the most effective or appropriate, as this will depend on the specific situation in the country and the specific instructions received by banking regulators, central banks, in accordance with government policy.

3. Conclusion

As a result of generalization, critical analysis and systematization of the existing scientific literature, the sought-after areas of research on the participation of banks in financing the "green" economy were identified, namely: the development of banking terminology in the context of the "greening" of the financial system, the formation of "green" financial instruments and their use in banking practice, as well as monetary and macroprudential “green” regulation of responsible banking.

It has been established that the concepts of “green”, “sustainable”, “responsible” bank and banking are united by the presence of an environmental component, the orientation of banks to financing environmentally friendly industries and industries. The term “green” bank is applied to state-owned green development banks and commercial banks. The terms “sustainable” and “responsible” bank and banking are applied to commercial banks, regardless of the form of capital ownership. A sustainable bank is a broader concept than a “green” commercial bank, since in its activities it focuses on achieving sustainable development goals not only in the field of environmental protection, but also in the area of improving the well-being of people. As a result of the development of the theory and practice of doing socially responsible business, the concept of sustainable banking was formalized through the allocation of special principles and transformed into the concept of responsible banking.

The development of the practice of responsible banking follows the path of transformation of classic products and services into environmentally friendly and socially oriented ones, accompanied by the transformation of business processes, management culture, and the content of banking policy. Such "green" financial instruments of banks as "green" bonds, in a number of countries - "green" loans are receiving the greatest development. "Green" deposits, "green" leasing are introduced into banking practice, "green" insurance is used. A responsible bank gains competitive advantages in the market, improves its image, while at the same time acting as a conductor of the "green" policy of the state, contributing to the "greening" of the economy.

The regulation of responsible banking by monetary and macroprudential policy instruments follows the path of stimulating the development of green financial instruments of banks and limiting activities that contribute to the financing of brown industries and industries. It was found that informing the regulator of economic agents about the recognition of the importance of the sustainable development agenda can stimulate banking operations aimed at financing the "green" economy. Responsible banking ensures financial stability, but the regulator needs to use macroprudential tools to timely identify a “green” credit bubble, concentration of systemic environmental risks in the banking sector, including using climatic and environmental stress testing. Monetary and macroprudential "green" regulation is implemented in accordance with the state policy in the field of sustainable development in general.

In our opinion, further research on the role of banks in financing the green economy will be carried out in the following areas: green financial instruments and performance indicators of the responsible bank; government policy of "green" credit; regulation of responsible banking and financial stability.

The range of research issues of the first direction will include: the impact of "green" financial instruments in the banking portfolio on liquidity, capital and capital adequacy, risks, insurance reserves, income, expenses and profit of the bank; factors of improving the profile of "risk-return" of "green" financial instruments; assessment of the competitive advantages of a responsible bank in the market; the relationship between corporate environmental performance (ESG) and bank value; transformation of business processes, internal culture of management, including financial management. The study of the impact of responsible banking on the achievement of sustainable development goals will be aimed at assessing the contribution of the banking sector to changing the structure of social production, fighting poverty, creating green jobs, assessing the formation of a culture of responsible business by other economic agents by banks, searching for effective legal norms and forms of government support for responsible banking.

Research on the regulation of responsible banking and financial stability will focus on setting targets for green lending policies; identifying conditions that strike a balance between monetary and macroprudential policy objectives for responsible banking; modeling of scenarios of climate shocks and mechanisms of transmission of these shocks to the economy through the financial system; mechanisms for the preventive detection of emerging "green" credit "bubbles"; the search for the most effective monetary and macroprudential instruments, depending on the specific conditions and government policy to achieve sustainable development goals.

The development of the practice of responsible banking and its regulation will solve the problem of limited data for empirical assessment, will provide an opportunity to substantiate and unify the system of indicators for further research on the role of banks in financing the green economy.

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II.4. FEATURES OF THE USE OF LOGISTICS IN THE FIELD OF BANKING SERVICES AND ESTIMATION OF THE OPTIMAL “GOLDEN” INTERVAL BETWEEN “WORKING” AND LIQUID ASSETS OF A COMMERCIAL BANK

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Abstract. The article discusses the main banking processes from the point of view of logistics. The bank's financial flows are defined and presented in the form of logistic flows, the stages of the mentioned flows are described. The opinions of the authors given in the paper about the indicated main shortcomings of banking logistics, among which the following are distinguished: the difficulty of finding and calculating information; the presence of a large number of adjustments related to the peculiarities of accounting; Difficulty in long-term planning; Absence of an adequate basis for comparison with analogues. It is also important that the analysis should be carried out on the information base of the balanced system of indicators, which was developed by D. Norton and R. Kaplan in the early 1990s of the 20th century, which is a combination of non-financial indicators characteristic of the traditional financial and bank development perspective of the past period. The article presents a proposal from the authors, according to which it is appropriate to use a complex approach in the practice of logistics, thus compensating for certain shortcomings. The paper implements the features of the assessment of the optimal "golden" interval between the "working" and liquid assets of a commercial bank.

Keywords: Banking logistics, Banking Services, logistic processes of the bank.

1. Introduction

Banking logistics itself is a system of planning, analysis, accounting and control of flow processes of banking activity.

The bank's logistics processes are realized on the basis of economic instruments (methods). There are a significant number of effective economic methods of bank logistics. In order to facilitate their selection, it is considered expedient to systematize the given methods according to logistics elements, such as: planning, analysis, accounting, control. In addition, the applicable economic methods of bank logistics depend on the operational or strategic period of the bank's activity.

In our opinion, the most important tool of logistics, which is important in any type of bank's activity, is the control of compliance of the actual indicators with the plan and the analysis of the bottlenecks related to it.

In the system of analysis of planned and actual indicators, the data about the already happened financial and economic facts, which are formed in the banking accounting system, are processed. When comparing planned and actual data, real and expected indicators are combined, not only for the past and present, but also for the future. As a result of the mentioned, the financial service of the bank has the opportunity to provide the management with relevant information for making management decisions in the interests of the bank's future development. Thus, deviations are a signal about the need to plan measures in relation to the perfection of the bank's activities.

2. Research results and discussion

Some researchers recommend that this analysis be carried out on the information base of the Balanced Scorecard (BSC), which was developed in the early 1990s of the 20th century by D. Norton and R. Kaplan, which is widely spread in today's world practice. The balanced system of indicators is a combination of traditional financial indicators characteristic of the past period with other indicators, including non-financial ones characteristic of the strategic perspective of the bank's development.

The bank's logistics processes can be divided into two groups: (1) Basic logistics processes; (2) Providers of logistics processes.

The main logistics processes of the bank are the processes that are necessary for the commercial and investment activities of the bank, related to the execution of the current work (credits, deposits, deposit operations, corporate finance, management of accounts, etc.). Control and analysis processes belong to them.

The providers of the bank's logistics processes are the processes of providing the bank with resources, and they include the distribution of financial, material, personnel and informational resources for the implementation of banking services. These processes also include strategic planning and accounting.

Consider the bank's logistics processes on the example of financial flows, which are the central link in the bank's logistics system. The study of the literature in relation to this issue showed us that a small number of scientific papers are dedicated to the study of the financial flows of the bank. Among the researchers, there is no unified opinion regarding the essence of the bank's financial flows. In our opinion, the movement of financial resources in monetary form should be understood under the bank's financial flow.

The peculiarity of the bank's financial flow structure is related to the specifics of direct banking activity. As a whole, the bank's financial flow is a combination of cash flows related to operational, innovative and financial activities.

The logistical process of cash flows through the bank consists of several continuously repeating elements (stages):

- Cash flow planning in terms of different types of bank activities;
- Bank cash flow analysis;

- Bank cash flow accounting;
- Providing effective control over the bank's cash flows.

The first stage of the bank's cash flow logistics process is cash flow planning - it is predictive in nature with efforts to determine the uncertainty of a number of initial proposals. Therefore, it is carried out in the form of multivariate planning calculations and is called upon to solve a number of tasks, such as ensuring current planning, coordination of subdivision activities, substantiation of bank expenses, creation of a base for evaluation and control of banking activity plans.

The main goal of the second stage of the bank's cash flow logistics process is cash flow analysis - it represents the balance of cash flows passing through the bank. Therefore, one of the main problems that need to be constantly solved in the process of banking activity is the problem of liquidity.

Analysis of cash flows is one of the most important stages of the bank's cash flow logistics process, as a result of which the main directions and methods of ensuring the balance of the bank's cash flows are determined, and the reserves for increasing the efficiency of management considered in financial planning are revealed.

In the process of implementation of the third stage, coordination of the functions and tasks of the bank's accounting, financial and operational management services is carried out. Its main purpose is the organization of accounting and the formation of appropriate reporting, which provides bank managers with the necessary information for their comprehensive analysis, planning and control.

The object of the fourth stage - control of the bank's cash flows is the detection of the formation of the proportionality of cash flows and liquidity. In case of deviations from the planned indicators, it will be necessary to identify their reasons, evaluate them from the point of view of objectivity and take them into account when forming the plan for the next period. It should be noted that at any stage of the logistical process of cash flows, the bank should focus on optimizing cash turnover and finding ways to increase its effectiveness.

Analytical papers may use expert evaluation methods and statistical analysis methods. Among them, the first one is implemented on the basis of mediated matrices of expert preferences, and the second one is as a regression and dispersion analysis method, an exponential accumulation method, a multivariate statistical analysis method.

After a detailed description of the main articles of assets, it probably becomes clear that they differ in the degree of liquidity, yield and riskiness.

A general assessment of the activity of any commercial bank can be made by two interrelated factors: profitability and reliability. Among them, two main indicators of reliability are known: liquidity and solvency. Liquidity and solvency are two main goals, the achievement of which is a priority for the country's central bank in the performance of its functions, when they appear as a guarantor of a stable banking system and ensure the increase of confidence in the banking system on the part of the population. Liquidity and solvency are also the subject of special concern of the bank's management and shareholders, since after a commercial bank's liquidity problem and solvency crisis, the prospect of its bankruptcy arises.

To summarize briefly, liquidity is the bank's ability to fully meet its obligations due for that period on a given date (for example, tomorrow, at the end of the month or at the end of the year), and solvency is its ability to fully meet all obligations within the same period, i.e. its assets on the balance sheet are greater than its liabilities. (Liabilities minus equity). As we can see, a bank may be illiquid at a given moment, but this does not automatically mean that it is insolvent, just as current liquidity does not mean that a bank is solvent.

After getting acquainted with the essence of liquidity and solvency and their importance for ensuring the reliability and sustainability of a commercial bank, let's touch on its factors that affect them. In simple estimation, these factors are of three types:

Macroeconomic factors; Domestic factors of the country; Internal Banking Factors.

Due to the fact that internal banking factors - among the above-mentioned factors are probably the most important and imply the situation of a specific bank, namely: adequate capital, structure and quality of assets, structure and quality of liabilities, compliance with terms of assets and liabilities, image of the bank and flexible management. between them:

1. Adequate capital - due to its functions, especially the protective function, significantly determines the level of liquidity and solvency of a commercial bank. Adequate capital, its structure, the share of reserves and retained earnings in the total capital ensures minimization of problems during liquidity crisis.
2. The structure and quality of assets is the main indicator, the analysis of which gives us the first information about the liquidity problem of a commercial bank. Therefore, finding the optimal "golden" interval middle ground between "working" and liquid assets is the main concern of commercial bank management and its main goal. Therefore, based on the structure of the commercial bank's assets and liabilities, we set certain tasks in relation to determining their optimal "golden" interval, such as:

   Task one:

Based on the problems and perspectives of bank logistics and the peculiarities of the application of the concept of logistics in the field of banking services, we tried to analyze the structure of commercial bank assets in a complex and logistic manner and to determine the optimal "golden" middle ground between "working" and liquid assets.

It is known that the bank's classification, asset analysis - is the classification and structure of the directions of use of resources in the bank, i.e. where, for what purpose, in what volume, at what price, for what term and most importantly - at what level of risk they are placed.

We will repeat and note that the bank's assets are, first of all, the commercial bank's own and attracted (passive) funds placed (active) in order to make a profit and maintain liquidity. On the other hand, a bank's asset is a part of the accounting balance sheet, which records various assets created from active operations evaluated in monetary form.

When studying the structure of assets of a commercial bank, is clearly visible its management's ability to obtain maximum profit with minimum expenses and maintaining the necessary level of liquidity, i.e. how well it ensures optimal distribution of its own and raised funds in different types of assets.

How optimal the structure of assets is, how purposefully and reliably they are invested, how well the balance between stability and risk is maintained, determines the stability of commercial banks, that is, guarantees the safety of deposits and other funds placed in this bank.

Therefore, the normal functioning of the country's economy is significantly dependent on a careful and reasonable decision when placing assets by an individual bank and the banking system as a whole.

The structure of commercial bank assets is the quality and economic content of the various elements of the assets of the balance sheet with each other and with the total assets. The structure of assets allows us to discuss the composition and nature of the commercial bank's assets, its profitability, liquidity, risk level.

We would like to offer you an interesting example of the structure of assets of a commercial bank in the form of tabular data, where we are talking about the logistical, complex management of assets, which in itself means achieving the optimal structure of assets (Table 1).

Table 1

Asset structure of three commercial banks (specific share %)

N	Assets	Bank A	Bank B	Bank C
1	Cash	4	3	6

2	Funds in the National Bank of Georgia	3	15	15
3	Funds in other banks	3	10	25
4	Securities	3	8	2
5	Net loans	60	50	40
6	Investments	20	2	6
7	Net fixed assets	1	1	1
8	Other assets	1	1	1
	Total Net Assets	**100**	**100**	**100**
	Liquid assets (Articles 1, 2, 3, 4)	**13**	**36**	**48**
	"Working" assets (Articles 4, 5, 6)	**83**	**60**	**48**

From the analysis of tabular data, it follows that the structure and quality of the commercial bank's assets is the main indicator, the analysis of which gives us the first information about the commercial bank's liquidity problem. For example, consider the asset structure of three conditional banks and evaluate them. It doesn't matter how much these assets are, or which bank is bigger, and let's consider their structure - the specific share of each asset in the total assets.

As we can see, the specific share of liquid assets (the first four elements) in the assets of Bank A is 13%, that is, it is minimal, in the case of Bank B, it is 38%, that is, a moderate level, and Bank C is characterized by excess liquidity - 56%. Accordingly, "working" assets in these banks are inversely proportional - 85%, 60% and 48%.

Naturally, Bank A already has a liquidity problem, or will soon face it, and its solvency is at risk. Bank C assets are characterized by excess liquidity, i.e. it has a minimal share of "working" assets, which indicates management inefficiency or "excessive caution". Bank B has the most moderate levels of both liquidity and "working" assets (36 and 60%, respectively).

Therefore, we can conclude that the first task - based on the problems of banking logistics, perspectives and peculiarities of the application of the concept of logistics in the field of banking services. Based on the complex and logistic analysis of the commercial bank's asset structure, we propose to determine the optimal "golden" interval intermediate percentage ratio between "working" and liquid assets in the range of 60% and 36%, respectively, which is within the limits of values close to the generally recognized "Golden Ratio".

3. Conclusion

Based on the above, it is possible to make the following short conclusion:

⇐ It is indicated that the main shortcomings of the indicated methods of banking logistics, in the opinion of the authors, are: The difficulty of finding information and the difficulty of calculation; The presence of a large number of adjustments related to the peculiarities of accounting; Difficulty in long-term planning; Absence of an adequate basis for comparison with analogues.

⇐ It is noted that this type of analysis should be carried out on the information base of the Balanced Scorecard (BSC), which was developed in the early 1990s. by D. Norton and R. Kaplan. The balanced system of indicators is a combination of traditional financial indicators characteristic of the past period and non-financial indicators characteristic of the strategic perspective of the bank's development.

⇐ The author's proposal is proposed that in the practice of banking logistics, a complex approach is appropriate, that is, complex tools of logistics should be used. The complex use of the above methods will be the basis for compensating each other's shortcomings.

⇐ It is proposed to determine the percentage ratio of the optimal "golden" interval between the "working" and liquid assets of the commercial bank at 60% and 36%, respectively, which is within the generally recognized "Golden Ratio".

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II.5. LENDING OF TOURISM BUSINESS

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Abstract. Tourism is a field of services that plays a major role in the development of the country's economy and social strata, in fulfilling the goals of society and business. The tourism sector helps the population to create new jobs, promotes the employment of many people, and the development of small and medium-sized businesses. Considering the mentioned circumstances, in many countries this branch is an important and main source of state income.

Keywords: Refinancing rate, Interest rate, Business loan, Lending of Tourism Business, Tourism Business.

1. Introduction

Tourism, as one of the categories of economy and business, represents one of the leading sectors of the world economy and the leading branch of international services. in the operation of this field.

The analysis of management, legal and operational factors, assessment of development features and current trends has a special role in the revival of the state's economy.

The study of the perception of the managers of the bank and microfinance organizations about the new challenges related to lending in the banking and microfinance sector and the management of credits and the social survey, which will be conducted using the qualitative method, are very important for the government and the financial sector to support the Georgian economy and the population of the country to avoid the losses from the economic crisis. . The high importance of this issue is also confirmed by the fact that it is an ongoing process in the world and so far it is impossible to use the examples of other countries to solve the mentioned issue, therefore this research issue will be even more interesting and important [1].

Relevance - a well-functioning banking system is an important prerequisite for a successful country's economy. Tourism business is also an important area of the economy of Georgia, which needs development, which is related to the need for additional funds. Before the pandemic, banks were quite active in lending to the mentioned area, but the pandemic that started in 2020 significantly affected all individuals and legal entities whose activities were related to tourism. Despite the efforts of the state and banks, the borrowers suffered huge losses and the situation made it clear that the management of lending processes in the crisis period needs to be perfected. The created situation is harmful not only for representatives of tourism business but also for banks. The most important thing for the bank is that the borrower fulfills his obligations on time and in full. Accordingly, I believe that lending conditions should be developed that will protect both the borrower and the lender to some extent. The influence of environmental factors during lending to small, medium and corporate businesses has always been important, especially in the case of Georgia, when changes in environmental factors had a significant impact on one or another sector [2].

The purpose of the study in 2020-2022, Covid-19 posed a big problem to both the world and the Georgian economy. Tourism and various services related to this area were literally stopped. Accordingly, the purpose of the research is to develop recommendations and suggestions for the purpose of perfecting the bank lending process, to discuss and analyze the world experience, as well as to optimize the process of introducing modern lending technologies in the banking system of Georgia.

Research methods - content analysis (English contens), which is a method of qualitative and quantitative analysis of the content of documents, in order to identify or measure various facts and trends reflected in these documents. Also interviewing respondents through a questionnaire, which was carried out through the social network Google Drive, where specialists and experts from the banking and tourism sectors were interviewed [3].

2. Research results and discussion

Tourism is of great importance for countries that became independent after the collapse of the Soviet Union. This importance was initially increased by the knowledge of the underdevelopment of the enterprise sector as a result of the existence of private property and doing business in the country. It means the natural, traditional, cultural potential of the country, which could become the main area of income of the country's economy in a short period of time compared to other types of enterprise. During the last thirty years, Georgia has been developing the tourism sector with the help of its western partners. Statistics show that the flow of tourists and foreign investments in the country are increasing [4].

Tourism is recognized by the government of Georgia as one of the important branches of the development of the national economy. Tourism has a great role in the socio-economic development of the country.

The economic functions of tourism include, first of all, the economic benefits it provides. Tourism stimulates the development of infrastructural elements: hotels, restaurants, trade enterprises and others. This contributes to the increase in budget income through taxes, which can be direct (visa, customs fees) or indirect (an increase in the wages of workers leads to an increase in the amount of income tax they pay to the budget.). In addition, as mentioned above, tourism has great opportunities to attract foreign currency and all kinds of investments. Diversification of the economy is also an important economic function of tourism. The formation of various industries that are related to and serve the tourism sector will ensure the increase in the income of the population and the improvement of the welfare of the nation.

Tourism business plays an important social and economic role because it:

- Increases local revenues;
- creates new jobs;
- develops all fields related to the production of tourist services;
- develops social and industrial infrastructure in tourist centers;
- activates the activities of folk crafts and the development of culture and promotes them;
- ensures an increase in the standard of living of the local population;
- Increases foreign exchange income

Tourism business lending in Georgia and its neighboring countries is one of the important sources of income for commercial banks. In the business portfolio of commercial banks on the Georgian market, lending to the tourism sector makes up a fairly large share. This sector was one of the main sources of income, which completely stopped during the pandemic, and commercial banks had to postpone loans to the tourism sector, which led to an increase in the price of this credit. In connection with all this, the state (National Bank of Georgia) had only one lever, the stabilization of the refinancing rate, on which the annual and effective interest rates of commercial banks depend [5].

The fact that the incomes of the tourism sector have increased is confirmed by the research of the company "Gult & Taggart", where it is shown that in June 2023, compared to the previous period, the incomes received from tourism increased by 16.0%, which in the total amount received amounts to 350 million USD.

From May 2016 to December 2020, the project "Growth" funded by the US Agency for International Development (USAID) operated, the purpose of which was to promote sustainable economic development in selected regions of Georgia. In order to support the development of tourism, the mentioned program contributed to the development of new tourist products, the promotion of sights and new tourist facilities, and also to the improvement of the quality of the activities of the parties involved in the tourism sector.

The tourism sector has a large share in the credit portfolio of commercial banks in the Georgian market. According to the data of TBC Bank in 2019, the credit portfolio amounted to 1.7 billion GEL, which is 43% of the total market share (2 325 000 000 GEL). And according to post-pandemic data (2021), TBC Bank's portfolio amounts to 1.85 billion GEL, which is also 45% of the total market share (4-10 billion GEL). This sector includes both micro, small, medium and large borrowers. Transport companies, various types of entertainment tourism service providers, tour operators belong to the category of micro loans. Family hotels, restaurants, traditional and cultural chateaus, wine cellars are included in the category of small and medium borrowers. Large and international corporations such as: Holiday Inn, Radisson Blu, Biltmore and other international companies belong to the category of large borrowers. Georgia has various seasonal resorts. Bakuriani and Gudauri are famous for winter resorts, Adjara sea coast is also famous for summer resorts, and Kakheti is famous for its winemaking in autumn. These resorts depend on environmental factors: in the last 3 years, the winter season has failed in Gudauri and Bakuriani, which was caused by the weather. Also, rainy weather on the sea coast during the summer may have a negative impact on the flow of tourists. Most of the given risks apply to ind. For entrepreneurs and individuals who are engaged in renting out apart-hotels. In order to obtain a loan, these individuals often have to add personal property, which carries the risk of losing their own housing.

The state is also actively involved in the development of the mentioned business. In the "Development of Tourism" project of LSI "Produce Georgia", the state provides 80 percent subsidy for bank loans. Also, within the framework of this project, interest financing is carried out on the granted loans. Also, within the framework of the EU pilot regions program, the beneficiary benefited from a 10% to 20% grant for applications approved by the agency in 2022 with a loan volume of 50,000 to 1,500,000 GEL.

Since commercial banks are literally the only source of attracting financial funds for the development of the tourism sector, it is necessary to develop special programs. in order to avoid the risks of both commercial banks and the tourism sector [6].

The activities of representatives of the tourism sector are always associated with great risks. On the one hand, profitable business is quite difficult to manage. The emergence of risk in tourism business activity leads to deviations from planned plans, in particular, in the form of unplanned expenses, losses or reduction of expected income. The risk factor is especially strengthened against the backdrop of economic instability accompanied by inflationary processes, credit rate increases, market fluctuations, etc. In this regard, risk plays an important role in tourism activity and requires the development of measures to manage it. In addition, it should be noted that tourism is characterized by seasonality and depends on such a factor as the weather, which cannot be calculated. The political situation and crisis situations also have a great influence.

Based on all of the above, such a credit policy of financing and lending to the tourism sector should be developed, which will be favorable and acceptable, both for the representatives of the mentioned field and for the banking sector. It is appropriate for the maximum participation of the government for the development of tourism business, which can be expressed by partial credit guarantees for long-term investment loans, as well as tax and other benefits for commercial banks that finance tourism sector entities.

In the process of bank lending, entrepreneurs and individuals working in the tourism business face a number of problems:

- Due to the lack of comprehensive financial reporting and since most banks use liquidity and financial stability assessment methods, the credit institution cannot objectively determine the creditworthiness of industrial enterprises and individuals;

- The bank's credit risk level when lending to individual entrepreneurs is higher than when lending to medium and large businesses, which are limited liability companies;
- While providing corporate lending, banks also pay attention to the current account balance and cash flows of the potential borrower. The higher the amount of funds in the account, the higher the probability of loan approval;
- Corporate loan products developed by the bank do not include such categories of borrowers as entrepreneurs and apartment owners, i.e. individuals. Which forces them to use consumer lending programs with less favorable terms.
- The said representatives of the tourism industry within the framework of their activities are highly dependent on the seasonality factor of the demand for their services. According to their financial indicators, when reviewed by most credit organizations, they are evaluated as unsatisfactory or they are allowed to use only consumer credit, which may include additional conditions for securing the loan (collateral, guarantee agreement).

As a result of the research. Specialists and experts from both banking and tourism sectors were interviewed. The majority of respondents agree that the tourism sector is one of the most profitable in Georgia, although it is dependent on environmental factors, which was clearly highlighted during the Covid pandemic [7].

As a result of this research, we can draw only one conclusion. The tourism sector has a large role in the country's economy and is part of its main income both in Georgia and in our neighboring countries. When lending to tourism, it is important for banks to have cheap cash resources, which positively affects the solvency of tourism. In order for investment companies and so-called angel investors to appear on the market, it is necessary for the country to become a member of the European Union like Estonia, which will contribute to the economic development of the country and also contribute to the development of the tourism sector and other services dependent on it.

3. conclusion

The banking system plays an important role in the development of the country's economy, because it is the locomotive between the population and the economy. Unfortunately, there are no investment companies in the country, and there are also few angel investors, since bank lending is the only source of business financing in Georgia at this stage, it can have a significant impact on business. At any time it can increase the price of the monetary resource or vice versa. That is why it is important to have an alternative source of financing in the country.

The covid pandemic that started in 2020 has affected all sectors of the economy. Tourism business was no exception. As a result, the tourism sector, which was one of the most attractive in terms of bank lending, became the most risky and threatening. Individuals who owned aparthotels were hit the hardest by the Covid pandemic, and in the background of three-time deferred loans, their contribution and interest costs increased even more, which many ind. It turned out to be disastrous for entrepreneurs and individuals. In order to provide a safe environment for both banks and lenders, it is necessary to implement the following recommendations [8]:

- Payment schedule adapted to the borrower - it is necessary to adjust the payment schedule to the specifics of the tourism business. For example, if the business is seasonal, the payment period and credit term should be chosen wisely. All this will help the micro, small and medium-sized tourist companies employed in the tourism sector to make the correct distribution of their financial resources and cover the existing obligations.

- Loyalty of Collateral - The issue of collateral should be eased so that investors no longer have to pledge their residential real estate. Instead of additional requested real estate, the alternative financial risks and solvency of the loan should be evaluated.
- Finding an alternative source of financing - to develop investment companies that will purchase a certain percentage of the capital of specific entrepreneurs and invest in these companies. Also, the so-called angel investor institute should be developed, which will support the launch of new startups.
- Reducing the refinancing rate - easing the monetary policy will help reduce the interest rate, which will ultimately have less impact on the borrower. All this will be less sensitive for the final customer, because keeping the refinancing allocation at a reasonable level is directly related to the stability of consumer prices (inflation), which will positively affect the population.
- Implementation of various projects on the part of the state - within the framework of the project "Development of Tourism" of LSI "Produce Georgia", even more companies should be financed, which in itself will lead to interest in this business.

It is necessary to develop a common plan between the tourism and banking sectors, which will facilitate their close cooperation and minimize the risks for both parties. Against the background of all this, the credit portfolio of banks will be even healthier, and tourism, which is considered one of the riskiest sectors, will also become much easier.

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II.6. PROBLEM OF CORRECTION IN THE FORMULA OF IRVING FISHER "FOR THE QUANTITATIVE CALCULATION OF THE MONETARY MASS REQUIRED FOR CIRCULATION"

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Abstract. The paper analyzes a brief retrospective of money theories, such as: Metallic theory of money, commodity-metallic theory, nominalist theory, i. Fisher's quantitative theory, K. Marx's Quantitative Theory of Money. Particular attention is paid to the possibility of multiplying deposits (resources) in the modern two-tier banking system based on the banking multiplier. It is also indicated that if earlier only the Central bank was officially responsible for the emission of money in the country, today, under the conditions of the market economy and the two-tier banking system, the credit issued by each commercial bank is equal to the "Emission of money". The present work is dedicated to this issue, and its failure to consider it may even be one of the main reasons for the exacerbation of inflationary processes in the country. On the basis of the mentioned, it is proposed to make a corresponding correction in the universally

recognized "circulation monetary mass calculation formula" of Irving Fisher.

Keywords: Monetary assets, Cash flow, Credit, Deposit, Discounting, Rate of inflation, Credit management.

1. Introduction

Money - in fact, is one of the most important elements of any economic system, it facilitates the work of the economy, and it is the vital force for the circulation of income and expenses at all stages of the production process [1: 6-8]. The main functions of money are: a measure of value, a means of circulation, a means of payment, a means of accumulation and savings, world money [1: 10-21]. In modern conditions, money also performs other important functions [2: 239-243].

A brief retrospective of the theories of money: Initially, the understanding of the essence of money and its role in the economy was formed directly in the conditions of the circulation of metallic money, which was manifested by the formation of the metallic theory of money. The 14th century French scientist Nicolas Oresme is considered one of the first representatives of this theory. This theory received further development in the 16th-17th centuries and was finally formed within the framework of the economic teaching of mercantileists.

The first critics of mercantilists were the representatives of the classical school of political economy, who supported the commodity-metallic theory of money (metallism), but nevertheless they did not equate money with wealth, but on the contrary, they considered it, according to its essence, a technical tool of exchange and the main means of money. As a function, they considered it a means of circulation. J. Keynes considered not only metal money as money, but also bank notes of the issuing bank, which had a credit nature and were widely distributed in the economy.

Irving Fisher's role in the development of the quantitative theory of money: According to the quantitative theory of money, many and interesting mathematical formulas for calculating the amount of money in circulation are known [1: 28-29; 3: 98-101; 5: 68-214]. By the beginning of the 20s, the quantitative theory of money prevailed and became the most important component of the neoclassical direction of political economy. Two of its variants - transactional and Cambridge - gained the greatest popularity.

The transaction option, as the basis of the modern quantitative theory of money, was put forward by the American economist and mathematician Irving Fisher (1867-1947), who published the book "Purchasing Power of Money" in 1911. I. Fisher rejected the value of labor and "purchasing power of money". He singled out the factors on which the "purchasing power of money" depended: the amount of cash in circulation, the speed of money circulation, the weighted average level of prices, the quantity of goods. Its variant is based on the two-way expression of the amount of commodity exchange transactions in a certain period, and the "equation of exchange" reflects this relationship:

$$\boldsymbol{M} \times \boldsymbol{V} = \boldsymbol{P} \times \boldsymbol{Q}$$

Where: M - amount of money,

V - the average speed of money circulation,

P - average price of goods,

Q - quantity of goods sold.

Unlike I. Fisher, Cambridge school economists n the form of Englishman A. Marshall (1842-1924) and his successors (A. Pigous, D. Robertson), they focused their attention not on the circulation of money, but on its accumulation with agricultural subjects, on the analysis of "real cash balances". At the same time, they used not macro-economic, but micro-economic analysis methods, which are aimed at the study of the motives of the economic subjects' behavior and the cash balances, the factors forming their demand.

Economists of the Cambridge school transformed Fisher's formula, including the coefficient k, which expresses the share of annual income (Y) and which is mostly saved by agricultural subjects in the form of cash [8: 215]:

$$\boldsymbol{M = k \times P \times Y}$$

The ideas of Cambridge economists were developed by J.M. Keynes took into account what they are in the basis of his own theory of liquidity preference, in which three motives for keeping money in the form of cash (demand for money) are distinguished [6: 351; 8: 452]: transactional motive demand for money for future transactions; Precautionary motive Demand for money in case of unforeseen circumstances; The speculative motive is the desire to store wealth in the most liquid form.

Based on the above, J.M. Keynes argued that the aggregate demand for money for current transactions and unexpected expenses (L1) is determined by the level of income (Y), while the demand for money for speculative purposes (L2) is inversely proportional to the interest rate (R). Thus, according to the Keynesian theory, the demand function for money (M) has the following form:

$$\boldsymbol{M = L1 \times (Y) + L2R}$$

From the middle of the 50s of the 20th century, a revival of interest in the quantitative theory of money can be observed by the representatives of the Chicago school of economic thought established under the name of monetarism, the 1976 Nobel Prize laureate M. Based on the papers published by Friedman and his followers. Modern monetarism is an alternative to the Keynesian approach, and it is itself a complicated version of the classical monetary theory. Monetarists argue that the demand for money is not only a function of interest and income, but is also affected by the rate of return on all types of real and financial assets. Contrary to the Keynesian theory, money is considered as a substitute not only for financial assets, but also for all other assets.

Monetarists see money and monetary policy as the most important factor of economic development and prefer monetary and credit policy compared to budgetary policy. Their main rule (money supply rule) is that the money supply should grow at a constant rate, approximately, at a rate equal to the increase in the volume of production. They believe that in order to stimulate production, it is necessary to establish an aspiration towards a constant low rate of growth of money in circulation at the level of 3-5% under normal conditions. In their opinion, it is more important to control the amount of money in circulation than the interest rate and credit volume [5: 221].

2. Research results and discussion

Necessity of the author's correction in Irving Fisher's formula: in modern conditions, when (in Georgia since 1992, a two-tier credit system characteristic of a market economy has been established and the norm of mandatory reserves from the National Bank for the second-tier banks has been legislated), the creation of a new money mass, independently of each other, is already being implemented - as the Central bank (through emission), as well as commercial banks (the credit issued by each bank is the double of the emission of new money), thus Fisher's famous "Equation of exchange" needs some correction in modern conditions.

Money in circulation should not be more than the required amount, but it should not circulate less than the required amount, as the excess of money leads to the growth of inflationary processes, and the lack of money leads to non-payments, excess stock of products, production stoppage. The amount of money in circulation has a significant impact on the price level, economic growth and employment. Therefore, the mass of money in circulation, depending on the tasks of the overall economic development, needs to be regularly controlled and regulated.

Attention should also be drawn to the fact that, if once monetary circulation served the flow of goods, today - money itself has become a commodity. Moreover, earlier money was tied to gold, while now their role has directly increased many times. Therefore, the role of monetary regulation in the economy has become more important. The mentioned circumstances forced economists to focus on the problem of money and monetary circulation, as well as the possibilities of regulating monetary circulation by the economy.

It is also important to focus on the multiplicative expansion of bank deposits and the fact that commercial banks create a new non-cash money supply when they issue loans (credits) and, on the contrary, the money supply decreases when customers return their debts to banks [4: 176-179; 3: 368-370].

The creation of new monetary resources by commercial banks is a rather long process, but not endlessly, but up to a certain limit. The mentioned process is a characteristic of the multiplier effect of the expansion of bank deposits and it can be calculated taking into account the reserve requirements and the limit of the expansion of deposits will be:

$$\begin{aligned}\mathbf{100}\ \boldsymbol{thousand\ Lari} + \mathbf{90} + \mathbf{81} + \mathbf{72.9} + \cdots \\ = \mathbf{100}\ \boldsymbol{tens.}(\mathbf{1} + \mathbf{0.9} + \mathbf{0.9^2} + \mathbf{0.9}^{\ \mathbf{3}} + \cdots) \\ = \mathbf{100}\ \boldsymbol{tens.GEL}/(\mathbf{1} - \mathbf{0.9}) = \mathbf{1}\ \boldsymbol{mln\,Lari/GEL}.\end{aligned}$$

The money supply multiplier or the bank multiplier (Bm) provides an opportunity to specifically assess the amount of expansion of the money supply through the creation of new monetary resources by banks. It is calculated by the formula [4: 181-184]:

- The maximum value of the bank credit multiplier (BM), BM = (1 / orn) x 100,

Where: orn - is (obligatory reserve normative) mandatory reserves norm, in percentages).

Based on the above, it can be noted that the banking system is one of the most difficult and necessary areas of the market economy, which is characterized by the peculiarities of development and determines the efficiency of the economic system as a whole. At the same time, the banking system, in a certain opinion, is a separate autonomous "universe" characterized by its own specific regularities of development. If we judge according to the medical analogy, "money" is the blood of the economy, and the "banking system" as a whole is its blood-carrying arteries, and therefore we can admit that "banks" are undoubtedly "hearts" that affect the vitality, activity and development of the economy and blood (money) is pumped through circulatory systems. It is also important to note that in the modern banking system, the so-called A service similar to "money pump" is provided, where a significant volume of free funds (up to 80-90% of bank resources) is attracted and directed to the borrower through lending in the economy. At the same time, it is also very important that on the basis of multiplication in the banking system, it is possible to create a new non-cash monetary mass of a fairly significant amount of existing credit resources, many times increased, the failure of which may even be one of the main reasons for complicating inflationary processes in the country. Based on the above, it can be noted that in the modern banking system of the market economy countries, the era of bank money is being formed, mainly using bank accounts and checks, credit cards, in the form of non-cash payments.

It should be especially noted that the granting of credit by commercial banks cannot be considered only a mechanical act, it should be considered neutral to the effective use of public resources. Commercial banks play an important role in the development of economic progress, so strengthening the institutional structure of the credit system and raising the role of state regulation in it should become a mandatory condition in modern conditions.

The ratio by which the entire monetary mass (credit resource) can be increased multiple times in the banking sector is known in the economic literature as the bank multiplier (Bm). Its essence is expressed in the fact that reserves (excess resources) move from one economic entity to other entities (in this case, from banks to economic agents of the financial and non-financial sectors and vice versa). Formally, in a general way, the banking multiplier (BM) is defined as the ratio of the total money supply (TMS) in the country's economy to the volume of highly effective money (EM), i.e. the ratio of one (1) to the norm of compulsory reserves (compulsory reserve normative - crn), which is expressed as follows with face:

$$\boldsymbol{BM = 1/crn}$$

In order to visualize the operation of the multiplier mechanism (bank multiplier), let's consider a conditional example in more detail. Let's assume that the commercial bank received resources of 1,000 GEL as a deposit. In order to use the mentioned source as a credit resource, the bank should transfer the mandatory reserve to its own account opened in the Central Bank, let's assume in our case 10% norm, (1000 x 10%) = 100 GEL, and only the remaining amount (1000 - 100) = 900 should be transferred to it as credit resources GEL to use. The said funds will be credited to the borrower receiving the loan to his own settlement account in the service bank, which can be used as credit resources for this bank as well as the balance on the client's account. From the remaining 900 GEL resources, the given bank will transfer the mandatory reserves (900 x 10%) = 90 GEL to the Central bank reserves and it will be able to issue a loan in the amount of (900 - 90) = 810 GEL. By issuing credit in the amount of 810 GEL to the client, the bank will transfer the corresponding amount to the settlement account, and the bank can use it as a credit resource already as a balance on the client's account. In this case, the already mentioned bank transfers 10% of 810 GEL to the reserves account in the Central Bank and it is possible to use (810 - 81) = 729 GEL as credit resources, etc. The mentioned process can continue again and again with a chain of mathematical infinity. But in the economy, the total sum of money supply increase can last only up to a certain period, the value of which can be determined by the sum formula of geometric progression:

$$\boldsymbol{000(1 + 0.9 + 0.9^2 + 0.9^3 + \cdots) = 1000/(1 - 0.9)}$$
$$\boldsymbol{= 10000\ Lari/GEL}$$

Thus, the deposit received by the bank in the amount of 1,000 GEL, on the basis of multiplication and at the norm of 10% mandatory reserves, can be used 1 / 0.10 = 10 times, that is, in the amount of 10,000 GEL (Table 1).

Table 1

A practical example of multiple use of resources as a result of banking multiplication in the banking system

Banks and operations:	Bank deposits or resources in GEL	The possible amount to be given as credits in GEL	The amount of compulsory reserves of the commercial bank in the Central Bank in GEL
1	2	3	4
1	1 000	900	100
2	900	810	90
3	810	729	81
4	729	656	73
5	656	590	66
6	590	531	59
7	531	478	53
8	478	430	48
9	430	387	43
10	387	349	39
Total of 10 banks or operations	6 513	5 862	651
Total of other banks or operations	3 487	3 138	349
Total of all banks or operations	10 000	9 000	1 000

Considering the above, the following types of proposals can be formulated In Irving Fisher's formula:

$$\boldsymbol{M \times V = P \times Q}$$

- The right side of the equation (P x Q) represents the Gross domestic Product (GDP);
- As for the multiplicative expansion of bank resources (deposits) and the possibility of granting credits through it, it can be proposed as follows:

$$(\boldsymbol{D \times Bm}) = \left((\boldsymbol{D \times (1 - orn)/orn + c})\right)$$

- Therefore, the corrected version of the mentioned Irving Fisher formula in relation to "calculation of money supply in circulation" can be formulated as follows:

$$\boldsymbol{M = (Q \times P/V) - (D \times Bm) = (GIP/V) - (D \times Bm)}$$
$$\boldsymbol{= \big((GIP/V) - (D \times (1 - orn)/(orn + c))\big)}$$

Where:

M – is the amount of money needed for circulation (in billions of GEL);

GDP – is the annual volume of the country's gross domestic product (in billions of GEL);

V – is the rate of rotation of the monetary unit (times);

D – is the amount of credit resources (deposits) in the banking system (in billions of GEL);

Bm – is the bank multiplier value (multiple);

orn – is the norm of obligatory reserves established by the Central Bank for commercial banks (as a percentage, in decimals);

c - is the volume of funds withdrawn by clients from their own accounts in the form of cash (as a percentage, in decimals).

3. Conclusion

Considering the above, it is possible to make the following conclusions:

⇐ It is noted that during the functioning of the two-level banking system in the market economy, the monetary mass emission mechanism operates both - on the basis of the functional authority of the Central Bank, and also on the basis of the multiplier of commercial banks (credit, deposit), where the credit character of each loan issued by the banks is equivalent to the implementation of monetary emission.

⇐ The authors' opinion is formed that Irving Fisher's well-known "formula for quantitative calculation of the amount of money needed in circulation" needs some correction in modern conditions.

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II.7. THE IMPACT OF LABOR MIGRATION ON THE BANKING SECTOR AND THE ECONOMY OF DONOR COUNTRIES AS A WHOLE

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Abstract. The development of labor migration processes in the modern period shows that it is necessary to use a complex approach in order to assess the existing trends, both positive and negative impact on the labor force donor countries. In our present study, there is an attempt to develop a system of statistical indicators based on the determination of the results of labor emigration, through which it will be possible to monitor the impact of emigration on the economic development of the country and the quality of state management.

We studied the theoretical approaches in the leading foreign language literature in relation to the research topic, got acquainted with the best experience of the post-socialist countries, which were accumulated in terms of emigration of labor resources to the donor states. We got acquainted with the official data of the National Bank of Georgia and the National Statistical Service of Georgia about the migration of labor resources from the country, the enrollment of cash flows from abroad, we conducted a statistical study based on secondary information in order to determine the volume of estimated financial flows from emigration to Georgia and its (cash flow) estimated impact on the country's financial and general economic on stability. Based on the analysis of the obtained statistical information, we have made reasoned conclusions and proposals regarding the positive and/or negative impact of labor force emigration from

Georgia, mainly in highly developed countries. How does it affect the banking and financial sector and how does it respond to the challenges of labor migration?

At the end, the typology of the economic results of the emigration of labor resources is proposed/given in the paper, an effective system of statistical indicators of the effective state management of the workforce in the donor countries is proposed.

Keywords: Labor migration, Workforce, Remittances, Donor Country, Economy, Economic Outcome, Banking Sector.

1. Introduction

Modern social reality is unthinkable without population migration. As one of the first global processes, international migration, regardless of its type, makes significant changes in the lives of both receiving and sending countries. The world's leading countries, based on a selective approach and with clearly defined priorities, are trying to make migration an important factor in the development of national human capital, economy and the entire social sphere. A clear example of this is the United States of America, which tries to use migration for the benefit of its country as much as possible. Due to the high qualification of immigrants, the fields of technology and medicine are developing, and as for migration for the purpose of education, this allows universities to earn even more. A similar approach is applied by: Canada, Australia, New Zealand, England, Germany and others.

It is impossible to consider migration as if it brings only positive results in social reality. Increasing ethnic tension and crime, shadow economy, illegal employment, drug problems, etc. All this is the result of the imperfection of governance in this area. In fact, migration is a kind of social "catalyst". In countries with well-established governance mechanisms, low levels of corruption, and defined priorities at the state level, migration appears to be an additional development factor as human capital and investments increase. The opposite situation is observed when the state has systemic problems in management and anti-corruption activities. Migrants integrated into an already vicious system give new impetus to the development of the illegal labor market and shadow economy, the spread of corrupt relations and illegal schemes. Everything has a negative impact on the development of society, more large-scale destructive processes begin, such as: ethnic conflicts, increase in internal political tension, etc.

2. Research results and discussion

Evaluating the results of labor migration is particularly important for donor countries and public administration. Due to the fact that dependence on migrants' remittances is increasing. Today, we can talk about the formation of a number of challenges for the economic development of sending countries, which are based on significant losses, first of all, on human capital.

In the short term, this situation is very favorable for donor countries, as it brings significant socio-economic and political dividends. First, it is a significant inflow of funds. The economy in Georgia is critically dependent on remittances from migrants. Thus, at the end of 2022, the ratio of remittances to the country's gross domestic product (GDP) was approximately 19.1% (Table 1). With the help of migrants, some social stability is ensured in the country. It is with this amount that small business, real estate market, etc. function.

Table 1

Remittances in the economy of Georgia[40]

Year	**2019**	**2020**	**2021**	**2022**
Remittances million US dollars	1 717.6	1 872.4	2 334.6	3 295.6
GDP at current prices in billions of US dollars	17.5	15.8	18.6	17.3*
Ratio of remittances to GDP, %	9.7	12.0	12.4	19.1*
*** - The first three quarters of 2022**				

[40] The table was compiled by the authors based on the information of the National Bank of Georgia and the National Statistics Office of Georgia.

Table 2

Money Transfers (2012-2022. Enrollment. Thousand USD)[41]

		2012	2015	2017	2018	2019	2020	2021	2022
	All	1 327 011.8	1 072 545.8	1 375 353.2	1 565 636.4	1 717 580.8	1 872 370.5	2 334 611.3	3 295 624.7
Between them									
	EU countries	339245.0	320629.6	414072.7	533985.9	647100.3	763427.3	955526.0	871746.5
	From here								
	Italy	102872.1	109077.8	148708.3	192886.5	239173.3	297614.8	385744.8	352670.0
	Greece	159626.8	117750.7	141966.9	170885.8	192545.1	219140.6	240149.3	184601.2
	Germany	13225.8	26661.9	34060.6	41461.5	49805.8	74154.0	113266.8	131980.1
	Spain	27809.0	26772.0	36347.8	41579.2	47303.1	47922.6	55236.3	47203.3
	France	9835.1	10856.6	14561.6	19437.9	26370.9	28146.0	37724.3	36601.4

[41]https://analytics.nbg.gov.ge/views/Money_Transfers_GE/sheet0?iframeSizedToWindow=true&%3Aembed=y&%3AshowAppBanner=false&%3Adisplay_count=no&%3AshowVizHome=no

Turkey	Kyrgyzstan	Israel	USA	Russian federation	Other	Netherlands	Cyprus	Ireland	Poland
30071.5	1216.8	15973.4	74063.0	747525.3	16609.1	1400.0	3552.2	3561.6	753.3
68945.5	942.1	32878.7	100037.1	432687.9	16330.3	1269.9	4281.7	6422.9	1205.8
109606.5	2671.7	119154.7	142079.5	455439.0	21260.6	1974.9	6304.6	5605.5	3281.9
105880.6	11098.2	151426.2	159558.3	457183.7	26963.4	2613.7	11699.9	7989.5	18468.5
94846.1	28761.7	162548.0	178411.7	428886.6	32262.1	3223.3	15314.2	9611.4	31491.1
106736.9	8265.1	156906.9	218360.0	363915.0	36657.0	4492.7	13021.6	14645.1	27632.9
104483.2	31670.5	186741.5	284304.5	411368.4	45717.1	8270.1	16464.2	20330.4	32622.7
83170.8	81445.5	162770.7	263915.8	1434395.1	45412.8	10833.3	13679.5	20059.1	28705.8

Kazakhstan	12628.8	14656.3	13708.2	16097.7	26630.5	9660.0	61760.0	126688.3
Armenia	5571.6	6487.8	7398.0	9114.6	13268.7	11782.6	12909.9	48270.4
Belarus	2282.2	4804.8	3798.1	4389.7	4326.4	4784.8	5433.4	38346.7
United Kingdom	19715.6	15964.8	15925.6	16059.1	16890.4	18749.4	21109.5	31354.5
Azerbaijan	10358.5	15507.0	15681.5	20449.5	22169.2	53883.4	85188.6	46234.2
Tajikistan	976.9	1268.6	1011.5	1136.9	1614.5	4364.7	9905.7	24019.8
Canada	5742.4	7204.0	10941.9	13131.8	14212.3	17868.7	21935.8	17903.3
United Arab Emirates	3006.9	5277.2	8491.1	9874.7	8778.4	9325.3	11497.1	11660.5
Uzbekistan	2326.0	4166.9	4236.7	3536.5	5160.6	5679.9	7199.3	14843.3

Secondly, the pressure on the domestic market is reduced. Immigrants significantly reduce unemployment within the country, which relieves tensions and also reduces the social costs of job seekers.

We note here that political stability is maintained. Reducing unemployment, especially among young people, reduces the risk of protests in society.

It is possible to note a number of positive effects of labor migration (for migrant-sending countries). Thus, if we consider this effect in the long term, the situation looks not so uniform. Moreover, the dividends that are at this stage can be reversed in the future in the form of a great economic, social and political crisis.

Billions of remittances from migrants, which are considered a positive phenomenon at the micro level, at the macro level and in the long run, may not have a significant impact on sustainable development. The money distributed among households actually "disappears", it does not participate in the investments of large projects, does not take care of the infrastructure of the countries, does not develop health care, education and the entire social sphere. These funds cannot be used as part of a budgetary maneuver to set and support macroeconomic priorities. Also, dependence on remittances has a negative effect on the domestic labor market, reduces entrepreneurial activity and initiative, and creates a dependent mood in society.

The given statistics also show how large the flow of remittances enters Georgia and their volume is increasing, which gives us a reason to note how much influence the money sent by migrants has on the economy, and in particular on the banking sector, therefore it is through this area that the movement of cash flows between countries is ensured. On the one hand, for the banking sector, money transfers are receiving-sending commission income (currency conversion, remittance sending commission amount, etc.), at the same time, most commercial banks have even created a loan product based on remittances, and the probability of accumulating funds from customers also increases, which is an additional resource for the bank. Creates a perspective. However, on the other hand, it is a kind of short-term illusory effect, which can even become a big risk for commercial banks in the long term.

Even if we assume that the emigrant is going to return in a certain time, it is not worth forgetting that the qualifications and practical skills acquired by them in the process of work in many cases are not particularly valuable. As a rule, migrants work in low-paid jobs without any promotion, often difficult, "unpopular work" that does not require any qualifications. Competencies acquired in a similar field do not radically change the intellectual capital of an individual[42]. In the event that the migrant returns, he is not of interest to the domestic market. All this is the reason for the reduction of direct investments. Due to the fact that in today's world, practically all areas of the economy are becoming high-tech and demanding of personnel.

Commercial banks represent the central link of the financial and banking sector, thus they have a great influence and at the same time bear responsibility for the proper development of the country's economy. We think that all bodies and structures should be fully involved in solving the migration problem identified as a result of the research, including the banking sector, which can do a number of good things to eliminate labor migration. Events that can be held:

- To create jobs that will be competitive in the international arena,
- Focus on highly productive sectors;
- To encourage the return of young people who went to study;
- To further develop the existing education system.

Social, cultural and psychological deformation in society, which also affects human capital, should be taken into account. In Georgia (as well as in most donor countries) there have been significant changes in families and child rearing. Children grow up

[42]https://openknowledge.worldbank.org/bitstream/handle/10986/32481/211506RU.pdf

without a parent/parents who are separated from home for years, all of which are the cause of family breakdown.

The data mentioned above indicate the need to use a complex approach when evaluating the positive and negative effects of migration. In this article, we have tried to develop a system based on statistical indicators to determine the results of labor emigration, with the help of which it will be possible to monitor the impact of this process on the economic development of the state.

First of all, we should stop at the evaluation of the results (effects) of labor force outflow. The systematic character of the migration process determines their large number and variety. For the purposes of further analysis and development of the system of statistical indicators, we group the effects into the following blocks according to the results: on the labor market, on the development of human capital, on the production of goods and services, on the financial sector and the state budget, on foreign economic activity (Table 3).

In the modern conditions of activation of migration processes, it is of great importance to correctly assess the effectiveness of the instruments of their regulation used by the state, which, in turn, is impossible without the development of a comprehensive system of economic and statistical indicators.

The multidimensional, multifactorial nature of the impact of immigration on various socio-economic processes requires the use of statistical analysis tools that can be used to assess negative and positive effects.

Table 3

Results of labor migration in the economy of donor states

Positive results	Negative results
Impact on the labor market	
Alleviates/reduces tensions in the domestic labor market due to reduced unemployment.	In some professions, workers are dequalified (in case of inconsistency between types of work).
The possibility of introducing labor-saving technologies without negative consequences for the labor market is increasing.	Problems of reintegration of declassified migrants returning to their homeland (in case of forced return due to loss of service abroad).
	Reduction of the total number of economically active population.
Impact on human capital development	
Raising the qualifications of workers or acquiring a new profession.	Qualified workforce is lost, provision of the economy with personnel potential falls, "brain drain" occurs.
The poverty of the population is decreasing.	Development of dependence on "other" in society, decline of private initiative.
Impact on the sphere of production of goods and services	
Stimulating the growth of some areas of local production (mainly consumer goods) and construction (at the expense of residential houses as the main means of accumulation).	As a result of the outflow of qualified personnel, the possibility of developing new forms of goods and services decreases.
Accumulation of start-up capital for the production of small and medium-sized businesses after the return of migrants, which contributes to the formation of the "middle class" in donor countries.	
Development of both state/public and private sector transport sector.	
Impact on the state budget and financial sphere	
Increase in budget revenues at the expense of commission payments for remittances from abroad.	Inflation occurs, the money supply increases without an increase in goods and services.
Incomes in the budget for the services of intermediaries during employment abroad are increasing.	Due to the inflow of foreign currency, the national currency is strengthened, with which cash payments are made.
Deficit of the balance of payments is decreasing at the expense of remittances from abroad.	Capital outflow from the country is increasing.
The expenses of the social budget (health and education) are reduced. All this is directly related to the migration of personnel.	There is a shift of capital investments from the development of production resources to consumption.
	Monetary costs for the training of specialists (education, social costs)

Impact on domestic economic activity	
Creation of joint ventures with economic subjects of the importing country of labor resources.	Foreign demand is increasing not only for goods, but also for labor.
Increase in trade turnover between exporting and importing countries of labor resources.	

One of the main issues of creating a system of social process analysis (monitoring) indicators is the choice of assessment methodology. At first glance, the most appropriate is the method of limiting (critical) indicators, in which reaching or exceeding certain threshold values indicates the growth of negative trends and the need to reconfigure state regulation instruments.

However, when it comes to migration, especially labor migration, it is quite difficult to establish threshold values. For example, when determining the marginal share of foreign labor in the labor market based on the analysis of foreign experience, it may be found that a significant excess of migrants, both in certain sectors and in the economy as a whole, not only does not hinder development, but also promotes it. A notable example is the United Arab Emirates, where the share of employed foreigners in the private sector is 99.5%[43].

On the other hand, even a small share of foreign workers in the labor market can, under certain conditions, lead to negative economic and social consequences. In most cases, social factors come to the fore, the quantification of which and the development of an appropriate indicator based on reliable primary statistical information are extremely difficult.

The use of the expert assessment method to determine threshold values is also not always justified, due to different scientific approaches (conservative, liberal, centrist) to assess the impact of "Foreign labor force (FLF)" on the development of the economy and

[43]https://www.worldbank.org/en/region/eca/brief/migration-and-remittances

social sphere[44]. In this regard, the most appropriate method for analyzing labor migration processes is the method of building time series of absolute (including average) and relative values.

It should be noted that, in our opinion, it is appropriate to study both the migration itself and the processes that are affected by them using data on their changes over time, that is, we will talk about the analysis of dynamics indicators that characterize the following processes and phenomena:

- The impact of labor migration on the internal labor market;
- The impact of labor emigration on the level of human capital development;
- Remittances of labor migrants to their homeland and their impact on the economic development of labor donor countries;
- The impact of labor emigration on the expenditure and revenue parts of the budget of the donor state;
- Estimates of losses related to labor emigration borne by the state labor donor (Table 4). Based on the dynamics of indicators over a three- or five-year period, it is possible to determine both the scale of labor migration development and the processes it affects.

Table 4

Blocks/groups of indicators (indicators) for assessing the impact of labor migration on the economic development of labor donor countries

№	Blocks	Indicators
1.	The impact of labor migration on the internal labor market	➢ The share of labor immigrants in the total economically active population. ➢ The ratio of the share of working immigrants in the economic sector and the share of the unemployed in the labor market.

44 http://web.worldbank.org/archive/website01419/WEB/IMAGES/MIKHAILK.PDF

		➢ The ratio of the share of labor migrants who had a job before departure to the share of labor migrants who did not have a permanent job before departure.
2.	The impact of labor emigration on the level of human capital development	➢ The ratio of the share of labor migrants with secondary specialized education to the share of the working age population with secondary specialized education. ➢ The ratio of the proportion of labor migrants with higher education to the proportion of the working-age population with higher education. ➢ The ratio of the share of labor migrants with post-graduate education to the share of working-age population with post-graduate education. ➢ The ratio of the average age of working immigrants to the average age of the economically active population. ➢ Share of remittances that households spend on education and health. ➢ The share of labor migrants working according to qualification and education in the total number of labor migrants. ➢ The share of migrants with low-skilled employment and higher and secondary specialized education in the total number of labor migrants.
3.	Remittances of Labor Migrants to Homeland and Its Impact on the Economic Development of Labor Donor States	➢ The total amount of money transfers of migrant workers to their home countries. ➢ Average transfer amount per migrant worker. ➢ The ratio of remittances from immigrants to the potential taxes that immigrants could pay if they were employed in their home country. ➢ The share of remittances that households spend on current consumption. ➢ Share of remittances held by households as savings. ➢ The ratio of the share of remittances that households spend on current consumption to the share of remittances that households keep as savings. ➢ The share of labor migrants' remittances in the state's gross domestic product.
4.	Impact of labor emigration on state budget revenues and expenditures	➢ The amount of budget savings on social costs caused by labor emigration. ➢ The amount of cash income from labor emigration to the budget (taxes and mandatory fees paid by private employment agencies, employment centers, etc.).

5.	Value/quantification of labor emigration losses experienced by labor donor countries	➢ Money spent on education, health care and social services spent on migrant workers.

3. Conclusion

In conclusion, it should be noted that the use of the above-mentioned blocks of indicators is impossible without a significant change in the methodology of statistical data collection and processing. Primary information on the proposed indicators must be collected by various government structures/departments, which requires the creation of a comprehensive information base that is populated online from various government sources. It is also necessary to use different methods of collecting primary information. However, the introduction of such a system will significantly expand the possibilities of managing migration processes, which will immediately respond to negative trends.

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