INFLATION AND ITS REGULATION SOME MARRIAGE

David Chelidze

Professor, Doctor of Economics

Saint Andrew the First-Called

Georgian University of the Patriarchate of Georgia

Abstract

The aim of the work is to find ways to overcome the recently intensified inflationary processes for the country's economy with minimal losses.

With this in mind, the first part of the work discusses the measures taken by international financial institutions and the authorities of individual countries to stimulate economic activity reduced under the influence of the World Pandemic. The following high inflation rates, including the US dollar, have been identified.

As a result of the description-analysis of inflation imported to Georgia as a result of world reserve currency inflation and enhanced by a number of macroeconomic parameters of Georgia, as well as calculations based on undesirable forecast parameters based on the Irwin Fisher equation, a conclusion is made on inflation management in the country, Fiscal methods, in particular by reducing the budget deficit, to fight inflation, address the issue of the existence of vague budget allocations under Article „Other Expenditures" of the expenditure part of the 2022 state budget of Georgia, as well as belonging to the category of capital and investment projects.

In order to reduce the budget deficit, which is necessary to fight inflation, an opinion is presented on the termination of their budget funding in cases of non-compliance with the anti-inflationary and programmatic budget criteria for capital and investment projects.

In order to compensate for the reduced joint demand as a result of the above, the final part of the work presents the opinion on the creation and implementation of investment projects for the development of the country's hydropower sector. The source of funding for the first phase of these projects is the use of funds accumulated in the Pension Agency. And to activate their shareholding mechanism for financing the further stages of the project.

Keywords: *inflation, budget deficit reduction, pension fund funds, investing in hydro generation facilities*

INFLATION AND SOME DIRECTION OF ITS REGULATION

David Chelidze

Professor, Doctor of Economics

Saint Andrew the First-Called

Georgian University of the Patriarchate of Georgia

Introduction

A number of decisions made with the need to combat the world pandemic, created significant problems both to certain countries and to the regular rhythm of operation of the global economics. As a result of it, the following measures of the International Monetary Fund to revive significantly reduced economic activity worldwide deserve a special mention: -„the decision to allocate a record high USD 110 billion to 86 countries since the beginning of the pandemic up to the end of April, 2021. In addition to this, the decision made in August 2021 to distribute USD 650 millions of Special Drawing Rights (SDR) among the members of the International Monetary Fund, and based on it, without increasing the denbt, to support a significant increase of the national reserves and liquidity, must be regarded as an unprecedented.“[1]

Simultaneously, there is a a very noteworthy event to overcome economic stagnation in almost in every country in the world, to incentivize economic activity, in particular, to maintain at a certain level the creditworthy demand of the consumer market of the country, activation of financial support programs for legal and natural persons. In this regard, the decision by United States Federal Reserve System (the issuer of the world reserve currency) to purchase treasury and mortgage securities „in order to increase between December 2019 and August 2021 the M2 volume of money by USD 5.5 trillion in the United States of America, which represents a stunning 35.7% increase of the volume within a year and a half.„[2]

Main part

The logic of the above-mentioned rule of using „state (budgetary) funds, well-known by the Keynesian model of state regulation of the economy as an important source of the formation of the financial potential necessary to ensure the economic growth of the country“[3] and well-adapted (including in order to overcome the world financial crisis that began in 2008 in America) Despite the nature of the state program known as „Quantitative Easing“ implemented by the Federal Reserve System of the United States[4], these approaches have in some cases led to quite undesirable results. In particular, the leader of the world economy, thus in the economic space determining global economic trends - the United States of America - highly undesirable trends in the growth of consumer prices were highlighted. (See Diagram #1).

[1] „BUILD FORWARD BETTER“ IMF ANNUAL REPORT 2021, Message From The Managing Director p. 4
https://www.imf.org/external/pubs/ft/ar/2021/eng/downloads/imf-annual-report-2021.pdf

[2] The Monetary Bathtub Is Overflowing – WSJ https://www.wsj.com/articles/monetary-bathtub-overflowing-inflation-drain-transitory-11634847429

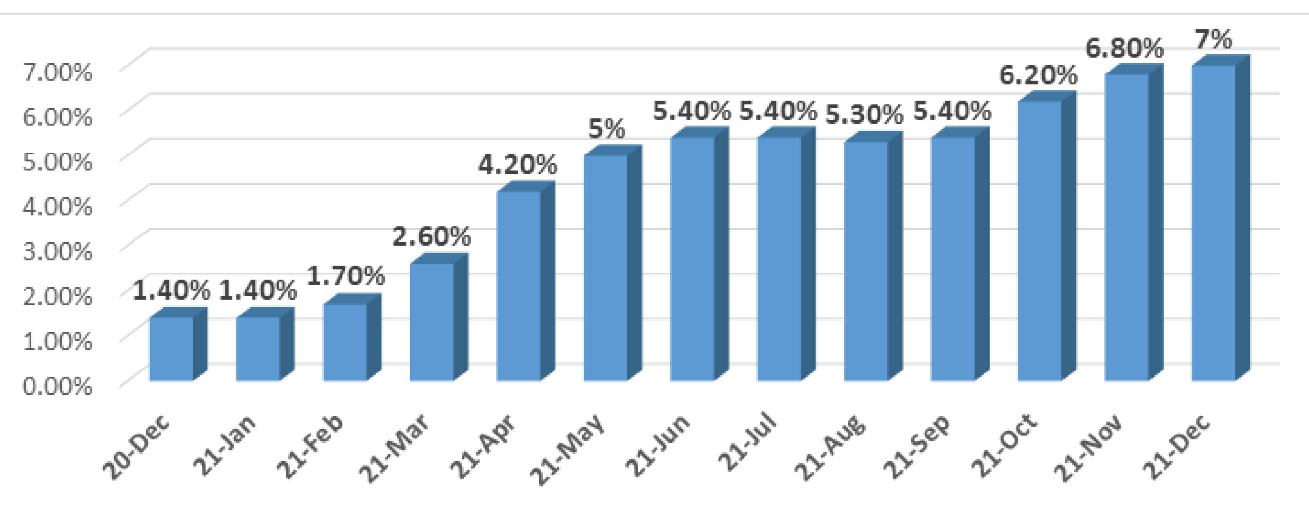
[3] d. Chelidze „Investment projects as a lever for stimulating the economic growth of the country“ Magazine „Economy and Business“ Volume XII №2, 2020 p. 2

[4] L. Chelidze, D. Chelidze „Competitive business environment and tax incentives“ Second International Conference on Competition Policy „Competition Policy: Trends and Challenges“ Collection of works Tbil. 2018 p. 122

Monthly from December 2020 to December 2021

Inflation rate in the United States[5]

Chart №1



Based on the data shown in Chart №1 and authoritative international publications in December 2021: – „Inflation in the United States of America reached 7%, a 39-year historical high. In 2021, consumer prices rose to their highest level in nearly four decades“.[6]

The above-mentioned situation significantly affects the ongoing processes in Georgia. The fact is that in the conditions of economic integration of the modern world, the formation of prices of goods of many strategic purposes (including primary needs) is traditionally carried out in US dollars. Given the fact that the US dollar is both a measure of value and a means of exchange (in some cases unofficial) for goods and services produced in virtually any part of the world, it goes without saying that the above-mentioned US dollar inflation trends have a significant impact on consumer market prices in many countries around the world. This is manifested with particular severity in the reality of Georgia. The fact is that the high rate of import dependence of the consumer market of our country, in particular, the very high share of imported products in the total amount of goods consumed by the country, inflationary processes related to the US dollar in the form of „inflation import“ (as exogenous factors less subject to anti-inflationary measures carried out by the country's government), presents us as systemic risks.

This is confirmed by the statements of famous Georgian economists that: – „Georgia is an import-dependent country. In an import-dependent country, inflation is imported along with imports. If the prices in the international markets have increased, these increased prices are brought into the country along with imports. There is practically no mechanism for regulating this in the conditions of inflation targeting“[7].

Along with the above-mentioned exogenous factors provoking inflation in the country, domestic-endogenous factors also require special attention. In particular, the dynamics of the national currency, the exchange rate with foreign currencies (mainly USD, EUR) and hence the dynamics of important macroeconomic parameters determining the prices of the country's consumer market (see Table №1).

[5] Monthly 12-month inflation rate in the United States from January 2021 to January 2022
https://www.statista.com/statistics/273418/unadjusted-monthly-inflation-rate-in-the-us/

[6] US inflation hits 39-year high of 7 per cent https://www.scmp.com/news/world/united-states-canada/article/3163166/us-inflation-hits-39-year-high-7-cent

[7] Lado Papava – it is impossible to say how long the National Bank will be able to keep the GEL at this level
https://www.interpressnews.ge/ka/article/694110-lado-papava-sheuzlebelia-imis-tkma-ramden-xans-shezlebs-erovnuli-banki-laris-am-nishnulze-shenarchunebas

Inflation/deflation provoking important macroeconomic Dynamics of parameters*

Table 1

	2015	2016	2017	2018	2019	2020	2021
nominal gross domestic product (million USD) Increase/decrease 2015 =100%	Fact **13 993,2** 100,0	Fact **14 377,8** 102,7	Fact **16 242,7** 116,1	Fact **17 599,6** 125,8	Fact **17 476,9** 124,9	Fact **15 846,5** 113,2	Fact **18 176,7** 129,9
Implemented in Georgia Foreign Direct Investments (million USD) Increase/decrease 2015 =100%	**1 728,8** 100,0	**1 654,0** 95,7	**1 980,8** 114,6	**1 317,1** 76,2	**1 335,8** 77,3	**572,0** 33,1	**728,4** 42,1
Goods Export Registered (FOB) (million USD) Increase/decrease 2015 =100%	**2 204,2** 100,0	**2 117,1** 96,0	**2 745,7** 124,6	**3 379,7** 153,3	**3 798,4** 172,3	**3 343,4** 151,7	**4 242,3** 192,5
Registered Import of Goods (CIF) (million USD) Increase/decrease 2015 =100%	**7 304,2** 100,0	**7 341,9** 100,5	**8 057,2** 110,3	**9 361,8** 128,2	**9 519,2** 130,3	**8 052,9** 110,2	**10 073,3** 137,9
Foreign trade (export-import) Balance (million USD) Increase/decrease 2015 =100%	**-5 100,0** 100,0	**-5 224,8** 102,4	**-5 311,5** 104,1	**-5 982,1** 117,3	**-5 720,8** 112,3	**-4 709,4** 92,3	**-5 831,0** 114,3
Foreign debt service (million USD) Increase/decrease 2015 =100%	**240,0** 100,0	**222,9** 92,9	**275,6** 114,8	**388,7** 162,0	**440,3** 183,5	**398,3** 165,9	**921,4** 383,9
Foreign debt service as a percentage of GDP Increase/decrease 2015 =100%	**1,7** 100,0	**1,6** 94,1	**1,7** 100,0	**2,2** 119,4	**2,5** 147,1	**2,5** 147,1	**5,1** 300,0
Foreign debt service as a percentage of exports Increase/decrease 2015 =100%	**3,9** 100,0	**3,6** 92,3	**3,6** 100,0	**4,4** 112,8	**4,6** 117,9	**6,7** 171,8	**11,9** 305,1

*** Source:** *National Statistical Service of Georgia; Ministry of finance of Georgia; National Bank of Georgia.*

As the data recorded in Table №1 show, the determinant of the national currency exchange rate, an important source of formation of foreign currency reserves considered as one of the components of the international reserves of the National Bank, direct foreign investments, in 2015-2021, 1,000.4 (billion four hundred thousand) million . It is reduced by US dollars, that is, by 29.9 percentage units.

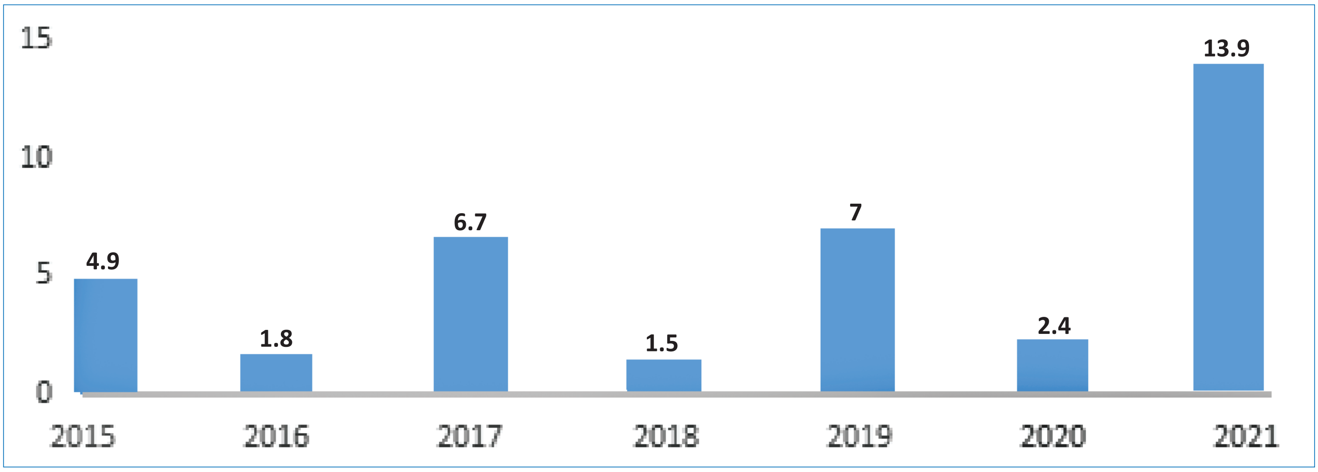
In the same period, the undesirable trend of growth of indicators of foreign currency outflow from the country is perceived with acuteness in the mentioned background. In particular, in 2015-2021, the country's negative export-import balance (foreign trade deficit) increased by 14.3 percentage points, and the foreign debt service rate increased by 283.9 percentage points.

In terms of ensuring a stable exchange rate of the national currency, the situation created in the country was significantly aggravated by the rate of foreign debt service, the ratio of the country's nominal gross domestic product to the level of 1.7% in 2015, to 5.1% by 2021, i.e. by 300% percentage units. Also, by 2021, the financial funds flowing out of the country for the purpose of servicing the foreign debt will increase to almost 12% of the country's export earnings.

The inflationary trends developed in the country in the last period should be considered as a logical result of the impact of the above-mentioned factors. (see diagram №2).

Annual Inflation (December/December)

Chart №2



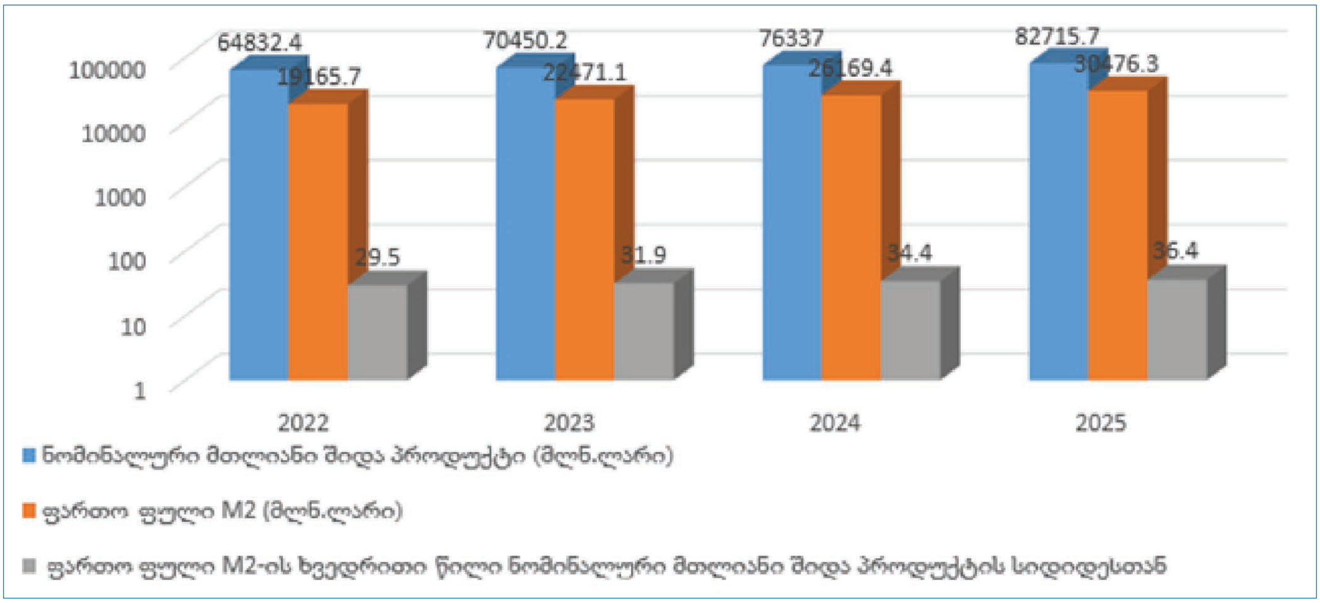
* Source National Bank of Georgia

The problems caused by the high rate of inflation observed in diagram #2 add a special burden of risk to the stability of the country's financial system, the data presented in diagram #3, according to which in the nearest perspective, namely in the period from 2022 to 2025, the nominal gross domestic product of the country will only Against the backdrop of growth by 29.6 percentage points, the growth of the mass of broad money-M2, by 59.0 percentage points, is predicted. At the same time, the forecast parameter of the ratio of the M2 monetary aggregate to the nominal gross domestic product is also characterized by a growth trend, in particular, the forecast amount of the said ratio for 2025 is estimated at the level of 36.8%, instead of 29.5% forecast for 2022.

On the one hand, the mentioned trend of money supply growth can be considered as a stimulating factor for the growth of economic activity in the country, however, in a short period of time, broad money similar to M2, and what is especially important, growing at a rate significantly ahead of the country's gross domestic product growth rate, can be considered as a stimulating factor for inflation. transformed.

Dynamics of inflation-provoking macroeconomic parameters*

Chart №3



**Ministry of finance of Georgia; National Bank of Georgia.*

„The above expectation of inflationary risks is further aggravated by the data calculated on the basis of the Irwin Fisher equation of the quantitative theory of money“[8] and the data presented in Table 2, which adequately reflect the inflationary processes developed in 2016-2021 and therefore add a special burden to the forecast indicator of the price level in the country in 2022-25 [1] Seemingly insignificant, (from 1.48 to 1.61), however, it increases the projected trend.

Dynamics of the price level forecast amount*

Table 2

	2016 Fact	2017 Fact	2018 Fact	2019 Fact	2020 Fact	2021 Expect	2022 Forec.	2023 Forec.	2024 Forec.	2025 Forec.
GDP in constant 2015 prices (billion GEL)	**34,9**	**36,6**	**38,4**	**40,3**	**37,6**	**41,4**	**43,9**	**46,3**	**48,7**	**51,2**
Change from previous year	–	4,8	4,8	5,0	-6,6	10,0	6,0	5,5	5,2	5,2
Broad money M2 (billion GEL)	**6,5**	**8,4**	**9,8**	**11,6**	**13,7**	**16,3**	**19,2**	**22,5**	**26,5**	**30,5**
Velocity of money movement	**5,23**	**4,84**	**4,56**	**4,25**	**3,61**	**3,6**	**3,38**	**3,14**	**2,92**	**2,71**
Price level	**0,97**	**1,11**	**1,63**	**1,22**	**1,31**	**1,42**	**1,48**	**1,53**	**1,59**	**1,61**

*** Source:** *Ministry of Finance of Georgia; National Bank of Georgia.*

In order to overcome the created situation, we should consider it completely appropriate, by the National Bank of Georgia, to increase the monetary policy rate in a short period of time, namely, from 4.0% in February 2015 to 10.5% by February 2022 (including in 2021 by 2.5%) making decisions on growth.

As it is known, as a result of the mentioned decision, the implementation of the so-called „expensive money policy“ by increasing the price of credit resources in the country, limits the possibility of access to credit funds necessary for economic activity and, therefore, often becomes an obstacle to the economic development of the country.

Under the influence of all of the above and a number of other circumstances, a situation is outlined, according to which: „In the conditions of low consumption (C) of family farms with extremely low financial potential, very limited investment activity (I) and the negative value of exports (NX) caused by a deeply deficient trade balance, the country's GDP Budgetary expenses (G) appear to be one of the main levers for the formation and growth.

Thus, the use of state (budgetary) funds, well known by the „Keynesian model“[9] of the state regulation of the economy, is considered an important source of the formation of the financial potential necessary to ensure the growth of the country's economy.

Therefore, in our opinion, in order to overcome the problems facing the economy of Georgia every day, the two most important tasks should be considered to be the „cutting“ of the high rate of inflation and the stimulation of the joint demand, which has been reduced as a result of this. Taking into account the elementary economic logic that the implementation of the mentioned directions will be extremely difficult, and in the case of improper implementation, they will lead to mutually exclusive processes, their implementation requires a complex analysis.

[8] L. Chelidze., D. Chelidze „Inflation and its management-some issues of perfecting regulation“ p.14

[9] d. Chelidze „Investment projects as a lever for stimulating the country's economic growth“ Economics and Business Ivane Javakhishvili Tbilisi State University Scientific-Analytical Journal Volume XII #2, 2020

Taking into account the complex nature of the problems, it should be considered a completely valid decision to reduce the total balance (budgetary deficit) of the consolidated budget of Georgia by 2025 to -848 mln. As a result of the reduction of the GEL and the reduction of its ratio to the country's gross domestic product from 4.3% to 2.3% by 2025[10], bringing it within the parameters defined by the Law of Georgia on „Economic Freedom".

It is worth noting the fact that, taking into account the current state of the country's socio-economic development, the realization of the above-mentioned tasks is associated with great difficulties. The point is that the possibilities of real (not nominal) growth of budget revenues, which is considered the most effective means of reducing the budget deficit, is a less reliable direction, taking into account a number of factors.

Therefore, for the given stage, the effective use of budget costs gains special weight. Taking into account the fact that in the current situation it is absolutely impossible to reduce the budget allocations of the state budget for health care, social security, security, defense, foreign and domestic obligations by a more or less significant amount, the adjustment of capital and investment costs of the budget should be considered as an action to alleviate the budget deficit.

In order to realize the mentioned approach, as a result of the in-depth analysis of budget allocations, capital and investment projects with less inflationary load and stimulating joint demand in the country should be selected as subjects of state budget financing. Therefore, in our opinion, 2 458 728 100[11] (two billion four hundred and forty-eight million seven hundred twenty-eight thousand one hundred) GEL approved under the article „Other expenses" of the 2022 state budget for bribery requires special attention and proper correction (17.1% of the expenditure part of the state budget). Targeting study.

The relevance of determining the purpose of budget allocations, which are traditionally problematic from the point of view of hardship, included in the „other expenses" article, is confirmed by the accompanying document of the 2022 State Budget Law, „Information about the measures planned under the „other expenses" article provided for in the budget".

The creation of the mentioned document is a progressive step in itself, however, if we take into account the fact that the text of the document submitted for the definition of „other expenses" often contains vague wordings from the point of view of identification, such as, for example: within the framework of the power transmission network strengthening project (budget code 24.14.01), „ 4.8 million GEL was allocated for various infrastructural projects and their co-financing; Within the framework of the urban service improvement (water supply and wastewater sector) program (budget code 25.04.01) 15.0 million was also allocated for „various infrastructural projects and their co-financing"[12]. Lari, etc.

The problems related to the unclear wording in the above-mentioned document created for the definition of the vague budgetary allocations provided for in the article „Other expenses" of the state budget in the form of „various infrastructural projects and their co-financing" are further exacerbated by the vague and corruption-laden projects provided for in the capital projects of the state budget. To which it belongs: -"Investment program of livable cities" and its financing (budget codes 25.03.07.01; 55.13.05)[13]. The decision to take a loan of 120 million USD from the Asian Development Bank.

[10] „On the 2022 State Budget of Georgia" accompanying the Bribery Law, the document entitled „Main Economic and Financial Indicators of the Country".

[11] Law of Georgia „On the 2022 State Budget of Georgia".

[12] .„On the 2022 State Budget of Georgia" document presented as accompanying documentation of the Law of Georgia „Information on planned measures under the article of „Other expenses" provided for in the budget".

[13] „On the State Budget of Georgia for 2022", the document presented as accompanying documentation of the Law of Georgia „Information on Capital Projects Considered by the State Budget of Georgia for 2022" (Capital Budget Annex)".

Conclusion

Taking into account that there are strict criteria in Georgia for selecting capital and investment projects, according to the Government of Georgia the 22nd of April 2016 №191 decree on Approving Investment Project Management Roadmap and as defined in Minister of Finance of Georgia the 8th of July 2011 №385 order on Approving the Program Budget Development Methodology, we think it would be appropriate to review the capital and investment projects provided for both the year of 2022 and the subsequent budgets, in terms of consistency with the standards provided in the aforementioned normative acts. We think that the budget expenditure, which is inconsistent with the requirements of the normative acts, must be sequestrated/annulled, providing positive impulse for the process of reducing existing budget deficit – a heavy burden on the financial system of the state.

Despite the relevance of the universally recognised aforementioned approach of combating inflation by reducing budget deficit, as is known, if realised, it limits the gross demand of consumtion market. Therefore, we think that in order to shape the environment stimulating the economic growth of the state, develop energy sector, considered to be fundamental for economic growth, „in order to provide as much as possible the state economy with inexpensive electric power, incentivise creation/expansion of ownership process, and somewhat neurtrilise inflation-stimulating excess monetary supply existing in circulating channels», „the process of developing new special targeted programs for establishing/operating new hydrogenation objects should begin with the joint effort from the state and private (natural and legal entities) sectors“.[14]

The relevance of the aforementioned opinion initiated in 2007 is made clear in the information published on the web site of the Legal Entity of Public Law Public and Private Partnership Agency 2007 that: „in May 2021, the Public and Private Partnership Agency hosted American investors, who are interested in investing in renewable energy sector of Georgia“.[15]

The presented information indicates that it is necessary for the government intensify activities in this regards. Therefore, it can be presumed rather logical for an appropriately authorized government entity to begin the first phase of technically/economically justified establishment/operation works of the investment projects.

In order to ovoid the undesirable process of increasing budget deficit, we think that the first funding phase of the aforementioned projects should be carried out from the funds accumulated in the Pensions Agency of Georgia.

Taking into account that „the net assets of the Pensions Agency as of 15 February 2022 amounted to GEL 2, 096 billions»[16] and the agency is interested in feasible placement of the funds in investment projects, and also the fact that the major share of the funds accumulated in the Pensios Agency represents resources from salary payments – generated in the economy of the country, and unlike the funds formed at the expense of budget deficit, have considerably lower inflationary impact, we think it would be quite a justifiable decision to use them for capital and investment projects on share based principles.

Strictly regulated financial resources of the Pensions Agency must be used to finance those initial phases of the investment projects, in which technically/economically justified and commercially attractive projects of hydrogenation objects will be developed.

In our opinion, further funding of creation/operation of hydrogenation objects should be accomplished by public offering of shares for financial resources accumulated from private sector. The proposed way of funding investment projects will give positive stimulus for a highly desirable process of placing in industry sector financial resources precipitated in the circulation channels, carrying inflationary impact.

[14] D. Chelidze „Some Aspects of Budget Structure Refinement“ Quarterly reviewed and referenced scientific magazine „Commersant“ №2(3) Tbilisi 2007 pp. 30-31

[15] Public Private Partnership Agency https://ppp.gov.ge/vrcladis-teqsti/

[16] Pension Agency 15 February statistics: https://pensions.ge/public-information/news/february-15-statistics-of-the-pension-agency

REFERENCES:

Campbell R. McConnell, University of Nebraska, Stanley L. Brue, Pacific Lutheran University, Sean M. Flynn, Scripps College. Copyright © 2015 by McGraw-Hill., ECONOMICS: PRINCIPLES, PROBLEMS, and POLICIES – Twentieth edition Published by McGraw-Hill Education, 2 Penn Plaza, New York, NY 10121.

https://b-ok.org/book/5064635/5a4056

Fisher's Quantity Theory of Money: Equation, Example, Assumptions and Criticisms Article Shared by SumanK

https://www.economicsdiscussion.net/money/quantity-theory-of-money/fishers-quantity-theory-of-money-equation-exa

[1] The price level indicator represented by table №2 is calculated based on the well-known Irwin Fisher equation P = MV/Y where: P – price level; M – wide money M; V – speed of money circulation; Y – total output of goods and services.