PROSPECTS FOR THE DEVELOPMENT OF FINANCE IN THE CONDITIONS OF EUROPEAN INTEGRATION OF UKRAINE

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P.34 **Prospects for the development of finance in the conditions of European integration of Ukraine**: monograph / Ptashchenko L., Yehorycheva S., Chychkalo-Kondratska I., Onyshchenko S., Berezhna A. [etc.]; in general ed. Ptashchenko L. Tallin: Estonia, IRETC MTÜ, 2022. 212 p.

The monograph is dedicated to the consideration of the problems of the development of the financial market of Ukraine that are relevant in the context of European integration. Very important issues of today, which are highlighted in the monograph, are the restoration of budgetary stability and debt security of Ukraine in the post-war period, improvement of monetary and budgetary policy aimed at macroeconomic stabilization in the country. The authors emphasize the tools that can ensure anti-crisis regulation of the banking system, financial business management. The monograph examines the issues of ensuring the economic security of the construction industry, directions for improving the accounting policy in the field of business as a whole, and improving the quality of audits.

These and other aspects of the current problems and priority directions of the development of the financial market are devoted to the monograph of the team of authors who carry out up to date researches within the scientific school of the National University "Yuri Kondratyuk Poltava Polytechnic".

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BUDGETARY AND MONETARY POLICY: THEORETICAL PRINCIPLES AND PRACTICE OF COMPLEMENTARITY

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The management of public finances in view of European integration processes and economic reforms is directed in accordance with state policy. Politics covers all the areas of activity and depending on the sphere of social relations, which is the object of political influence of the state, is defined as economic, social, financial policy; within the framework of financial policy, fiscal (budgetary, tax, debt), monetary and credit, currency, customs, etc. Budgetary and monetary policies have their specific goals and objectives in the economic system and therefore represent its institutionally separated, independent components. However, in terms of the direction of the regulatory influence on the development of the economy, they are largely identical, which is why it is possible to change the state of the economy by measures of both monetary and budgetary policy. The connection between the mechanisms gives reasons for scientists to consider them as alternatives, which led to a long discussion about the advantages and disadvantages of each of them and about their place and role in the economy regulation. Currently, domestic practice indicates the adjustment of fiscal policy to those macroeconomic processes that occur spontaneously, or the implementation of those guidelines that are recommended to Ukraine from the outside. Thus, from the current interests point of view, it is difficult to justify the priority and the volume of budget expenditures for servicing the public debt (although trust in Ukraine as a responsible borrower served in moments of critical lack of resources during the russian military aggression, which made it possible to additionally attract financial resources of credit and grant nature). Encouraging non-resident investors to hryvnia government bonds on the primary market with preferential taxation (where the ultimate beneficiaries are representatives of the domestic capital) is a manifestation of private rather than national interests. Along with this, in view of the need to achieve a single target guideline, effective coordination of tools, levers of budgetary and monetary policy is important. The active phase of russian military aggression against Ukraine is a significant test, including the ability to ensure the budgetary and monetary policies complementarity. According to the Cabinet of Ministers of Ukraine forecasts, included in the project of the state budget of Ukraine for 2023, an increase in inflation (+30%), an increase in the exchange rate of the hryvnia against the US dollar (up to UAH 50/dollar by the end of the year), a decrease in the level of redistribution of GDP through the budget (up to 19.7% - the ratio of budget revenues without transfers to GDP), an increase in the level of expenditures (up to 39% of GDP) are expected, the budget deficit will reach 20% of GDP, the amount of public debt may exceed the amount of GDP [1, 2]. Under such conditions, ensuring the budget system financial stability and macroeconomic stability is an extremely difficult task. The results of the practical implementation of the coordination of measures of budgetary and monetary policy of Ukraine in view of their theoretical basis are ambiguous and need to be studied.

Review of scientific positions. The positions of foreign scientists have the greatest influence on the understanding of the fiscal policy essence. Thus, S. Fischer, R. Dornbusch, R. Schmalenzi use the term fiscal policy and interpret it as decisions made by management structures regarding public expenditures and established taxes [3 p.512]. Campbell R. McConnell and Stanley L. Brew define fiscal policy as the deliberate manipulation of taxes and government spending by the government to change real GDP and employment levels, control inflation, and stimulate economic improvement. [4]. Edwin J. Dolan, Colin D. Campbell, Rosemary J. Campbell note that there are two sources of government influence (fiscal and monetary policy) on the process of the income circulation in the state, the size of nominal national income, and also on the degree of influence of nominal changes in income to changes in real values and price levels [5]. At the same time, fiscal policy refers to the government's policy in the field of taxation and public spending. The winner of the Nobel Prize P. Krugman considers the concepts of fiscal and budgetary and tax policy to be synonymous and interprets it as a type of stabilization policy, which covers changes in taxation, state transfers or state purchases of goods and services [6].

The domestic scientists quite often consider budget policy in combination with a tax policy, that is, as a fiscal policy. Thus, A. Chukhno, P. Yeshchenko and G. Klymko consider fiscal policy as a system of government measures aimed at changes in public expenditures, taxation and budget creation to ensure accelerated economic growth with full employment and stable prices [7]. V. Bazylevych, K. Bazylevych define fiscal policy as government influence on the economy through taxation, formation of the volume and structure of public expenditures with the aim of ensuring an adequate level of employment, preventing and limiting inflation and the cyclical fluctuations harmful effects [8, p. 690]. Outlining the essence of the sustainable development fiscal policy as a set of actions and measures aimed at ensuring the stability of the economy and the financial system against environmental, social and managerial risks, at supporting the processes of creation and distribution of social mixed value, O. Sushchenko emphasizes the possibility of combining fiscal and quasi-fiscal tools to achieve the goal of sustainable development in the most efficient and effective way [9, p. 31]. A set of measures, methods, techniques of the government, aimed at the formation, distribution and use of centralized state funds, the resolution of contradictions that arise as a reaction to external and internal fiscal shocks and the smoothing of imbalances that are formed in the fiscal system, through changes in the taxation system, state expenditures, social contributions, debt financing, according to M. Slatvinska [10, p. 12], is a fiscal policy carried out with the aim of influencing the economy and implementing the tasks of the country's socio-economic development strategy. T. Bohdan emphasizes that in recent years, attention has been paid to the macro-stabilization function of fiscal policy in Ukraine, and the activities of authorized bodies for the implementation of the functions of income redistribution and allocation of economic resources have been reduced to a minimum. Thus, "in conditions of structural degradation of the economy and a large-scale socio-demographic crisis, including as a result of the COVID-19 pandemic, an active increase in budget expenditures for law enforcement agencies and debt service (which has actually been implemented since 2015 in Ukraine) has no rational arguments. After all, the priority provision of law enforcement agencies, debt payments in the face of chronic underfunding of human capital development sectors is one of the causes of mass poverty of the population, the continuation of large-scale emigration of Ukrainians abroad and the socio-economic degradation of the country." [11]. The team of authors led by A. Krysovatyi considers fiscal policy as an adaptive mechanism in the system of state regulation, which should be aimed at ensuring the adequacy of regulatory measures to internal and external changes in the economic environment with the aim of state and regions' sustainable development and improving the welfare of society on this basis. Scientists point out that the duality of the issue is that, on the one hand, fiscal policy should ensure resource filling of budgets at all levels, and on the other hand, fiscal instruments are used as macroeconomic stabilizers to stimulate economic growth and regulate the macroeconomic situation (to reduce cyclical fluctuations, achieving full employment, combating inflation) [12]. Z. Varnalii, S. Onyshchenko, T. Buhai single out the components of fiscal policy, emphasize the security aspect, defining budget policy as a financial category that includes a system of relations, measures and

actions of state authorities in the field of managing budget processes based on the concept of the budget system development with the aim of achieving a public socio-economic effect and should be oriented towards stimulating the development of the real sector of the economy [13,14].

Monetary (monetary and credit) policy is most often considered as a set of measures of the state represented by the central bank in the field of monetary and financial and credit sectors, aimed at achieving certain strategic goals of the country's economic development [15, p.52]. The strategic goals of monetary policy can be focused on: maintaining low inflation rates (a mandatory condition for maintaining macroeconomic balance in the economy and a state of certainty for all economic agents, since the stability of the monetary unit provides opportunities for long-term savings and investments); ensuring the national currency stability in terms of the exchange rate ratio with other currencies (a mandatory condition for maintaining trust in the national currency on the part of domestic and foreign businesses, facilitating conditions for planning long-term transactions of subjects of foreign economic activity); ensuring foreign economic balance, maintaining the payments balance (a mandatory condition for the country's stable economic development, which is associated with balancing the country's money and commodity flows as a participant in the world market); promoting a high level of employment (for example, the Federal Reserve in the USA). In the process of implementing monetary policy measures, mechanisms and instruments creating additional risks for the implementation of the state's budget and debt policy can be used.

The purpose of the work is to study the nature of the influence of the state's budgetary and monetary policy on macroeconomic stability, financial stability; to determine the specifics of the relevant tools and levers introduction and forming promising directions for their coordination, including in the post-war period.

In order to achieve the target guidelines for the economic systems functioning, it is important to form a financial policy and agree on effective mechanisms for the interaction of the components in the process of using system resources. Given the essence of the state's financial policy — the distribution and redistribution of financial resources, its main task is to provide appropriate financial resources for the implementation of the social and economic development state program. At the core of these operations is a management choice: regarding subjects — owners or managers of financial resources; sources and methods of financial resources formation; priority directions for the use of financial resources; level of centralization of financial resources at the disposal of the state. Further detailing of the managerial influence object makes it possible to single out the relevant components within the framework of financial policy. The national socio-economic policy has legally defined legal, economic and organizational principles of formation [16]. The way financial policy is implemented through the complex interaction of tools (monetary, budget, tax, debt) depends on the optimal, effective budget process, and accordingly, budget policy, as well as an effective credit system and monetary policy. Considering the technologies of the budgetary process, it can be argued that budgetary and monetary policies, as components of financial policy, are implemented in correlation. Taking into account the different target guidelines of monetary and budget policy, their coordination and mutual agreement is important. The Ministry of Finance and the National Bank, as the main entities of formation and implementation, must adjust the budgetary and monetary policy measures in such a way as to be able to achieve the set goals in view of the general public interests. Due to its specificity, budget policy cannot fail to take into account the goals of monetary policy, forecast monetary indicators, and the monetary policy of the NBU, in turn, affects the formation and execution of budgets. The process of budget planning begins, according to the current regulations, precisely with the formation by the National Bank of the main indicators of the monetary policy for the forecasted period and their submission to the Parliament and the Government for consideration. The budget process effectiveness largely depends on the correct definition (where the accuracy of forecasting plays a significant role) and consistency of socio-economic development indicators, budget indicators and the main parameters of monetary policy, which are basic for the development of the forecast and the state budget project. In view of the above, it is worth noting the presence of problems that may be due to the lack of a coordination mechanism for the above-mentioned main macro-indicators.

Theory and practice prove that in order to increase stimulation of production, it is considered expedient: within the limits of monetary policy — to lower the interest rate and increase the money supply; within the limits of the budget policy — to reduce the level of taxation and increase budget expenditures. Such a connection between the mechanisms determines the scientific debate, which has not only theoretical, but also practical significance in view of the need to find an optimal solution to the question: with the help of which measures can the economy be brought out of the crisis as quickly as possible — reducing taxes, increasing government spending, increasing the money supply or applying all measures simultaneously. Most noticeably, positions on these issues were divided between Keynesians and Monetarists. J. M. Keynes and his followers, absolutizing the role of a state in regulating the economy, prefer fiscal policy measures because: they have a more direct and tangible impact on the activity of economic subjects; the reaction of the market situation to fiscal policy measures is more predictable; the impact of fiscal measures on economic growth appears faster than the impact of monetary measures; state decisions on the application of measures can be made more quickly. Monetarists, led by M. Friedman, absolutize the ability of the market economy to self-regulation, believe that the advantages of fiscal policy formulated by Keynesians are purely abstract and do not manifest themselves in reality. Fiscal measures are characterized by a longer period of implementation than monetary policy measures, since changes in taxes or budget expenditures affect the interests of most economic entities and cause significant social resonance, while political disputes arise that delay the adoption of necessary decisions for a long time. In addition, there are risks of the taxation system imperfection, the ability of economic entities to avoid paying taxes, etc. Frequent changes in the taxation system or budget financing have a negative impact on the economic entities conduct. The high level of taxation leads to the curtailment of the activities of economic entities in the real sector and/or transition to the shadows. The effectiveness of fiscal measures is significantly weakened in conditions of inflation. Because of these circumstances, fiscal policy is significantly less effective than the monetary one.

A vivid illustration of scientific discussions, the formation and refutation of theories, the genesis of scientific opinion regarding the instruments of state regulation of the economy, the interaction of fiscal and monetary policy is an interview with Nobel laureate P. Samuelson, which was first published in Macroeconomic Dynamics in 2004 [17], and presents an insider's description of the development of scientific opinion regarding the effectiveness of the monetary paradigm ($\boldsymbol{MV = PQ}$; where M is the money supply; V is the speed of money circulation; P is the price level; Q is the production volumes) when conducting analytical studies of the financial situation, when forming monetary policy. According to the results of discussions in world economic theory and in regulatory practice, the economic development monetary factor has gained wide recognition. Moreover, there is now a clear convergence of Keynesians and Monetarists' positions regarding the assessment of the role of fiscal and monetary policy in the system of state regulation of the economy. Currently, they are not considered as alternatives, but as complementary to each other in a single system of economic policy, with their own special goals and mechanisms of influence on aggregate demand.

Regarding the Ukrainian practice, one can agree with S. Hasanov's opinion that "economic policies, including fiscal and monetary, are mostly unpredictable; internal political cycles turn into determining factors of economic fluctuations, the amplitude of which increases in proportion to the frequency and unpredictability of political shocks; social, economic, public, and personal mistrust of the legislative and executive authorities actions is deepening, even when relatively well-founded and rational decisions are made" [18, p.7]. Taking into account the above, we must state that within the framework of the budgetary and monetary policy interaction there are many issues that require coordination, namely:

–budgetary and monetary policies have different goals and tools for their implementation (sometimes the goals become opposite, which requires the formation of an institutionally fixed mechanism for resolving contradictions);

–the time periods for the monetary and budget policies implementation in most cases do not coincide, which can provoke instability in the financial and monetary sphere and requires the coordination of current measures by the authorized bodies;

–the periodic tension of the problem of repayment of the Government's debt to the central bank leaves many questions open given the fact that the NBU is an internal creditor of the Ministry of Finance of Ukraine;

–different target guidelines and contradictions in the debt policy of the Government and the NBU;

–aggravation of contradictions between budgetary and monetary policy at the end of the budget year, associated with a sharp decrease in funds on the Government's accounts, which leads to a sharp increase in the money supply and increases inflationary risks and requires the formation of liquidity management measures, etc., became characteristic for Ukraine.

In order to identify points of contact between budgetary and monetary policy, we see it necessary to consider some definitions regarding them.

Budgetary policy as a component of the fiscal policy of the pre-war period. Foreign researchers often do not separate the categories of budget policy or tax policy, combining them by content, for the purpose of implementing fiscal policy. The dual nature of fiscal policy is manifested precisely because of the need to reconcile the contradictions of methods, tools of tax and budget policy. Most often, in theoretical works, the definition of fiscal policy is used, as a set of tax and budget policies, as one of the tools of state intervention in the economy with the aim of adjusting the extremes of economic cycles.

In the classical sense, fiscal (or budgetary and tax) policy is a tool for: redistribution of income and state provision of the most vulnerable sections of the population; adjusting the allocation of economic resources and increasing the productivity of production factors; macroeconomic stabilization and maintenance of fiscal stability. The role of a fiscal policy is important as a lever for raising economic development in underdeveloped countries, as well as as a tool for correcting structural imbalances in the economy and responding to new global challenges. IMF specialists recognize that new social, economic and technological trends in the global environment generate new challenges for public finances and require adjustment of the expenditure part of the budgets in many countries.

The point of view regarding the fiscal and budgetary and tax policy identification has grounds for existence, since this type of state influence on the economy is carried out through the formation of budget revenues and the implementation of state expenditures in the form of state purchases, transfer payments, and payments on debt obligations. Fiscal policy makes it possible to solve the problems of filling the budget through economic growth, and the system of taxation and expenditures are the tools for stabilizing the economy, with the help of which the created product is redistributed between the state and society. In general, we share the position of scientists who distinguish between the concepts of fiscal and budgetary, tax policy, we note that budgetary and tax policy involves an emphasis on the problems of filling budgets of different levels in volumes sufficient to finance expenditures according to established priorities; tax and debt policy in this case is subordinated to the solution of budget policy tasks.

Theoretically, three types of fiscal policy are distinguished (with a corresponding set of measures and tools): neutral (carried out when the economy is in equilibrium; public expenditures are fully financed by tax revenues and the budget result has a neutral effect on the level of economic activity); stimulatory (carried out during an economic downturn; provided aggregate supply exceeds aggregate demand, aggregate demand is increased to overcome the recessionary gap due to an increase in government spending, which in turn leads to an increase in the budget deficit); restraining (occurs when public expenditures are lower than revenues, is carried out to repay the public debt; when aggregate demand exceeds supply, inflationary expectations occur; to balance the situation, public expenditures are reduced, resulting in a budget surplus).

The formalized system of measures and tools used by the state in its financial activities to respond to changes in the economy can be presented in a simplified form as a balance of incoming and outgoing financial flows:

$$TP + Db = Ep + Tr + Edebt + Ex, \quad (1)$$

where TP is tax payments as budget revenues (in the macroeconomic understanding as a share of GDP that is redistributed through the budget in view of the taxation system),

Db – budget deficit,

Ep – public expenditures (budget expenditures and expenditures of social funds),

Tr – transfers to the private sector (including social transfers),

Edebt – expenses for servicing the state debt,

Ex – net exports (as the difference between exports and imports).

The budget deficit, given the possible sources of financing, can be presented:

$$Db = MF + BF, \quad (2)$$

where MF is monetary (domestic) financing;

BF – debt (external) financing.

Then the equation, which reflects the relationship between the monetary and fiscal (budgetary, tax, debt) policy of the state, and also allows analyzing the change in the general financial policy of the state at different stages of the economic cycle is fair:

$$TP + MF + BF = Bn + Ep + Edebt + Ex, \quad (3)$$

Various sources (TP + MF + BF) can be used to solve the tasks of socio-economic development (Vp + Ep+ Edebt +Ex), that is, tax revenues and monetary financing as the state's own internal sources of financial support and debt financing, which involves the involvement of external sources financial resources. Various tools can be used to attract certain sources of financing, which in aggregate is characteristic of the corresponding type of budget policy.

Discretionary stimulus fiscal policy is applied during a crisis, which is accompanied by an increase in the state budget deficit due to an increase in public expenditures through public procurement, additional social and investment-oriented transfers, while simultaneously reducing the tax burden by reducing tax rates and increasing various tax benefits, which stimulates the growth of aggregate demand. The implementation of such a policy is aimed at reducing the negative consequences of the phase of decline and depression in the economy. The stimulating effect is manifested due to the activation of aggregate demand, since both the reduction of taxes and the increase of social transfers to the population lead to an increase in household funds that can be spent on current consumption. An increase in public procurement also expands the demand for goods and services and increases employment. Stimulating fiscal policy measures are not able to fully stabilize the level of national income, but may cause the opposite reaction - destabilizing the economy, due to the uncertainty of forecasts regarding the prolongation of the crisis in time.

The application of discretionary stimulating (expansive) or restraining (restrictive) fiscal policy is determined by the priorities and tasks of the corresponding stage of implementation of the strategy of socio-economic development of the state, such as the fight against demand inflation, ensuring a high level of employment, anti-crisis regulation, etc. In the modern world, discretionary stimulus (expansionary) fiscal policy is more typical for countries with a low level of economic development. Usually, such countries resort to stimulating import substitution in combination with curbing inflation. While in developed countries, on the contrary, they resort to curbing overproduction or excessive investment in certain sectors of the economy, applying measures of restraining fiscal policy [19].

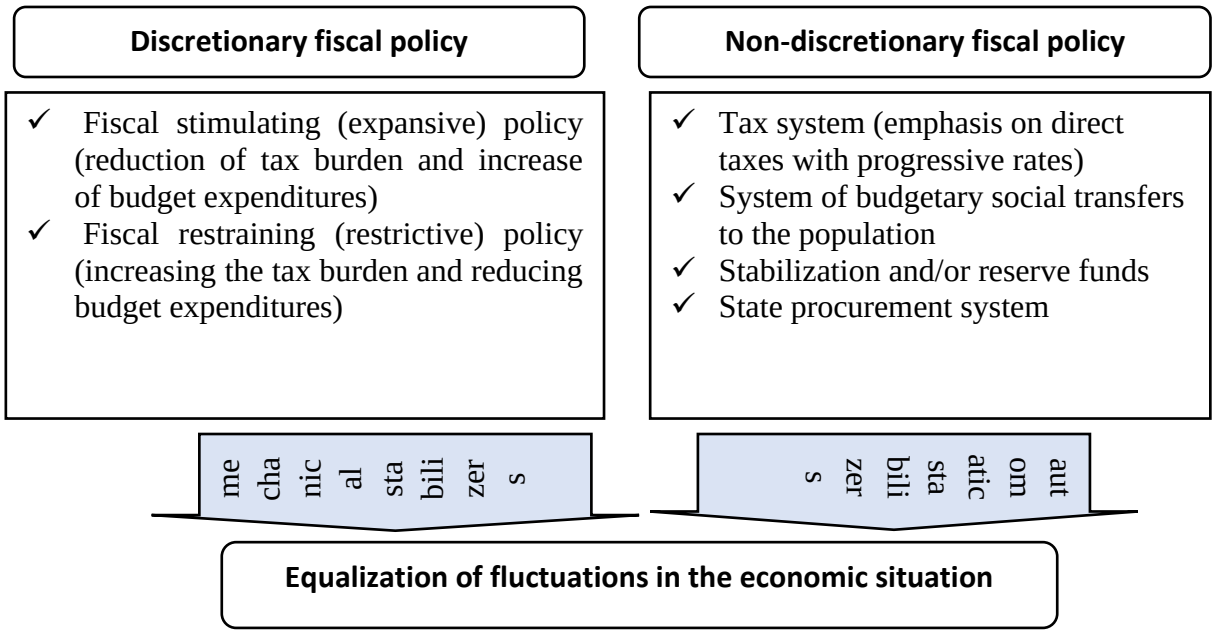


Fig. 1. Regulation of demand by fiscal policy measures

Non-discretionary fiscal policy involves the use of automatic stabilizers, which are the instruments of influence on reducing the amplitude of cyclical fluctuations in the production volume without using measures to change the government's economic policy. Automatic stabilizers can be represented by a progressive scale of income taxation, unemployment assistance, a system of state transfers, etc. During the upswing, the effect of automatic stabilizers will be manifested in taxation at increased rates of additional income and reduction of social benefits, such measures are manifested due to the lag of the growth rate of available income from the growth rate of GDP, thus restraining the growth of consumer demand. In crisis periods, automatic stabilizers allow to stimulate consumer demand. Thus, through the state transfers system, an increase in social assistance is provided with a simultaneous reduction in taxes, which makes it possible to mitigate the consequences of the crisis, to restrain the fall in production; the curtailment of investments will inevitably affect the production volumes reduction and, accordingly, incomes, however, the application of a lower tax rate partially compensates for the losses total volume.

Considering the budget policy as a component of the state's financial policy, we focus on its following features: it is determined by a set of measures to strengthen the revenue part of the state budget, strengthen the social orientation of budget expenditures, create conditions for macroeconomic stabilization; is aimed at optimizing and rationalizing the formation of income and the use of state financial resources through the budget system, increasing the efficiency of state investments in the economy, coordinating the interests of the state and regions in the field of inter-budgetary relations, regulating state debt and ensuring social justice in the redistribution of national income. The theoretical concept of the connection between the budget and budget policy is revealed through the ratio of base and superstructure – budget relations are the basis of budget policy and determine its content. Budget relations are objective (do not depend on consciousness), and budget policy is a product, a form of conscious activity of people. Budgetary policy cannot change the content of budgetary relations, besides it depends on the economy and affects it at the same time. The following conditions must be observed when formulating the budget policy: taking into account objective economic laws and patterns of social development; taking into account the current state of socio-economic development and existing stable trends in the country's development; taking into account the current stage of development of society as a civil society; taking into account factors of external influence, such as the state of the international financial and economic situation in view of globalization processes; introduction of positive experience of other countries; a comprehensive

approach to the formation of budget policy measures in an inextricable connection with monetary, currency, tax, tariff, customs policy, etc. [20 p.73].

The concept of budget policy is a principled system of views on the architecture of the construction of the country's budget system, on the priorities and directions of its development, which is formalized in a dialectical unity through the budget strategy (a set of fundamental perspective goals of the policy and principled ways of solving long-term tasks related to the construction or reform of the budget system of the country in line with the developed concept) and budget tactics (a set of current goals of budget policy and methods of solving short- and medium-term tasks related to the management of the budget system, improvement of its individual elements in accordance with the strategy). The task of budgetary tactics is to select optimal management decisions in a specific situation, for example, the choice of methods and tools of budget regulation in a specific period the budget system development. The budget strategy should establish the main directions of the policy and be aimed at the development of such economic levers that would be aimed at their implementation. The budget strategy of the state is aimed at the development of a budget mechanism that should ensure macroeconomic balance, long-term sustainable development of the economy in order to increase the welfare of the population and preserve the sovereignty of the state [21]. Budgetary policy requires legal formalization, i.e. legislative and regulatory acts, which will specify the volumes, forms and methods of budget formation as a fund of financial resources, forms of organization of inter-budgetary relations, methods and tools of budget financing taking into account the results of fiscal risk assessment. The formation of a scientifically based concept of budget development as a tool for regulating socio-economic processes is based on the results of studying the needs of the current social development state, a comprehensive analysis of the economic development state, the social sphere, global trends in socio-economic development, and the strategic priorities of the state. Achieving the above requires further ***improvement of budget policy in the following main directions*:** creation of an effective system of management and regulation of budgetary resources; ensuring the effective functioning of the tax system, mobilization of budget revenues in the amounts determined in accordance with the requirements of tax legislation, improvement of the taxation system; fiscal risk management (including contingent liabilities and quasi-fiscal operations); formation of an effective system of budget expenditures aimed at stimulating economic growth, including investment activity (increasing the share of accumulation in the national income), reduction of non-productive expenses, budget subsidies; implementation of structural reforms in the social sphere; improvement of the budget process and streamlining of budget procedures; creation of a system of effective financial and budgetary control; reforming inter-budgetary relations in the direction of budgetary decentralization; ensuring effective management of public debt.

The issue of the appropriate level of GDP redistribution through the budget system and the public administration sector as a whole remains open. Economically developed states with strong civil society institutions can allow redistribution through the budget of significant amounts of GDP. For developing countries and transformation countries, the maintenance of high economic dynamics is associated with a reduction in the tax burden. The inverse relationship between economic growth and the share of GDP that is redistributed through the budget is characteristic of Ukraine in recent years. The share of revenues of the public administration sector in the GDP of Ukraine at the level of 44% (2020: revenues of the consolidated budget – 32.8% of GDP, revenues of the consolidated budget and the Pension Fund – 43.9% of GDP) is approximately within the limits of a number of developed countries: Germany – 39 ,1%, Norway 41.7%, Italy – 41.8%, Denmark – 51.6%, Japan – 27.8% and the USA – 27.6%. In view of the permanent deficit of the state budget of Ukraine (2020 – 5.2% of GDP), the share of state expenditures is significantly higher (2020: expenditures of the consolidated budget – 38%, expenditures of the consolidated budget and PFU – 49.5%). At the same time, Ukraine has not reached the high rates of economic development of the above-mentioned countries (the nominal GDP growth rate in 2020 is 5.5%). A significant level of GDP, which is mediated through the financial resources of the state, is evidence of an excessive redistributive function, overloading of the financial system with various forms of redistribution of resources, is

destructive for the development of macroeconomic processes [19, p.27]. New exogenous (russian military aggression, financial assistance of the international community in favor of Ukraine) and endogenous (population migration, destruction of life support infrastructure as a result of the war) factors cause a significant change in the amount of resources redistributed through the budget.

For peacetime, given the target guidelines for economic growth, the theoretical basis for the expediency of increasing public spending can be considered Wagner's law (economic growth and social development as a whole should be accompanied by a constant increase in the share of public spending in GDP). Quite regularly, Wagner's law is tested by public finance researchers on statistical material from different countries using various econometric models. As a corrective limiter for the manifestation of Wagner's law, the so-called Arma-Rahn curve or BARS curve is used (it describes the dependence of economic growth rates and the share of public administration sector expenditures in GDP as a function). The BARS curve is a hypothetical curve of parabolic form, which has a characteristic maximum point (Scully point), and connects economic growth and the frequency of government spending in GDP. According to estimates of the impact of budgetary policy on economic growth, J. Scully identified a maximum point of 23% for the US economy (at the same time, in 2003, the share of public expenditures in the US was 35.7%, and in the EU countries 47.6%), noting it as dynamic (that is, as corresponding to the maximum growth rate of GDP, not the absolute value of GDP). In order to estimate the level of the share of public expenditures, the excess of which will lead to a decrease in the absolute value of GDP, the Scully static point is used (it is not recommended to go beyond the static point). According to econometric calculations for different countries, the static points are 5–6%% larger than the dynamic points of Scully (this is the range of state regulation, which separates the policy of ensuring the maximum rates of economic growth from the recession regime). From a theoretical point of view, the BARS curve has an analogue in the field of state revenues - the Laffer production curve. Both curves have different modifications, but have a parabolic shape with maximum points; characterize the two sides of budget policy (revenue or tax policy and government expenditure policy). Thus, at certain stages of development, the growth of the share of public expenditure in GDP stimulates the acceleration of GDP growth, at other stages, on the contrary, it leads to inhibition of GDP growth.

Based on the estimates of domestic analysts, the optimal size of the state expenditures share to GDP is 35% – 37%, which is almost 10%% less than the actual size of the public administration sector expenditures share for Ukraine. Experts of the CASE Ukraine Center for Socio-Economic Research determine the optimal level of the ratio of government expenditures to GDP of 35.1% (estimated optimum of budget expenditures 26%; 9.1% – additional expenditures due to the increase in pension needs due to the high share of pensioners in the population structure) [22]. This estimate is close to the earlier estimates by P. Kukhta and I. Piontkivska, who determined the optimal level of public spending in Ukraine at 37.5% of GDP [23], and V. Dubrovskyi and V. Cherkashyn, who believe that the share of government spending should be reduced to "more than 33% of GDP" [24]. Thus, Ukraine's losses from excessive expenditures of the public administration sector are estimated by analysts at 2.7% of economic growth per year. Investigating the relationship between different categories of the budget and inflation, A. Vdovychenko [25] notes that "budget expenditures generally exert greater inflationary pressure on the economy than taxes. In particular, the biggest inflationary pressure on the economy is caused by shocks of expenditure on the payment of wages in the public sector of the economy, as well as personal income taxation.

The existence of a multiplicative effect of state expenditures (budgetary expenditures, some types of investments, exports) on production volumes has been theoretically proven. For analytical assessment, the expenditure multiplier is used, which is defined as the ratio of the change in the equilibrium volume of gross income to the change in a certain component of costs. The multiplier shows how many times the total increase (decrease) in total income exceeds the initial increase (decrease) in autonomous costs. It is important that a one-time change in any expenditure component generates a multiple change in GDP.

Table 1.

Dynamics of budget indicators for 2015-2020

	2014	2015	2016	2017	2018	2019	2020
revenues of the consolidated budget, UAH billion	456,07	652,03	782,75	1016,79	1184,28	1289,78	1376,66
expenditures of the consolidated budget, UAH billion	523,12	679,87	835,59	1056,76	1250,17	1370,11	1595,29
State debt (+ guaranteed), UAH billion	1100,83	1572,18	1929,76	2141,69	2168,63	1998,17	2558,52
state budget deficit, UAH billion	-78,05	-45,167	-70,13	-47,85	-59,25	-78,05	-217,096
Nominal GDP, UAH billion	1566,73	1979,46	2383,18	2982,92	3558,71	3974,56	4194,1
Real GDP, UAH billion	1365,1	1430,29	2034,4	2445,59	3083,41	3675,73	3818,46
Debt/Nominal GDP, %	70,26	79,42	80,97	71,80	60,94	50,27	61,00
deficit/ Nominal GDP, %	4,98	2,28	2,94	1,60	1,66	1,96	5,18
debt service/state budget expenditures, %	11,86	15,05	14,22	13,28	11,80	11,18	9,37
rate of income growth		1,430	1,200	1,299	1,165	1,089	1,067
rate of expenses growth		1,300	1,229	1,265	1,183	1,096	1,164
rate of public debt growth		1,428	1,227	1,11	1,013	0,921	1,28
rate of Real GDP growth		1,048	1,422	1,202	1,261	1,192	1,039
rate Nominal GDP growth		1,263	1,204	1,252	1,193	1,117	1,055
ΔNominal GDP/Δ Expenses (multiplier by expenses)		2,633	2,593	2,712	2,977	3,467	0,975
ΔNominal GDP/Δ income (multiplier by income)		2,106	3,088	2,563	3,438	3,942	2,527

Applying this approach when studying indicators of the consolidated budget of Ukraine and GDP, we have, according to estimates, a multiplier for budget expenditures at the level of 2.63 (2014) to 3.47 (2019) and up to 0.97 (2020). The obtained multipliers for aggregated budget expenditures correspond to the results of studies conducted for Ukraine in 2015, which determine the cumulative multiplier of expenditures at the level of 2.9 [26]. Rather low values (less than 1) are typical for developing countries. The factors that determine the differences in the estimates results are the peculiarities of the public expenditures formation as a variable for analysis, a different sample of data for analysis, as well as the peculiarities of the practical manifestation of domestic fiscal policy at different stages. Multipliers for consolidated budget revenues fluctuate at the level of 2.1–2.5 (2015–2020), with the exception of 2018 and 2019 for which the value is at the level of 3.4-3.9. Multipliers reach their maximum values during recessions (decline in economic development). For Ukraine, the peak values of multipliers in 2019 confirm the state when the economy is below its usual level of development. After exiting the recession, the economy should move upward again, and may even reach a level higher than it was before the economic downturn.

Fiscal policy in Ukraine is, in fact, discretionary, with characteristic countercyclical indicators (indicative indicators that increase during the stages of crisis and depression and decrease during the

stages of recovery and recovery: interbudgetary transfers, social transfers, state budget deficit, net exports, changes in stocks of tangible working capital , unemployment rate). It is possible to agree with the assessments of Ya. Petrakov regarding the discretionary focus of fiscal policy [27] and at the same time focus on its rather sharp changes in 2019-2020. Thus, in 2020 the government and parliament allowed budget expenditures to increase by 16.4%, with incomes growing by 6.7% due to the slowdown in the economy: growth in nominal GDP by 5.5% and real GDP by only 3.9%. As a perceived result of such a policy, a significant increase in the state budget deficit (almost 3 times) and the crossing of the conditionally safe limit (3% of GDP)– 5.18% of GDP. The public debt in the period 2015-2019 had a tendency to decrease both in absolute terms and in relative terms (as a share of GDP), and in 2020 adds almost a third compared to 2019. and safety indicators are again sharply deteriorating (61% of GDP against the normative level of 40%). Expenditures related to servicing the state debt make up almost 10% of state budget expenditures. Thus, we have a situation where the attention of subjects of the public administration sector is focused on the issues: how to get funds for debt service (increase taxes or expand borrowing), and the development of the real economy and social security of citizens (expenditure on education, health care etc.) recede into the background. The question of the presence or absence of a corruption component in the motivation of the public administration sector subjects when forming a set of regulatory instruments is beyond the scope of this study. Taking into account the experience of developed countries, the reform of the sphere of public expenditures and the taxation system in Ukraine should be integrated into a large-scale program for the implementation of structural reforms (especially in the educational, medical sectors and the pension system), the restoration of long-term labor productivity and the creation of attractive conditions for non-speculative investments).

Monetary policy is defined as a state policy through which a state-authorized institution controls the volume of money supply in order to establish price stability, promote economic growth, and maintain the level of unemployment at a low level. The priority of monetary policy is to achieve and ensure price stability (low and stable inflation rates), which protects household incomes and savings from depreciation, stimulates long-term investments in the economy, which contributes to the creation of jobs. Monetary and credit policy is reduced to economic regulation through the mechanisms of changing the supply (mass) of money and its price (interest) on the money market. An increase in the money supply, other things being equal, leads to a decrease in interest and an increase in investments, as well as an increase in solvent demand in the markets. All this in short time intervals revives the market situation and strengthens the incentives to expand production.

Under an expansionary policy, an arbitrary increase in the money supply is allowed, the consequence of which is inflation, growing rapidly. Under the policy of monetary and credit restriction, a rapid, insufficiently measured reduction in the money supply is allowed, the aggregate demand is reduced, provoking a decrease in the price level and a drop in economic activity and deflation. Monetary and credit policy has its own goals and tools, which are determined adequately to the nature of the mechanism of economic regulation.

The main principles of monetary policy determine the performance indicators of the National Bank in the medium term to achieve the legally defined goals [28]. According to the Constitution of Ukraine, the main function of the NBU is to ensure the stability of the monetary unit of Ukraine, taking into account the priorities of achieving and maintaining price stability in the state. The implementation of monetary policy is aimed at the gradual reduction of inflation rates and should ensure the achievement of the medium-term inflation target of 5% with a permissible range of deviations of ± 1%%. It happens that under the influence of certain factors, in particular, not related to the activities of the central bank, inflation deviates from the declared reference point. In this case, the main thing is that the public and investors know what to expect from the central bank, understand that monetary policy ("expensive/cheap money") will be aimed at returning inflation to the target, which will eventually be reached. Confidence in this contributes to the fact that the future inflation expected by citizens and businesses (inflation expectations) is close to the target set by the central bank. Inflationary expectations affect investment and savings decisions, affect the level of

confidence in the hryvnia, which in turn should stimulate the transition to long-term investment and positively reflect economic growth.

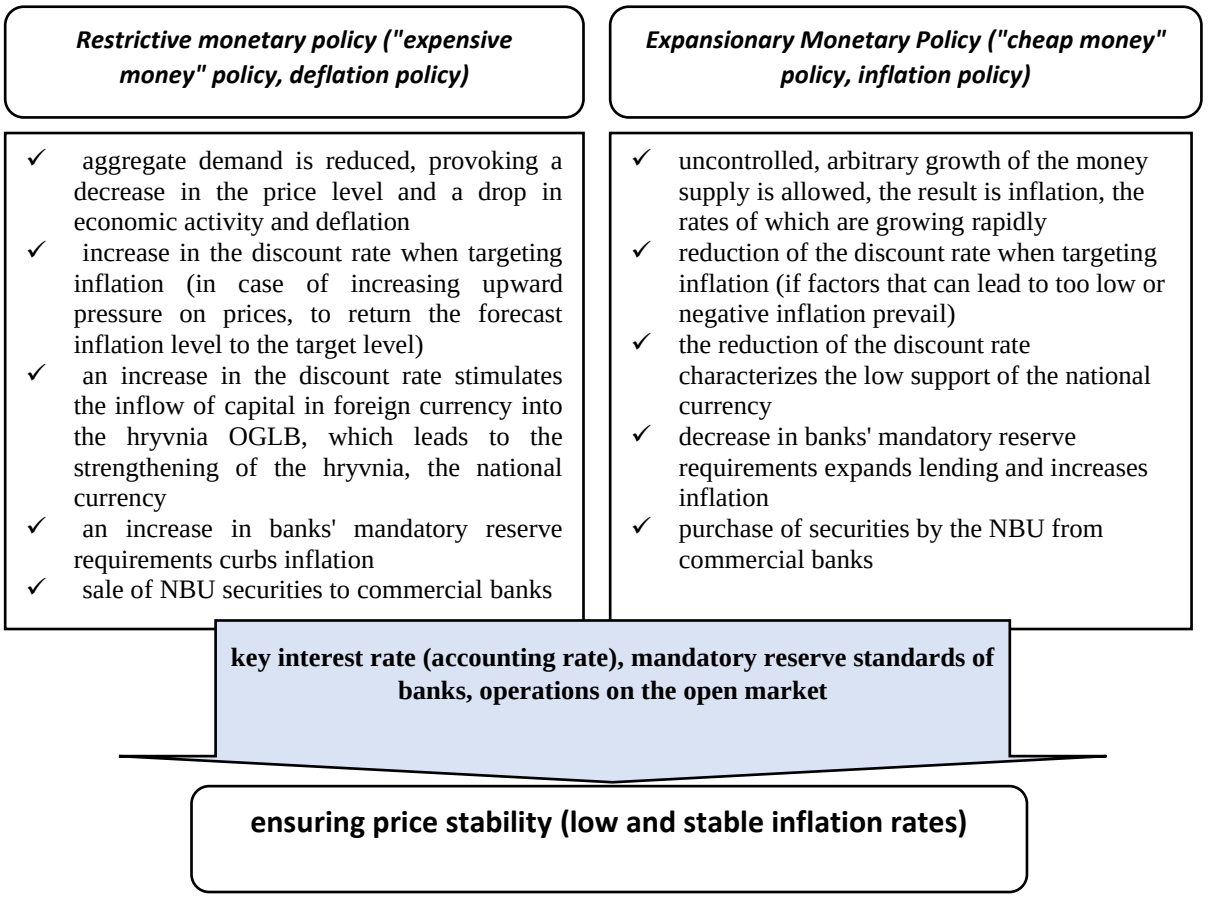


Fig. 2. Regulation of demand by monetary policy measures

The medium-term inflation target is approved by the Monetary Policy Strategy of the National Bank of Ukraine [29] and can only be revised downwards as economic development progresses. Since the central bank has no direct influence on prices, and monetary transmission occurs with some delay in time, monetary policy is always forward-looking. When making monetary decisions, the National Bank focuses on the inflation forecast. In case of upward pressure on prices, the NBU raises the discount rate, thus implementing the policy of "expensive money", which is necessary to return the forecast inflation level to the target. Conversely, it lowers the discount rate due to the prevalence of factors that may lead to too low or negative inflation. So inflation should always approach the target over the forecast horizon.

The main principles of monetary policy indicate the goals and features of the use of the instrument, determine the macroeconomic context of its implementation. For the successful functioning of the economy, central banks should pay attention not only to maintaining price stability, but also to issues of promoting financial stability. Legislation defines the appropriate goal for the National Bank, which is its second priority goal - to promote financial stability, including the stability of the banking system, provided that this does not prevent the achievement of the main goal. In the long term, the stability of the national monetary unit is impossible without ensuring sustainable economic development. In view of this, the third priority goal of the NBU is to promote the maintenance of sustainable rates of economic growth and support the Government's economic policy (provided that this does not prevent the achievement of the above-mentioned goals of the NBU).

The National Bank uses the inflation targeting regime (starting from 2016) based on a permanent medium-term inflation target. The essence of ***the inflation targeting regime is the public***

announcement of quantitative inflation targets and the obligation of the central bank to achieve these targets over the medium term. The main monetary instrument and operational benchmark under such a monetary regime is the accounting interest rate. Decisions regarding monetary policy, in particular the accounting interest rate, are made taking into account the inflation forecast based on a comprehensive analysis and forecast of the state's macroeconomic, monetary and financial development. In general, an approach is used, according to which, if the projected inflation is above the target level, then the discount rate is increased to reduce it. Conversely, if the projected inflation rate is lower than the target level, the discount rate is reduced. By changing the rates for its operations with banks, the National Bank affects the conditions under which banks enter into agreements with each other on the money market, and thus the cost of short-term credit funds. Due to the mechanisms of capital flow between different sectors of the financial market, the value of short-term funds affects the interest rates of banks for credit and deposit operations with enterprises and the population, the exchange rate of the hryvnia, and the prices of other financial assets. This *relationship between the discount rate and inflation is called the transmission mechanism.* The transmission mechanism is exposed to external shocks (a sharp one-time change of one of the variables in the model), namely: financial (foreign interest rate, capital flows, risk premium); aggregate demand shocks (credit terms, external demand, raw material prices, fiscal policy); GDP (structural reforms, military conflict); inflation shocks (due to an increase in supply, non-daily harvest, indirect taxes, energy prices) [15, p.52]. When manipulating interest rates to influence the inflation indicator, the flexibility of inflation targeting (the ability of the central bank after a price shock to allow a longer return of inflation to the target to reduce GDP losses) is important. A rapid return of inflation to the target may generate additional volatility of the exchange rate, which will have a corresponding negative impact on economic growth (through foreign trade or changes in the balance of payments). As a result, by changing the interest rate, the National Bank indirectly influences such macroeconomic indicators as inflation and GDP. Monetary policy measures take time to affect the economy and affect inflation. Because of this, monetary policy is always forward-looking.

Change in the discount rate (03.2015 – 30%, 03.2016 – 22%, 03.2017 – 14%, 03.2018 – 17%, 03.2019 – 19%, 03.2020 – 10%, 03.2021 – 6.5%, 12.2021 – 9%, 01.2021 – 10% , 06.2021 –25 %) affects the cost of servicing the public debt (budget expenditures for interest payments on DGLB (domestic government loan bonds) increase, the discount rate is a benchmark for determining the yield of bonds); affects the cost of credit resources (loans for business entities become unavailable due to high lending rates); affects the volume of credit resources (at a high discount rate, it becomes more profitable for commercial banks to invest a significant part of funds in NBU certificates of deposit than to lend to production, which reduces the supply of loans and increases their cost).

The main economic means and methods of monetary policy are the regulation of the volume of the money supply through: determination and regulation of mandatory reserve norms for banks; interest rate policy; refinancing of banks; management of gold and foreign exchange reserves; transactions with state securities (except for securities confirming corporate rights), including treasury obligations, on the open market; regulation of import and export of capital; introduction for a period of up to six months of the requirement for the mandatory sale of part of the proceeds in foreign currency; change of settlement terms for operations on export and import of goods; issuance of own debt obligations and transactions with them. The following monetary instruments are recognized as appropriate: the discount rate (as the main monetary instrument for returning the forecast inflation level to the target in the medium term and as an operational target for short-term interest rates on the interbank credit market); overnight interest rate corridor (to limit rate fluctuations for overnight credit and deposit operations of the interbank credit market); other instruments (refinancing tenders (if this does not entail risks for the banking system) and tenders for placement of certificates of deposit, repo operations, currency swaps, purchase and sale of government securities, etc.; mandatory reserve; long-term refinancing (for the purpose of hedging risks changes in liquidity conditions; for a term of up to five years with a floating rate, which at the same time helps to strengthen the interest channel of the monetary transmission mechanism). The

floating exchange rate regime is used by the central bank as an additional mechanism (in the process of improving the functioning of the foreign exchange market, significantly increasing its opportunities for balancing supply and demand), given that the achievement of a certain level or range of the exchange rate is not an objective of monetary policy. Currency interventions should be used for the purpose of: accumulation of international reserves; prejudice against sharp changes in the hryvnia exchange rate; maintaining the transmission of the key interest rate as the main instrument of monetary policy.

We can state that since the implementation of monetary reform, monetary policy in Ukraine is one of the key factors in overcoming crisis processes and achieving positive macroeconomic dynamics. Overcoming inflation can be successful if there is a harmonious combination of such tools as the discount rate and control over the emission and money supply (the entire set of money released into circulation - cash, non-cash, which at a certain moment is at the disposal of the subjects of monetary circulation [30, p. 174]) and the monetary base (the set liabilities of the National Bank in the national currency, which ensure the growth of monetary aggregates and lending to the economy; includes monetary funds issued by the NBU and hryvnia transfer deposits with the NBU). Depending on the decrease in the degree of liquidity, financial assets are grouped into different monetary aggregates, the NBU uses the following grouping according to special data dissemination standards: monetary aggregate M0 (includes cash in circulation outside deposit corporations); M1 (monetary aggregate M0 and transferable deposits in national currency); M2 (M1 and transfer deposits in foreign currency and other deposits); M3 or money supply (monetary aggregate M2 and securities, except shares). The monetary base is not a monetary aggregate, but serves as the basic foundation in the process of forming monetary aggregates.

Table 2

Dynamics of monetary indicators for 2015-2020

	2015	2016	2017	2018	2019	2020	2020/ 2015
M0, billion hryvnias	282,67	314,39	310,405	351,81	370,12	516,08	1,83
M1, UAH billion	472,22	529,63	551,463	624,231	759,77	1050,06	2,22
M2, UAH billion	993,81	1102,39	1129,464	1224,887	1462,45	1847,37	1,86
M3, UAH billion	994,06	1102,7	1208,86	1228,55	1465,64	1850,01	1,86
Monetary base, UAH billion	336	381,58	399,06	435,8	469,76	595,99	1,77
M3/GDP (monetisation), %	69,50	54,20	49,43	39,84	39,87	48,45	0,70
GDP/M3(circulation rate)	1,44	1,84	2,02	2,51	2,51	2,06	1,43
M3/MB multiplier)	2,96	2,89	3,03	2,82	3,12	3,10	1,05
inflation index, %	143,3	112,4	113,7	109,8	104,1	105	0,73
Real GDP, UAH billion	1430,29	2034,43	2445,587	3083,409	3675,73	3818,46	2,67

During the period of active inflation targeting practice (2015 - 2020), the monetary base almost doubled (by 1.77 times), the money supply (by 1.86 times), despite the fact that during this time real GDP increased by 2.67 times, inflation decreased by 27%. At the same time, it should be noted that although the structure of the money supply, its quantitative and qualitative characteristics are dynamically improving, the level of the Ukrainian economy security with means of payment leaves much to be desired. The monetization ratio (M3/GDP) tended to decrease by 2020 (from 69.5% to 39.9%), in 2020 it did not cross the 50% mark. For comparison, in the developed economies of the world, the monetization ratio is 70–80% [31]. Comparing inflation and monetization, it is possible to make an assumption about a constant shortage of money in circulation (the consumer price index has a tendency to decrease, and the volume of the money supply is

constantly growing) and the presence of crisis processes in the national economy. Analysis of the monetary aggregates structure in the M3 money supply (a large share of cash: M0 – 27%, a small volume of securities: M2 – almost 100%) confirms the low level of trust in the banking system and the underdevelopment of the stock market. The difference between the structure of the money supply of the Ukrainian economy and others lies in the fact that the volume of cash outside banks accounts for up to 30% of the total structure [32]. In the advanced economies of the world, this indicator is several orders of magnitude lower, in particular, the level of cash outside the banking system at the level of 5% of the M3 aggregate (4% – 7%) is considered acceptable for an effectively functioning market system. That is, there is a significant gap with other countries in the world in technologies and means of non-cash payments. The amount of cash in circulation (M0) increased by 39% in 2020 alone (reached UAH 516 billion). This trend is associated with the financial savings growth and demand for liquid assets due to uncertainties in the pandemic. However, the problem is not only the absolute value of the aggregate M0, but also its structure. In the structure of M0, a sufficiently large share of money is in foreign currencies (dollar, euro). This means that the functional purpose of this unit is not so much to serve the shadow sector of the economy as to accumulate unaccounted savings. The latter are a powerful investment source of the shadow economy, and therefore it can be seen as the largest financial reserve for the development of the economy, provided the level of shadowing is reduced. Another direction of optimizing the quality of the monetary mass in Ukraine should be its de-dollarization (the potential of transformation into a national monetary unit of means of payment and savings in foreign currencies, which are at the disposal of residents of Ukraine, should be used to the maximum extent). This will not only increase the supply of money and capital, but also save money on transaction (conversion) costs. Their supply in circulation and, in general, solvency demand depend on the change in the money circulation speed (GDP/M3 – the intensity of use of the stock of money necessary to pay for goods and services). Normatively sufficient is the situation when the monetary unit performs at least two rotations per year, so the indicator at the level of 2.06—2.51 is permissible.

The analysis of the money-credit multiplier in Ukraine over the past six years shows its relative stability (from 2.9 to 3.1), which should confirm the balanced and consistent policy of the NBU regarding control over the money supply. The money-credit multiplier is one of the important parameters of money circulation, which determines the ability of the banking system based on the monetary base to increase (multiply or multiply) the money supply in circulation. With its help, it is possible to monitor the dynamics, structure of the money supply and the level of inflation. The monetary and credit multiplier is defined as the ratio of the money supply (M3) to the monetary base (MB) for a certain period. Due to the money emission, the monetary base first increases, and later the money supply increases by the multiplier factor. However, the money that is formed thanks to the multiplication effect, the National Bank can form and control only indirectly through the instruments of mandatory regulations, since there is no direct influence on the desire of individuals and legal entities to open and increase bank deposits. Money generated due to the multiplication effect forms the main part of non-cash money and the money supply as a whole.

Comparing the value of the monetary multiplier and the multiplier of budget expenditures, it can be concluded that ***the budget policy tools in the sphere of supporting the branches of the economy of Ukraine for the purposes of economic development are more important than the monetary policy tools.*** A significant degree of differentiation in the levels of effectiveness of monetary policy and budget policy can partly be explained by the fact that in the field of public administration sector finances, government support for enterprises or economic sectors is targeted. At the same time, monetary policy instruments affect the dynamics of the country's economic system relatively indirectly, through the mechanism of the financial market, which is imperfect in Ukraine. ***Under the condition of choosing the right directions for the use of public funds, it can be expected that the effectiveness of budget expenditures will be an order of magnitude higher than the effectiveness of monetary instruments.*** Based on this, the extreme relevance of budget policy optimization in Ukraine for the purposes of effective social and economic development becomes clear.

The problem of servicing the public debt directly affects the investment potential of Ukraine. Thus, from the security point of view, it is considered expedient to change the structure of the state debt with a predominance of domestic debt, but in periods when there is a tendency to transform external debt into internal debt, there is a reduction in investments and ineffective tactics regarding the prospects of economic growth. The argumentation of such a position is based on the existence of the "crowd-out effect", which leads to the neglect of the investment needs of the real sector of the economy (in favor of improving indicators of debt security markers). In fact, they are forced out of the financial market not by market, but by administrative measures in favor of the needs of the state sector of the economy. Examples of artificial stimulation of demand for government bonds are well known. For example, the NBU's requirement to credit the sums directed by commercial banks for the purchase of DGLB bonds to mandatory insurance funds. At the same time, the central bank of the country itself, under the pressure of the government, neglects the performance of its direct functional duties. The National Bank through the banking system of Ukraine does not sufficiently support the real sector of the economy. Today, the NBU's priorities are more related to the sphere of public finances, and the latter, as we saw above, are not sufficiently aimed at supporting investment processes in the economy of Ukraine. That is, ***the process of economic growth in Ukraine is not adequately based on the action of the necessary fundamental factors, in particular, a harmonious combination of monetary and budgetary instruments, and therefore may not be long-lasting.*** We can conclude that the potential of monetary and budgetary factors of macroeconomic policy in Ukraine is not used and that there are reserves in the search for optimal ways of their interaction.

If we consider monetary emission as a means of saturating the economy with money, then this moment is most often associated with its use as a source of financing the budget deficit. In practice, this means that the government is using the last opportunity it can use to actually finance its spending in a recession or crisis as a factor in economic development. That is, we are talking about the government's deliberate formation of a negative budget balance (due to the expansion of state spending) and the financing of this deficit at the expense of money emission. The use of money emission to activate the economic situation and finance the budget deficit is one of the forms of taxation, i.e. an inflation tax - costs imposed by inflation on the owners of money, whose real funds lose their value as the price level rises.

The idea of financing the budget deficit through money emission was advocated by J. Keynes, although it is clear that he was not a supporter of ill-conceived government spending, which would result in a deficit. Keynes conducted his research during the Great Depression, when high unemployment and falling prices meant there was minimal risk of inflation with scarce financing. After Keynes's idea about the "benefit" of the budget deficit during a downturn in economic development was accepted by economists and politicians, deficit financing began to be used in more favorable moments of the economic situation. Thus, in the 1980s, the deficit of full employment in the USA exceeded 3% of GDP and was financed by emission. During hyperinflation in Germany, the government financed a deficit of 6–7% of GDP with an inflation tax, i.e. through inflationary money issuance. Today, the governments of some economically weak countries collect up to 5% of GDP as an inflation tax. As for Ukraine, it also has the experience of emission coverage of state expenses. Thus, the government used an inflation tax to finance the deficit in 1993 because the largest reduction in the real deficit in 1993 (63.9% in 1990 prices) was accompanied by the largest increase in the consumer price index (47.1%) and the largest increase money supply (17.2 times). She also emphasizes that the connection between the rate of inflation and the deficit mediated by the inflation tax can exist only as long as the increase in the rate of inflation precedes the reduction of money reserves of the population, because it is known that during the period of inflation the population tries to get rid of money reserves. When the rate of money reserves reduction begins to outpace the inflation rate, the inflation tax decreases and the deficit increases.

If we assume that the government, having increased the budget deficit, for example, to 3% of GDP, would finance it at the expense of additional emission, then as a result of such a policy, prices increased by an average of 27.3% per year. ***The impact of the emission method of financing the budget deficit has two aspects - long-term and short-term.*** The short-term emission of the money

supply makes it possible to activate investment processes in production and to receive additional revenues to the budget with the subsequent equalization of the money supply in circulation. Long-term emission of money supply to cover the budget deficit, as world experience shows, leads to destabilization of the economy, growth of money supply and prices, disruption of the balance between supply and demand.

The Budget Code contains a direct prohibition against the use of emissions as a source of budget financing (Part 2, Article 15 of the BCU)[33]. In general, the use of the emission method of financing the budget deficit only gives positive results if inflation is used as a means of restoring investment activity and revitalizing the reproductive processes of production. In global practice, in order to maintain the required level of investment activity in the event of a lack of domestic savings (in the absence of other sources of investment financing), emission financing of development investment programs is used quite widely. By issuing, the central bank tries to ensure the amount of money in circulation that is necessary to maintain the process of exchange of goods and services in the economy, taking into account forecast macroeconomic indicators (GDP, inflation, budget parameters, incomes of the population, etc.). The emission procedure is strictly regulated and is carried out by the central bank through *currency, stock and credit channels* and is ensured by receiving an equivalent amount of foreign currency or liquid financial instruments [34]. If necessary, withdrawal of money from circulation takes place through the same channels. Through the currency channel, money is issued/withdrawn through the NBU's operations on the purchase/sale of foreign currency on the interbank market. Through the stock channel, money is issued/withdrawn through the NBU's purchase/sale of government securities on the open market. Through the credit channel, money is issued through the NBU's support of banks' liquidity through refinancing mechanisms. At the same time, the funds are issued on a reverse basis against the appropriate security, which is provided by the NBU as collateral for a specified period (from 1 to 365 days, depending on the refinancing instrument), after which they are returned to the NBU and withdrawn from circulation. Cash money is released into circulation exclusively in exchange for non-cash money. This happens in the process of economic activity. When bank clients need cash, banks receive them from the NBU with a simultaneous debit of the equivalent amount of non-cash funds from their correspondent account.

In terms of its inflationary consequences, money emission for lending to state institutions of development, support of state-controlled investment programs differs from the practice of refinancing commercial banks (which use the received funds mainly for the purpose of expanding financial operations) by a smaller inflationary effect, since the speed of circulation in the first case is much lower than when there is support for speculative operations. A positive example of the application of emission financing of investment programs is the success of China and India, which maintained strict state control over monetary emission, and which was used to consistently increase investment activity through state development banks. But not only developing countries use non-market loans, developed countries also use monetary emission to support investment and overall economic activity, improve their financial systems, finance budget deficits and support population employment. This is proven by the practice of economic development in Japan, the USA, Great Britain, and France. It should be noted that the corresponding emission activity is implemented very carefully with the use of: development institutes; relevant banking technologies; stock market instruments; budgetary control mechanisms; careful analysis of the results of the inflationary consequences of various schemes for the organization of the money supply. For Ukraine, this path, in the absence of the specified mechanisms, is a very dangerous alternative. And therefore, ***in order to use emission funds, first of all, it is necessary to create the necessary network of development institutes in the relevant legal field and ensure the effectiveness of the control and analysis structures.*** Failure to fulfill at least one of the listed conditions when introducing this mechanism will lead to the acceleration of the inflationary process and the consequences will be mostly negative. However, the adjustment of the emission model of the current monetary policy, according to which today the emission depends to a large extent on the external demand for Ukrainian export goods and, unfortunately, is not focused on the formation of long-term resources for economic

development, is becoming more and more relevant, given the declaration of the investment model – innovative development.

In the aspect of solving the problem of "long money", the internal mechanisms of monetary policy are extremely relevant, both from the point of view of the formation of the resource base itself, and the management of financial flows. Analysis of the monetary mechanisms of the leading countries shows that the main priority in the formation of resources in the economy is the budget, which determines the primary structure of financial flows. Thus, the formation of the monetary base of the national currency by the central banks in Japan and the USA (by 76% and, respectively, 88%) took place to fulfill budgetary tasks, as evidenced by the amount of government securities that are on the balance sheets of these banks. In other words, about 90% of all dollars in the world were issued as a result of financing various US budget programs (and then, as a result of multiplication, turned into the corresponding aggregates of the money supply). This principle of resource formation indicates the needs that determine the main direction of economic development, the main goals and objectives, and determines the policy of formation of "long" resources. As evidenced by the analysis of the balance sheets of the central banks of the leading countries of the world, the majority of the portfolio of securities consists of long-term instruments (for example, 60% of the portfolio of government securities of the Bank of Japan are papers with a maturity of more than 5 years), that is, already at the initial stage of credit issuance, the formation of investment potential for long-term economic growth.

The grouping of monetary policy measures according to individual models is conditional, under the influence of economic and political changes in the world there is a constant adjustment, but their application is quite convenient when studying the monetary policy of certain countries from the standpoint of influence on the stability of national monetary units. Thus, the set of tools and levers of monetary policy tentatively called the *"two-pillar model"* includes: monetary and inflation targeting by responding to deviations in the dynamics of money supply growth from announced inflation targets; change in interest rates for central bank operations, which as a result provides stimulation of aggregate demand and economic growth, reduction of unemployment; positive impact on the financial system through the development of the domestic market and the real sector; curbing inflation and ensuring financial stabilization; revitalization or restraint of economic growth rates and financial capabilities of the state (countries of application: Australia, Canada, New Zealand, Brazil, Chile, Mexico, Switzerland, Germany, Poland, Slovenia and most EU countries). Monetary policy with an *emphasis on currency stabilization* is aimed at the economic motivation and behavior of currency relations subjects; management of gold and foreign exchange reserves; organizational measures of central banks to implement special currency regimes with a view to achieving favorable foreign economic conditions for reproductive processes, forming an effective mechanism for the functioning and development of the domestic currency market, avoiding financial crises, ensuring macroeconomic and financial stability in the country as the basis of economic growth (Japan, Hong Kong, Argentina, Panama, Ecuador, Indonesia, Norway, Kazakhstan). *The credit-fund model of monetary policy* involves the use of such tools and measures as the purchase and sale of government securities on the open market (repo), exchange of securities, short- and long-term refinancing in order to support the liquidity of banks, selective credit policy, which ultimately allows to ensure implementation of the functions and tasks of the banking sector in the financial system of the state, increasing the efficiency of regulation of the money supply, mobilization and distribution of financial resources, ensuring the stability of banking activity and the money market, the possibility of forecasting inflation for the future (USA, China, England) [35]. Taking into account Brychka's proposed grouping of tools and levers of influence according to monetary policy models that are widespread in the world, we should outline the peculiarities of Ukrainian practice. The model of monetary policy that is being formed in Ukraine includes separate elements characteristic of different models, that is, it is ***"mixed" in view of a certain similarity of the practice of recent years with the "model of two pillars" (in terms of introducing the inflation targeting regime and maintaining the transmission of the key interest rate as the main***

instrument) and credit fund (in the mechanisms of refinancing and carrying out repo operations).

We will try to give a brief description of the application of certain *tools, levers of influence, measures of monetary policy in the practical aspect of the real situation in Ukraine.* You can find out about the main directions of credit issuance by the NBU through the structure of issuance of payment means. An analysis of its dynamics for 1998–2002 indicates that the maintenance of banks' liquidity through refinancing mechanisms occupied an insignificant share in the structure of means of payment in circulation (6%–14%), and therefore the main priority of NBU credit issuance during this period was the formation of an official currency reserve (from 24% to 73%) and solving the state's debt problems using DGLB (rather than development programs) [36, p.474]. The structure of the monetary base and monetary aggregates in Ukraine, where a significant share is occupied by money of high liquidity, confirms that the character of the resources basic structure, which was formed, is short-term and does not contribute to the development of investment activity. One of the many reasons for this situation can be called the imperfection of the emission model, because in practice at the beginning of the 2000s, the hryvnia emission was carried out mainly under the purchase of foreign currency, which means that its volumes directly depended on the dynamics of the payments balance, and the emission mechanism almost not oriented to the internal demand of the real sector of the economy. In the 2000s and early 2010s, Ukraine actually applied an exchange rate targeting policy (the exchange rate of the national currency was fixed at a certain target level, and monetary policy measures helped to maintain this target). In the long term, when the gold and currency reserves were simply not enough to further support the hryvnia exchange rate in conditions of accumulated economic imbalances, the negatives of such an approach became apparent. For Ukraine, changing the emission model in the direction of creating a system under which the emission of money would actively respond to the demand of business entities for hryvnia resources means that the basis of a strong hryvnia is not only gold and foreign currency, but also commodity security. The use of money supply targeting mechanisms (the priority is to maintain a certain amount of money to ensure economic growth), which was characteristic of some central banks in the last century, is not characteristic of Ukrainian practice.

As mentioned above, in accordance with the monetary strategy, the NBU actively applies the mechanism of inflation targeting, i.e. the implementation of measures to change the ***key interest rate (accounting rate)*** depending on the deviation of the actual inflation indicators from the set goal – a normal level of inflation in the range of 5% (a tough policy involves increasing discount rate; soft policy – lowers the rate). In addition to the discount rate, interest rates in the real sector are affected by other factors, so the direct relationship between them is not proportional. Thus, during 2019, the NBU reduced the discount rate by 4.5%% (from 18% per annum to 13.5%), and rates on time deposits in hryvnia lost only 1–2% per annum (from 16% to 14– 15 %). Decisions on the discount rate are made on the basis of an the real rate assessment (as the difference between the discount rate and the inflation rate), which is based on a comprehensive forecast of future inflation and is accompanied by a commentary on the macroeconomic situation and its prospects. In addition to inflation, the discount rate has a direct effect on the exchange rate. Apart from other factors, the lower the interest rate in a country, the less support the national currency has. Under the condition of globalized free movement of capital, the capital flow mechanism is activated – "hot money" moves in the direction of a higher rate, increases the demand for the local currency, and therefore strengthens its exchange rate. So, in 2019-2020 at high interest rates in Ukraine, there were significant inflows of foreign capital from investors in hryvnia OVDP (about 4 billion US dollars), which in turn became a decisive factor in the strengthening of the hryvnia.

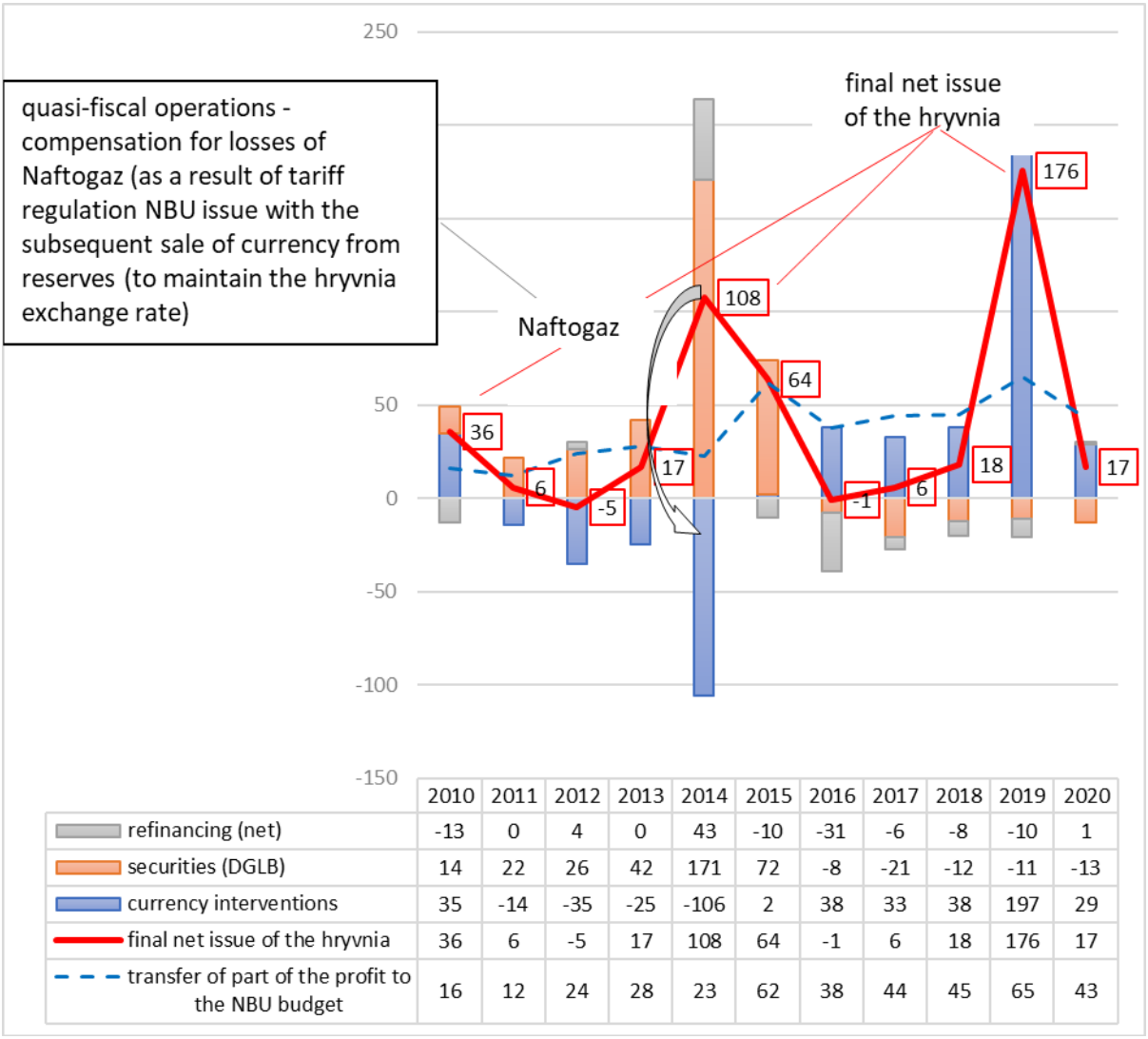
In order to regulate the level of inflation and the currency structure, the ***norms of mandatory reserves*** (including in foreign currency) are used as a tool. Reserve norms are established as a mandatory percentage of customer funds (bank liabilities) that banks must reserve at the central bank. The higher the regulatory reserve rate, the less money banks have left to lend to the economy (a deterrent to inflation), and vice versa. In Ukraine, the NBU is trying to use this tool as a means of regulating the currency structure of bank balance sheets in order to reduce the "dollarization" of the

economy. Starting from March 2020, the National Bank of Ukraine set a reserve ratio of 0% for funds raised in hryvnia, and 10% in foreign currency. Thus, the NBU motivates banks to increase the volume of operations in the national currency, but makes it difficult for them to attract foreign currency deposits, as well as lending in foreign currency.

Another of the monetary instruments is ***open market operations***, which are formalized through the purchase and sale of government securities (DGLB) by the National Bank and currency interventions. Since the balance sheet of the NBU after the crises of 2008 and 2009 and 2014 2015 accumulated DGLB in the amount of UAH 322 billion (or 31% of the total volume of DGLB as of April 8, 2021), then this tool is currently not actively used. The majority of DGLBs were issued on non-market terms (for the recapitalization of state banks, Naftogaz of Ukraine, etc.), and a significant total volume may become a threat to the securities market in the event of being put up for sale. The NBU actively intervenes in the foreign exchange market, which significantly affect the monetary and credit system. The NBU, as the largest player in the foreign exchange market in terms of volume and capabilities, which does not have the task of making a profit from foreign exchange transactions, enters the market to smooth out significant fluctuations, as well as to replenish gold and foreign exchange reserves. For the period from 2008 by 2020 almost UAH 370 billion were spent only on the support and rescue of banks. financial resources of the state: UAH 172.34 billion – state expenses for the nationalization of unprofitable private banks, which the government decided to transfer to state ownership for various reasons (including to prevent public panic); UAH 101 billion from the state budget was directed to the recapitalization of banks (actually to cover losses from dubious risks and politically motivated loans); UAH 97.3 billion – interest on DGLB, with which the government recapitalized state banks (almost 16 billion UAH annually, payments will continue for at least another 7 years). In view of the fact that the option of recapitalization of state-owned banks through direct issuance has an unconditional consequence of inflation, the government introduced the option of issuing new DGLB bonds. Until 2011, the NBU almost instantaneously bought such DGLB bonds from state banks, thus at the same time giving impetus to inflation, but now such actions are prohibited by law. You can compare the resources spent on supporting banks: adequate for two-thirds of all loans received by Ukraine from the IMF over the same 13 years (almost $30 billion); 4–5 annual budgets for defense, more than 3 annual budgets for education. This information will additionally emphasize the mutual influence of budgetary and monetary processes.

Recently, another one has been added to the classic three main instruments of monetary policy — ***the interest rate on bank reserves in the central bank***. In the conditions of extremely low and even sometimes negative interest rates in the world, such an instrument is attracting more and more attention, although it is somewhat similar to an interest rate instrument. The main difference between this tool and the classic interest rate tool is that the rate is set based on mandatory reserves, not voluntary transactions of banks with the central bank. In Ukraine, this instrument is formalized in NBU deposit certificates.

The discussion about monetary emission (the feasibility of a hard or soft monetary policy of the NBU) is conditioned by the formation of measures to restore the Ukrainian economy. As mentioned above, emission measures are carried out constantly, but they are different. The NBU, carrying out currency interventions on the foreign exchange market (buying foreign currency on the interbank foreign exchange market), conducts emission measures, and selling foreign currency (sterilization of the hryvnia) also conducts emission measures in the opposite direction. The term net emission of hryvnias or "net monetary emission" is used to denote the balance of emission flows. In the history of Ukraine, there were several periods of significant money emission (1990s, 2014, 2019, from February 2022).



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
refinancing (net)	-13	0	4	0	43	-10	-31	-6	-8	-10	1
securities (DGLB)	14	22	26	42	171	72	-8	-21	-12	-11	-13
currency interventions	35	-14	-35	-25	-106	2	38	33	38	197	29
final net issue of the hryvnia	36	6	-5	17	108	64	-1	6	18	176	17
transfer of part of the profit to the NBU budget	16	12	24	28	23	62	38	44	45	65	43

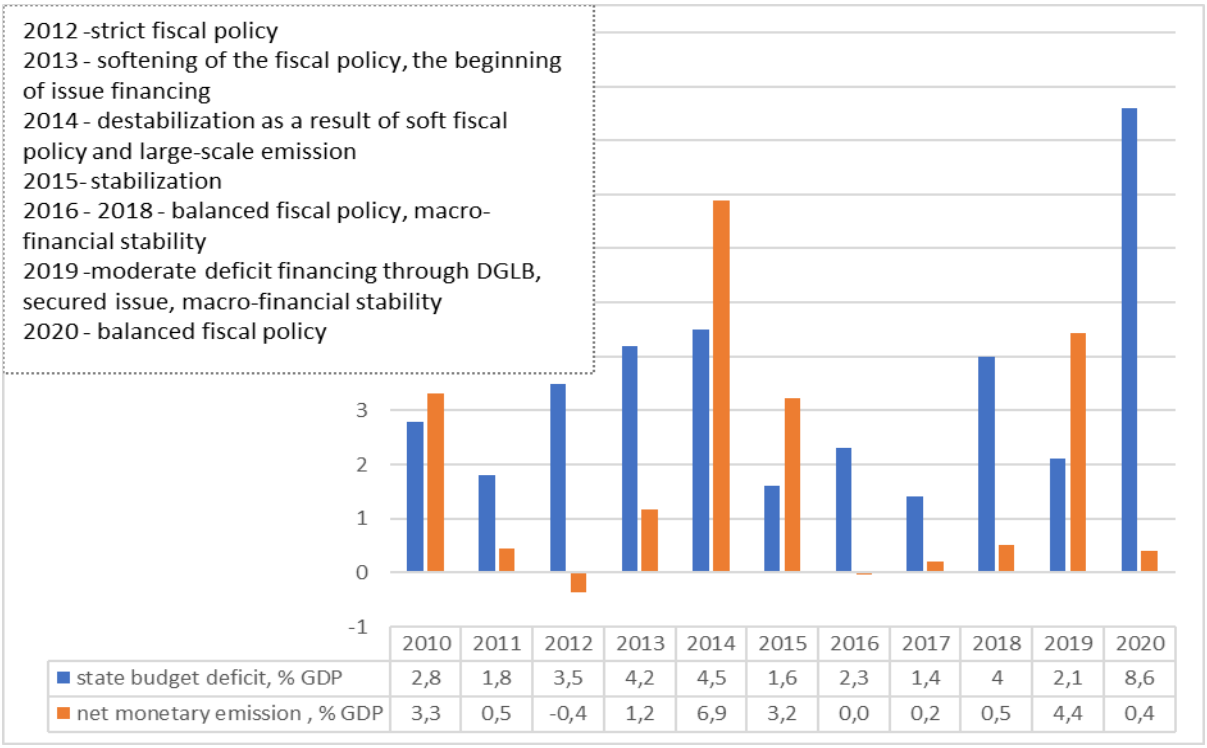
Fig. 3. Net monetary emission in Ukraine in 2010–2020
(excluding transactions with the Government)

In 2013, due to political and social factors, the state abandoned the forced revision of domestic natural gas prices, which led to significant losses of National Joint Stock Company "Naftogaz of Ukraine". Consciously assuming the fiscal risks of the largest economic entity of the state sector of the economy – National Joint Stock Company "Naftogaz of Ukraine", the state was forced to carry out appropriate quasi-fiscal operations, compensating the deficit of National Joint Stock Company "Naftogaz of Ukraine"at the expense of NBU issuance. The Central Bank was then itself forced to sell foreign currency from reserves in order to bind the issued funds for the import of natural gas. In the following year, 2014, this practice acquired gigantic volumes. In addition, during this period there were capital deficits of state-owned banks, caused both by deficiencies in risk management of active operations and by the presence of large problematic debts of borrowers (a significant portion of which is still not resolved). To solve this problem, the NBU conducted emission operations to capitalize state banks by issuing DGLB. Emission measures in 2014–2015 had the following characteristics: more than 250 billion UAH were issued to the economy through the mechanism of issuing DGLB, the NBU had to immediately sterilize part of the hryvnia through the sale of foreign currency equivalent to more than UAH 100 billion.

In 2019, other mechanisms were involved: – The NBU actively bought up currency on the market at the expense of almost UAH 197 billion printed (the funds were directed to the state budget through the budget deficit financing mechanism due to the issuance and placement of

hryvnia government bonds and the admission of foreign investors to the market); – in the opposite direction, the NBU withdrew a little more than UAH 20 billion from economic circulation through the mechanism of return by banks of refinancing and repayment of DGLBs that were in its portfolio; – the budget deficit was kept at a stable level of 2% of GDP (budgetary discipline was observed by state institutions, despite problems with the mobilization of revenues to the budget); - due to the stable budget deficit, the Ministry of Finance updated the debt strategy, introduced measures to attract funds from foreigners in the domestic market to reduce currency risk (allowing the possibility of their participation in the primary market of government bonds). The mass issuance of government bonds by the NBU, in turn, caused the money emission. As a result, macro-financial stability was achieved, the financial system was saturated with the hryvnia, and (relative) inflation slowed down. ***This is an example of a relatively successful practical implementation of the emissions policy, since a low fiscal deficit was ensured during its implementation.*** According to R. Shpek, the National Bank of Ukraine filled the economy with money through various emission mechanisms, at the same time there was a slowdown in inflation, strengthening of the hryvnia and macro-financial stability in general, which was due to a certain policy in the field of public finances [37].

The experience of conducting emission measures in Ukraine shows the possibility of an effective combination of a high level of emission and a significant level of budget deficit, without the formation of threats to macro-financial stability (see Fig. 4). Operations on the purchase and sale of government securities and the active use of certificates of deposit for mobilization measures, which today play a key role in the hryvnia emission process, are aimed mainly at solving the problems of financing the budget, and not the entire economy. To correct the situation for open market operations, not only DGLBs should be used, but also bonds issued by other banks and development institutes to finance investment projects (as is done by developed countries) using all instruments of supervision and control to block the possibility of misappropriation of funds (in particular, redirecting them to the foreign exchange market). Monetary emission by itself cannot serve as a source of economic growth, but the aggregate growth of credit investments and money supply must be limited taking into account the resource capabilities and needs of the national economy.



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
state budget deficit, % GDP	2,8	1,8	3,5	4,2	4,5	1,6	2,3	1,4	4	2,1	8,6
net monetary emission , % GDP	3,3	0,5	-0,4	1,2	6,9	3,2	0,0	0,2	0,5	4,4	0,4

Fig.4. Monetary emission and deficit of the public finance sector in 2013–2020, % of GDP.

It is advisable to maximize the use of external sources of financing the budget deficit. Given the existence of a cooperation program with the IMF, proposed new programs from international financial organizations, the possibility of completing the investment projects started by development banks, the possibility of continuing the issuance of Eurobonds (taking into account the positive experience of placement in 2019-2020), the government has every chance to generate a surplus of foreign currency, with subsequent repurchase of its issue by the NBU directly through transactions with the Government. Such a secured emission mechanism will simultaneously allow the accumulation of gold and foreign exchange reserves, ensure the financing of state budget expenditures, and maintain macro-financial stability.

Ukraine, like other countries, expanded the budget deficit during the fight against the coronavirus, exceeding the recommended limit of 3% (2020 – 5.18% of GDP, 2021 plan – 4.8%, 2022 forecast – 3.3%) . Banks became the main investors in DGLB (UAH 536.7 billion, or 52% of the total volume of DGLB as of April 8, 2021), having financed part of the 2020 budget deficit given the government's limited access to external funding. 3 factors worked: free liquidity, moderate demand for loans and growth in the yield of government bonds, and refinancing of banks by the NBU. Banks' investment in DGLB did not limit or discourage the ability to lend to the economy. According to the results of the 2020 crisis, the costs of forming reserves for bank credit losses doubled, but generally remained moderate. And yet, the change in the principles and methods of bank support by the NBU - the activation of "long-term refinancing for 5 years to support liquidity" can be attributed to dubious decisions. Yes, from July 3, 2020 to June 23, 2021. the amount of refinancing of solvent banks by the NBU increased from 7 to UAH 83 billion. Most of the banks that received these funds did not have problems with liquidity. The main amounts of refinancing went to finance the state budget deficit (purchase by banks of DGLB) and lending to SE "Ukravtodor" (purchase by the bank of additional bond issues of the State Highway Agency of Ukraine).

The current practice of most central banks during the development and implementation of monetary policy is focused on ensuring the stability of national monetary units and the implementation of monetary regimes based on maintaining price stability. ***The main criteria that confirm the effectiveness of monetary and budgetary policy coordination in the direction of ensuring price stability and economic growth*** include the following***:***

- low level of inflationary expectations of economic subjects or their downward trend;
- reduction in demand for foreign currency on the cash foreign exchange market;
- low and stable level of core inflation;
- change in the structure of money emission in favor of the credit channel;
- reduction of the NBU currency interventions.

Ensuring price stability is a rather complex task that requires the NBU and the Government to make coordinated and complex decisions regarding the coordination of budgetary and monetary policy. So, according to Art. 6 of the Law of Ukraine "On the National Bank of Ukraine", the NBU in performing its main function must be guided by the priority of achieving and maintaining price stability in the state, while Art. 2 of the Law of Ukraine "On the Cabinet of Ministers of Ukraine" defines that one of the main tasks of the Government is to ensure the implementation of price policy.

Budgetary and monetary policy coordination should be based on the principle of complementarity (complementarity) of the tools and methods used for their implementation in order to manage the level of inflation, the state budget deficit and maintain the sustainability of the state debt. According to this principle, separate areas of economic policy and activities of relevant state institutions should be based on unified approaches, unified methodology and take into account general macroeconomic goals.

The development of the principles and mechanisms of coordination of the monetary-credit, budget-tax and debt policy of the state should be carried out on the basis of a clear definition of the responsibility of individual state authorities, the terms and conditions of the planned activities. Strengthening the sovereignty of the NBU in the conduct of monetary policy, while simultaneously

improving the coordination of its efforts with the actions of the government to implement long-term development programs, is the basis for the monetary regulator to solve two tasks: tactical – leveling out sharp changes in the exchange rate and money supply, and strategic – stimulating the stable, balanced development of the national economy. In addition, important factors are increasing the level of transparency of budgetary and monetary policy and expanding the spheres of communications with a wide range of the public. Taking into account the fact that the monetary policy of the National Bank only creates the necessary conditions for the development of the economy of Ukraine, but cannot itself be a sufficient prerequisite for a sustainable increase in economic potential, it is critically important to carry out further structural reforms and maintain a balanced fiscal policy. An important element of such coordination will remain the implementation of the provisions of the Memorandum between the Cabinet of Ministers of Ukraine and the National Bank of Ukraine on cooperation aimed at achieving sustainable economic growth and price stability. The Cabinet of Ministers of Ukraine, together with the National Bank and other regulators of the financial sector, will cooperate to improve the functioning of the financial intermediation institute, including by coordinating work within the framework of the Financial Stability Council.

In view of the Government's competences regarding the regulation of inflation and the stability of the monetary unit, the correction of administratively regulated prices and tariffs and the implementation of budget policy as a component of the economy are important directions, therefore the coordination of the monetary policy of the National Bank and the budget policy of the Government is necessary. In view of the declared positions [38], coordination of monetary and budget policy should cover the following issues: creation of macroeconomic conditions for low and stable inflation; the controlled influence on the state of the money market of the issuance of internal obligations of the government; dynamics and structures of budget expenditures; ensuring the stability of the financial system as a whole.

Threats to the financial stability of the post-war budget and coordinated measures of budgetary and monetary policy. The active phase of russian military aggression is a significant factor in increasing the debt burden of Ukraine's budget, reducing the possibility of debt refinancing at the expense of internal resources, and, accordingly, the need to restructure external public debt. As a result of large-scale aggression, displacement of population and production, destruction of industrial and social infrastructure, there is a catastrophic drop in GDP. The reduction of GDP and the receipt of a significant amount of financial assistance from the EU countries, the USA, Great Britain, and international financial institutions are factors in the growth of the projected value of the state and guaranteed debt in Ukraine. The IMF predicts a 35% drop in Ukraine's economy in 2022, and the state debt may reach 93% of GDP [39]. According to the Government's forecasts, the amount of public debt in 2023 can exceed GDP volumes [1].

Let's outline some points regarding indicators of financial stability of the budget system for 2023. By the government when forming the state budget project for 2023. [2] the budget deficit is predicted at the level of 20% of GDP (in the amount of 1 trillion 279.8 billion UAH), which is 6.7 times higher than the one established in Part 1 of Art. 14 BKU border (3 %). The deficit of the general fund should increase due to the expected increase in expenditures with a decrease in income, and the deficit of the special fund due to an increase in the receipts of credits (loans) from foreign countries, financial institutions and international financial organizations (IFI0) for the implementation of investment projects. Financing of the state budget deficit and repayment of debts in the stipulated terms are proposed primarily at the expense of new state borrowings. The volumes of state borrowings are increasing significantly, which is due to the increase in expenditures, the decrease in revenues due to the military aggression against Ukraine (borrowing from the financial resources of the budget accounts for 56.4%, according to the structure, external state borrowings account for 95%).

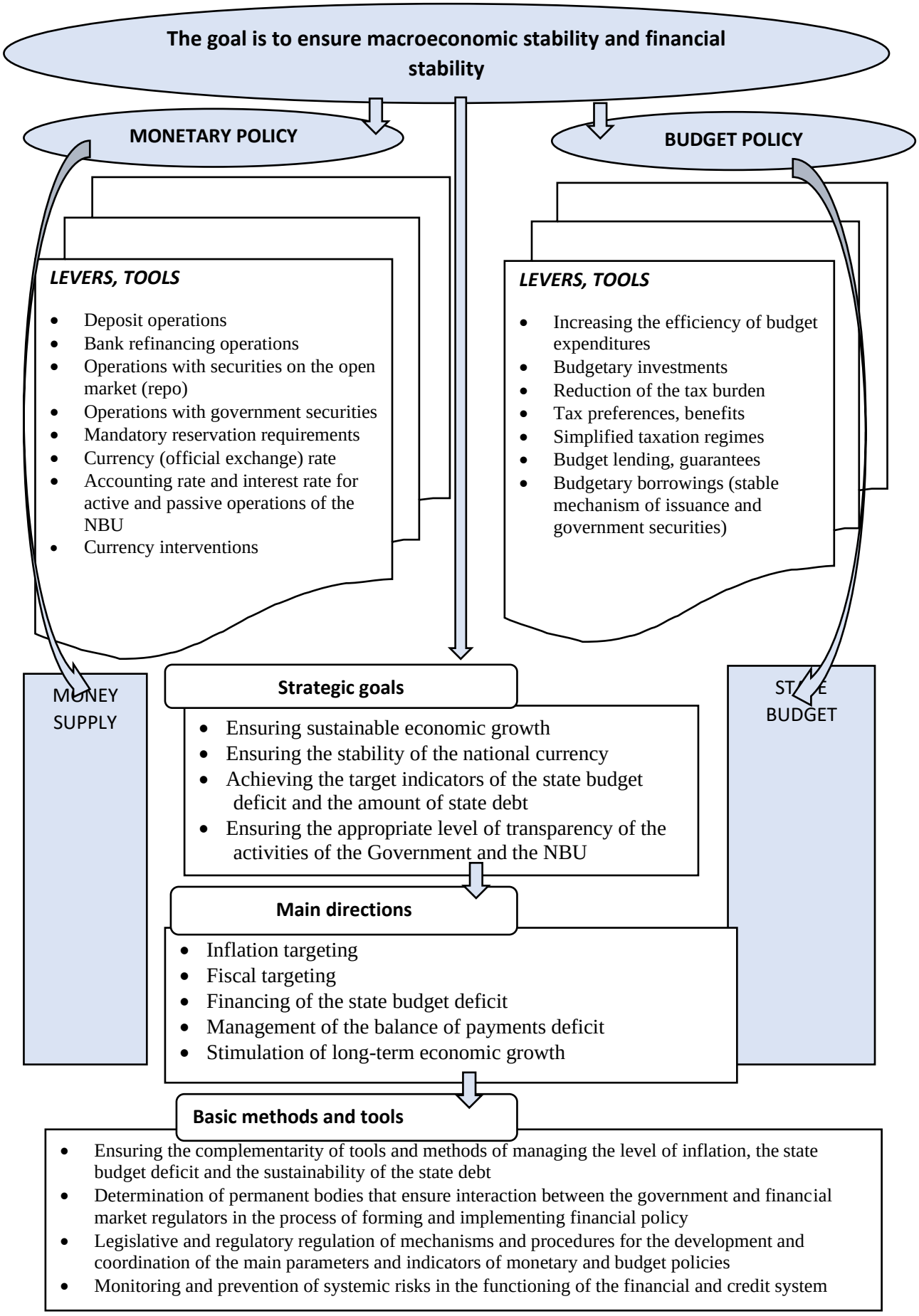


Fig. 5. Architecture of monetary and budget policy coordination

The further dynamics of borrowing is connected with the continuation of cooperation with the International Monetary Fund and other creditors (it is planned to attract to the general fund – UAH 633 billion from the IMF, the US Government and other official creditors – UAH 576 billion, the EU – UAH 217.1 billion at a rate of 3%; to the special fund – in the amount of UAH 170 billion (the amount will depend on the state of preparation and implementation of investment projects), of which from: the Government of the United Kingdom of Great Britain and Northern Ireland - UAH 99.5 billion; the EIB – UAH 36.6 billion; the International Bank for Reconstruction and Development - UAH 12.5 billion; EBRD – UAH 9.6 billion; Government of the French Republic – UAH 6.8 billion). On the domestic market, UAH 90.7 billion (88.6% less than in 2022) is expected to be received from the placement of DGLB bonds both in hryvnia and in foreign currency with a forecast weighted average interest rate of 16.8%. Inflow of funds is directly dependent on investor demand for DGLB.

The draft law provides for the suspension of the restrictive norms of the Budget Code regarding indicators of the budget deficit (Article 14 of the BCU), state and state-guaranteed debt (Article 18 of the BCU). It is projected that the state debt will double by the end of 2023 compared to the current state as of August 31, 2022. According to the Accounting Chamber [40], the factors of the increase in the state debt in 2023, compared to the current state as of 08/31/2022, are: the excess of state borrowings over the planned expenses for repayment of the state debt - UAH 1.9 trillion; devaluation of the hryvnia against the foreign currencies in which the debt is denominated, provided by the Government, is by 1.3 trillion hryvnias.

There are significant ***risks of increasing the state debt*** as a result of possible:

– overscheduled issuance of DGLB to support the banking system with an adjustment of its maximum volume (a possible deficit of FGVFO funds in the amount of UAH 3.5 billion);

– an excess, compared to the provisions of the draft law, of the receipts of credits (loans) raised by the state from foreign states, foreign financial institutions and MFIs for the implementation of investment projects ;

– execution of transactions with state derivatives at the expense of overscheduled state borrowings (risks of non-payment of state borrowings, in particular external ones, as stated in the Information on fiscal risks (including contingent liabilities and quasi-fiscal operations) have an impact on the state budget indicators; this "may lead to insufficient amount of funds to finance the deficit of the state budget and to restore the destroyed infrastructure");

– replacement of shortfalls from the privatization of state property with state borrowing (the main factor influencing the receipt of funds from the privatization of state property is the lack of demand for privatization objects due to the deterioration of the investment climate in the country as a result of the Russian invasion and hostilities, which, in turn, will lead to an increase in state borrowing and the volume of state debt and expenses for its servicing; in order to speed up and adapt privatization processes during the period of martial law, the VRU adopted Law of Ukraine dated 07.28.2022 No. 2468 "On Amendments to Certain Legislative Acts of Ukraine on Facilitating Relocation Processes" enterprises in the conditions of martial law and economic recovery of the state", which provides for: a significant reduction in the terms of conducting privatization auctions and preparing objects (no more than 2 months from the announcement to the signing of the contract); unblocking the privatization of state-owned enterprises with arrests and encumbrances of property from overnight preservation of creditors' rights; privatization of large facilities is planned (PJSC "Centrenergo", SE "Coal Company "Krasnolymanska", JSC "United Mining and Chemical Company");

– unplanned devaluation of the hryvnia against foreign currencies (the share of foreign currency-denominated debt vulnerable to currency fluctuations was 66.5% as of 08/31/2022);

– not establishing the limits of state-guaranteed debt and providing state guarantees (proposals to stop the operation in 2023 of the norms of Article 18 of the BCU regarding the safe debt limit of 60% of GDP are motivated in view of the following – a plan of measures to reduce the

total amount of state debt and state-guaranteed debt to the established requirements "will be carried out after the end of the war and the restoration of the country's economy").

Estimated payments for repayment and servicing of state and state-guaranteed debt in 2023 will account for more than ¼ of all state budget expenditures; every fourth hryvnia of state budget revenues will be directed to debt servicing (provided that service expenditures increase (by 78.3%) while revenues decrease (by 17.6%).

In order to restore Ukraine's debt sustainability and eliminate the problems of financing deficit in the conditions of war and post-war recovery, it is advisable to apply the mechanisms and instruments of the restructuring of the public debt, namely:

– the introduction of a new debt strategy of Ukraine, in which it is necessary to foresee methods of easing the debt burden (freezing, restructuring/write-off of the public debt) and tools for optimizing the management of the public debt from the point of view of the ratio of service costs and risks;

– approval of more complex mechanisms related to MFI loans and Eurobond loans, given political support from international partners to guarantee immunity from default for the government;

– adaptation of HIPC-Initiative and MDR-Initiative debt relief financial instruments to Ukrainian parameters; according to experts, the proposed scenario - writing off 80% of the debt will reduce the external debt by $47 billion [41];

– introduction of the IMF and World Bank mechanism through the Resilience and Sustainability Trust;

– debt restructuring under bond loans with the application of discounts (haircuts) to the nominal amount of the debt, or the current discounted value of debt payments (similar to the Brady plan, the exchange of foreign loan bonds for new securities with a discount of 50–60% to the nominal value of the primary bonds); this approach will allow the Government to *reduce the amount owed on foreign loan bonds by $12-14 billion;*

– introduction of debt swaps in exchange for financing targeted programs for environmental protection and increasing resilience to climate change (debt-for-climate swaps).

The specified measures of debt restructuring have found practical application by world and European financial institutions and are appropriate for Ukraine. Restoring the country's debt sustainability is a component of restoring the financial stability of the budget system, which in turn will contribute to the restoration of macroeconomic stability without the use of shock inflation tools.

The research is an attempt to assess the complementarity of budgetary and monetary policy instruments and measures in the context of achieving macroeconomic stability.

The review of scientific positions on the essence of fiscal policy made it possible to justify the expediency of singling out budget policy as a set of specific measures and tools aimed at financing expenditures according to established priorities in volumes sufficient to achieve the set socio-economic goals of society, taking into account the possible sources of filling budgets at different levels; tax and debt policy is subordinated to the solution of budget policy tasks. The study of the essence of the manifestation of the regulatory mechanisms of budgetary and monetary policy, given the need to achieve macroeconomic stability, made it possible to formulate the main issues that require agreement on implementation tools; coordination of current activities by authorized bodies; relations between the government and the National Bank as its internal creditor; regarding debt policy; liquidity management measures.

In order to substantiate the selection of budgetary policy tools (stimulating, restraining, neutral), it is proposed to rely on the macroeconomic dependence between indicators that are related to the main tasks of socio-economic development (the volume of expenditures of the public administration sector; the volume of transfers to the private sector, including social transfers; expenses related to the state debt; net exports, as a result of foreign economic activity) and possible sources of their financing (taxes and monetary financing as the state's own internal sources of

financial support and debt financing, which involves attracting external sources of financial resources).

In view of the theoretical provisions of A. Wagner's law (regarding the dependence of economic growth and the growth of the share of public expenditures in GDP); limitations of its manifestation, which are described by the BARS curve (as a function of the dependence of economic growth rates and the share of public administration sector expenditures in GDP); multiplier effect, which gives an increase in public expenditures on GDP growth, and based on econometric calculations, a significant deviation of the actual size of the share of public administration sector expenditures in GDP (almost 10%%) from the optimal towards excess has been confirmed; the values of multipliers of budget expenditures indicate the presence of unjustified growth trends (an increase in expenditure growth leads to a decrease in GDP growth).

Separate provisions regarding budget policy in the context of ensuring macroeconomic stability have been formed: the policy should be the basis for optimal redistribution of GDP through the budget in order to ensure the state's performance of such basic functions as management, social, defense, economic, environmental protection, etc.; budget expenditures should be concentrated in priority areas (corresponding to the principles of social justice, ensuring sovereignty, stimulating the real sector of the economy) in volumes that do not violate the norms for balancing the budget (moderate tax burden, safe level of deficit with sources of financing that do not add to the debt burden) ; the orientation of the policy to the primary provision of economic growth and social development of society requires compliance with the indicative indicators of annual GDP growth by 10%, equality of the minimum wage and the living wage.

In the sphere of supporting the branches of the country's economy for the purposes of economic development, budget policy instruments are more important than monetary policy instruments (according to the results of a comparison of the multiplier of budgetary expenditures and the monetary multiplier). It can be expected that under the condition of an expedient, substantiated (and not politically motivated) approach to the choice of directions for the use of budget resources, the effectiveness of budget expenditures will be an order of magnitude higher than the effectiveness of monetary instruments. This significantly increases the relevance of budget policy optimization in Ukraine for the purposes of socio-economic development.

An overview of the theoretical bases and scientific positions on monetary policy allows us to characterize the domestic model as one that includes separate elements of various models, be it in view of the practice of introducing the inflation targeting regime and maintaining the transmission of the discount rate as the main tool (tools of the "two-pillar model»), in terms of refinancing mechanisms, repo operations (tools of the credit-fund model). Based on the results of a brief description of the application of certain instruments, levers of influence, measures of monetary policy during 2010-2020 in Ukraine, we have to witness the signs of a conditionally successful practical implementation of the emission policy, since during its implementation a low fiscal deficit was ensured (with the exception of 2020), a slowdown in inflation, a strengthening of the hryvnia, and overall macro-financial stability were observed. With regard to the budget deficit, the emphasis should be shifted to external sources of financing, given the cooperation with the IMF, MFIs, the positive experience of issuing Eurobonds (this will allow for the formation of a surplus of foreign currency, followed by its emission redemption). Such a secured emission mechanism will simultaneously continue the accumulation of gold and foreign exchange reserves, ensure the financing of state budget expenditures and maintain macro-financial stability.

Based on the results of the research, the possibility of ensuring the financial stability of the budgetary system of Ukraine was determined, taking into account the negative impact of the combination of exogenous and endogenous factors. Taking into account the IMF-recommended methodological approaches for assessing the level of financial stability of the budget system, certain parameters of the security component of the country's budget system have been characterized. Taking into account the government's forecasts regarding the deficit and the national debt, the main factors of the imbalance of the budget system are identified, some financial risks are identified, which complicate the task of ensuring the stability of the budget system in the conditions of martial

law. Possible options for debt management with the aim of achieving stability of the budget system in the post-war period are identified.

The process of economic growth in Ukraine should be based on a harmonious combination of monetary and budgetary instruments. The main criteria that confirm the effectiveness of coordination of monetary and budget policy based on the principle of complementarity include the following: low level of inflationary expectations of economic entities; reduction in demand for foreign currency on the cash foreign exchange market; low and stable level of core inflation; changing the structure of the money issue in favor of the credit channel; reducing the volume of currency interventions by the NBU; compliance with safety indicators of the level of the budget deficit, debt burden, change in the structure of public debt in favor of internal financing, downward trend in the share of public administration sector expenditures. Attention was focused on the need to cooperate with global and European financial institutions in determining the appropriate package of debt restructuring measures for Ukraine. It is the reduction of the debt burden that can become a driver in ensuring the financial stability of the budget system and macroeconomic stabilization.

REFERENCES:

1. Budget declaration for 2022-2024. URL: https://www.mof.gov.ua/uk/state-budget

2. Draft Law on the State Budget of Ukraine for 2023 No. 8000 dated September 14, 2022. URL: https://itd.rada.gov.ua/billInfo/Bills/Card/40472

3. Fischer S., Dornbusch R., Shmalenzi R. (1995). Economics: translated from English to 2nd ed. M.: "Delo LTD". 864 p. P.512

4. Campbell R. McConnell, Stanley L. Brew (2004). "Economics: principles, problems and politics": Textbook / Trans. with Eng.;. 14th ed. M.: INFRA-M. 972 p.

5. Money, banking and monetary policy, Edwin J. Dolan, Colin D. Campbell, Rosemary J. (1991). M.: INFRA-M. 448p.

6. Krugman P., Wells R., Olny M. (2011). Fundamentals of economics [Text]. St. Petersburg: Peter, P. 873.

7. Fundamentals of economic theory [Text]: textbook. / A. A. Chukhno, P. S. Yeschenko, G. N. Klimko [and others]; under the editorship A. A. Chukhna. K.: Higher school, 2001. P. 473

8. Bazilevich V. D., Bazilevich K. S., Balastryk K. S. (2007). Macroeconomics: a textbook / edited by V. D. Bazilevich. Kyiv: "Knowledge" Publishing House. 703 p.

9. Sushchenko O.M. (2021). Fiscal policy of Ukraine in the paradigm of sustainable development. -Dissertation for obtaining sciences. doctor's degree economy Sciences: specialist 08.00.08 "Money, finance and credit". Kyiv Vadym Hetman Kyiv National University of Economics, Kyiv. P.31 URL: https://ir.kneu.edu.ua/bitstream/handle/2010/35865/dys_sust.pdf?sequence=1&isAllowed=y

10. Slatvinska M. O. (2019). Fiscal policy in the conditions of modernization of the financial system: autoref. thesis for obtaining sciences. doctor's degree economy Sciences: specialist 08.01.08 - money, finance and credit. Odesa: ONEU. 43 p.

11. Bohdan T. What are the contradictions of the budget and tax policy. URL: https://biz.censor.net/columns/3153196/v_chomu_superechnost_byudjetnopodatkovo_poltiki

12. The modern paradigm of the fiscal policy of Ukraine in the conditions of the formation of a society of sustainable development: monogr. / for sciences ed. Dr. Econ. Sciences, Prof. A. I. Krysovatoy. Ternopil: TNEU, 2015. 460 p.

13. Varnaliy Z.S., Bugai T.V., Onyshchenko S.V. (2014). The budget process in Ukraine: state and problems of institutional support: [monograph] . Poltava: PoltNTU. 271 p.

14. Onyshchenko S.V. (2015). Principles of effective state policy formation, focused on ensuring budgetary security . *Bulletin of Taras Shevchenko KNU. Economy*. No. 2 (167). P.81-85 URL: https://www.researchgate.net/publication/279159677_BASES_OF_PUBLIC_POLICY_FORMATION_DIRECTED_AT_ENSURING_BUDGET_SECURITY

15. Hlushchenko S. V. (2017). Monetary policy: theoretical and methodological aspects: textbook. for students higher education closing. K.: NaUKMA. 64 p.

16. Law of Ukraine "On state forecasting and development of economic and social development programs of Ukraine" dated March 23, 2000. No. 1602-III with changes and additions

17. Interview with Nobel laureate Paul Samuelson "We are all good-hearted scientists, we have gone down the wrong path of hoping for socialist ideas" dated 12.23.2003, which was first published in Macroeconomic Dynamics, No. 8, 2004, pp. 519-542, interviewer - editor-in-chief V. Barnett, Ukrainian. translation "Economist", 2021 (ed.). *Economist*. No. 10. 2021. P.9-18.

18. Hasanov S.S. (2017). Fiscal risks and fiscal targeting in the state finance management system under conditions of institutional uncertainty. Scientific works of the NDFI. Issue 2. P. 5-24. URL: http://nbuv.gov.ua/UJRN/Npndfi_2017_2_2.

19. Petlenko Yu., Mylovanova E. (2017). Theoretical and methodological aspects of the fiscal policy of the state. *Bulletin of Taras Shevchenko Kyiv National University. Series Economics*. 1(190) P.28-35 URL: http://bulletin-econom.univ.kiev.ua/wp-content/uploads/2017/03/190-28-35.pdf

20. Onyshchenko V.O., Berezhna A.Yu., Ptashchepko L.O., Chychkalo-Kondratska I.B. (2016). Finances (state, corporate, international) [textbook] / edited by V.O. Onishchenko. K.: "Center for Educational Literature". 600 p. URL: https://ua1lib.org/book/3104650/8f1189

21. Onyshchenko S. V., Berezhna A. Yu., Filonych O. M. (2021). Budget mechanism: methodological approaches and practice of budget decentralization. *Problems of the economy*. No. 1. P.107-122.

22. Shulga E. (2021). Reducing government spending should become the main criterion of Ukrainian reforms Center for socio-economic research CASE Ukraine. 05/27/2021. URL: https://case-ukraine.com.ua/news/cherez-nadmirni-vytraty-uryadu-ukrayina-vtrachaye-2-7-vvp-shhoroku/

23. Kukhta P., Piontkivska I. (2015). What is the optimal scale of public expenditures in Ukraine. Kyiv. URL: https://ces.org. ua/wp-content/uploads/2015/08/20151102_fiscal_spending_report.pdf.

24. Dubrovsky V., Cherkashin V. (2018). Comparative analysis of taxation of wage funds and budget expenditures in individual countries of the CIS, EU, Asia, Latin America, Institute of Socio-Economic Transformation. Kyiv. URL: https://iset-ua.org/ua/doslidzhennya/item/134-porivnialnyianaliz-fzp-ta-vidatkiv

25. Vdovichenko A. (2018). How does fiscal policy affect GDP and inflation in Ukraine? *Visnyk of the National Bank of Ukraine*, No. 244, Pp. 26–45.

26. Mitra R., Poghosyan T., Nikolay Gueorguiev (2015). Fiscal Multipliers in Ukraine. IMF Working Papers. No. 15/71. URL: https://www.elibrary.imf.org/view/journals/001/2015/071/article-A001-en.xml

27. Ya. V. Petrakov. (2016). Assessment of fiscal impulses from the use of tax instruments. *Finances of Ukraine*. No. 1. P.57-79.

28. Law of Ukraine "On the National Bank of Ukraine" dated 05/20/199 679-XIV with changes and additions

29. Decision of the Council of the National Bank of Ukraine on the Monetary Policy Strategy of the National Bank of Ukraine dated 13.07.2018 No. 37-rd as amended in accordance with the Decision of the NBU No. 9-rd dated 31.03.2020 URL: https://zakon.rada.gov.ua/laws/show/vr037500-18#top

30. Glushchenko S. V. (2017). Monetary policy: theoretical and methodological aspects: textbook. for students higher education closing. K.: NaUKMA. 64 p.

31. Lushkin V.A., Berezhnaya A.Yu., Achkasov A.E. (2001). Finances. Money Credit: Study guide. Kharkiv: Khgakh. 330p.

32. Kolodiy A. V., Hrytsyna O. V. (2020). Estimation of the money supply of Ukraine: state, structure and trends of its change. *Economic Bulletin*, No. 3. pp. 67-73. URL: https://ev.nmu.org.ua/index.php/uk/archive?arh_author=a817bf914b5e039d2cf9145f171d5659

33. Monetary and credit and financial statistics. April 2021. URL: https://bank.gov.ua/admin_uploads/article/MFS_2021-04.pdf?v=4

34. Budget Code of Ukraine, Law of Ukraine dated 07/08/2010 No. 2456-VI, as amended. URL: https://zakon.rada.gov.ua/laws/show/2456-17#Text

35. Myshchenko S. V. (2011). Contemporary problems of the theory of currency and money circulation. K.: TsNINBU, UBS. 230 p.

36. Brychka B.B. (2020). Monetary and credit policy of the NBU in ensuring the stability of the national monetary unit. Dissertation for obtaining sciences. candidate degree economy Sciences in the specialty 08.00.08 "Money, finance and credit". Lviv National University of Veterinary Medicine and Biotechnology named after S.Z. Gzhitskyi; Ivan Franko National University of Lviv, Lviv. URL: https://lnu.edu.ua/wp-content/uploads/2020/09/dis_brychka.pdf

37. Chechetov M., Chechetova N., Berezhna A. (2004). Budget management: education. manual: in 2 hours. Kharkiv: INZHEK. p.1000. / part 1, p. 560

38. Shpek R. (2011). Chairman of the NBU Council, 07/17/2021 Not all emissions are equally useful. URL: https://nabu.ua/ua/roman-shpek-36.html

39. Decision of the Council of the National Bank of Ukraine on the Monetary Policy Strategy of the National Bank of Ukraine dated 13.07.2018 No. 37-rd with changes introduced in accordance with the Decision of the NBU No. 9-rd dated 31.03.2020. URL: https://zakon.rada.gov.ua/laws/show/vr037500-18#top

40. Fiscal policy from pandemic to war. IMF. April 2022. URL: https://www.imf.org/en/Publications/FM/Issues/2022/04/12/fiscal-monitor-april-2022

41. Conclusions based on the results of the examination of the draft Law of Ukraine "On the State Budget of Ukraine for 2023", approved by the decision of the Accounting Chamber of Ukraine dated September 30, 2022 No. 20-2. URL: https://rp.gov.ua/upload-files/Activity/Collegium/ 2022/20-2_2022/Vysn_20-2_2022.pdf

42. Shemaeva, L. G. (2022). International experience of public debt restructuring in the dimension of Ukraine. Center of economic and social research of NISD. URL: https://niss.gov.ua/sites/default/files/2022-07/shemaeva. pdf