Modeling the Payment of Basic Income to Overcome Absolute Monetary Poverty, Support Unemployed Citizens and Families with Children

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ABSTRACT

The article is devoted to the actual problem of the introduction of universal basic income (UBI) in Russia. Taking into account the real possibilities of the Russian economy, the issues of developing models of transitional forms of UBI, the so-called "basic income (BI)" are considered for target categories of citizens. The substantiation of the possibility and expediency of modeling the effects of BI payments according to the domestic simulation model of reproduction of Russia's GDP P1–4–2 (2022–8) is carried out. The results of predictive calculations based on this model are presented. It is shown that the additional revenues of the consolidated budget of the Russian Federation not only compensate for the initial costs of implementing the BI program, but also exceed the initial costs annually. The conclusion is made about the reality of the implementation of the "BI program" in our country. The state leadership is proposed to combine the current system of targeted social support with the introduction of BI payments to the most vulnerable households and categories of Russian citizens in order to improve the level and quality of life of the Russian population and increase consumer demand.

Keywords: universal basic income (UBI); basic income (BI); models of functioning of transitional forms of BI; absolute monetary poverty; regional subsistence minimum; additional social payment (ASP); increase in payments to the unemployed; targeted assistance to families with children under 18; imitation model of reproduction of Russia's GDP type P1–4–2(2022–8); final consumption of households (FCH); consolidated budget (CB)

INTRODUCTION

Universal basic income (UBI) is a social benefit, a regular payment of a fixed amount of money from the State to all citizens of the country, guaranteeing them a minimum level of consumption of goods, services and information regardless of the type of activity, economic and social situation.

Problems of UBI, opportunities and risks arising during its implementation are among the actively discussed in the foreign and Russian research field [1–9], and the social and economic consequences, caused by pandemic, only heightened interest in UBI and updated the discussion on the feasibility of introducing the UBI toolkit [10, 11].

In addition to the development of the UBI theoretical platform, an important area of its research is the examination of practical issues related to the implementation (in some form of completeness) of its criteria, i.e., introduction of UBI transition forms [will call them "basic income (BI)"]. BI induction testing is carried out within: a) pilot experiments or simulation modeling[1] [5, 12], the results of which demonstrate different vectors of BI influence on various parameters of living standards, employment and labor market, etc.; b) studying the opinions of different groups of the population on the implementation of BI tools [13, 14].[2]

However, the UBI concept is far from complete. Despite numerous theoretical and practical interpretations, a holistic view of the theoretical foundations of UBI, generalization of the experimental practice of introducing its transitional forms (i.e., BI) and assessment of possible consequences have not yet been worked out.

Possibilities and forms of introduction of UBI in Russia are widely discussed

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[1] URL: https://images.meinbge.de/image/upload/v1/pilot/projektmappe/Basic_Income_Pilot_Project_Magazine.pdf; BIG Coalition Namibia. URL: http://www.bignam.org/Index.html

[2] URL: citizensincome.org/wp-content/uploads/2017/11/European-Social-Survey-survey-on-Basic-Income.pdf

by the scientific community [1, 2, 4, 15]. From these discussions, it is necessary to continue the study of this problem, especially in terms of transition forms and tools for testing in Russia as a regulator to improve the level and quality of life and sustainability of society.

The authors of this study consider the necessity of testing UBI tools in Russian conditions. With their participation, a pilot testing of one of the transition forms of BI — guaranteed minimum income has already been carried out (Vologda region, 2017–2018) [16]. In addition, a survey of Russian experts (2020) on theoretical, methodological and practical aspects of UBI problems was conducted [15], as well as a survey of the target categories of the population (2021) for testing its transitional forms (BI), which showed the agreed positions of experts and the population on the readiness of our country to introduce BI and the feasibility of pilot projects.

After overcoming an acute phase of corona-crisis (2019–2020), Russia's economy has now reached a new stage of development, aimed at ensuring full economic sovereignty, in the context of intensified global confrontation with the West. According to official government projections, depending on its variants (base or conservative), Russia's GDP growth for 2022 was expected to be 2.5–3.0%, inflation — is slightly above 4%, unemployment — 4.6–4.8%, real disposable income growth — of 1.9–2.4%. However, under the new conditions of 2022, the estimates were revised to the downside (*Table 1*). Expert estimates collected by the Bank of Russia in a specialized survey in 2022 demonstrate a negative trend in macroeconomic indicators relative to the projections for 2022, which were made in late 2021. At the same time "degree" of negative expectations of experts during 2022 decreases. Official statistics for 2022 show negative trends in living standards: in

terms of poverty ("planned" value — 10.8%, the fact of the Q1 of 2022–14.3%) and by real disposable income (decrease in Q1–Q2 of 2022 compared to the corresponding period 2021–1.2–0.8%).

Despite the difficulties of the present period, the Russian Federation is giving priority to expanding the domestic market and improving the standard of living and quality of life of the population, including the growth of its real monetary income.

Among the measures aimed at improving the welfare of the population was the decision of the Government on extraordinary increase from 01 June 2022 of the minimum wage from 13 800 to 15 279 rub. and the subsistence minimum — from 12 654 to 13 919 rub.[3] In addition, pensions were indexed with 01 June 2022 to 10%[4] (in addition to the 8.6% indexation at the beginning of the year).

In this article it is proposed to consider actual tasks of improving the standard of living of the population of Russia (if possible, starting from 2023) by establishing BI for three target categories of households and citizens:

1) for low-income households — eliminate absolute monetary poverty [introduce an additional monthly payment up to per capita subsistence minimum (SM)];

2) for unemployed citizens registered at State Employment Centers — establishment of monthly benefit to two subsistence minimum for working population (SMwp);

3) for all children up to the age of 18 years — introduce monthly benefit on the child in the amount of the child's subsistence minimum (SMch).

Comparison of BI with "helicopter money" in Russian conditions, to put it mildly, incorrectly. The term "helicopter money" was used by M. Friedman [17] to demonstrate the absence of real effect of monetary emission in a balanced economy. Friedman presented the emission simplified — in the form of throwing money from a helicopter. If people in a balanced system of industrial relations collect the thrown money and start spending it, it will not lead to growth of real output (GDP) in the economy. Only the nominal effect of rising prices (inflation) and nominal output.

Currently, the economy in Russia is unbalanced, and the BI paid under such conditions will replace the lost income from employment, which will return to the economy in the form of additional consumer demand and will cause a multiplier effect [18, 19].[5]

THE FUNDS REQUIRED TO PAY BI TO TARGET CATEGORIES OF RUSSIANS

The funds needed to eliminate absolute monetary poverty. The most popular in the Russian Federation is modeling of BI payments to overcome absolute monetary poverty.

To construct a model demonstrating the feasibility of this task, the officially published Rosstat reporting data and the legally enshrined methodological provisions on the definition of subsistence minimum were used (SM), and data on the size and composition of the subsistence minimum in the Russian Federation. According to the latest data of Rosstat, in 2021 the level of absolute monetary poverty (further — poverty) was 11%, and 16.1 million people were below the poverty line.[6] Rosstat estimated the total deficit of monetary

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[3] Putin announced an increase in pensions, the subsistence minimum and the minimum wage since 01 June 2022. Komsomolskaya pravda. URL: https://www.kp.ru/daily/27397/4592723/

[4] Putin's Decree on indexation of pensions from 01 June 2022: how many pensioners will receive now? Komsomolskaya Pravda. URL: https://www.kp.ru/daily/27397/4592705/

[5] Antipov V.I., Kolmakov I.B. Program for calculating the multiplier of target household expenditures. Certif. registr. computer program RU 2016616984, 22.06.2016. Appl. No 2016614237 dated 22.04.2016

[6] The number of people with monetary incomes below the poverty line and the cash income deficit. URL: https://rosstat.gov.ru/folder/13397

Table 1

Forecast values of macro indicators of the Russian economy for 2022

	Ministry of Economy of Russia[a]		Bank of Russia[b]		Rosstat	
	assessment in September-October 2021	assessment in May 2022	assessment in April 2022	assessment in July 2022	Q1 of 2022	Q2 of 2022
GDP, growth rate, %	3.0/2.5	−7.8/−8.8	−9.2	−6.0		
Consumer price index, annual average	4.3/4.4	16.5/16.1	22.0[c]	15.0[d]	107.6[e]	99.65[f]
Unemployment rate, %	4.6/4.8	6.7/7.0	6.9[g]	5.6[h]	4.2[i]	4.0[j]
Poverty rate, %	10.8[k]				14.3	
Real disposable income, %	2.4/1.9	−6.8/−7.4			−1.2[l]	−0.8[m]

Source: compiled by the authors on the basis of data from the Ministry of Economy of Russia, the Government of Russia, the Bank of Russia, Rosstat.

Note: [a] Data from the Ministry of Economy of Russia. Estimates in accordance with the basic and conservative versions of forecast; [b] Data of the Bank of Russia. Consensus forecast based on expert estimates; [c] December to December of the previous year; [d] December to December of the previous year; [e] March 2022, at the end of the period, as % of the previous month; [f] June 2022, at the end of the period, as % of the previous month; [g] December, without exception of seasonality; [h] December, without exception of seasonality; [i] On average per month; [j] On average per month; [k] Data from the Russian Government; [l] Compared to the corresponding period of the previous year; [m] Compared to the corresponding period of the previous year.

income of low-income Russians (the amount that they lacked to the subsistence minimum) at 633 billion rubles.[7]

In order to solve this particular problem, according to the authors, it is advisable to consider the formation of BI not as a single, equal for Russian citizens with incomes less than SM personal regular cash payment, but as differentiated regular social cash payment (ASP) to an adult member of a poor household that will raise per capita household income to the regional subsistence minimum. In other words, *BI to overcome the absolute monetary poverty (BIP) will be a guaranteed minimum per capita income of a low-income household equal to the regional subsistence minimum* defined by type of family. The implication of this is that the BIP implementation system will seek to determine the value of differential cash payments for the low-income (poor) household, making it available to households and targeting these funds to meet the most pressing needs.

The following algorithm is used to calculate differentiated cash payments to low-income households:

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[7] The number of people with monetary incomes below the poverty line and the cash income deficit. URL: https://rosstat.gov.ru/folder/13397

$$BIP = SMD = (Nw*CBw + Nch*CBch + Np*CBp)*$$
$$*\frac{Cei}{i} + Nw*CPw, \qquad (1)$$

where: BIP — basic income for low-income families to overcome absolute monetary poverty equal to the differentiated regional subsistence minimum;

SMD — regional subsistence minimum, differentiated for households of different size and composition, taking into account consumption savings as determined by applying equivalence scales;

Nw — number of working persons living in the family;

CBw — cost of the minimum consumer basket of the working population;

Nch— number of children living in the family;

CBch — cost of the minimum consumer basket of the children;

Np — number of pensioners living in the family;

CBp — cost of the minimum consumer basket of the pensioners;

i — numerical family size ($i = Nw + Nc + Np$);

Cei — coefficient of equivalency characterizing the cost savings for family i-numerical size;[8]

CPw — costs for compulsory payments and fees in the SM of the working population.

The algorithm for determining regular additional social payment to a family representative (ASP) has the form:

$$ASP = BIP - PCNI, \qquad (2)$$

where: ASP — regular (monthly) differentiated additional social payment for representative of low-income households;

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[8] The equivalence scale is represented by equivalence coefficients for consumption savings in living together, differentiated by size and family composition. Common family costs for non-food items and services were a source of consumption savings in the case of shared accommodation. For the base with the weight of "1" a family with one person of working age. Equivalence scales are widely used in international and domestic developments [16].

PCNI — per capita net income of a low-income family, it is a variation of the actual average per capita family income/ a citizen living alone to be recognized as poor and to receive State social assistance.[9] PCNI is defined as the amount of income from income from employment and other sources of income, including state regular social support, provided in accordance with federal and regional legislation, but without one-time cash payments and social assistance for housing and communal services. The definition of "PCNI" and its calculation were used for the first time in the Vologda pilot project (2017–2018) to find the value of a one-time additional social payment to parents in low-income families with children [16].

In conducting their own modeling, the authors used probabilistic models of population distribution at the level of average monthly average per capita monetary income (AMI), models of forecasting the parameters of these distributions and models of forecasting the subsistence minimum. The task of poverty forecasting is achieved by calculating the AMI population density integral from zero to the upper limit of the subsistence minimum. Poverty forecasting preceded by definitions: 1) subsistence minimum; 2) AMI-level population density based on forecast values of macro indicators of economic development.

The calculation of the required annual starting funds for the payment of BIP (Q) showed the following. If all people below the poverty line are targeted to pay a ASP that corresponds to a regional SM supplement to everyone below the poverty line, then absolute monetary poverty is completely resolved. Its performed

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[9] Federal Law No.44 from 05.04.2003 "On the accounting the income and calculating the average per capita income of a family and the income of a citizen living alone to be recognized as poor and to receive State social assistance". URL: http://www.consultant.ru/document/cons_doc_LAW_41647/

calculations on the example of 2022. According to the forecasts for 2022, in general for the Russian Federation:

• estimates of the number of low-income populations will remain at 2021 – 16 mln person (N_{2022});

• average monthly per capita subsistence minimum — 13 919 rub. (SM_{2022});

• total monthly cash income required to allocate to each poor SM per month (OD), defined as $SM_{2022} * N_{2022}$, — 222.704 bln rub. / month;

• total annual cash income required to allocate to each poor SM per month (GD), defined as OD* 12, — 2.672488 bln rub. / year;

• actual volume of monthly cash income of the poor (FD) — 157.6 bln rub. /month;

• actual volume of annual cash income of the GFD poor is defined as the FD * 12, — 1.8912 trn rub. /year.

The annual cash income deficit (Q), defined as GD — GFD, will be 781.288 bln rub. /year.

Thus, it will take about **0.8 trillion rubles** to eliminate absolute monetary poverty in 2023.

Amount of funds required for monthly payments to the unemployed. According to Rosstat, in the second quarter of 2022, the number of unemployed according to the ILO methodology amounted to 3.0 million people, unemployment rate — 4.0%.[10] What is this mean for the state of annual maintenance of such a number of unemployed? To meet the minimum needs of the unemployed, taking into account the family burden, they need to pay basic income for unemployed people (BIUP) in the form of a benefit of at least two subsistence minimum of the working population (SMw). Annual maintenance costs of 4% will be about 1.1 trillion rub. /year.

$$3*10^6*(SM_{w2022}*2)*12 = 1.09236312 \, \text{trn rub.} / \text{year} \quad (3)$$

where: SMw_{2022} — subsistence minimum of the working population, defined as $SM_{2022} * 1.09$, i.e. 13 919 rub. * 1.09 = 15 171.71 rub.

If the program starts in 2023 and lasts until 2035, this formally means adding the amount (3) in the first year in this period to the current cost of final of consumption households (FCH).

Amount of funds needed to support families with children under 18. It is proposed that all children, without the allocation of low-income families, be paid *from the date of birth to 18 years* of the subsistence minimum. Calculation is carried out on a direct account method. Children's subsistence minimum $SMch_{2022}$, defined as $SM_{2022} * 0.97$, in 2022 is 13 501 rub. /month (13 919 rub. * 0.97). According to Rosstat, the population in 2022 aged from 0 to 18 years (N_{ch}) will be 32 755.44 thous. people.[11]

The total annual amount of funds required to assistance families with children per year, as determined by formula (4), would be 5.30677434528 trn rub. /year.

$$N_{ch}*10^3*(SM_{children2022}*12). \quad (4)$$

If the basic income for children (BIC) program starts in 2023 and lasts until 2035, this formally means adding the amount (4) in the first year in this period to the current cost of final consumption households (FCH).

The maximum amount of annual expenses for solving the three tasks will be **7.179 trillion rub. /year**, i.e. 0.781 + 1.092 + 5.306.

Inflation will increase necessary costs annually. The results of the annual BI payment costs, depending on the time of the model experiment start considering inflation, are shown in *Table 2*.

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[10] Socio-economic situation of Russia Moscow. January–June 2022. URL: https://rosstat.gov.ru/storage/mediabank/osn-06–2022.pdf

[11] Population by individual age groups. Rosstat. URL: https://rosstat.gov.ru/f older/12781.

Table 2

Table of annual household final consumption expenditures, adjusted

Year	Consumer Price Index	1 alternative, bln rub.	2 alternative, bln rub.	3 alternative, bln rub.
2021	1.084	–	–	–
2022	1.167	–	–	–
2023	1.053	800	2000	7000
2024	1.046	837	2092	7278
2025	1.040	870	2175	7566
2026	1.034	900	2250	7827
2027	1.030	927	2317	8062
2028	1.026	951	2379	8275
2029	1.023	974	2434	8468
2030	1.021	994	2484	8642
2031	1.018	1012	2529	8799
2032	1.016	1028	2570	8942
2033	1.014	1043	2608	9072
2034	1.013	1057	2641	9189
2035	1.012	1069	2672	9296

Source: compiled by the authors.

TASK STATEMENT AND RESULTS OF THE IMPLEMENTATION OF PREDICTIVE MODEL EXPERIMENTS OF THE IMPACT OF THE INTRODUCTION OF BI ON IMPROVING THE STANDARD OF LIVING OF THE TARGET CATEGORIES OF RUSSIANS

To calculate the forecast of the inertial development of the Russian economy (under sanctions) on the 2023–2035 interval and to obtain a reference trajectory, the current model of reproduction of the Russian GDP in the variant was used P1–4–2(2022–8), which was developed employees by IAM RAS and ICS RAS and described in detail in [18, 20].

The model P1–4–2(2022–8) allows determining in dynamics annual rates of gross domestic product (GDP/pW), final consumption of households (FCH/pWD), and final consumption of government (pYG), state consolidated budget revenue (CBR), investments in fixed capital (pIN) and real monetary incomes of the population (RMI).

It uses the conceptual framework of the international System of National Accounts (SNA). It allows simulation modeling with expert formulation of source data scenarios and obtains perturbed development trajectories. In the last modification of the model P1–4–2(2022–8), the parameters of the economy are presented as a set of some "main trends" and "interference", the sum of "trend + interference" is observed in the retrospective interval (1995–2021), and on the forecast interval (2023–2035) "interference" is absent.

Table 3

**Increases in consolidated budget revenues and final consumption of the state relative
to the values of the reference trajectories of inertial development**

	Year	Monetary poverty (0.8 trn rub.)	Monetary poverty and unemployed (2.0 trn rub.)	Monetary poverty, unemployed and families with children (7.0 trn rub.)
		Increase in CB income	Increase in CB income	Increase in CB income
1	2023	1031	2577	9018
2	2024	1126	2815	9795
3	2025	1217	3042	10586
4	2026	1304	3259	11341
5	2027	1336	3339	11617
6	2028	1358	3396	11814
7	2029	1372	3431	11935
8	2030	1378	3445	11986
9	2031	1379	3447	11993
10	2032	1375	3439	11963
11	2033	1368	3421	11901
12	2034	1358	3396	11813
13	2035	1346	3364	11705

Source: compiled by the authors.

Experimental construction of two blocks of trajectories of indicators of the Russian economy in the 2023–2035 interval — reference trajectories of inertial development and perturbed trajectories. Their comparison determines the contribution of the measures for the allocation of funds for the "BI program" payments to the Russian economy.

The first perturbed trajectory provides an increase in final consumption of households by 0.8 trillion rubles, calculated to eliminate the absolute monetary poverty of the population of Russia.

The second perturbed trajectory provides an increase in the final consumption of households by 2.0 trillion rubles, calculated to simultaneously eliminate the monetary poverty of the population of Russia and increase the unemployment benefit to two SMw for all unemployed, registered with employment centers.

The third perturbed trajectory provides an increase in the final consumption of households by 7.0 trillion rubles, calculated simultaneously to eliminate the monetary poverty of the population of Russia, increase of unemployment benefit to two

SMw for all unemployed persons registered at the labour exchange and necessary assistance for families with children under 18, one SMch per child per month.

To make evidence and predictive estimates (for probabilistic scenarios of economic development), it is necessary:

1. Get a forecast of the inertial development of the Russian economy (under sanctions) on the 2023–2035 interval and the reference development trajectories.

2. Get forecasts of the trajectories of development of the Russian economy for the three proposed variants of managed development (under sanctions) on the interval 2023–2035.

The procedure of transformation of the source data scenario is based on the following reasoning: the amount of payment of BI in the initial year of the forecast period (for a particular scenario of the model) means a stepped increase of the item of expenditure "final consumption of households".

All forecast calculations of economic development on these models, conducted with the parameters of the BI program on the 2023–2035 interval, finally give situational topical contour estimates. Values of initial FCH increases are shown at 2022.

The hypothesis that "waves" should be tested annual increases in the consolidated budget as a result of the multiplier effect of the increase in the effective demand of the population will not only compensate for the necessary annual cost of increasing the final consumption of households, but also to give additional increments to the consolidated state budget.

To prove the feasibility of such a financial maneuver, numerical model experiments were performed, in which indicators of economic development of the Russian economy were compared between 2023 and 2035 without a program and with the conduct of 3 different BI payment programs.

The initial amount required to pay BI was to be taken from the National Welfare Fund (NFW). Of course, any intersections of the proposed options have some redundancy. Expert estimates of the probabilities of such redundancy range from 20–25%. Considered a range of activities without considering the overlap of the options. Calculations were performed while maintaining all existing social (and address, including) payments and their administration system.

It turned out that not only household final consumption, but also the final consumption of the State, investment in fixed capital and other important indicators of the Russian economy are increasing.

The values of the income growth of the consolidated budget (CB) relative to the values of the reference trajectories of inertial development in the solution of each of the three tasks of the introduction of BI are given in *Table 3* for the interval 2023–2035.

Additional CB revenue fully compensate for initial costs. That is, the functioning of the BI program in the variant under consideration, after the one-time start-up costs of the program, is provided in the future by the annual growth of CB revenue.

At the same time, all proportions of the already approved (and if necessary adjusted) budget (2023–2025) remain unchanged. Model calculations show that between 2023–2025 goods and services are sold for an amount significantly higher than the initial costs.

CALCULATION OF THE REFERENCE AND PERTURBED ECONOMIC DEVELOPMENT TRAJECTORIES AND NUMERICAL MODELLING OF THE EFFECT WITH ADDITIONAL FUNDS INTO IT FOR THE PAYMENT OF BI IN THE PERIOD 2023–2025

The specification of some of the main results of the numerical model experiments for the third variant of the BI payment
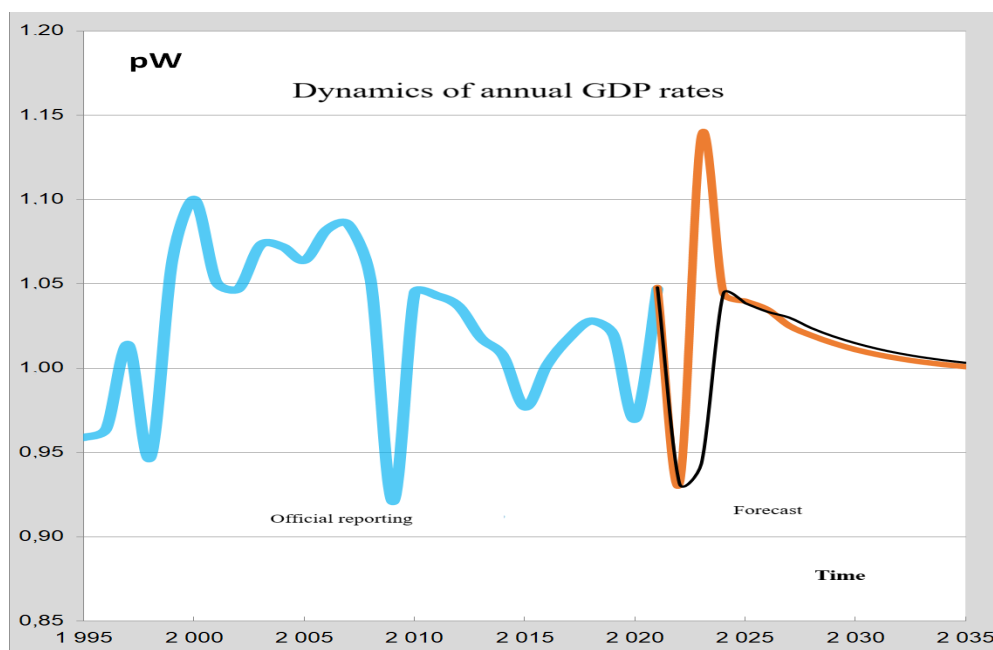
Fig. 1. **Dynamics of annual GDP rates in Russia**

Source: compiled by the authors.

Note: the reference trajectory of the forecast is black, the perturbed trajectory of the forecast (+7.0 trillion rubles of final consumption of households since 2023) is red.
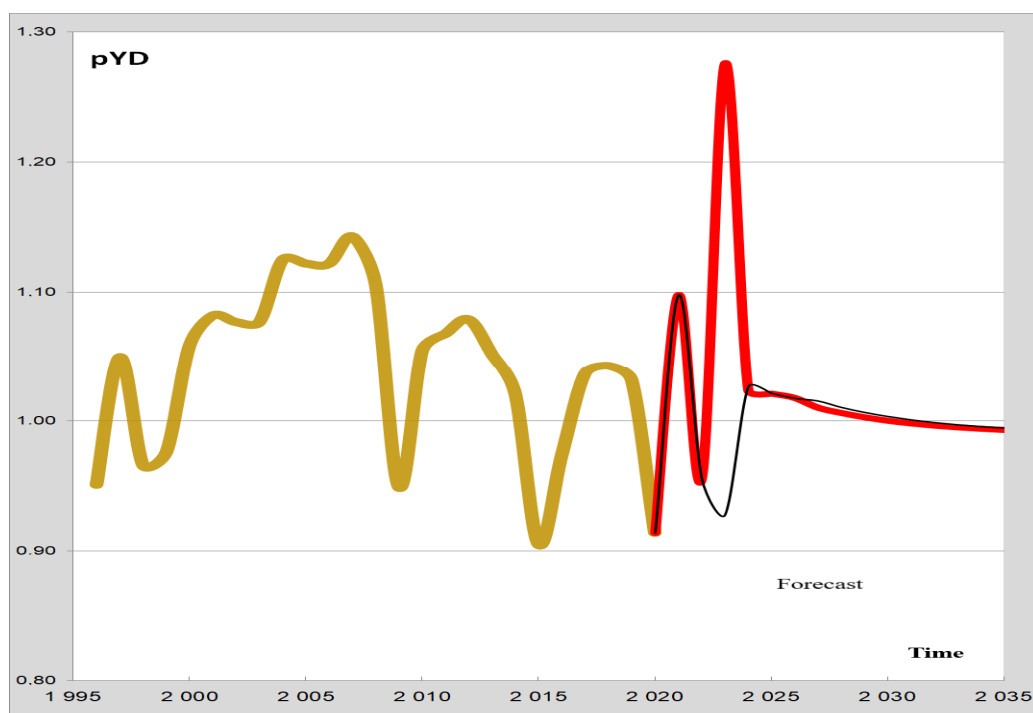

Fig. 2. **Dynamics of annual rates of final consumption of households**

Source: compiled by the authors.

Note: the reference trajectory of the forecast is black, the perturbed trajectory of the forecast (+7.0 trillion rubles from 2023) is red.
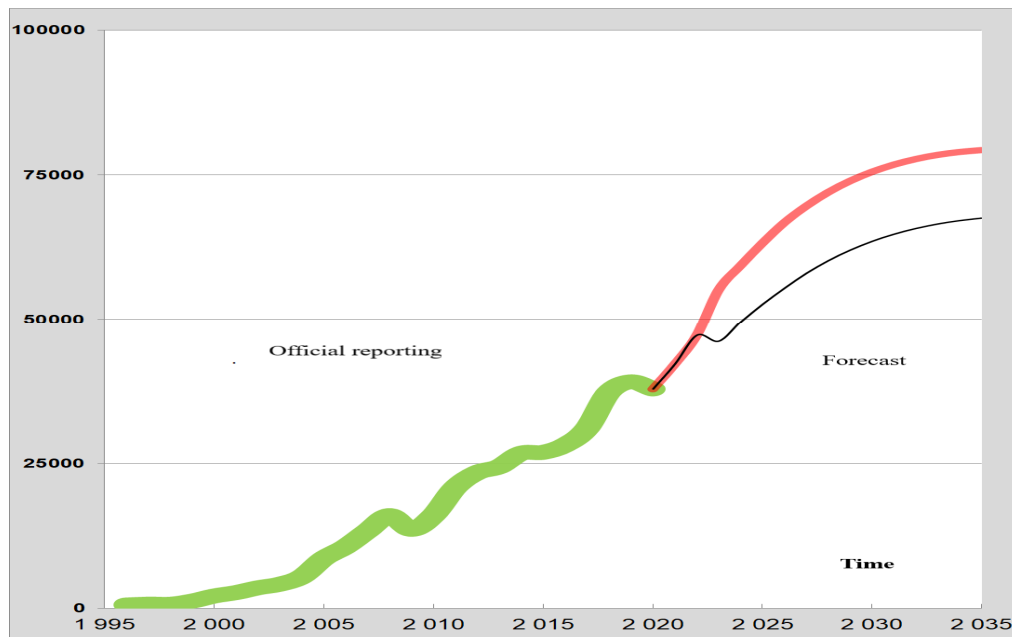
Fig. 3. **Consolidated budget revenues**

Source: compiled by the authors.

Note: the reference trajectory of the forecast is black, the perturbed trajectory of the forecast (+7.0 trillion rubles of final consumption of households since 2023) is red.
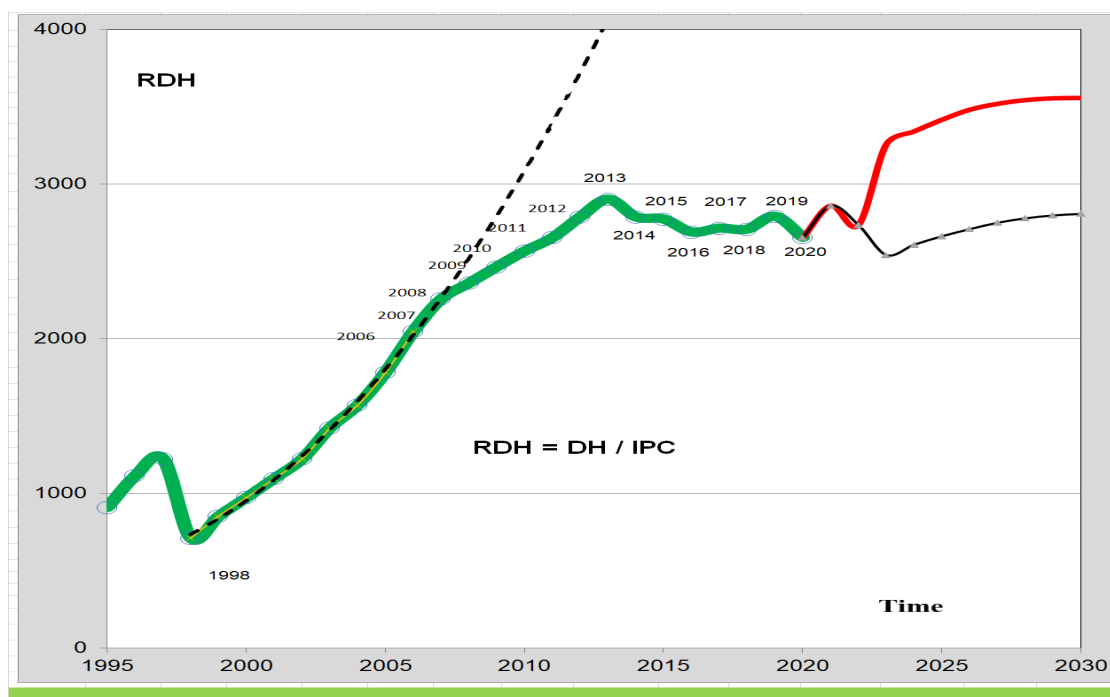

Fig. 4. **Dynamics of real monetary incomes of the population**

Source: compiled by the authors.

Note: the reference trajectory of the forecast is black, the perturbed trajectory of the forecast (+7.0 trillion rubles of final consumption of households since 2023) is red.

program (The total annual costs of the state for these measures is about 7.0 trillion rubles) for the period 2023–2025 is shown in *Fig. 1–4*. Indexation of the initial amount of BI did not provide for inflation accounting.

After the spasmodic increase of FCH in the first year of the "BI program" launch, it will work at "full capacity", i.e., goods and services will be sold at intervals 2023–2035 in excess of annual initial costs. "Wave" annual growth of the consolidated budget will compensate for the required annual costs. At the same time, all proportions of the already approved (and if necessary adjusted) budget (2021–2022) remain unchanged. To prove the feasibility of such a financial maneuver as an example, a numerical model experiment was performed, in which the economic development indicators of the Russian economy in the period 2020–2025 without a program and with the BI program were compared. It turned out that the increase in revenue from the consolidated budget exceeded the initial costs of launching the programme.

In order to assess the effect of the event, a reference trajectory was calculated — a forecast of the development of Russian economy under the inertial scenario of the initial data (the annual GDP of the reference trajectory is shown in *Fig. 1*, black), and then the "perturbed" trajectory of Russia's GDP development.

For this purpose, starting from 2023 "disturbances" were introduced into the model in the form of additional sums spent by "households" (the annual GDP rate of the perturbed trajectory is shown in *Fig. 1*, red). The difference between these trajectories — effect of the activities — showed that from 2023 the final consumption of households increased. The value of GDP (in current market prices) is also increasing, and additional revenues from the consolidated budget from 2023 fully compensate the

state expenditures for the BI program. Annual GDP growth rate will increase as a result of the "BI program" (*Fig. 1*).

In the end, we are interested in graphics of the supporting and perturbations income trajectories of the consolidated budget, which are shown in *Fig. 3*. They show that the increase in revenues of the consolidated budget fully compensates the costs of the BI program. As you can see, it remains quite high throughout the forecast interval. Real incomes of the population are also increasing (*Fig. 4*).

Various payment forms (ASP, BIUP, BIC) to ensure BI could be credited to individual accounts special cards. Within the BI program for the categories of citizens covered by it, on the bank card will be placed target equivalents of money for the purchase of certain goods. The use of specialized financial instruments to stimulate consumer demand (or output) is not new in global financial practice. For example, the USA — the world's richest country — now uses ration cards, which are used by 45 million people.[12]

CONCLUSION

In this article, based on expert-simulation dynamic model, the macroeconomic implications of the proposed range of measures to introduce UBI transitional forms of payments for the solution of three interrelated tasks of improving the standard and quality of life of vulnerable categories of the population and households were analyzed. It is made a conclusion about the reality of implementation of "BI program" in our country. It is shown that the proposed BI application programs will significantly accelerate the economic and social development of Russia.

The first step (which will have a quick impact) should be to expand domestic demand by increasing real monetary

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[12] URL: superbarok.livejournal.com/1798196.html.

incomes. This is what numerical experiments have confirmed. In addition, they have proven that spending on government final consumption and investment in fixed capital are both increasing. With coordinated growth in the production of consumer goods and services and the use of specialized financial instruments, all this will lead to the solution of a number of acute social problems and a new trajectory of development of the national economy, domestic demand and growth-oriented production of domestic goods and services.

We assume that implementation of the BI program will require significant preliminary preparation— determination of volumes of goods and services, logistics for raw materials and products, creation of administrative and organizational structures: accrual and payment systems for subsidies, etc. The mechanism proposed by the authors for simultaneous implementation of three interconnected parts of the program is a framework and can be adjusted. It can start with payments to one or two of the three proposed categories of population and households. The conditional start of the BI payment program from 2023 allowed to test the required quantitative parameters of the economy and show its possible economic and social impact. The time frame for the implementation of this programme depends on the readiness to implement it, which will require a whole set of reforms of the system of public administration of the economy and social sphere. This should be the result of scientific reasoning using the experience of the USSR and other countries. The authors can only assume that such measures would require:

• development of new laws and their adoption in accordance with the established procedure;

• increase the role of the RAS and its institutions in solving the problems of forecasting the economic and social development of the country, modeling inter-sectoral linkages and improving the system of public administration;

• significant adjustments to the regulations on the Ministries of Economic Development, Industry and Trade, Labour and Social Development, Finance, etc. and organization of their work;

• transfer of all methodologies and algorithms of calculations used by Rosstat to the domestic reporting and regulatory base, restoration of the annual interval of SNA-reporting publications and improvement of reporting indicators of the system of tables "Input-Output";

• significant reduction of the Central Bank's key interest rate to ensure long-term and cheap loans for the development of the country's economy;

• development and application of the State Program "ration card", within the framework of which the above categories of Russian citizens and households will be able to realize BI in purchases of domestic goods and services at government-regulated consumer prices and tariffs, as well as many other issues.

It is important to make a political decision and start real preparations for the introduction of the transitional forms of UBI, whose payment in the form of a basic income (BI) for the categories of citizens and households considered can become a new tool to improve their standard of living and quality of life and stimulating the development of the Russian economy and the social structure of Russian society in the new conditions of ensuring the full economic sovereignty of our country.

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I. B. Kolmakov — review of the development of the problem, carrying out the economic and mathematical calculations.
V. I. Antipov — implementing predictive experiments on the impact of UBI payments on models P1–4–2(2022–8).
E. V. Odintsova — review of the development of the problem, generalization of forecasts of the development of the Russian economy, identification of the most vulnerable categories of the population for payment of UBI.