Effective transformation of household savings in the context of a systemic economic crisis

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Abstract. The modern world is characterized by a high degree of digitalization, so citizens have access to an increasing variety of savings options. In just a few clicks, people can purchase shares of the largest companies, invest in real estate rental funds, open deposits in almost any bank, and purchase digital assets. However, financial literacy has not yet reached the level needed to use all financial instruments consciously. Since confidence in the banking and financial system is low, people save in cash, which slows economic growth. The study of various forms of savings and their reliability and availability can increase cashflow from individuals, triggering growth, especially in the current crisis conditions of 2020–2022, with unprecedented sanctions. The purpose of the study is to develop recommendations for the development of modern forms of effective savings for the population under the conditions of a systemic economic crisis. The study uses publicly available data on personal savings rates and relevant scholarly literature and uses the methods of analysis and synthesis, comparison, deduction, and statistical generalizations. In the course of the study, key savings trends and urgent income issues were identified, allowing for the formulation of several recommendations to improve the efficiency of modern savings methods.

Keywords: household savings, effective transformation, economic crisis, personal finance, household income, investments, Russia

1 Introduction

The term "form of saving", available to the general population, refers to a method of placing financial assets, comprising the processes of increasing and preserving this portion of capital. Various forms of savings can be ranked according to liquidity, potential income, purpose of capital formation, and other criteria [1]. There is no official classification of forms of savings; however, from a logical standpoint, they can be distributed precisely
according to a parameter that has been clearly defined. Investment savings can be in securities, business interests, or alternative financial instruments [2].

Through the opportunities afforded by the state's financial system, various forms of savings can increase financial flows in the economy, thereby stimulating the growth of its indicators. Modern forms of savings are centered on ensuring that everyone not only saves his capital but also directs his funds to the open economic system of the nation and that the benefits of increasing capital are accumulated with the growth of the state's overall finances.

Such an effective form of economic relations with the participation of the populace's savings in its financing will only be effective when adapted to internal and external factors that determine the economic development of the state; currently, individual forms of savings in the form of foreign currency are a priori subject to a high regulatory risk, which is disproportionate to their potential profitability. The overall viability of the nation's economy is largely dependent on the effectiveness of the financial system.

The form of savings should be understood as the possibility of distributing available capital in such placement formats, involving the processes of increasing this part of the capital as well as its preservation.

The purpose of the study is to determine the directions for the development of effective forms of savings for the populace in the context of a systemic economic crisis. In accordance with this goal, it is necessary to solve the following tasks:

- to highlight the forms of savings by the populace;
- to analyze the income of the population as a source of savings;
- identify the main trends in savings by the populace;
- identify the problems of using various forms of savings;
- to determine the directions for the development of effective forms of savings by the populace;
- determine the potential effect of the proposed forms of savings.

Through the possibilities of the financial system of the state, the savings of the population in various forms can increase financial flows in the economy, stimulating the growth of its indicators. Thus, modern forms of savings are precisely focused on ensuring that each person not only saves his capital, but sends his funds to the open economic system of the country, and the benefits from increasing capital are accumulated precisely by the development of the state finances as a whole.

Research hypothesis: In the context of a systemic economic crisis, traditional market-based investment instruments are characterized by high risk [3]. Due to the population's lack of financial literacy, depository forms of personal savings continue to be very popular [4]. Based on such conditions, the most effective form of savings for the population will be an investment deposit that has the advantages of market investment mechanisms and traditional forms of bank savings, involving the return of the down payment regardless of the results of the investment program [5].

Such an effective form of economic relations with the involvement of citizens' savings in its financing will only be effective when adapted to internal and external factors that determine the economic development of the state, i.e., currently in Russia, certain forms of savings in the form of the national currency of Western countries are a priori subject to a high regulatory risk, which is not comparable to their potential profitability.

2 Materials and Methods
During the study, based on literary sources, key approaches to determining the phenomenon of personal finance were identified, patterns were identified, and theoretical approaches were summarized (Table 1).

**Table 1. Identification of the phenomenon of personal finance**

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Source, pages</th>
<th>Interpretation of the concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blinov, 2007 [6]</td>
<td>Personal finance management: how to get the most out of a bank, mutual fund and shares. Alpina Publisher. 153 p.</td>
<td>... a set of financial resources at the disposal of a particular person</td>
</tr>
<tr>
<td>Galanov, 2016 [7]</td>
<td>Finance, money circulation and credit. Forum, INFRA-M. 281-285 pp.</td>
<td>... financial relations, as a result of which incomes of the population are formed and directions for their expenditure or expenditures are formed.</td>
</tr>
<tr>
<td>Sakharovskaya, 2013 [12]</td>
<td>Where the money goes. How to competently manage the family budget. Mann, Ivanov and Ferber. 288 p.</td>
<td>... a set of financial resources, expressed in various forms and instruments belonging to a citizen.</td>
</tr>
</tbody>
</table>

*Source: compiled by the authors.*

The volume and dynamics of free financial resources of the population, potentially available for investment, were studied using open sources of official statistics for 2015-2022* on the example of the Russian economy, which is in a systemic economic downturn and is facing the strongest sanctions pressure in the global economy.

* At the time of preparation of the study results, the economic results of 2022 have not yet been covered.

### 3 Results

The dynamic of the population's income determines the ability of citizens to save. The higher the amount of financial resources that citizens receive through their economic activities, the more opportunities they have in various forms to save and increase their capital. Moreover, it should be noted that with the growth of the income of the population,
there is precisely the opportunity not only to create a reserve of funds for urgent needs or sudden circumstances that are directly related, but also that with a further increase in the income of citizens, the financial flow to savings formats increases, allowing you to create passive income, including more complex financial instruments.

It should be noted that price fluctuations today are influenced by a significantly larger number of factors than they were a few decades ago. Previously, it was primarily determined by monetary impact, but now we can also consider the level of monopolization, the corruption of government officials, the speed with which innovative solutions are implemented, and geopolitical events. The latter are particularly characteristic of Russia in light of Western countries' persistent imposition of additional sanctions against our country.

The dynamics of real incomes of Russians in the period 2014-2020 is presented in Figure 1.

![Figure 1. Dynamics of real household incomes in Russia, %](https://rosstat.gov.ru/)

The real disposable income of Russians decreased by 3.5% as a consequence of the pandemic crisis. The decline over a decade is approximately 10% of the 2013 level. Simultaneously, the number of Russians with incomes below the subsistence level reaches 20 million, or more than 13 percent of the country's population.

In the theory of statistical measurements, there are numerous techniques for determining the poverty level of a population. Rosstat uses an absolute approach when determining the proportion of the population with incomes below the subsistence level. The dynamics of the level of destitution in Russia are illustrated in Figure 2.
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![Figure 2. Dynamics of the poverty level, million people; %](https://rosstat.gov.ru/)


*Note:* * January-September 2020

The dynamics of the inflation rate in Russia for the period 2005-2020 is presented in Table 2, Figure 3.

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflation 13,2</td>
<td>8,80</td>
<td>8,78</td>
<td>6,10</td>
<td>6,58</td>
<td>6,45</td>
<td>11,3</td>
<td>6,0</td>
<td>12,9</td>
<td>1</td>
<td>5,38</td>
<td>2,52</td>
<td>4,27</td>
<td>3,05</td>
</tr>
</tbody>
</table>

As can be seen from the above data, after 2015 there is a downward trend in inflation, and at the beginning of 2020 it was on the threshold of 3%. However, the circumstances of the global pandemic, coupled with the contraction of economies, caused inflation to rise again, and by the end of 2020 it had risen by 2%, and in 2021 the Bank of Russia raised its key interest rate for the first time in a long time.

Currently, investing in the stock market is one of the most significant trends in savings. Less than five percent of the population of Russia consists of private investors. Thus, this is one of the primary reasons why the domestic financial market lags behind its foreign counterparts, as large sums of money do not perform to their full potential in the financial sector of the economy.

The volumes of cash held in various assets of Russian citizens are shown in Table 3 and Figure 4.

**Table 3. Distribution of citizens' funds at the end of 2021**

<table>
<thead>
<tr>
<th>Asset</th>
<th>Amount, billion rubles.</th>
<th>Share, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock</td>
<td>532</td>
<td>1.58</td>
</tr>
<tr>
<td>Bonds</td>
<td>819</td>
<td>2.44</td>
</tr>
<tr>
<td>Deposits</td>
<td>32216</td>
<td>95.98</td>
</tr>
<tr>
<td>Total</td>
<td>33567</td>
<td>100</td>
</tr>
</tbody>
</table>

*Source: Bank of Russia: Central Bank of the Russian Federation, 2022. URL: https://www.cbr.ru*

![Figure 4. Funds of Russian citizens used as storage tools](https://www.cbr.ru)

Russian citizens hold about 32 trillion rubles in bank accounts, while brokers and management companies have about 1.3 trillion. Thus, more than 30 trillion rubles, which
are at the real disposal of citizens, do not fully work for the financial sector of the economy in order to promote market growth.

If we turn to the trends in the market, the situation is as follows: The most important factor for the market and the economy remains the ruble exchange rate. Judging by the sharp increase in the ruble exchange rate against the dollar from 52 to 63, a measure to increase the limit on withdrawing funds to foreign accounts from 150 thousand dollars up to $1 million per month led to an increase in capital outflows to volumes exceeding the trade imbalance. About 35,000 dollar millionaires a month is enough to cover the difference between exports and imports (there are about 300,000 in Russia). Given the success with ruble depreciation, revisions towards faster dollar appreciation are now more likely.

According to the PMI, the industry's status improved in June compared to May (50.9 Manufacturing PMI index). There is an an increase in new orders compared to May, although stockpiles of materials and finished goods remain low. The rising ruble has decreased the cost of several imported commodities, which has also had a positive impact on the PMI index.

Economists have lowered their projections for Russia's GDP drop in 2022 from 8-10% to roughly 7.5%. This is most likely owing to the fact that the crisis has been postponed until 2H2022-1H2023, because the economy is currently operating more or less regularly, expending reserves and continuing to export oil and gas. Therefore, it is difficult to interpret positively the revision of GDP forecasts for 2022 - indeed, there has not been an abrupt crisis, but the problems so far are accumulating rather than decreasing.

The seventh round of sanctions might be announced in July. The market's major concern is the possibility of the NCC being blocked, which might result in the currency being frozen on the exchange.

Table 4 illustrates major savings trends.

**Table 4. Key Savings Trends**

<table>
<thead>
<tr>
<th>Tendency</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Deposits as the main form of savings</td>
<td>Citizens continue to keep a large share of their savings in deposits, or more than 30 trillion rubles. Proposals for rates in the spring, when the key rate was 20%, actively stimulated the flow of citizens' funds to banks.</td>
</tr>
<tr>
<td>2. Active investing</td>
<td>Even though real incomes of the population have been steadily falling in Russia in recent years, people are actively investing. The factors in the popularity of the stock market were active advertising, simplification of trading using mobile applications, as well as the desire of people to save money from inflation and make money. The problem of the current year was that most investors did not catch a single serious crisis, because came to the market in the last 3 years, which led to massive losses in February-March due to lack of diversification, poorly chosen instruments.</td>
</tr>
<tr>
<td>3. Cash is less popular than deposits</td>
<td>If in the last decade there were fresh memories of the collapse of the USSR, the problems of the 90s, now non-cash payments are the norm, and citizens do not seek to keep a large amount of money in cash, i.e. Financial literacy has increased – deposits and the stock market are more attractive.</td>
</tr>
</tbody>
</table>

*Source: compiled by the authors.*

Based on the results of the trend analysis, Table 5 was formed.
Table 5. Problems of the level of profitability of savings of the population

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Source</th>
<th>Problema</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real incomes</td>
<td>Rosstat</td>
<td>Decrease in 2021 by 3.5%, significant increase in decline in 2022</td>
</tr>
<tr>
<td>Poverty level</td>
<td>Rosstat</td>
<td>Growth to 13.3% of the population in 2020 from 12.3% in 2019, the threat of growth in 2022 against the backdrop of crisis phenomena</td>
</tr>
</tbody>
</table>

Source: Rosstat, 2021. URL: https://rosstat.gov.ru/

Permanent employment has been declining in recent years, not only in Russia but also globally. More and more labor is temporary and insecure, with no social protections such as paid vacation, sick leave, or payments for occupational injuries. Now the situation is different: a temporary contract (or simply an oral agreement) is signed between the employee and the employer; he does the work, receives money, and is dismissed.

Be that as it may, self-employed, part-timers, freelancers, pensioners engaged in microbusiness, students - all of them in the current conditions need to take care of themselves, since there is little hope for state assistance and support.

The key problem of all developed countries in recent years has been the steady excess of savings over investment (table 6).

Table 6. Savings and accumulation in a number of countries, 2021 (% of GDP).

<table>
<thead>
<tr>
<th>Country and regions</th>
<th>Gross savings</th>
<th>Gross capital formation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia</td>
<td>23,8</td>
<td>21,9</td>
</tr>
<tr>
<td>European Union</td>
<td>21,7</td>
<td>19,6</td>
</tr>
<tr>
<td>Japan</td>
<td>24,8</td>
<td>21,8</td>
</tr>
<tr>
<td>China</td>
<td>48,7</td>
<td>44,3</td>
</tr>
</tbody>
</table>

Source: Eurostat, 2021. URL: https://ec.europa.eu/eurostat

Consequently, the situation in 2022 differs from all recent trends. To consolidate the financial system, unprecedented measures have been taken, including restrictions on the movement of capital, an increase in the interest rate to 20%, and a ban on the sale of Russian assets by non-residents. All of this ultimately resulted in the prices of various categories of goods increasing by multiples in March. By the summer of 2022, inflation slowed to near-zero levels, and the prices of many goods and services returned to pre-crisis levels. This does not imply that the problems have been resolved, and the Bank of Russia also states that this trend cannot be considered sustainable; nevertheless, the stability of savings and incomes of citizens is still maintained at levels that are incomparable with the sanctions pressure from foreign states and the economic challenges faced by Russia.

In times of crisis, cash has always been the preferred method of saving [3]. These are Russian rubles that are directly accessible to the individual, along with foreign currency.

In 2022, when annual inflation exceeds 15%, this form of savings can be considered the least profitable by July 2022. Since its peak in March, the foreign exchange rate has decreased by more than two times, and inflation has reduced the purchasing power of available currency. And if foreign cash still has the potential for growth in the form of a correction of the exchange rate, which is to a certain extent beneficial to the state, then the ruble part of the savings is losing its value.
Another significant trend is storing cash in deposits. In February-March of this year, the Bank of Russia raised the key rate to 20%, thereby establishing rather attractive conditions for depositing funds in banks for a period of three to six months at an interest rate. Note that institutions only offered one-year deposits at 11 to 12 percent, so it is predicted that there will be an imminent reduction in the interest rate. In July, the unemployment rate is 9.5%, which is the same as before the events that precipitated the start of the economic crisis in February.

For some individuals, it is simpler to obtain a loan to cover a large purchase, whereas for others, it is easier to save up for the item or to refuse it altogether. Due to the ease of obtaining loans in the modern era, many people resort to this method and then pay the principal and interest on a monthly basis. In order to avoid being trapped in debt in the future, where a larger portion of income will go toward loan repayment, you must be able to effectively manage your personal finances and assess your expenses. You can restrict your consumption of non-essential foods, create a grocery list and stick to it, and more.

4 Discussion

Personal finance trends have changed a lot over the past decade, firstly, every second person has a bank card, with which he basically pays for more than 80% of purchases, pays for utilities and all other possible payments; people began to keep money mainly in deposits in banks or invest in investment papers. In five years, there may no longer be cash, but will be in electronic media [13].

The majority of households exhibit a certain pattern [14] There is an average family in which money management skills are not instilled. A child is born into this family, and while he was not taught financial literacy, he was shown that money is difficult to earn and that one must work tirelessly throughout their lives to provide for their family [5]. First, the child attends kindergarten, then elementary school, and finally college, and on a subconscious level, the child records the behavior of parents and the surrounding society[15]. Parents and society as a whole work hard, earn money with difficulty, and incur debt for education and other family necessities, etc. Moreover, this condition of affairs is the norm in society, which is absurd in and of itself. Hence the problems in a person's or family's financial situation.

For some people, it is easier to get a loan and make a large purchase, while for others, it is easier to save up for it or refuse it completely. Since getting loans today is not a problem, many people resort to this method and then pay the monthly amount of the debt and interest. In the future, in order not to get bogged down in a financial debt hole where a larger percentage of income will go to repay loans, you need to be able to properly manage personal finances. It is possible to review expenses. You can limit yourself to non-essential foods, go to the grocery store with a list, follow it, and more.

The cause of the financial problems that have arisen is the person himself or circumstances such as a pandemic [16]. A person may be financially illiterate and use their finances irrationally when expenses exceed income. And obtaining loans is not always a solution, as they say in banks, but only aggravates the financial situation. Taking out a new loan to pay off the previous one also does not improve the family's situation. Now every second family or person has consumer or mortgage loans, or even several loans. It happens mainly due to the fact that a person strives to live better by buying good furniture, a house, or a car, but with a low salary he cannot afford such a luxury and comes to the decision to take out a loan, then a second one, and so on.
Situations such as unemployment, illness, house fires, accidents, etc., can result in financial difficulties. Today, no one is immune to such events, so it is necessary to have a financial airbag - something that will allow the family to lead a normal life even if an unexpected event occurs; will not allow the forced sale of accumulated property; will not force you to accumulate debts on utility bills, loans, etc. [17]. The size of the financial cushion is determined on an individual basis however, experts in the field of economics and finance advise that it should be at least 5–6 times the amount of monthly expenses. That is, in six months, in principle, it is possible to resolve most of the unforeseen problems and crisis situations.

In order for a person to avoid financial difficulties, he or she must first practice proper financial management: accounting, analysis, planning, accumulation, and investment.

Almost everyone must occasionally acquire things and services that necessitate large sums of money. It can be a car for you and your family, as well as a vacation or country home. This includes the purchase of an apartment or the enlargement of one's own living space by swapping an existing one for a new one, both of which demand substantial finances that obviously surpass the average monthly expenses. Such savings are already being generated in the medium and even long term, so they are not always as liquid as current ones, but they may be on deposits with no partial withdrawal option.

It is essential to improve a country's economic security by increasing people's incomes and implementing the appropriate monetary and anti-inflationary policies. This is because the direct and indirect effects of monetary policy instruments can significantly alter the economic balance of a nation.

The main goal of increasing the economic security of the country by increasing the income of the population is to achieve long-term macroeconomic stabilization.

Since 2014, when the national currency depreciated by more than two times, the Russian financial market has been subject to sanctions. The crisis events of 2022 has only made the condition of the national currency worse.

The increase in individual participants is the main trend in the domestic financial sector. On the Moscow Exchange, more than 8 million accounts have been opened, with more than 50% of those openings occurring in the last year. Low deposit interest rates and rising financial knowledge among the populace both encourage the growth of the financial sector as a result of the influx of funds from individuals.

Thus, the functioning of the Russian financial market is a well-established system that complies with the norms of international financial markets, and interest in the country's financial market among the populace is steadily rising, which confirms the increase in open brokerage accounts on the largest stock exchange in Russia by two times in 2020.

Under the current conditions, the most effective form of savings for the population can be structured financial products that have the advantages of market investment mechanisms and traditional forms of bank savings.

One of the forms of structured investments is an investment deposit, which implies a guarantee of the return of the initial contribution, regardless of the investment results.

A structured financial product is a prepackaged investment portfolio consisting of unequal base and investment components. The proportions of the portfolio's financial resource distribution are determined by the investor's personal risk diversification strategy. So, for instance, high-risk and profitable assets (stocks, options, indices, and currencies) can be 10 to 15%, whereas the majority of investments can be allocated to stable assets (bonds, deposits) with an average return of 6 to 8%. There are numerous possible combinations. The investor is capable of managing investments independently. However, even capital
return guarantees can't safeguard funds against currency fluctuations and inflationary processes.

The essence of the investment depository product is to place the principal amount on a traditional deposit at an average interest rate, and the profitable portion is recommended to be transferred to a special individual investment account for unrestricted investment, conditioned on the preservation of the deposit.

Clients get the opportunity to increase potential income without risk to the main capital. Possible parameters of the investment product are presented in Table 7.

### Table 7. Investment deposit

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Term</td>
<td>From 1 year, with the possibility of extension up to 5 years</td>
</tr>
<tr>
<td>Rate %</td>
<td>10-12%</td>
</tr>
<tr>
<td>Minimum contribution, rub.</td>
<td>100 000</td>
</tr>
<tr>
<td>Maximum contribution, rub.</td>
<td>350 000</td>
</tr>
<tr>
<td>Replenishment</td>
<td>Not possible during the year</td>
</tr>
<tr>
<td>Removal</td>
<td>Not possible during the year</td>
</tr>
<tr>
<td>Advantage</td>
<td>Payment of % at the beginning of the term to the client's investment account</td>
</tr>
</tbody>
</table>

The implementation of such a structured product will allow the bank to increase the volume of its customer base due to attractive offers with an increased yield rate, increase the number of investment accounts, and improve the rating.

For clients, advantages are formed in the form of free opening and maintenance of individual investment accounts, obtaining greater return on investments, advance payments on deposits for investment, which stimulates the multiplication of income.

5 Conclusion

Based on the findings of the study, we can conclude that economic growth is impossible without an increase in the population's standard of living. Ultimately, the latter simply influences the demand for products and services and stimulates business growth. Despite inflation trends, it is impossible to assert a global currency depreciation, according to official data. However, the collapse of the ruble exchange rate and excessively high prices for individual real estate and expensive goods, compared with prices before the imposition of sanctions, indicate a noticeable decrease in the income and welfare of citizens, and this has a negative impact on the development of the economy, tax collection, and the country's future economic development prospects, posing a threat to its economic security.

As a promising prospect for the development of the investment market in the country, along with the need to improve legislation to overcome bureaucratic procedures, it is necessary to highlight the trends in the formation of new investment products for the general population in the form of structured financial products with an included investment portfolio, where the investor can independently manage the income part of the investment. This approach will allow clients to receive increased potential income without risk to the main capital, and banking institutions will be able to increase the volume of their client base, increase the number of investment accounts, and improve their rating.
References


