

Financial Decision-making by the Population: Process Modeling and Trends

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Abstract

Background: The present study focuses on the nature of the population's financial decisions carried out under the personal financial planning process by people. **Method:** The methodological basis of the study is constituted by such methods of scientific research as statistical monitoring and comparative analysis, synthesis and forecasting. The authors have presented a model of consumer choice. **Findings:** The authors have analyzed the financial public decisions made in the context of economic instability; personal finance structure and consumer sentiment level dynamics have been covered; Russian citizens' income differentiation trends have been shown. The main results of the study provide insights into the tendencies in the economic behavior of citizens that can be characteristic of the population of any state at times of macroeconomic parameters volatility. In particular, the authors identified comparative structure of the attracted credit resources and the citizens' savings accumulated in commercial banks; it shows the ratio of savings and the amount of mandatory expenditures of the population; the Russians' consumer sentiment index dynamics has been traced; the population has been arranged by quintile groups on the basis of the existent income differentiation trends in the Russian society. Key findings of the study are identification of very weak signs of the population's adaptation to the economic and the geopolitical situation volatility, which is reflected in the discernible consumption bursts. **Improvements:** The authors have proved that the motivation for the population's financial decisions and the socio-economic stratification in Russia are crucially influenced by such factors as the loss of a source of income (job) and the devaluation shocks.

Keywords: Consumer Sentiment, Expenses, Financial Decisions, Income, Inflation, Poverty, Social and Economic Stratification

1. Introduction

1.1 Statement of the Problem

Another round of international tension and aggravation of geopolitical instability negative impact all the participants of political and economic relations. Mutual sanctions between Western countries and the Russian Federation have had a significant influence on the motivation of the population's financial decisions and affected the socio-economic situation in the country.

At the initial stage of the conflict, the deterioration of the situation was perceived by the population as the state of emergency and caused panic, instantly affecting Russian citizens' financial decisions. The social and economic tur-

moil experienced in previous periods has formed a stable stereotype of financial behavior in Russian society, contributing to the extreme demand for consumer goods and foreign currency. The rapid growth in consumer demand has had a further negative impact on the consumer prices dynamics and currency rates within the country. With the desire to preserve the savings on hand and protect the income from inflation losses, the citizens have reinforced the trends that emerged for different reasons and have largely been paired with Russia's geopolitical interests confronting G-7 countries on a wide range of issues. However, the evolution of market relations shows that the processes taking place in Russia are not unique because they are largely due to the cyclical nature of the capitalist economy and changes on a global scale.

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Russians show intolerance to the market fluctuations and do not take into account the negative impact their decisions have on the financial situation, aggravating it. Objective and subjective causes and signs of phenomena form a distorted perception of the real picture in people. The asymmetry of information and its limited analytic tools create well-defined conditions for inadequate economic behavior.

Citizens' financial planning as a multifaceted and multidimensional system of relations in the context of insufficient maturity of the private property institution, is just beginning to emerge. The population, for the most part, has very weak cash distribution skills and is not financially competent enough, which results in taking financial decisions influenced by incorrect interpretation of the available information¹. The citizens' financial decisions-making often leads to the formation of barriers to positive development of the corporate sector and a negative impact on all the levels of the socio-economic relations in Russian society. What can serve as examples of such decisions is excessive purchases of cars, long use food products (these include flour, oil, salt, cereals, alimentary paste, canned food), household appliances and electronics driven by mood of panic with the involvement of consumer loans, which the citizens cannot pay back in a timely manner and in full due to the excessive debt load.

Such financial decisions affect the loan portfolios' state of the commercial banks active in consumer lending. In particular, according to the Federal State Statistics Service (FSSS), Russians' total debt to commercial banks exceeds 10 billion rubles, including mortgages. This means that every citizen of the Russian Federation, including pensioners and young children, has a debt burden amounting to more than 70,000 rubles. It is debatable whether this figure is excessive, especially if to take into account the debt burden in other countries. In this case, however, one should consider on a case-by-case basis the amount of income per capita and by category in the country, taking into account the region of residence, the sector of employment, assignment to quintile groups, and other. In general, even the debt load index as the sole criterion is already causing a need for research on the adequacy of the population's financial decisions in context of the market economy instability.

1.2 The importance of the Research Objective

Terms of geopolitical and domestic economic instability exacerbate social tensions, and the resolution of any unstable situation is traditionally assigned by the society to the state which is inevitably forced to commit itself to

Table 1. Comparative dynamics of development indicators in the economy, the budget system and financial position of the population³

No.	Indices / periods	2012	2013	2014	2015
1	Gross domestic product (GDP), RUB bn (in comparable prices)	62,218	66,194	52,393	50,454
1.a	Gross domestic product (GDP), RUB bn (in absolute prices)	70,832	72,621	77,893	80,413
2	Federal revenues of the Russian Federation, RUB bn (in current prices)	12,854	13,020	14,497	15,082
3	Federal budget expenditures of the Russian Federation, % (GDP %), including:	12,891	13,343	14,831	15,513
3.a	– national defense, security and law enforcement activity	28.4 (5.9)	31.1 (6.3)	30.8 (6.4)	51.1
3.b	– national economy	15.3 (3.2)	13.9 (2.8)	20.7 (4.3)	9.1
3.c	– social policy	29.9 (6.2)	28.7 (5.8)	23.3 (4.8)	20.8
4	Personal consumption expenditures of the population in GDP, %	52.8	53.5	51.2	45.9
5	Household income, total, RUB bn, including:	33,976	35,505	37,103	31,158
5.a	– wages	22,662	23,859	25,156	23,388
5.b	– social transfers	6,150	6,533	6,975	5,648

improving financial relations between economic entities. Nevertheless, even in the face of increasing need for strengthening the role of the state, the mechanism to ensure the population's financial interests through budget funds redistribution is undergoing significant changes. Regulatory measures of the Central Bank forming a restrictive monetary policy have been interpreted by the population as a negative signal: rise in the key interest rate and the announcement of the active foreign market currency interventions cancellation have had the opposite effect - people have responded by an increased demand for foreign currency and consumer durables, which were purchased to defend their ruble savings from further price and exchange quotation increases.

Research motivation and principles of the population's financial decisions are largely under public policy regulatory influence; however, at the same time there is a citizens' activity growth in the field of financial decision-making on choosing directions of disposable income use². Indeed, the population's financial planning process is integrated into the system of financial relations, and to a large extent determined by the market conditions, while maintaining an active position of the government in influencing the population's financial decisions through such measures as stimulating consumer activism, creating conditions for citizens' savings formation and investment resources. Pension accruals in private pension funds and the Pension Fund of the Russian Federation in terms of a cumulative part can be with a good reason attributed to the latter category.

The regulatory influence of the government on the population's financial planning is conditioned by the essence of financial relations adopted by all members of the society. In particular, one of the government responsibilities is to ensure social protection of citizens, which is implemented in the framework of transfers, i.e. pensions, scholarships, subsidies, allowances, and other social benefits. Data on the macroeconomic indicators dynamics in relation to the indicators of the population's financial situation and the federal fiscal position appear informative (see Table 1).

Comparative dynamics of the indicators presented in Table 1 reflects the negative trend of macroeconomic changes and reveals the structure of Russia's federal expenditures in the most significant areas – national defense and security, national economy, and social policy. It is obvious that the changes taking place in these areas

led, in turn, to permanent volatility of the citizens' financial decisions.

The most notable adverse indicator of the population's financial situation deterioration is a revenue contraction by 16.02% in 2015 in relation to 2014, whereas from 2012 to 2014, this indicator rose by 9.2%.

In the citizens' composition of income from 2014 to 2015, there was a reduction of wages paid to hire labor, as well as social transfers, by 7.03% and 19.03%, respectively. In previous years – from 2012 to 2014 – on the contrary, there was an increase for these indicators: salaries rose by 11%, and social transfers did by 13.41%.

A substantial reduction in the population's household final consumption expenditure share in the gross domestic product – from 53.5% in 2013 to 51.2% in 2014 and to 45.9% in 2015 (the decline rate of 4.3% and 10.35%, respectively), is a visible trend. It should be noted that such a significant reduction can for quite a long time have a negative impact on national consumer spending. Prolonged multiplier effect of the changes that have occurred will involve attenuation of the public consumer activism ensuring the return of financial flows to producers.

At the same time, the share of federal expenditures for national defense and law enforcement increases in the GDP, which stands out against the background of the economy contraction in the current stage of the economic cycle.

Under these circumstances, the currency issue, carried out by the Central Bank of the Russian Federation in 2016 in the amount of 1 trillion rubles, seems quite predictable. The effect of this measure on the domestic inflation rate is rather ambiguous, as in previous years the inflation was more than noticeable. Forecasts for the current inflation pace over the 2016-2017 periods, however, should not be overestimated and defined by the currency emission merely. The set of other factors, also able to have a destabilizing effect on the macro-economic indicators, have been taken by the government into consideration given the experience of other countries that have been suffering from volatility of the national economy.

Russia, being in the face of new challenges and the need to shift priorities due to large-scale changes in the world, is faced with the tasks of creating new opportunities to accelerate economic development; however, the emerging geopolitical and economic constraints cannot be ignored. The Russian economy is undergoing a period

of profound transformation. Fundamental changes appear inevitable for Russia, which should be implemented in the whole economic system in the near future and are capable of providing it with the resource to confront the challenges and changes that are already taking place in the global social and economic space⁴. Providing conditions and effective incentives for the citizens with economic and social needs on the basis of a new institutional platform able to integrate the population's financial decisions in the society financial relations system remains one of the key responsibilities of the government.

The regulatory influence of the government on initialization and population's financial decision-making process is exercised both on the basis of the legislation in power (social benefits) and taking into account the market laws of demand and supply in a wide range of areas – from pricing in the consumer market to wage regulation in several sectors of the economy⁵. The question of whether the government regulation of the population's financial decisions as one of the categories of economic agents remains very controversial because the expected expedient effect is not fully achieved as a result of such regulation. On the contrary, often there is an increased load on the budget and reduced public financial resources use rationalization, which is primarily declared as the main purpose of regulation.

variation of geopolitical situation and sanctions, but along with it by the common fundamental factors influence – the need for a deep transformation of the global socio-economic relations system. Structural deformations have accumulated in the domestic economy, and they once again become irrelevant, leading out to the fore mainly social arguments for the inclusion of the government in the responsibility to maintain an acceptable living standard⁶. Figure 1 shows the changes having occurred in the public income distribution by quintile groups over the last 14 years.

The dynamics of income distribution in Russia by quintile population groups suggests that from 2001 to 2016 the share of the first group – the poor and marginal population has been retained with minor deviations (5.9% - 6.1%), which illustrates the stability of stratification in the society. This means, in fact, that 20% of the national income is distributed to fewer and fewer poor people. At the same time, there has been some increase in the proportion of individuals that form the fifth most prosperous quintile group from 46.3% in 2001 to 49.3% in 2016. It is debatable what conclusion can probably be drawn from this dynamics: a growing number of wealthy individuals, or a decrease in their concentration in the quintile group is indicative of a drop in income in this group. There can be also a mixed estimation of change in the number of 'middle' quintile groups that make up the middle class: from 2012 to 2016 their size has decreased from 48.2% to 44.6%. The reduction, as can be seen from the Lorenz curves, has impacted each of the middle groups, i.e. the situation has been worsening in a relatively modest pace.

The identified trends show that poverty is becoming an increasingly important problem for Russia. It is a cornerstone for a number of reasons, most of them are financial, but there are some others, emerging as a result of structural deformations and shaking the modern Russian society. In particular, cyclical fluctuations in the world economy also have a significant impact on domestic processes, and in the first turn, on the people's living standards.⁵ The government realistically evaluates its capability of supporting individual social groups in the rapidly changing geopolitical situation: yes, the poverty headcount and the income level of this group allow judging that for a certain number of persons some amenities, in relation to which the majority of financial decisions are taken, are unaffordable. Indeed, now every seventh citizen of the Russian Federation falls under the category of

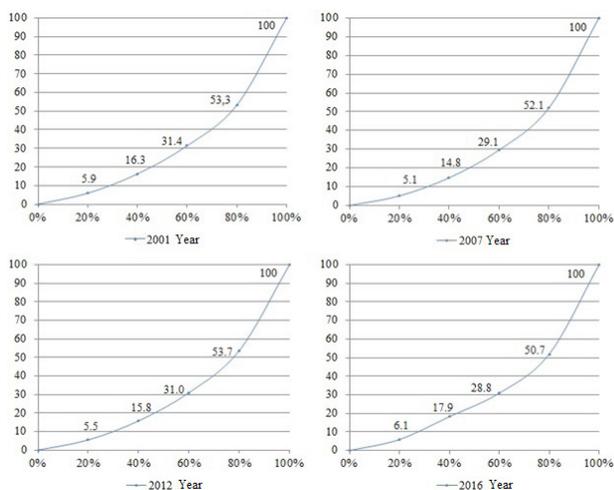


Figure 1. Differentiation trend dynamics by quintile groups in Russian society (Lorenz curves).

Note: Compiled by the authors according to the Federal State Statistics Service⁷

The current situation in Russian economy is hardly unique: another decline is caused not only by the aggra-

poor and marginal population, and in absolute terms the number of the poor in Russia has increased to 2.8 million people since 2012⁷. Whether the emerging differentiation trend in the Russian society means that the state should prolong its paternalistic policies and increase the volume of social assistance to disadvantaged categories of citizens is even more than a relevant question. It is obvious that in the near future the budget will cease to cope with the problem of social equalization and ensuring the adequacy of return to meet the current minimum requirements.

In the first half of 2016 the number of Russian citizens whose income does not reach the subsistence minimum amounted to 21.7 million people (15.1%, Figure 2), whereas in 2014 this figure was at the rate of 13.1%. Statistics also give evidence about the poverty threshold raising: the subsistence minimum has increased from 8,192 rubles to 10,017 rubles (22%) since the beginning of 2015. Given the significant impact of seasonal factors, the annual poverty rate, however, was minimal in 2012, and then the number of low-income citizens again began to grow, which is considered to be caused by the stagnation symptoms expression.

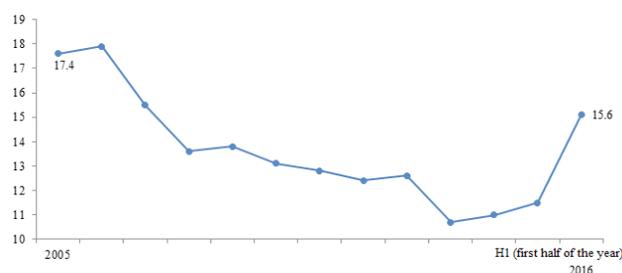


Figure 2. Population dynamics of Russians with income below the subsistence minimum, % of total count (compiled by the authors based on the FSSS data⁷).

Among the key reasons for the deterioration of the situation related to the dynamics of citizens' real incomes, a surge in inflation, reduction of wages indexation for public sector employees, strengthening of control over the order of appointment of social benefits are believed to be rated⁸. In particular, federal order of departmental target programs execution for providing government social assistance 'Targeted social assistance' for the period until 2018 has been provided by statute and put into effect. In addition, amendments to the Social Code have been adopted taking into account the particularities of those physically challenged who are in need of benefits.

The authorities' initiatives on the social expenditure optimization must have been caused by the budget revenues contraction at all levels; however, subject to the social policy restriction prolongation the trend to a further income reduction of a large part of the population and the increase in poverty among the most vulnerable categories of citizens, i.e. families with children, pensioners, and people with disabilities, will remain or even intensify⁹.

Considering the amount of disposable income of this population group, in general insufficient to generate savings, it should be understood that all the income provides for a key expenditure item – the purchase of food, and therefore, the impoverished population begins to reduce the consumption of food products.

What exacerbates the situation is a high dependence of the population's finances on the government's fiscal position: there is an increase in the share of social transfers in the citizens' total disposable income in view of the significant decrease in the share of business income and wages. So, in the second quarter of 2015 transfers accounted for 19.3% of the population's income. In other words, almost every fifth ruble in the Russian citizens' revenues is social benefits.

Such a heavy burden on the state is obviously a result of an emergency reduction of the business income share in the population's aggregate income: 15 years (in the period between 2000 and 2015) the business income fell by one half: from 15.4% to 7.8%¹⁰.

Such a significant drop of the index essential for the market economy was not observed even during the recession of 2008-2009. In addition, in that period the government supported the increase in the population's income by pension increment and wage indexation for public sector employees, which had a positive impact on the population's financial decisions and allowed real income to be relatively stable, even taking into account the inflation component.

Since the beginning of 2015 a completely different situation has come about: the real wages of Russians decreased by 8.9%, and pensions – by 4.1%. The average per capita income dynamics analysis for the period of January – July 2015 (against the same period of 2014) shows that in nominal terms the increase amounted to 9.4% while the inflation index in the same period was 16%. The average remuneration within the country stood at 31,121 rubles in August 2015, while the income of 45%

of the population was one-third less – about 19,000 rubles. These changes resulted in the pace of reduction in retail turnover, which slowed down significantly in May – June 2015 and stabilized at the level of minus 9.5% towards the respective period in 2014.

1.3 Practical Application

Socio-economic status of the society is closely linked to the dynamics of the population's consumer behavior and has a tremendous influence on the economy, which is also reflected in the practical research of the authors, together with specialists of Sberbank of Russia, carried out in the consumer sector of the Russian economy. The research allowed identifying and summarizing the average Russian consumer's preferences. Among the applicative results of the work, it is SberbankCIB indicator¹¹ that is of particular importance; it derived from analyzing the consumer sentiment of the population. The study was conducted in order to identify and monitor trends affecting consumer activity of the population and the citizens planning their expenses. The results are aimed at improving the efficiency of financial products and the implementation of long-term customer-oriented commercial banks' development strategies.

Among other things, data on the factors constraining Russians' consumer activity have been received in respect of major purchases (housing, car); in particular, this is dissatisfaction with the current living standard, and a pessimistic assessment of the prospects for the future income dynamics¹¹.

The results of the authors' additional studies, including the ones actualized in a rapid simulation model,² allow for agreeing with experts of SberbankCIB and supplementing the list of consumption restraining factors: price fluctuations, level and structure of income, social safeguards, access to health care and education, housing per capita, and others have an impact on the financial decisions of citizens.

SberbankCIB expert conclusions are relevant to the opinion of the authors about the importance of income in personal financial planning, as well as to citizens' financial decisions exposure to external market conditions. This means, at the same time, that people take their own financial decisions in accordance with the selected personal financial goals, but at the same time experience a regulating effect on their decisions.

2. Research methods

2.1 Statistical Monitoring and Comparative Analysis Methods

Forecasts of a permanent reduction in Russia's budget expenditures in the coming years are associated mainly with the government's obligations on social payments to the population. Prolongation of negative forecasts for oil prices and inflation has caused the need for revision of the budget estimate for 2016, whose deficit will not be less than 3% of the GDP¹². Budget cutting proved to be inevitable for the Russian economy; the public expenditure in 2016 has been reduced by 1.07 trillion rubles, mainly at the expense of the decision to wage 'non-indexation' and investment costs reduction. In addition, the fiscal revenue contraction to 13.5 trillion rubles (17% of the GDP) is expected, which is the worst indicator for the Russian economy over the past 15 years.

In early 2015 the government deficit was planned at 3.7% of the GDP; however, the Ministry of Finance of the Russian Federation, despite the forecasts of the economic downturn retaining in Russia and the country's rating downgrade by international agencies 'S&P', 'Moody's' and 'Fitch' to speculative grade, and inflation development, believes that revising the nominal amount of social obligations would allow avoiding drastic consequences in terms of the population's income dynamics. However, since April 2016 the position of the Big Three credit rating agencies has changed for better for Russia¹³. And now the economic situation of the Russian Federation and its development forecasts inspire cautious optimism.

Among the most serious consequences of this situation in the domestic economy the impoverishment of the population should be highlighted, whereby citizens' consumer spending on food and essential commodities is reduced. During the summer months in 2015 69% of Russians started to buy cheaper products, and among the major economic and social problems inflation (78%), impoverishment (42%), and mounting unemployment (36%) were called by citizens.

Inflationary losses are most negatively perceived by citizens, and as a main factor for price increase they consider the devaluation of the national currency (59%) along with the hydrocarbon price volatility (49%), the exchange of economic sanctions between the Western countries

and Russia (29%), and the decline in real output (21%). Alongside with this, a large part of Russia's population – 91% – believes that the experienced difficulties are temporary in nature and will help to increase the domestic production of commodities in all sectors of the economy.

As it was noted, taking consumer and other economic decisions by the population has a significant impact on the volatility of ruble as related to the key world currencies. During the transition period of the 1990s in Russia, there were catastrophic economic upheavals, the overcoming of which formed a stable distrust of the national currency in the citizens and preference to convert free resources into freely convertible currencies, i.e. dollar and euro, using the available range of banking foreign exchange product range, including consumer lending. Hidden reasons for this distrust lie in the market reforms, extreme for the public, that led to hyperinflation, the privatization campaign failure, which laid the foundation for insufficiently legitimate (according to 76% of the population) redistribution of property, and intensification of social and income inequality in the society¹⁴. Making decisions of consumer, financial and economic nature is often fraught with revenue assurance risk, its management being exercised in two directions: minimization of losses while achieving consumer and financial targets (expenditure management) and search for opportunities to increase disposable income¹⁵. Therefore, despite the ruble devaluation as a result of external market factors, the population continues to convert their existing ruble savings at the increased rate, as evidenced by the increase in the number of currency conversion transactions from October 2014 to the middle of 2016 by more than 26%.

For the purposes of the population's financial decisions analysis, the dynamics of consumer credits received against the size and the dynamics of deposits placed by citizens in commercial banks are of vital importance¹⁶. This ratio decreased (Figure 3) from 71% in November 2008 to 42% in March 2011. Since 2012, strengthening the upward trend of this correlation gradually began, which lasted until the autumn of 2014, and then it again began to decline. The dynamics presented may be caused by a large aggregate of the accumulated amount of loans received in rubles by the population, most of them exceeding 95% as of the beginning of 2015. As for deposits, as can be seen, deposits in the national currency prevail. A marked reduction in the ratio of foreign currency loans to foreign currency deposits is no doubt due to a significant devalu-

ation of ruble and a growth, in this regard, of the debt burden on borrowers.

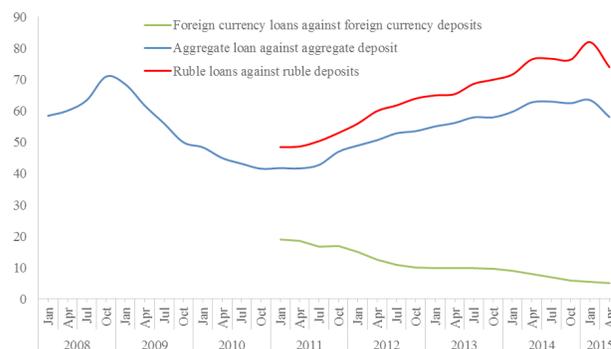


Figure 3. Dynamics of the ratio indicators of loans and deposits of Russian citizens¹⁷.

Cyclical fluctuations in previous periods led to similar financial decisions, enabling to judge of the population's behavioral adaptation skills formation absence. The only indicator, whose dynamics can be assessed as adequate to economic conditions, is the ratio of foreign currency loans to the volume of foreign currency deposits, and this figure has been steadily declining since the beginning of 2011. Other indicators, as can be seen, have a different focus, reflecting the population's commitment to mood of panic while buying a wide range of consumer goods. The question of feasibility of increasing purchases in periods of high volatility in the market has a very peculiar answer – the so-called 'flight' from cash into the commodity group of goods, considered by the population as an asset that can save real monetary equivalent. However, experience shows that this expectation format has not been justified on several occasions; on the contrary, such behavior provokes a fast price increase in the economy.

Unfortunately, another fairly typical example of inadequate consumer decisions is a panic demand for durable goods, which lose their nominal value, as well as foods that have a large enough storage period – cereals, pasta, flour, sugar, salt, and others. This phenomenon is commonly referred to as consumer shock, which is repeated at manifestation of another stage of economic instability.

Traditionally, in such circumstances, consumer demand shocks lead to an artificial and unjustified increase in prices for goods and currency which stimulates consumer panic and entails the consumer goods purchases continuation in excess. Unjustified consumer and financial decisions significantly exacerbate the gaps

in income distribution and promote income inequality in the society and lead to the formation of irrational motives on the disposable income management¹⁷. The market law irrefragibility applies to the purchase of consumer goods and other assets, including currency: buying during the price increase period leads to financial losses, but contrary to common sense and the law of the market economy, people continue to form and replenish 'stocks' in the most unfavorable period, based on irrational strategies of consumer behavior¹⁸.

The foreign exchange value growth and a further correction upon passing through a period of high volatility is negatively perceived by the citizens, given that foreign exchange transactions involve the need to account for the difference in bank quotations, and therefore, currency as an asset makes it quite difficult to predict the future value and profitability. The desire to take an advantage of such transactions or unjustified belt-tightening in times of economic downturns inevitable lead to the population's being concerned about the protection of their income and preservation of the savings available. As an accessible saving format in Russian practice, citizens prefer to use a fairly popular 'layman's strategy', whereby savings are generated in multicurrency format that provides a relatively high degree of protection of their savings while maintaining an acceptable level of their liquidity, covering the currency volatility risks¹⁹.

The abovementioned trends in consumer behavior of the population accompany economic downturns in Russia's national economy and are largely the result of inadequate financial decision-making by the citizens. The signs of the current recession onset are such symptoms as a reduction in actual wages (from 12 to 15%) in various sectors, and a rise in unemployment rate (to 9.4%). These features lead to weakened consumption possibilities of the population, which tends to compensate for losses by means of credit products, which, in turn, inevitably leads to tightening of credit. The current level of loan debt burden on Russian citizens raises concerns in analysts, while developments of maintaining lending growth trajectory can provoke an influx of personal bankruptcies.

The significance of the analyzed factors, however, did not cause the collapse of Russian economy a number of analytical agencies predicted. Moreover, in mid-2016 the leading analytical agencies 'Standard & Poor's', 'Moody's' and 'FitchRatings' upgraded the international rating of the Russian Federation and their forecast for projected growth of Russian economy. Analytical view allows

evaluating the situation with the population's income as temporary, and therefore, the term 'poverty' is obviously determined by the political process in the country, in particular, the upcoming elections.

Comparative dynamics of household savings and the amount of binding (serving) payments during the recession leads to the conclusion that the payment burden level is relatively stable, while savings have undergone substantial fluctuations (Figure 4), which confirms the opinion of the authors of a fairly rapid stabilization of the misbalanced situation.

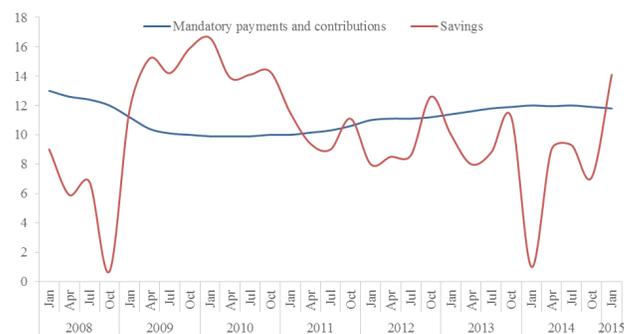


Figure 4. Comparative dynamics of volumes of savings and mandatory payments, % of revenue¹⁷.

The data of the Federal Service of State Statistics of the Russian Federation and the Analytical Centre under the Government of the Russian Federation (Figure 4) allow for the conclusion that the most positive period of savings growth was the time span from the beginning of 2009 to the end of 2010, when there was an increase of household savings. Further, as can be seen, the amount of savings experienced significant volatility, but the most significant decline occurred in 2014 and was partly due to the response of the population to the national currency devaluation symptoms.

However, already by mid-2015, there was some growth of citizens' savings in commercial banks. Obviously, this trend is related to the fact that citizens, being able to update and expand the available range of durable goods (household appliances and electronics, furniture), began to react confidently enough to the contracted revenue, and began to postpone expensive purchases, reducing current consumption and increasing savings. Thus, the consumer shock period allowed the population to significantly upgrade the domestic property fund, forming a 'consumer war chest'.

At the same time, the criteria for supply of basic durable consumer goods to the population increased unevenly, apparently, due to the growing discrepancy in the level and dynamics of disposable income, which predetermined varying degrees of consumer saturation, potentially permissible under the existing social and income inequality of the society. At the same time, a fairly high expenditure share rate of household spending accounted for durable goods became characteristic of Russia, i.e. about 15%. Of course, one should consider the amplitude of consumer demand volatility, taking into account the uneven distribution of national income, in particular, a significant part of durable goods acquisition is accounted for the wealthy population category, equal to 30 to 50%.

However, against the background of the consumer shocks, there was a decline in consumer sentiment in relation to purchase of expensive goods, such as cars. This fact may indicate that such purchases have been postponed until the period to achieve an acceptable and sustainable livelihood, as well as stabilization of the situation in the national economy. This tendency is reflected in the aggregate index – Figure 5 shows a distinct trend in the dynamics of the Russians' consumer sentiment index. The index advantage is that it allows evaluating the behavior of the population in a changing financial situation of families and the domestic market situation in the country, determining the consumption expansion decision making.



Figure 5. The consumer sentiment index of the Russian Federation population (compiled by the authors based on the FSSS data²).

The consumer sentiment index decreased significantly (down by 11 points) in the last quarter of 2014 and continued to fall (by 14 points) in the first quarter of 2015. In this case, a trend similar to the equivalent situation in late 2008 – early 2009 is observed. The consumer sentiment index dynamics (CSI) looks upbeat in the second quarter of 2015: the consumer sentiment index rose to the level

of the second half of 2009. One should take a cautious approach to interpretation of the population's financial decisions: a rather low rate of domestic economic growth in the period of 2010-2014 (the average GDP growth did not exceed 3%) held CSI below zero, which is significantly different from the picture of 2007, with more shopping decisions. Certainly, understanding the causes of financial decision-making requires an analysis of consumer preferences on the basis of a research into the nature of economic behavior of the population at the intersection of psychology, sociology and financial science. The Russians' position to live here and now looks quite justified, which means the propensity to current consumption.

3. Results

The authors deem obvious that the government programs develop in the area of interest, which can be supported by co-financing, are completely excluded along with the preventive measures taking place in the compulsory insurance system. At the same time, the authors adhere to the position, the essence of which is the need to maintain regulatory role of the state regarding the availability of a narrow range of foods, medicines, transportation rates, and housing and communal services tariffs (HCS). From the perspective of institutional economics, the population forms a system of relations by participating in the processes of creation, redistribution and consumption of the aggregate wealth. In such a system of relations, there is a separation of individuals' personal interests from the corporate sector and the interests of the government; at that, the goods and services produced by both the corporate sector and the government, are consumed by the population based on their preferences – in such a manner the 'economy of individuals' duality phenomenon, manifested in the functional role of its subjects, is realized. Thus, the state can be simultaneously focused on the interests of the population without violating the principles of the market economy and without prejudice to private business. Each economic entity, pursuing its own benefits, according to the 'law of invisible hand' by Adam Smith will inevitably act for the benefit of the whole society. Therefore, building sustainable socio-economic relations is possible while respecting the interests of citizens as ultimate consumers in the economy, leading it to an equilibrium condition.

Regarding the decision making on consumption of a wide variety of goods and services, taking such decisions

can be implemented in the framework of the consumer choice model, which is very abstractly reflected in Figure 6; it shows possible changes in the equilibrium consumer choice.

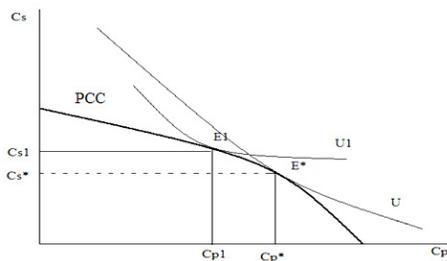


Figure 6. The consumer choice model of the society (drawn by the authors).

The horizontal axis shows the volume of private consumption (C_p – private consumption). This is the part of the wealth produced by the private sector and consumed by the population in terms of value. The vertical axis reflects the volume of goods and services produced in the public sector (C_s – state consumption). These benefits may be medical services by medical organizations, educational services at all levels, the production of food and industrial goods, a number of others that the government provides to the society, along with the private sector in a competitive market. The convex line is the production capacity curve (PCC) in the model example. The concave curve shows the indifference curve (U – utility). E^* indicates the optimal consumption choices of the society, whereby the consumption of private – the value of C_p^* and public goods – the value of C_s^* is balanced to the best advantage. E^* shows the maximum level of the population's satisfaction with the resources at their disposal. This reflects the osculation of the production capacity curve and the indifference curve at the specified point.

Consideration of the initial equilibrium displacement conditions to $E1$ is noteworthy. For the conditions when the government decides to increase spending in those areas where the benefits cannot be replaced by private industries, i.e. law enforcement, defense, space exploration, fundamental research in medicine, pharmaceuticals, applied science, infrastructure facilities construction, in this case, the consumer demand growth will roughly correspond to an increase in public expenditure, and no significant changes in the consumption structure will

occur²⁰. However, if the growth in public expenditure occurs in the areas that compete with private industries and supply of goods, and which can be replaced with those, such as medical and educational services, insurance coverage, the benefits of goods private consumption can be reduced in favor of the growth of goods consumption produced in the public sector, and the balance (E^*) may move to a new equilibrium ($E1$). The reasons for this shift may be the population's decision of cost cutting in response to reduction or loss of income; then, people will try to enjoy cheaper public amenities – health care and educational institutions, public catering outlets, and others.

Perhaps the reduction in the private goods consumption in this context will amount to a lower value than the increase in public expenditure, as public and private goods are not completely interchangeable. Part of the population, which do not tend to a simple substitution in goods consumption, but also to a higher standard of living, amplified comfort and are actuated by considerations of prestige, maintain preferences for the consumption of goods and services in the private sector of economy. A possibility of a favorable effect of the public expenditure growth on the private sector development by increasing the aggregate supply of goods and the formation of a truly competitive environment should be noted. The effect of the aggregate supply increase will have a prolonged positive effect on the growth of the entire economic system.

Adapting the model considered in this study allows for the conclusion that the authors' approach to the analysis of the nature of consumer decisions takes into account the financial and economic interests of all the economic operators involved in the processes of production, redistribution, and consumption of goods.

4. Conclusions

Comparing the current situation with the previous unstable period reveals the existence of similar trends in financial decision-making and consumer preferences, implemented in purchases. Sales figures reflect the consumption dynamics based on income inequality, psychological factors compensating the experienced turmoil, and the beginning of a civilized market mechanisms formation to ensure prosperity for various households with varying income.

The research of the financial situation changes of Russian population allows for the conclusion that this is

not about critical manifestations in the citizens' income dynamics and the expanding trend of mass poverty. Moreover, the number of durable goods purchases is ahead of the real need for them, giving rise to unjustified consumer demand shocks. The result is a massive update of the consumer basket.

There are, however, differences from previous periods of recession, when there were considerably more explicit consumer shocks, and the reaction of the population during the current conjuncture shift is somewhat different. At the same time, both a precipitous decline and the population's consumer activism shocks persist; that is, financial decisions on expansion or contraction of the actual current consumption are to a large extent based on inflation loss index, affecting the value of real income of Russian citizens. Discretionary consumption has reduced quite moderately, which demonstrates the desire and the efforts of people to maintain their usual mode of life as long as the amount of savings allows this.

However, the increase in risk associated with job loss and/or reduction in disposable income is an intensifying trend of social and income polarization in all segments of the population.

Modeling consumer choice of the society gives an indication of how the state regulatory influence can have a positive impact on all the participants in the processes of production, distribution and consumption of goods in a market economy.

The population considers trends in revenues, seasonal factors, national currency devaluation shocks, and inflationary stress to be the most significant factors affecting the fluctuations in consumer activity.

Thus, the analysis of the people's financial decisions allows reckoning the Russians' living standard dynamics as negative, and some growth in the Russian citizens' welfare in previous years did not provide the necessary financial reserve, which would allow relatively painlessly overcoming the economic losses, seems to be quite critical. Arranging the population by quintile groups indicates an increase in income differentiation trends and social and income stratification in Russian society. Among the most significant risks affecting the financial decision-making, citizens emphasize job loss, inflation and the possibility of falling below the poverty line. An important result of the study is to identify minor signs of adaptation of the population's financial decisions to the changing domestic and international economic and political situation, which

is reflected in financially unsecured consumer activism spurts – consumption shocks.

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