

# *Consumer potential of households, its differentiation and dynamics in the new economy: evidence from Russia*

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**Abstract** — Household is a production unit of a special kind, producing basic consumer goods directly included in its utility function. The production function of the household and full satisfaction of needs determines the formation of human potential. Due to under-consumption, the quality of human potential suffers. Most of the household consumption is a productive consumption aimed at the reproduction and accumulation of the household's human potential. Consumer activity in the new economy complement the concept of "human potential" through the realization of consumer potential, which is reproduced in the form of consumer capital. Consumer potential of the household determined primarily by income. In the case of Russian transitional economy, the polarization of consumption characteristics is only an external manifestation of the socio-economic processes took place at the previous stages of economic development. Consumer behavior of the population of Russia shows a very high marginal propensity to consume that generally fluctuates between 0.7 and 0.9 over the years. The consumption function of Russian households in 2001-2015 shows that the relationship between income and consumer spending is clear. A low level of real incomes forces people to direct the income growth mainly to consumer spending. During periods of stabilization of the economic situation in Russia, the marginal propensity to consume decreases.

**Keywords** — *households; consumer potential; socio-economic differentiation; human potential; new economy; consumer behavior; propensity to consume*

## I. INTRODUCTION

The consistent functioning of the Russia's consumer market in an innovative economy requires a qualitative change from both the aggregate supply side and the aggregate demand side. First of all, the changes should concern the aggregate

demand of households, which provide a significant part of the domestic final demand, in the direction of increasing and expanding their consumer activity, as well as the rational use of household income for the realization of their functions, primarily - consumption function. Household demand is a condition for the development of the consumer market in new conditions and a factor influencing the volume and structure of production of goods and services in an economy. All of the above makes it necessary to study in detail the consumer behavior of households in Russia.

## II. A BRIEF REVIEW OF THE LITERATURE

The literature review has shown that household demand research is actively underway. New approaches and methods for estimating household consumption are proposed. E.g., in [1] it is proposed to use the concept of "intertemporal propensity to consume" to determine and measure the expansion of consumption over time, using the characteristics of households and price levels in the analysis. Quite a large number of papers [2; 3; 4; 5; 6] are devoted to the study of the evolution of the Engel curves. The authors such as Benjamin, J.D. [7], Bostic, R., Gabriel, S., Painter, G. [8], Kishor, N.K. [9] devoted their papers to the interrelation of consumption and household savings. An important aspect of research relates to the consideration of inequality in households, which determines their consumer behavior. The most interesting are the works [10; 11] that consider inequality through social mechanisms of a workforce reproduction on a daily and intergenerational basis, as well as social reproductive strategies of households [12] and socio-economic differentiation as one of the factors of social dependence [13].

### III. METHODOLOGY OF RESEARCH

A household is a production unit of a special kind. As an economic unit of society, the household, like a producing firm, has its own budget, its fixed and current assets, bears certain costs and receives the corresponding effect (utility). At the same time, the household produces basic consumer goods directly included in its utility function. The household organizes production of intermediate and final base goods, using purchased, produced or otherwise obtained goods. At the same time, the production process is interlocked with the process of consumption (use) of the good (as a result, utility is extracted from the good) and is inseparable from this process. So, e.g., the production of such a basic good as "satiety", "food satisfaction", which is itself an element of the utility function, is preceded by the production of an intermediate good - cooking dinner, during which resources such as time and goods (products) acquired, produced within the household or received in any other way. The final basic goods, being directly elements of the utility function of the household, are produced in the process of consumption of goods and intermediate ("pre-basic") goods.

Within the framework of the production function of the household, the human potential, its physical, spiritual, moral, intellectual, professional and social components are largely reproduced. As a comprehensive, most important function of the family household, it essentially incorporates all sub-functions, implemented mainly through consumer behavior.

Full satisfaction of needs also determines the formation of human potential. Income levels influence household consumption patterns over the life cycle and their relationship to the hierarchy of individual needs. Thus, the lower the household income, the greater the proportion of spending on food and other basic needs and the lower the discretionary expenditure on other consumer goods.

The vast majority of household consumption is essentially productive consumption aimed at the reproduction and accumulation of human potential of households. The "resource approach" implies further realization of this potential as a resource, a human capital, first of all, in the labor markets. Here we can draw an analogy with the perception of households as sources of energy. The "market approach" to household analysis is nothing more than the implementation of the principle of economic efficiency: the household is the subjects of a market economy like a "battery cells" that consume (accumulate) energy, and then act as carriers of the potential of the energy that goes to the expenditure for the needs of physical or intellectual labor. These "batteries" have a certain life cycle, reaching the maximum performance in a designated period, and inevitably lose efficiency by the end of the cycle as the energy carrier deteriorates. They require regular "recharging" and associated additional costs, may fail in whole or in part. The problem of optimization of such expenses within the "market approach" is obvious, and it comes down to prevent overspending, to search of the optimal value of specific costs per unit of energy received.

Thus, the market sets the following basic parameters of household development: the volume of human capital of a household, household income and household consumption.

At the same time, the new economy, as the transition to a service-based economy, meet the consumerization of society. This has far-reaching consequences for human development and changes in a person as a creative person, as a producer, as a consumer. Due to such changes, abilities in the sphere of consumer activity complement the concept of "human potential". So, the realization of consumer potential in the new economy is based on the part of human potential, which is reproduced in the form of consumer capital.

Consumption is a form of realization of the social structure of society. It is in the sphere of consumption that the socio-economic relations developing in society manifest themselves. Thus, the polarization of consumption characteristics typical for the transformational Russian economy is only an external manifestation of the socio-economic processes that took place at the previous stages.

Consumer behavior is a mechanism that allows consumption, understood as the process of meeting needs using goods and services for this purpose. Consumer behavior consists of: 1) the phase of "pre-action" (awareness of needs); 2) the phase of consumer action to acquire goods (search and receive benefits); 3) the phases of obtaining consumer satisfaction (effect).

Socio-economic differentiation of households is manifested primarily in the differentiation of the characteristics of the second (main) phase, in the differentiation of the level and structure of consumption itself, as well as in the differentiation of the characteristics of the consumer potential of the family, determined primarily by income. At the same time, the conditions for the growth of the consumer potential of the household and its effective realization are not only the creation of macroeconomic conditions for the growth of its real incomes, but also an increase in the culture of consumption of the family.

Consumer behavior of the population of Russia does not fit entirely into the framework of standard consumption theories and has certain characteristics. One of them is a very high marginal propensity to consume, which follows from the results of our calculations presented in Fig. 1.



Fig. 1. The marginal propensity to consume of the population of Russia in the 2000s.

In addition, as can be seen from Fig. 1, during periods of crisis, there are "peaks" of the propensity to consume. This indicates a low level of real incomes of a significant part of the Russia's population, forcing people to direct the income growth mainly to consumer spending and not allowing them to make savings. During periods of stabilization of the economic

situation in Russia, the marginal propensity to consume decreases, allowing the population to save part of their income.

For countries with developed, stable economies, the concept of permanent income is adequate to describe the household consumption function, according to which the household consumption behavior is described by a function based on current and expected future income.

The instability of the economic situation, the lack of a long-term strategy of transformation, a consistent and even any clear social policy of the state, which would include social shock absorbers of decisions, as well as the associated prevalence of low-income households in the social structure of Russia that have only current income and are not able to rely firmly on any other sources of funds (securities, loans, etc.), make the concept of permanent (permanent) income little relevant to the conditions of the transformational economy of Russia. It seems that for these conditions, the consumption function can be defined according to the Keynesian approach, i.e. based on current income.

Table 1 presents data on consumer spending and income of the population, acting at the macro level as income and expenditure of the household sector. As can be seen from table 1, the dynamics of income and expenditure are very similar, which allows to conclude that it is possible to determine the function of consumption in relation to the Russian conditions of a crisis economy.

TABLE I. DYNAMICS OF HOUSEHOLD INCOME AND CONSUMER SPENDING IN 2001-2015 (BILLION RUBLES)

	2001	2002	2003	2004	2005
Household disposable income	4667	6279	7657	9615	11968
Expenditures on purchase of goods and payments for services	3951	5001,8	6094	7867	9999
	2006	2007	2008	2009	2010
Household disposable income	14843	18316	22284	24252	28025
Expenditures on purchase of goods and payments for services	12257	15172	19038	19979	22128
	2011	2012	2013	2014	2015
Household disposable income	31652	36793	40848	45707	47893
Expenditures on purchase of goods and payments for services	25970	29462	32827	34997	36195

Based on the assumption made about the definition of the function of consumption by current income and using the data provided, we construct the consumption function of Russian households in 2001-2015 (1):

$$C = 672 + 0,8Y \quad (1)$$

$$\alpha + \beta = \chi. \quad (1)$$

C – consumer spending,

Y – income.

The graph of the consumption function is shown in Fig. 2.

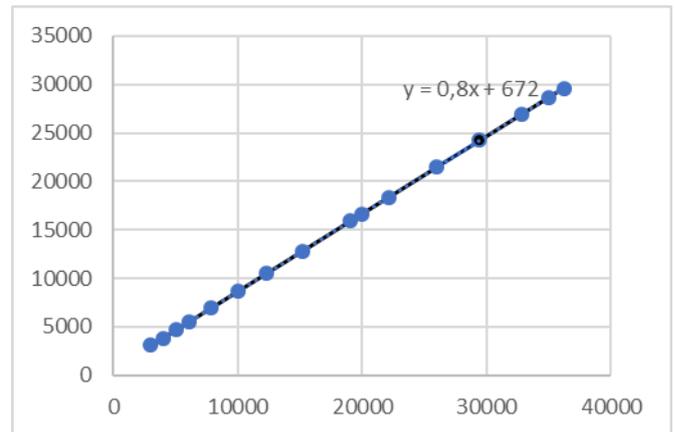


Fig. 2. The function of household consumption in Russia in 2001-2015

Thus, the consumption of Russian households in an unstable economic situation can be represented as a standard Keynesian consumption function. The relationship between income and consumer spending is clear. The marginal propensity to consume, calculated from current income, generally fluctuates between 0.7 and 0.9 over the years. This means that with the growth of income per unit, the increase in consumer spending of the population is 0.7-0.9. Rather high values of these indicators are explained by the conditions of the crisis period, namely: inflation, inflationary expectations of the population, the lack of reliable ways to store savings, etc., as well as under-consumption in the previous period, the desire to catch up in consumption.

#### IV. PRACTICAL SIGNIFICANCE, SUGGESTIONS AND CASE STUDIES, THE RESULTS OF EXPERIMENTS

As household income grows, the propensity to spend on food and other necessities tends to decrease, while the share of the family budget spent on such items as clothing and footwear, private transport and education tends to increase. According to the Federal State Statistics Service of Russia [14], the most expensive part of the household budget is spending on food. Food expenses in families with different composition are as follows (2016): in families with one child – 34%, with two children – 37%, with three or more children – 40% of the total expenditure on end-use consumption. Nonfood expenses are 38% in families with 1 child, 37% in families with 2 children and 37% of the total expenditures for end-use consumption in families with 3 or more children. As can be seen, large families spend a significant part of their expenses on food.

In turn, a number of ambiguous socio-economic consequences at the macro level accompanies excessive socio-economic differentiation of households. Thus, the low level of income and consumption of the bulk of the Russian population causes a narrowing of the final demand for goods and services, limiting the development of domestic production, since it

dynamics follows the dynamics of demand. The structure of sales is shifting towards more expensive imported goods, which are demanded by wealthy consumers. The weakening of incentives for the development of domestic production and the domestic market is fraught with the threat of turning the country into a "raw materials appendage" of developed economies. The same factor, since it is associated with low wages, reduces labor motivation, contributes to the underestimation of the role of labor, especially – intellectual, in modern production, not allowing the full use of human potential, constraining the innovative development of the economy.

The outrunning growth of the wealthiest households' income leads to an accelerated consumption of the existing economic potential due to a huge share of primary income of the population groups in GDP, which receive them mainly from property (the hidden form of income from capital is also the income of top managers) and in many ways having a rental character. High personal incomes in combination with the growth of tariffs of natural monopolies contribute to the growth of costs. As a result, the share of profits in GDP falls, the profitability of production and the competitiveness of products decrease.

## V. CONCLUSIONS (RESULTS)

Household produces basic consumer goods included in its utility function. Reproduction of the human potential, its physical, spiritual, moral, intellectual, professional and social components is the basic part of the production function of the household. Due to under-consumption, the quality of human potential suffers. Most of the household consumption is a productive consumption aimed at the reproduction and accumulation of the household's human potential. Consumer activity in the new economy complement the concept of "human potential" through the realization of consumer potential, which is reproduced in the form of consumer capital. Consumer potential of the household determined primarily by income. In the case of Russian transitional economy, the polarization of consumption characteristics is only an external manifestation of the socio-economic processes took place at the previous stages of economic development. Consumer behavior of the population of Russia shows a very high marginal propensity to consume. We construct the consumption function of Russian households in 2001-2015 and it demonstrates that the consumption of Russian households in an unstable economic situation represents as a standard Keynesian consumption function. A low level of real incomes forces people to direct the income growth mainly to consumer spending. During periods of stabilization of the economic situation in Russia, the marginal propensity to consume decreases.

## VI. DISCUSSION

It is difficult to overestimate the importance of consumer potential and human development for the new economy. Due to under-consumption, human potential depletes and degrades, and its quality suffers. Its destruction at the household level due to the impossibility of full reproduction, expressed in the deterioration of its quality parameters – health, education, etc. – turns into a drop in the

quality of the labor potential of the population, and in the quality of human capital as a function of human potential. Loss of health, professional, cultural and educational level, lack of funds for recreation and healthy nutrition undermine the ability to work effectively. Human potential irreparable degrades both in terms of its demographic and physiological characteristics, and in terms of its social quality, the adverse characteristics of which can be embitterment, aggression and apathy, increasing disintegration of society, growing division of generations. There is a growing potential for discontent and the sense of social injustice is growing stronger, which are signs of a split in society, and it does not contribute to strengthening of socio-economic stability. Obviously, exceeding certain limits of social stratification not only becomes a catalyst for social tension, but also generates a powerful feedback like "social injustice – economic inefficiency".

A striking manifestation of the growing socio-economic differentiation in Russia is the level and dynamics of poverty. Needy families and poor people are placed in conditions in which their consumer behavior is determined by the necessity of survival, resulting in the expenditure of almost all resources available for current consumption. These social groups do practically not implement savings behavior, largely determined by consumer behavior. As a result, the investment potential of the economy decreases, triggering a mechanism of economic compression.

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