

# *Financial potential of regional population in the Volgograd region: nature and assessment*

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**Abstract** — A human is the goal, the tool the incentive and the resource of territorial development in socially oriented systems. The regional differentiation is quite strong, due to a large size of the country and an uneven distribution of population in agglomerations. As an indicator of the role and the contribution of public finances to the regional economy we can take the potential of the finances of the population. The understanding of the financial potential of a region's population is given by the authors within the frameworks of a general approach to the content and the nature of the population finances as a modern school of domestic financial science. The article proposes to analyze the place and the role of the participation of the region's finances in consumer relations, taxation system and entrepreneurship in the financial sector. The goal of the research is to develop an algorithm for the assessment of various types of financial potential of regional population. The authors reveal the additional nature of financial potential of region's population, highlighting its types (consumer, taxation, budgetary, entrepreneurial, investment and saving potentials), and offer specific ways to measure and evaluate them. However it is impossible to calculate the general level of financial potential of the population simply arithmetically due to the interdependence and mobility of its elements (in particular, of business, investment and savings potentials). The authors consistently calculate consumer, tax, budget, savings' and investment potentials using as the example the population finances of the Volgograd region. The obtained results allowed defining precisely the main stages of activation of potential incorporated in the population finances of the Volgograd region. A three stage algorithm based on the results of research is suggested for use. This article is a continuation of the authors' research in the field of population's finance. The authors' results allow expanding the understanding of the role of population finances in the economy of the region and the country and their balanced assessment and activation contribute to the use of previously unused financial

resources in the development of the regional economy. A further development of the topic is seen by the authors in the development of assessment methods of the potential of regional population finances.

**Keywords** — *finances of population, regional development, potential of population finances, financial potential of population, Volgograd region*

## I. INTRODUCTION

The highly relevant for Russia issue of regional development requires the search for new innovative solutions in which the emphasis would be placed on the activation of not only traditional external resources (attracting foreign investment and financing), but also domestic ones based primarily on the human factor and its financial expression which is the finances of the regional population. Under the conditions of the increasing mobility of the population and consequently the territorial mobility of their incomes, expenditures, savings, taxes, social liabilities in the budgets of various levels the regions are forced to compete severely for the tax receipts.

In the economic science only specific aspects of the relationship of population finances with fiscal, budgetary, financial, credit and entrepreneurial environment of the region are studied. However the comprehensive studies of the financial potential of the population lack.

For the financial science the finance of population is a new school of research. This fact can be explained by the historical development of the finance theory which was firstly formed in the theories of public finance then it developed into corporate finance theories. The development of credit, non-cash

payments, the complication of a person's financial relations, the absence of state's paternalism in the field of public finances lead to the demand for and appearance of a new direction of financial science which studies the human conduct as a basic bearer of financial relations [1].

The finances in relation to a person as an economic entity are studied by the researchers in three ways. The population finances are studied by Lushin S.I. [2], Glukhov V.V. [3], Mytareva L.A., Grigorieva L.V. [4]. The finances of a household or family are analyzed by Abramova M.A., Markina, E.V. [5], Babich A.M., Pavlova, L.N. [6], Matchkulak I.D., [7], Polyak G.B. [8], Glukhov V.V. [9], Zemtsov A.A., Osipova T.Yu. [10] and others. The personal finances are studied by Galanov A.V. [11], Slepov V.A., Ekshembiyev R.S. [12], Babkina E.V. [13], Bondareva S.A. [14] and by some others.

Such approaches correspond to macro-, micro-, and nano-levels of research. The most general level of research is population finances which include the macro level or household sector of finances, the micro level or family finances, the nano-level or personal finances (for more information read the works of the authors Mytareva L.A [15] and Grigorieva L.V [4].

Correspondingly, bearer of financial relations is the activity of a human in the economy in three forms. It is the complex of population in a specific region, households living in the specific region.

Accordingly, financial relations are determined by the triple manifestation of a person in the economy (population, households and individuals of a particular territory), a group of individuals (physical persons) living in the given area.

The purpose of the article is to identify the nature and possibilities of assessing the financial potential of the population of the region using as the example the Volgograd region.

## II. MATERIALS AND METHODS (MODEL)

The theoretical basis of research were the works of foreign and Russian scientists devoted to general issues of theory and practice of public finances; household and personal finances; issues of improving the efficiency of transformation of savings of Russian citizens into investments; analysis of household financial behavior; theoretical and practical aspects of financial potential formation of Russian citizens and some others.

The informational and empirical basis of research were the results of sample surveys of financial activity of the Russian citizens, data of Federal Service for State Statistics, Common Interdepartmental Information and Statistic System, Central Bank, Federal Tax Service of Russia, economic scientific papers, Internet resources.

The methodological basis of research became the methods of logical, economic, statistic, structural and functional analysis. For a practical analysis the dynamic approach, tabular and graphical methods, methods of induction and deduction were used.

## III. RESULTS AND DISCUSSION

The article clarifies the definition of the financial potential of regional population as the ability of population finances to generate cash flow movement from the population to population which influences the economic development of the region. The ways of the calculation of fiscal and budgetary potentials of the regional population finances are suggested. It is proposed to assess the tax potential of regional finances through the interrelation of the tax burden and the efficiency of tax revenues of the budgetary system. It was suggested to assess the budgetary potential of population finances through three elements (potentials for social transfers, consumption of public goods, formation of state social non budgetary funds). The road map of activation of financial potential use of population finances in the Volgograd region is used. It is founded on traditional and innovative instruments.

### A. *Finances and financial potential of regional population*

The bearer or the subject and object of financial relations are the triple activity of an individual in the economy or the set of the population living in this territory (population in general, households and individuals of physical persons).

The population (households, individuals) and their economic relations will be analyzed in three aspects of social and economic system "bearers of population finances (population, households, individuals), organizations (including financial, entrepreneurial and non commercial ones) and government (public and municipal sector).

In this system the population (households, individuals) simultaneously play the role of both the primary and the closing chain and for this there are at least three reasons. 1) The laws of the market economy are regulated by supply and demand and the demand is formed on the basis of consumption, and the share of the population is more 2/3 of this consumption [16]. 2) The initial resource and the main factor of production is labor, the bearer of which is an individual, whose reproduction and life are ensured in the family, in the household [2]. 3) The ultimate owner of all resources in the economy is a person (collectively for public property and personally for private property) (by the author Mytareva L.A. [17].

The population finances are "the set of human relations living in an area (country, region, city), among themselves and with the government, organizations and financial intermediaries (banks, insurance companies, investment companies, pension funds and others) which result in the formation, distribution, redistribution and use of household and personal funds of individuals"[17].

The definition of the financial potential of population (the potential of the population finances) is based on the category of potential.

It is possible to analyze the potential from the point of view of the structural [1], resource and mixed approaches. In the first case the potential is studied through the set of elements included in it. In the second case the potential is characterized by the resources and capabilities and by something which has not been realized yet but under

appropriate conditions it can be realized [18]. In the third case the structural and resource approaches are combined [20].

The article analyzed the financial potential of the population from the point of view of a mixed approach as the maximum possible amount of participation of financial resources of population of a specific territory in the financial relation with the state and organizations.

Under such approach in the structure of financial potential the various groups of financial relations and corresponding types of financial potential are identified: consumer, fiscal, entrepreneurial, budgetary, investment and saving potentials according to types of contractors. The identified types of financial potential of the population are interconnected, interdependent and mobile, what is determined by the circulation of incomes and expenditures of the population.

**B. Assessment of the population financial potential of the Volgograd region**

Regional tax potential is the financial resources of the population, which is subject to accumulation into the budgets of all levels through tax payments in accordance with the tax system.

The fiscal potential of regional population is the financial resources of the population which are expected to be accumulated in the regional budget through tax payments in compliance with the existing tax system. The tax potential of the Volgograd region is calculated according to the author's methodology (by the author L. Grigorieva) through the assessment of the tax burden.

$$TaxP = APT + AIT \times K + Tunpd \quad (1)$$

where: APT - accrued personal taxes; AIT - accrued indirect taxes; Tunpd - unpaid taxes by individuals for previous periods; K - the coefficient of indirect tax share paid by the population according to the calculations of S.V. Barulin, E.A. Ermakova and V.V. Stepanenko [20] and which is equal to 0.7.

TABLE I. FISCAL POTENTIAL OF THE POPULATION OF THE VOLGOGRAD REGION, BILLION RUBLES

Indicator Year	APT	AIT	Tunpd	TaxP
2015	28,58	39,68	1,88	58,23
2016	29,68	42,28	2,32	61,60
2017	32,50	55,08	2,87	73,93

Note: calculated according to the data of the Federal Tax Service of the Russian Federation

The budgetary potential of population finances in the Volgograd region can be assessed by three indicators: potential of social transfers (Pstrf), potential of consumption of public goods (Pconpbg), potential of formation of state social non budgetary funds (Pnbdtf)

$$Pstrf = Np_1 \times Sst_1 + Np_2 \times Sst_2 + \dots + Np_n \times Sst_n \quad (2)$$

where: 1, 2 ..... n - types of social transfer to the population; Np - the number of people receiving a particular social transfer; Sst - the size of a specific social transfer per a recipient.

$$Pconpbg = RBexp - RBst \quad (3)$$

where: RBexp - all expenses of regional consolidated budget; RBst - expenditures of the region consolidated budget for social transfers taken into account when calculating the budgetary potential of the population for social transfers.

$$Pnbdtf = \sum IP + \sum IIP \quad (4)$$

where:  $\sum IP$  - the amount of insurance premiums received by to the government social non budgetary funds in a specific territory;  $\sum IIP$  - the amount of the indebtedness of insurance premiums in the region under analysis.

As we can see in Figure 1 the largest part of budgetary potential of the residents of the Volgograd region is provided by the consumption of public goods. The second place is taken by the formation of state non budgetary funds. The third place has the consumption by the population of social transfers.

Region's finance consumer potential is a set of financial resources that can be directed to consumer spending. So it can be argued that the limit of this potential is determined by household income, including credit resources, free cash, as well as savings, investments and property .

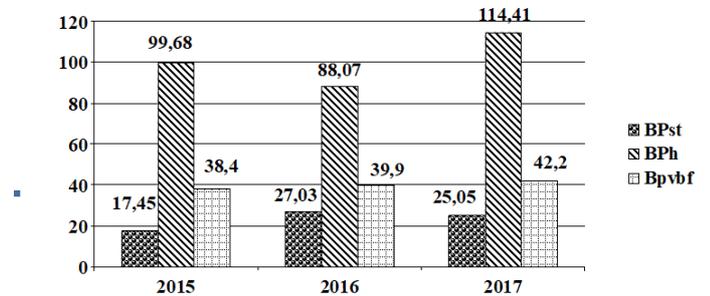


Fig. 1. The budgetary potential of the population of the Volgograd region, billion rubles.

Note: calculated according to the data of the Federal Service for State Statistics of the Russian Federation

The consumer potential of regional population is a set of financial resources that can be directed by the population to consumer expenditures. Thus, it can be stated that the limit of this potential is determined by household incomes including the credit resources, cash, and also savings, investments and property. The latter with various speeds can become the incomes after the sale.

This kind of potential should be calculated on the basis of the structure of the income use by the population. It has been empirically proved that the Russian population spends no more than 80-90% of their income for consumption.

Consequently the calculation of the consumer potential (Pcon) will be limited by the ultimate value of the share of income spent on consumption (90%) (coefficient Kc).

$$Pcon = I_p \times k_c \quad (5)$$

where:  $I_p$  is all the incomes of the population calculated according to all the revenues sources in a specific region;  $k_c$  – coefficient of income consumption and it is equal 0,9.

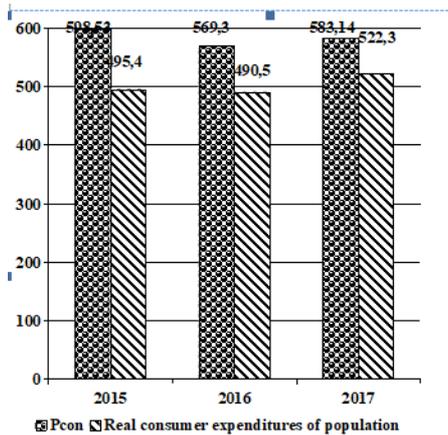


Fig. 2. Consumer potential of the population of the Volgograd region, billion rubles.

Note: calculated according to the data of the Federal Service for State Statistics of the Russian Federation

The investment and savings potential (Pis) of the region is a combination of its financial resources that can be used as savings and investments. The maximum amount of such potential is also limited by the population incomes and more precisely by the temporarily free financial resources that were not directed to the current consumption. This kind of potential is closely related to the *entrepreneurial potential* (Pentr) of population finances which is understood as a set of financial resources that can be effectively mobilized into the sphere of private entrepreneurship in the “population-entrepreneurship” system.

It is important to note that these two potentials depending on personal (or family) goals seem to be “competing” among themselves for temporarily free financial resources within the household. Therefore, it is necessary to calculate in the beginning the amount of potentially free funds of the population.

$$\text{Potentially free financial resources} = I_p \times K_{ffr} \quad (6)$$

where:  $I_p$  is all incomes of the population calculated on all sources of income;  $K_{ffr}$  - the coefficient of temporarily free financial resources which is equal 0.1.

In order to determine the volume of investment, saving and entrepreneurial potentials (Pis), the following rule should be observed:

$$\text{Potentially free financial resources} = Pcon + Pis \quad (7)$$

During the research it was stated that none of the services providing the statistical data gathers the reports of firms and individual entrepreneurs in part of sums of personal funds of population spend by the population on entrepreneurial activity and, consequently there is no opportunity of determining a real volume of this potential.

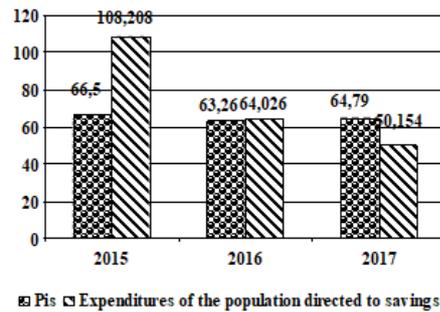


Fig. 3. Comparison of investment and savings potential of the population of the Volgograd region and real expenditures of the population used for savings and investments, billion rubles.

Note: calculated according to the data of the Federal State Statistics Service of the Russian Federation

### C. Activation of the financial potential of regional population

Traditionally territorial development (theory of Leksin V.N. and Shvetsov A.N.) refers to such a mode of regional system functioning, which is focused on the positive dynamics of population life quality ensured by a sustainable, balanced and mutually non-destructive reproduction of social, economic, resource and environmental potentials of the territory [17].

When analyzing the existing types of potentials of population finances it is necessary to take into account their interrelation and interdependence (mutual determination in the authors' terminology).

The development of consumer potential of the regional population finances makes it possible to increase the scale of production and to stimulate the development of branches of the national economy. At the same time the consumer potential has an indirect impact on the tax potential. This is due to the fact that in the process of consumption the cost of goods includes taxes on consumption (VAT, excises). Also the consumption of special types of goods, which form later the individual property make the basis for property taxes.

The increase in tax potential has a positive impact on the regional budget (budgetary potential).

The investment, saving and entrepreneurial potentials of population finances can become the main drivers of the regional development.

The attractiveness of using the investment and savings potential of population finances consists in the fact that the population is a provider of finances for financial institutions, which then redirect them to the development of the economy.

The activation of use of financial potential of the population of the Volgograd region population's should take place in three stages.

TABLE II. STAGES OF ENHANCING THE FINANCIAL POTENTIAL OF THE POPULATION OF THE VOLGOGRAD REGION

Stage	Involved Potentials of Population Finances	Measure Characteristic
Stage 1	Investment and Saving Potential	<i>Development of regional investment and savings infrastructure:</i> Encouragement of regional banks creation, insurance companies, non-governmental pension funds, consumer credit cooperatives of citizens as the most accessible institutions for the generation of investments and savings
	Entrepreneurial Potential	<i>Support of the development of entrepreneurship (entrepreneurial potential) through:</i> tax regulation; direct financial support; creation of a regional crowd funding investment site
Stage 2	Consumer Potential	<i>Creation of a full trade infrastructure from small businesses (wide range)</i>
Stage 3	Fiscal Potential	<i>Revision of the regional fiscal system</i>
	Budgetary Potential	<i>Revision of regional and local social benefits and social securities for specific groups of citizens</i>

At the first stage it is necessary to form a regional investment and savings infrastructure allowing to involve the population savings into the regional economy (Table 2). At the same time it is necessary to continue improving the programs of small private entrepreneurship support.

At the second stage the focus will be on the development of consumer potential of the population, since the citizens will get a developed trade infrastructure due to the development of the entrepreneurship.

At the third stage the potential increase of household incomes will allow expanding the fiscal potential of population finances.

Taking into account the mutual determinism of financial potential types of the population finances, its total amount cannot be calculated just by the arithmetic addition of the calculated values for each of the types.

#### IV. CONCLUSION

A. *A retrospective analysis of the current volume of financial potential of the regional population of the Volgograd region according to its types showed:*

- the annual growth of the fiscal potential of the population finances of the Volgograd region due to the growth of personal taxes levied from local residents and an increase in the amounts of taxes on the consumption of goods and services. By the end of 2016 the tax potential of the population grew by 5,78%, and in 2017 the increase was 20,01%;

- problems of the insufficient data were found while calculating the budgetary potential. It was assumed that in terms of social transfers the expenditures of the consolidated budget of the Volgograd region for social benefits are taken into account. According to the calculation results it was revealed that the largest part of the budgetary potential is the consumption by the population of public goods which grew by the end of 2017.

- the assessment of consumer potential of the population of the Volgograd region demonstrates the fact that this potential was actually higher than the already consumed expenditures of the population. So there is the possibility of its encouragement.

- when assessing the investment and savings potential of finance and comparing the calculated indicator with the level of income of the population used for savings and investments, it was revealed that the investment and savings potential was used fully only in 2015 and 2016, and by the end of 2017 it did not reach the limit due to an increase in the share of consumption in the structure of expenditures of the population.

B. *Activation of use of financial potential of the population of the Volgograd region*

The analysis of the ways to enhance the use of financial potential of the population which are directed to the growth of the regional development revealed the need for a harmonious interaction of all authorities at the federal, regional and local levels. This is due to the fact that the independence of the regions in taking administrative decisions is small and is limited by the federal law. This circumstance prevents them from using all available development mechanisms.

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