Dependence of Russia’s gross domestic product on consolidated budget expenditures
The article is devoted to the most pressing issues of social development at the modern stage. It is considered social activities of states, which was formed into an autonomous system of government functions. It is noted that in the structure of spending priorities shift toward funding of national defense, social policy and the national economy, while funding for health and education slows down. This paper examines the impact of expenses of the Consolidated budget of the Russian Federation in the gross domestic product.

KEYWORDS: Public policy, social policy, state budget, consolidated budget, gross domestic product.

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RESUMEN

El artículo está dedicado a los temas más urgentes del desarrollo social en la etapa moderna. Se considera actividades sociales de los estados, que se formó en un sistema autónomo de funciones de gobierno. Se observa que en la estructura del gasto las prioridades se desplazan hacia el financiamiento de la defensa nacional, la política social y la economía nacional, mientras que el financiamiento para la salud y la educación se ralentiza. Este documento examina el impacto de los gastos del presupuesto consolidado de la Federación de Rusia en el producto interno bruto.

PALABRAS CLAVE: política pública, política social, presupuesto estatal, presupuesto consolidado, producto interno bruto.

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INTRODUCTION

The social policy of the state is becoming a critical question of social development at the modern stage. In the conditions of deterioration of the socio-economic situation the discussions about efficiency of the modern state are gaining more actuality. The volume of critics, denoting the expensiveness of bureaucratic apparatus, which cannot manage with its duties, is increasing [1]. On the whole, it is noted that in difficult situations the state reduces its responsibilities in the social sphere and a lot of problems are solved, first of all, at the expense of the most vulnerable segment of the people: the living-wage is decreased, different payments are reduced, etc. [4]. Thereby, deterioration of the socio-economic situation in the background of increasing contradictions about efficiency of national finances usage is disguised. Moreover, the question about necessity to define new calls of budget politics is stated [9-11].

However, the essence of these problems escapes our attention that is conditioned with absence of clear understanding what the modern state is and what functions it has. Despite the fact that the theory of the state has a long history of development, there is no single, generally recognized definition of the notion «state» neither in the world science nor in the international law. The state is usually defined in the context of the regulation, fixed at Pan-American conference in the Convention of Montevideo in 1933. According this regulation the state should have four features: constant population, definite territory, own government and ability to have relationships with other states [3]. But even the general recognition of this regulation has not decreased level of the debates around the observing question. The state, being socio-political phenomenon, has quite difficult and contradictory, constantly changing with the course of time, character. As a result, during last decades many scientific studies appeared where the scientists tried to give their own interpretations of the essence and the content of «state». Theological, patriarchal, contractual, patrimonial, class theory, theory of violence, etc. were developed.

METHODS

The methodology was built on the systematic approach, complemented by theoretical and empirical generalizations, statistical groups method, calculation and design method, functional and structured analysis, expert method, graphical visualization method.

RESULTS AND DISCUSSION

In the modern conditions of social development the social aspects are in the foreground. The development of the social component, providing the smoothing down of different socio-economic contradictions and defense of the most vulnerable segment of the people, let reach the compromise during unifying groups, which are different by social status, into the united community – the state.

At that, at the early stages of historical development of the state the social activity was not priority-driven. It had been developing with time during the process of state reinforcement. The certain goals, having quite general character and aimed onto quite large groups of the population, appeared and fixed. Reaching of the set goals was ensured with the issue of separate state acts and corresponding development of the social institutions. And only from the middle of XIX century the social activity of the developed countries formed into the independent system of state functions: political, juridical and economic. Finally, by the end of the XX century nearly all of the developed and developing countries had obtained the similar system [6].

As a result, the social system of the modern state provides the smoothing of the negative socio-economic phenomenon with the help of guaranteed provision of every member of the community with the minimum of goods, necessary for life. This minimum is defined with the peculiarities of a country: territory, climate, amount of the population, character of the social system, ideology and practical activity of the ruling groups, political situation, level of the economic development, national specifics, cultural stereotypes of behavior. Moreover, social system of the modern state is becoming more orientated on the raise of welfare.
of the population and provision of high level of life, which is expressed in indicators of income, employment, health, accommodation, education, culture, ecology, etc.

The functioning of the social system is ensured within realization of the social policy of the state. The social policy regulates the social goods production according to the volume and structure of population needs. The main way of realization of the social policy is applying of different normative, legal, economical, financial, socio-psychological, organizational-technical, informational and other instruments. All of them influence on the income distribution of the population, the employment regulation, the improvement of working skills, the raise of level of health, culture and education, development of the social infrastructure and the social provision.

The modern social policy proceeds from the fact, that every person must take part in preserving own and social welfare within his powers. This problem is solved with the help of the redistribution of the primary income of the population. For this purpose the state, firstly, ensures taking-out a part of the primary income by fixing different taxes, insurance deductions and other obligatory payments. Secondly, it states the minimal level of salary and other parameters of salary and defines the income sources for the disabled groups of the population. Also, it forms the financial funds for different socially-orientated programs [7]. For example, the main section of the mechanism of the state support of the disabled people is the system of the social provision, represented with the social insurance and the public compassionate benefit. Within the frames of the social insurance compensation of material losses, which are induced by temporary or constant disability, connecting with age, disease or industrial injury, is provided by means of pension payments, sick-list payments, unemployment allowances, etc. The financing of the social insurance is realized at the expense of obligatory purposeful fees from workers' salaries, paying by an employer from the wage fund. Within the state compassionate benefit the support of economically inactive population and the participants of the public production, whose income is lower than the minimum of subsistence is ensured by means of regular cash payments, various natural help and individual social services. The state compassionate benefit financing is realized at the expense of the state budget, which is formed within the redistribution of the primary income of the population.

We can give another example – the regulation of the population employment within the frame of the state social policy realization. Thus, the key problems here are the employment of all the citizens, looking for a job and being ready to start work; the supplying every potential worker with the freedom of choice for any kind of activity and, also, the organization of corresponding special training; the provision with favorable working conditions for productive usage of worker's skills; the reaching maximal productivity and labour productivity, etc. At that, it is necessary to ensure the regulation of the employment sphere with the aim to reduce the negative influence of the short-term changes of macroeconomic current state of affairs. Also, it is important to form the long-term directions of the working capital development with maintenance of the proportions by branches, professions, qualifications and other socio-economic parameters according to the tendencies of the socio-economic evolution. For this purpose the state develops the special programs, uses the definite mechanisms and instruments, including the ones directed on the development of different branches (education, health care, culture, etc.). Their financing is guaranteed due to the money, which were got during the redistribution of a part of the primary income of the population.

Thus, it is becoming clear that the formation of the centralized money funds is fulfilled with the help of exempt (during the process of taxation or obligatory purposeful fees or the realization other obligatory payments) of money means of the population. The state uses these funds for the social policy conduct, which realization concerns the questions of the immediate income redistribution among different segments of the people and the questions of the development of different branches. As a rule, the branches, providing social goods, in this case, are of the priority importance. They are general and professional education; recovery of one's health; provision with accommodation, transport and another social infrastructure; environmental conservation, etc. As a result, the modern state fills in with the content of the first-hand customer-producer of specific social goods.
As it is known, the main element of realization of the state policy is the budget system. The analysis of the structure of expenses of the Consolidated budget in the Russian Federation in 2015 (Figure 1) let us notice that about 1/3 of the resources from the public fund goes for the realization of the social policy. In absolute expression 10.5 trillion rubles were used for this purpose in 2015, most part of them – 7 trillion rubles - was directed to the pension provision, presupposing the deficit financing of the Russian Pension Fund. Also about 2.1 milliard rubles were spent on the social provision of the population. About 500 milliard rubles – for the family and child care. 250 billion rubles – for the applied scientific investigations in the sphere of the social policy. Also, 600 billion rubles – for other problems in the sphere of the social policy.

Figure 1. The structure of expenses of the Consolidated budget in the Russian Federation in 2015 (the diagram is calculated and built-up by the author on the base of data: The Consolidated budget of the Russian Federation and budgets of state off-budget funds [Electronic resource]// Federal Treasury: official site of Russian Treasury. URL: http://www.roskazna.ru/ispolnenie-byudzhetov/konsolidirovannyj-byudzhet/ (date of appeal: 15.12.2016)) (See Annexes)

Also, the analysis of the structure of the Consolidated budget in the Russian Federation during 2015 let us distinguish some other important directions. There are four of them: national economics and national defense, and, also, health care and education. For every mentioned direction the state gave from 10.2% to 12.7% of the aggregate volume of the Consolidated budget, that in absolute expression made up sums from 3.0 to 3.8 trillion rubles. At that, within the expenses on the national economics (3.8 trillion rubles) the main item of the expenses was the financing of the road economy (1.2 trillion rubles). Also, 360 milliard rubles were given to the transport economy and 360 milliard rubles were for the agriculture. About 890 milliard rubles were spent on the other problems in the national economics. Within the expenses on the national defense (3.2 trillion rubles) the key direction was the financing of the armed forces of the Russian Federation – 2.4 trillion rubles. Within the expenses on the health care (3.1 trillion rubles) the volume of financing (2.1 trillion rubles) was spent on the item other problems in the sphere of the health care. Within the expenses on the education (3.0 trillion rubles) the main volume of financing was directed to the general education (1.4 trillion rubles). About 700 billion rubles were directed to the financing of the pre-school education. 500 billion rubles - to the high and post-graduate education.

At that, during the period from 2006 to 2015, the aggregate volume of the expenses of the Consolidated budget in the Russian Federation, with corrections according to the inflation rate, increased in 1.5 times (for 49.3%) – from 8.4 to 29.7 trillion rubles, in main market prices (Figure 2). The expenses on the national defense and the social policy practically doubled in size (on 95.9% and 86.8%, respectively).

Figure 2. Dynamics of the expenses of the Consolidated budget in the Russian Federation during the period from 2006 to 2015, with the corrections according to the inflation rate (the diagram is calculated and built up on the base of data: The Consolidated budget of the Russian Federation and budgets of state off-budget funds [Electronic resource]// Federal Treasury: official site of Russian Treasury. URL: http://www.roskazna.ru/ispolnenie-byudzhetov/konsolidirovannyj-byudzhet/ (date of appeal: 15.12.2016)) (See Annexes)

The expenses on the national economics increased more than in 1.5 (on 67.3). At the same time, the expenses on the health care increased only on 36.2% and the expenses on the education – 23.1%. Thus, the expenses on the housing and communal services, against the background of being conducted reforms and transfer of a large volume of the duties into the private sector, reduced in 1/3 (on 34.8%).

This dynamics illustrates the priorities in the question of the state governance. Thus, the key priority is the stable increase of the expenses of the state budget system. In average, during the observing period, they increased on 4.6% a year. At that, in the structure of the expenses the priorities are shifting to the side of the national defense financing, the social policy and the national economics. While the health care financing and the financing of the education are slowing down [4].
Figure 3. Dynamics of the GDP in the Russian Federation during the period from 2006 to 2015 with the corrections according to the inflation rate (the diagram was calculated and built up by the author on the base of data: National accounts: gross domestic product [Electronic resource]//Federal service of national statistics: official site. URL: http://www.gks.ru/wps/wcm/connect/rossstat_main/rosstat/ru/statistics/accounts/ (date of appeal: 15.12.2016)) (See Annexes)

Nevertheless the fact that the aggregate volume of the expenses of the Consolidated budget in the Russian Federation increased on 49.3% during the period from 2006 to 2015, the economics of the country grew up just on 26.2% (with the corrections according to the inflation rate) during the same period – from 26.9 to 80.8 trillion rubles in basis market prices (Figure 3). As a result, the aggregate volume of the state budget system, in comparative expression, rose from 31.1% to 36.8% GDP.

Table 1 – The chain levels of the GDP increase and the expenses of the Consolidated budget in the Russian Federation, with the corrections according to the inflation rate, in % by the previous year* *the table is calculated and made by the author on the base of data: The Consolidated budget of the Russian Federation and the budgets of state off-budget funds [Electronic resource]// Federal Treasury: official site of Russian Treasury. URL: http://www.roskazna.ru/ispolnenie-byudzhetov/konsolidirovannyy-byudzhet/ (date of appeal: 15.12.2016); National accounts: gross domestic product [Electronic resource]// Federal service of national statistics: official site. URL: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/accounts/ (date of appeal: 15.12.2016) (See Annexes)

At that background we are going to prove the hypothesis concerning the influence of the dynamics of the expenses of the Consolidated budget in the Russia Federation on the national economics. For this purpose we calculate a correlation between the levels of two rows of the dynamics. Taking into account the fact that both rows have linear dynamics, a false correlation between them can be stated. To exclude this fact the correlation should be calculated with the help of the chain increase values of the dynamics rows levels [2]. In the table 1 the values of the GDP growth levels and the expenses of the Consolidated budget in the Russian Federation are introduced. The prices data are corrected according to the inflation rate and expressed in the stable prices.

Figure 4. The diagram of dispersion, reflecting connection between the indicators of the chain GDP growth levels and the expenses of the Consolidated budget in the Russian Federation during the period from 2006 to 2015 (the diagram was calculated and built up by the author on the base of data: table 1) (See Annexes)

For calculation the correlation coefficient it is necessary, in advance, to conduct the evaluation of distribution of indicators values. We state the interconnection between them, on the plane with the aim to illuminate abnormal deviations from the average characteristics by the general aggregate. With this aim the diagram of dispersion was built up (Figure 4), where the growth values of the expenses of the Consolidated budget in the Russian Federation were laid on the abscissa axis (X). And on the ordinate axis (Y) – the values of the chain GDP growth. The visual analysis of the diagram lets mark out the point with coordinates (19.4;8.5), characterizing the growth of the investigating indicators in 2007, as an anomaly and exclude it from the further analysis.

On the base of the rest values aggregate we calculate the linear coefficient of the correlation. The calculation of the linear coefficient of the correlation is realized with the help of the formula, where [5]:

\[
 r = \frac{\sum (x-x)(y-y)}{\sqrt{\sum (x-x)^2 \sum (y-y)^2}}
\]

- – the factor feature, mediating the values of the indicator of the chain growth level of the Consolidated budget expenses in the Russian Federation;
- – the average value of aggregate factor feature values;
- – the resulting feature, theoretically depending on the factor feature, mediating the
values of the indicator of the chain growth level of the GDP;
- – the average value of the values aggregate of the resulting feature.

For the direct calculation we use table processor Microsoft Excel, function «KORREL». This function turns back the value of the linear coefficient of the correlation between the two ranges of cells, where the values of the investigating indicators are contained. In the result we get that:

\[ r_{x,y} = -0.6 \]

This value lets characterize the interconnection as the average negative. I.e. we can observe the connection negative by direction and average by reliability between the chain growth levels of the GDP and expenses of the Consolidated budget in the Russian Federation.

Thus, the increase of the expenses of the Consolidated budget in the Russian Federation can influence negatively on the dynamics of the national economics, that resulted in the decrease of the GDP. However, the question about reliability of the cause and the effect, defined with the hypothesis about interconnection of the mentioned indicators, appeared. In reality, the correlation analysis just gives the answer to the question about the existence of a connection between these two indicators. However, it does not let us judge unambiguously which indicator is the cause and which one is the effect.

Reasoning from it, for stating truth or falsity of the choice of the cause and the effect, it is necessary to remember that the budget process is based on the macroeconomic prediction. In the macroeconomic predictions, as a rule, we use the models with the most important characteristics of the socio-economic development, stated during several last years. So the models, using for macroeconomic prediction in the conditions of high levels of growth/reduction of the socio-economic indicators during one-two years, can introduce more optimistic/pessimistic predictions in comparison with the situation that will be in the real future [8].

We can observe this circumstance by examining information, introduced in the figure 5 and in the table 2. Thus, from the diagrams in the picture 5 we can see distinctly that the increase of the GDP in current year is followed by the increase of the expenses of the Consolidated budget next year, independently of the increase or the decrease of the GDP next year. Analogously, the decrease of the GDP in current year is followed by the decrease of the expenses of the Consolidated budget next year, independently from the dynamics of the GDP next year.

Figure 5. Interconnection between the dynamics of indicators of chain growth levels of the GDP and the expenses of the Consolidated budget in the Russian Federation during period from 2008 to 2014 (the diagram is calculated and built up by the author on the base of data: table 1) (See Annexes)

For example, the decrease of the GDP in 2009 was followed by the decrease of the expenses of the Consolidated budget in 2010, though early in 2010 the GDP grew up. Also, the growth of the GDP in 2010 and 2011 was followed by the growth of the state expenses in 2011-2012, despite the reduction of the GDP in 2012. And so on. This fact implies that at budgeting for next year the dynamics of the economics in current year is taken into account most of all. Then, the certain level of the expenses, directed on the prediction of the positive or negative dynamics of the GDP next year, is put into budget. Independently from the level of the budget system income, the expenses fixed for next year must be used. As a result, if economics reduces next years, the budget income is reduced as it is not enough for the provision of the fixed expenses. The deficit appears and the budget expenses reduce next year. In opposite case, the income surpasses the fixed expenses, the surplus appears, and the expenses increase next year.

Table 2 – Indicators of execution of the Consolidated budget in the Russian Federation in basis market prices, billion rub. **the table is calculated and made by the author on the base of data: The Consolidated budget of the Russian Federation and the budgets of state off-budget funds [Electronic resource]/ Federal Treasury: official site of Russian Treasury. URL: http://www.roskazna.ru/ispolnenie-byudzhetov/konsolidirovannyj-byudzhet/ (date of appeal: 15.12.2016) (See Annexes)
CONCLUSIONS

So it is necessary to correct the hypothesis about the influence of the expenses of the Consolidated budget in the Russian Federation on the GDP, which we formulated before. As a result, we get that just the volumes of the expenses of the budget system depend on the dynamics of economics, but not the opposite thing, as we built the precondition for the correlation investigation before. At that, if we conduct the additional investigation of this interconnection and suppose that the dynamics of the national economics next year depends on the level of the expenses of the Consolidated budget in the Russian Federation in current year, we shall state only the presence of a very weak connection (the coefficient of the linear correlation is about 0.3).

On the whole, it becomes evident that the task of the illumination of the resulting features with the aim to investigate its dependence from the level of the state expenses is not common. It is, to a greater extend, in the sphere of the indirect illumination and the investigation of the characteristics of separate socio-economic indicators with the aim to find out the development of tendencies taking into consideration the changing of the state financing factor.
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ANNEXES

The structure of the expenses of the Consolidated budget in the Russian Federation

- Social policy: 35.2%
- National economics: 12.7%
- National defense: 10.7%
- Health care: 10.5%
- Education: 10.2%
- Nationwide problems: 8.4%
- National security: 7.0%
- Housing and communal services: 5.3%
- Culture: 1.8%
- Environmental protection: 0.2%

Figure 1. The structure of expenses of the Consolidated budget in the Russian Federation in 2015 (the diagram is calculated and built up by the author on the base of data: The Consolidated budget of the Russian Federation and budgets of state off-budget funds (Electronic resource)/ Federal Treasury: official site of Russian Treasury. URL: http://www.zakaznu.ru/depminfin/obsyad/obsyad.html (date of appeal: 15.12.2016))

Dynamics of the expenses of the Consolidated budget in the Russian Federation

National defense: 195.9 billion rubles
Social policy: 86.8 billion rubles
National economics: 167.3 billion rubles
Health care: 136.2 billion rubles
Environmental protection: 129.4 billion rubles
Nationwide problems: 127.5 billion rubles
Education: 123.1 billion rubles
National security: 122.0 billion rubles
Culture: 116.2 billion rubles
Housing and communal services: 65.2 billion rubles

Growth levels, %

Expenses, billion rub.

Years

- Expenses, billion rub. in basis market prices
- Base growth levels of the expenses, in % by 2006
Table 1 – The chain levels of the GDP increase and the expenses of the Consolidated budget in the Russian Federation, with the corrections according to the inflation rate, in % by the previous year*

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Figure 4. The diagram of dispersion, reflecting connection between the indicators of the chain GDP growth levels and the expenses of the Consolidated budget in the Russian Federation during the period from 2006 to 2015 (the diagram was calculated and built up by the author on the base of data: table 1)
Arsen A. Tatuev, Anzor M. Ashkhotov, Violetta V. Rokotyanskaya, Bela B. Bidova, Malika A. Dovletmurzaeva: “Dependence of Russian’s gross domestic product on consolidated budget expenditures.”

Interconnection of the dynamics of the GDP and the expenses of Consolidated budget in the Russian Federation

![Graph showing interconnection between the dynamics of indicators of chain growth levels of the GDP and the expenses of the Consolidated budget in the Russian Federation during period from 2008 to 2014 (the diagram is calculated and built up by the author on the base of data: table 1)](image)

Figure 5. Interconnection between the dynamics of indicators of chain growth levels of the GDP and the expenses of the Consolidated budget in the Russian Federation during period from 2008 to 2014 (the diagram is calculated and built up by the author on the base of data: table 1)

Table 2 — Indicators of execution of the Consolidated budget in the Russian Federation in basis market prices, billion rub.

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