Debt Burden, Local Fiscal Decentralization and Fiscal Incentives of Regional Authorities

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ABSTRACT

The author considers fiscal incentives of regional authorities in the system of federal intergovernmental relations. The **aim of the study** is to determine how the debt burden of Russian regions affects regional fiscal policy in the context of federal co-financing of expenditure obligations. The work employed the **methods** of grouping, one-dimensional cluster analysis, correlation analysis, and regression by generalized method of moments (system-GMM). **The study found that** the increase in the regional debt burden relates to a decrease in the level of local fiscal decentralization. Intensive debt financing of regional expenditures in 2013–2015 also reduces the willingness to regionally co-finance federal priorities. The author **concludes** that high debt burden reduces the fiscal incentives of regional authorities to co-finance federal initiatives and creates the risk of underfunding of national projects.

Keywords: intergovernmental transfers; North; public debt; subsidies; other intergovernmental transfers; general-purpose transfers; flypaper effect; national projects; correlation

INTRODUCTION

The main features of the fiscal system of Russia — the centralization of tax powers in the decentralization of expenditure obligations — necessitate the widespread use of intergovernmental transfers.

The continuing resource dependence of the economy and high interregional differentiation keep down the growth of fiscal decentralization. It also affects the ability of intergovernmental transfers to balance between the positive and negative effects of the current decentralization model. For example, this happens when the central management of territorial systems entails imputed expenditures of refusing to identify local preferences due to high interregional disparities. A reduced quality of public sector management then impedes the processes of regional convergence. In this regard, the study of factors, roles and effects of intergovernmental transfers is relevant.

Today, we can identify circumstances that reinforce the need to study the effects caused by the structure, volume and method of distribution of federal transfers:

• increased importance of equalization transfers within the structure of federal intergovernmental transfers, related to the improved methodology to model a budget;

• reallocating earmarked intergovernmental transfers due to implementation of national goals in accordance with Presidential Decree No. 204[1];

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[1] On national goals and strategic objectives of the development of the Russian Federation for the period up to 2024 [Source of the electronic copy]: Decree of the President of the Russian Federation of 05.07.2018 No. 204 (as amended on 07.19.2018). Access from the reference legal system "Consultant Plus".

• debt sustainability concerns, despite the increased financial stability of the consolidated budgets of the constituent entities in recent years [1].

The area of research on intergovernmental relations is very diverse. For example, to increase the efficiency, M. L. Vasyunina [2] proposes to expand the allocation of subsidies and other types of intergovernmental transfers with clearly defined conditions for the efficient use. R. A. Alandarov [3] singled out the specific disadvantages of allocating transfers in the context of state programs.

Coupling intergovernmental transfer allocation and financial sustainability is also very popular in the literature. V. M. Kreindel' [4] found signs of soft budget constraints in the Russian budget system. Later, O. V. Suchkova and A. Yu. Chemis [5] obtained more encouraging results, revealing signs of sustainability of the public debt in relatively developed regions. V. F. Sharov and A. K. Karaev [6] modeled the limits of stability in the budget system as a whole. The work [7] discusses intergovernmental relations policy measures in terms of reducing the risks of regional financial stability. Yet, with all the variety of works on this topic, the analysis of the incentives incited by the federal intergovernmental transfer at regional authorities with accumulated debt in the region gets little attention in the literature.

The aim of the study is to determine how the past period of growth in the debt burden and the risks to financial stability of the budgets of the constituent entities of Russia can affect regional fiscal policy in the context of federal co-financing of expenditure obligations..

METHODS

This work calculates the public debt of the constituent entities of Russia as the ratio of the debt and own (tax and non-tax) revenues.

We analyze the impact of the accumulated debt on fiscal incentives of regional authorities upon receipt of federal intergovernmental transfers in four stages:

1. Breaking down the constituent entities of Russia into two groups by the average public debt for 2008–2018. We use a one-dimensional cluster analysis by calculating the Euclidean distance between the constituent entities by the value of this indicator. The first group includes the constituent entities with the smallest (average 0.23) public debt, and the second group — with the highest one (average 0.66).

2. Analyzing the public debt dynamics in 2008–2018 by groups of the constituent entities (federal districts[2], northern regions[3], first and second groups by public debt) and in Russia as a whole.

3. Calculating the paired linear correlation coefficients between the public debt and the indices of local fiscal decentralization in the expenditures and incomes. This stage aims to identify a criterion for grouping the constituent entities that is different from a sign of the public debt. The criterion is useful for a deeper analysis of the potential effects of the public debt on regional government incentives in the budget policy. Higher local decentralization may contribute to the development of fiscal incentives at the regional level upon the receipt of federal transfers.

4. Analyzing fiscal incentives by the following method.

We analyzed the outcomes from granting federal intergovernmental transfers to the budgets of the constituent entities of Russia from the perspective of the incentives aris-

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[2] The designations of the federal districts of Russia are as follows: Central Federal District — Northwestern Federal District, Northwestern Federal District, Southern Federal District (excluding the Republic of Crimea and Sevastopol), North Caucasian Federal District — Volga Federal District, Ural Federal District — Ural, Siberian Federal District, Far Eastern Federal District — Far Eastern.

[3] The northern constituent entities are the regions whose entire territory belongs to the regions of the Far North and equivalent localities (except the Republic of Tuva): the Republic of Karelia, the Republic of Komi, the Nenets Autonomous Okrug, the Arkhangelsk Region, the Murmansk Region, the Khanty-Mansi Autonomous Okrug, the Yamalo-Nenets Autonomous Okrug, Republic of Sakha (Yakutia), Kamchatka Territory, Magadan Region, Sakhalin Region and Chukotka Autonomous Region.

ing for the regional authorities when making fiscal decisions (fiscal incentives) by the effect of a high dependence of public spending on intergovernmental transfers (known as the flypaper effect in foreign literature [8, 9]).

Public spending depends on transfers if the unit of growth of the transfer causes a greater increase in spending than the equivalent unit of growth of private income in the territory. Simply, this may indicate a fiscal regime favorable for the donor budget policy — the granted transfers are spent much more willingly than funds received from local taxation. In this case, the interests of the donor budget are mainly realized.

R. Logan [10] believes that granting transfers robs the system of financial resources due to the emergence of fiscal illusion. Growth in recipient spending to some extent compensates for this loss at the expense of the private sector of the economy. *The opposite case* is when the private income factor contributes to the regional expenditures more than the federal transfer does. This indicates that the budget, which receives budget funds through transfers, does NOT consider them as sources much different to its own tax revenues. The authorities of the recipient budget may well allocate part of the transfer funds to reduce the tax burden (which is in the interests of taxpayers-voters) or reduce the deficit/accumulated debt without increasing direct expenditures. In this case, for the recipient budget, the interests of local taxpayers are considered relatively more important than the interests of the donor budget.

Based on the approach presented by [11], we compare the coefficients α and β in model (1).

$$Expenditures_{it} = \Pr ivate\, income_{it}^{\alpha} *$$
$$* Federal\, transfer_{it}^{\beta} * \prod Intermediate\, var\, iables_{it}^{\gamma} * \varepsilon_{it}. \quad (1)$$

The contribution of the variables is calculated through partial derivatives. For example, for the federal transfer variable, the contribu-

tion to the expenditure increase per unit of its own value is equal to:

$$\frac{\partial Expenditures}{\partial Federal\, transfer} = \beta * Federal\, transfer^{(\beta-1)} *$$
$$* \Pr ivate\, income^{\alpha} * \prod Intermediate\, var\, iables^{\gamma}. \quad (2)$$

We analyzed the whole period of 2008–2018, as well as the sub-periods of 2011–2018 and 2014–2018. Division into sub-periods allows us to evaluate how the contribution of factors to costing has changed and how modern trends differ from the previous ones.

An indicator of private income is the average wage in the region (according to the Federal State Statistics Service), expenditures are the direct expenses of the budgets of the constituent entities of Russia (according to the Treasury of Russia), and federal transfers are all the main federal transfers[4].

The intermediate variables are:

1) the number of employees in organizations of state ownership, a share of the number of employees;

2) the population of working age, a share of the population;

3) unemployment rate.

These indicators are necessary to monitor factors increasing the budget expenditures of a constituent entity not related to the determinants of private income and transfer.

This work considers more types of transfers compared to [11] and significantly simplifies the model and calculations; however, it does not affect the main conditions to obtain reliable estimates. Including all types of intergovernmental transfers in the analysis excludes the arbitrary choice of a transfer as shown in [12]. Other main elements of the model should be the nonlinearity of the specification [13], as well as monitoring the endogene-

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[4] All absolute indicators are recalculated based on the population of the regions, adjusted for the consumer price index in order to bring them to the level of 2017, and consider the value of the index of budget expenditures (IBE), designed to level inter-regional differences. The IBE is used in the federal methodology for distributing equalization grants.

ity — the influence of the dependent variable on one or more explanatory variables [14, 15]. Equation (1) is linearized through the natural logarithm and estimated by the generalized method of moments (system-GMM) [16], which suggests the elimination of the endogenous problem.

To interpret quantitative results, we calculate the difference between the contribution of the federal transfer factor and the contribution of the private income factor (the calculations are below in *Tables 3* and *4*). According to the method above, if the difference positive, we see the regional fiscal regime, relatively more favorable for the federal budget. If the difference is negative, the regime is relatively more favorable for the local/regional taxpayer.

We interpreted the obtained quantitative analysis results as follows.

If the difference in contributions of two factors (federal transfer and private income) is positive, the regional authorities are inclined to co-finance the priorities of the federal fiscal policy and increase overall budget expenditures. This also indicates unwillingness to reduce the public debt, as well as raise private income through lowering the regional tax burden and/or replacing income by federal transfers. In this scenario, regional authorities are ready to allocate financial resources to activities to achieve federal national projects. Considering the public debt in the calculations, this result may also indicate that the decisions on regional budget expenditures are independent from the debt.

If the difference in contributions of the two factors is negative, we can speak of the tendency to restrain general regional spending, which may underfund the implementation of federal policy. This also indicates the intention to lower the debt burden due to the transfer, the possibility of lowering the regional tax burden and/or replacing own income by federal transfers. Both actions reduce direct budget expenditures of the constituent entity and are opposite to the interests of the

federal budget. An explanation for this scenario may be the fact that the public debt of the constituent entity has reached the level where the regional authorities are worrying about the risks to financial stability.

It should be noted that even if the regional authorities are ready to allocate financial resources to implement federal policy (a positive difference between the contributions of the two factors), a high public debt means risks for the sustainable development of the region's economy, primarily by restraining private regional investments [17, 18].

TRENDS OF INTERGOVERNMENTAL RELATIONS AND FEATURES OF ANALYSIS OF FISCAL INCENTIVES

The budget system of Russia currently faces revenue and expenditure *centralization* [19, 20]. It is explained by the distribution of tax revenues and the influence of the higher budget on expenditure obligations of the lower budget. The low local fiscal decentralization does not allow to realize the benefits of decentralization, and does not lead to a decrease in inter-regional differentiation [21]. *Fig. 1* shows the trends of reducing the share of the constituent entities in the consolidated parameters of Russia's budget system (including extrabudgetary funds) in 2008–2014 and the stagnation in 2015–2017. Today, revenues and expenditures of the consolidated budgets in Russia's constituent entities constitute approximately 35% of the total parameters of Russia's consolidated budget. At the beginning of the period under review, the indicator was approximately 40% of the revenues and expenditures of the total budget system.

Increasing oil prices and federal policy measures (intergovernmental equalization linked to individual agreements to restrain spending, as well as the allocation of budget loans) allowed the consolidated budgets of Russia's constituent entities to rebuild the values of the main parameters by the end of
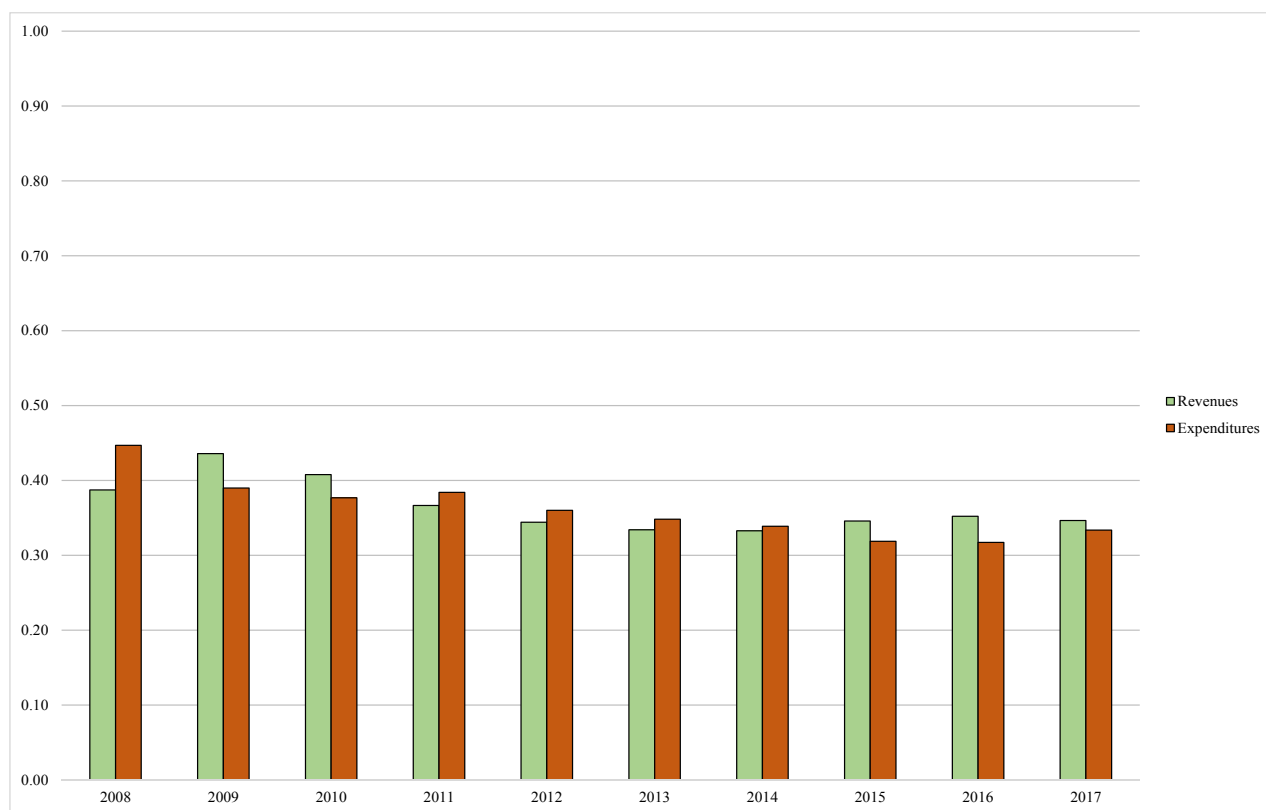
Fig. 1. **Share of revenues and expenditures of the consolidated budget of subjects in the parameters of the consolidated budget of Russia, units**

*Source:* Rosstat (collection "Finance Of Russia"), author's calculations.

Note: including extrabudgetary funds. Transfers belong to expenditures of a donor budget.

2018 (*Fig. 2*) [22]. According to the Bank of Russia, in 2018, there was a surplus of financial resources in the budget system (for the first time since 2012). The trend persisted in the first half of 2019[5]. However, regional debt is complicated by the high heterogeneity of the constituent entities, including in terms of the public debt, and the fact that the current surplus cannot provide a significant reduction in accumulated debt.

With the continuing centralization of the domestic budget system, intergovernmental relations become especially important, since they determine the distribution of tax and expenditure powers. Recommendations on efficiency growth of intergovernmental rela-

tions in the domestic academic literature are mostly based on the structure and conditions for granting intergovernmental transfers [23, p. 65]. In the literature, the main attention is paid to balancing, stimulating and equalizing functions of transfers [24]. As a rule, very little attention is paid to the analysis of the stimulating federal transfers in terms of their comparative advantage over the factor of private income in a particular region. It was one of the study motives, as well as the opportunity to analyze the influence of various types of federal intergovernmental transfers performing various functions. The last clarification is very conventional, since the functions of equalizing and stimulating the revenue growth can belong to a single type of intergovernmental transfer (for example, equalization grants in Russia's budget system) [25].

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[5] Main directions of the unified state monetary policy for 2020 and the period 2021 and 2022. Approved by the Bank of Russia 10.25.2019. Published in the reference legal system "Consultant Plus".
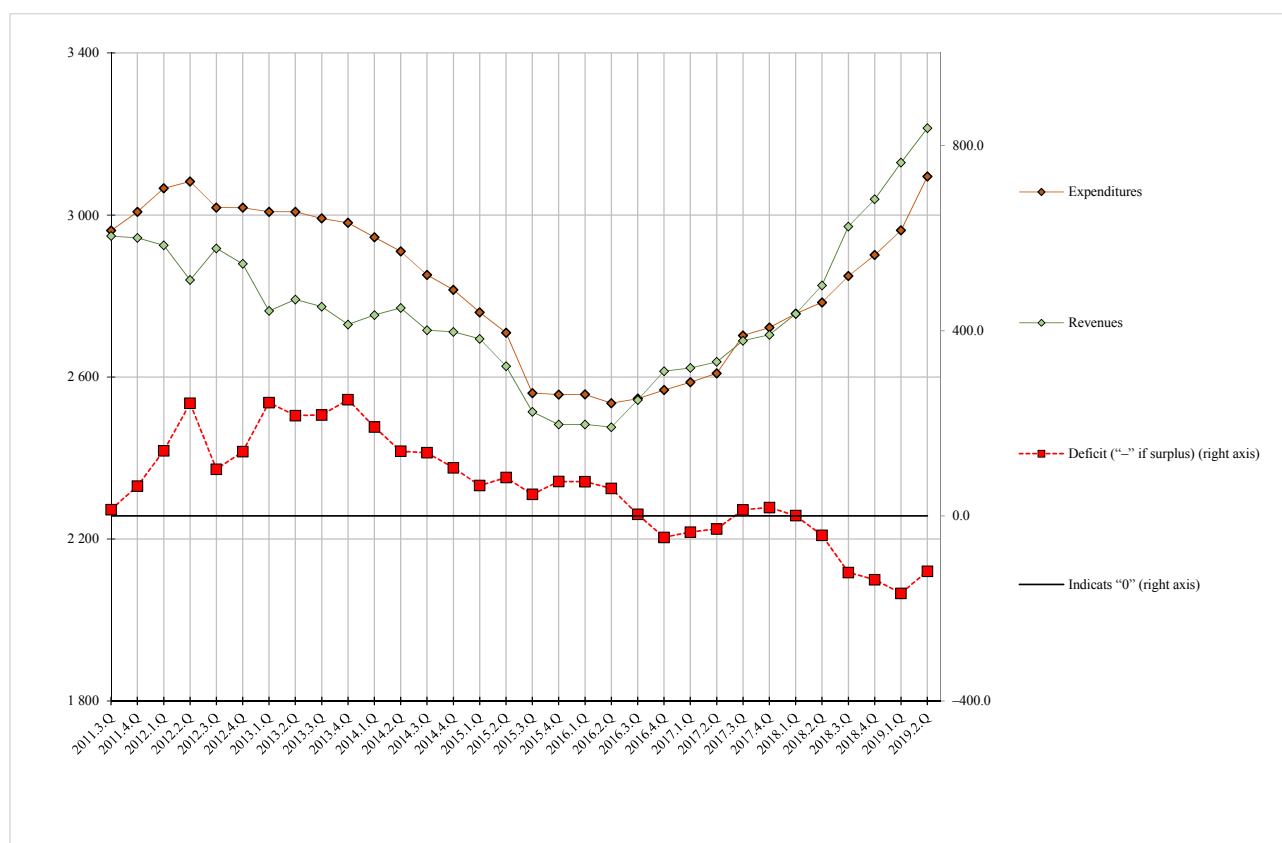
Fig. 2. **Dynamics of the main parameters of consolidated budgets of Russia's constituent entities, billion rubles**

Source: Ministry of Finance of Russia, author's calculations.

Note: cleared of seasonal and random fluctuations through the four-quarter moving average. Prices of 2017.

When analyzing the stimulation of regional revenues growth, including the results of classifying the constituent entities by a characteristic, it is very popular to divide regions by income or fiscal capacity [e.g., 26]. In *this* work, the constituent entities are grouped by the size of the public debt.

Basic studies of the role of the budget debt burden analyze its impact on economic growth and the dynamics of production factors. There is a search for channels of influence [27, 28], or threshold of public debt [29, 30]. M. P. Afanasiev and N. N. Shash [31] warn about debt financing of current expenditures in Russia, including at the regional level, since it underestimates the potential positive effect of fiscal policy. In a resource-dependent economy with an emerging market, the negative effects of the debt burden are combined with the detrimental effect of instable macroeconomic

indicators. *This* work specifically studies the role of debt value when the government of the relevant constituent entity decides on the budget allocations in the context of federal co-financing.

Low financial independence of regional and municipal authorities most likely implies a relatively high impact of intergovernmental transfers on the expenditure decisions. This work considers the public debt value of a constituent entity of Russia as a mediating factor in the comparative analysis of private incomes and transfers. Today, it is important to know the dynamics of the sought coefficients and their value.

RESULTS

The public debt of Russian constituent entities has significantly increased for the period of 2014–2018 (*Fig. 3*). The highest public debt is in the regions of the Southern Federal
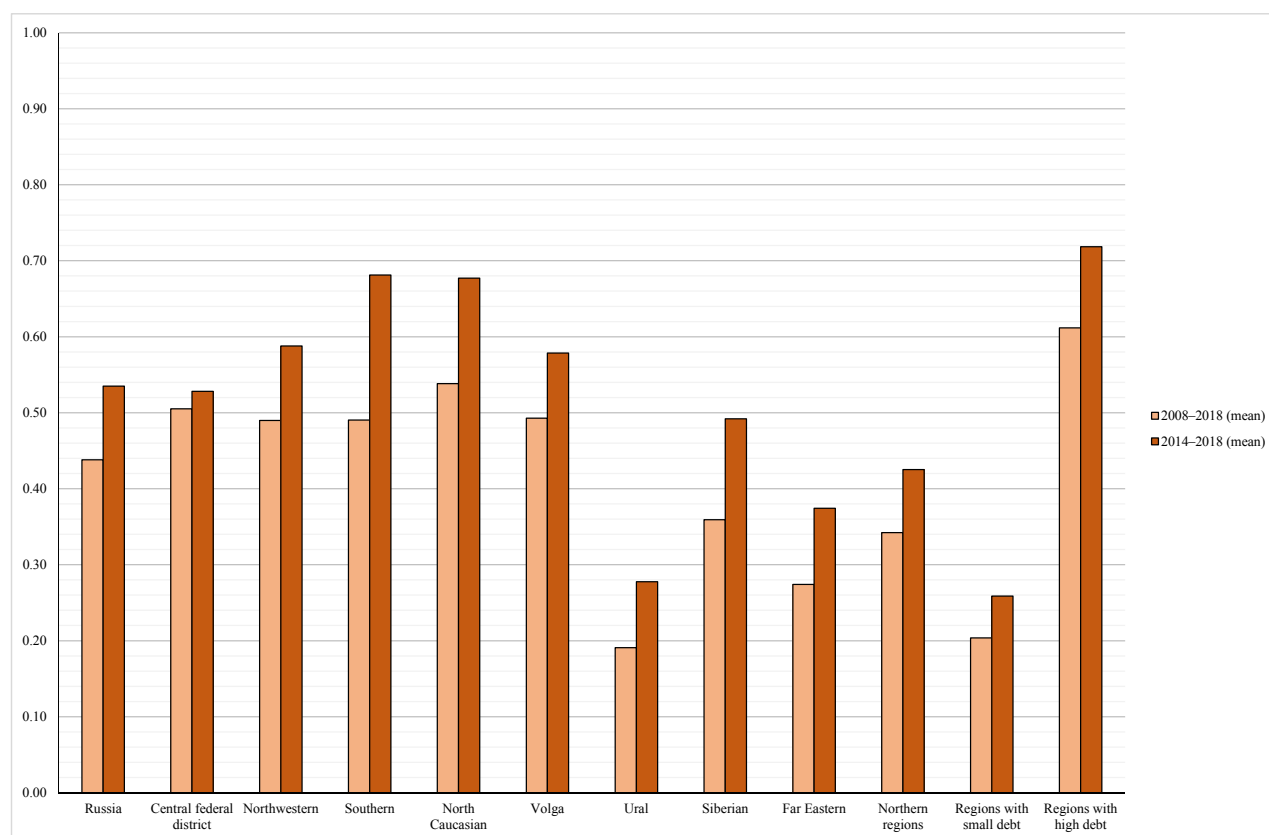
Fig. 3. **Weighted average public debt by Russia's federal districts and groups of constituent entities, units.**

Source: Treasury of Russia, author's calculations.

Note: the weight is the population of the constituent entities.

District and North Caucasus Federal District, the lowest is in the Ural Federal District. The northern regions of Russia, including wealthy regions of the Ural Federal District, have a relatively small debt. It should be noted that the increase in the public debt of the constituent entities with the highest average indicator was higher (in p.) than for the constituent entities with a relatively small public debt.

A large part of the constituent entities of Russia has a relatively high public debt (*Table 1*). Except the Ural Federal District, the Siberian Federal District and the Far Eastern Federal District (as well as the groups of the northern regions of Russia), most of the constituent entities of the federal districts have a high debt burden. The largest share of regions with a relatively high public debt is part of the North Caucasus Federal District.

In terms of public debt growth, the most unfavorable periods were the years of 2009 and 2013–2015 (*Fig. 4*). In 2016–2018, the debt value of Russian regions began to decline. For the regions with the highest debt, it was decreasing faster, which is a positive sign. The debt burden in the northern regions is noticeably less than the average for Russia. This is due to the better fiscal capacity and lesser need for loans.

The inter-district dynamics analysis of the public debt helps classify the federal districts of Russia (*Fig. 5*). Three groups of regions are distinguished. On the one hand, the North-West Federal District, the Southern Federal District and the North-Western Federal District have similar dynamics of the indicator, and on the other hand — the Ural Federal District, the Siberian Federal District, and the Far Eastern Federal District. For the Central Federal District, dynamics of the indicator is relatively independent. Yet, the trajectories of the dynamics of all federal districts are very similar.

Table 1

Groups of constituent entities depending on the size of public debt, by federal districts, units.

Group of regions	Group 1 (least debt)		Group 2 (greatest debt)	
	Number	Proportion of the number of regions in the federal district, %	Number	Proportion of the number of regions in the federal district, %
All subjects	34	41	49	59
Central	6	33	12	67
North-West	5	45	6	55
Southern	2	33	4	67
North Caucasus	1	14	6	86
Volga	4	29	10	71
Ural	5	83	1	17
Siberian	6	50	6	50
Far Eastern	5	56	4	44
Northern subjects	8	67	4	33

Source: author's calculations based on the data from the Treasury of Russia.

Note: The analysis does not involve the city of Sevastopol and the Republic of Crimea. Groups of constituent entities are distinguished by one-dimensional clustering (Euclidean distance between values by constituent entities). The results of grouping, including graphical analysis materials, are available upon a request to the author.

Relatively high expenditure budget decentralization is accompanied by a relatively small debt of the budgets of the constituent entities (*Table 2*). This is consistent with the conclusion that the widespread local authority has a beneficial effect on the commitment of fiscal discipline authorities [32, 33]. This thesis is especially pronounced in the case of expenditure budget decentralization.

The inverse relationship between debt burden and decentralization also means that if the debt increases, local powers are reduced. Therefore, the debt factor may partially explain the downward trend in local fiscal decentralization in Russia.

Quantitative estimates of the negative relationship between local expenditure decentralization and the public debt are approximately the same for all the groups. Yet, the effect of decentralization is noticeably weaker for the constituent entities with a relatively high debt. On the contrary, when considering revenue decentralization by local revenue structure, the analyzed relationship is very weak, and the group comparative analysis is inappropriate.

The expected positive effect of local fiscal decentralization on the public debt (namely, a relatively small debt and fiscal discipline with significant powers at the local level) is almost independent of its value or the geographical
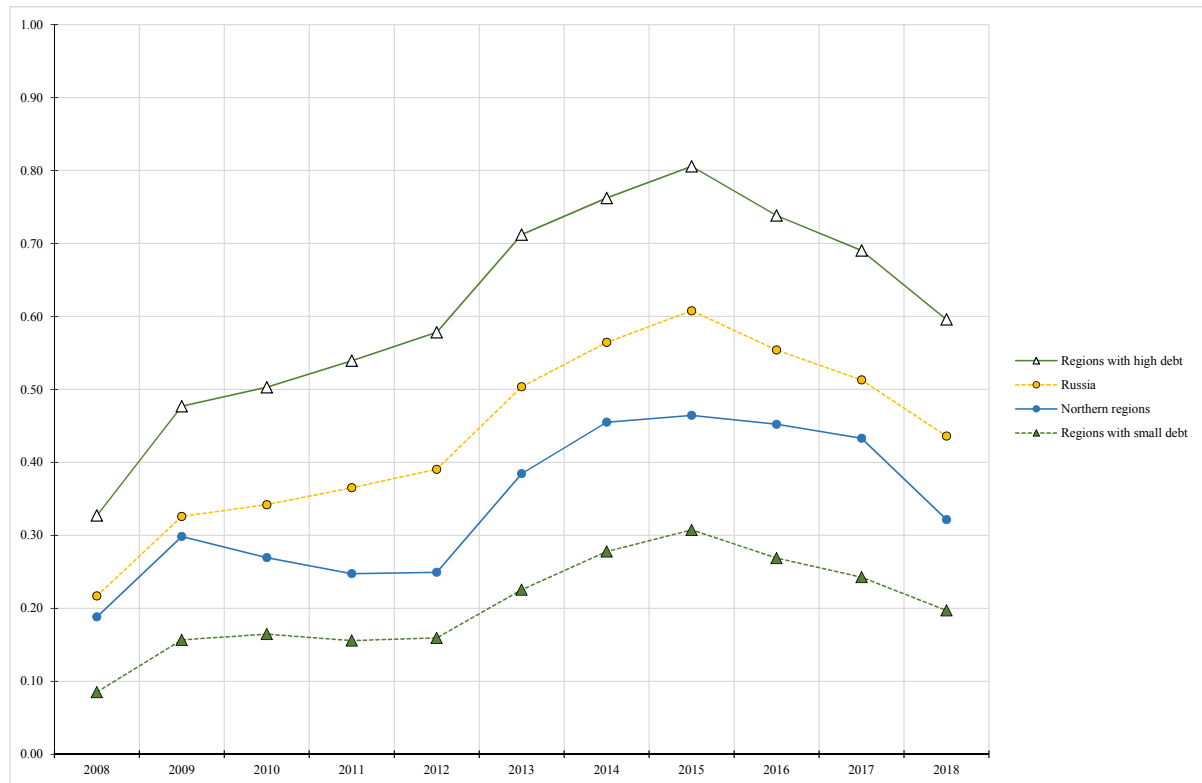
Fig. 4. **Dynamics of public debt by the groups of Russia's constituent entities in 2008–2018, units.**

Source: Treasury of Russia, author's calculations.
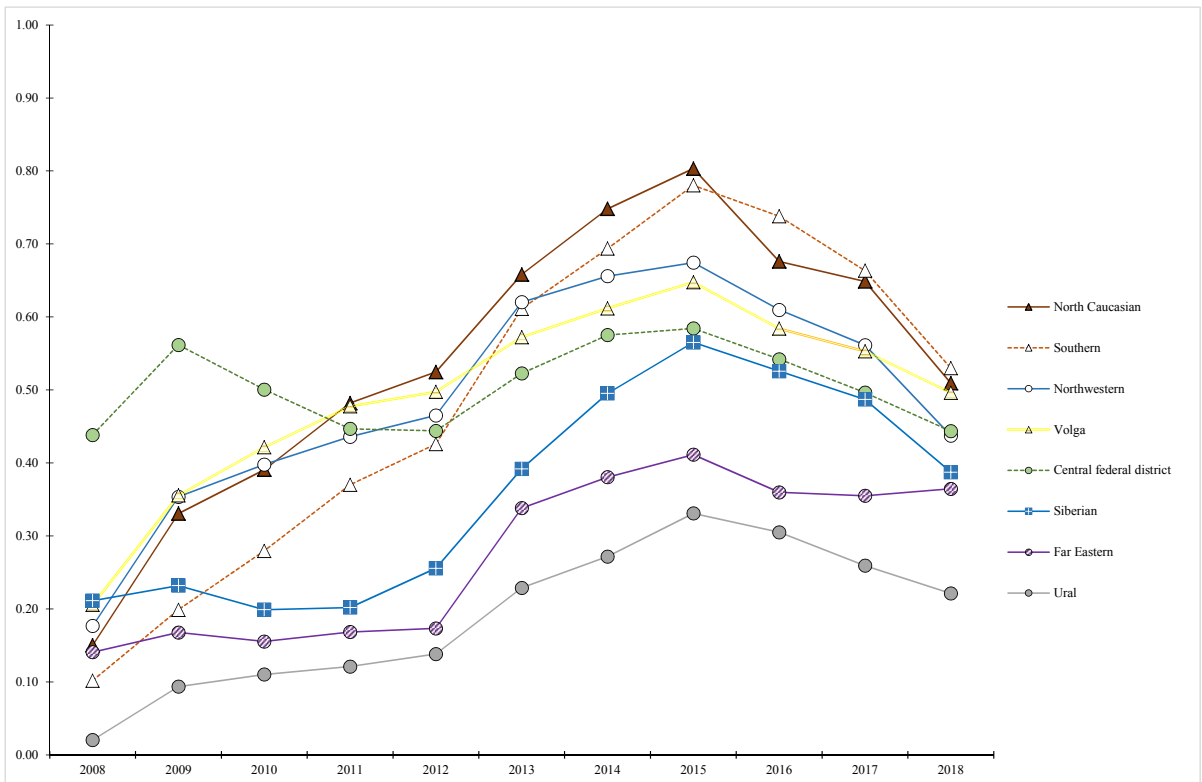
Fig. 5. **Dynamics of public debt of Russia's federal districts in 2008–2018, units.**

Source: Treasury of Russia, author's calculations.

Paired correlation coefficients of the public debt and local budget decentralization indicators by groups of Russia's constituent entities, units

Local budget decentralization indicator	Russia as a whole	Northern constituent entities	Constituent entities with small public debt	Constituent entities with high public debt
Share of local budgets in consolidated expenditures of the region (subventions refer to the expenditures of the regional budget)	−0.41*	−0.48*	−0.42*	−0.30*
Share of own revenues of local budgets in the structure of overall revenues	−0.11*	0	0	−0.10*

Source: author's calculations, Treasury of Russia.

Note: * — the coefficient is statistically significant according to the Student's criterion. Based on data for all constituent entities, except Moscow, St. Petersburg, Sevastopol and the Republic of Crimea, 2008–2018.

location of the constituent entities. Thus, it is inappropriate to complicate model (1) regression analysis with additional consideration of various groups of the constituent entities by the size of local budget decentralization.

Table 3 summarizes the calculations by model (1) based on the data for Russia as a whole[6].

Fig. 6 illustrates the data of *Table 3*. Regardless of other intergovernmental transfers, the function of federal transfers, which consists in stimulating the budget expenditures of the constituent entity, decreases. In 2014–2018, it almost equaled to zero. Balancing grants completely replace the constituent entity's budget revenues, since the contribution of these transfers to expenditures is negative[7]. Subventions (0.043) and other intergovernmental transfers (0.060) are the largest relative contribution of the federal transfer. However, this indicator (for subventions) also decreases.

Thus, the stimulating function of federal intergovernmental transfers across Russia is currently decreasing. For regional authorities, the importance of federal priorities compared

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[6] The details of the regression analysis are not provided, but are available from the author on request.

[7] It is equal to −0.014 in 2014–2018. The corresponding data for all types of transfers are not provided, but are available from the author on request.
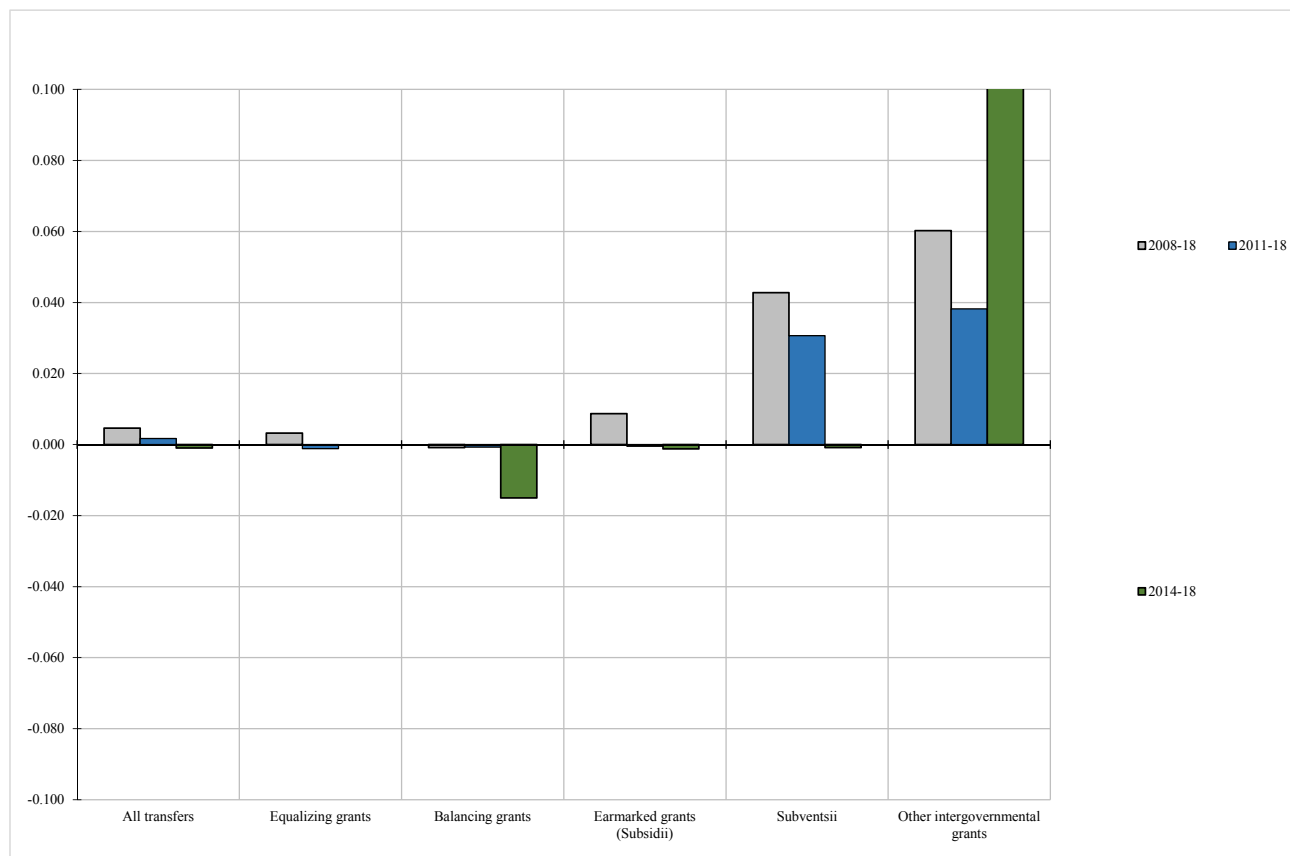
**Difference between the contribution of the federal transfer factor
and the contribution of private income**

Type of transfer	2008–2018	2011–2018	2014–2018
All transfers	0.005	0.002	−0.001
Equalization grants	0.003	−0.001	0.000
Balancing grants	−0.001	−0.001	−0.015
Subsidies	0.009	0.000	−0.001
Subventions	0.043	0.031	−0.001
Other intergovernmental transfers	0.060	0.038	0.170

Source: author's calculations, Treasury of Russia.

Note: The difference greater than zero means that the impact of federal transfers on spending growth is stronger than the impact of private income factor in the constituent entity (there is a flypaper effect = the effect of high dependence of expenditures on intergovernmental transfers which is favorable for the donor budget policy).

Fig. 6. **Difference between the contribution of the federal transfer factor and the contribution of private income factor, Russia as a whole**
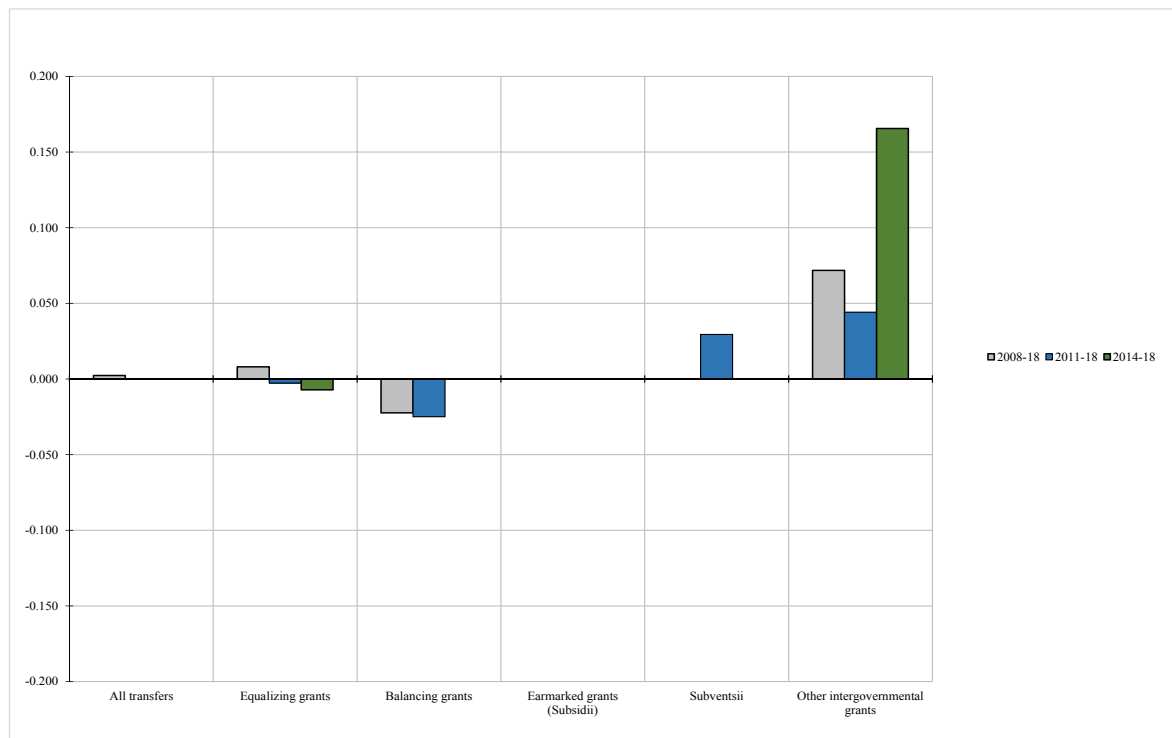
Source: based on *Table 3.*

Difference between the contribution of the federal transfer factor and the private income factor, groups of constituent entities

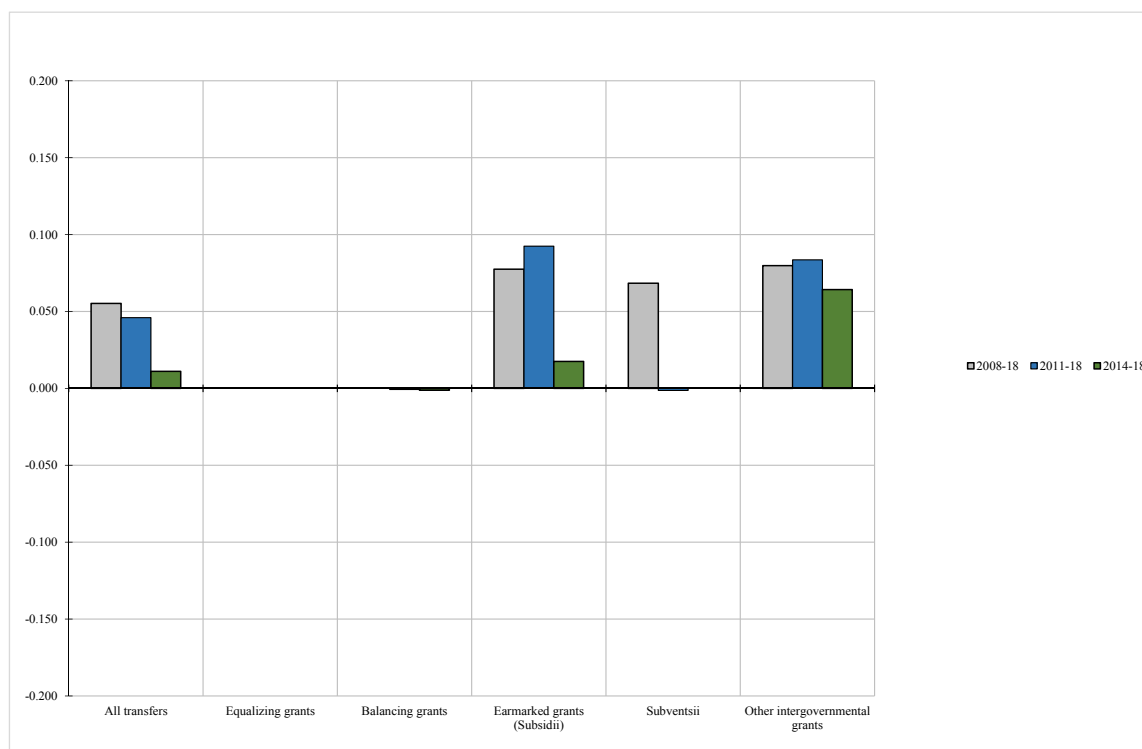| Type of transfer	Constituent entities with small public debt			Constituent entities with high public debt			Northern constituent entities		
	2008–2018	2011–2018	2014–2018	2008–2018	2011–2018	2014–2018	2008–2018	2011–2018	2014–2018
All transfers	0.002	0.000	0.000	0.055	0.046	0.011	0.006	−0.014	0.000
Equalization grants	0.008	−0.003	−0.007	0.000	0.000	0.000	−0.010	0.000	0.000
Balancing grants	−0.022	−0.025	0.000	0.000	−0.001	−0.001	0.000	0.000	0.000
Subsidies	0.000	0.000	0.000	0.078	0.092	0.018	0.028	−0.128	0.163
Subventions	0.000	0.029	0.000	0.068	−0.001	0.000	0.046	−0.246	0.000
Other intergovernmental transfers	0.072	0.044	0.166	0.080	0.084	0.064	0.083	−0.313	0.133

Source: author's calculations, Treasury of Russia.

Fig. 7. **Difference between the contribution of the federal transfer factor and the contribution of private income factor, constituent entities with small public debt, average for 2008–2018**
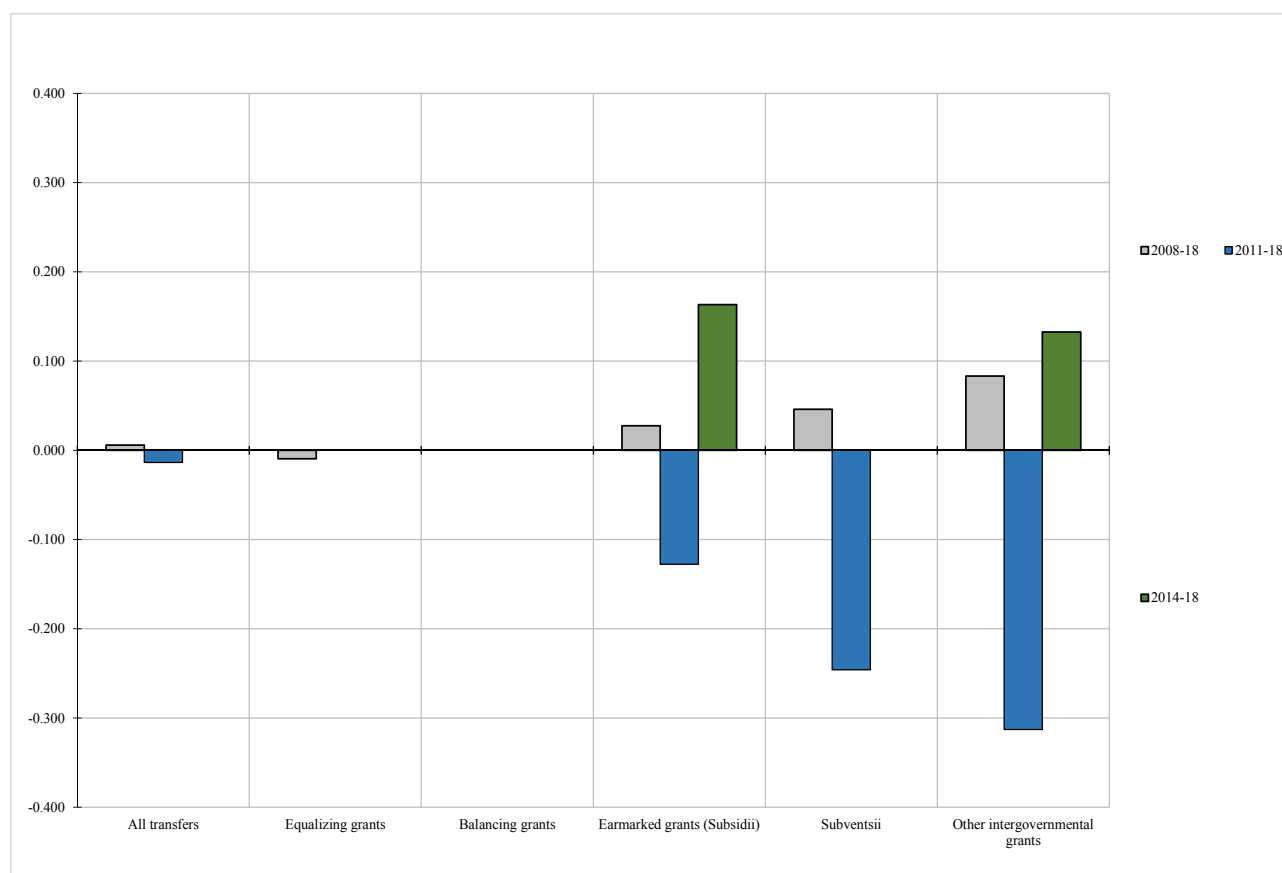
Source: based on *Table 4.*

Fig. 8. **Difference between the contribution of the federal transfer factor and the contribution of private income factor, constituent entities with the highest public debt, average for 2008–2018**

Source: based on *Table 4.*

Fig. 9. **Difference between the contribution of the federal transfer factor and the contribution of private income factor, northern constituent entities**

Source: based on *Table 4.*

to the interests of local taxpayers to reduce the tax burden is lowering. This indicates a decrease in the regions of fiscal incentives, bringing together the interests of the federal and regional budgets in choosing the allocation areas and their adequate financing.

Another explanation is the continuing debt burden. Observed in recent years, debt financing of current expenditures may restrain the budgets of the constituent entities financed by their own revenues. In other words, federal transfers may replace own revenues/expenditures to reduce the accumulated debt. This may include a risk of underfunding of national project activities.

If the assumption about the influence of the public debt factor influences on reducing the influence of the federal budget on the budget parameters of the constituent entity is true, then the difference between the con-

tributions of the federal transfer factor and private income should be more pronounced and reduced much more over the period under review in the constituent entities with a relatively high public debt, than in those with a relatively small debt.

Table 4 summarizes the calculations by model (1) in the context of groups of the constituent entities by the size of the public debt.

Comparing *Fig. 7* and *Fig. 8*, which illustrate the data in *Table 4*, confirms the hypothesis is true. Indeed, there was a noticeable reduction in the difference between the contribution of the federal transfer factor and the contribution of private income in 2014–2018 in the group of the constituent entities with a high public debt compared to the general period of 2008–2018.

The relatively high (compared to the contribution of private income) contribution of

other intergovernmental transfers to forming the budget expenditures of the constituent entity for all the constituent entities of Russia (see *Fig. 6*) is due to the constituent entities with a relatively small public debt (*Fig. 7*). On the contrary, for the regions with a relatively high public debt, the relative quantitative contribution of subsidies and other intergovernmental transfers is approximately the same. However, in 2014–2018, the importance of subsidies for regional expenditures sharply decreased. This confirms the hypothesis that a high debt slows down regional authorities to expand their own expenditures after federal co-financing. A negative consequence of these actions may be the increased risk of failure to achieve the most important goals of the implementation of national projects in the areas of human capital development, a comfortable environment and economic growth.

The fact that the reduction in the potential of federal transfers for the budget expenditures of the constituent entity is especially pronounced for federal subsidies is extremely negative for implementing national projects and other initiatives at the federal level, since the most significant part of financial assistance is allocated through subsidies.

For federal subsidies, as well as subventions, the contribution of the transfer factor is comparable to that of the private income factor in forming regional expenditures regardless of the public debt. This indicates the neutral nature of these types of transfers.

We should note the unique role of other federal intergovernmental transfers. They have the strongest influence on the growth of regional expenditures compared to the contribution of the private income factor. This thesis is true regardless of the group of the constituent entities.

By composition, the northern constituent entities are similar to the group of the constituent entities with a small public debt in terms of the total federal transfers (*Fig. 9*). The comparative contribution of a general-purpose transfer factor is insignificant and sometimes negative. Yet, the assessment of the role of earmarked transfers is ambiguous: they have a very strong stimulating component, including now. This is also true for subsidies, which is not typical of the constituent entities with a relatively small debt. On the other hand, the negative value of the difference in the contribution of the factors in 2011–2018 indicates a qualitatively different situation observed in 2011–2015. This finding probably requires further research of the causes for the identified phenomenon.

CONCLUSIONS

The study revealed that currently the stimulating function of federal intergovernmental transfers diminishes in the fiscal system of Russia. Therefore, this reduces the likelihood of regional authorities in generating fiscal incentives to choose and adequately (co-) finance the areas of budget spending that are closely consistent with the interests of the federal government.

The article confirmed the hypothesis why this trend takes place - a high debt burden of the constituent entities of Russia. Debt financing of expenditures of the previous periods can restrain current expenditures, financed by own budget revenues in the regions. Replacing own expenditures by federal transfers to reduce accumulated debt creates the risk of underfunding of activities of national projects.

Reduction of the potential of federal transfers and especially subsidies for the budget expenditures of the constituent entity is negative, since it increases the risk of underfunding the implementation of national projects at the regional level. Unlike subsidies, other intergovernmental transfers have the strongest influence on the growth of regional expenditures, which is observed regardless of the group of the constituent entities.

In terms of a comparative analysis of the contribution of the transfer factor and the private income factor, the northern constitu-

ent entities of Russia are similar to the general group of the constituent entities with a small public debt. Yet, the contribution of the general-purpose transfer factor is insignificant, but that of earmarked transfers, including subsidies, is positive.

The practical conclusions are as follows:

• Only subsidies and other intergovernmental transfers perform the function of stimulating regional spending according to the priorities of the federal budget. On the contrary, for both types of general grants and subventions, the contribution of transfer and private income factors to forming a constituent entity's budget expenditures is comparable. Therefore, the allocation and structure of subsidies and other intergovernmental transfers should be paid particular attention, including the reform of other intergovernmental transfers.

• To preserve incentives for the constituent entities to expand own budget expenditures in terms of implementing federal development priorities, we advise to protect discretionary actions of the recipient budget authorities when they use federal targeted

transfer funds aimed at realizing the clearly set goal (in other words, to preserve the stimulating function for regional expenditures, it is advisable to further implement the concept of a block earmarked transfer).

• At the same time, to reduce the risk of replacing a federal transfer by paying off a regional government debt, it is worth considering the measures to reduce the level (coefficient) of federal co-financing for the constituent entities with a relatively high public debt. Despite a sharp decrease in the function of federal incentives, the contribution of the federal transfer factor to total regional expenditures in the regions with a relatively high debt is still noticeably higher than in the regions with relatively small public debt. Reducing the debt burden at the regional level can be solved more effectively through the federal debt policy instruments, compared to the measures for allocating intergovernmental transfers (for example, regulating budget loans, compliance with the federal budget rules for the public debt at the regional level).

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