

# Improving Performance Of Industrial Enterprises With CGT<sup>1</sup>

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**Abstract.** At the present day, a falling in the overall level of efficiency production activities, especially in the machine-building companies makes it necessary to development various actions in the State support, including through the creation consolidated taxation system. Such support will help improve efficiency of activity not only the industrial companies, but also will allow improve economic and social situation in regions where often large engineering factories is city-forming.

## 1. Introduction

At the present stage of development in the Russian Federation it becomes more urgent ways to the state support of the different sectors and regions through improvement the tax effectiveness. The existing arithmetic formulas of taxable base, speed of tax revenues in the budgets, relationship between taxpayers and tax authorities directly influences to the development of the country. There is the process of redistribution of the income through effective tax administration direction of monetary resources to the social, defensive, nature-oriented sphere. Therefore, a high degree of efficiency the tax base creates the basic conditions for socio-economic development of both enterprises and regions.

## 2. The conditions of consolidation taxes receivable in Russia

For the purpose of increase in competitiveness of Russian companies on markets of the country and world, development of socio-economic sphere of the country by the Federal Law of the Russian Federation of November 16,2011 N321-FL was introduced the concept of a consolidated group taxpayers. This law is aimed at simplifying paying the tax on profit of the largest taxpayers.

Consolidated group of taxpayers (CGT) is an Association of taxpayers voluntarily on the basis of contract on creation consolidated group of taxpayers for calculation and payment of income tax organizations, taking into account the aggregate financial result of economic activity indicated taxpayers.

Features of formation consolidated tax base in accordance to the Tax code of Russian Federation consist in the following:

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•The tax base of CGT is defined as the total profits of participants reduced by the loss of participants CGT;

- In the provision for doubtful debts receivable is not considered between the participants;
- do not take into account the losses of the CGT participants prior to the consolidation;
- the provisions for warranty repair and service not the sale between the parties.

The advantages of enterprises, combine into a CGT is the possibility of redistribution funds within the CGT. Also there is a possibility of decrease in taxable base due to consolidation, both profits, and losses of the enterprises—members of the consolidated group of taxpayers.

CGN is also exempted from tax administration of transfer transactions and as the result of CGN starts to operate more effectively by means of synergetic effect.

In recent years the engineering industry of Russia took formations of holding companies and financial-industrial groups. This is observed as further development of machine-building companies and holding companies created in the previous years (United Machine Building Plants, Power machine corporation, "New programs and concepts" and others), as well as the formation of new groups established on the basis of capital, earned in other industries. The most is noticeable expansion into mechanical engineering metallurgy companies which result became the formation of powerful financial-industrial groups in the automotive industry "RusPromAvto" and a group of automakers companies "Severstal". United Machinery Factory (UMF Group) is one of the largest Russian industrial holding companies in the field of heavy engineering. It was formed through the merger "Uralsmash" with "Factory mechanical engineering of welded constructions" which two years later joined by "Izhora Factories".

It was formed through the merger "Uralsmash" with Factory mechanical engineering of welded constructions" which two years later had joined "Izhora Factories". Nowadays the enterprises are located in Russia and Czech Republic. 75% of shares Other Machinery Building Plant are the property of "Gazprombank" and the rest is in free float on stock exchanges in Russia, Germany and the United States. By Russian companies Other Machinery Building Plant is JSCo "Izhora Factories", OOO "Ocher Machinery Building Plant-Special Steels", LLC "Ocher Machinery Building Plant-Foundry Production" and LLC "IZ-KARTEKS"

JSCo "Scientific and Production Corporation" "Uralvagonfactory" named after FE Dzerzhinsky "was created on the basis of the Ural Railway Car factory in Nizhny Tagil, Sverdlovsk region. Since 2009 one hundred percent of shares of the corporation owned by the government. The corporation enters 25 industrial enterprises of mechanical engineering and research organizations. In order to raise technological level of production Corporation acquired a controlling stake in the French company Sambre et Meuse, which supplies details vehicle devices.

Despite all the attractiveness of the consolidated taxation system, which is essentially a preferential treatment, allowing to increase the effectiveness of activity due to synergetic effected while none of the mechanical engineering holding companies are not united in the CGT.

To date, the main conditions that prevent general association of industrial enterprises in the tax consolidated group of taxpayers is a high threshold conditions for entry in to the following groups:

1. The participation in the authorized (share) capital of the holding company in the dependent should range from 90 per cent
2. The total amount of VAT, excise tax, corporate income tax and the tax on extraction of mineral resources-not less than 10 billion rubles
3. The total amount of proceeds from the sale of goods, products, work delivery and service provision, as well as others-not less than 100 billion rubles.
4. The total value of the assets-not less than 300 billion rubles.

Such conditions are primarily intended to consolidate holdings in the field of oil and gas production, financial division. Only a few steel holdings are comply with the regulatory requirements of the legislation in this area (for example the Civil Code "Oskol Metallurgical Combine")

In order to association in the CGT it was available and other industrial holdings is necessary to lower the barrier to entry for participation in the authorized capital of up to 70% and the amount of

taxes paid to 156 bln.rub. For example, OMZ Group owns: public company Uralmashzavod (Sverdlovsk region) was 69.2% of the shares, Izhora plants (St.Petersburg) -73,3%,"Red Sormovo"(Nizhny Novgorod region)–60.7% and other large enterprises.

Reduced barrier to entry will allow this company to create the CGT, and thus improve its performance through optimization of financial flows and taxation.

### 3. The impact of CGT on regional tax revenues.

A special feature is the high labor intensity of mechanical engineering. Production of machines requires a lot of working time and labor resources. Production of machines is very expensive time and man power. Therefore many branch of mechanical engineering gravitate to areas with a high concentration population, and machine-building enterprises are often local economic mainstays. For example, in the Uralmash factory employs more than 15 thousand people, Izhora factory – more than 16 thousand.

All this leads to a close connection between the financial results of the company and the socio-economic situation of the region where the plant is located or where its management company, as the tax income of the region is directly connected with financial results of the enterprise and the mechanism of distribution of income tax between territories is located.

When you create a CGT share of the profits of each member of CGT is calculated from the rate of utilization labor resources (HR) and non-current assets (AC) as follows:

$$d = \left( \frac{HR_i}{\sum_{i=1}^N HR_i} + \frac{AC_i}{\sum_{i=1}^N AC_i} \right) \cdot \frac{1}{2} \cdot 100\% \quad (1)$$

where d – the profit share of each participant CGT, %

$HR_i$  – average staffing number or payroll budget employees i-that company-the participant of CGN,

N – number of participants of CGN,

$AC_i$  – the residual value of depreciable property the i-th company-participant CGT.

Thus, the income tax for each participant consolidated group does not depend on magnitude given financial result of the company and of the average number employees (or labor compensation fund) company-the participant CGT, as well as from the remaining value property belonging to him.

Therefore owing to the operating mechanism of distribution of profit at creation of CGN there is a redistribution of tax revenues between the regions, where the main production where the main production facilities CGN and a manpower are concentrated. So, owing to consolidation of taxpayers 2012 in 78% subjects of the Russia there was a growth of receipts on income tax in budgets of subjects of 53 billion rubles. But 18 subjects of the Russia diagnosed decrease in receipts on income tax of 61 billion rubles. In aggregate receipts in budgets of subjects of Russian 2012 decreased by 8 billion rubles [1].

This trend is general reduction tax deduction from the activities of the largest taxpayers in conjunction with the economic crisis in Russia was the reason for the suspension of development the system CGT. According to the Federal Law of 24.11.2014 N366,registered by tax authorities during the 2014 contracts on the establishment of a consolidated group of taxpayers, as well as changes in such contracts associated with the accession to a group of new organizations come into effect until with 1 January 2016 year.

Thus, in 2015 the list of consolidated groups and the composition their members remain unchanged. It will be impossible attract new companies into the acting CGT or to unite large holdings for the purpose optimizing business. In 2014, were registered five agreements on the establishment CGT responsible participants are:JSCo "Oskol Electrometallurgical Combine", JSC "Tander" Bank VTB 24 (JSC),JSC "Sibintertelecom" JSCo intercity and International Telecommunications "Rostelecom" [2,3,4].These organizations in 2015 will not be able to take advantage of CGT, and will

calculate the income tax on general grounds. All this will negatively affect the investment attractiveness of Russia.

#### 4. Analysis regional distribution of tax revenues while creating CGT

We will carry out the analysis of efficiency of the operating technique of consolidation tax liabilities on the example of JSCo tax obligations on the example of JSC Oskol Electric Steel Works (OESW). He is a responsible participant CGT, which consists of 5 large enterprises that are engaged in metal processing. But as a single taxpayer is the consolidated group will be operational only in 2016 as a consequence of the aforementioned reasons.

**Table 1** Initial data for calculating the profit share of each participant CGT [3]

| The names of basic companies CGT            | Average number of employees | The residual value of depreciable assets, thousand rubles. | Profit share of each participant CGT, % |
|---|-----------------------------|--|---|
| JSCo Oskol Electrometallurgical Combine     | 10890                       | 16787407   | 28.8                                    |
| JSCo Holding Company "Metalloinvest"        | 3                           | 46   | 0.00                                    |
| JSCo Lebedinsky Mining processing combine   | 11418                       | 15177983   | 27.9                                    |
| JSCo Mikhailovsky Mining processing combine | 8602                        | 6558927  | 16.4                                    |
| JSCo Uralskaya Stal                         | 11572                       | 13930506   | 26.9                                    |
| TOTAL                                       | 42485                       | 52454869   | 100.0                                   |

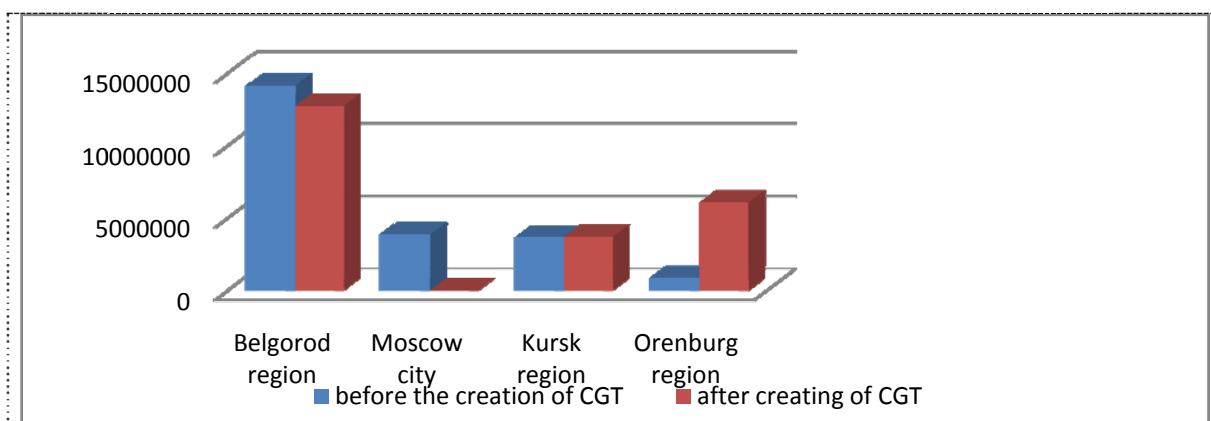
On the basis of the financial statements for 2014 with the registration of the contract on creation of consolidated group of "OESW" in 2014, it would be possible to talk about the following planned data for 2015 on the calculation income tax in the regional budgets.

**Table 2** Analysis of changes in regional tax revenues

| The names of basic companies CGT            | The planned tax into the regional budget to the creation of CGT (in thousand rubles.) | The planned tax into the regional budget after the establishment CGT (in thousand rubles.) | Absolute change (in thousand rubles.) | The region taxpaying |
|---|---|--|---------------------------------------|----------------------|
| JSCo Oskol Electro-metallurgical Combine    | 1433588   | 6470685  | +5037097                              | Belgorod region      |
| JSCo Holding Company "Metalloinvest"        | 3861309   | -  | -3861309                              | Moscow               |
| JSCo Lebedinsky Mining processing combine   | 12695358  | 6268476  | -6426882                              | Belgorod region      |
| JSCo Mikhailovsky Mining processing combine | 3649247   | 3684696  | +35449                                | Kurskaya region      |
| JSCo Uralskaya Stal                         | 828155  | 6043800  | +5215645                              | Orenburgskaya region |
| TOTAL                                       | 22467656  | 22467656   | 0                                     |                      |

Thus, there is a clear trend of redistribution income tax in places where basic production assets and manpower. The tax calculated in the regional budget of Moscow from JSCo "holding company "Metalloinvest" will be reduced to zero. The decrease revenue derived from taxes of the Belgorod

region is somewhat reduced thanks to their redistribution. The most from this CGT will benefit the Orenburg region, where despite its low profitability JSCo Ural Steel", the planned of revenues increasing the budget could amount to 5.2 billion rubles.



**Figure 1.** Change in tax income in the region part of future income from the participants given CGT

Decrease in the tax income of the Belgorod region-insignificant. But if JSCo Sokolsky electrometallurgical works and JSCo MGOK were in different regions, the negative effects of the creation of CGT for the territory on which the JSCo MGOK would be more significant: there would be decrease revenues more than doubled. At the same time JSCo MGOK is not a management company and carries out production activities. Thus, the existing approach to distribution of assessable income participants of CGN leads to a situation when after creation of CGN (or entries into CGN of unprofitable or low-profitable enterprise), the regional budget where such enterprise is located, starts gaining additional tax income on income tax from the responsible participant of CGN. At the same time tax revenues to other regional budgets, which operate successful companies are reduced.

## 5. A new approach to the mechanism distribution of profits participants CGT

To the establishment and operation of the CGT was mutually beneficial to both businesses and regions, you must modify the mechanism of formation and distribution of assessable income.

At the same time, such a mechanism must reflect not only used labor resources in the region and the location of assets there, but also other factors that have contributed to the interest of regional authorities in improving the functioning of the region located in the business, to create conditions for the development of large (anchor) companies.

One of these indicators can act as gross value added, which is the basis of calculation of GVP and the Gross Regional Product. These indicators reflect the socio-economic situation in the country and the region. Also, value added is one indicator of effectiveness of the company. In economic theory, the system of views on value added has a number of directions. Today we can distinguish the following the variety: net value added, economic value added (EVA) [4, 5], corporative value added (CVA), market value added [6,7] and the gross value added. But despite the such a large variety of species, the basis of its definition-is the difference between the total proceeds from sales and the cost of intermediate products [8]. Currently being implemented by the Russian Government's strategy of innovative development of the Russian Federation until 2020 also requires increasing the share of products with higher value added. Is therefore consider it appropriate to put in dependence revenue derived from taxes of regions (in terms of income tax on CGT) of the value added value company-participant CGT, situated on the territory of the region. According to the Methodological Recommendations Economic Development Ministry of the Russian Federation added value"...is defined as the difference between the value produced in the period of accounts of goods and services (gross output) and the value of goods and services consumed in the production process (intermediate consumption)» [9].

Thus, in a general form the value added includes:

- Fund for compensation of employees (including contributions and extra-budgetary funds)
- Profits of the enterprise,
- Consumption of fixed capital [10].

The existing model of distribution taxable profit is used only the first and last elements of the indicator of gross added value: labor compensation fund employees and the residual value of depreciable property, which characterizes Consumption of fixed capital. Therefore we suggest to complement the model of one more component-"profit of the enterprise" [11].

When determining its meaning should be guided by the following requirements:

1. It should characterize the economic performance of the enterprise,
2. It must comply with the norms of the Tax Code, in particular Chapter 25, because it will be used in the distribution of income tax,
3. It must not allow doubling of values,
4. Be simple and understandable in a definition or calculation.

Usually in the calculation of added value include the company's net profit that can match the concept of the tax base for income taxes (excluding income taxes).

When the tax base includes the taxable profit from the main activities, as well as non-operating income and expenses. The latter includes many types of income and expenditure, including those that do not form gross value added of the enterprise in the economic sense of this indicator, namely:

- The income from business interest investments in other companies (Article 250 paragraph 1 of the Tax Code) – this profit should be accounted in the added cost of organization paying such income;
- The income in a type of a positive (negative) exchange difference (Art.250 paragraph 2) – this type of income generally characterizes inflationary changes;
- The income in a type of gratuitously received property (works, services) or property rights (Art.250 paragraph 8 of the Tax Code);
- The income in a type of the sums on which in the reporting (tax) period there was a reduction of the authorized (depository) capital (fund) of the organization if such reduction is carried out with simultaneous refusal of return of cost of the corresponding part of contributions (deposits) to shareholders (participants) of the organization (Art.250 paragraph 16 of the Tax Code)
- In the form of the sums accounts payable (liabilities owed to creditors), written off in connection with the expiration of the limitation period (Article 250 paragraph 18 of the Tax Code), etc.

As can be seen, such income and expenses will be distorting real contribution company the formation of the region's Gross Regional Product. Besides, the structure of Gross Regional Product (GRP) is included gross value added by type Russian National Classifier of Economic Activities, i.e. by type of primary activity company, which for tax accounting more in line with the indicators "income from sales" and "expenses from the production and sale".

Therefore, for economically reasonable distribution of income tax between participants of CGN is offered to define an indicator of "business profits" as income from a primary activity of the enterprise according to the 25th chapter of the Tax Code. It will be equal to the difference between sales proceeds (article 249 of the Tax Code) and expenses from production and realization (article 253 of the Tax Code).

Thus, the formula by calculating share in the profit that will have the region in the form of tax revenues on income tax, will have the following form:

$$d = \left( \frac{HR_i}{\sum_{i=1}^N HR_i} + \frac{AC_i}{\sum_{i=1}^N AC_i} + \frac{P_i}{\sum_{i=1}^N P_i} \right) \cdot \frac{1}{3} \cdot 100\% \quad (2)$$

Where P – the value of the enterprise's profit from operating activities:

$$P = C - S$$

Where C – income from sales (excluding VAT and excise taxes), which are determined accordance with the rules article 249 of the Tax Code and the comply with line 010 of the sheet 02 of the Declaration of income tax;

S – the costs of production and sales, which are defined according to the rules of article 253 of the Tax Code and correspond to the line 030 of sheet 02 of the Declaration of income tax.

The transformations in the calculation formula the share of taxable profits enable to assess the contribution of each participant in the development of CGT all consolidated group.

## 6. Analysis of the effect new methodology on fairness distribution of profit tax between the subjects of the Russian Federation

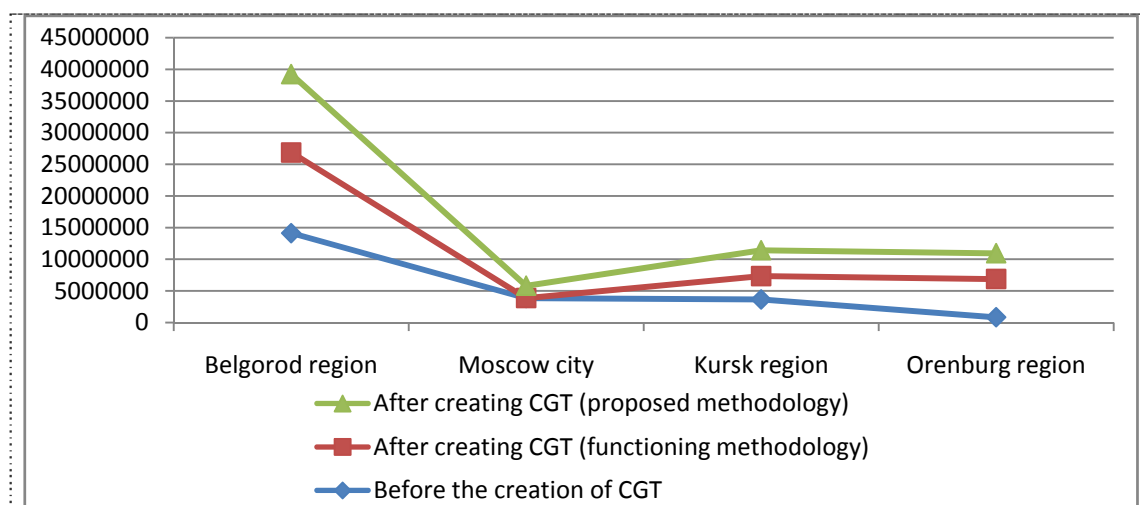
Understanding the importance of these changes will give a push to the adoption solutions aimed at increment of added value of companies, not only on the part of management, but also to create conditions for the development of enterprises by the regional authorities, as their tax revenues from CGT become dependent upon effectiveness of the company on region. In turn, this will boost the socio-economic situation regions and the well-being of the population.

Consider application a new method of distribution income tax consolidated group as an example CGT with the responsible party of "OEMK."

**Table 3:** Analysis of changes in regional tax revenues considering a new method

| The names of basic companies CGT            | The planned tax into the regional budget before CGT in thousand rubles. | Proportion of tax income in the region after the establishment CGT (new method) thousand rubles. | The planned tax into the regional budget after the creation of CGT(new method) Thousand rubles. | The deviations, thousand rubles. |
|---|---|--|---|----------------------------------|
| JSCo Oskol Electro-metallurgical Combine    | 1433588   | 24.2   | 5435550   | 4001962                          |
| JSCo Holding Company "Metalloinvest"        | 3861309   | 8.7  | 1949330   | -1911978                         |
| JSCo Lebedinsky Mining processing combine   | 12695358  | 30.8   | 6930955   | -5764404                         |
| JSCo Mikhailovsky Mining processing combine | 3649247   | 18.1   | 4076491   | 427244                           |
| JSCo Uralskaya Stal                         | 828155  | 18.1   | 4075330   | 3247176                          |
| TOTAL                                       | 22467656  | 100.0  | 22467656  | 0                                |

The new method makes it possible to neutralize the loss of several regional budgets, which are enterprises with a high share of efficiency; is more economically sound redistribution of tax revenues between the regional budgets.



**Figure2.** Bench-making of the proposed method distribution of profit tax participants CGT.

## Conclusion

Enterprise engineering is quite badly need government support, including through the establishment of an effective system of taxation.

The operating system of the consolidated taxation does not allow its application by machine-building holdings owing to the overestimated indicators of conditions entry in the CGT.

Their reduction would allow large industrial organizations to improve performance by reducing the tax base, exemption from tax administration of transfer deals. In addition, the entry of enterprises in the CGT will more effectively redistribute tax revenues between regional budgets. The understanding of a new type distribution of profit tax between the participants CGT must lead association of common efforts between management of the companies and regional authorities on increase of efficiency of functioning of the enterprises which will be expressed not only in creation of additional workplaces and to attraction of investments (the first two indicators of the previous technique), but also receiving return from the mastered capital investments. All this will also contribute to implementation of the overall strategy innovative development of the Russian Federation and to improve the welfare of society.

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## References

- [1] Carmen Comaniciu, Liliana Bunescu (2013) Taxation in Romania—Some Positive Aspects *Procedia Economic and Finance*, Volume 6, 2013, pp. 615–620
- [2] Aziz Jaafar, John Thornton (2015) Tax Haven and Effective Tax Rates: An Analysis of Private versus Public Europe and Firms *The International Journal of Accounting*, Volume 50, Issue 4, December 2015 pp. 435–457
- [3] Don Herrmann, Tatsuo Inoue, Wayne B Thomas (2003) PREDICTING CONSOLIDATE DEAR NINGSIN JAPAN: THEIN CREMENTAL USEFUL NESSOF SUBSIDIAR YEAR NINGS *Advances in International Accounting*, Volume 16, 2003, pp. 85–103
- [4] Qingyue Meng, Hai Fang, Xiaoyun Liu, Beibei Yuan, Jin Xu (2015) Consolidating the social heal thin suranceschemes in China: to ward sane qui table and efficient health system *THELANCET*, pp. 1484–1492
- [5] Anton Orlov An assessment of proposed energy tax reform in Russia: A static general equilibrium analysis *Energy Economics*, Volume 50, July 2015, pp. 251–263



- [6] Evi Pappa, Rana Sajedi, Eugenia Vella Fiscal consolidate on with tax evasion and corruption Journal of International Economics, Pages S 56–S 75, 37th Annual NBER International Seminar on Macroeconomics
- [7] Peter Berling, Fredrik Eng-Larsson Pricing and timing of console dated deliveries in Financial and environmental analysis Europe an Journal of Operational Research, Available online 9 October 2015
- [8] Marina Purina Tax Accounting in the Russian Federation Procedia Economics and Finance, 16<sup>th</sup> Annual Conference on Finance and Accounting, ACFA Prague 2015, 29<sup>th</sup> May 2015, Volume 25, 2015, pp. 127–133
- [9] Muhammad Shahid Siddiqui Environmental taxes and international spillovers: The case of a small open economy Energy Economics, Volume 48, March 2015, pp. 70–80
- [10] Mohammad Al Marzouq, Varun Grover, Jason Bennett Thatcher Taxing the development structure of open source communities: An information processing view Decision Support Systems, Volume 80, December 2015, pp. 27–41
- [11] Noel D. Johnson, Mark Koyama Tax farming and the origins of state capacity in England and France Exploration in Economic History, Volume 51, January 2014, pp. 1–20
- [12] Dolgikh I. N. , Zhdanova A.B. , Bannova K. A. (2015) The Influence of Taxation on Small Enterprise Development in Russia // Procedia - Social and Behavioral Sciences, Volume 166, 2015, pp. 216-221
- [13] Bannova K. A. , Dolgikh I. N. , Pokrovskaya N. V. , Zhdanova A. B. (2015) Developing the Competitive Advantage of Companies and Regions by the Creation of Consolidated Groups of Taxpayers // The 26th International Business Information Management Association Conference: Proceedings IBIMA, Madrid, November 11-12, 2015, pp. 834-842.