Characteristics of the Financial System of Resource Regions in Russia

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Abstract

Background/Objectives: In modern studies, the “resource region” concept is based on the assessment of the mining industry share in the gross regional product. The study aims at identifying additional specific features of the “resource” region financial system. Methods/Statistical Analysis: The base group of regions was compared by the selected set of indicators with the totality of Russian territorial subjects. The benchmarking and index methods, graphical and correlation analysis and marginal analysis were applied. As additional characteristics of the “resource” region, the authors suggest using indicators of the financial system showing the people’s incomes and expenditures, budget tax revenues, including corporate income tax, personal income tax, mineral extraction tax, the balanced financial result of enterprise. Findings: The study has revealed the following features of the “resource” regions finance situation:

- accelerated depreciation of fixed assets in the mineral production influences the declared financial results of the companies decreasing them in the short and medium term, which could reduce the amount of income tax coming into the resource region consolidated budget;
- special conditions of state regulation of the economy established with the participation of a large mining corporation may lead to the region’s “pseudo-specialization” in the mineral extraction;
- “resource” regions have high average per capita incomes compared to other territorial subjects of Russia, while the share of personal income tax in the budget income structure is small;
- the main part of the tax revenues is generated by means of revenues from income tax. The mineral extraction tax is important, but in regions specializing in oil and gas production, the share of this tax in the region consolidated budget is insignificant. Applications/Improvements: Results of the study can be used in the state regulation of the economy with the purpose of improvement of the regional financial management systems.

Keywords: Corporations, Financial System, Resource Region, Taxes

1. Introduction

In terms of today’s economic development strategy of Russia, the so-called “resource” regions play a vital role in the “eastward” movement of the national economy. In modern studies, the concept of a “resource” region, as a rule, is based on the assessment of the extracting industry share in the GRP structure according to the absolute volume of commercial minerals extracted in terms of amount and value. Also, of the vital importance for the resource type regions is the fact that the extraction is carried out by large vertically integrated corporations which accumulate the financial results of business activity in management structures which, as a rule, are not located in the regions of extraction. Therefore, in order to optimize state regulation of the economy, of particular relevance are the studies devoted to the relations arising in the regional economy as a result of extracting companies’ activity. In this domain there are significant studies, determining the content of the budget process, its quality and effectiveness of budget process management in the regions, taking into account financial interest of corporations.
2. Methods

Researchers identify a stable set of “resource” regions having at least a 30% share of extracting industry in the GRP structure (Table 1).

Such an approach to the classification of a “resource” region is clear and quite sufficient. However, in some particular cases of the state regulation of the regional economy it is advisable to take into account additional factors which also depend on the type of extracted resources, the presence of regional mono specialization, tax specifications, specific “region-corporation” and “region - federal center” relationships, taking into account the formed inter-budgetary relationships. Analyzing the economic and financial characteristics of the regions, it is possible to single out additional indicators of a “resource potential” on the basis of groupings according to basic production assets, cumulative regional returns on assets or capitalization ratio, cumulative regional labor intensity and particularly according to the share of particular taxes in the structure of tax revenues.

3. Results

The dominance of mineral extraction in the GRP structure in a certain way affects the composition, quality and movement of the main production and non-production assets in the regional economy. The character of fixed asset movement affects the labor intensity of production processes, infrastructure, income and expenses in production and consumption, which ultimately affects the finances of enterprises and population, public finances, budget organization as well as the budget process. In this regard, the classification of the resource regions based on the share of mineral extraction can be easily supplemented by some characteristics of the regional financial system, taking into account the peculiarities of economic structure of these regions. The analysis of fixed asset structure according to the types of economic activity in the selected group of resource regions (Table 1) shows that the fixed assets in the resource regions deal with mineral extraction and transport (see Table 2) with a very small share of manufacturing.

At the same time, in most parts of those regions, the cost of fixed assets used in mineral extraction and transport is balanced except Nenets and Chukotka Autonomous Okrugs. In some regions it is at least 1.5 times higher. It should be noted that the cost of fixed assets of “transport and communications” branch in federal subjects of the Russian Federation is traditionally high and accounts, on average, for 27.1% in Russia in 2013.

Regions, traditionally classified as “resource” ones, play a leading role as part of federal subjects of the Russian Federation by the size of GRP per capita (Table 3). Average income per capita (Table 4) and average monthly wage (Table 5) are also high in these regions.

However, the share of personal income tax in the consolidated budget of the “resource” region is low compared to other regions (Table 6). In the Russian Federation, on average, the share of personal income tax in tax revenues of consolidated budgets of federal subjects of the Russian Federation was 41.52% at the end of 2014. For reference: in the Chechen Republic the share of personal income tax in tax revenues of consolidated budget is 84.6%. In resource regions the given indicator is below average, while in regions which are the leaders by income tax collection from organizations (KMAO, YNAO Nenets Autonomous Okrug) this indicator is minimal.

The combination of high per capita income, high wages and a low share of personal income tax in the budget income may be due to the specific features of the manufacturing process in the extraction of minerals, including the specific methods of work organization in enterprises of extracting industry:

- a relatively low labor intensity, due to the high level of labor mechanization and automation in the

| Federal subject of the Russian Federation | The share of mineral resource extraction in GRP, 2013, % |
|------------------------------------------|-------------------------------------------------|
| Nenets Autonomous Okrug                  | 78.5                                           |
| Khanty-Mansi Autonomous Okrug            | 67.2                                           |
| Sakhalin Region                          | 60.9                                           |
| Tyumen Region                            | 52.2                                           |
| Yamal-Nenets Autonomous Okrug            | 48.3                                           |
| The Sakha (Yakutia) Republic             | 43.7                                           |
| Chukotka Autonomous Okrug                | 41.8                                           |
| Orenburg Region                          | 36.9                                           |
| Republic of Komi                         | 35.1                                           |
| Kemerovo Region                          | 35.1                                           |
| Arkhangelsk Region                       | 30.2                                           |
extracting industry and consequently a low labor intensity of production;
- the use of accelerated depreciation of fixed assets and consequently the decrease in the share of a work resource used in the service of the mining enterprises;
- a poor service sector aimed at small and medium-sized enterprises in the economy of the extracting industry;
- dominance in producing the job rotation method of labor organization.

### Table 2. The structure of fixed assets by the type of economic activity (at the end of 2013), percent

| Federal subject of the Russian Federation | All fixed assets | extraction of minerals | manufacturing industries | transport and communication |
|------------------------------------------|-----------------|------------------------|--------------------------|-----------------------------|
| Nenets Autonomous Okrug                  | 100             | 85.1                   | 0.1                      | 8                           |
| Sakhalin Region                          | 100             | 61.8                   | 1                        | 21.3                        |
| Khanty-Mansi Autonomous Okrug            | 100             | 54.3                   | 0.6                      | 29.8                        |
| Yamal-Nenets Autonomous Okrug            | 100             | 48.5                   | 0.6                      | 39.1                        |
| Tyumen Region                            | 100             | 47.3                   | 1.5                      | 33.5                        |
| Orenburg Region                          | 100             | 29.6                   | 8                        | 27.6                        |
| Chukotka Autonomous Okrug                | 100             | 28.5                   | 1                        | 7.6                         |
| The Sakha (Yakutia) Republic             | 100             | 27.7                   | 1                        | 31.9                        |
| Arkhangelsk Region                       | 100             | 27.4                   | 5.8                      | 28.8                        |
| Kemerovo Region                          | 100             | 23.6                   | 9.1                      | 18.4                        |
| Republic of Komi                         | 100             | 20                     | 4.8                      | 57                          |

### Table 3. Gross regional product per capita (rubles)

| Federal subject of the Russian Federation | 2012         | Place occupied in the Russian Federation |
|------------------------------------------|--------------|------------------------------------------|
| Nenets Autonomous Okrug                  | 3841049.3    | 1                                        |
| Yamal-Nenets Autonomous Okrug            | 2211580.0    | 2                                        |
| Khanty-Mansi Autonomous Okrug            | 1707991.7    | 3                                        |
| Tyumen Region                            | 1325288.4    | 4                                        |
| Sakhalin Region                          | 1297866.6    | 5                                        |
| Chukotka Autonomous Okrug                | 960056.9     | 6                                        |
| The Sakha (Yakutia) Republic             | 565450.4     | 8                                        |
| Republic of Komi                         | 543089.8     | 9                                        |
| Arkhangelsk Region                       | 387959.0     | 15                                       |
| Orenburg Region                          | 311588.5     | 25                                       |
| Kemerovo Region                          | 261301.2     | 37                                       |

### Table 4. Average income per capita (per month; rubles)

| Federal subject of the Russian Federation | 2013         | Place occupied in the Russian Federation |
|------------------------------------------|--------------|------------------------------------------|
| The Russian Federation                   | 25928        |                                          |
| Nenets Autonomous Okrug                  | 66276        | 1                                        |
| Yamal-Nenets Autonomous Okrug            | 58040        | 2                                        |
| Chukotka Autonomous Okrug                | 52695        | 4                                        |
| Sakhalin Region                          | 39971        | 6                                        |
| Khanty-Mansi Autonomous Okrug            | 39292        | 7                                        |
| The Sakha (Yakutia) Republic             | 31528        | 12                                       |
| Republic of Komi                         | 29335        | 16                                       |
| Arkhangelsk Region                       | 24775        | 23                                       |
| Tyumen Region                            | 24731        | 24                                       |
| Kemerovo Region                          | 19697        | 56                                       |
| Orenburg Region                          | 18628        | 61                                       |
The economic effect of using the job rotation method in labor organization is not discussed in extracting enterprises. However, it should be noted that most of the “resource” regions refer the Far North areas which are subject to legislation governing labor in these areas and providing the following securities for workers:

- high labor remuneration using the so-called regional index and rated increase;
- increased guarantees in case of dismissal connected with business liquidation or workforce downsizing done by an employer;
- granting additional annual paid leave;
- reimbursement of holiday travel costs and baggage costs to the holiday destination and back;
- reimbursement of transportation costs associated with moving home;
- provision of extra time for rest on a weekly basis (to certain categories of Far North workers);
- reducing the weekly working time (to certain categories of Far North workers);
- health care guarantees.

Currently, these guarantees are provided mainly at the expense of the enterprises’ own funds which are registered in the territories belonging to the regions of Far North. This results in an increase of production costs and cumulative costs in the economy of the resource region. Thus, in the system of state regulation of labor in the regions of Far North there occurs a boomerang effect: the implementation of social securities guaranteed by federal law significantly increases the overall costs of the regional economy, which leads to a rise in the cost of production and consumption in the service sector. Moreover large corporations that extract resources by using shift method of the labor organization substantially minimize costs associated with guarantees provision of workers in the regions of Far North.

Using the job rotation method is quite an objective process, preconditioned by an increased mobility of the labor force, a decline in the share of transportation costs in the cumulative costs of large companies, the desire to minimize taxation, salary budget and fixed costs. But it should also be noted that the socio-economic development of the resource regions in the long term will be significantly influenced by the mobility of technologies.

### Table 5. Average monthly nominal gross payroll of corporate employees (rubles)

| Federal subject of the Russian Federation | 2013 | Place occupied in the Russian Federation |
|------------------------------------------|------|----------------------------------------|
| The Russian Federation 1)                | 29792|                                       |
| Yamal-Nenets Autonomous Okrug            | 69192| 1                                      |
| Chukotka Autonomous Okrug                | 68261| 2                                      |
| Nenets Autonomous Okrug                  | 61765| 3                                      |
| Khanty-Mansi Autonomous Okrug            | 54508| 6                                      |
| Sakhalin Region                          | 49007| 8                                      |
| The Sakha (Yakutia) Republic             | 46542| 10                                     |
| Republic of Komi                         | 37717| 12                                     |
| Tyumen Region                            | 31620| 18                                     |
| Arkhangelsk Region                       | 30205| 20                                     |
| Kemerovo Region                          | 25326| 35                                     |
| Orenburg Region                          | 21593| 54                                     |

### Table 6. Share of personal income tax in the consolidated budget of resource region

| Federal subject of the Russian Federation | Share of personal income tax in the consolidated budget of a federal subject, % | Place occupied in the Russian Federation |
|------------------------------------------|---------------------------------------------------------------------------------|----------------------------------------|
| The Russian Federation                   | 41.52                                                                           |                                       |
| Arkhangelsk Region                       | 54.70                                                                           | 12                                     |
| Kemerovo Region                          | 48.33                                                                           | 28                                     |
| Chukotka Autonomous Okrug                | 38.59                                                                           | 64                                     |
| Republic of Komi                         | 38.51                                                                           | 65                                     |
| Orenburg Region                          | 33.51                                                                           | 73                                     |
| The Sakha (Yakutia) Republic             | 31.01                                                                           | 77                                     |
| Tyumen Region                            | 30.30                                                                           | 79                                     |
| Yamal-Nenets Autonomous Okrug            | 29.51                                                                           | 80                                     |
| Khanty-Mansi Autonomous Okrug            | 26.41                                                                           | 83                                     |
| Nenets Autonomous Okrug                  | 19.55                                                                           | 86                                     |
| Sakhalin Region                          | 17.01                                                                           | 87                                     |
used in the extracting industry. An increasing technological mobility of basic production assets which are used in the extraction of minerals may indicate a decrease in the proportion of expensive fixed assets of the extracting industry in the structure of all fixed assets of the resource region economy. An increase in the mobility of the main production factors and a decrease in labor intensity and energy intensity of production can further predetermine a decrease of corporate interest in infrastructure development on the territories close to field deposits. In its turn this may result in a decrease of the regional production capacity and reduction of the regional infrastructure, stagnation of the non-resource sector of the regional economy, deterioration of the situation in the social sphere, a non-compensable wear and reduction in the value of non-production fixed assets including the housing sector on the territory of the “resource regions”.

A stagnating infrastructure predetermines the reinforced effect and the emergence of new factors of increased production and consumption costs. As a result, the resource regions take the leading position in terms of consumer spending per capita (Table 7). Underdeveloped transport infrastructure causes an increase in logistics costs. The physical and moral depreciation of fixed infrastructural assets leads to an increase in the production costs of goods and services, and given the undeveloped mechanisms of market competition on the territory of resource regions, it leads to an increase in consumer prices on the commodity market. The growth of the urban population, which is quite objective and logical in modern conditions, implies an increase in people’s spending on such vitally important infrastructural sectors of the urban economy as water supply, energy and transport. Utilities and housing costs account for a significant share in the consumer spending in the resource regions (in the Republic of Sakha (Yakutia) up to 20% of the average monthly wage). Depreciation and accident risk of municipal infrastructure elements increases the costs of upkeep them and leads to a rise in utility rates and the need for cross subsidizing.

These circumstances significantly affect income and expenditure balance in the public finances, the budget process which is aimed, among other things, at the need for subsidizing the infrastructure industries which provide the extraction process. Certainly, the negative effect of production and consumption appreciation factors is offset by various mechanisms of state regulation of the economy. In the system of state regulation, the main instruments are the budget of a federal subject, the state financial policy which, as a rule, includes an investment policy, a fiscal policy, a tax policy, etc.

In this connection, of great importance for the regions of resource type is the organization, upkeep and distribution, according to the levels the Russian Federation budget system, of tax revenues, which characterize the added value generated in the extracting sector: Mineral Extraction Tax (MET) and income tax.

The analysis of specific value of MET per one economically active person by the end of 2013 shows that this indicator exceeds the average Russian Federation's index in seven resource regions (Table 8). The share of MET dominates as part of the revenues administered by the tax authorities on the territory of a resource region (Table 9). In other words, MET is the largest tax collected on the territory of resource regions, coming into all levels of the budget system.

However, the share of MET coming to the regional consolidated budgets is considerably different (Table 10). For the majority of resource regions MET is not a tax, carrying weight in the composition of income in the consolidated budget. Exceptions are Chukotka Autonomous Okrug and The Sakha Republic (Yakutia). The consolidated budgets of these regions are almost entirely fed by the tax on the extraction of other minerals (except for

Table 7. Average consumer spending per capita (per month; rubles)

| Federal subject of the Russian Federation | 2013 | Place occupied in the Russian Federation |
|-----------------------------------------|-----|---------------------------------------|
| The Russian Federation                  | 19,075 | 1 |
| Sakhalin Region                         | 27,846 | 2 |
| Yamal-Nenets Autonomous Okrug           | 27,465 | 3 |
| Khanty-Mansi Autonomous Okrug - Yurga   | 24,686 | 5 |
| Tyumen Region                          | 22,173 | 8 |
| Nenets Autonomous Okrug                | 20,331 | 13 |
| Republic of Komi                       | 19,338 | 18 |
| The Sakha (Yakutia) Republic           | 19,269 | 19 |
| Arkhangelsk Region                     | 17,457 | 25 |
| Chukotka Autonomous Okrug              | 16278 | 32 |
| Kemerovo Region                        | 13,892 | 53 |
| Orenburg Region                        | 13,842 | 54 |
minerals in the form of natural diamonds) and 100% of the tax on extraction of mineral resources in the form of natural diamonds, respectively.

Nearly 100% of tax on the extraction of s in the form of hydrocarbons goes to the federal budget in the majority of resource regions. Thus, we can state the fact that the majority of the resource regions do not receive adequate budgetary and tax effects from the extraction of minerals from MET. Certainly, the system of intergovernmental fiscal relations partially compensates for the region losses in such distribution of MET, caused by the existing relationships between the federal center and the federal subjects of the Russian Federation. However, the methodology of distributing the financial support funds of the regions, developed in the late 90s, does not fully correspond to the real situation in the economies of the resource regions.

We should also take into account the relationships arising with regard to the distribution of added value

| Federal subject of the Russian Federation | MET amount per an economically active person, thousand rubles | Place occupied in the Russian Federation |
|------------------------------------------|-------------------------------------------------------------|----------------------------------------|
| The Russian Federation                   | 43                                                          |                                        |
| Khanty-Mansi Autonomous Okrug - Yurga    | 1,534                                                       | 1                                      |
| Yamal-Nenets Autonomous Okrug            | 1,198                                                       | 2                                      |
| Nenets Autonomous Okrug                  | 1,017                                                       | 3                                      |
| Republic of Komi                         | 146                                                         | 4                                      |
| Orenburg Region                          | 107                                                         | 6                                      |
| The Sakha (Yakutia) Republic             | 104                                                         | 7                                      |
| Chukotka Autonomous Okrug                | 94                                                          | 8                                      |
| Tyumen Region                            | 29                                                          | 15                                     |
| Sakhalin Region                          | 14                                                          | 17                                     |
| Kemerovo Region                          | 4                                                           | 20                                     |
| Arkhangels Region                        | 1                                                           | 31                                     |

| Federal subject of the Russian Federation | MET share in the composition of income administered by the tax authorities of the region, % | Place occupied in the Russian Federation |
|------------------------------------------|---------------------------------------------------------------------------------|----------------------------------------|
| The Russian Federation                   | 23                                                                             |                                        |
| Khanty-Mansi Autonomous Okrug - Yurga    | 73                                                                             | 1                                      |
| Yamal-Nenets Autonomous Okrug            | 64                                                                             | 2                                      |
| Nenets Autonomous Okrug                  | 62                                                                             | 3                                      |
| Orenburg Region                          | 54                                                                             | 4                                      |
| Republic of Komi                         | 50                                                                             | 5                                      |
| Tomsk Region                             | 45                                                                             | 6                                      |
| The Sakha (Yakutia) Republic             | 40                                                                             | 7                                      |
| Tyumen Region                            | 35                                                                             | 12                                     |
| Chukotka Autonomous Okrug                | 30                                                                             | 14                                     |
| Sakhalin Region                          | 2                                                                              | 37                                     |
| Arkhangels Region                        | 1                                                                              | 48                                     |
and the results of business activity (first of all the financial results) of extracting corporations and serving the interests of the resource regions in this distribution. As a rule, the extracting corporations have a vertically integrated organizational management and allocation of resources with the centralization of financial flows in the major metropolitan cities. With such organization of business management, the added value, generating the financial results of enterprises as part of corporations and holding companies, is not distributed in favor of the resource regions, which leads to a decrease in tax revenues of regional budgets. However, corporate income tax is still the “heaviest” tax in the consolidated budget of the resource region (Table 11).

4. Discussion

Peculiarities of revenue distribution of income tax into the budgets of various levels give a certain opportunity to group the resource regions and draw conclusions about

Table 10. The share of MET in the consolidated budget of the federal subject

| Federal Subject of the Russian Federation | MET share in the consolidated budget of the federal subject, % | Place occupied in the Russian Federation |
|------------------------------------------|-------------------------------------------------------------|----------------------------------------|
| The Russian Federation                   | 0.3                                                         | 1                                      |
| Chukotka Autonomous Okrug                | 17.68                                                      | 2                                      |
| The Sakha (Yakutia) Republic             | 15.68                                                      | 8                                      |
| Kemerovo Region                          | 3.43                                                       | 8                                      |
| Arkhangelsk Region                       | 1.06                                                       | 19                                     |
| Orenburg Region                          | 0.93                                                       | 21                                     |
| Yamal-Nenets Autonomous Okrug            | 0.47                                                       | 28                                     |
| Khanty-Mansi Autonomous Okrug - Yurga    | 0.39                                                       | 30                                     |
| Republic of Komi                         | 0.38                                                       | 31                                     |
| Nenets Autonomous Okrug                  | 0.26                                                       | 44                                     |
| Sakhalin Region                          | 0.12                                                       | 57                                     |
| Tyumen Region                            | 0.06                                                       | 79                                     |

Table 11. The share of income taxes in the consolidated budget of the federal subject

| Federal subject of the Russian Federation | Income share in the consolidated budget of the federal subject, % | Place occupied in the Russian Federation |
|------------------------------------------|-----------------------------------------------------------------|----------------------------------------|
| The Russian Federation                   | 30.39                                                          | 1                                      |
| Sakhalin Region                          | 75.25                                                          | 1                                      |
| Nenets Autonomous Okrug                  | 54.58                                                          | 2                                      |
| Tyumen Region                            | 52.92                                                          | 3                                      |
| Khanty-Mansi Autonomous Okrug - Yurga    | 51.58                                                          | 4                                      |
| Orenburg Region                          | 41.55                                                          | 6                                      |
| Yamal-Nenets Autonomous Okrug            | 38.85                                                          | 7                                      |
| The Sakha (Yakutia) Republic             | 37.94                                                          | 8                                      |
| Chukotka Autonomous Okrug                | 31.61                                                          | 16                                     |
| Republic of Komi                         | 29.00                                                          | 19                                     |
| Kemerovo Region                          | 22.13                                                          | 43                                     |
| Arkhangelsk Region                       | 16.61                                                          | 66                                     |

the specialization of a certain region in the extraction of minerals. The analysis shows that the share of income tax in the consolidated budget of a federal subject with a resource-based economy prevails and this tax is the main component of the tax potential of these regions. The share of income tax in the tax revenues of the consolidated budget of a resource region is much higher than in other regions. For comparison: the average value for the Russian Federation is 30.39%, the minimum value in the Chechen Republic is 4.66%.

In this regard, the analysis of the factors affecting the financial results of enterprises may be of a particular interest, as well as the analysis of the impact of the enterprises’ balanced financial result on the organizations’ income tax coming into the consolidated budget of the resource region. The volume of production and sales is one of the main factors affecting the financial results of enterprises in the region, the taxation of income and, finally, the socio-economic development as a whole. The analysis of production index dynamics in the mining
industry in relation to the year 2000 on the territory of the resource regions shows a significant differentiation of resource regions according to the pace of development of this sector (Figure 1).

The greatest increase in the mineral extraction volume in relation to 2000 is observed in Sakhalin region (more than 600%). Such substantial increase in production volume is connected with the development of the Okhotsk shelf of Northern Sakhalin, the main petrolierous region of the Far East of Russia (Sakhalin-1, Sakhalin-2 projects). The record-breaking value of extracting production index was recorded in Chukotka Autonomous Okrug (in 2010 more than 900% compared to 2000). The record-breaking intensification of production in this region was provided by a considerable number of companies affiliated with “Sibneft”, through which the sale of crude oil and petroleum products was carried out.

The smallest increase (less than 10%) is in Yamal-Nenets Autonomous Okrug. The regions, which are the major taxpayers of the Russian Federation, specializing in oil and gas production: Khanty-Mansi Autonomous Okrug and Yamalo-Nenets Autonomous Okrug have an ambiguous dynamics of production in the area of specialization which showed a slightly negative trend from 2006 to 2013. A slowdown in oil and gas production in such basic period (2000) is caused by many factors:

- a significant change in the macroeconomic environment;
- the presence of crisis phenomena in the global economy and the resulting instability on the markets of hydrocarbons;
- the reduction of well rates, etc.;
- a decrease in the world oil prices and a relative increase in the extraction costs in the deposits of mineral resources of these regions in connection with global trends that change the technological mode in the extraction of commercial minerals (the development of shale gas industry, shale oil and of tight oil industry, bitumen industry etc. radically changes the situation on the global markets of hydrocarbons)\(^3,6\).

The extraction industry in Sakha (Yakutia) Republic has the greatest stability in the dynamics of the production index: a stable positive trend (in 2013 - 74.4% compared to 2000). “Failures” are observed in 2005 and 2009 respectively, which is explained by the effect of global economic crises. Due to specialization in diamonds and precious metals the economy of extracting industry in Sakha (Yakutia) Republic is not subject to significant influence of price instability on world markets of hydrocarbons. Moreover, due to the fact that the industry retains export orientation, the changes in currency exchange rates affect the increase of export earnings in

**Figure 1.** The dynamics of production indexes by economic activity of “minerals extraction” (in per cent to the year 2000).
rubles and the growth of the production index. The stability of rough diamond markets gives additional income to the consolidated budget of Sakha (Yakutia) Republic and the ability to maneuver financially in difficult macroeconomic conditions.

In other matters, it should be noted that in the structure of production by economic activity of “mineral extraction” in Sakha (Yakutia) Republic, the proportion of energy minerals rose more than twice from 2007 to 2013 (from 18.6% to 40.5%) (Table 12). Taking into account the presence of fast growing pipeline transport in the economy of the Republic (the ESPO PIPELINE and “Power of Siberia” projects for oil and gas transportation), the proportion of mined hydrocarbon material in products of extracting industry will increase in the long term. Some researchers believe that large-scale exploration of hydrocarbon potential by large corporations could lead to a redistribution of financial resources generated by extraction of minerals activities on the territory of the Republic, in favor of corporations and the Federal Centre 3,4.

Production volume in the extracting industry has a direct impact on the financial results of extracting companies and the financial results should be correlated with the amounts of organizations’ consolidated budget incomes from enterprises’ income tax. Taking into account the fact that on the territory of the resource regions the added value is formed mainly as a result of the activity of several major mining companies, for a profound analysis it is admissible to use government statistics index, i.e. “balanced financial result (profit minus losses) of organizations” as an indicator which characterizes the cumulative taxable financial result.

Figures 2, 3, 4, 5 present a graphical analysis of the relationship “balanced financial result of enterprises and income tax in the consolidated budget” in some resource regions. With minor assumptions, this kind of relationship can be interpreted in the same way as the relationship “Financial corporations and the budget of the region.”

The analysis shows significant differences in the organization of these relations in different regions. In Sakha (Yakutia) Republic income tax in the consolidated budget strongly correlates with the balanced financial result of enterprises, which mainly depends on the results of joint-stock company “ALROSA.” There is a positive

| Table 12. The structure of the volume of shipped products according to the economic activity of “mineral extraction” (factual prices; per cent) |
|---------------------------------------------------------------|
| **Extraction of minerals - total** | **2007** | **2013** |
| | **including the types of activities** | **including the types of activities** | |
| | extraction of fuel and energy minerals | extraction of fuel and energy minerals | |
| | extraction of s, excluding fuel and energy minerals | extraction of fuel and energy minerals | extraction of s, excluding fuel and energy minerals |
| The Russian Federation | 100 | 88.7 | 11.3 | 89.2 | 10.8 |
| Moscow | 100 | 99.7 | 0.3 | 99.98 | 0.02 |
| Nenets Autonomous Okrug | 100 | 99.99 | 0.01 | 99.95 | 0.05 |
| Tyumen Region | 100 | 99.9 | 0.1 | 99.9 | 0.1 |
| Khanty-Mansi Autonomous Okrug - Yurga | 100 | 99.9 | 0.1 | 99.9 | 0.1 |
| Yamal-Nenets Autonomous Okrug | 100 | 99.7 | 0.3 | 99.9 | 0.1 |
| Sakhalin Region | 100 | 99.3 | 0.7 | 99.7 | 0.3 |
| Republic of Komi | 100 | 98.7 | 1.3 | 99.2 | 0.8 |
| Orenburg Region | 100 | 92.1 | 7.9 | 94.3 | 5.7 |
| Kemerovo Region | 100 | 93.9 | 6.1 | 77.1 | 22.9 |
| The Sakha (Yakutia) Republic | 100 | 18.6 | 81.4 | 40.5 | 59.5 |
| Chukotka Autonomous Okrug | 100 | 25.5 | 74.5 | 2.9 | 97.1 |
Characteristics of the Financial System of Resource Regions in Russia

In Khanty-Mansi Autonomous District, Yamalo-Nenets Autonomous District and in Orenburg region the dynamics of organizations’ income tax in the consolidated budget has such a strong correlation with the balanced financial result of enterprises in Sakha (Yakutia) Republic. This can be explained, among other things, by the existence of conflicts in the organization of the government statistics, fixing the financial results of budget revenue generating enterprises and in the organization of profit taxation of extracting companies. The system of relations governing the taxation of corporations in these regions presupposes substantial tax preferences for extracting enterprises and centralization of profit in the centers located outside these regions.

At the same time, the dynamics of income tax coming to the consolidated budgets is different in its stable trend which can have a positive impact on the management, regulation of the economy and the socio-economic development of the regions. This fact indicates the presence of mechanisms, neutralizing the fluctuations in macroeconomic systems and the instability of world markets of mineral resources.

**Figure 2.** Ratio “balanced financial result of enterprises and income tax in the consolidated budget,” Yamalo-Nenets Autonomous Okrug.

**Figure 3.** Ratio “Balanced financial result of enterprises - income tax in the consolidated budget,” Khanty-Mansi Autonomous Okrug.

**Figure 4.** Ratio “Balanced financial result of enterprises - income tax in the consolidated budget,” Yamalo-Nenets Autonomous Okrug.

**Figure 5.** Ratio “Balanced financial result of enterprises - income tax in the consolidated budget,” Orenburg Region.
5. **Conclusion**

Based on the results of the analysis it is possible to draw conclusions about the presence of some specific characteristics of the financial system in the resource region.

1. The main feature of the resource economy at the regional level is a large share of mineral extraction in GRP (over 30%). Among the subjects with such share of extraction of minerals it is advisable to allocate regions specializing in the extraction of mineral resources (KMAO, YNAO, Orenburg region), which are registered on the territory of the largest taxpayers in Russia and where a significant part of the national income is formed. But it is necessary to take into account that the presence and dynamics of the industries processing raw materials into finished products in regions with a good resource base and diversified economy in such regions as the Republic of Tatarstan and Tomsk region (this study does not analyze the finances of these regions). In these regions the share of mineral extraction in the GRP structure tends to decrease from 30% in 2005 to 20% in 2013 in the Republic of Tatarstan and from 35% in 2005 to 29% in 2013 in Tomsk region.

2. The predominance of mineral extraction as part of the GRP identifies a high proportion of the cost of basic production assets (BPA) of this sector in the structure of fixed assets of the regional economy. The cost of BPA of extracting industry is largely determined by the depreciation policy of the state in relation to extracting industry companies. The possibility of using accelerated depreciation of basic production assets in extracting operations affect the financial results of the companies towards the decrease in the short and medium term, which could reduce the amount of income tax, coming into the consolidated budget of the resource region. The effects of using the accelerated depreciation of fixed assets by large extracting companies on a regional level are poorly understood and require further research.

3. As part of the studied group of resource regions (Table 1) we can single out Chukotka Autonomous Okrug with special conditions of state regulation of the economy which have developed with the participation of a large extracting corporation. On the territory of Chukotka Autonomous District an economic area was de-facto formed with the most favorable conditions for the monopoly of a big extracting corporation. As a result of a special (unique) arrangement of subfederal control system, determined, among other things, by a special “region-corporation” relationship, we can observe extremely high rates of socio-economic development in this region since 2001, and therefore, the revenues of the consolidated budget have increased multi-fold given the almost unchanged production potential. Thus, there appears a “pseudo-specialization” of the region on the extraction of minerals.

4. The analysis of some of per capita indicators characterizing the finances of population shows that large amounts of GRP per capita which ensures the high average per capita incomes in the resource regions compared to other federal subjects of the Russian Federation. The share of personal income tax in the budget revenue structure of the resource regions is small compared to the other subjects of the Russian Federation. This fact can be explained by the specificity of the resource economy in which there is the use of technology with low labor intensity of production and the job rotation method of work organization.

5. Among the factors influencing the high consumer spending, it is appropriate to single out a slow pace of infrastructure development and as a consequence a complex transportation scheme of cargo delivery, a significant deterioration and an accident risk state of the utilities as well as a poor infrastructure of product markets. The increasing mobility of the main factors of production (labor and capital) in the extraction of minerals may aggravate the effects of appreciation factors of production and consumption in the long term.

6. The activity of appreciation factors is offset by grants and subsidies of the budget, the main tax revenues of which are made up of income tax, personal income tax and tax on the extraction of s. The analysis of the revenue structure in the consolidated budget of the resource regions shows that the bulk of the tax revenues is generated by cash inflow from income tax. The tax on extraction of s (MET) is of important significance, but in the regions, specializing in oil and gas extraction, MET in the form of crude hydrocarbon is inconsiderable in the consolidated budgets of the federal subjects. Within the framework of analyzing the income structure, tax potential and tax distribution levels of the budget system we can single out the Sakha (Yakutia) Republic, whose consolidated budget is fed by 100% of MET coming in the form of diamonds.
It should be noted that in the majority of resource regions, the proportion of income to the federal budget is growing faster than the regional component. In the Sakha (Yakutia) Republic in 2014, the volume of tax revenues of the federal budget grew 7.36 times compared to 2013 at the expense of the production increase of fuel-energy resources. This fact should be taken into account when elaborating field development projects, in the programming of state regulation of the regional economy as well as in strategic planning, etc.

7. In order to optimize the regional financial management systems under the conditions of resource economy, we should take into account that preferences including taxation ones, which stimulate the development of the deposits at the early stages of development, could have a reverse effect. Studies show that implementation of major oil projects in the regions under the conditions of preferential taxation initially provides a short-term increase in the regional budget efficiency. The increase in the budget effect leads to an increase in the volume of expenditure commitments of the regional budget. However, a short-term growth of budget efficiency is followed by a decline of tax efficiency, which adversely affects the fiscal capacity of increased consumable commitments in the region.

Thus, based on the results of the analysis of the financial system specificity in the resource region, in the author’s opinion, it is appropriate to draw attention to the need for improvement of the regional economic management in the following areas:

- adaptation of the tax system to modern conditions of economic management (including, and especially in the Arctic), in accordance with the interests of large corporations and resource regions (“profit-infrastructure”), including an improved depreciation policy in view of the increasing mobility of production factors;
- accounting for the degree of the resource base development of the region with an assessment of the quality of infrastructure in determining the prospects of the regional economy development by resource scenario;
- assessment of the impact of large extracting corporations on the budget process in the region;
- improvement of legislation which regulates “corporation-region” relations on the basis of assessing the degree of presence of major mineral companies throughout the region;
- development of the competitive environment in extractive industry, the creation of conditions for effective functioning of small and medium-sized service companies in the field of minerals extraction, including production equipment and technology.

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7. References

1. Belousova SV. Resource regions: economic opportunities and financial justice. ECO. 2015; 6:40–8.
2. Ilyina IN. Prospects for development of resource regions of the Russian Federation in strategic planning documents. Issues of State and Municipal Management. 2013; 2:83–102.
3. Nefyodkin VI. Budget curse of the resource regions. ECO. 2015; 6:5–24.
4. Tokarev AN. How to take into account the interests of the oil regions. ECO. 2015; 6:25–39.
5. Kryukov VA. Institutional barriers for development of the oil and gas sector in Russia exemplified by Eastern Siberia. Journal of New Economic Association. 2012; 4:151–7.
6. Kryukov VA, Selezneva OA. Oil and gas resources in a changing institutional environment. Economics Journal HSE. 2013; 3:407–28.