Analysis of Sectoral and Regional Wage Differentiation in the Russian Economy in 2005-2013

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Abstract. This article is devoted to the consideration of indicators of sectoral and regional differentiation of wages in the Russian economy in the context of the development of a market economy. The author notes that one of the main conditions for the effective operation of the market mechanism was the transformation of labor power into a commodity. The indicators of sectoral and regional differentiation in wages in the Russian labor market in 2005-2013 are studied, its causes are identified, among which one can note the presence of fierce competition among private enterprises, the ratio of supply and demand in the labor market, etc. It was determined that in terms of the nominal average monthly wage, the Chechen Republic lagged behind many Russian regions in the period under review. The same situation was observed in the Chechen-Ingush Republic both in 1985 and in 1990, which was behind many autonomous republics of the Russian Federation in this indicator. Great importance in the work is given to the need to develop in the Russian economy a system of “social partnership”, which provides more flexible interaction between employees and employers when concluding labor contracts. The author notes that in countries where the majority of workers were covered by the form of social partnership, labor conflicts were less common and there were fewer sectoral differences.

1 Introduction

Among the most important consequences of the market transformation of the Russian economy is the transformation of labor into a commodity, since the presence of a free market for factors of production is one of the main conditions for the effective operation of the market mechanism. In the new market conditions of management, the number of additional payments and allowances for the peculiarities of working conditions, which were already taken into account in tariff rates and official salaries, also decreased. New forms of remuneration of labor appeared as shares of corporations, which were often used at the first stage of economic reform as payment for the main management staff; the insurance premium was also widely used to pay, which allowed employers to save costs on wages.

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2 Research Methodology

In the course of this scientific study on the development of the Russian labor market and labor relations in the post-perestroika period, the works of famous Russian scientists devoted to the study of the features and problems of the development of the modern labor market were used.

Safonov A.L. notes that some scientists for the growth of labor productivity as a system of encouragement recommend distribute the profits of the enterprise between the employer and the employee.

According to Rakoti V.D., wages are the result of the sale of the ability to work by the employee and its purchase in the emerging labor market by the employer. The terms of this sale and purchase are fixed in the employment contract.

According to K. Marx, the cost of labor power, which is included in its price, is represented by two components: the “paid part of the working day”, when the employee works for himself, and the “unpaid hours of labor”, when the worker’s labor is aimed at providing profit to the capitalist.

Belousov V.M. and Ershova T.V. note that the issues of remuneration have always been in the focus of attention of many outstanding scientists of both past and present times. So, it was distribution and consumption, according to the French economist and founder of “economic romanticism” Simond de Sismondi, that should have been the subject of political economy.

Rozanova N. and Nazarenko A. believe that the development of “social partnership” contributes to more flexible interaction between employees and employers when concluding employment contracts and, accordingly, should be actively applied in Russian practice.

This scientific study was carried out using such scientific methods as statistical analysis, comparative analysis, functional analysis, positive and normative analysis. The work is built in accordance with the problem-chronological principle, as well as the principles of consistency and scientific objectivity.

3 Results and Discussions

With the development of market relations in the economy, the state transfers to economic entities the right to organize all wages, taking into account its differentiation. The differentiation of labor was influenced by various features associated with the fierce competition of private enterprises, as well as the ratio of supply and demand in the labor market. When analyzing the sectoral differentiation of wages, which reflected the specifics of work, regionality was seen in its dependence on the well-established marketing of finished products, since wages depended on the income received from the sale of products. Industry differentiation allowed the employee to increase his income without changing his profession, thereby reflecting not only the industry specifics of labor, but also the profitability of production.

It is worth recalling that the classical economic concept of wages is considered by K. Marx in such his monumental work as “Capital”. He believed that wages are the “labor price” of the worker, which he sells to the capitalist. The scientist determined the price of labor force using the category “working time”. According to Marx, the actual value of labor power, which is included in its price, consists of the “paid part of the working day”, when the worker works for himself, and “unpaid hours of work”, when the worker creates profit for the capitalist [1, p. 480, 483].

A study of data on the level of average monthly wages in the Russian economy for 2012 and 2013 indicated the presence of significant sectoral differentiation in this indicator. So,
according to the data of 2013, the highest level of this indicator could be observed in such an activity as the production of petroleum products - 69,771 rubles, while the lowest was in the textile and clothing industry - 13,301 rubles, the differentiation indicator between them exceeded the mark by 5 times. [2, p. 267-268].

The highest level of wages in 2013 was about 132.9% higher than the all-Russian average level of the same indicator - 29,960 rubles, while the lowest was about 56% lower than the average monthly all-Russian average wage. From 2012 to 2013, there was an increase in the average monthly nominal wage in the economy by 12.4 %, while its largest increase was observed in education - by 23.2%, and the smallest - by 4.9% - 5.8% in such activities as pulp and paper production and publishing and printing activities. [2, p. 267]

A study of wage levels by type of ownership indicated that, in general, the highest average wages, based on data for October 2013, could be observed among workers employed in enterprises of non-state ownership, especially activities such as recreation , entertainment, culture and sports - 103,780 rubles; activities of air and space transport - 85,672 rubles; extraction of crude oil and natural gas, provision of services in these areas - 60,845 rubles. [3]

At the same time, at enterprises of non-state form of ownership of such types of economic activity as agriculture, hunting and forestry; production of coke, oil products and nuclear materials; chemical production; production of rubber and plastic products; transport, the lowest level of wages was observed in comparison with similar productions of the state form of ownership.

The highest average wages of employees of private enterprises exceeded those of state and municipal enterprises by more than 1.8 times. [3]

The average salary characterizes the level of development of the economy, various industries, regions, economic entities, the well-being of certain strata and members of society. An analysis of only average indicators cannot give a sufficiently objective picture of reality if we do not consider these indicators differentiated by population groups.

Analysis of the distribution of wages by decile groups of workers in the Russian economy in 2005 to 2013, according to Rosstat, allows us to say that the average accrued wages in 2013 compared to 2005 increased by about 277% - from 7816 rubles to 29453 rubles ; for all decile groups of workers, there was also an increase in wages, while the highest growth rate was for the first decile - by 467% - from 1090 rubles to 6183 rubles, for the tenth decile the increase was 260% - from 27105 rubles to 75081 rubles. Wages attributable to the highest paid 10% group of workers - 97576 rubles, in 2013 - more than 16 times higher than the same indicator of 10% of the lowest paid part of workers - 6183 rubles, while in 2005 - more than 25 times . [4, p. 250] It is worth noting that before 1992 this figure was 7, while in the UK and France in 1998 the gap reached 10 times, in the USA - 20 times. [5, p. 179]

At the same time, in relation to the average wage level for the period under review, the remuneration of the highest paid 10% group of workers in the Russian economy in October 2013 was 3.3:1, while the same indicator for the lowest paid 10% group was only about 21% of the average wage, in October 2005, respectively, 3.47:1 and 13%. [4, p. 250]

Examining the ratio of the average wages of the decile most and least paid groups of workers by sectors of the national economy, one can notice the greatest differentiation of this indicator in the field of financial activity - more than 21; operations with real estate, rent and provision of services - more than 20; wholesale and retail trade; repair of motor vehicles, motorcycles, household and personal items - more than 19; in the field of organizing entertainment, culture, recreation and sports - also more than 19 times. [4, p. 256-257]

We could observe its smallest value in such areas of activity as the production of other non-metallic mineral products; metallurgical production and production of finished metal.
products; textile and clothing production; production of leather, leather goods and footwear; agriculture, hunting and forestry - here it was in the range from 8.4 to 8.7 [11-12]. At the same time, on average across the country, the wage differentiation indicator for the most and least paid decile groups of workers was approximately 16. [4, p. 256-257]

Examining the sectoral level of average monthly wages by regions of the North Caucasus Federal District, we will also notice a significant differentiation between them in terms of this indicator, which is confirmed by the data in the table below.

**Table 1.** Nominal accrued average monthly wages by regions of the North Caucasus Federal District in January-May 2013 in rubles

<table>
<thead>
<tr>
<th>Sector</th>
<th>Republic of Dagestan</th>
<th>Republic Ingushetia</th>
<th>Kabardino-Balkarian Republic</th>
<th>Karachay-Cherkess Republic</th>
<th>Republic of North Ossetia-Alania</th>
<th>Chechen Republic</th>
<th>Stavropol region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, hunting and forestry</td>
<td>4535.8</td>
<td>7200.5</td>
<td>8510.2</td>
<td>11337.2</td>
<td>7043.1</td>
<td>8576.5</td>
<td>11659.2</td>
</tr>
<tr>
<td>of them agriculture, hunting and the provision of services in these areas</td>
<td>4370.3</td>
<td>6791.1</td>
<td>8653.7</td>
<td>11506.4</td>
<td>7044.1</td>
<td>8244.1</td>
<td>11655.3</td>
</tr>
<tr>
<td>Fishing, fish farming</td>
<td>8936.5</td>
<td>-</td>
<td>11270.6</td>
<td>-</td>
<td>11296.9</td>
<td>8243.6</td>
<td>8034.2</td>
</tr>
<tr>
<td>Mining</td>
<td>13927.0</td>
<td>18289.3</td>
<td>5375.0</td>
<td>21794.4</td>
<td>14742.8</td>
<td>2262.8</td>
<td>23726.1</td>
</tr>
<tr>
<td>Manufacturing industries</td>
<td>9836.0</td>
<td>13774.0</td>
<td>10246.2</td>
<td>12054.9</td>
<td>12143.1</td>
<td>1247.1</td>
<td>17618.4</td>
</tr>
<tr>
<td>Production and distribution of electricity, gas and water</td>
<td>17234.9</td>
<td>19665.4</td>
<td>19284.0</td>
<td>23982.4</td>
<td>19993.1</td>
<td>1650.4</td>
<td>24627.4</td>
</tr>
<tr>
<td>Construction</td>
<td>12029.0</td>
<td>10238.6</td>
<td>14243.4</td>
<td>13346.7</td>
<td>10415.8</td>
<td>6914.8</td>
<td>19888.6</td>
</tr>
<tr>
<td>Wholesale and retail trade; repair of motor vehicles, motorcycles, household and personal items</td>
<td>8081.8</td>
<td>13531.6</td>
<td>9562.6</td>
<td>9715.0</td>
<td>11495.8</td>
<td>1121.0</td>
<td>17989.2</td>
</tr>
<tr>
<td>of them: wholesale trade, including trade through agents, except for motor vehicles and motorcycles</td>
<td>11576.3</td>
<td>10015.8</td>
<td>4778.5</td>
<td>8730.2</td>
<td>9804.0</td>
<td>1704.2</td>
<td>17591.2</td>
</tr>
<tr>
<td>retail trade, except for motor vehicles and motorcycles; repair of household and personal items</td>
<td>5563.3</td>
<td>4883.3</td>
<td>12986.9</td>
<td>10501.7</td>
<td>12148.1</td>
<td>6290.5</td>
<td>17712.6</td>
</tr>
<tr>
<td>Hotels and restaurants</td>
<td>7661.5</td>
<td>7380.5</td>
<td>6349.8</td>
<td>7094.3</td>
<td>9371.5</td>
<td>7500.4</td>
<td>8997.5</td>
</tr>
<tr>
<td>Transport and communications</td>
<td>21106.2</td>
<td>16131.6</td>
<td>17125.3</td>
<td>13784.4</td>
<td>20719.6</td>
<td>1607.9</td>
<td>22815.1</td>
</tr>
</tbody>
</table>
of which communication 14277. 5 16079. .6 17235. 2 16208. 4 19900. 2 1477 2.0 20342. 4
Financial activities 29949. 2 31334. .9 35253. 3 40324. .3 38471. 0 5289 8.1 38325. 2
Operations with real estate, rent and provision of services 17071. 1 17830 .3 12255. 2 13499. 0 12963. 6 1444 1.9 17632. 5
Public administration; social insurance 33312. 8 31312 .0 35497. 4 33202. 9 35011. 1 3992 7.6 28339. 4
Education 11911. 3 16651 .1 14632. 1 13022. 2 12867. 4 1538 2.0 16165. 5
Health and Social Service Delivery 13099. 1 14000 .8 13149. 2 12691. 4 13062. 7 1137 0.9 16971. 4
Provision of other communal, social and personal services 21165. 4 12381 .5 11601. 9 11528. 9 18247. 2 1331 5.3 13711. 5

The data in Table 1 show us that the following types of economic activity differed in the lowest wages among the sectors in the regions under consideration: agriculture, hunting and forestry; fishing and fish farming, as well as the hotel and restaurant business. At the same time, the nominal average monthly wage in such activities as agriculture, hunting and forestry in the Republic of Dagestan was about 39% of that in the Stavropol Territory. At the same time, the most paid types of economic activity in all the above regions were: financial activities and public administration; social insurance. Among the regions of the district, the Stavropol Territory had the highest level of average wages in many of the types of economic activity presented [11].

It should be noted that in all regions of the North Caucasian Federal District, the level of the average level of nominal wages for all the above types of economic activity, except for the sphere of public administration and social insurance, was significantly lower than the similar average Russian indicator.

In our example, in terms of the level of nominal average monthly wages, the Chechen Republic occupied the middle positions among the regions of the considered district. An earlier comparative analysis of this indicator with the average Russian counterpart, as well as with the indicators of individual regions of the country, suggests a significant lag of the republic in terms of average monthly wages in the period under review, which is clearly demonstrated by the following table.

Table 2. Average monthly wages of workers and employees of the autonomous republics of the RSFSR (in rubles)

<table>
<thead>
<tr>
<th>RSFSR</th>
<th>1985 р.</th>
<th>1990 р.</th>
<th>1990 р. to 1985 р., (V %)</th>
<th>To the level of the RSFSR in 1990 р., (in %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSFSR</td>
<td>199</td>
<td>303</td>
<td>152.3</td>
<td>100</td>
</tr>
<tr>
<td>Karelian ASSR</td>
<td>228</td>
<td>333</td>
<td>146.1</td>
<td>109.9</td>
</tr>
<tr>
<td>Komi ASSR</td>
<td>292</td>
<td>427</td>
<td>146.2</td>
<td>140.9</td>
</tr>
<tr>
<td>Mari ASSR</td>
<td>168</td>
<td>254</td>
<td>151.2</td>
<td>83.8</td>
</tr>
<tr>
<td>Mordovian ASSR</td>
<td>169</td>
<td>248</td>
<td>146.7</td>
<td>81.8</td>
</tr>
</tbody>
</table>
According to Table 2, we can say that in terms of the average monthly wages of workers and employees, the Chechen-Ingush Republic, both in 1985 and in 1990, was behind many autonomous republics of the Russian Federation [12].

The existing significant sectoral differences in such an indicator as the level of wages are of an objective nature and are observed in the economy of any country. A similar analysis for the countries of the world allows us to note a similar situation in developed countries, so using the example of the UK in terms of income from employment, we could observe more significant indicators of differentiation.

It is worth noting that some scientists, despite the presence of a high risk of obtaining entrepreneurial income, believe that in order to increase labor efficiency, it is desirable to use an incentive system, in which the profit of the enterprise is distributed between the employer and the employee. [8, p. 24-25] One of the first to express such an idea in economic theory was the founder of “economic romanticism” S. Sismondi, offering his measures to improve the position of the working class, which also included such as limiting the working day, introducing a social tax for the entrepreneur, establishing minimum wages, which were very progressive for their time, and sometimes even dangerous. [9, p. 100]

For example, in the USA, in the 1990s, the 200 largest companies allocated 13% of their own shares to their employees, while in the 1980s - 7%. [10, p. 133] This phenomenon is widely spread in Japan under the name “corporatism among workers”. There is a whole direction in management science – “equity-based compensation” to develop plans to compensate workers by giving them shares in the company. By acquiring a share in a company, any employee has the opportunity to become its co-owner, which means becoming an owner. At the same time, the managers of the company invited to manage the company can acquire the same rights as the owners of the capital. Thus, in the social structure of modern society, an increasing share falls on people of the middle class, who combine the features of both a wage worker and an owner of capital.
With the development of scientific and technological progress and, accordingly, the ongoing changes in production, the requirements for employees are increasing, as a result of which firms are forced to spend significant funds on training the workforce. Under such conditions, the employee turns into a specific asset of the enterprise, the potential of which in most cases can be used only in this enterprise and, naturally, both the company and the employee are not interested in the development of the conflict.

This process contributed to a more flexible interaction between employees and employers when concluding labor contracts, which was called “social partnership”. In countries such as Sweden, Austria, Norway, where from 50 to 98% of employees were covered by the form of social partnership, labor conflicts were less common and there were fewer sectoral differences in wages than in the USA, Great Britain, Canada, in which other forms of cooperation were more widespread. [10, p. 136]

For Europe, based on two possible approaches to solving the problem of labor conflicts - private and public, the state solution in the field of labor and capital relations was more common. Here, the state imposed tougher requirements on firms in hiring and firing workers, on safety and health standards in the workplace. This is supported by data on average government spending on labor and training programs. So, in 1990 in the USA they accounted for 0.74% of GDP, while in Belgium - 3.78%, in France - 2.68%, in Germany - 2.17%, in Sweden - 2.60% [10, p. 138]. In European countries, the trade union movement was also more developed, for example, 85% of workers in Sweden are members of the trade union, about 40% in the UK, more than 20% in Switzerland and France, while in the USA - only 12% of workers [10, p. 139].

4 Conclusions

If the civilized world has moved from confrontation to various forms of cooperation between labor and capital, then private labor conflicts in Russia in the late 1990s and early 2000s testified to complex relations in this area. Therefore, in order to achieve Pareto - the optimal result, i.e. the greatest efficiency of the economy and, accordingly, social stability, the formation of a structure of labor relations based on the principles of social partnership was one of the most important conditions for this.

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