

Hidden unemployment in Russia

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Abstract. The crisis of 2014 led to a sharp drop in production in Russia. However, along with production, the output per workplace also fell, which is not typical of a market economy. The article explains this phenomenon. It is shown that the development calculated by the existing methodology for the Russian economy does not reflect the true labor productivity and therefore this indicator can be used only with significant reservations. The reason for this distortion is due to the peculiarities of the labor market in Russia. This feature is that when production falls, it is not profitable for companies to dismiss workers as a consequence of large social obligations. Companies reduce wages, attract specialists without hiring, and take wages to the gray sector. Such actions, in our opinion, are the result of imperfection of labor legislation in the Russian Federation. All this helps to explain the fall in production value added per one working place and explain the growth of hidden unemployment. The article assesses the hidden unemployment at the time of the crisis. The lack of flexibility in the labor market in Russia is negatively affects to the country's economy and confirms view point by Timothy Besley and Robin Burgess.

1. Introduction

The lack of flexibility in the labor market has a negative impact on the volume of production. This thesis is based on a number of works by various researchers and, above all, on the empirical study of Timothy Besley and Robin Burgess [1]. Based on statistics from the Indian states for the period 1958-1992, they showed that in states where workers are protected by law, the figures for output and employment (as well as other indicators) are worse than those in states where such a response does not hold. This thesis has been repeatedly adopted as a basis for policy decisions in India and a number of other countries and is now generally accepted.

Besley and Burgess have been substantively critiqued. Bhattacharjea noted the coding of incommensurable changes as either +1 or -1 [2]. A Jayadev and A Narayan noted wages increased much more slowly than labor productivity, as unionization rates declined, social security for "protected" workers was scaled down and earnings inequality rose sharply [3]. Chatterjee and Kanbur noted non-compliance with the labor rules is pervasive and de facto enforcement is weak or absent [4]. In a recent paper by Servaas Storm [5], there is a serious criticism of this provision. His work shows that this result cannot be reproduced and statistically unfounded, which puts the methodology of Besley and Burgess in doubt.

We will, however, take a generally accepted view. In this article, we discuss the lack of flexibility in the labor market in Russia. We will demonstrate that this also negatively affects the country's economy.



Labor productivity, as is known, is one of the most important economic indicators characterizing an enterprise. This indicator characterizes the degree of technological development and the efficiency of enterprise management, and, perhaps more importantly, determines the competitiveness of the enterprise. The value of this indicator for the economy as a whole is even more important since labor productivity determines the economic position and competitiveness of a country in the world market. This indicator is also an indicator of income of the population, as it is related to the level of qualification of personnel.

Labor productivity evaluate indicator of a generation of value added per job (index of labor productivity). In the US, this indicator is published quarterly, because it affects the Forex market.

This indicator in some cases behaves in a somewhat unexpected way, and any such case deserves a detailed analysis. For example, a decrease in the number of employees during a period of stagnation in the economy can lead to an increase in labor productivity. Similar phenomena are also observed as a result of strikes. At the moment, there are several unexplained cases of the behavior of this index.

Further, we will consider this indicator for the Russian economy. Analysis of the dynamics of this indicator over the past two decades shows that its behavior has a number of features that are not typical for the economies of other countries. To understand the causes of these differences, consider the period of the crisis of 2014-2015, where these differences appear most clearly.

2. Methods and materials

The initial materials for the study were the works of domestic and foreign scientists-economists devoted to the problems of unemployment, Rosstat data, survey data, publications in the scientific periodical press. Baseline data for analysis are taken from the reports of the Institute for the Economics of Growth named after P A Stolypin [6,7] and Rosstat for 2014-2016 [8]. Labor market analysis is based on research by the Analytical Center under the Government of the Russian Federation [9]. Works [1-5] are also used.

In this work, some special methods of the system analysis which essence is concluded in the following are applied. The choice of the crisis period 2014-2015 is not accidental. During this period, the macroscopic economic indicators change abruptly. This means that of all the economic factors, one becomes dominant. Therefore, the analysis of economic processes is simplified. Thus, we expect that the economic system can be simplified to a simpler model during this period.

The indicator of a generation of value added per job calculated by two indicators: value added and a number of jobs. In terms of economic stability, this indicator is determined by labor productivity, i.e. the number of products produced by the employee per unit of time. In turn, labor productivity is determined by technological support of business processes and depends on many factors, such as investments in fixed assets, material and moral aging of equipment, management organization, structural changes. Thus, production depends on many factors. However, in crisis periods, a sharp change in this indicator, in our opinion, may be due only to two factors - a change in the number of jobs or production volumes and does not affect (potential) labor productivity. In the post-crisis period, in the long term, the change in this indicator is determined by the change in labor productivity due to factors such as equipment retirement due to lack of investment, problems with personnel, and other secondary factors.

This approach is used in this work to analyze the behavior of value added per job during the currency crisis of 2014-2015 in Russia.

3. Results and discussion

A number of Russian and international organizations conduct regular monitoring of labor productivity and related indicators for the Russian economy. Among domestic organizations, we note, first of all, the Institute of Economic Growth named after P A Stolypin.

3.1. The indicator of the generation of value added per job as a characteristic of hidden unemployment

Institute of growth Economics by P A Stolypin conducted a study of the development of value-added per workplace [6]. The amount of value added per job was calculated as the ratio of value added to the number of jobs. The calculation was carried out for the enterprises which are on the General system of the taxation, a source of FTA. Let us consider this indicator in dynamics (figure 1).

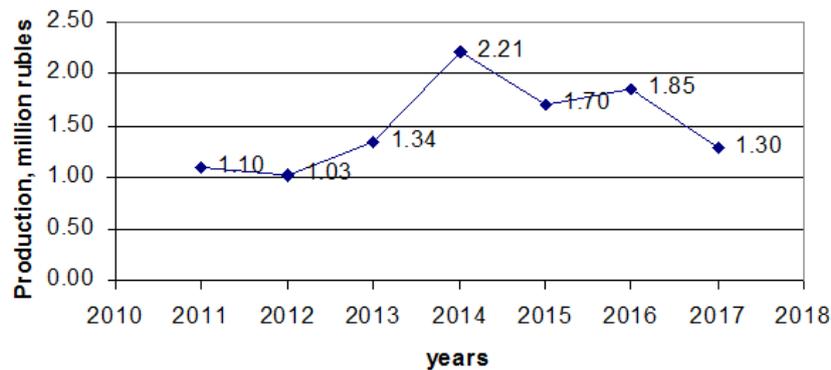


Figure 1. Volume of production of added value per workplace.

From this graph, we see that from 2012 to 2014 there was a steady growth of this indicator to a value of 2.2 million rubles. Since the crisis of 2014, this indicator has been falling to a value of 1.3 million rubles.

The crisis of 2014 was caused by a sharp drop in the prices of petroleum products (December 16, the so-called "black Tuesday"), which caused the ruble to fall against other currencies. After the Central Bank of Russia raised the refinancing rate (up to 17%), banks raised interest rates on loans, which, in turn, led to a decrease in business investment. According to Rosstat, in the first half of 2015 industrial production in Russia decreased by 2.7%. According to some experts, the fall in oil prices was the trigger that triggered the economic crisis in the Russian economy. For example, the president of the Federal Association of German Industry (BDI) Ulrich Grillo believes that this is the result of fixing the Russian economy on oil and minerals [7].

In this situation, it was natural to expect that labor productivity will slow down its growth, since, in a situation of declining revenues, the business will start saving, including on investments in business development. Therefore, the schedule for generating value added per job should show a slowdown in the growth of this indicator or even a complete halt in growth. However, we are seeing something else - a decline in the index, and this requires an explanation. In Europe and the United States, the decline in production has little effect on this indicator.

In our opinion, such behavior of this indicator in a situation of crisis can be explained by a special model of the Russian labor market, which differs from the model of other countries with market economies. We present arguments in favor of this assumption.

Figure 2 shows the decline in production during the crisis of 2014-2015, figure 3 shows the unemployment rate for the same period [8].

The unemployment rate is defined as the ratio of the total number of unemployed to the number of the economically active population. The formula for determining the unemployment rate is as follows:

$$U_b = \frac{B}{E_A} \times 100,$$

where $E_A = Z + B$, Z is employed population, B is unemployed.

A comparison of both graphs shows that fluctuations in output have virtually no effect on unemployment. Thus, the fall in value-added production per workplace is explained by the fall in gross output with a constant number of employees.

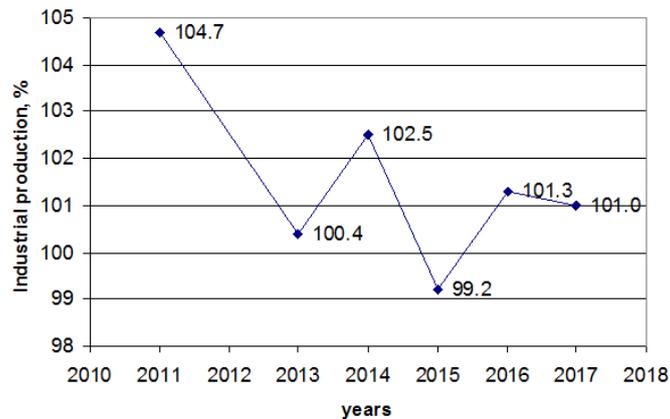


Figure 2. Dynamics of industrial production in Russia (as a percentage of the previous year).

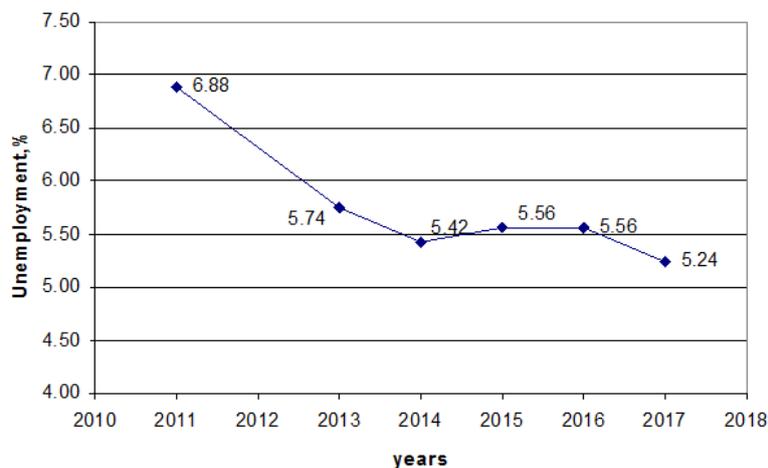


Figure 3. The dynamics of unemployment.

The lack of noticeable fluctuations in the level of unemployment in the reduction of production volume due to the fact that under the existing labor legislation, the mass layoff is economically unprofitable for the business. Instead, enterprises reduce wages to employees of the enterprise, not the number of employees. Our assumption is confirmed by the statistics. Indeed, the Ministry of Economic Development in the first quarter of 2015 recorded a drop in wages: in February by 9%, in March by 10.6%, and in April by 13.2%. There have been delays in the payment of salaries. In February, enterprises' salaries for employees decreased by 14% and amounted to 2.8 billion rubles. Salary payments were suspended for 78 thousand people. Unemployment, of course, also increased, as can be seen from the graph from 5.42% to 5.56%. However, this growth is not comparable to the volume of production cuts.

3.2. Hidden unemployment and informal employment

According to studies [9], the reason for this state of Affairs is laid down in the Labor code – the employer has very high obligations to the employee (he is obliged to warn about dismissal at least two months in advance, must pay severance payments in the amount of three salaries, etc.). Therefore, the employer is forced to look for another way out. One possibility is to reduce wages. This is due to the fact that in Russia a very significant part of wages is non-fixed payments. This leads to an increase in hidden unemployment. In countries with developed market economies, the situation is reversed – a fixed share of payments accounts for the majority of wages, which makes it impossible to reduce wages. Note the

following point. The reduction of wages will primarily concern highly paid specialists since it is simply impossible to reduce the wages of low-paid workers. Another effect is an increase in the difference in income of top management and other employees.

Another possibility is informal employment (estimated for 2014 – up to 20 %). Employers can employ workers for a certain period, for a certain amount of work or on the basis of an oral agreement. In the crisis, there is also a noticeable movement of wages to the shadow sector. It should be noted that such dynamics are typical not only for Russia. According to the study of OECD countries (Organization for economic cooperation and development) and Latin American countries, foreign scientists have found that restrictions on dismissal for economic reasons leads to an increase in informal employment.

Real unemployment consists of registered unemployment and hidden unemployment. The latter are persons who are not registered in the employment service but are actually in the position of unemployed. According to experts, these are the following categories of citizens: unemployed persons who are not registered with the employment service; employees who are on unpaid leave; employees who are not paid for one reason or another; part-time workers, as well as job seekers. Non-permanent employment is temporary or informal employment. Temporary employment is employment for a pre-agreed period (fixed-term employment contract, contract for the performance of a certain amount of work, seasonal employment, borrowed labor). Informal employment – all types of employment that are not formally registered, including self-employment. The cost of an employer for dismissal in case of non-permanent employment is much less than in case of the dismissal of permanently employed workers, especially for informally employed. In our opinion, this explains a certain increase in unemployment in 2015.

The indicator of value added per job can be used to estimate the level of hidden unemployment. Suppose that the output should not change during production declines, because labor productivity cannot be reduced. Let us assume that the labor market reacts adequately to the decline in the situation. Then, for a rough estimate, we can put that the number of employees is proportional to the volume of production, and the number of informal workers is a constant number. According to Rosstat, industrial production in Russia decreased by 2.7 % in the first half of 2015. Let's say that the number of employees also decreased by 2.7 %. Then the number of employees in 2015 would be 69,643.95 thousand workers, i.e. 1831 thousand = – (67813 thousand – 69644 thousand) people were to be reduced. Accordingly, the number of unemployed would increase to 6095 thousand = 4264 thousand (registered unemployed in 2015) + 1831 thousand, and the unemployment rate would be 8 % against 5.56 %. Of course, this is a rough estimate, but the difference is quite noticeable and is almost half to the value of 5.56 %. This means that the level of hidden unemployment is really high, despite the errors of the initial data. For comparison, the average unemployment rate in the EU countries in November 2015 was 10.5 %. The real unemployment rate is even higher because we did not use the hidden unemployment rate at the beginning of the crisis in this assessment. As of June 1, 2014, the hidden unemployment rate was 0.3 % of the economically active population.

In this analysis, we believed that productivity should not change during the crisis. This assumption is based on the assumption that productivity is driven by technology that supports the business process. Nevertheless, we must agree with the opinion of T M Maleva [9] that the decline in wages of leading workers, especially sharp, has a strong demotivating effect. And it really can lead to some performance degradation.

This uncharacteristic reaction of the labor market to fluctuations in production is the result of an informal agreement between workers, employers and the state that emerged in the 1990s. For each of the parties concerned, this state of affairs is advantageous in its own way. However, it must be clearly recognized that this balance of interests has a negative impact on the economy as a whole.

Thus, the analysis of the dynamics of labor productivity suggests that the low rate of value added per job in Russia should be taken with some reservations, because this indicator does not objectively reflect the effectiveness of labor, in particular, labor productivity. In the context of the crisis, this indicator is more likely to characterize the level of hidden unemployment in Russia than real labor productivity.

4. Conclusion

This paper analyzes the dynamics of the indicator of value added per workplace in Russia. An explanation of the uncharacteristic behavior of this indicator is given. This indicator characterizes the level of hidden unemployment in Russia to a greater extent than labor productivity.

In this article, we discuss the lack of flexibility in the labor market in Russia. It is negatively affects to the country's economy and confirms view point by Timothy Besley and Robin Burgess.

Some practical recommendations can be derived from this conclusion. We believe that Russian labor legislation should be brought to the best examples of labor legislation in developed countries. This will create real conditions for launching a mechanism to increase productivity. Firstly, it will create conditions for the growth of labor productivity in the enterprises themselves, as fewer workers will have to perform the same amount of work. Secondly, low wages prevent automation, because now it is cheaper to hire an employee than to buy equipment. Thirdly, the free labor will inevitably create the prerequisites for the growth of the small business. Of course, this will lead to an increase in social benefits for unemployment, but the economic effect of productivity growth relatively quickly compensates for these costs.

In this paper, we specifically limited the period of crisis 2014-2015 years, because in such periods of socio-economic processes are manifested in the simplest form. Therefore, the above analysis cannot be simply transferred to the current economic situation. We can cite only some figures. The unemployment rate according to Rosstat in 2017 amounted to 5.5 %, and in 2018 – 4.9 %. As of April 2018, according to the Ivanov index (surveys), the unemployed – 9.9 %, part-time – 11.1 %, which gives an estimate of unemployment in 20 %.

5. Acknowledgments

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