

Aspects of labour productivity measuring in Russia as a factor of sustainable economic growth

Vera Gnevasheva

Institute of Socio-Political Research

Russian Academy of Sciences

Moscow, Russia

vera_cos@rambler.ru

Abstract—The article defines the dynamics of changes in labor productivity and wages of labor resources, identifies aspects of the structural imbalance of employment. In general, at the present stage of development of the economy and the labor market in Russia, there is a conservative nature of employment, low intersectoral mobility of labor. Such phenomena is undoubtedly reflected in the general tendencies of the change in the nature and degree of productivity in the direction of restraining its growth.

Keywords—labor market, labor productivity, production function, formation of labor.

I. INTRODUCTION

The most important of the problematic situations, determined by this research, are the existing processes of insufficient efficiency of the distribution of labor resources, the multiple nature of employment as a specific form of employment in Russia, the presence of hidden forms of unemployment, including hidden structural unemployment.

The reasons for such transformations are: low management efficiency, blurring of the boundaries of working time through the formation of multiple employment opportunities, which leads to distorted estimates, lack of parity between the scientific and technological progress together with introduction of innovations and the changes in qualification level of the employees, an increase in of technology aging.

The proposed measures to address the emerging trends on the labor market are as follow: carrying out certification of workplaces taking into account methodological changes in the assessment of the workplace, measures to optimize the inclusion of labor as a factor of production in the production process, technological restructuring of production.

II. METHODS

Theoretical approaches to labor productivity characteristic of neoclassical and related directions are presented in the works of M. Albert, R. Barr, S. Brue, D. Clarke, J. Kendrick, C. McConnell, M. Mescon, M. Porter, P. Samuelson, D. Sink, R. Solow, F. Hedouri and others.

The role of technological changes in industries, along with global factors in changing employment and unemployment, as well as the dynamics of wages, was presented by such scientists as: R. Am, A. Anish, D. H. Author, V.M. Cox, J. Dimerska, K. Krueger, A. Wood, D. Katz, D. Murphy, P. Krugman, A. Lawrence, E. Berman, R. Bart van Ark, R. Inelaar, R. McGuckin, M. Aronowitz, D. Rifkin.

Structural changes in the aggregate labor force, interest in factors of economic growth and economic dynamics were the reasons for the emergence and development of the theory of human potential. This sources are viewed in the works of L. Walras, F. Liszt, D.S. Millia, V. Petty, N. Seniora, G. Sidzhvik, A. Smith, J. B. Say, I.G.fon Tyunen, I.Fisher, etc. Issues of the formation of labor and its quality, as well as issues of professional orientation of staff, evaluation of human and labor potential of an employee were considered in the works of G. Becker, J. Ben-Porette, M Blauga, S. Bowles, A.I. Dobrynina, B. Korneychuk, R. Layard, A. Lewis, J. Mincer, J. Psaharopoulos, N.M. Rimashevskaya, A. Sen, F. Welch, E. Hansen, T. Schulz, B.G. Yudina and others.

The research aspects have the long period of investigations from different sides and still are very important due to the up coming changes as the result of globalization and destabilization of socio-economic sphere [1,2].

III. RESULTS

In the mid-1920s, the American economist P. Douglas engaged in the analysis of statistical data on the American manufacturing industry. He tried to find out the significance of the factors influencing the output, on its volume, and also to establish the relationship between these factors [3,4,5].

In accordance with the ILO methodology, productivity is calculated as the volume of goods and services produced (included in the PPP GDP index) per unit of employment. Accounting for GDP by the PPP criterion makes it possible to minimize cost differences between countries for inter-old comparison of indicators and to approximate the calculated indicators as quantitatively as possible. At the same time, GDP is calculated as a monetary estimate of all goods and services produced in a country during a certain period. Employment is represented by the number of labor force, which in a specially selected short-term study period (week, day) belonged to one of the following categories: 1) paid work for hire, 2) self-employed (including individual entrepreneurship).

Modern statistics of the labor market of the Russian Federation also allows us to draw some conclusions about the nature of the change in the indicator of labor productivity at the present stage [6,7,8].

It is important to note that for the period 2010-2018, a tendency has emerged that allows for socio-economic conclusions [9].

The period under consideration includes two key socio-economic phenomena that undoubtedly had an impact on the

changing trends in the labor market — these are the post-crisis period from 2010–2014, the crisis of 2014, and the consequences that determine the formation of labor and employment processes in the period 2014–2018 [10,11,12].

The numerical data on the distribution of the production volume of the economy, estimated by the aggregated gross domestic product, is determined by the quantitative growth for the period in question, on the one hand, and the outlined trend of a weak growth rate in the post-crisis period starting in 2014.

The number of employees in the period under review has a weakly pronounced tendency of change, as well as the indicator of the volume of hours of labor. The period of 2016 as a result of the post-crisis transformation is characterized by a decrease in trends in these indicators [13,14].

The level of the cost component of labor, wages, tends to grow in terms of both the general indicator and the average value. It is important to emphasize that the cost indicators for assessing the functioning of the labor market have a more pronounced growth trend than quantitative indicators, which are characterized by even a slight decrease by the end of the period under consideration.

With regard to the use of capital as a factor of production in the context of production activities, the quantitative indicators of its assessment for the period from 2010–2016. has a tendency of growth, while the growth is characterized by the process of introducing fixed assets, calculated in monetary terms.

The processes of changing behavioral characteristics in the capital market are more dynamic and the period of decline in the introduction and increment of fixed assets in production was observed immediately after the onset of the 2014 economic crisis, while the processes of labor and employment are somewhat indirect in time and respond to transformations of the economy with a certain time lag [15,16].

IV. CONCLUSION

Based on statistical data, it is possible to build a regression model of the inversion production function for learning and assessing the degree of contribution of labor resources and capital to the increments of the total amount of the produced good, as well as to determine the nature of the dependence of the considered variables [16,17,18].

As a result of an approximate assessment of the main production factors and the nature of their relationship using the example of Russian statistics for the period 2010–2018. We can draw some conclusions:

The nature of the inclusion of labor resources in the production structures has an extensive appearance;

At the moment, we can speak about excess and economically inefficient employment in accordance with the economic and production structure;

In this regard, there are also questions about the likely strengthening of the processes of hidden unemployment, including its structural components;

It is important to underline the additional assessment of the quality of the workforce, which will make it possible to form a mechanism for increasing the efficiency of its use [19,20];

The considered problem of using labor as a factor of production is assessed as structurally disproportionate in accordance with the general process of reproduction of labor resources.

REFERENCES

- [1] C.R. Boddy “Corporate Psychopaths and Productivity” // Management Services Spring. 2010. Pages 26–30.
- [2] G. J. Borja “Economic Theory and International Migration”. International Migration Review 23.3. 1989. Pages 457–85.
- [3] C. Douglas “Multilateral Comparisons of Output, Input, and Productivity Using Superlative Index Numbers” // Economic Journal, Royal Economic Society. 1982. Vol. 92(365), pages 73–86.
- [4] C. Douglas “The Economic Theory of Index Numbers and the Measurement of Input, Output, and Productivity” // Econometrica. 1982. Vol. 50(6), pages 1393–1414.
- [5] A.M. Mayda “International migration: a panel data analysis of the determinants of bilateral flows. Journal of Population Economics”. 2010, pages 1249–1274.
- [6] J. S. Passel “Population Projections”: 2005–2050. Pew Research Center: Social and Demographic Trends. 2008, pages 1–26, 31–32.
- [7] A. Nikitin, N. Kolsov “Analysis of labor indicators: A manual for universities” / Ed. P.F. Petrochenko. -2nd ed., Pererab. M.: Economy. 2005.
- [8] G. V. Savitskaya “Analysis of the economic activity of the enterprise: Textbook. Manual”. 7th ed., Isp. M.: New knowledge, 2006.
- [9] T. Yu. Bazarov, B.L. Eremin “Human Resource Management: a textbook for universities”. M.: Unity, 2007.
- [10] M. Bakanov, A.D. Sheremet “Economic analysis in production management”. M.: Finance and Statistics, 2000.
- [11] A. V. Kashepov “Labor market and employment policy”// Social policy and social partnership. 2006. No. 6–9.
- [12] A.V. Kashepov “Labor market: problems and solutions”. M.: Scientific expert, 2008.
- [13] A.V. Kashepov A.V. Factors determining employment of Russians // Man and Labor. 2003. № 1–2.
- [14] A. Y. Kibanov “Management of employment” // UMK. M.: GUU, 1999.
- [15] R. P. Kolosov “Employment, labor market and social and labor relations”. M.: MSU, 2008.
- [16] N. L. Marenkov “Human Resource Management”. Tutorial. M.: Phoenix, 2004.
- [17] I. Kibanov “Organization Management: Textbook”. M.: INFRA-M, 2002.
- [18] N.A. Shamak “Human Resource Management. Foreign experience”. Mn.: Asob. Dah, 2004.
- [19] A. Shevyakov “Social inequality: a brake on economic and demographic growth” // The standard of living of the population of Russian regions. 2010. No. 5. Pages 38–52.
- [20] S. I. Shkurko “Stimulation of quality and production efficiency”. M.: Thought, 1977.