Abstract

This paper describes the problem of the labor migrant’s employment economic efficiency impact on the Russian national economy. The purpose of this study is to identify the contradiction between the micro and macro levels in an economy using migrants’ labor, whose qualification is lower than the local employees’. It is emphasized that the benefits, obtained by the business in the process of hiring a cheaper labor force, make it possible to reduce the production costs due to lower wages of these workers and to increase the competitiveness of the production. At the same time, this leads to the employer’s disinterest in the introduction of new technologies, thus hindering the growth of labor productivity at Russian enterprises. At the macroeconomic level, this is reflected in the rate of economic growth, its compliance with modern requirements of high-tech production. These contradictions lead to the effect of a "migration trap" in which the national economy is entering. To identify the economic benefits of using migrant labor at the macroeconomic level, the study provides statistically valid calculation of the share of the GDP produced by the migrants in the Russian economy, revenues and expenses of the state budget to address the problems conjugated with using of foreign labor. The findings suggest lack of effective use of migrant labor in the Russian economy.

Having carried out all the calculations the authors faced with limited statistical accounting of some indicators alongside with the need of an expert estimating, that introduces variability in the calculations being made.

Keywords: labor migration; tax payments; the share of the GDP produced by migrants; incomes and losses of the state budget in the process of using foreign labor.

JEL code: J6

The current status of the problem

The development of economic ties between countries, the transfer of capital, knowledge and skills to organize production processes, is accompanied by increasing migration of the population in search of more profitable places and spheres of employment. The UN data on international migration show that if migrants made up to 2.8% of all people living on the planet in 2000, by 2015 this number rose to 3.3%.(see International Migration Report 2015). In absolute terms, the development of migration processes looks even more impressive: according to the international statistics in 2013 the total number of migrants was 232 million people, and in 2015 this figure already increased up to 244 million people (see International Migration Report 2015). At the same time Russia is one of the leaders among the countries that are attractive for migrants.
In particular, among the countries with most active employment of migratory workers Russia took the 2nd place in the world in 2013, but after 2014, due to active migration flows from the Middle East and Central Asia to Europe, conceded this place to Germany, becoming the 3rd (International Migration Report 2015).

It is obvious that the trend of growing migration processes requires scientific understanding as well as undertaking specific measures or adoption and promotion of a mass movement of workers, or development of measures to counter the mass of the phenomenon.

It’s necessary to note that the first studies in this area belong to the English scientist Ernst-Georg Ravenshtein (1876, 1885, 1889), who in the last third of the XIX century published his articles describing eleven general laws of migration. Following Ravenshtein, a large number of studies regarding the problems of migration processes were also published: S. Stouffer (1940), who investigated the factors that prevent migration, G.K Zipf (1949) studying the intensity of migration migration flows. Particular importance in the scientific literature was given in those days to the work of E. Lee (1966), in which all the factors affecting migrants were divided into attracting and repelling («push/pull»).

In 1979, William A. Lewis and T. Schultz were awarded with the Nobel Prize for developing a model in which two sectors were examined: agriculture as a labor-surplus sector and industry as a labor shortage sector (see Lewis W. A.,1959. P. 402). Labor force transfer in a closed economic system is carried out as part of the given two-sector model. Among the further research works of the late XX century the following studies should be highlighted - Todaro-Harris model (see Harris, Todaro,1970, p. 126–142), a new economic theory of migration by Stark and Massey (Stark, 1985, p.173-178, Massey et al., 1993, p. 448-449), a theory of segmented (dual) labor market by M. Piore (1979), a world-systems theory by Immanuel Wallerstein (1979), a theory of migration networks by D. Massey 2002). At the end of the last century the works published by S. Sassen (1988) drew attention to the fact that in the context of globalization, the active movement of capital, beyond expectations, leads to increased emigration, and the international organizations dealing with labor force transfer only contribute to this process.

Until early 1990s the Russian scientific literature was examining the causes and the consequences of the internal migration. The most well-known studies in this field were conducted by J.A. Zayonchkovskaya, V.I. Perevedentcev (1964) and other researchers of the former socialist society. With the collapse of the Soviet Union in the early 1990s and the emergence of an open society, the problems of external labor migration arose, and these tendencies were investigated in the works of such authors as S.V. Ryazantsev, A.V. Topilin (2007), V.A. Iontsev (2008), I.V. Ivakhnyuk (2015).

Analysis of the mentioned works and the works, primarily, of the Western scholars, signifies several issues: firstly, the study of migration was mainly engaged by sociologists, demographers and even linguists. This explains the fact that the study of economic problems of labor migration impact on the economic development of host countries is almost not studied in these works. Secondly, the reasons for the inter-country labor force transfer were mainly investigated, and there was no research of economic problems at the micro- and macro-level for the countries hosting migrants. Consequently, the question arises: what is the proper labor force transfer necessary for these countries? What is the economic impact of attracting migrant workers for the national economy?

**Research objective and approach**

On the example of Russia, it may be noted that studying the effects of foreign workers employment from the point of micro- and macro-level, we are faced with serious contradictions
in the evaluation of the results of the migration processes. These problems can be studied basing on both economic and statistical research approaches. Specifically, the main contradiction is the disparity between the objectives of business with the objectives of economic development at the state level in the use of foreign labor. From the perspective of a business striving to maximize profits, it is more profitable for an entrepreneur to attract cheaper labor of migrants, which gives him the opportunity to reduce costs, not taking into account the possible decline in the quality of work. Concerning the quality of human capital migrating to Russia it can be judged from the following data: only 20.68% of the migrants arriving from CIS countries have higher education, 27.35% – secondary and primary professional, 28.15% have secondary general (complete and incomplete) and 21.08% – primary or have no education. (The calculation was made by the authors on the basis of the data of the statistical compilation Number and migration of the population of the Russian Federation in 2016 M, 2017, page 113, Table 2.14)

The qualification of the Russian workforce is higher than of the migrants’: higher education has 32.2% of employees, secondary vocational – 44.8%, secondary general – 22.68%. (Statistical compendium (2015) Labor and Employment in Russia, p. 43). In terms of macroeconomics, this benefit of the entrepreneur influences the national labor market, stimulating additional competitiveness and reducing the average market price of labor, including domestic workers. The availability of cheap less skilled workforce leads to a decrease in the micro-level incentives for entrepreneurs to introduce new technologies, the use of scientific and technological progress, which requires a trained and highly skilled workforce.

The analysis of migrant labor application in the Russian economy by sectors is figured out with the following data implementation: 37.5% are employed in services (retail, repair of motor vehicles and motorcycles, household goods and personal items), 17.4% are in construction, 9.4% are in real estate transactions, rental and provision of services, 7.9% are in agriculture, 6.9% are in manufacturing. In other sectors, the foreign labor force is represented in a smaller number (Statistical compendium (2015) Labor and Employment in Russia, p. 43). Working process in these industries is the least technologically developed, as well as low-paid. Low technical level of production in particular enterprise level, in its turn, leads to low productivity, inefficiency and slowdown in introducing of innovative technologies throughout the whole economic system of the country. Thus, the short-term benefits for entrepreneurs takes "up" over the long term perspectives. In our opinion, it is specifically one of the major contradictions in the effects of migration in terms of micro - and macro levels: what is profitable and brings "success" at the level of particular businesses (micro level), at the same time creates certain difficulties throughout the whole economy (macro level). Another significant contradiction is the disproportionality between the real contribution of the foreign labor force to the social production and the expected one. Economically, the migration inflow to Russia induces the emergence of other multiple macroeconomic dysfunctions: the rapid growth of the shadow economy, inadequate funds to the revenue side of budgets of all levels, and the maintenance of a massive outflow of financial resources from the country as remittances of migrants (i.e. the real loss of part of the GDP as a result of inter-country transfers), etc.

The importance of this contradictions can be confirmed by a number of statistical data, primarily, by the migrants number and by the extent of migration flows in Russia, as well as the percentage of the GDP produced by this category of workers.

According to the Federal Migration Service (FMS), the migration situation in Russia can be characterized by the following data: (Table 1)
Table 1. Statistics on migration mobility in Russia as per 2015-2016

| № | Activities                              | 2015         | 2016         | Data alteration |
|---|----------------------------------------|--------------|--------------|-----------------|
| 1 | Foreign citizens entered (million people) | 17 333 777   | 16 290 031   | -1043746        |
| 2 | Foreign citizens left (million people)   | 16 832 808   | 14 614 071   | -242646         |
| 3 | Foreign citizens and stateless persons currently present on the territory of Russia (million people) | 9 990 267 | 9 747 621 | -242646 |
| 4 | Deported foreign citizens (thousand people) | 117 493 | 60042 | -57451 |
| 5 | Work permits issued (thousand people)    | 182,4        | 143,9        | -38,5           |
| 6 | Patents are issued (thousand units)      | 1656,3       | 1543,4       | -112,9          |
| 7 | Migration registration of foreign citizens and stateless persons (million people) | 14 086 490 | 14 337 084 | -250594 |
| 8 | Cross-border money flows of individuals (from the Russian Federation) to the CIS countries and outside of the Commonwealth of Independent States (million USD) | 35116 | 35928 | +812 |

(The number of foreigners entering the country includes labor migrants, students who came to Russia to study, tourists, citizens who came to relatives, and other categories)

The data given in Table 1 show that the flow of foreign labor force in 2016 compared to 2015 decreased by more than a million people; the number of foreign citizens and expellee population on the territory of Russia decreased by 242 thousand people. Accordingly, there was a decrease in the number of issued patents (by 112.9 units) and work permits (by 38.5 units). But this was not reflected in a decrease of the bank-transfer amounts by the foreign citizens, which even increased (by 812 thousand Dollars).

The amount of the GDP produced by migrants in Russia is particularly important for researchers in this area. The calculation of this index is difficult because the data on the number of foreign nationals who have entered formalizing their work and paying all the necessary taxes run counter to the data on the number of those who work in the informal sector of the economy without making out necessary documents and, accordingly, not paying taxes. Moreover, the number of illegal migrants has no statistical evidence, and any calculations can be only based on expert estimates. Calculations on the officially participating in the Russian economy migrants will be produced on the basis of data for the year 2016.

Table 2. Calculations of Russia's GDP share produced by migrants in 2016

| № | Indexes                                           | Data     |
|---|---------------------------------------------------|----------|
| 1 | Gross domestic product in market prices (billion rubles) | 86044    |
| 2 | Average annual number of employees (thousand people) | 68430    |
| 3 | Number of migrants engaged in official economic activity (thousand people), as follows: | 1687,3   |
| 4 | Migrants share in the average annual number of people engaged in economic activities (%) | 2,46     |
| 5 | GDP share produced by migrants (billion rubles)    | 2116,68  |
| 6 | GDP share produced by migrants (%)                 | 2,46     |

(Statistics of the Federal Migration Service for 2016 and 2015 on the migration situation in Russia: Statistics Journal “Russia in Figures”, 2017, Moscow, 2017, pp. 103, 104; Data of the Central Bank on Labor Migrants Money Transfers. www.cbr.ru (accessed: 09/10/2017.)
Calculations, based on the data presented in Table 2 show that the foreign labor force creates 2.46% of Russia's GDP, which is expressed in 2.11668 trillion Rub. (315780.9 mln Dollars). Calculated by the author based on average annual exchange rate of the dollar (Exchange rates available on-line at http://kurs-dollar-euro.ru/ (accessed: 17.10.2017).

This estimation of the GDP share produced by migrants in Russia is significantly at odds with those indicators provided by many experts in the scientific literature and speeches. The main problem for feasibility study of the migrants’ role in creation of the Russian GDP is provoked by significantly different assessments of illegal migration level. In some literary sources this number is defined in 4-5 million. (Analysis of migration in Russia, World Bank, April 2006, p.18), in the final report on the migration situation, results and main directions of migration policy in 2016 (p. 21), assessment of the role of migrants is made considering the fact that Russia has 10 million legal and illegal migrants. Estimates of the total number of illegal immigrants range from 1.5 to 15 million people (Migration and national security (2003), Moscow, MAX Press, no. 11, p. 31).

The biggest confidence comes from the evaluation of K. Romadanovsky, the Head of the migration service, who estimates the number of illegal migrants as about 3 million people. Taking this number as a basis, it is possible (using the data of Table 2) to recalculate the share of the GDP produced by legal and illegal migrants for 2016. The number of legal and illegal migrants reached 4687.3 thousand people, the average number of employees in the economy also increased by 3 million persons and is 71430 thousand people, the proportion of migrant workers in total employment is equal to 6.5%. Based on the fact that the GDP in 2016 amounted to 86.044 trillion. Rub., the foreign labor employment additionally attracted 5.644 trillion Rub., which is 6.56% of the total Russian GDP. Producing these calculations, we must take into account several assumptions: firstly, the number of illegal migrants is counted is based on expert opinion and not on the basis of regular statistical measurement; secondly, productivity and wages of migrants are lower than those of Russian employees, hence, the share in the GDP will be somewhat lower. These assumptions reduce the role of foreign labor in the Russian economy.

The calculations show that the role of foreign labor in the Russian economy is much exaggerated in the number of scientific publications and in the experts’ opinions. According to some experts, nowadays labor migrants create 7.56% of Russia's GDP, which is 8.25 trillion Rub. in monetary terms (“Labor migrants create 7.56 percent of Russia's GDP” (2013), available on-line at http://vgil.ru/2013/11/10/trudovye-migranty-sozdayut-756-procenta-vvp-rossii (accessed: 17.10.2017).

Other authors indicate this at the rate of 8% of the volume produced by the GDP. According to our calculations, this value is much smaller, and amounts to 6.56% of the total GDP, or 5644 billion rubles (Table 2).

After determining the proportion of the GDP created by foreign labor, we can try to find out the costs and expenses carried by the Russian economy meanwhile. First of all, these are bank transfers to other states of the money earned in Russia. If we convert cross-border transfers (Table 1) from dollar to ruble measurements (at the average annual rate of 2016: one Rub. - 67.03 Dollars), you will get 2408 billion rubles, which is 2.8% of the country's GDP. It should be noted that in this case, only officially made money transfers are taken into account, but funds that are exported in cash are not subject to statistical recording, and such are certainly available. At the same time the multiplier effect in the Russian economy, which increases the role of consumer spending on the dynamics of economic development, is not taken into account, and the funds withdrawn to the border of the national economy are certainly potential costs of consumers.

Basing on these calculations it can be stated that on a macroeconomic scale the costs are not so huge, but at the same time these funds irrevocably leave the country's economy, they do not
fall into the consumption sphere, being excluded from the accumulation sphere, and accordingly do not participate in the future investing of the national production.

Secondly, the problem is that costs are incurred not only in the loss of part of the GDP due to remittances. 60042 thousand foreign citizens were deported from the country in 2016 due to breach of migration legislation and persistent violations. Such a procedure is carried out at the expense of the state budget, and according to K. Romadanovsky's assessment, the deportation of one migrant costs the country one thousand dollars, that is 67030 thousand rubles (at the rate of 2016). The total amount of damage in this case is more than 4.024 billion Rubles.

Thirdly, as a basis for calculations in 2016 we take the presence of 3 million illegal immigrants in the Russian economy. These persons do not pay taxes, and entrepreneurs do not make the necessary tax deductions to the budgets. If you take the monthly earnings of each illegal migrant for 35-40 thousand rubles, then we get from 105 to 120 billion rubles a month, and it will make 1260-1440 billion rubles a year. Income tax (13%) from this amount will be from 163-187.2 million rubles a year. Taxes paid by legal entities and individual entrepreneurs make up about 36% of the wage fund of the organization in which migrant labor is used. The received amount of payments can vary from 453.6 million rubles up to 518.4 million rubles depending on the wage fund received by foreign workers. The total amount of underpayments to the state budget is from 617.7 million rubles up to 705.6 million rubles, and taking into account additional costs on foreign citizen’s deportation, this will amount to 4,729.6 billion rubles in losses of the Russian Federation budget. Besides, partial compensation for these losses is tax payments from those migrants who are allowed to work, and the amount of money is paid when buying patents. According to Table 2, in 2016 a work permit was issued to 143.9 thousand citizens of foreign states. Using the same methodology as when accounting tax deficits in the state budget for illegal migrants, we can obtain the following data: the total wage fund for legal migrants who have a work permit upon receipt of officially assessed 40,000 rubles per month (subject to 12 months’ work), will be 69072 thousand rubles. In this case, the income tax (13%) paid by this group of migrants will be 8978.4 thousand rubles. For the employer, payments to social funds will amount to 36% of the wage fund, i.e. 24864 thousand rubles. The total payments to the state budget and social funds will equal to 33,842.4 thousand rubles.

The cost of the patent is different for different regions, and ranges from 1948 rubles (low demanded regions, such as: the Altai Republic, Kabardino-Balkaria, North Ossetia and others, where the unemployment rate among local residents is quite high and the income level is low), to 8762 rubles (Yakutia with high incomes and many works are conducted on a rotational basis because of severe climate condition. The majority of migrants formalize the labor relations through acquisition of patents (1543.4 thousand people). Work permits are required for foreign workers of the countries with which Russia has a visa regime, and these are significantly less (143.9 thousand people). The total amount of funds received by various budgets is estimated at 1650 million rubles plus taxes (“How much does a work permit in Russia for labor migrants cost?” (2015) available online at https://customsforum.ru/news/big/skolko-stoit-razreshenie-na-rabotu-v-rossii-dlya-trudovykh-migrantov-543596.html, (accessed: 29.10.2017) received from migrants working officially on contracts. If expressed in round numbers as 33.8 mln rub. we obtain the total amount of payments equal to 1.6838 billion rubles. This is about 3 times less than underpayments of taxes.

1 When you post payments to legal entities (individual entrepreneurs) the difference in charges is only FSS (Fund for obligatory social insurance from accidents on manufacture and occupational diseases) insurance rate which varies from 0.2% to 8.5%. In the calculation we took the value of these deductions at the rate of 6%.
But according to experts, the new system of granting patents can produce a profit in the amount of 80 to 100 billion rubles annually.

This approach is currently in course of formation and improvement in Russia, which thereafter should promote the growth of the legal and the reduction of illegal labor migrants. Assuming that the state budget in 2016 (revenue part) amounted to 13738 bln rub., the payment of migrant workers officially account to 1.6838 billion rubles, non-payment on the part of migrants and deportation expenses equal up to 4729.6 mln rub., damage to the state budget will be 3.0458 billion. rub, which is 0.022%, and is not a significant amount to the state budget.

The contradictions arising between the micro and the macro level of national economy, creating the effect of "Migration trap", the economic significance of which lies in the contradiction between business and state arising in the use of foreign labor force in the national economy. The positive effect of this "trap" depends on the institutional rules established by the state for migrants’ employment, that is, how much legislative norms contribute to the legal and effective activity of foreign labor.

**Summary**

Summarizing the research, it can be noted that the described positive effect of migration on the business level (micro level) has contradictory trends at the macro level. The positive effect on a nationwide economy can be the fact that in 2016 migrant workers produced 6.56% of the overall Russian GDP. At the same time, there are significant disadvantages at the macro level: 2.8% of the GDP "leaves" the country due to bank transfers of money to donor countries of labor migrants. The net balance of gross domestic product is 3.76% of the GDP.

As for the state budget the following conclusion can be summed up: the state is forced to spend additional funds for the deportation of some foreign citizens, illegal migrants do not pay the necessary taxes, but the budget receives additional income from officially registered migrants and the sale of patents. The state budget losses are 0.022%. While making these calculations, we have noted that such losses are not critical for the Russian budget, but at the same time it is necessary to ensure that the economic effect of receiving migrants is a positive amount, not negative. The calculations we have carried out show the low efficiency of the use of migrants in the Russian economy at present. At the same time, it can be noted that some assumptions were made in the calculations (data was taken on the basis of expert estimates, and not on the basis of statistical accounting). This is due to the shortcomings of well-adjusted economic data, which is not currently available in Russian statistics.

However, the migration growth largely compensates the negative natural population growth, which has a positive effect in terms of numbers on the formation of the country's workforce.

**Conclusion**

A complicated situation in the Russian economy at the beginning of the 21st century was caused by the demographic problems and the need in appropriate conditions for economic growth.

The negative natural population growth, the decrease in the numbers of the employed population, the population ageing, the necessity to provide staff retirement plan for the retired ones, raise the question of the labor market renewal with additional manpower.

Migrants could be such a labor supply. But herein, these processes should be actively regulated by the state itself. The state participation in economic process should not be purely administrative.
The economic instruments can be quite diverse: from preferential prices for the patent purchase in the regions that are particularly in need of additional manpower, to special regulations for obtaining Russian citizenship when concluding long-term contracts, or working in these areas. The low efficiency of migrants labor service is the evidence of a great demand in not only territorial but also sectoral regulation of the foreign labor distribution. The main inflow of additional manpower in Russia is being created by the migrants from the former Soviet republics after achieving statehood in 1991.

The low educational and professional level of migrant visitors can be evened by establishing intergovernmental agreements between the recipient countries and the donors regarding additional training on the jobs required in the donor country, which will provide the quality improvement of the incoming manpower.

The measures specified above can increase the efficiency of migrants labor service, eliminating territorial as well as sectoral lack of balance in the Russian labor market.

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