

MIGRATION OF PROFESSIONALS IN THE CONSTRUCTION INDUSTRY IN HUNGARY AND EUROPE; CAUSES AND EFFECTS ON THE ECONOMY

Róbert Sztányi

University of Debrecen, Faculty of Engineering

sztanyir@eng.unideb.hu

Abstract

In recent years, a number of changes have occurred in the construction industry in Hungary which had adverse effects. Some of the causes are: the shortage of professionals, the low prestige of construction work and the lack of adequately trained workforce. In addition, the migration of construction workers has immensely increased both within the country and in Europe. The purpose of my study is to examine the causes of the migration of professionals in the construction industry and the effects it has on economy. I will present the opinion of construction company leaders and workers as well.

Keywords: Construction sector, labor migration, professionals, skills shortage, economic effect

Introduction

Since 2008, the number of people employed abroad has started to increase rapidly. This affects various segments of the economy including the labor market, savings, the balance of the budget, social cohesion, current growth and growth prospects as well.

Because of the explosive increase in the number of emigrants, it is important to examine the expected consequences of higher mobility on the economy. According to statistical data, the phenomenon of people commuting with the purpose of working abroad is mainly increasing among those with secondary vocational qualifications, especially those working in the sectors of construction, catering and hotel services. When categorized by age, the majority of them are from younger generations. For the time being, the actual effects of emigration on wages, productivity, growth and sustainability are difficult to calculate, as these partly depend on the future rate of emigration, as well as on the rate of workers returning to the domestic labor market from abroad (BODNÁR and SZABÓ, 2014).

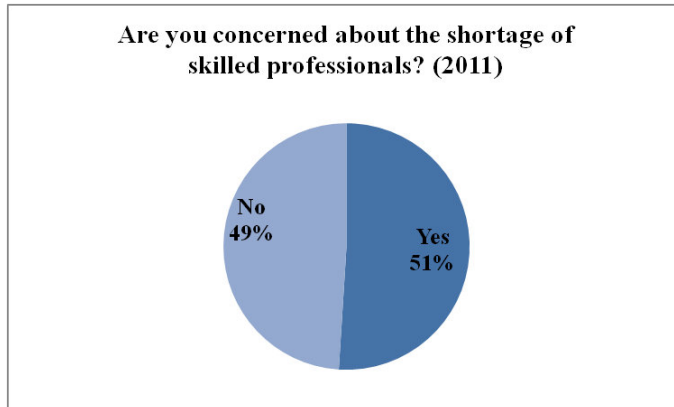
In my study I intend to examine the migration of professionals in the construction industry within and outside Hungary, as well as any possible causes, characteristics and consequences.

1. The opinion of people working in the construction industry on the shortage of skilled professionals

The rate of skilled professionals in the construction industry is consistently growing. A number of research and study examines its causes, consequences and effects. In addition, there have been surveys revealing the views of workers in the

sector, from the aspects of employers and employees as well. The results of the survey conducted in 2011 among the leaders of construction companies are shown in the diagram below.

Figure 1: The opinion of leaders of construction companies on the shortage of skilled professionals in 2011.



As shown in Figure 1, in 2011 (3 years after the start of the rapid change) only 51 % of the leaders of construction companies were concerned about the shortage of skilled professionals. The survey was carried out again in 2017, the figure below shows the results of the repeated survey.

Figure 2: The opinion of leaders of construction companies on the shortage of skilled professionals in 2017.

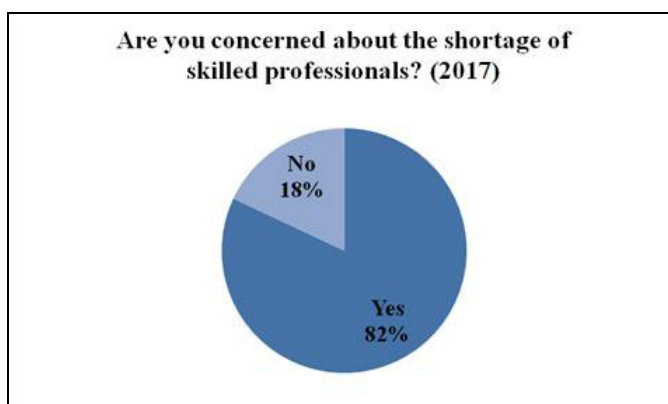


Figure 2 clearly shows that by 2017, the company leaders were increasingly concerned about the shortage of skilled professionals. During the survey, 82% of

them answered yes to the question whether they were concerned about the shortage of skilled professionals, which is 31% more than the 'yes' answers from the survey six years before, in 2011.

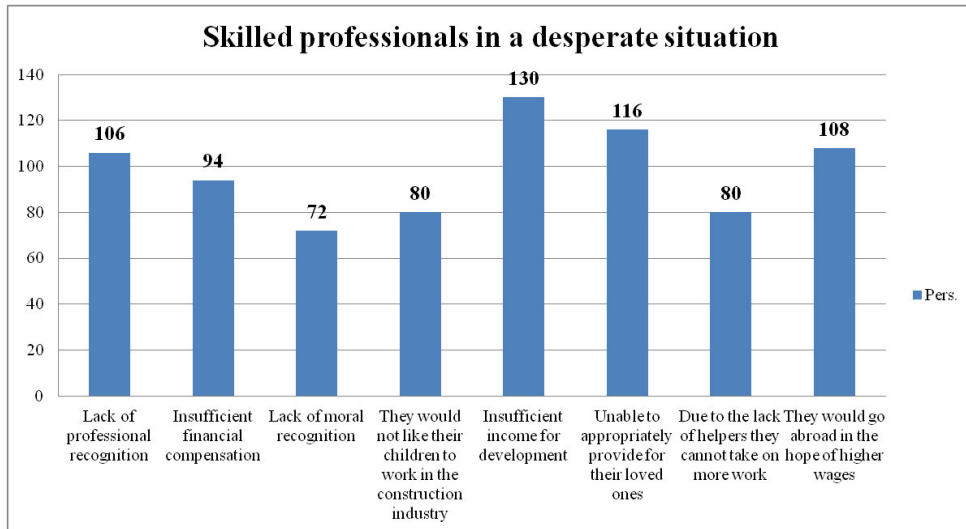
In addition, there were surveys carried out among skilled workers in the sector as well. The survey conducted by JóSzaki.hu webpage asked 20,000 skilled workers in the construction industry about their experiences regarding the shortage of skilled professionals. The main results of the survey were as follows:

- In Hungary, almost all businesses in which the senior craftsman is not working alone, are looking for labor force.
- In professions requiring manual labor, typically there is a shortage of one third of the required workforce; however, there are occupations and regions where the situation is even worse.
- On a national level, 77 percent of the senior craftsmen employing workers are looking for skilled or even unskilled workers, and 12 percent of them would like to hire ten or more workers.
- In the survey most of the senior craftsmen reported that they have lost employees in recent years due to employment in foreign countries. In this respect, the ratio is the worst in the West Transdanubian region, where senior craftsmen lost an average of more than 3 workers for the same reason.
- However, in addition to working abroad, domestic migration and the general shortage of skilled workers is also a problem. Mainly the senior craftsmen working in the Northern Great Plain region are forced to reject orders: they could accept an average of 75 percent more work if they had enough employees; nationwide this rate is 70 percent (HVG.HU, 2017).

In another survey also skilled construction workers were asked about the situation of the construction industry and the existing shortage of skilled professionals; the results are shown in the following diagram.

Figure 3 shows the results of the survey conducted among skilled workers in the construction industry on labor shortage in the sector. 106 of the respondents believe that their work is not appreciated, 94 people think that their wages do not reflect the value of their work, and 72 people complained about the lack of moral recognition. 80 people do not want their children to follow their footsteps and work in the construction industry, while 116 people do not earn enough to support their families. 103 people believe that there is not enough revenue for development, 80 respondents cannot take on more work without hiring workforce, and 108 people would go abroad in the hope of higher wages.

Figure 3: The opinion of skilled workers on the shortage of skilled professionals



2. The causes of migration of professionals in Hungary and in Europe

The number of people working in foreign countries started to grow at the beginning of the economic crisis. Before 2004 the barriers to be employed in the EU were broken down gradually for Hungarian workers. Ireland, Great Britain and Sweden fully opened their labor markets in 2004; Austria, Denmark, the Netherlands, Italy and Portugal granted work permit only for certain professions, while other member states did not allow the free flow of workers from the new member states. From 1 May 2006, Finland, Greece, Portugal and Spain opened their labor markets, while Belgium, Denmark, France, Luxembourg and Italy began to gradually open up. 2011 brought the opening of the entire European labor market (HÁRS, 2008). However, the significant broadening of foreign employment opportunities only began in 2008. It can be concluded that the low rate of emigration from Hungary before the crisis was not only due to administrative barriers. The crisis also altered the relative advantages of working abroad compared to be employed in Hungary.

Relevant literature grouped the causes of migration on the basis of different factors. In my study I intend to present the categories according to cyclical and structural causes.

1. Cyclical causes:

- *Differences in the unemployment rate and the employment opportunities in the sending and the receiving countries.* The employment opportunities are of key importance when making a decision on emigration. During recession the growth of unemployment increases the willingness to emigrate, while the receiving country is attractive because of its low unemployment rate and high employment rate.

2. Structural causes:

- *Difference in wages*: according to the neo-classical theories, the difference in wages (which reflect the difference in capital and the relative quantity of work, in this way the labor productivity in the sending and the receiving countries) greatly influences the decision to emigrate. The international migration of workforce may contribute to the readjustment of wages in different countries. However, the difference in wages must be substantial enough to compensate for the costs of moving and settling in.
- *Similarities in the language*, and the number of people with the same nationality already settled in the host country: similarity in the language of the sending and the receiving country contributes to the decision to emigrate, as well as the number of immigrants in the host country. According to several analyses (e.g. Massey et al. (1993)), the latter factor facilitates immigration only up to a certain level, which means that above a certain quantity it has the opposite effect.
- *Difference in the welfare system between the sending and the receiving countries, as well as in the social care system and the education system*: in particular in the case of permanent emigration welfare support can be an important factor, as well as a generous social care system and an advanced education system.
- *Cultural environment*: the general political atmosphere, as instability or cultural exclusion may be a motivation to emigrate, since the receiving countries usually offer more favorable conditions.

After the beginning of the crisis, unemployment rate increased in Hungary, therefore the cyclical causes of emigration were foregrounded. At the same time the attracting factors weakened: unemployment also increased in those countries (Austria, Ireland, Great Britain, Germany, Italy, Spain) that were the primary destinations for countries that joined after 2004, in particular in peripheral countries (Ireland, Italy, Spain). However, emigration from Central and Eastern Europe to Great Britain, Germany and Italy increased even after the crisis (GALGÓCZI, and LESCHKE, 2012).

Since the beginning of the crisis, the number of emigrants from Central and Eastern European countries, particularly from Romania and Bulgaria (joined in 2007 with especially high unemployment rate, and also from Hungary has increased. In Poland there was a significant number of emigrants after joining the EU; however, as the GDP has not decreased after the beginning of the crisis, a remarkable number of emigrants returned. (OECD, 2013). Similarly, after joining the EU, the number of emigrants from Slovakia also increased, however, after the beginning of the crisis a high number of them returned (KAHANEK and KUREKOVÁ, 2014). At the same time a significant number of workers moved back to the Baltic countries as well.

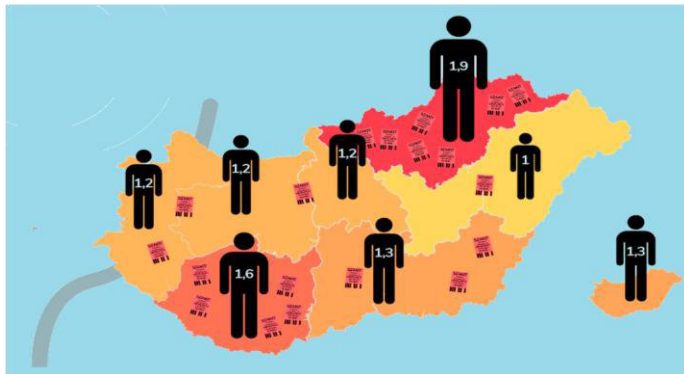
In addition to problems in data availability, the complexity of the individuals' decisions on expatriation/return also makes it difficult to assess the cyclical extent of employment in a foreign country. Emigration with the purpose of employment in a foreign country is mostly transitional (DUSTMANN and WEISS, 2007), for example, because the employment contract determines the period of employment in a foreign country. Sometimes the primary purpose of emigration is to gain experience or human capital that can later be used in the sending country. However, emigration that was planned to be temporary may become permanent, and it also happens that an employee returns earlier than it was planned. The decision to emigrate is

affected, among other factors, by the difference between the economic situation of the sending and the receiving countries, the usability of the accumulated human capital in the sending country, the immigration policy of the host country, as well as the possibilities of integration (BODNÁR and SZABÓ, 2014).

2.1 The causes of migration of professionals according to the opinion of people working in the construction industry

The survey conducted by JóSzaki.hu webpage in August 2017 asked 700 professionals; the result shows the extent and reasons of the skills shortage for different regions. The following diagram shows, by region, the average number of employees the senior craftsmen could immediately employ.

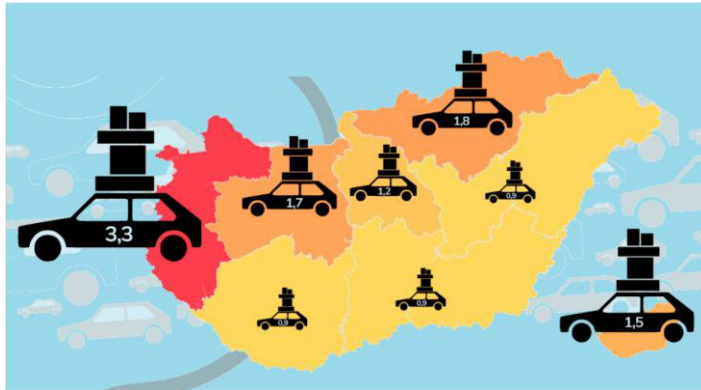
Figure 4: The number of people the 700 company leaders who were asked in the various regions could immediately employ (/persons)



(Source: JOSZAKI.HU, 2017)

Figure 4 presents the average number of people the company leaders could immediately employ, by regions. The results show that companies in the construction industry would immediately need a nationwide average of 1.3 workers. On the basis of these results the extent of labor shortage is apparent. However, this does not show any correlation with the development level of the regions. 30-50 percent of skilled workers are needed nationwide, and, it is not easy to find unskilled workers, either. The survey participants expressed their thoughts as follows: "If someone has the right skills, he or she will start a business. Others, who want to earn good wages and are experienced skilled workers, but are afraid of starting a business, have already left for western countries. We can choose employees from the remaining workforce, but they are not the professionals with the highest level of skills."

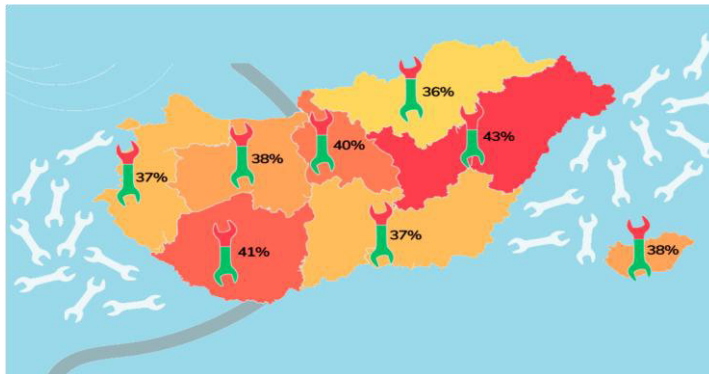
Figure 5: The average number of people who left the 700 respondent companies and went to work abroad



(Source: JOSZAKI.HU, 2017)

Figure 5 shows the number of people who left the respondent companies and started to work abroad. Most of the senior craftsmen reported that they lost employees in recent years due to being employed in foreign countries. The rate is the highest in Western Transdanubia, where working abroad for is a routine for employees.

Figure 6: The extent of work the company leaders could take on if there was no shortage of skilled professionals at their company

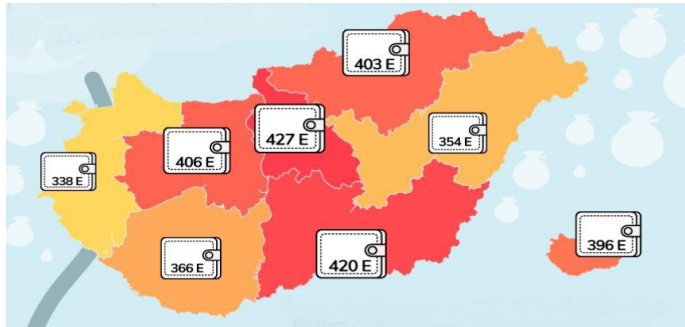


(Source: JOSZAKI.HU, 2017)

Figure 6 shows the percentage of additional work the companies in the construction sector could take on if there was no shortage of skilled professionals at their company. On the basis of the results, this is a nationwide average of 38 percent, while in the Northern Plains it even reaches 43%. However, in addition to leaving the country to work abroad, the general shortage of skilled workers and domestic migration are also part of the problem. This explains why most of the work orders

are rejected in the North Great Plain region by craftsmen. The survey participants expressed their thoughts as follows: "I am constantly looking for employees to work with. In my experience 10 out of 50 persons say that they want to work, but only 3 actually show up."

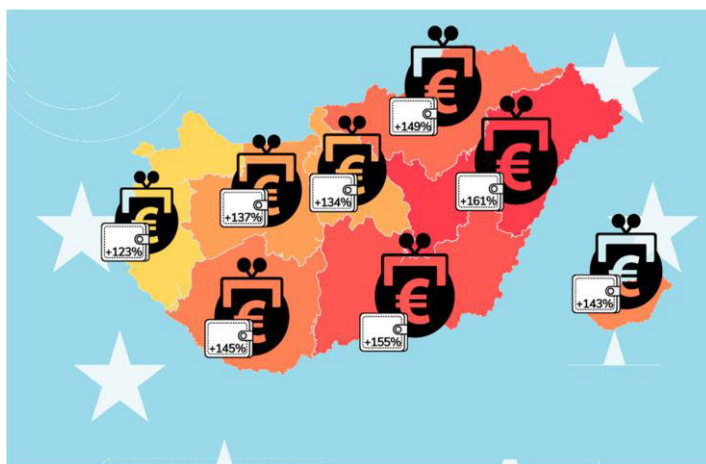
Figure 7: The income of a skilled worker if he starts a business, by regions



(Source: JOSZAKI.HU, 2017)

Figure 7 shows the income of a skilled worker after starting a business, by regions. In Central Hungary and some other regions a skilled worker may earn about HUF 400.000 per month if he or she starts a business of his own. Based on the opinion of the respondents: "The taxes are so high that small businesses are unable to pay higher wages to their employees", and "The main problem is not the low wages, but the lack of work ethic and professional skills".

Figure 8: In their own opinion, this is the additional amount skilled workers can earn if they work abroad; by region



(Source: JOSZAKI.HU, 2017)

Figure 8 shows the estimation of skilled workers about how much more they could earn in each region - in their opinion - if they worked abroad, compared to Hungary. Nationwide, on average, they believe that in case of foreign employment they can earn 150% more than their domestic wages. It is the general opinion of workers in the North Great Plain region that by working abroad they could earn as much as the double and half of their domestic wages (FORBES.HU, 2017).

3. The effects of the migration of skilled professionals on economy

In recent years, the extent of international migration within the European Union has greatly increased, which is due to the economic crisis, as well as the opening of various labor markets. Therefore, this process has arisen discussions among professionals and also by the public in both the sending and the receiving countries. In my study I summarize the effects experienced in the sending country, as shown in the following table.

Table 1: The effects of the migration of professionals in the sending country

	<i>Positive effects</i>	<i>Negative effects</i>
The declining number of population and fewer number of active population	<ul style="list-style-type: none"> - Fewer unemployed people because of the changing ratio of employment demand and supply due to emigration - Lower social welfare expenditures 	<ul style="list-style-type: none"> - Negative demographic effects (for example: emigration of young people, lack of territorial cohesion) - The sustainability of social security is at risk (pension and health-care system) - Strain on wages due to a stricter labor market
Selective migration	<ul style="list-style-type: none"> - If those who leave for abroad are the ones with less productivity, there may be an increase in productivity in general - If workers in professions with oversupply go abroad, problems with aligning may improve 	<ul style="list-style-type: none"> - If those who leave for abroad are the ones with more productivity, there may be a decrease in productivity in general - If workers in professions with overdemand go abroad, problems with aligning may deteriorate
Money transfers	<ul style="list-style-type: none"> - Money transfers home may increase the standard of domestic living, may provide resources for investments and for education. 	<ul style="list-style-type: none"> - Money transfers home may decrease domestic productivity.
Movement of human capital	<ul style="list-style-type: none"> - Brain gain provided by those employed abroad 	<ul style="list-style-type: none"> - Due to brain drain, the resources invested in the education and training of those who leave the country are lost; decreased competitiveness

Other	– Increasing commercial relations	<ul style="list-style-type: none"> – Decreasing tax revenues – The migration of goods is substituted by the migration of persons, and in this way emigration may lead to a decrease in foreign trade. – Steady growth in the price of real estate. – Delays in completing investments. – Continuous loosening of family ties
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(Source: (BODNÁR and SZABÓ, 2014)

According to Table 1, migration may affect productivity through the following channels:

1. As an impact of emigration, the *number of the active population is reduced*, the labor market changes in a way that employees will need to make less effort to get or keep a position. This will result in the decrease of general productivity.

2. *The composition of the active population changes*, as the distribution of people in terms of productivity is different for the employees who work abroad and for the ones in the domestic labor market. If those who leave for abroad are the ones with more productivity: the general productivity is reduced, but if employees with less productivity leave, it will increase; the exact effect is not obvious.

3. Emigrants often support their relatives with *money transfers*. The effect of such transferred income is not obvious. Chami et al. (2003) surveyed 113 countries and they found that the amounts transferred home reduce the willingness to work of those who stayed at home, therefore it results in poorer economic performance (CHAMI, CONNEL and SAMIR, 2003). Le (2009) used the data of developing countries to examine the impact of money transfers home - in addition to trade and the institutional system - on economic development. The survey covered the data of more than 30 countries, and resulted in the statement that remittances have negative effect on economic growth (LE, 2009). At the same time Ziesemer (2012) studied 52 developing countries, and it was found that money transfers home have positive effect not only on the per capita GDP, but on the savings rate and the funds spent on education as well (ZIESEMER, 2012). Catrinescu et al. (2006) found that money transfers home have a modestly positive effect on economic growth in the long term (CATRINESCU, MIGUEL, MATLOOB and BRYCE, 2006). IMF World Economic Outlook (2005) states that for certain countries with emerging economy, the greatest foreign financial sources are money transfers home, this amount can be more than working capital inflow and revenues from exports as well. The report revealed no significant correlation between the increase of per capita output and money transfers home (IMF, 2005).

4. When emigration increases or it is at a high level, the domestic workforce may feel that there are *more available jobs*, therefore they make less effort to find or keep

a position (BUDNIK, 2012). This will result in the decrease of general productivity of the workforce.

5. In case there is the possibility of foreign employment, *more people are ready to invest in the development of their human capital*. And in case they decide not to emigrate, their higher human capital benefits the domestic economy, that is, it increases overall productivity (BEINE, DOCQUIER and RAPOPORT, 2001; BEINE, DOCQUIER and ODEN-DEFOORT, 2011). Several authors emphasize that the mere possibility of emigration increases the accumulation of domestic human capital when compared to countries where working abroad is banned. According to their reasoning, in countries where the workforce is allowed to move freely, more people are involved in further education due to their plans to work abroad, however, actually not all of them will leave the country. As a result - and in certain proportions - the education level of society is higher than if there was no free flow of workforce. Several surveys confirm that the possibility of working abroad played a role in starting to study at schools or in higher education.

6. Emigration also has an effect on the amount and the development of human capital that is available in the economy. *The balance of the negative (brain drain) and the positive (brain gain) effects* is not apparent. Beine –Docquier – Oden-Defoort (2011) summarize all existing theories on brain drain. According to their study, from the 1970s the general opinion was that emigration will continue to make a wider the gap between poor and rich countries. This is particularly true if brain drain involves certain sectors more than others (e.g. healthcare), and employees leaving the country to work abroad were educated in their home country. However, from the mid-1990s new theories emerged. According to these theories, brain-drain may also have positive effect on the sender country. These effects may partly or totally compensate for the negative effects of emigration (the cost of education, lost revenues, loss of tax income, etc.) The positive effects include, among others, the remittances, any help from the diaspora (for example, researchers or teachers working in the sending country) as well as the experience of those who return (BEINE, DOCQUIER and ODEN-DEFOORT, 2011). Agrawal et al. (2011) examine a special case. They intended to reveal the impact of the emigration of highly skilled people from India on the local research and development activities. In general, they concluded that in respect of research and development, it is better for developing countries if the highly skilled people stay in the country, instead of importing new inventions or processes (AGRAWAL, KAPUR, MCHALE and OETTL, 2011).

Conclusions, summary

Since the beginning of the economic crisis of 2008-2009, migration of the construction industry in Europe has been growing dynamically, which makes it difficult to define the economic indicators. Due to the steady increase in commuting abroad for work, the dynamics of labor market indicators do not change, although, its level changes. However, in the case of the flow indicators of the labor market (change in the number of employees, and in the number of active workers) the dynamics may change as well.

In some groups of the population the number of people working abroad is particularly high, or is rapidly growing. In the following groups of the population the

proportion of emigrants is higher than the average: skilled workers with secondary education, workers in the construction industry, people aged 25-35, and those living in West Hungary. In the case of some groups - such as workers in the construction industry, skilled workers with secondary education - this may be related to the cyclical causes, as well as to the decrease in domestic employment.

Emigration changes the composition of domestic population and of the labor force, and it also changes the behavior of the companies and other actors of the country's economy. Emigration affects the wages through changing the average productivity and the labor market tightness. These channels may already be present in Hungary, however, during recovery from the crisis, their effects may increase, in particular in case the rate of emigration continues to grow. In addition, workforce emigration has effects via a number of other channels as well. Jeopardizing the sustainability of the social welfare systems, the loss of competitiveness, the reduction of the budget balance are negative effects that mainly appear in the long term (BODNÁR and SZABÓ, 2014).

Aknowledgemet

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References

1. Agrawal A., Kapur D., McHale J., Oettl A. (2011): Brain drain or brain bank? The impact of skilled emigration on poor-country innovation, *Journal of Urban Economics* 69
2. Beine M., Docquier F., Oden-Defoort C. (2011): A Panel Data Analysis of the Brain Gain, *World Development* Vol. 39, No. 4, pp. 523–532
3. Beine M., Docquier F., Rapoport H. (2001): Brain drain and economic growth: theory and evidence, *Journal of Development Economics*, Vol. 64, 275–289
4. Bodnár K., Szabó L. T. (2014): The impact of emigration on the domestic labor market, *MNB-tanulmányok* 114., Magyar Nemzeti Bank, ISSN 1787-5293
5. Budnik K. B. (2012): Do those who stay work less? On the impact of emigration on the measured TFP in Poland, *National Bank of Poland, Working Paper* No. 113
6. Catrinescu N., Miguel L. L., Matloob P., Bryce Q. (2006): Remittances, Institutions and Economic Growth, *IZA Discussion Paper Series*, No. 2139.
7. Chami R., Connel F., Samir J. (2003): Are Immigrant Renittance Flows a Source of Capital for Development? *IMF Working Paper* WO/03/189
8. Dustmann C., Weiss C. (2007): Return Migration: Theory and Empirical Evidence, *CDP* No 02/07
9. forbes.hu (2017): Hová lettek a magyar szakemberek, és vajon van-e annyi a nettónk, mint egy térköves fizetése?, 09.12.2017.,

- <https://forbes.hu/uzlet/hova-lettek-a-magyar-szakemberek-es-vajon-van-e-annyi-a-nettonk-mint-egy-terkoves-fizetese/>
10. Galgóczi B., Leschke J. (2012): Intra-EU labour migration after Eastern enlargement and during the crisis, European Trade Union Institute, Working Paper 2012.13
 11. Hárs Á. (2008): Accession and accession - the Hungarian labor market and migration, in: Kolosi Tamás-Tóth István György (szerk.): Társadalmi riport 2008 pp. 108-130.
 12. hvg.hu (2017): Here are some reasons why you can not find craftsmen in time, 09.12.2017.,
http://hvg.hu/enesacegem/20170921_Ime_nehany_ok_miert_nem_talalni_idoben_mesterembereket
 13. IMF (2005): World Economic Outlook, Globalization and External imbalances, International Monetary Fund
 14. joszaki.hu (2017), 09.12.2017.
 15. Kahanec M., Kureková L. M. (2014): Did Post-Enlargement Labor Mobility Help the EU to Adjust During the Great Recession? The Case of Slovakia, IZA DP No. 8249
 16. Le T. (2009): "Trade, Remittances, Institutions, and Economic Growth," International Economic Journal, Taylor & Francis Journals, vol. 23(3), pages 391-408.
 17. OECD (2013): Coping with Emigration in Baltic and East European Countries, OECD Publishing
 18. Ziesemer T. H. W. (2012): Worker remittances, migration, accumulation and growth in poor developing countries: Survey and analysis of direct and indirect effects, Economic Modelling 29 (2012) 103–118

MIGRÁCIÓ A MAGYARORSZÁGI ÉS EURÓPAI ÉPÍTŐIPARBAN: OKOK ÉS GAZDASÁGI HATÁSOK

Sztányi Róbert

Az utóbbi években számos olyan változás történt az építőiparban Magyarországon, amely kedvezőtlen hatásokkal járt. Ennek okai a szakemberhiány, az építőipari munka alacsony presztízse és a megfelelően képzett munkaerő hiánya. Mindezek mellett az építőmunkások migrációja is jelentősen nőtt mind az országon belül, mind pedig Európában.

2008 óta a külföldön foglalkoztatottak száma folyamatosan növekszik. A statisztikai adatok szerint a külföldi munkavégzés céljából ingázó munkavállalók száma főként a középfokú szakképzettséggel rendelkezők körében emelkedik, különösen az építőipar, a vendéglátás és a szállodai szolgáltatások területén. Korosztály szerint elsősorban a fiatalabb generációk érintettek a kivándorlásban. A lakosság néhány csoportjában a külföldön dolgozók száma különösen magas, illetve jelentősen

növekszik. A lakosság következő csoportjaiban a kivándorlók aránya meghaladja az átlagot: a középfokú oktatásban dolgozó szakmunkások, az építőiparban dolgozók, a 25-35 évesek és a nyugat-magyarországi lakosok. Bizonyos csoportok - például az építőiparban dolgozó munkavállalók, a középfokú oktatásban dolgozó szakemberek - esetében ez összefüggésbe hozható a ciklikus okokkal és a hazai foglalkoztatás csökkenésével.

A kivándorlás kihat a gazdaság különböző szegmenseire, ideértve a munkaerőpiacot, a megtakarításokat, a költségvetés egyensúlyát, a társadalmi kohéziót, a jelenlegi növekedést és a növekedési kilátásokat is. Megváltoztatja a belföldi lakosság és a munkaerő összetételét, valamint megváltoztatja a vállalatok országon belüli tevékenységét.

Kutatásom célja az, hogy megvizsgálja az építőiparban dolgozó szakemberek migrációjának okait, jellemzőit, következményeit, továbbá ennek hatásait a gazdaságra. Ezen felül a tanulmány kitér arra is, hogy maguk az építőipari vezetők és az érintett munkavállalók hogyan látják mindezt.