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by Gordon Rausser; Wadim Strielkowski

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Wadim STRIELKOWSKI[*] *– Gordon RAUSSER*[**]

Abstract

This article investigates the role of economic restructuring in the construction sectors in the Czech Republic and Ukraine. Our analysis is based on a unique dataset obtained via questionnaire surveys in Zakarpat'ye region of Ukraine and multivariate models linking prior work experience in the Ukrainian construction sector and the likelihood of working in the Czech construction sector, net of other theoretically important controls. The results of our research show that integration of the Czech and Ukrainian construction sectors has created international "structural channels", that push migration from Ukraine to the Czech Republic along occupational lines. We draw implications of the analysis for the broader international economic restructuring and integration in the European Union.

Keywords: *labour migration, occupational channelling, Czech Republic, Ukraine*

JEL Classification: F22, J21, J24, R23

1. Introduction

According to the World Bank (2011), there are 215 million international migrants in the world – approximately 3% of the whole world's population, making international migration a high profile phenomenon in the 21st century. Most migrants immigrate to the United States, the Russian Federation, Germany, Saudi Arabia, and Canada. They emigrate most from Mexico, India, the Russian Federation, China and Ukraine.

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International migration is distinguished not only by the increased volume of movement, but also by an unprecedented diversity in the sources and destinations of migration (Castles and Miller, 2003). Over the past thirty years, migration patterns have broadened to include a much wider array of both sending and receiving countries, with migrants moving amongst all world regions, even between the former socialist countries (see e.g. Ferjan, 2005), and not just between Europe and its colonies as in the previous era of internationalization (Massey et al., 2005).

The European interest in international migration emerged recently and stemmed from the implementation of the European Union's four freedoms of Common Market. The accession of 12 new Member States in 2004 and 2007 and their integration into to Common Market allowed for the free movement of labour and triggered various discussions regarding the effects of upcoming inflows of workers from new Member States.

The free movement of labour is one of the basic principles of Article 45 of the Treaty on the Functioning of the European Union. After the broad enlargements in 2004 and 2007 were completed, concern arose regarding the magnitude over the course of a transition period of seven years. Ireland, UK and Sweden opened their markets without restrictions in 2004; other EU15 countries were opening their labour markets gradually except for Germany and Austria which announced that they would keep restrictions until the end of the seven year transitional period (ending in 2011) (Zimmermann et al., 2010). This enlargement consisted of 12 countries, with vastly different economics standards and levels than their EU-15 counterparts. The income gap between the pre-existing members and the new members was larger than in previous enlargement rounds – in 2007, the GNI per capita for EU-8 states amounted to 53% of EU-15 and that of Bulgaria and Romania to about 34% (Brücker and Damelang, 2007). Hence, the economic potential for substantial migration flows is substantial.

The increase in the number of migrants was observed in the statistical data. The number of foreign residents from the EU-8 in the EU-15 increased from 893 000 people in 2003 to about 1.91 million in 2007 (Brücker and Damelang, 2007), which is an immigration rate of about 250 thousand people per year since 2004 compared to 62 thousand per year between 2000 and 2003.

2. Labour Migration in the Central and Eastern Europe

In the last two decades, migration to the CEECs (Central and East European countries) has increased considerably. Typically, there is a pattern of East-West migration, both from New Member States (NMS) of the EU to Western Europe,

and from Newly Independent Countries[1] (NIS) to NMS. Leon-Ledesma and Piracha (2001) characterized the migration from CEE as "migration often temporary and short term". Many migrants are moving to work abroad as seasonal workers and do not intend to live in the target country – their main motivation to get work abroad is the wage gap (a pull factor, not a push). Authors describe two characteristics that define this type of migration: remittances or saved earnings and skills acquired by migrants during their stay can be quickly used in their source economy upon their return.

Thanks to its favourable geographical position in the centre of Europe, the Czech Republic became a very important immigration country – both as a final destination for migrants and as a transitive point for further migration. It has a notably large foreign labour force from all post-Communist countries in Central and Eastern Europe, but is most prominently comprised of Ukrainian immigrants (Strielkowski and Glazar, 2012). In 2009 alone, Ukrainian migrants accounted for 21% of all immigrants into the Czech Republic, and in 2006 over 30 thousand Ukrainian immigrated, constituting 46% of total annual immigration in the country (CZSO, 2011). Overall, immigrants from non-EU countries constitute 68% of all foreigners in the Czech Republic, from which 43% are originally from Ukraine (124 281 Ukrainians in 2011 (CZSO, 2011)). Other major groups of migrants include Slovaks and Poles (EU nationals), as well as Vietnamese and Russians (nationals of third countries). The increasing trend of Ukrainian migrants in the Czech Republic is apparent from Figure 1. By comparing the number of immigrants in the beginning of 2005 and the second quarter of 2009, one can see that the stock of migrants increased by 68.9%.

After the collapse of the Soviet Union, when the isolation of Ukraine ended, it suddenly experienced massive repatriation flows of ethnic Ukrainians from former Soviet republics. However, later in the 1990s, the process of transformation cooperation and the economic opportunities in Western Europe triggered migration movement from Ukraine to the west (Malynovska, 2008; Düvell, 2006). It is an often debated question whether the economic transformation in Ukraine and other former Soviet republics ended (see e.g. Aslund, 2002; Pellešová, 2004; Abrhám, 2007; or Myant and Drahokoupil, 2011), however there is a plethora of researchers who are in favour of that thesis (see e.g. Bruno 2006; Foster and Stehrer, 2007; Pavletic and Sattler, 2009; Brunello et al., 2012).

There was also a change in the type of migration – people did not migrate due to ethical and political reasons, but mainly due to economic ones (Jelínková et al., 2011). Ukraine became a very important supply of labour for the EU Member

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[1] NIS is used for 15 post-Soviet republics, namely: Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan.

States, since more than half of Ukrainian migrants go into the EU's labour markets (see Siar, 2008; Malynovska, 2008; or Strielkowski and Glazar, 2011), spurring Ukraine to adopt modern migration legislation, to collect migration statistics and to coordinate migration policies internationally (Malynovska, 2008).

F i g u r e 1

GDP per capita in Ukraine and the Czech Republic (current prices, USD)
and Stock of Ukrainian Migrants in the Czech Republic (thousands), in 1995 – 2010
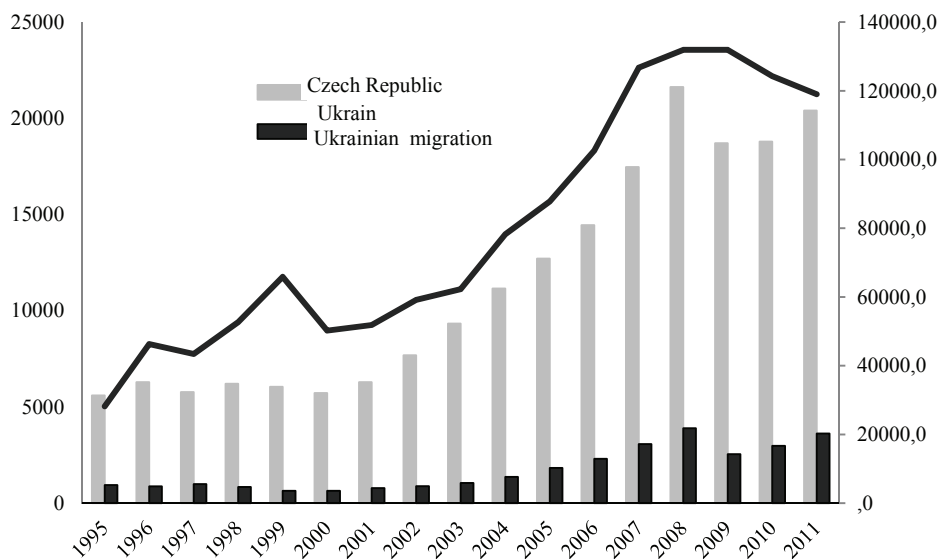
Source: World Bank (2011); International Monetary Fund, (2011).

Typically, Ukrainian migration has a circular nature (i.e. with intention to return back regularly if not permanently), and 80% of emigrants desire to return home to Ukraine eventually, maintain close ties with families, and invest their earnings back into Ukraine (Markov et al., 2009). At the moment, about 10% of the Ukrainian population (1/5 of working age population) works in another country, typically on a temporary basis (Düvell, 2006). Of all these migrants, the majority end up in Russia (about 50%) and the EU countries (around 40%), of all EU countries, the most popular countries are Italy (about 15%), Spain, Portugal, Czech Republic, Poland and Hungary (IOM, 2011). According to Siar (2008), 15.7% of households have at least one or more members with experience working abroad. Ukrainian immigrants often engage in a secondary labour market and usually do not act as competitive counterparts to the local workers (Markov et al., 2009). Most often, they work in construction, housekeeping and agriculture (Vollmer et al., 2010).

In the second half of the 1990s, Ukrainian factories decreased production, wage payments were often postponed, and unemployment was around 40% (official statistics at that time reported unemployment rates around 12%) (Lupták, 2008).

Figure 2 shows GDP growth rates in both Ukraine and the Czech Republic. In 1996, Ukrainian GDP started to grow for the first time since the 1989 transformation (growth exceeded zero level). Until 2006, the economy of Ukraine experienced growth rates reaching double digits. Maximum growth was achieved in 2003, when the growth rate was over 15%. However, in 2007 Ukrainian GDP was still 68% of 1989 levels (pre-transformation) and the world economic crisis caused further shock for the economy as GDP shrank by 15% in 2009 (Kowalski and Polowczyk, 2012).

Higher wages in the Czech Republic (the monthly average wage in the Czech Republic is 3 times higher than in Ukraine (about 963 EUR net compared to 303 EUR net according to CZSO (2012)) and better working conditions (Lupták, 2008; Siar, 2008) enabled those who migrated to pay for accommodation, education and also send financial support to their families, that gained higher purchasing power thanks to these remittance flows (Fedyuk, 2006; Malynovska, 2004). Siar (2008) also noted that remittance receiving households are better off, and they tend to set up small businesses from received funds.

All these factors and low wages for those who were lucky enough to have a job created a set of "push factors" that supported the trend of emigration (Lupták, 2008). For the purpose of comparison, Czech economic performance is also depicted.

Prior research, however, has not adequately considered the extent to which this international economic context is associated with the migration flows from Ukraine to the Czech Republic. This study remedies this important gap in the literature by examining the role of the construction sectors in both the Czech Republic and Ukraine. We argue that that the integration of the Czech and Ukrainian construction sectors has generated international "channels", or linkages, that encourage migration from Ukraine to the Czech Republic along certain occupational lines.

Using a unique dataset constructed from primary data collected in Ukraine, we estimate multivariate models that test whether prior work experience in the Ukrainian construction sector increases the likelihood of working in the Czech construction sector on a migration to the Czech Republic, net of other theoretically important controls.

The results provide strong empirical support for the hypothesis and we interpret these results in the context of broader international economic restructuring and NIS integration in the European Union.

Figure 2

GDP Growth: Ukraine and the Czech Republic (1995 – 2010)
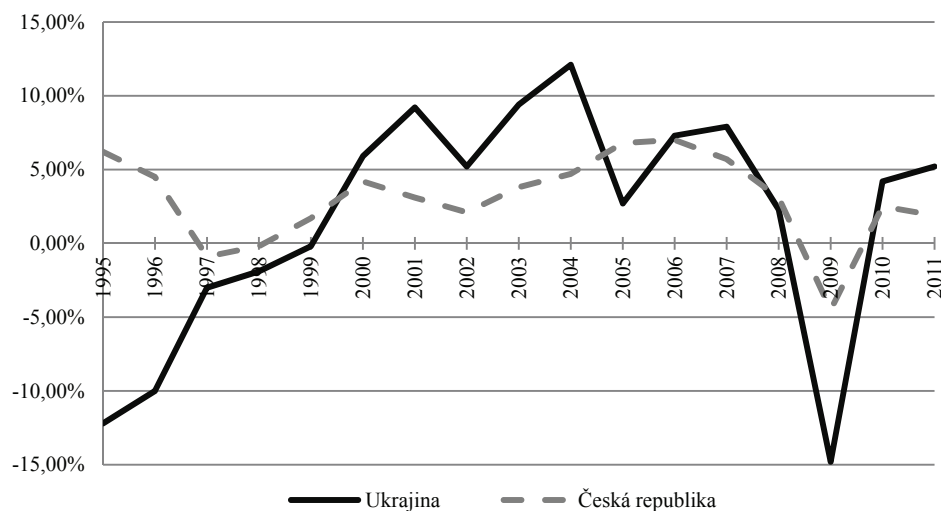
Source: International Monetary Fund (2011).

3. Construction Sector and the New Destinations for Labour Migration

Ukraine is arguably the most important source country of foreign labour for the Czech market (CZSO, 2012).[2] Ukrainian migration in the Czech Republic dates back to the beginning of the 1990s, and was largely supported by the rapid development of the construction and service sectors. Moreover, the peculiarities of the Czech housing market (e.g. regulation of house rents at state-owned housing stock) contributed to the situation (Sunega, 2005).

Lux (2002) and Lux et al. (2002) describe how a rigid housing market regulated by the state after 1991 provided cheap state housing with regulated rents. Furthermore, the new emerging Czech middle class desired modern functional Western-style housing, and the rapidly emerging financial sector coupled with the wide availability of mortgages made this possible.

These trends brought a plethora of housing stock developers (often represented by multinational companies) that flooded the market with affordable housing offers for everyone, launching the construction boom in the Czech Republic in

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[2] It has to be noted that there are several other countries in Europe which prove to be popular destinations for Ukrainian migrations and/or where Ukrainian migrants constitute considerable percentage to its country's labour force (although they do not enter Top 10 destination countries for Ukrainian migrations). Italy and Portugal can be used as the most notorious examples.

the mid-1990s (Lux and Sunega, 2010). Unfortunately, the boom did not last for long, as the market for new housing was saturated by the end of the 1990s. Rojíček (2006) attributes the biggest hit to Czech GDP in the beginning of the 2000s as a 3% per year drop in construction sector labour productivity. Not coincidentally, the largest influx of Ukrainian migrants to the Czech Republic and the Czech construction sector boom in the 1990s and the early 2000s occurred simultaneously, because Ukrainian labour migrants constituted the cheap construction labour.

4. Occupations and Structural Channels: A Labour Market's View

Sassen (1988) points out that economic agents view occupations as a set of opportunities and constraints for future action. Cultural linkages and labour market integration between the origin and destination country enable the transfer of work skills and education. Massey et al. (2002), Mize and Swords (2010), and Mize (2006) refer to the phenomenon of unskilled Mexican labour migration from the Mexican agricultural sector to U.S. agricultural sector; a process that has been going on for decades. Moreover, it appears that skilled Mexican labour also migrates to U.S. along certain occupational lines. For instance, Hernández-Leon (2008) describes the flow of skilled migration streams from Monterrey, Mexico to Houston, Texas, where migrants engaged in U.S. oil sector work. Although migration networks and labour demand were important factors in structuring the migration process, it was the occupational background that became crucial to explaining the orientation of these migration flows (Hernández-Leon, 2004). It is also worth noting that skilled emigration streams from Mexico's urban-industrial sector emerged precisely in the times of Mexican economic restructuring.

Additionally, occupations foster the development of social networks and thus decrease the costs and risks of movement for direct migrants focusing on particular destinations. Once in place, migration streams have a strong internal momentum that result from the development of these social networks, a dynamic described by Douglas Massey as "cumulative causation" (Massey, 1990). Migrant social networks encourage labour migration in several ways, but with regard to occupation, it often begins with employer recruitment. In the U.S., employer recruitment has long been used by firms as a strategy for procuring cheap Mexican labour (Mize and Swords, 2010). It is particularly important for employers in the U.S. food-processing sector who tap into the existing family-based social networks as a recruitment strategy. It has been shown that U.S. meat-processing firms often rely on their current migrant workers to recommend other family members as potential employees (Martin, 2009). Therefore, food-processing labour in

the U.S. becomes "… a part of the linkage for potential emigrants" (in this case, from Mexico to the U.S.) (Sassen, 1988).

As a result, it becomes quite acceptable that in the context of economic restructuring and cross-national integration, occupations provide structural channels through which migrants gain access to employment for similar sectors of the economy in their target country.

5. Methodology and Data

This study uses data from the Ukrainian Migration Project (UMP), a collaborative project based at the Charles University in Prague, the Global Change Research Centre in Brno, Czech Republic and the National Institute for Strategic Studies in Uzhorod, Ukraine.

The project, entitled *Migration and development – economic, social and socio-economic impacts of migration on the Czech Republic, as migration target country and Ukraine, as migration source country (with a specific focus on the analysis of remittances),* focused on various socio-economic aspects of migration and its impacts. The research is divided into several tasks and many statistical methods are employed to collect data, such as semi structured in-depth interviews, diary records on daily incomes and spending of Ukrainian migrants in the Czech Republic, and survey questionnaire both in Ukraine and in the Czech Republic. The research represents a unique project which has never before been carried out in the European context.

The UMP questionnaires contained inquiries regarding various economic and demographic characteristics, e.g.: information on household size, age, sex, education, occupation of each household member, total monthly net income of every household, percentage of income that is spent on food, the amount of remittances (both financial and in kind) that are received by the household from its members or non-members, and frequency of remittances. In addition, the questionnaire contained questions on the economic and social status of the migrant: her/his occupation, salary, marital status, attachment to family (expressed by the frequency of contacting each other), and knowledge of foreign languages.

As it is usual among data samples that are based on questionnaire survey, there are several limitations in data such as sample selection, size, geographical distribution, etc. On the other hand, primary and unique data resulting from the survey has an advantage when compared to balance sheet data on remittances collected on the macro-level, since questionnaires also detect remittances that flow through informal channels and it is possible to examine motivations and personal issues connected with each migrant-family relationship.

In total, 200 questionnaires in households with at least migrant member in the Czech Republic[3] and 50 questionnaires in households that currently do not have any family member residing abroad were carried out. All households in our sample were chosen by the stratified random sampling of urban, urban-rural and rural settlements in Zakarpat'ye region. At first, the research team randomly selected settlements for conducting interviews, and then the information from the 2001 Census was used to select streets and households on the streets (3 households were selected on each street). The research team and the local associates then visited the locations and established whether the household residents had an emigrant in the Czech Republic who remitted (in case of the negative response, two other households to the left and to the right were visited). Only the families with migrants who sent remittances and were staying in the Czech Republic for more than a year (to exclude commuters or short-term migrants) were interviewed. The questionnaires were carried out either with the migrants him/herself (in case she/her was visiting her/his family at the time of the interview) or with the adult family member who was aware of emigrant's whereabouts and her/his economic and social situation and could provide all required information on behalf of the migrant. The obtained data sample seems to be robust and can be analysed for determining basic existing patterns and dependencies in migration from the Western Ukraine (Zakarpat'ye region) to the Czech Republic.

In order to describe the economic activity of the Ukrainian migrants and make it possible to divide the job types by sectors, the NACE classification was used. All 19 types of economic activities (Table 1) were divided by the 3 sectors (primary, secondary and tertiary).

The independent variable of greatest interest is a dummy variable that indicates whether a Ukrainian migrant worked in the Ukrainian construction sector as a primary occupation. Again, the UMP categorizes occupations according to classifications used by the EU as listed above. This variable tests whether migrants working in the Czech Republic's construction sector are channelled along occupational lines from the Ukrainian construction sector.

Our main hypothesis is that Ukrainian emigrants whose primary occupation in Ukraine is in the construction sector will be more likely to work in the Czech construction sector than Ukrainian emigrants whose primary occupations are in other sectors of the Ukrainian economy. Therefore, we expect that major inter-sectoral movement no longer takes place (although it might have in the 1990s) and there is no major loss of human capital for Ukrainian migrants in EU countries.

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[3] And the vast majority of these households do receive remittances from their family members in the Czech Republic.

T a b l e 1

Division of Occupations by Sectors

Primary sector	Tertiary sector
1 – Agriculture, hunting 2 – Forestry, fishing 3 – Mining	8 – Trade, repairing of household appliances, cars 9 – Transport and storage 10 – Accommodation and gastronomy 11 – Information and communication
Secondary Sector 4 – Manufacturing 5 – Electricity, gas and heat production 6 – Water supplying, sewages and waste management 7 – Construction (normally included in Secondary sector)	12 – Finances and insurance 13 – Real estate 14 – Science, research and technology 15 – Administration 16 – Public governance, defense, social security 17 – Education 18 – Healthcare and welfare 19 – Culture, recreation, entertainment

Source: NACE classification, UMP (2012).

Theory and previous research suggests several important control factors for micro-level studies of migration including: human capital endowments, migratory capital derived from social networks (i.e., migratory social capital), Czech Republic destination community type, and Ukrainian origin community type. Accordingly, the dimensions of personal characteristics, human capital and occupational background in Ukraine must be recognized in any model specification. Together, these variables control for an extensive array of explanatory factors, ranging from the micro (i.e., individual) to the macro-level, and they include both supply-side and demand-side factors.

6. Principal Results and Implications

The descriptive statistics of the Ukrainian labour migrants are presented in Tables A1-A3 in the Annexes, and provide some preliminary evidence that is examined further in a series of multivariate analyses. The summary statistics reveal some insights that are worth highlighting before proceeding to the multivariate results. First, the profile of the labour migrants reveals that the majority of them are married males (around 80%), around 42 years of age, with a good education, able to speak Czech, and earning relatively high salaries. Second, a comparison of males and females shows that females are slightly younger (about 4 to 5 years), and fewer of them are married. The education and the command of Czech remains roughly the same. Third, the division of jobs by sectors in Ukraine and in the Czech Republic points out at the fact that while there is some evidence for occupational channelling in secondary and tertiary sector, the majority of jobs in matching sectors of both economies can be found in the construction sector.

Our methodology involves the implementation of four alternative specifications: a logit model with coefficients and logit model with odds ratios (Table 2), a multinomial logit model with coefficients (Table 3), and a multinomial logit model with relative risk ratios (Table 4).

These four specifications allow us to capture same evidence of occupational channeling, testing for its existence first using simple binary form provided by logistic regression and then by implementing its extensions. Multinomial logistic regression is an extension of binary logistic regression which simultaneously estimates binary logits between each category of the outcome variable (Long, 1997). Such extensions of the basic model focus on three linked comparisons: (1) between the construction and primary sectors, (2) between the construction and secondary sectors, and (3) between the construction and tertiary sectors. In other words, our ultimate objective is to systematically delineate the factors explaining whether a Ukrainian labour migrant worked in construction as opposed to another specific sector of the Czech economy, holding all other factors constant. The results of Wald tests and likelihood ratio tests confirm that each pairing of the dependent variable is independent from the other pairings, which in turn indicates that the independence of irrelevant alternatives assumption has not been violated (see Long and Freese, 2003). We could safely ignore the problem of multicollinearity due to the fact that the variables with high VIFs in our model were indicator variables representing a categorical variable with three or more categories. Since the proportion of cases in the reference category was small, the indicator variables had high VIFs, even if the categorical variable was not associated with other variables in the regression model (see e.g. Mason and Perreault, 1991; or Aiken and West, 1991).

Table 2 presents results from the binary logistic regression model that predicts the probability of employment in the Czech construction sector. The results show that alongside with being a married male, previous working experience of the Ukrainian construction sector increases the probability of employment in the Czech construction sector by a dramatic per cent. These results support the hypothesis that Ukrainian migration into the Czech construction sector is channeled along occupational lines. We applied Hosmer-Lemeshow test in order to check for the goodness-of-fit of the logistic models depicting the values of 8.7 (sig. 0.261) and 9.1(sig. 0.290), respectively.

It is apparent that very few migrants had experience working in the primary sector in Ukraine (e.g. agriculture, hunting, forestry), even though the majority of our sample came from the Zakarpat'ye region of Ukraine, notorious for its forests and hunting industries. This might result from specialists in this sector facing high demand for their services throughout Ukraine. Indeed, the results of

the binary logit model speak in favor of the fact that primary occupation in the Ukrainian construction sector is the strongest predictor of whether a Ukrainian labor migrant will enter the Czech construction sector.

T a b l e 2

Logistic Regressions Predicting Probability of Employment in the Czech Construction Sector

	Logit with coefficients	Logit with OR
Personal characteristics		
Age in years	.0351 (.0296)	1.0357 (.0307)
Male	2.9043*** (.7410)	18.2527*** (13.5266)
Married	1.3174* (.8071)	3.7340* (3.0140)
Legal migrant in the Czech Republic	−.2920 (1.4530)	.7467 (1.0850)
Human capital		
Education	−.6006 (.5609)	.5484 (.3076)
Occupation in Ukraine		
Worked in Ukrainian primary sector	10.1924** (9.9399)	10.1924** (9.9399)
Worked in Ukrainian tertiary sector	.4473867 (.6288)	1.5642 (.9836)
Worked in the Ukrainian construction sector	3.5244*** (.7509246)	33.9361*** (25.4835)
Constant	−4.1936 (2.6583)	
Pseudo R^2	0.46	
Pseudo LL	−54.935	
Wald	93.05	
Number of migrants	151	

Note: * Significant on the 10% level;** Significant on the 5% level; *** Significant on the 1% level; Coefficients and odd ration with standard errors in parentheses.

Source: Own calculations.

Further, Tables 3 and 4 present the results of the multinomial logistic regression with coefficients and relative risk ratios (RRR).

The results support the conclusion of occupational channelling in the construction sector. The significance and the signs of the coefficients reveal that. Work experience in the Ukrainian construction sector lowers the probability of working in the Czech secondary sector by 97% (Table 3, row 2), and the Czech tertiary sector by 98% (Table 3, row 3).[4] Similar outcomes can be observed for the personal characteristics (for instance, being male lowers the probability of

working in the Czech secondary sector from 99 to 94%). Hosmer-Lemeshow test shows that the model fits the data well revealing the insignificance of the coefficients.

T a b l e 3

Multinomial logistic Regressions with Coefficients Predicting Probability of Employment in the Czech Construction Sector

	Primary vs. construction	Secondary vs. construction	Tertiary vs. construction
Personal characteristics			
Age in years	.0980 (.1112)	−.0149 (.0332)	−.0976** (.0436)
Male	−5.0258** (2.0514)	−2.7042*** (.8050)	−3.0014*** (.8620)
Married	−.9681 (1.9796)	−1.3941 (.8887)	−1.2120 (.9866)
Legal migrant in the Czech Republic	−1.5677 (2.7318)	−.2671 (1.8349)	−.2671 (1.8349)
Human capital			
Education	1.3524 (1.7972)	.4931 (.6182)	.6666 (.7957)
Occupation in Ukraine			
Worked in Ukrainian primary sector	17.9005 (2 460.56)	−3.2874** (1.3891)	−3.0795* (1.6206)
Worked in Ukrainian tertiary sector	16.0722 (2 460.56)	−1.1918** (.7188)	.4450 (.8160)
Worked in the Ukrainian construction sector	.0663 (2 925.784)	−3.4873*** (.8037)	−3.6592*** (1.1684)
Constant	−20.9328 (2 460.572)	2.5326 (2.9632)	5.6566 (3.4723)
Pseudo R^2	0.42		
Pseudo LL	−90.043		
Wald	129.21		
Number of migrants	151		

Note: * Significant on the 10% level;** Significant on the 5% level; *** Significant on the 1% level; Coefficients and odd ration with standard errors in parentheses.

Source: Own calculations.

Table 4 reports the results of multinomial logistic regression with relative risk ratio, indicating when the odds of a Ukrainian labour migrant from the primary, secondary or tertiary sector working in Czech construction sector are greater or lower than the odds of a Ukrainian migrant from the construction sector working in the same sector in the Czech Republic. The results from Table 4 confirm that

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[4] In accordance of the logic of the logistic regression, the computation is done by subtracting the value of 1 from the exponential of the coefficient: e.g. $1 - (\exp(-3.48)) = 0.97$, etc.

the odds of a migrant with a work experience in the Ukrainian construction sector working in the Czech construction sector are 0.03 and 0.025 times higher than the odds of a migrant from the Ukrainian secondary or tertiary sector working in the Czech construction sector (Table 4, rows 2 and 3). In addition, the odds of being male and ending up in the Czech construction sector are also significant and higher for Ukrainian labour migrants with the experience in construction. Hosmer-Lemeshow test confirms appropriate goodness-of-fit.

Several other findings are worth mentioning here. Although its effect is particularly strong in the model, the construction sector does not seem to be unique in its occupational links between Ukrainian and Czech economic sectors. Our results indicate that working in the Ukrainian manufacturing or service sectors is associated consistently with work in the same sectors in the Czech Republic. As a result, although this analysis focused especially on the construction sector, it appears that there are similar occupational dynamics linking other sectors of both economies. Our results also suggest that Ukrainian migration to the Czech Republic (and to the EU) is becoming more specialized and targeted. It is very unlikely (as often was the case in the 1990s) that medical doctors would work as plumbers and lawyers would carry bricks at the construction sites. The reality of Ukrainian labour migration has changed considerably over the two decades, and has become about specific jobs carried out by specific people at specific work places. Our findings are consistent with recent research that indicates the specialization of migration streams around the world (see e.g. Massey et al., 2010; Hernández-Leon, 2008; Canales, 2003; Portes, 2007; or Delgado-Wise and Covarrubias, 2007).

Overall, human capital variables incorporated in our four multivariate models do not imply employment in particular sectors of the Czech economy (they are not significant). Generally, this might well indicate that there are no significant differences in human capital levels among Ukrainian immigrants in different occupational sectors among the target countries of migration. Due to the decline in construction boom in the CEE countries and in the Czech Republic, many construction sights are now located in non-metropolitan areas and non-traditional urban destinations that, by definition, have smaller agglomerations, less dense migratory networks, and therefore higher risks and costs associated with movement. Apparently, Ukrainian construction workers rely more heavily on family and agent-based employment networks to mitigate the higher risks and costs associated with migration into non-traditional settlement areas.

As a result, it appears that Ukrainian labour migrants in the Czech construction sector are more likely to be located in non-traditional urban and rural areas than those who work in the manufacturing or service sectors.

T a b l e 4

Multinomial logistic Regressions with RRR Predicting Probability of Employment in the Czech Construction Sector

	Primary vs. construction	Secondary vs. construction	Tertiary vs. construction
Personal characteristics			
Age in years	1.1029	.9851	.9069**
	(.1227)	(.0327)	(.0396)
Male	.0065*	.0669***	.0497***
	(.0134)	(.0538)	(.0428)
Married	.3797	.2480	.2976
	(.7518)	(.2204)	(.2936)
Legal migrant in the Czech Republic	.2085	2.6714	.7655
	(.5696)	(4.6792)	(1.4048)
Human capital			
Education	3.8668	1.6375	1.9476
	(6.9496)	(1.0124)	(1.5498)
Occupation in Ukraine			
Worked in Ukrainian primary sector	5.94e+07	.0373	.0459*
	(1.46e+11)	(.0518)	(.0745)
Worked in Ukrainian tertiary sector	9551842	.3036*	1.5605
	(2.35e+10)	(.2183)	(1.2735)
Worked in the Ukrainian construction sector	1.0685	.0305***	.0257***
	(3126.423)	(.0245)	(.0300)
Pseudo R^2	0.42		
Pseudo LL	-90.043		
Wald	129.21		
Number of migrants	151		

Note: * Significant on the 10% level;** Significant on the 5% level; *** Significant on the 1% level; Coefficients and odd ration with standard errors in parentheses.

Source: Own calculations.

Conclusions

Today's migration is a global force and its patterns are far more diversified than ever before. Ukrainian labour migration in the EU represents an important phenomenon and is, in a way, similar to Mexican migration in the U.S. which has become more diverse, with emigration from most of Mexico's geographical regions into a wide variety of American destinations.

Our empirical analysis focused on the construction industry in the Czech Republic because of its importance as a destination for Ukrainian labour migration into the EU Member States. We found that Ukrainian migration to the Czech Republic is channelled along occupational lines linking the Ukrainian and Czech construction sectors. We showed how the structural context translates into international

migration at the individual-level by focusing on the role of occupations. Our results demonstrate that occupations act as structural channels that play an important role in political and economic integration between Ukraine and the Czech Republic. It appears that across all sectors of the economy, Ukrainian labour migrants with work experience in a particular sector of the Ukrainian economy are more likely to work in the same sector of the Czech economy. One might also conclude that no major loss of human capital is recorded in Ukraine because modern Ukrainian labour migration consists of professionals securing employment for which they have expertise.

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A n n e x e s

T a b l e A1

Descriptive Statistics of Survey Respondents

Statistic	Measure	Value
Lifecycle characteristics		
Males	%	79.9
Females	%	20.1
Married	%	84.4
Age	Mean	42.2
Human capital		
University degree	%	55.2
Secondary school	%	41.0
Ability to speak Czech	%	58.5
Trip Characteristic		
Income group 3	%	51.9
Job in construction sector	%	43.2
Job in manufacturing sector	%	11.4

Source: Own results based on the Ukrainian Migration Project (2012).

T a b l e A2

Descriptive Statistics: Males vs. Females

Statistic	Male	Female
Age	43.1	38.7
Married	87.1%	69.8%
Secondary school	42.1%	32.6%
University degree	52.6%	62.8%
Ability to speak Czech	48.0%	48.8%

Source: Own results based on the Ukrainian Migration Project (2012).

T a b l e A3

Statistics for Sectors with Occupational Channelling

Sectors	Occupation in Ukraine	Occupation in the Czech Republic
Primary sector		
Forestry, fishing	5	2
Secondary sector		
Manufacturing	16	8
Electricity, gas and head production	1	1
Construction	68	63
Tertiary sector		
Transport and storage	9	5
Healthcare and welfare	18	18
Total number of observations: 153		

Source: Own results based on the Ukrainian Migration Project (2012).