

## LABOR MIGRATION IN THE CZECH REPUBLIC

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### Abstract

The aging of the population is a characteristic feature of the present and future demographic development of the Czech Republic. The proportion of older people is growing at the expense of the declining proportion of productive population. A stable level of the workforce may be ensured by (among other factors) migration for work. It means that the decline in the number of persons of productive age is partly compensated by the influx of economically active immigrants. People of post-productive age will therefore be dependent also on the economic activity of immigrants. The Czech Republic became an immigration country – every year a considerable number of migrants come here to work. This paper deals with the question of the present state of immigration into the Czech Republic and the ethnic composition and behaviour of foreigners living and working in the Czech Republic in terms of levels of income, expenditure and savings in the last ten years.

**Keywords:** aging of population, labour market, migration

**JEL Code:** F22, F24, J61

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### Introduction

Labour migration as one of the topics often discussed in connection with the aging of the population. It may have both positive and negative impacts on the economy of the host economy. The majority of studies indicate that immigration may contribute significantly to economic growth in the host country in that it lessens the consequences of the aging of the population, which causes imbalance between the sizes of the productive and post-productive populations. The fiscal consequences of immigration are positive in particular in connection with the role of the social security system within the framework of the aging of the population, as the immigrants pay social insurance here, the rates of which would otherwise have to be increased considerably due to the growing number of persons of pension age and the declining number of persons of productive age (Arltová, Langhamrová, Langhamrová, 2013).

For some time now the Czech Republic has been one of the countries to which a considerable number of migrants come every year in search of work. For this reason we are dealing here with the question of the present state of immigration into the Czech Republic and

the ethnic composition and behaviour of foreigners living and working in the Czech Republic in terms of levels of income, expenditure and savings. Their financial behaviour depends on the one hand on the length and purpose of their stay in the Czech Republic and on the other hand on their ties to their home country. The purpose of stay of foreigners determines their behaviour.

### **1. The aging of the population and the importance of migration**

In the majority of economically advanced countries, including the Czech Republic, the population is aging. The development of the mortality rate in the Czech Republic has recently been fairly stable and the average length of life is showing slight linear growth (Fiala, Langhamrová, 2013). On the other hand, in fertility and migration have been marked changes in trend in the last twenty years. In the second half of the nineties of last century there was a sharp drop in fertility, which, although it rose again slightly later, at present indicates the stagnation of the development of fertility at a level not guaranteeing the simple reproduction of the population. Even greater changes are taking place in the development of migration. During the nineties the migration increment was around 10,000 persons a year, in the years 2007–2008 it rose to as much as 70–80,000 persons per annum, but then it dropped again to less than 30,000 and in 2012 was only just over 10,000 persons in the year. It is difficult to forecast the development of migration in the future – according to the latest projection of the Czech Statistical Office (CZSO) it is expected that there will continue to be a positive migration balance in the next few years, meaning that the Czech Republic will continue to attract migrants, at a level between 9,000 and 12,000 persons a year (CZSO, 2013). The not very high fertility and the low migration balance will, together with the further lengthening of the average life expectancy, result in the continuing aging of the population. The aging of the population and the rising proportion of senior citizens will understandably cause growth of the economic burden on the pension insurance system (Fiala, Langhamrová, 2010). The productive population will have to ensure sufficient resources for persons of pension age and the changes in age structure will cause imbalance between what the productive population earns and what the post-productive population receives (Šimková, Sixta, 2013).

Although the level of fertility may rise slightly in the decades to come, it is not probable, either in the Czech Republic or in the other countries, that it will achieve the level of simple reproduction. It may therefore be assumed that the importance of immigration for maintaining the numbers of the population will increase yet further. The aging of population

is possible to express by Aging index<sup>1</sup>. In 2011 this ratio equalled 110.2 %; it means that he 100 persons in age 0-14 years seemed to 110 persons in age over 65 years.

The majority of studies indicate that immigration can contribute significantly to the economic growth in a host country where the size of the productive population is declining (Park, 2007). The numbers of migrants needed to balance the decline in the productive population are, however, high, and if a larger number of immigrants is within the possibilities of the state, it depends to a considerable extent on the social, economic and political circumstances of the given country or region (United Nation, 2000).

## **2. Data sources for the number of foreigners in the Czech Republic**

The data about foreigners come from the CZSO. It is a combination of demographical and macroeconomic data. The primary step in the calculations was to find correct number and structure of foreigners in the Czech Republic. From the behaviour and activity of foreigners it is possible to derive estimates of the level of incomes, expenditure and savings. The level of the incomes of foreigners depends on their type of activity, whether they are employees or entrepreneurs. Expenditure on final consumption depends on the income level and on purpose of their stay. Foreigners are differentiated according to the system of national accounts (ESA 1995) according to the economic activity of foreigners as:

- 1) Economically active - employees x entrepreneurs
- 2) Economically inactive – students x others

Secondly foreigners are tracked according to their country of origin. The number and structure of foreigners is unfortunately not recorded in a uniform manner and so no database exists that would collect all the information about foreigners. The solution to record the number of foreigners in the Czech Republic is thus to use three basic independent administrative sources:

- 1) The Ministry of the Interior (MOI) – records of the Alien Policy of the total number of foreigners according to length of stay
- 2) The Ministry of Labour and Social Affairs (MLSA) – records of the work permits issued by the Labour Offices
- 3) The Ministry of Industry and Trade (MIT) – records of trade licences

The CZSO estimates the numbers of foreigners through a combination of these administrative sources. A further source is the information on the numbers of students

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<sup>1</sup> Indicator of the age structure, defined as the number of people aged 65 and over per 100 youths under age 15. Sometimes is referred to as the elder-child ratio.

studying in the Czech Republic, which are obtained from the statistics of the Institute for Information on Education (IIE)<sup>2</sup>.

### 3. Methodology for the estimation of incomes, expenditures and savings

The basis for the calculation of consumption expenditures and savings is the net wage. The level of a foreigner's wage differs according to the type of activity, whether he is employed or is an entrepreneur. The gross wage of employees is estimated with the aid of statistical investigations carried out for the CZSO by the private company Trexima. This company provides data on the average wages of the most common state nationalities in the Czech Republic. This investigation does not, however, differentiate the type and length of stay. The net wage is calculated from the gross wage by deducting taxes and social contributions:

$$NW_i = WS_i - (TI_i + ESC_i) \quad (1)$$

where  $NW_i$  is the net wage of employees (residents and illegally employed non-residents),  $WS_i$  are wages and salaries,  $TI_i$  are taxes on income,  $ESC_i$  are employees' actual social contributions and  $i$  means index for country.

The net wage of foreign entrepreneurs is estimated by net lending and borrowings of the entrepreneurs' sub-sector. This is net income, which entrepreneurs have at their disposal for their personal expenses and for possible transfer of money to their country of origin (Ondruš, 2009). It is based on following:

$$NLB_i = ANLB_i \cdot E_i \cdot c \quad (2)$$

where  $NLB_i$  is net lending(+)/borrowing(-) of entrepreneurs,  $ANLB$  is the average net lending(+)/borrowing(-) of entrepreneurs,  $E_i$  is the number of entrepreneurs,  $i$  is index for country and  $c$  is the coefficient of ratio of the earnings of Czech entrepreneurs to earnings of foreign entrepreneurs.

This coefficient  $c$  is expertly estimated and the level differs according to the type of country. It usually applies that the net lending/borrowings of foreign entrepreneurs are slightly higher than those of Czech entrepreneurs.

To estimate the savings of foreigners, the consumption expenditures are deducted from the level of the net wages. These expenditures are estimated according to the structure of the expenditure of Czech households (COICOP classification) and subsequently adjusted for each

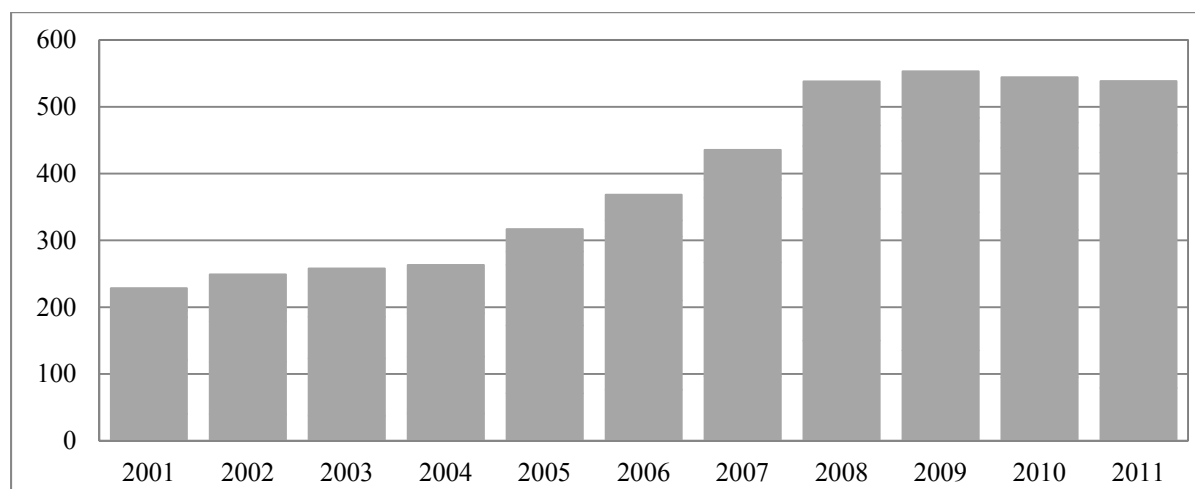
<sup>2</sup> The Institute for Information in Education was abolished on the decision of the Ministry of Education, Youth and Sport as of 31.12.2011. From 1.1.2012 the agenda of the IIE connected with the collection and processing of data was taken over by the Ministry of Education. (MEYS, 2009)

group according to the research project the Institute of Sociology of the Academy of Sciences of the Czech Republic (ISAS)<sup>3</sup>; which was carried out in 2010 and was supported financially by the CZSO and where it determined consumption habits of some groups of foreigners (Ondruš, 2009).

#### 4. Structure of foreigners in the Czech Republic

The number of immigrants in the Czech Republic is relatively low. According to the calculations using various administrative sources there were approximately 538,000 foreigners in the Czech Republic in 2011, which expressed in relative terms is 5 % of the total number of inhabitants. Of this 4 % were foreign workers (non-resident employees, resident employees and entrepreneurs). The main reason for migration to the Czech Republic is therefore indisputably migration for work. The number of foreigners in the Czech Republic increases, in the period 2001 – 2011 increased more than two times (see Figure 1).

**Fig. 1 The numbers of foreigners (2001-2011, 1000 persons)**



Source: data from the CZSO

The ethnic composition of the foreigners is interesting. The following table (Table 1) show the ten most numerous nationalities in the Czech Republic from the viewpoint of economic activity. The largest number of migrant comes from Slovakia. In 2011 148,224 persons were in the Czech Republic. The second largest group of foreigners comes from Ukraine. In almost all the selected nationalities there is a majority of employees or entrepreneurs, with only a small proportion of economically inactive persons (these are mainly the family members). Exceptions to this are immigrants from China and Vietnam, who

<sup>3</sup> For more see Y. Leontiyeva, B. Tollarová, 2011

often migrate here with their entire families, or else they establish families here far more frequently than foreigners from the surrounding countries. Employing of foreigners can be seen mainly in manufacturing industry, construction industry and trade.

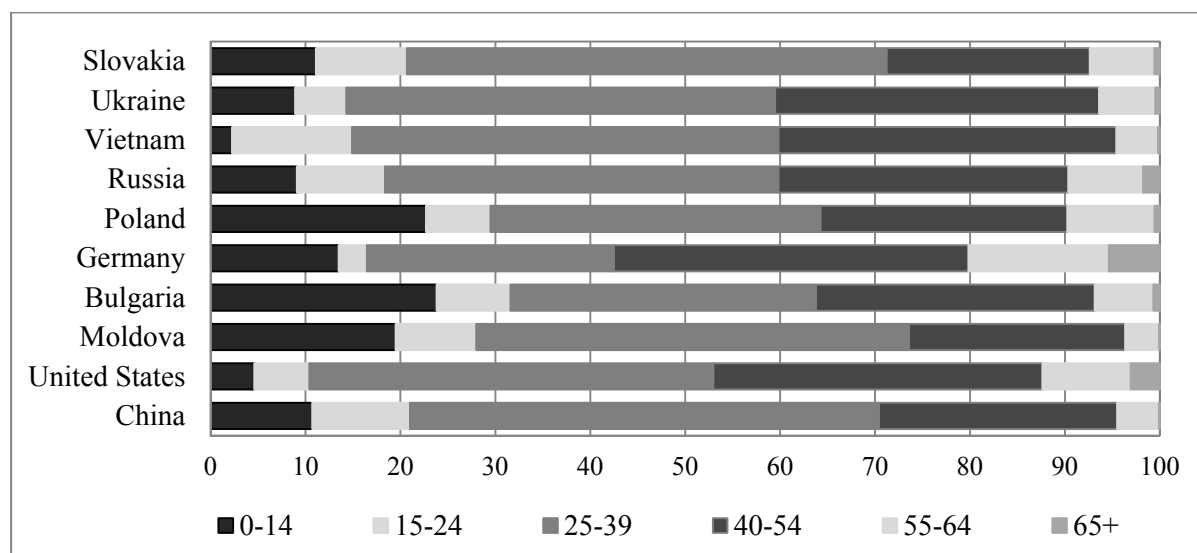
**Tab. 1 The structure of foreigners by economic activity, 2011**

	Total	Entrepreneurs	Employees	Economically inactive
<b>Slovakia</b>	148 224	11 039	103 787	33 398
<b>Ukraine</b>	136 044	46 598	74 495	14 951
<b>Vietnam</b>	59 281	37 669	4 925	16 687
<b>Russia</b>	33 939	6 377	18 342	9 220
<b>Poland</b>	23 602	1 665	19 071	2 866
<b>Germany</b>	14 743	3 974	7 828	2 941
<b>Bulgaria</b>	9 687	1 094	6 891	1 702
<b>Moldova</b>	9 302	2 593	5 862	847
<b>United States</b>	6 053	1 391	2 967	1 695
<b>China</b>	6 090	505	4 068	1 517

Source: own calculation based on data from the CZSO

Figure 2 shows the age composition of foreigners in the Czech Republic. There is a significant prevalence of persons in economically active age, i.e. 15-64 years and only minimal representation of foreigners aged over 65 years. The exception is only immigrants from Germany, which are Sudeten Germans, settled in border regions.

**Figure 2 The age structure of foreigners by specific age groups (%), 2011**



Source: CZSO 2012a, CZSO 2012b

The majority of immigrants come to the Czech Republic only to work, without family and not even planning to start a family here. Immigration from Eastern European countries

has so far mostly long-term character. The residence of the Vietnamese, on the other hand, is usually more permanent. Perhaps therefore they have the greatest proportion of born children. In 2011, the greatest proportion of children (almost 36 %) was born to foreigners from Vietnam. The second highest proportion of children (29 %) was born to immigrants from Ukraine; third highest proportion of children was born Slovak immigrants (16.5 %).

## 5. Incomes, expenditure and savings of foreigners in the Czech Republic

Income is estimated only in the case of employees and entrepreneurs because economically inactive persons do not have income from employment. The income of entrepreneurs is represented by net lending/borrowings.

The total incomes of employees from all countries amounted in 2011 to approximately 78 billion CZK and net lending/borrowing of entrepreneurs was 33 billion CZK in 2011. Since 2001 the net income of foreign workers increases, whereas the greatest growth was recorded at resident employees, their income increased in ten-year period 4.5 times.

Table 2 describes the situation of the ten most frequently represented groups of foreigners in the Czech Republic with regard to their incomes, consumption expenditures and savings. Since people from Slovakia form the largest immigration group among employed residents it is logical that their total earnings should be greatest.

**Table 2 Incomes, consumption expenditures and savings of foreigners by economic activity, 2011**

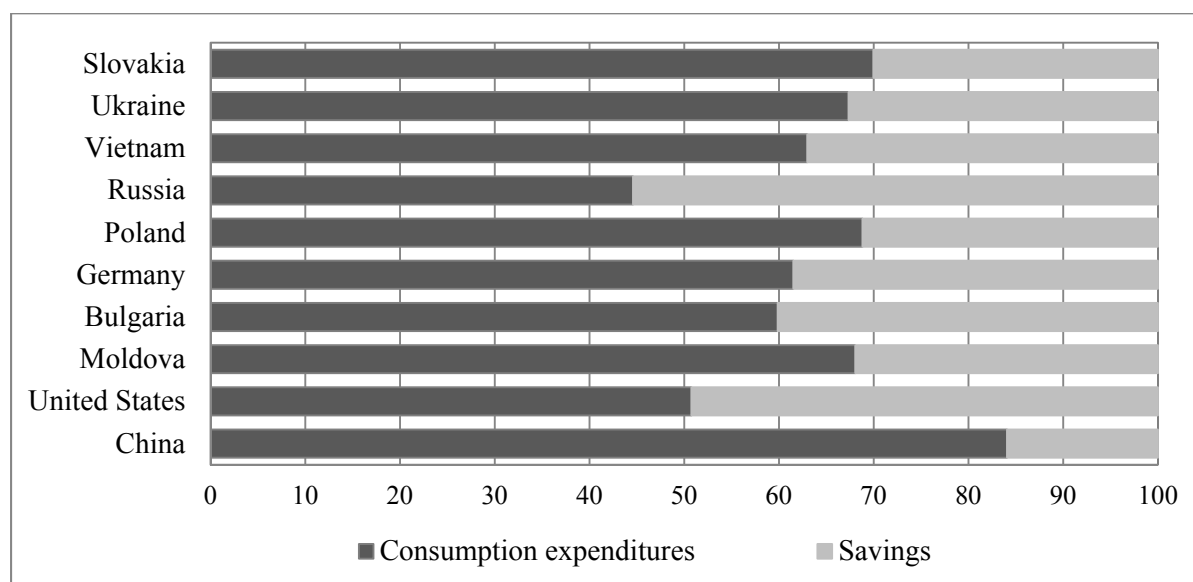
	<b>Wages and salaries</b>	<b>Social contributions</b>	<b>Income taxes</b>	<b>Net wages</b>	<b>Net lending/borrowing</b>	<b>Consumption expenditures</b>	<b>Savings</b>
<b>Slovakia</b>	37 512	4 052	5 085	28 375	2 733	21 766	9 342
<b>Ukraine</b>	15 933	1 140	1 180	13 613	11 540	16 943	8 210
<b>Vietnam</b>	967	71	64	832	9 328	6 400	3 760
<b>Russia</b>	8 044	690	1 019	6 335	1 580	3 530	4 385
<b>Poland</b>	5 344	578	622	4 144	413	3 136	1 421
<b>Germany</b>	6 417	693	1 106	4 618	1 477	3 750	2 345
<b>Bulgaria</b>	2 237	236	286	1 715	271	1 189	797
<b>Moldova</b>	1 263	93	96	1 074	642	1 168	548
<b>United States</b>	2 357	223	405	1 729	517	1 140	1 106
<b>China</b>	708	56	41	611	124	618	117

Source: own calculation based on data from the CZSO

In 2011 their total income was 37.5 billion CZK. After the deduction of on final consumption expenditures they were left with 9.3 billion CZK. Migrants from other countries earned less, but they also spent less.

The foreigners consume the part of earned money within the Czech Republic. Figure 3 shows the proportion of consumption expenditures and savings on income for all of working foreigners. Migrants from China have high expenditures, relative to their incomes, about 84 %. Working foreigners from Slovakia and Poland spend almost 70 % of income. The lowest consumption in relation to income was, on the other hand, that of migrants from Russia and the USA, where expenditure on final consumption was less than 50 % of net incomes.

**Figure 3 The proportion of consumption expenditures and savings on income (2011, %)**



Source: own calculation based on data from the CZSO

## Conclusion

Currently, the Czech Republic became an immigration country where foreigners amount about 5 % of the total population. The reasons for immigration to the Czech Republic are mainly connected with work. Some immigrants seek out this opportunity chiefly in order to secure their family financially in their native land. It might seem that the higher the immigration figures the more means will be sent abroad from the Czech economy. Nevertheless, it is not entirely true. The financial behaviour of immigrants depends not only on ties to the country of origin, but also purpose of their stay.



Immigration to the Czech Republic has a positive influence – mainly because this is work immigration, which helps to balance the relationship between the productive and post-productive populations. Together with increasing the age for retirement it could therefore lessen in part the impact of population aging on the Czech economy.

The problems caused by population aging and the decline in the productive population will require objective, thorough and fresh consideration of many established economic, social and political programmes. The questions needing to be solved in connection with aging of population should include not only the retirement age and the level and character of health benefits for seniors, but also participation in the labour market and the policy and programmes concerning international migration, especially replacement migration and the integration of a large number of immigrants and their descendants.

## References

**Arltová M., Langhamrová J., Langhamrová J.** (2013) Development of life expectancy in the Czech Republic in years 1920-2010 with an outlook to 2050. Prague Economic Papers, roč. 22, č. 1, s. 125–143. ISSN 1210-0455.

**CZSO** (2012a), Zahraniční stěhování podle státního občanství, pohlaví a věkových skupin – přistěhovalí. Demografická ročenka ČR 2011. Český statistický úřad. Praha.

[http://www.czso.cz/csu/2012edicniplan.nsf/t/99002706EC/\\$File/401912rh14.pdf](http://www.czso.cz/csu/2012edicniplan.nsf/t/99002706EC/$File/401912rh14.pdf)

**CZSO** (2012b), Zaměstnanost cizinců podle státní příslušnosti a věkových skupin k 31. 12. 2011. Cizinci v ČR 2012. Český statistický úřad. Praha.

[http://www.czso.cz/csu/2012edicniplan.nsf/t/CB00458036/\\$File/141412\\_t3-15.pdf](http://www.czso.cz/csu/2012edicniplan.nsf/t/CB00458036/$File/141412_t3-15.pdf)

**CZSO** (2013), *Projekce obyvatelstva České republiky do roku 2100*. Český statistický úřad. Praha. [http://www.czso.cz/csu/2013edicniplan.nsf/t/A6003061EE/\\$File/402013u.pdf](http://www.czso.cz/csu/2013edicniplan.nsf/t/A6003061EE/$File/402013u.pdf)

**Eurostat** (1996). European System of Accounts – ESA 1995. Luxembourg, Office for Official Publications of the European Communities.

**Fiala T., Langhamrová J.** (2010a). Ekonomické důsledky stárnutí populace České republiky. In: Reprodukce lidského kapitálu. Praha, 2010. 8 s.

**Fiala T., Langhamrová J.** (2013) Vývoj ekonomického a sociálního zatížení a stárnutí populace. Politická ekonomie, roč. 61, č. 3, s. 338–355. ISSN 0032-3233.

**Leontiyeva Y., Tollarová B.** (2011) „Šetření cizinců o jejich příjmech, výdajích a remitencích. Závěrečná zpráva z výzkumu“ Praha: Sociologický ústav AV ČR, v.v.i.

<http://www.soc.cas.cz/articles/cz/5/6127/Leontiyeva-Y.-B.-Tollarova-2011.-8222-Results-from-a-Survey-of-Foreigners-8217-Incomes-Expenditures-and-Remittances.-Main-Findings-Concerning-Remittances-8220-.-Praha-Sociologicky-ustav-AV-CR-v.v.i..html>.

**MEYS** (2009) *ÚIV*. Ministerstvo školství, mládeže a tělovýchovy.

<http://www.msmt.cz/vzdelavani/socialni-programy/dokumenty-6>

**MLSA** (2011), Důchodová reforma – Přílohy. Tisková zpráva Ministerstva práce a sociálních věcí. [http://www.mpsv.cz/files/clanky/10407/22022011\\_p1.pdf](http://www.mpsv.cz/files/clanky/10407/22022011_p1.pdf)

**Ondruš V.** (2009). National Accounts and economic migration – Remittances in the Czech Republic. 17th International Input-output Conference. Sao Paulo, Brazil 2009.

[http://www.iioa.org/conferences/17th/papers/1068331043\\_090529\\_132336\\_PAPER\\_ONDRUS.PDF](http://www.iioa.org/conferences/17th/papers/1068331043_090529_132336_PAPER_ONDRUS.PDF).

**Park S.** (2007). Does Immigration Benefit a Regional Economy With An Aging Population? Simulation Results from the Chicago CGE Model. Department of Economics. University of Illinois at Urbana-Champaign. <http://www.law.berkeley.edu/files/Parkpaperfinal.pdf>

**Stojanov R., Strielkowski W., Drbohlav D.** (2011), Pracovní migrace a remitence současné trendy v době ekonomické krize. *Geografie*, roč. 116, č. 4. pp. 375-400.

**Šimková M., Sixta J.** (2013) Vývoj životní úrovně osob v důchodovém věku. *Acta Oeconomica Pragensia*, roč. 21, č. 3, s. 14–31. ISSN 0572-3043.

**The World Bank** (2013) Migration and Remittances. Annual remittances data. The world bank group.

<http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/0,,contentMDK:22759429~pagePK:64165401~piPK:64165026~theSitePK:476883,00.html>

**United Nation (2000)** Replacement migration: Is it a solution to declining and aging populations? UN Population Division, New York.

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