Selectivity of the recent return migration to Poland

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ABSTRACT

In the wake of the 2004 EU enlargement Poland witnessed an exceptionally large outflow of its nationals. However, as noticed first by Ravenstein, each migration is accompanied by a compensating counter current consisting of persons who, for various reasons, decided to move back to the place of their own or their ancestors' origin. According to our estimates based on the Polish Labour Force Survey, the return migration to Poland started to intensify in 2007. The aim of this paper is twofold. First, we discuss possible estimates of comings back from various destination countries. Second, with the use of statistical indexes and an econometric model based on the LFS data we analyze the selectivity of returnees with regard to the main socio-demographic characteristics. We compare the obtained results with the previous studies on selectivity of the out-migration from Poland (Grabowska-Lusińska, Okólski 2009) and of return migration in the early 2000s (Fihel, Górny, Matejko 2006). Our analysis proves a strong selectivity of return migration: it is more likely for middle aged persons and migrants with vocational level of education. Geographical selectivity showed that the probability of coming back is higher in the case of persons staying in Germany than in Ireland, the United Kingdom and the United States. This result contradicts an intuitive presumption that returns should take place first from the countries seriously stricken by the 2007 financial crisis. Surprisingly, originating in rural area in Poland determines the propensity to return to the largest extent and we discuss possible explanations of this result.

KEY WORDS

return migration, returnees, selectivity, post-enlargement migration, laws of migration

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1. Introduction

Return migrants (or 'returns') exhibit a specific type of mobility which – to a greater or lesser extent – accompanies every outflow. According to the regularities observed in the nineteenth century by Ravenstein (1885: 199), 'each main current of migration produces a compensating counter current' consisting of persons who, for various reasons, decided to move back to the place of their own or their ancestors' origin. Although there are a large number of studies devoted to return migration, in fact the determinants of coming back, as well as the order and course of subsequent stages of backward mobility are analogous to traditionally-defined emigration.

In recent years, return migration has become a subject of intensive public debate, government policy and scientific research in Poland. This is not by chance. After exceptionally large outflows that occurred in the wake of Polish accession to the European Union in 2004 (Fihel and Okólski 2009; Grabowska-Lusińska and Okólski 2009), return flows started to take place on a massive scale. A similar mechanism was also observed in Ireland, Italy and Spain, where accession to the European Union provoked an elevated outflow and – a couple of years later – a wave of returns (see, for example, Duszczyk 2007).

What is the scale and socio-demographic composition of post-accession return migration to Poland? What is the pattern of this kind of mobility? Is it short- or long-term? What are the determinants of 'coming back', both in the country of emigration and in the place of origin? How are the recent changes in the economic situation affecting people's propensity to come back to Poland, a country that has largely proved resistant to the worst effects of financial crisis? Finally, with regard to mismatches between migrants' level of education and occupations pursued abroad, who is the most prone to come back: persons with or persons without qualifications?

First, we present previous waves of returns, in the first and second halves of the twentieth century. Second, we quote various estimates of the scale of post-accession return migration and present its selectivity with regard to age, skills, region of origin and destination as compared to

post-accession emigration. Third, we test the statistical significance of this selectivity and point out the main factors underlying the recent wave of returns to Poland. Finally, we turn to recent developments in the international economic situation, mainly the financial crisis of 2007, and discuss its impact on the propensity to return of various groups of migrants.

2. Returns to Poland in a Historical Perspective

In light of Ravenstein's theorem on the coexistence of emigration and return migration it is apparent that in contemporary Poland – a typical emigration country – waves of returns have been observed repeatedly. In the twentieth century the first return flow resulted from the Great Depression of 1929, which put an end to the freedom of international mobility that had existed hitherto. In the aftermath of reductions in production and increasing unemployment, countries that had been drawing in migrant workers, including Polish nationals, introduced policies to protect the domestic labour force (Bade 2000). The United States limited the number of entrance visas; countries in Latin America increased the sum of money migrants were required to have as a condition of residence; and France even implemented some compulsory deportations to countries of origin (Kołodziej 1998). Those actions, together with increases in unemployment and poverty in the host countries, provoked a wave of returns to Poland. Seasonal workers excluded, in the period 1926–1930 the absolute number of Polish nationals returning to the country of origin averaged 21,600 annually and in 1931–1935, the figure was 31,100 (Janowska 1981, 1984). Interestingly, returns involved mostly labour migrants resident in Belgium and France,[3] destinations relatively close to Poland. In 1931–1936, more than 160,000 Polish migrants returned from France, 63 per cent of the whole return flow: the percentage of emigrants choosing this destination was only 40 per cent. Returns were far less numerous – also compared to the scale of previous emigration – from the countries drawing settlement migration: Argentine, Canada, Palestine and the United States.

[3] For political reasons Germany was not at that time a destination for Polish migrants.

The next wave of returns – the repatriation of Polish nationals – took place after the Second World War and in the first post-war decades. It involved more than 3 million persons who had fled from armed conflicts, had been displaced or, due to the changes in Polish frontiers, had found themselves residents of a foreign country (Gawryszewski 2005). But as the displacement of population during the war had not been voluntary, the repatriation proceeded strictly according to the rules laid down by the administrative and governmental authorities. In the period 1950–1954 the organisation of returns from the Soviet Union was suspended due to political reasons, and it was restored only in 1956 thanks to the Polish–Soviet intergovernmental agreement. Thus, this flow of returns was not shaped spontaneously and the social and economic determinants remained utterly secondary to political circumstances. Return migration also took place, but on a relatively small scale, during the communist period. Data quoted by Slany and Malek (2002: 83) on the registered inflow to Poland in the years 1961–1989 indicates 55,000 persons, a marginal figure compared to the registered (754,000) or estimated (more than 1 million in the 1980s alone) outflow (Okólski 1994). Due to the communist regime and the country's economic backwardness 'potential return migrants had no (except for sentimental or retirement-related) motivations for coming back' to Poland (Slany and Malek 2002: 83).

Interestingly, the change of political and economic system in 1989 released in the 1990s – thus with a certain time lag – a wave of returns that included not only post-war Polish emigrants but also their descendants, representing a so-called second generation of emigrants. The Population Census conducted in 2002 provided information on the return migration of the 1990s. In the period 1989–2002, 70,000 Polish citizens returned to Poland on a permanent basis,[4] including as many as 20,000 (29 per cent) who came back, had emigrated once again before 2002 and at the critical moment of the Population Census were abroad (Fihel, Górny and Matejko 2006). It is worth noting that 27 per cent of the 50,000 Polish residents who did not re-emigrate had double – Polish and other – citizenship, indicating either naturalisation in the

[4] That is, registered in Poland for a permanent stay. The Population Census caught only registered migration, so the above-quoted number excludes unregistered and temporary migration (Fihel, Górny and Matejko 2006).

country of emigration or that they had been born abroad and had returned to the country of their parents. The migrants returned from the most important destinations for Polish emigration: Germany, the United States, Canada, Italy, the United Kingdom and France.

A significant feature of the return migration of the 1990s is the relatively high share of young (40 per cent below 30 years of age) and well-educated persons (as many as 69 per cent aged 20 and over had at least a secondary level of education, and half had a university degree). Among the return migrants who stayed in Poland until 2002 and undertook employment 70 per cent were employed in the private sector, the most popular occupations being experts, technicians, functionaries, middle management, personal services and sales. Thus, the return migration of the 1990s constituted an inflow of persons who were economically active and possessed high-quality human capital: they knew foreign languages, were educated and trained in the Western environment and had Western professional experience, all rare and important things in a country undergoing post-communist transition (see also Klagge and Klein-Hitpaβ 2007, 2010).

The fact that 20,000 persons (29 per cent) who had returned in the 1990s had emigrated again by the time of the Population Census indicates difficulties in adapting to the social and economic conditions in Poland. As compared to those who stayed in Poland, persons choosing re-emigration more frequently held double citizenship, were living alone, had no children or were lone-parents and on average had a lower level of education (mostly secondary and vocational). While those who stayed in Poland occupied high professional positions in the labour market, those who re-emigrated and took employment abroad were mostly middle range employees, workers engaged in personal services, salespersons, workers, machine operators and performers of simple jobs. Thus, high skills on the part of return migrants enhanced economic integration, whereas the high unemployment level in Poland 'pushed out' less educated migrants. In the 1990s, the stagnation of Polish industry and construction and a slow increase in the wage level were markedly unfavourable factors for persons with a secondary, vocational or primary education.

Qualitative studies on return migration in the 1990s clearly indicate problems of adaptation in Poland, affecting subsequent international mobility. It should be emphasised, however, that those difficulties of economic and social integration existed both in the country of emigration and in Poland, the country of re-emigration. For instant, the disapproval of German society with regard to Polish migrants was repeatedly mentioned as a factor impeding adaptation to the host society and encouraging people to come back to Poland (Heffner and Sołdra-Gwiżdż 1997; Koryś 2002). In turn, the migration experiences of the second-generation Poles living in the United Kingdom proved that, for many of them, return to Poland meant only commuting, often on a weekly basis, between the workplace in Warsaw and the place of residence of the rest of a family in London (Górny and Osipovič 2006). The impossibility of leading a life – especially a personal life – on this basis over a long period favoured the abandonment of this mobility and, most often, a decision to settle down in the United Kingdom.

The return migration of the transition period, just like in the post-accession period, should then be placed in the middle of a broad spectrum of different forms of mobility, between, at one end, settlement and at the other, a short temporary stay. Decisions regarding settlement in a destination country/ return to the country of origin/ re-emigration were not definitive and underwent modifications in the rapidly changing economic and social circumstances. A relatively high share of re-emigrants registered in the Population Census and the above-quoted histories of return migrants show a certain fluidity with regard to this kind of migration and also indicate serious difficulties with integration in the social and economic environment in Poland. However, the relatively stable situation on the Polish labour market and the financial crisis in most destinations might have reinforced this fluidity of mobility and favoured the development of a 'try-it-and-see' strategy. The data presented below to a certain extent support this hypothesis.

3. Estimates of the Scale of Post-accession Return Migration

Post-accession return migration has been taking place on a massive scale. Several data sources justify this statement, although none of them provide the exact number of returns. In fact, reliable data on this phenomenon will not be available before the results of the 2011 Population Census are published.[5] This is due to the lack of registers that systematically encompass the widely-defined category of return migrants and also due to methodological problems with representative quantitative surveys of international migration.

Nevertheless, the Central Statistical Office (CSO) of Poland does attempt to calculate the stock of Polish emigrants and returnees. Since the estimates are based on various data sources – the 2002 Population Census, the Labour Force Survey and statistics from destination countries – they seem to be very reliable. Table 1 presents the CSO's estimates of stocks of Polish nationals remaining abroad for at least two or three months. It shows that the number of Polish nationals resident abroad evidently diminished from 2,270,000 at the peak of the outflow (end of 2007) to 2,210,000 at the end of 2008 and 1,870,000 at the end of 2009 (CSO 2010). Those figures show clearly that in 2007 returns of Polish nationals started to outnumber the outflow and the phenomenon of return migration started to intensify. It should be stressed here that the difference between those estimates does not give the number of returnees (the latter being in fact much higher) as the quoted numbers refer to stocks of Polish nationals being abroad and not to migration flows (inflow and outflow).

Returns started to take place from almost all destinations, regardless of geographic proximity or recent developments related to the financial crisis in each country. The decrease in the number of Polish nationals was registered not only in countries that in 'troubled times' experienced serious economic problems, such as the United Kingdom, Ireland and the United States, but in other destinations as well: Austria, France, Germany, Italy and the Netherlands. At three main destinations the stock of Polish nationals decreased between the end of 2007 and the

[5] First results will be published by the end of 2012.

end of 2009: by 135,000 in the United Kingdom, by 75,000 in Germany and by 60,000 in Ireland. Interestingly, while the beginning of the declines in Ireland and the United Kingdom – 2008 – overlapped with the deterioration in the economic situation in those countries, the decrease in Germany was registered in 2009 when no influence of the financial crisis or any change in policy towards the Polish labour force was observed. At other destinations the decrease was observed only in 2009 and it was much lower: Austria and Italy registered a drop of 2,000, France 9,000 and the Netherlands 24,000. Also, Belgium, Spain and Sweden experienced an increase, albeit not exceeding 4,000 in each country (in the period end of 2007 – end of 2009). This increase shows that Polish nationals remain highly mobile and move from one destination to another, if the latter is 'more attractive in terms of remuneration conditions or broader access to welfare benefits' (CSO 2010: 2). As CSO suggests, one may assume that the observed increase in the number of Polish nationals residing in Norway is linked to the outflow from the United Kingdom. The study on Polish construction workers living in Oslo showed that a large proportion of them (87 per cent) had previously worked in an other destination country (Napierała and Trevena 2010). Thus, several years after EU enlargement the international mobility of Polish nationals remains high and exhibits the features of transmigration: migration from one country of destination to another.

Table 1 Number of Polish citizens staying abroad for longer than 2 or 3 months[1] by destination country (estimates; thousands)

Destination	2002 (May)	2004[2]	2007[2]	2008[2]	2009[2]
Total	786	1,000	2,270	2,210	1,870
European Union	451	750	1,860	1,820	1,570
Austria	11	15	39	40	38
Belgium	14	13	31	33	34
France	21	30	55	56	47
Germany	294	385	490	490	415
Ireland	2	15	200	180	140
Italy	39	59	87	88	85
Netherlands	10	23	98	108	84
Spain	14	26	80	83	84
Sweden	6	11	27	29	31
United Kingdom	24	150	690	650	555

Notes: [1] Since 2007, 3 months; [2] end of the year.

Source: Central Statistical Office, 2010.

The number of Polish returnees can be approximated on the basis of the Labour Force Survey (LFS) which in the second quarter of 2008 included an additional module dedicated to migration and migrants.[6] On the basis of a large sample (almost 25,000 households) the scale of return migration was estimated at 580,000 in the period January 2004–June 2008, with 213,000 in 2007 alone.[7] As already mentioned, in 2007 the phenomenon of returns only *started* to intensify, so the current scale of returns (that is, as of 2011) must be significantly higher. The figure of 580,000 encompasses not only long-term, but also short-term emigrants (staying abroad less than one year) who might be involved in circular mobility. Nevertheless, the scale of flow in the recurrent direction involves hundreds of thousands of Polish nationals.

4. Labour Force Survey Data

In the following sections the LFS data on the international mobility of Polish nationals are used to present the features of return migration. The dataset employed in this analysis was extracted

[6] The research 'Labour market situation of migrants and their immediate descendants' was conducted in all EU member states, EC Regulation 102/2007, 2 February 2007.

[7] A return migrant was defined as a person aged 15 or over who had remained abroad for at least two or three months and at the time of the survey (second quarter 2008) was resident in his or her household.

from quarterly LFS surveys conducted in the period 1999–2009 and it differs from the data presented above: the CSO's estimates *based* on the LFS and the results of a special LFS module conducted in 2008. Thus, results referring to the scale of returns and their geographic pattern are not fully comparable. The quarterly LFS provides information on sex, age, level of education, place of origin (emigrants)/residence (returnees) in Poland[8] (type of locality and region) and country of emigration. On this basis it is possible to define socio-demographic profiles of emigrants and return migrants, as well as to identify the most important directions of international mobility.

The rules for conducting the LFS assume rotation of households in the sample. A household is tracked for two subsequent quarters of a year, then skipped for the next two quarters, and then tracked for another two subsequent quarters (Table 2). Thus, each household is surveyed four times over the span of six subsequent quarters, and then it is excluded from the sample and replaced by a newly sampled household. For this rotation rule, according to which in each quarter 25 per cent of the sample is exchanged, the LFS is a so-called pseudo-panel. In the survey an emigrant is detected when his household's members report – in any one of four surveys – the fact of his departure abroad. In turn, a return migrant is detected if he is abroad during (at least) any of the first three surveys and present during the subsequent survey.

Table 2 Rotation rule of the Polish Labour Force Survey

Year 1				Year 2				Year 3			
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
X	X	–	–	X	X						
	X	X	–	–	X	X					
		X	X	–	–	X	X				
			X	X	–	–	X	X			
				X	X	–	–	X	X		
					X	X	–	–	X	X	
						X	X	–	–	X	X

Source: Authors' elaboration.

[8] The place of origin for emigrants is equivalent to the place of residence in Poland for returnees because the LFS sample includes households, not individuals (see discussion below).

On the basis of the quarterly LFS two datasets were compiled:

1. **Emigrants Database**. This includes information on 9,912 persons aged 15 and over who migrated in the period 1999–2009, for at least two or three months. Characteristics of emigrants analysed in the further section refer to the three months (quarter) of their absence. It should be mentioned, however, that in some – albeit rare – cases such characteristics as country of residence changed because migrants moved to other destinations.
2. **Return Migrants Database**. This includes information on 902 persons that have been identified as emigrants (see definition under point 1) in one of the first three surveys and were present in Poland in the subsequent survey. Only 9 per cent of emigrants appear as return migrants.

The LFS study is oriented primarily towards labour market developments and its methodology has not been adjusted to track international mobility. First, it ignores migrants who left Poland with their entire families and thus underestimates the scale of outflow.[9] This is simply due to the fact that if all members of a household emigrate, there remains nobody to report this fact to a pollster. This effect also distorts our reasoning about returns because migrants who left with their families are less prone to come back than other groups of migrants. Second, it includes circular migrants: that is, persons who stayed abroad for a period between two to three months and one year, and excludes seasonal workers who – by definition – are supposed to work less than three months. It also includes returnees who came back for a short period and were incidentally present at their place of residence in Poland at the time the survey was conducted. Third, the LFS sample refers to households and not to individuals. Consequently, if a return migrants sets up a new household (at a new address) after coming back to Poland, he disappears from the LFS sample and is not registered as a returnee. Despite all these shortcomings, the LFS

[9] The authors wanted to analyse the documentation of surveys that failed to be conducted in order to calculate how many households disappeared from the sample due to emigration. Such an analysis turned out to be impossible because of technical impediments.

remains the only exhaustive, up-to-date and nationally representative study on international migration from and back to Poland. It will not be possible to overcome those defects in the future without a thorough revision of LFS methodology. Nor is it possible, once the data are gathered, to estimate the scale of underreporting of emigration and overreporting of circular migration.

5. Method of Analysis with Regard to Selectivity

Two groups of migrants, emigrants and returnees, were compared using the so-called 'selectivity index'. This measure is used in demography and other social sciences to compare the distribution of certain features (variables) in two populations (Ostasiewicz 1984). It is calculated on the basis of the following formula:

$$SI_{V=i} = \frac{\frac{Q_{V=i}}{Q} - \frac{P_{V=i}}{P}}{\frac{P_{V=i}}{P}} \qquad (1)$$

where $SI_{V=i}$ is the index of selectivity for category i of variable V; $Q_{V=i}$ and $P_{V=i}$ stand for the number of persons in two populations having the i category/ value of variable V, and Q and P stand for overall number of persons in both populations. In this case, the Q population is compared to the P population and the latter serves as a reference group.

The selectivity index was used in the studies presenting the selectivity of the post-accession outflow from Poland with regard to the main socio-demographic variables (Kaczmarczyk, Mioduszewska and Żylicz 2009; Mioduszewska 2008). In those analyses the group of emigrants was compared to the whole adult population of the sending country. In this chapter we propose to set the group of returnees and the group of emigrants alongside one another, according to the following formula:

$$SI_{V=i} = \frac{\frac{RM_{V=i}}{RM} - \frac{E_{V=i}}{E}}{\frac{E_{V=i}}{E}} \qquad (2)$$

where $RM_{V=i}$ and $E_{V=i}$ stand for the number of return migrants and emigrants, respectively, having the *i* category/value of variable *V*, and *RM* and *E* stand for the overall number of return migrants and emigrants, respectively, in the general population.

According to formula (2), the selectivity index has values ranging from –1 to plus infinity. The positive values indicate that return migration involves relatively more persons with the *i* category/value of variable *V* than emigration; the zero value indicates the lack of selectivity with regard to *i* category/value of variable *V* (both groups of migrants are the same); the negative values indicate that return migration involves fewer persons with the *i* category/value of variable *V* than emigration. It is possible to compare the values of the selectivity index calculated for different categories of the same variable (for instance, various age categories) and to compare the index for different variables (for instance, for age and level of education), so we can indicate the variable that best determines return migration.

6. Selectivity of Returns

The selectivity index of returns was calculated with regard to sex, age and level of education, type of settlement (rural/ urban), region of origin in Poland and country of emigration. Sex seems to be an insignificant selective factor in the return migration process. Despite a certain overrepresentation of men in the return flow as compared to emigration (64 per cent in return migration and 61.1 per cent in emigration), the value of the selectivity index for returns is fairly small: 0.05 for men and –0.07 for women (Table 3). The age structure of the returnees is also only slightly different from that of the emigrants: in return migration there is a certain

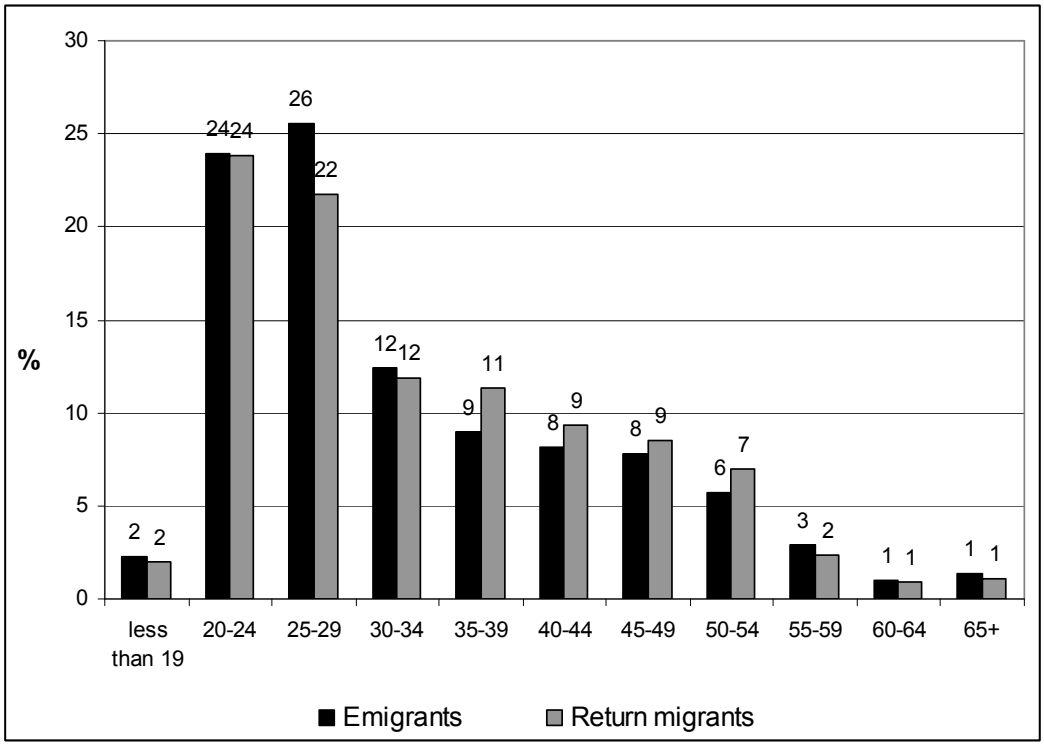
overrepresentation of persons aged 35 and over (40.5 per cent versus 35.8 per cent – see Figure 1) but the mean age is the same for both groups (34 years) and the median age differs marginally (30 for the emigrants and 31 for the returnees). Thus, selectivity of returns with regard to sex and age is fairly weak.

Table 3 Emigrants and return migrants by sex (in percentage terms) and the selectivity index

Sex	Emigrants (%)	Return migrants (%)	Selectivity index
Male	61.1	64.0	0.05
Female	38.9	36.0	–0.07
Total	100.0	100.0	–

Source: Authors' elaboration based on the LFS.

Figure 1 Emigrants and return migrants by age (%)



Source: own elaboration on the basis of the LFS.

Source: Authors' elaboration based on the LFS.

Stronger selectivity of returns is observed as far as level of education is concerned. The percentage of those with a vocational education is distinctly higher among return migrants than among emigrants (38.6 per cent versus 33.4 per cent, respectively), whereas the share of those with a university degree and a secondary education is higher among emigrants (14.1 per cent for both levels of education) than among returnees (10.2 per cent and 12.9 per cent, respectively – see Table 4). This proves the importance of skills and qualifications, in particular knowledge of foreign languages, for people's success in settling abroad. Also, it might suggest rising demand for certain vocational skills on the Polish labour market, especially in the construction sector.

Table 4 Emigrants and return migrants by level of education[1] (in percentage terms) and the selectivity index

Level of education[1]	Emigrants (%)	Return migrants (%)	Selectivity index
University degree	14.1	10.2	–0.28
Secondary	14.1	12.9	–0.09
Secondary vocational	30.0	29.7	–0.01
Vocational	33.4	38.6	0.16
Primary	8.4	8.5	0.01
Total	100.0	100.0	–

Note: [1] The classification of levels of education may be translated to widely used ISCED categories, as follows: university degree – level 5 and 6; secondary – level 3 and 4; secondary vocational – level 3; vocational – level 3; primary – levels 1 and 2. Vocational education does not enable access to tertiary education, in contrast to secondary education.

Source: Authors' elaboration based on the LFS.

In Poland, type of settlement most determines the propensity to return. In the LFS, this variable is defined for emigrants as the last place of residence before emigration and for returnees as the current (at the moment of the survey) place of residence after coming back to Poland. The share of persons living in rural areas is 56.8 per cent among returnees and 42.9 per cent among emigrants (the selectivity index for rural areas is 0.33 – see Table 5). Consequently, the share of urban dwellers is higher in the outflow than in the return flow and the larger the settlement, the higher the difference between the proportions of the two categories of migrants.

According to previous statistical analyses (Kaczmarczyk and Okólski 2008; Grabowska-Lusińska and Okólski 2009), persons aged 18–44 living on very small farms were the most prone to emigrate from Poland. In this study rural inhabitants turned out to be the most determined to return, which is paradoxical because, according to the 2002 Population Census, as many as 38 per cent of Polish nationals live in the countryside. Why does residence in rural areas – regions with relatively low demand for labour – enhance return, in contrast to urban areas where local labour markets are more absorptive? It seems that this is due to a set of economic benefits derived from the fact of owning agricultural land in Poland. Farmers and their families have weakly restricted and much less expensive access to the social security system, including the retirement scheme, than employees and self-employed persons in other sectors. Moreover, the agricultural subsidy system of the European Union provides a significant disincentive to dispose of arable land. These privileges constitute the main reason for very low out-migration, whether to urban areas in Poland or abroad. With regard to seasonal mobility,[10] it was proven that the possibility of short-term employment in Germany, combined with maintaining the status of a farmer in Poland, restrained unemployed rural dwellers from looking for a permanent job elsewhere and/or from emigrating on a permanent basis (Fihel 2004). The LFS data exclude seasonal migrants but suggest that this repeated mobility might apply to longer migration as well. Indeed, a large part of post-accession emigrants did not leave the country forever and probably never intended to do so, and the mechanism of circular mobility persisted after Polish accession to the European Union.

[10] In the pre-accession period, every year hundreds of thousands of Polish nationals undertook seasonal employment in the German construction and agriculture sectors. This was regular labour mobility based on intergovernmental agreement (see Jaźwińska and Okólski 2001).

Table 5 Emigrants and return migrants by type of settlement in Poland (in percentage terms) and the selectivity index

Place of origin/ residence	Emigrants (%)	Return migrants (%)	Selectivity index
Urban	57.1	43.2	-0.24
Rural	42.9	56.8	0.33
Total	100.0	100.0	-

Source: Authors' elaboration based on the LFS.

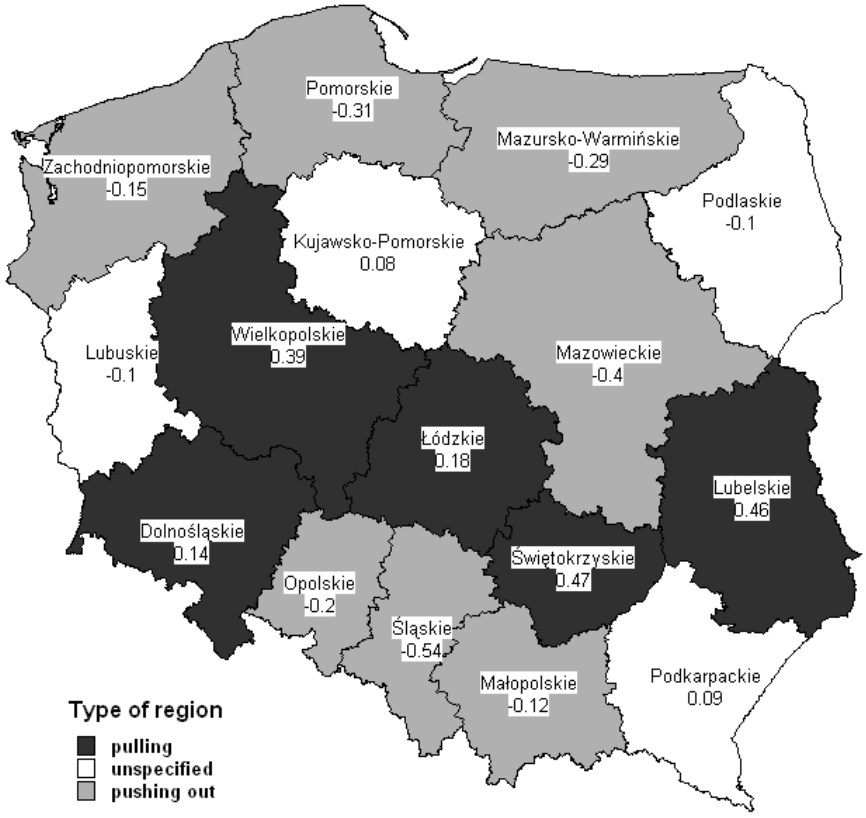
The phenomenon of selectivity of returns is also observed in the regional dimension (Table 6, Figure 2). There are regions in Poland where the share of returnees is higher than that of emigrants; those regions, to some extent, enhance coming back ('pull the returnees'). In contrast, there are regions which 'push away' migrants, where the percentage of returnees is lower than that of emigrants. Those two types of regions are so diverse with regard to the situation on regional labour markets that interpretation of the spatial pattern of returns is ambiguous. On the one hand, regions enhancing return are: *Dolnośląskie* and *Łódzkie* with a relatively high degree of urbanisation and industrialisation and with important academic centres; *Wielkopolskie*, with one of the largest Polish cities, Poznań; and finally *Świętokrzyskie* and *Lubelskie*, rural and underdeveloped provinces with high rates of unemployment. On the other hand, regions 'pushing away' returnees are: *Śląskie, Mazowieckie* and *Pomorskie*, which include important cities – Warsaw, Katowice and Gdańsk – and have unemployment levels below the national average, and *Warmińsko-Mazurskie* with the highest rate of unemployment in Poland and persisting problems arising from the post-communist structure of collective agriculture. Furthermore, the geographical pattern of returns does not correspond to local emigration traditions from Poland: in the past, *Małopolskie*, *Opolskie* and *Podkarpackie* were assumed to be the most important sending regions, whereas in this analysis their role in attracting or discouraging returnees is not relevant. In the post-accession period the outflow from Poland was recorded mostly from eastern and southern Poland (Fihel and Okólski 2009), but this does not match the map of returns (Figure 2), which is rather fragmented.

Table 6 Emigrants by region of origin and return migrants by region of residence (in percentage terms) and the selectivity index

Region	Emigrants (%)	Return migrants (%)	Selectivity Index
Dolnośląskie	7.9	9.0	0.14
Kujawsko-Pomorskie	4.8	5.2	0.08
Lubelskie	8.0	11.7	0.46
Lubuskie	2.9	2.6	-0.10
Łódzkie	4.1	4.8	0.18
Małopolskie	12.5	11.0	-0.12
Mazowieckie	4.9	2.9	-0.40
Opolskie	6.0	4.8	-0.20
Podkarpackie	13.6	14.8	0.09
Podlaskie	6.3	5.6	-0.10
Pomorskie	4.3	3.0	-0.31
Śląskie	5.8	2.7	-0.54
Świętokrzyskie	5.9	8.6	0.47
Warmińsko-Mazurskie	3.7	2.7	-0.29
Wielkopolskie	4.9	6.9	0.39
Zachodniopomorskie	4.4	3.7	-0.15
Total	100.0	100.0	-

Source: Authors' elaboration based on the LFS.

Figure 2 Selectivity index for returnees by regions of Poland[1]



Note: [1] Regions have been divided into three groups based on the value of the selectivity index: regions enhancing return migration ('pulling') SI>0.1, regions unspecified –0.1<SI<0.1, regions restraining return migration ('pushing out') SI<–0.1.

Source: Authors' elaboration based on the LFS.

Last, but not least, there is selectivity of returns with regard to countries of destination. It has already been shown that after 2007 stocks of Polish migrants declined in most receiving countries but according to the analysis of selectivity which covers a period of 10 years some destinations are able to 'keep' Polish migrants to a greater extent than others. Indeed, over this period for Austria, Ireland, the United Kingdom and the United States the percentage of emigrants is higher than that of returnees (Table 7), which would suggest that incentives to stay in those countries are fairly strong. The opposite appears to be true for – above all – Germany. However, this interpretation raises serious doubts because the LFS data refer to returns that took

place over 1999–2009: that is, in dynamically changing economic circumstances and changing legislation as regards free movement of labour. The LFS database provides distributions of returns over this decade. It proves that, for each destination, the pattern of returns has been different: while returns from Germany were evenly distributed over the past decade, the outflow from the United Kingdom and Ireland started abruptly in 2007, that is, when the economic situation worsened.[11] Thus, if the period of analysis of selectivity was limited to 2007–2009, the results would be different with regard to countries of destination. However, narrowing the LFS sample to two years is not possible due to its small size. Nevertheless, the analysis shows the division of destination countries into those of settlement emigration (the United States, the United Kingdom, Ireland) and those of temporary labour mobility (Germany). In the case of the latter, the temporary character obviously refers also to returns that constitute only a phase of mobility. In fact, Germany is a special case as a destination country, with intensive labour migration 'traditions' from Poland, combined with long-term restrictions on labour market access.

[11] This result is not necessarily in accordance with Table 5.1 because the latter indicates stocks of migrants at particular moments in time, whereas the LFS database refers to flows of migrants.

Table 7 Emigrants and return migrants by country of destination (most important; in percentage terms) and the selectivity index

Country of destination	Emigrants (%)	Return migrants (%)	Selectivity index
EU-15	80.8	82.6	0.02
Austria	2.0	1.4	–0.30
Belgium	2.4	2.0	–0.18
France	3.4	3.8	0.12
Germany	23.3	30.9	0.33
Greece	1.3	1.3	–0.01
Ireland	6.6	3.7	–0.43
Italy	8.9	9.8	0.10
Netherlands	4.8	5.5	0.13
Spain	2.9	3.1	0.10
Sweden	1.4	1.7	0.20
United Kingdom	22.8	18.0	–0.21
Other			
Norway	1.8	2.0	0.09
United States	11.8	8.0	–0.33

Source: Authors' elaboration based on the LFS.

7. An Econometric Model of Selectivity of Returns

The analysis of selectivity presented in Sections 5 and 6 provides a simple and intuitive description of the phenomenon of returns. However, this approach may suffer from the problem of deriving conclusions about the presence of selectivity in two or more dimensions (for example, age and level of education) that in fact might not take place. For instance, since younger cohorts are usually better educated than older ones we could combine the selectivity of returns with regard to age with selectivity with regard to education. The econometric model allows for controlling and separating combined effects of different variables (age and education, or any other group of variables) and proves their statistical significance (or insignificance) for return migration. In our analysis the *logistic* regression model was applied with the Boolean dependent variable equal to one if the migrant returned and zero in other cases:

$$P(y=1 \mid x) = f(xb) = LOGIT(xb) \tag{3}$$

To estimate β coefficients the data from the Emigrants Database and Return Migrants Database were combined. By estimation procedures it was verified which socio-demographic variables (age, sex, level of education, type of settlement or region of origin[12]) significantly increase or decrease the probability of returning to Poland and which of them have the strongest influence on it. While an interpretation of β coefficients alone is not informative, their exponentials described as *odds ratios*, were calculated (Greene 2003). On the basis of the F-statistics the hypothesis that all the $x'\beta$ are insignificant (α=0.01) was rejected, however, some of them turned out to be insignificant (Table 8).

[12] The destination country of migrants was not included in the model as a variable: see explanation below.

Table 8 Logit model of return migration estimates

Variable	Return migration logit model			
	$\dot{x}\beta$	$exp(\dot{x}\beta)$	*p-value*	Significance level[1]
Age				
Age category: 'up to 24'	0.08	1.08	0.48	
Age category: '30–39'	0.17	1.19	0.12	
Age category: '40 and over'	0.17	1.19	0.10	*
Sex				
Sex: 'male'	0.11	1.12	0.15	
Education				
Education: 'primary'	0.02	1.02	0.87	
Education: 'vocational'	0.26	1.30	0.05	*
Education: 'secondary, post-secondary'	0.19	1.21	0.13	
Type of settlement				
Type of settlement: 'urban area'	–0.30	0.74	0.00	***
Region				
Dolnośląskie	–0.05	0.95	0.80	
Kujawsko-Pomorskie	0.22	1.25	0.19	
Lubelskie	–0.25	0.78	0.29	
Lubuskie	0.07	1.07	0.77	
Łódzkie	–0.38	0.68	0.03	**
Małopolskie	–0.54	0.58	0.05	**
Mazowieckie	–0.65	0.52	0.00	***
Opolskie	–0.17	0.84	0.29	
Podkarpackie	–0.24	0.79	0.21	
Podlaskie	–0.50	0.61	0.04	**
Pomorskie	–0.94	0.39	0.00	***
Śląskie	0.28	1.32	0.10	*
Świętokrzyskie	–0.52	0.59	0.03	**
Warmińsko-Mazurskie	0.16	1.17	0.42	
Wielkopolskie	–0.32	0.73	0.16	
Type of country of destination				
'New countries of emigration'[2]	–0.26	0.77	0.00	***
'Other'	0.22	1.25	0.06	**
Intercept	–2.13	0.12	0.00	***

Notes: [1] Significance level for p-value: * α=0.1; ** α=0.05; *** α=0.01.

[2] New countries of emigration are United Kingdom, Ireland, Netherlands, Spain, Belgium, Norway, Sweden, Denmark, Czech Republic and Iceland. Germany, the United States, Italy, France, Austria, Greece, Canada and Australia are assumed to be the 'old' ones.

Source: Authors' elaboration based on the LFS.

In general, the econometric model yielded results similar to the previous descriptive analysis of selectivity (Section 6). Sex turned out to be insignificant, which means that it does not affect the return migration propensity (Table 8). However, age does, albeit slightly: the odds ratio for migrants older than 29 (the reference group was 25–29) is significantly higher than one, at 1.19. This means that the probability of return for Polish nationals aged 30 and over is almost 20 per cent higher than for younger persons. There is also a relatively strong pull effect with regard to rural areas: the probability of return to urban areas is 26 per cent lower than in the case of rural areas. As for level of education, only vocational education turned out to be significantly different from tertiary education, which constituted the reference level. In a way, both vocational and tertiary levels of education denote valuable skills but a different effect can be observed for each of them. From the Polish perspective highly skilled migrants appear to be rather 'pushed-out' abroad, whereas those with vocational skills are rather 'pulled back' (probability of return is 30 per cent higher for them than for university graduates). These results were obtained even when statistical interactions between different categories of variables were controlled for. For instance, in order to eliminate a combined effect of education and place of residence in Poland – existing if the demand for different skills was different in rural and urban labour markets – additional variables combining education and place of origin were introduced but none of them turned out to be statistically significant.

In order to assess the influence of region of origin on propensity to return 16 *logistic* regression models were calculated, with each of the 16 Polish regions as the reference category[13] (Table 9). The results of the econometric models turned out to be almost identical to those of descriptive analysis, with some regions attracting returnees (*Dolnośląskie*, *Kujawsko-Pomorskie*, *Lubuskie*, *Świętokrzyskie* and *Wielkopolskie*) and some pushing them away (*Mazowieckie*, *Pomorskie*, *Śląskie*, *Warmińsko-Mazurskie*). Again, this spatial pattern does not reveal any equivocal relationship to the economic situation at local level: it is not bound to regional income, rate of unemployment or level of urbanisation. It does not reflect local

[13] This is because it is not clear which region chosen as the reference category gives the most informative result.

emigration traditions, such as intensity of mobility or the most popular directions chosen by migrants from different regions either in the pre- or post-EU enlargement period. We suppose that each region of Poland constitutes a separate case of different local mobility traditions and of different economic push and pull factors and, therefore, no single explanation for spatial pattern of return migration can be provided.

Table 9 *Odds ratio* for the region of origin (compared category) in 16 logistic regression models, with each region as the reference category[1]

Odds ratio for variable 'region of origin' (compared category) in 16 logit regression model estimations where each region of origin is reference category		Compared category (region of origin)																
		Dolnośląskie	Kujawsko-pomorskie	Lubelskie	Lubuskie	Łódzkie	Małopolskie	Mazowieckie	Opolskie	Podkarpackie	Podlaskie	Pomorskie	Śląskie	Świętokrzyskie	Warmińsko-mazurskie	Wielkopolskie	Zachodniopomorskie	Average
Reference category (region of origin)	Dolnośląskie		1.00	1.00	1.00	1.00	0.72	0.61	0.55	1.00	1.00	0.64	0.41	1.40	0.63	1.00	1.00	**0.86**
	Kujawsko-pomorskie	1.00		1.00	0.62	1.00	0.55	0.47	0.42	0.68	0.63	0.48	0.31	1.00	0.48	1.00	0.58	**0.68**
	Lubelskie	1.00	1.00		1.61	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.50	1.71	1.00	1.51	1.00	**1.09**
	Lubuskie	1.00	1.00	1.00		1.00	0.64	0.55	0.49	1.00	1.00	0.57	0.36	1.00	0.56	1.00	1.00	**0.81**
	Łódzkie	1.46	1.38	1.82	1.00		1.55	1.00	1.00	1.00	1.00	1.00	0.57	1.93	1.00	1.71	1.00	**1.23**
	Małopolskie	1.72	1.63	2.14	1.00	1.83		1.00	1.00	1.00	1.00	1.00	1.00	2.28	1.00	2.02	1.00	**1.37**
	Mazowieckie	1.91	1.81	2.38	1.00	2.04	1.00		1.00	1.61	1.50	1.00	1.00	2.53	1.00	2.24	1.00	**1.54**
	Opolskie	1.00	1.00	1.48	1.00	1.00	1.00	1.00		0.62	1.00	1.00	0.46	1.57	1.00	1.39	1.00	**1.03**
	Podkarpackie	1.00	1.00	1.59	1.00	1.00	1.00	1.00	0.67		1.00	1.00	0.49	1.69	1.00	1.49	1.00	**1.06**
	Podlaskie	1.00	1.00	1.59	1.00	1.00	1.00	1.00	0.67	1.00		1.00	0.49	1.69	1.00	1.49	1.00	**1.06**
	Pomorskie	1.65	1.57	2.06	1.00	1.76	1.00	1.00	1.00	1.00	1.00		1.00	2.19	1.00	1.94	1.00	**1.35**
	Śląskie	2.57	2.44	3.21	2.00	2.74	1.77	1.00	1.00	2.17	2.02	1.00		3.41	1.00	3.02	1.87	**2.08**
	Świętokrzyskie	1.00	0.72	1.00	0.59	1.00	0.52	0.44	0.39	0.64	0.59	0.46	0.29		0.45	1.00	0.55	**0.64**
	Warmińsko-mazurskie	1.68	1.59	2.10	1.00	1.79	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.23		1.97	1.00	**1.36**
	Wielkopolskie	1.00	1.00	1.00	0.66	1.00	0.58	0.50	0.45	0.72	0.67	0.52	0.33	1.00	0.51		0.62	**0.70**
	Zachodniopomorskie	1.00	1.00	1.72	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.53	1.83	1.00	1.62		**1.11**

Note: [1]Significance level for βx is 0.1, insignificant values of βx (that is, equal to one) are coloured grey.

Source: Authors' elaboration based on the LFS.

Finally, our results confirmed what has been said about the selective effect of different destination countries. Coming back from one of the 'new countries of emigration' (Belgium, Czech Republic, Denmark, Iceland, Ireland, the Netherlands, Norway, Spain, Sweden and the United Kingdom) is much less probable (by 23 per cent) than from one of the 'old/traditional countries of emigration' (that is, Australia, Austria, Canada, France, Germany, Greece, Italy or the United States – see Table 8).[14] In addition, two separate models of selectivity were used, referring to migrants going to two main destinations: Germany and the United Kingdom. Previous research on emigration from Poland (Fihel and Okólski 2009) proved that the latter attracts mainly young and relatively well-educated Polish nationals, whereas the former seems to be the most popular among middle-aged, poorly educated persons originating from rural areas. Econometric models applied to these two outflows separately should reveal this kind of structural inconsistency, if it is statistically significant. Unfortunately, due to too-small samples of migrants coming back from particular countries the dataset did not provide such conclusions: hardly any variable turned out to be significant with regard to the model for the United Kingdom. In the case of Germany, the model revealed a negative selectivity for return to urban areas (β = –0.40) – similar to the general model – and a positive selectivity for men (β=0.28) – as opposed to the general model, in which sex turned out to be insignificant.

8. Propensity to Emigrate, Propensity to Return

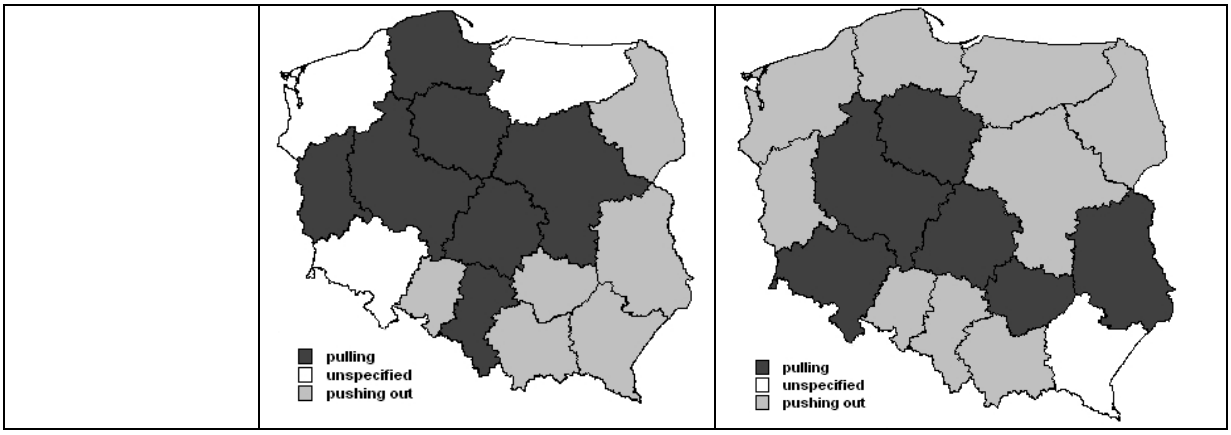
Similar to the model presented in Section 7, Mioduszewska (2008) analysed the selectivity of emigration from Poland in the pre-accession (1999–2004) and post-accession (2004–2006) periods. In that study the group of emigrants was compared to the general population of Poland and the dependent variable referred to propensity to stay or leave the country. Data were also derived from the LFS and included the main socio-demographic characteristics of migrants. Table 10 presents the results of two econometric models devoted to selectivity: selectivity of

[14] Although it would be very interesting to look at these countries separately, due to the sample size it was necessary to divide them into three groups: 'old countries of emigration', 'new countries of emigration' and 'other'.

emigration (based on Mioduszewska 2008) and return migration (based on the analysis in Section 7).

Table 10 Effect of the main socio-demographic characteristics on propensity to emigrate and return

Socio-demographic characteristics	Emigration from Poland (1999–2006)	Return migration to Poland (1999–2009)
Age	Influence of age is not unidirectional. Being older – up to some critical point – improves the likelihood of emigration (*βx* for *age* variable significantly higher than 0). However, from some point, being older decreases the propensity to emigrate (*βx* for *the square of age* variable significantly lower than zero).	Age categories over the median age are overrepresented in case of return inflow (*odds ratios* higher than one). Thus, being older improves likelihood of return to Poland as opposed to remaining abroad.
Sex	Being male significantly improves likelihood of emigration (*odds ratio* between 1.36 and 1.93).	Proportion of males and females is similar in the population of migrants and return migrants and the variable is not statistically significant.
Level of education	Polish nationals with university degrees and those with a vocational education were strongly prone to emigrate from Poland. However, in the case of the latter the propensity to migrate was lower (*odds ratio* 5.27–5.37 compared to 2.89–3.82).	Polish nationals with a vocational education are much more likely to return than those with a university degree (*odds ratio* 1.30). Being a university graduate increases likelihood of remaining abroad.
Type of settlement	Originating in rural areas was typical for emigrants (*odds ratio* for urban settlement of migrants was equal to 0.75) in the first period (before EU enlargement) and insignificant thereafter.	Rural areas attract ('pull') returnees, whereas originating in cities lowers the probability of coming back to Poland.
Region of origin	'Pushing-out' regions indicate areas that enhance emigration; 'pulling' areas, those that enhance likelihood of staying.	'Pulling' regions indicate areas that enhance likelihood of coming back; 'pushing' areas, those that discourage people from returning.



Source: Authors' elaboration based on the LFS, Mioduszewska (2008).

9. Conclusions: Migration or Mobility?

Poland has experienced several waves of return migration over the course of its history. One of the most sizeable took place very recently and included emigrants who left after Polish accession to the European Union. In 2007, three years after EU enlargement, return migration started to outnumber the outflow from Poland and to take place on a massive scale. The most reliable estimate of returnees is as high as 580,000 persons in the period first quarter 2004–second quarter 2008 (in 2007 alone it totalled 213,000 persons).

Previous studies have proved that post-accession emigration was selective with regard to socio-demographic characteristics. In this study, selective patterns were analysed in relation to the return flow to Poland. It turned out that being older, having a vocational education and originating in a rural area and/or particular regions in Poland significantly increase the likelihood of coming back. A typical returnee profile is that of a middle-aged rural dweller with a low level of education. In contrast, younger persons originating in cities with a higher education level are more prone to settle down abroad. Polish emigrants are relatively well educated but abroad they tend to perform low-paid, simple jobs (Fihel and Okólski 2009). Nevertheless, highly-skilled persons are not prone to come back, which means that either they make progress in terms of social and economic integration or, at least, they are better off abroad than in Poland.

Since the end of 2007 the stock of Polish migrants has decreased in almost all destinations, regardless of geographical proximity or economic situation in the country in question. However, return to the country of origin was not the only reason for this decrease: Polish nationals 'transmigrate' between different destinations in search of better working or social conditions: for instance, they may move from the United Kingdom to Norway. But it is certain that, due to cultural or family reasons, not all post-accession migrants are able to settle down abroad and that the recent economic developments – financial crisis in Ireland and the United Kingdom compared to a relatively good economic situation in Poland – also constitute a relevant incentive to return. Unfortunately, the dataset used in this analysis refers to the period 1999–2009 and one cannot distinguish the volume of return flow from different countries before the financial crisis and afterwards. It might be said that the return migration from Ireland and the United Kingdom started abruptly in 2007 – that is, when the economic situation seriously deteriorated – whereas the counter flow from Germany was registered during the whole period of analysis. The integration of Polish nationals in Ireland and the United Kingdom seems to occur more easily, maybe because of specific characteristics of migrants (younger, higher level of education) and familiarity with the English language, which in recent years has become the most prevalent foreign language in Poland (CBOS 2009). At the same time, Polish nationals in Ireland and the United Kingdom are more exposed to economic changes in the global economy, such as stagnation in the construction sector or falling investment in other domains.

In this context it is rather Germany with its 'pushing out' effect that constitutes an exception than Ireland and the United Kingdom. Despite very long traditions of migration from Poland to Germany, integration (probably both social and economic) in this destination is fairly difficult to accomplish. At the same time, almost every second post-accession emigrant heading for Germany originated in a rural area (Fihel and Okólski 2009) and rural origin turned out to most determine the propensity to return to Poland. This might suggest that Polish migrants are – in general – unwilling to settle down in Germany and that they are involved in short-term, back-and-forth mobility. This type of migration from Poland to Germany was observed throughout

the 1990s and it has persisted thereafter, despite EU enlargement. This raises an important question about the utility of the term 'migration' with regard to the outflow from Poland to Germany: is it not rather mobility between relatively close or even neighbouring regions that for decades have been linked together by a circulating labour force? Since thousands of Polish nationals are already involved in this type of mobility to Germany, it seems that the opening up of the German labour market in 2011 will not increase the scale of migration, nor change its temporary character.

The most surprising result of this analysis refers to the very strong impact of rural origin on return propensity. In rural areas, labour markets cannot provide employment to all inhabitants, so local labour demand cannot be a relevant pull factor for returnees. At the same time, the Polish social welfare system and European agriculture subsidy system create incentives to maintain the status of farmer. Intuitively, the phenomenon of outflow from rural areas seems to be more complex: perhaps the younger generations have a propensity to emigrate from rural areas and settle down abroad, whereas middle-aged persons are less eager to leave their homes. All in all, in recent years the international mobility of Polish nationals has become more fluid, flexible and varied. Despite the financial crisis, Ireland and the United Kingdom still remain important destinations for Polish nationals and these countries benefited the most from the opening up of their labour markets right after EU enlargement. At the same time, the post-accession outflow from Poland 'spilled over' to the entire European Union and the return wave is now growing. It is too early to guess how permanent this return migration is going to be.

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