Settlers and Guests – Determinants of the Return Migration from UK and Ireland to Poland in the period 2007-2009

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Abstract

According to the Polish Central Statistical Office estimates after the year 2004, when Poland joined EU, more than 1 million Polish citizens moved to other EU countries. Recent economic crisis that asymmetrically influenced Poland compared to main destination countries created an opportunity to observe how rapid changes in economic incentives can influence decisions about return migration. There are two aims of this paper: (1) identification of the strategies adopted by Polish emigrants that can explain their returns and (2) the verification of the two migration theories (classical approach versus "'New Economics of Migration"' approach) on the basis of recent observations. The analysis in the paper is based mainly on the unique three-wave survey of Polish emigrants performed by the National Bank of Poland in United Kingdom and Ireland. The waves of the survey were carried out in autumn of each year on the sample of 1600 in 2007 and 2500 in the years 2008-2009. The discrimination between strategies has been performed on the basis of empirical analysis and ordered logit using extensive information that included among others: duration of the current stay and further plans, status on the labour market, personal characteristics, information about savings, remittances etc. The results of the analysis show that assuming that the plans regarding duration of stay abroad reflect the migration strategies it seem to appear that the strategies are diverse and significantly correlated with personal characteristics of emigrants. The intensity of emigration flows can be explained by classical theory but the results support the "New Economics of Migration" approach in the explanation of simultaneous return migration flows.

Contents

1 Introduction

Finding an answer to the question about possible pace and magnitude of the future return migration of Polish workers after some years of intense emigration appears to be crucial from the point of view of Poland's economy and labour market development. The more so as hundreds of thousands of Poles still live and work in UK and Ireland.
There are at least two major reasons why the question of return migration deserves careful investigation. First, over the past quarters the return migration of Poles from the British Isles has been widely reported and expected as a consequence of financial and economic crisis in both UK and Ireland. The data from different sources confirmed the decreasing number of Polish citizens abroad. According to the official estimates of the Polish CSO the number of Polish citizens abroad decreased in 2008 for the first time since the last Census (Table 1). It was mainly a result of the significantly lower number of persons in the British Isles at the end of 2008. The CSO estimates show that in comparison to 2007 the number of Poles in Ireland decreased by 20 thousand (10 %) and in UK by 40 thousands (6 %).

Table 1: The number of Polish citizens abroad - total and in selected countries at the end of each year of the period 2004-2008 (in thousands)

	NSP 2002	2004	2005	2006	2007	2008
Total	**786**	**1000**	**1450**	**1950**	**2270**	**2210**
Ireland	2	15	76	120	200	180
Netherlands	10	23	43	55	98	108
Germany	294	385	430	450	490	490
United Kingdom	24	150	340	580	690	650

Source: Polish Central Statistical Office official estimates

The LFS data also show that in 2009 and 2010 the decrease in the number of Polish population abroad probably accelerated (Figure 1). LFS suggests that the flow of new emigrants was reduced greatly in 2008 but the decrease in total number was relatively small, because most emigrants stayed in their host countries. The sharp decrease of the total number of emigrants was observed in LFS data since the beginning of 2009. This can be explained as the wave of return migration due to worsening economic conditions or as a consequence of reduced emigration flows together with the natural come backs after one or two years of staying abroad.

In case of UK and Ireland the hypothesis about rapidly decreasing inflow of new workers in 2008 is also confirmed by the statistics concerning the registrations of the new workers from Poland on the British Isles. Since 2007 the number of new registrations dropped by 70% in UK and about 80% in Ireland (Figure 2).

Figure 1: The number of Polish citizens abroad, LFS data

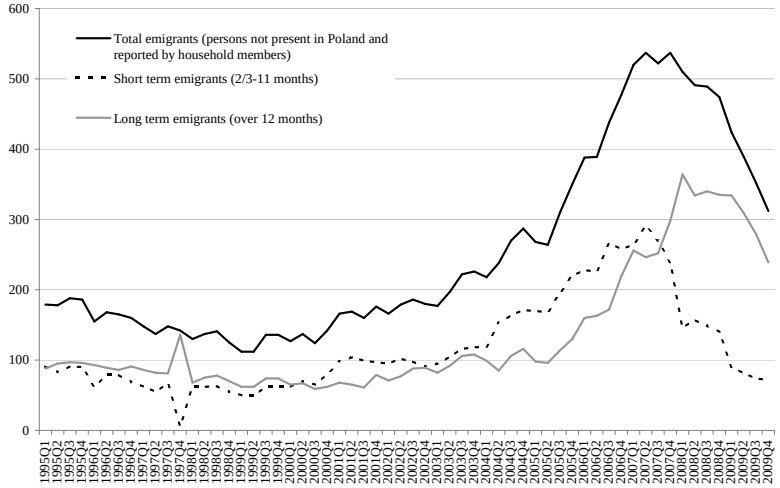
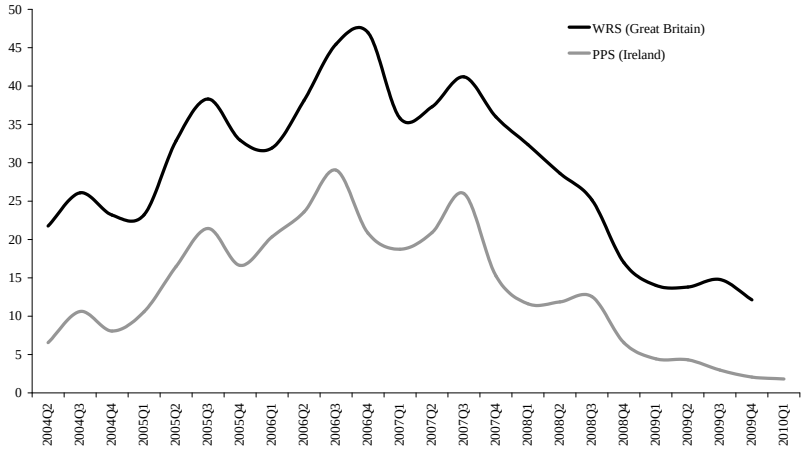


Figure 2: The new registrations of Polish citizents to work in United Kingdom (WRS) and Ireland (PPS)



Aside from the statistical data the phenomenon of return migration has become in the last two years a vividly presented topic in mass-media. The cases presented there showed that the attitudes of Polish emigrants are strongly diversified. Many of them made a decision about coming back to Poland but for many others, despite worsening of labour market situation in UK and Ireland, it was not an option. Clearly, the newspaper articles have a tendency to exaggerate and cannot be regarded as scientifically credible sources. They are, however, typically the first to spot the emergence of new phenomena and to show different angels of the situation. The opinions of experts also differed, starting from the predictions about ultimate reverse of the trends due to the crisis on the British Isles and relatively low unemployment in Poland up to the comments that it is still profitable to stay abroad and in the worst case a better alternative is to re-emigrate to another country less hit by the crisis instead of return to Poland. This variety of experiences of emigrants raises a question about the motives of emigration and eventual return. Better understanding of these motives could help to predict the future behaviour of emigrants.

Another reason why the issue discussed deserves scrutiny is history, which tells us that earlier waves of migration from less affluent European countries to richer ones usually ended in return migration to the home country. For instance, Italian workers who migrated to other EEC countries in the 1950s returned home in the 1970s, Greek workers who migrated in the 1970s and returned in the 1980s or Spaniards who migrated right after Spain's accession in 1986 and who re-emigrated several years later. It may, thus, be instructive to reasonably evaluate the scale and character of (return) migration in the context of performance of the Polish labour market, as well as to identify the mechanisms governing the process. It would allow us to handle migration movements in a more manageable way or to adapt to it to the greatest economic benefit in the future. Later on we will also try to find out how far migration strategies are polarized, in particular between those willing to settle down abroad and those who treat migration as a temporary way of earning fair amount of money. Finally the ambition of the authors is to cover, to certain extent, the breach in the empirical literature as far as return migration analysis is concerned. The article will be based on a regular survey, which has been initiated by the National Bank of Poland three years ago among the Polish migrants working on the British Isles.

1.1 European return migration in retrospect

A historical overview of the hitherto migration flows in Europe adduces evidence of subsequent returns, which always appeared shortly after intensive emigration waves. Among nationalities to be mentioned as representative examples of return migration phenomenon after the WWII are the Italians, the Greeks, the Spaniards, the Portuguese, as well as the Irish. It is noticeable

that in each of these cases the fundamental push factor was the initial gap in economic and social welfare existing between the sending and the receiving country. As soon as the economic distance between 'poorer' and 'richer' had been reduced, incentives to work abroad mostly vanished too, which often resulted in a wave of returns or even in transformation from an emigration to an immigration country.

In 1995, before Ireland has become destination country for many Poles and other non-Irish nationals, it was still a net emigration country. In consequence of severe economic conditions in the 1980s, marked by high unemployment rate reaching 17%, a significant number of Irish workers decided to emigrate. However, after the economic upturn in the mid 1990s thousands of these workers, as well as migrants coming from earlier migration waves (1960s) or their children, returned to Ireland. In 1996 persons who returned from emigration constituted about 13% of the whole Irish population (Grabowska-Lusińska 2009). Moreover, they usually came back to the same regions of Ireland they stemmed from.

Migration processes, consisting here of the phase of emigration and then subsequent returns, have also been an indispensable element of economic landscape of the South European countries since the early 1950s. Nearly 200 thousand Italian workers who, in view of more favourable conditions on their national labour market, massively emigrated to Germany, France and Switzerland in search of job in the 1950s and 1960s, returned home in the middle 1970s. Eventually, Italy transformed from an emigration to an immigration country. Similarly, Greek workers constituting approx. 10% of Greek labour force who emigrated in the 1970s to other EEC countries, predominantly to Germany, returned in the 1980s after Greece joined the European Communities (1981). Many Spaniards, who moved to the "old" EU member states right after Spain's accession in 1986, also returned home several years later. Only in the 1980s almost 200 thousand Spanish returnees showed up again on the Spanish labour market, whereby one of the most crucial determinants of their return turned out to be properties left as well as the social security system in the country of origin (Uścińska 1999). Not until the early 1990s, when the labour market situation improved and unemployment rate declined, did Spain and their neighbouring country, Portugal, notice clearly positive balance of migration flows. However, above 100 thousand Portuguese workers returned home already in the 1980s (Duszczyk 2007).

Notwithstanding the current economic crush, all of the instances recalled above bear a striking resemblance to each other, and also appear to resemble the migration processes affecting Polish labour market at the moment. Initially, Poland also had to face a huge gap in economic development compared to the 'old' EU members, and experienced the problem of high structural unemployment. Therefore, we deem it perfectly reasonable and legitimate to speculate about the Polish workers' returns in this context.

1.2 Macroeconomic context

The comparison of the macroeconomic indicators in Poland UK and Ireland doesn't do not allow to formulate clear cut conclusions. The comparison of countries in terms of GDP per capita shows that countries of Western Europe seem to be more attractive to live in comparison to Poland as the difference despite catching up process is still enormous (Table 2). The difference in this rough economic measure is also confirmed by indicators that shows purchasing power of wages in Poland and in UK and Ireland (Table 3). The relation between purchasing power of average wage in Poland and in mean from Ireland and UK was close to 36% in 2004 and about 40% in 2009. As emigrants usually receive wages close to the minimum it is more useful to compare wages possible to receive in Poland to minimum wage in UK and Ireland. For persons that receive minimum wages both in Poland and UK the difference is still wide and have not narrowed significantly over the last 5 years. However the purchasing power of average wage in Poland was only about 15% than minimum wage abroad in 2004 and in 2009 this difference dropped to about 7%.

Table 2: GDP per capita in Poland as a percentage of GDP per capita in Ireland and UK (in %)

	% GDP in Ireland	% GDP in UK
2004	35	43
2009	43	52

Source: Own calculations

Table 3: Purchasing power of wages in Poland as a percentage of purchasing power of wages in Ireland and UK (in %)

	(PL min) / (UK-IRL min)	(PL śr) / (UK-IRL śr)	(PL śr) / (UK-IRL min)
2004 h1	31	36	86
2009 h1	34	40	93

Source: Own calculations

Recently one can think of several economic disincentives to work abroad that can be responsible for increasing the incidence of return migration to Poland. First of all, both the UK and Ireland have been hit by the global economic crisis harder than Poland. The sharp decrease in demand radically increased unemployment (Figure 3). Unemployment rates in Ireland exceeded levels observed in Poland in 2008 and the unemployment rate in UK has remained close to observed in Poland since that time.

Figure 3: Changes in Unemployment: Poland, UK and Ireland

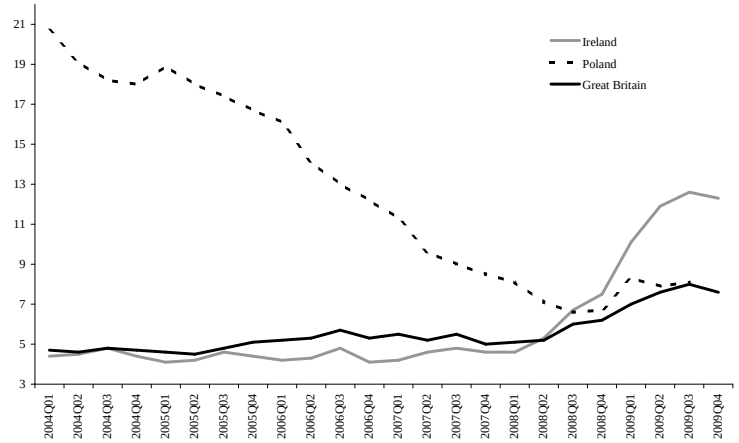
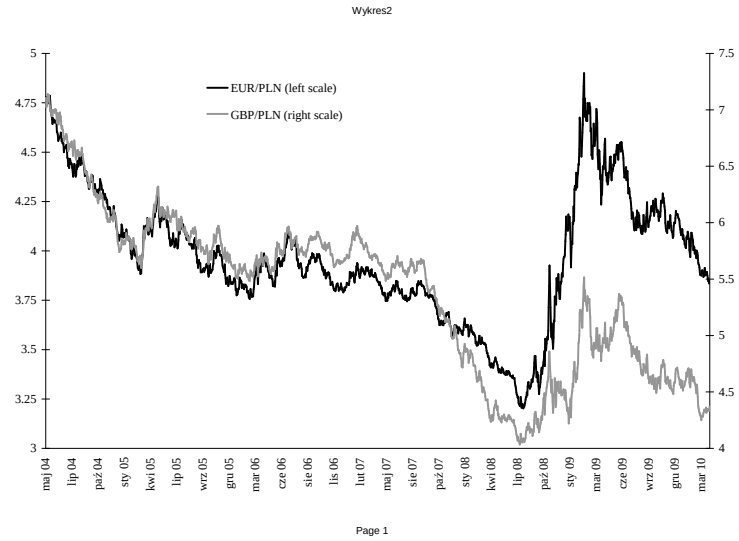


Figure 4: Changes in exhage rates: EUR/PLN and GBP/PLN



In addition, because of the appreciation of the Polish zloty against the euro and the British pound (Figure 4), work in the British Isles with the aim of saving for future investment or consumption in Poland is much less appealing. It also have to be taken into account that the according to the results of the publications from the previous surveys of Polish migrants to the UK and Ireland since 2004 the wage factor was the most important driver of Polish migration to these countries (Ciżkowicz et al. 2007).

2 Literature review and hypothesis

Migration is a complex phenomenon explored by various disciplines, from demography to political science. There are, thus, also multiple theories explaining migration flows as well as their features and consequences, each focusing on aspects of interest for the field. We will, however, confine our discussion of return migration to the purely economic perspective. This is not to say that other explanations are not important. This is more to say that in this paper, when discussing incentives, we seek to focus on economic aspects of labour migration.

2.1 Theories of return migration

There are no distinct theories for return migration. Returns are considered a part of migration process. Hence, they are analysed within and follow from the theories of migration.

Economic theory provides two major explanations of migration flows between regions/countries: neoclassical theory of migration (Sjaastad 1962; Todaro 1970) and so called New Economics of Migration (NEM) in particular represented by theory of relative deprivation theory (Stark, Yitzhaki 1988; Stark, Taylor 1989, Stark 1991). The two theories provide also different set of reasons for possible return migration (Cassarino 2004).

Neoclassical theory sees migration flows as a mean of individuals' income maximisation. Migration takes place when some destination can provide an individual with higher (stream of) net income(s)[1] than his host country does (it relates also to the subsequent migration/moves). Migrant's strategy, according to the theory, is to move and settle permanently, taking his family (household) with him. From this perspective return migration must be a consequence of either a failure in reaping the benefits of migration or an adverse change of the relation of wages in the sending and receiving countries which have originally triggered migration decision.

On the contrary, Stark's relative deprivation approach considers migration as a mean to improve the relative standing of the household or to alleviate the risks the household faces. From this perspective, migration is a strategy, with return "being a natural outcome of a successful experience abroad during which migrants met their goals (i.e. higher incomes and accumulation of savings) while remitting part of their income to the household" (Cassarino 2004, p. 255). Savings brought back home or remittances are the necessary element of the strategy, contrary to the neoclassical theory, and may constitute an explanatory variable in the return decision, together with the attachment to the home country (Cassarino 2004, p. 256). The return

[1] It uses net income to account for various kinds of costs that a migrant needs to bear upon migration (also non-pecuniary).

from this perspective is a part of the plan, and must reflect achievement of the established goals.

2.2 Empirical studies

According to the available (OECD 2008) international databeses usually 20-30% of immigrants leave within five years after their arrival, either to return home or, given the case of secondary emigration, to move on to a third country. In addition, return rates appear to differ remarkably between age and education level reaching the highest values at the extremities of the spectrum. In response to this, contemporary empirical research attempts to identify the main determinants of migrants' decisions to return, contrary to some standard theoretical approaches being unable to explain the phenomenon of the return migration from richer to poorer countries without abolishing its premise of income maximisation.

To systemise the variety of international empirical literature with respect to determinants of migrants' return decisions we allow ourselves to follow the OECD (2008) methodological approach that in our judgment most successfully summarizes the majority of existing explanations. Accordingly, at least five groups of reasons to return could be distinguished in the recent empirical literature, i.e.:

a) failure of migration;

b) macroeconomic change in the sending country;

c) specific consumption patterns and preferences;

d) achievement of a savings objective;

e) opening of new employment opportunities in the home country thanks to the human capital formation abroad.

While the first two sets of arguments focus mainly on determinants, which are, to a large extent, independent from migrant's activity alone, the three latter refer to the migrant's preferences and their implicit decision.

Studies emphasizing the first group of motives conceptualize return migration as a failure to integrate into the hosting country and its society. The failure or success depends on the piece of information about destination country available to a migrant before leaving their home country. The poorer migrant's initial information about the receiving country, the more likely the return. Because of imperfect information before arrival, emigrants tend to underestimate living costs and overestimate their potential earnings. First contributions representing this line of argumentation appeared already in the 70s (Yezer, Thurston 1976, Allen 1979), and referred back to internal migration in the United States. A recent study on migration between Finland and Sweden carried out by Rooth and Saarela (2007) tried to explain

empirically return migration as a failure in evaluation of the shape of the host country relative income distribution. Other works concentrate either on the ability of the migrants to achieve success on the host country labour market (Constant, Massey 2003) or the access to the social security system (Jensen, Petersen 2007).

The second stream of literature refers to the changes in macroeconomic circumstances, which take place in the migrant's home but also host country and may significantly affect their decision to return. The analysis conducted in the last SOPEMI Report (2008) delivered an unambiguous evidence for existing a positive correlation between return likelihood and unemployment rate in the receiving country.

Thirdly, some studies try to reveal the mechanisms of return migration by identifying migrants' consumption patterns (life cycle models). As consumption utility of migrants turns out to be higher in their home countries compared to the receiving countries, many of them postpone their decision to spend their earnings on consumption while abroad until return. They limit their stay abroad while optimising the relation between the length of their stay and income maximization. Such an argumentation has been pursued in the study of Dustmann (2003) on migrants in Germany.

Migration may also be seen as a mean to run an investment project to be financed from migrants' savings. Opposite to consumption, an investment objective restrains, to a greater extent, the age of returnees planning an investment undertaking (Dustmann, Kirchkamp 2002). In fact, a "migrant entrepreneur" must be able to launch their business before retirement. In the context of savings and investment objective Yang (2006) and Reyes (2004) also raise the question of the impact of host country currency depreciation on the migrant's decision to return, using the cases of the Philippines, as well as Mexico and the US.

Finally, there is a set of literature aiming to identify determinants of return migration from the viewpoint of the human capital formation theory. As migrants tend to increase their human capital during their stay in host country at a relatively higher pace then at home (see: Güngör, Tansel 2006), they have to choose an appropriate moment to return in order to take advantage of the acquired skills and allocate them in their home country. Some of empirical findings show greater propensity to return at the two extremities of the education spectrum (Nekby 2006).

In conclusion, there is no one uniform conceptual framework – either in theory or in empirical research – identifying determinants of return migration, which would encompass all of the aspects accentuated by individual authors. Moreover, as the perspective of relatively intense labour flows from the 'old' EU countries to the New Member States of EU (NMSs) has turned up a short time ago, there is still a scarcity of assignments, which would intend to take account of the specificity of the East European region. This material will, supposedly, contribute to the reduction of this deficit. In what

follows we seek to fit somewhere within the first three groups of articles.

2.3 Research hypotheses

The aim of this paper is to check the adequacy of classical and NEM approaches in explanation of the migration flows between Poland and British Isles using the data from the three annual surveys of Polish emigrants to UK and Ireland and available additional data sources. In the opinion of authors the understanding of the driving forces behind migration processes in Poland in the last few years and can be extremely useful to predict the possible developments in the future. The two approaches differ from each other but are not mutually exclusive. In fact NEM theory can be seen as micro- focused application of economic optimization that is probably better suited to short term decisions while classical theory stems from macroeconomic analysis. The simplicity is an advantage of this approach but it omits many factors that could be important in the short run and potentially in the long run. In the light of the classical theory of migration, the migration flows are mainly determined by the economic factors. The return migration is mainly connected with the lack of knowledge, experience etc. In such a case return is a failure of a migrant. On the other hand the new migration economics bases on the assumption that the migrants' return intensions are a result of their migration strategies. The strategies may assume different length of stay or level of remittances but they are inseparable part of the plan. In this case, a return can be seen as a measure of success. Mixture of both these motivations seems to be recognisable in the analysis of the survey data. The empirical analyses presented in this paper focuses on searching for arguments for and against classical and NEM explanations of phenomenon in recent emigration data. First hypothesis assume that the emigration flows observed in the period after Poland entered EU can be sufficiently explained using classical theory. The changes of migration flows are the results of changes of economic incentives. The incidents of return migration despite the lack of changes in economic differneces are possible but they is rare and results from the lack of correct information. To verify this hypothesis we compared the information about changes in the incentives with emigration flows between Poland and British Isles.

Additionally we checked if the declarations of emigrants about plans of not permanent stay abroad can be confirmed. We also assessed the information about the importance of emigration factors declared by emigrants in the survey in explaining the expected duration of stay.

In the contrary the theory of relative deprivation (NEM) assumes that other factors, not only comparison of accessible standard of living is important, but the comparison with the situation of the reference group. The ultimate goal of migration could be not the better life standard abroad but the relative improvement of social status of family in home country or col-

lecting savings to improve status after returning home. It means that the choice of time of work abroad is a part of the decision about emigration. If this hypothesis is correct declarations of duration of stay is a result of original decision and reflects the strategy that corresponds with individual characteristic. To test this hypothesis we use the information about duration of stay and expected duration of further stay to show if the declarations can be confirmed. The differences in individual characteristics define different categories of emigrants. Certain individual features are correlated with emigration strategies and as a consequence with the plans concerning further stay. These features should not depend on time and economic situation. These expected results were also tested using regression analysis of the survey data.

3 Empirical analysis

3.1 Data and empirical strategy

The data used in this paper comes from the surveys of emigrants carried out by National Bank of Poland [2] in United Kingdom and Ireland in the years 2007 - 2009 (Table 4). Additionally in 2009 two more countries: Netherlands and Germany were covered by the survey but those countries were omited in the analysis because of the lack of the past data to compare. Each survey (face-to-face interviews) was conducted on the sample of Polish citizens between 18 and 65 years old residing in the host country for at least 3 months. Due to the methodological problems with random sampling [3], stratified-purpose sampling was employed in all surveys. Interviewees were selected within geographical regions (strata) and in line with the *a priori* set restrictions on age, the share of women, share of employed, as well as the professions of the employed in the sample to keep the sample as varied as possible with respect to these features. It shall be noted that due to some methodological differences in surveys, the results may not be fully comparable between the survey editions.

The more detailed description of sampling procedure and selected questions from the survey are presented in Appendix 1. The most important variables analysed in this paper are the answers to the question about the duration of stay and the plans of the further stay (Table 5). The percentage of short-term emigrants in the survey was relatively high in both countries in 2007 but with time and because of the probable decrease of migration

[2]The survey was performed by interviewers of private firms: SMG/KRC firm in 2007 and by Active Group in 2008 and 2009.

[3]The information about size and structure of the population of emigrants is unknown. As migrants are mobile it is very difficult to construct the database with the information about their places of residence

Table 4: Information about surveys 2007-2009. Number of respondents.

	2007	2008	2009
United Kingdom	800	1500	1500
Ireland	800	1000	1000

Source: National Bank of Poland

inflows in the next years the percentage of migrants who stayed over 3 years increased systematically.

Table 5: The structure of answers to the question about duration of stay until the survey in Great Britain and Ireland (in %)

	Great Britain			Ireland		
	2007	2008	2009	2007	2008	2009
3-6 months	29.0	10.1	10.7	21.0	10.7	5.6
7-12 months	16.3	20.6	12.3	17.1	21.4	17.7
1-3 years	40.6	46.1	37.6	51.8	44.4	45.0
Over 3 years	14.1	23.2	39.4	10.2	23.5	31.8

Source: Own calculations

From the point of view of the assessment of the decisions about return migration more important are the answers to the question about the declared further stay (Table 6). The answers to that question should be treated with caution but they represent the plans of emigrants what has the crucial importance in verification of the theories of migration.

Table 6: The declarations about duration of further stay (in %)

	Great Britain			Ireland		
	2007	2008	2009	2007	2008	2009
Less than 3 months	13.2	3.8	7.4	10.0	1.5	2.6
3-6 months	6.0	3.1	6.8	5.9	2.9	3.7
7-12 months	6.0	6.6	7.4	7.4	6.8	13.3
1-3 years	21.4	46.3	31.3	33.9	51.1	52.3
More than 3 years but not forever	28.3	29.0	28.2	31.2	29.6	20.1
Forever	25.1	11.3	18.8	11.5	8.1	8.0

Source: Own calculations

The additional value of the survey in comparison to the other sources of information is that it allows the simultaneous analysis of the decisions of respondents and large range of information about their characteristics. However it increases reliability of the results if marginal distributions of

the variables are comparable with other data sources. The basic descriptive statistics of the variables (Table 7) from the sample show that beside the controlled variables such as sex and age [4] some other uncontrolled variables such as education level were close to the structures observed in other data sources like Polish Labour Force Survey and Social Diagnosis 2009 (Czapinski Panek 2009).

Table 7: Survey results: selected descriptive statistics

Name of variable:	United Kingdom			Ireland		
	2007	2008	2009	2007	2008	2009
Sex (male)*	57.2	52.0	54.0	56.0	58.0	55.0
Age*:						
18-24	42.8	42.9	28.9	43.0	42.8	32.1
25-34	39.4	39.1	46.2	39.1	39.0	47.5
35-64	17.8	18.0	24.9	17.9	18.2	20.4
Education:						
Tertiary	23.6	23.7	40.9	30.2	22.5	37.3
Secondary	59.6	62.0	44.8	53.4	61.6	43.6
Vocational Basic	14.9	13.1	11.8	15.0	15.6	18.2
Basic	1.9	1.1	2.4	1.4	0.3	0.9
Size of place of residece in Poland						
Rural area	16.7	56.9	23.1	15.5	57.5	31.6
Urban area less than 100 thousands citizens	42.4	23.6	44.9	49.0	28.3	51.6
Urban area 100-500 thousand citizens	28.0	10.5	16.2	19.0	5.6	11.3
Urban area larger than 500 thousans citizens	12.9	8.9	15.8	16.5	8.6	5.6
Registration in PPS/WRS	67.2	80.7	76.6	97.4	98.9	90.3
First stay	67.2	39.1	31.6	65.5	40.7	46.4
Have or plan to have real estate abroad	18.8	12.5	18.6	10.7	7.1	7.8
With family	58.5	52.1	51.2	57.0	52.7	50.3
Remittances**	40.2	62.7	64.0	51.9	73.0	72.2
Savings	70.0	70.2	81.0	77.6	83.1	91.3
Reason of emigration: low wage in PL	39.3	39.0	36.8	46.9	43.0	29.7
Reason of emigration unemployment in PL	21.3	15.3	22.3	15.3	19.4	20.5
Percentage of employed in the sample*:	97.0	94.5	93.7	95.6	93.3	91.5

Source: Own calculations

* Structure forced in the sampling procedure

** in 2008 data are biased by performing persons that sent remittances in the sample

The comparison of the structures of population by selected features show that they were relatively stable, but disturbances in 2008 could have been a result of changes in the methodology in this year. The majority of emigrants were persons that lived in Poland in rural areas or cities below 100 thousands. This result is consistent with the results of the Social Diagnosis 2009 and shows that incentives for emigration were relatively stronger

[4]The limitations regarding those variables were constructed on the basis of the observations from Polish Labour Force Survey (PLFS). The differences from LFS results are within acceptable limits. See: Appendix 1

among people in those areas. This could perhaps explain why despite the changes in the economic situation the percentage of persons that declared low wages or unemployment in Poland as a reason for emigration was relatively stable. Relatively high was the percentage of persons registered in PPS/WRS, but in both countries that percentage decreased slightly during the time. Some variables have changed monotonically in the analysed period. First the percentage of new migrants among respondents was decreasing in each year both in Ireland and UK and percentage of emigrants with savings decreased. It should be also mentioned that relatively high and increasing were percentages of persons that have sent remittances to Poland during the year. The question about earnings abroad and net wages in Poland before emigration were also included in the survey in the year 2009. The results from 2009 confirm that in comparison to the wage distribution in Poland persons with relatively lower wages were more likely to emigrate, especially to Ireland (Figure 5). Analysis on the basis of the data about net wages in Poland before emigration and net wages in Great Britain and Ireland before emigration shows that the highest gains from emigration have persons that had lowest wages in Poland. In 2009 in the group of persons with wages close to minimum wage in Poland median expected wage in Great Britain was over four times higher and median wage in Ireland about 7 times higher. For persons that declared net wage between 3500-5000 PLN in Poland the relative gain from emigration was lower because median net wages in this group was 50 % higher in Great Britain and about 125% higher in Ireland. It should be also added that the percentage of persons that had no work in Poland before emigration was slightly higher in Ireland 35.2% than among emigrants to Great Britain 30.4 %.

It should be also added that there is positive and significant correlation between net earnings abroad and net earnings in Poland (Table 8) .

Table 8: Relationship between net wage in Poland before emigration and wage in the host country

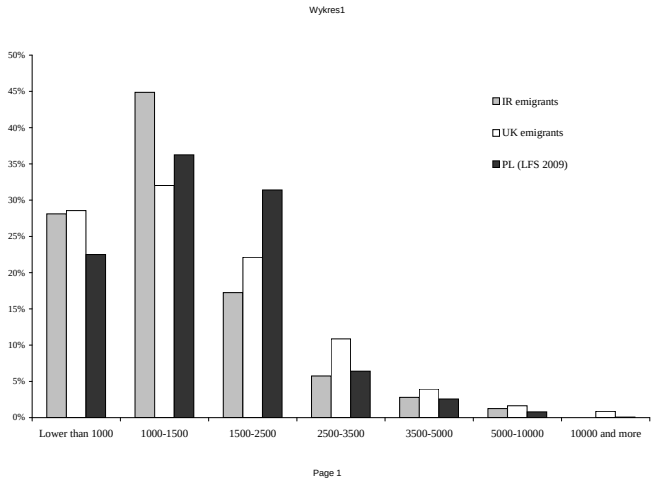
	Cramers V Chi2 test	Kendals tau-b	Kruskals gamma	Linear correlation
United Kingdom	0.212***	0.349**	0.439**	0.452***
Poland	0.292***	0.402**	0.522**	0.470***

Source: Own calculations

The presented variables can be useful in verification of different aspects of both classical theory and NEM theories. The distribution of declarations of emigrants is a key variable in the analysis, but many observations from the past show that the answers to the questions about declarations should be interpreted with caution.

The reliability of the answers about emigration plans in this survey is probably much higher than declarations of the emigration plans in the surveys that were carried out in home country because answers of respondents

Figure 5: The comparison of the distributions of declared wages in Poland before emigration and net LFS wages of persons who work in Poland



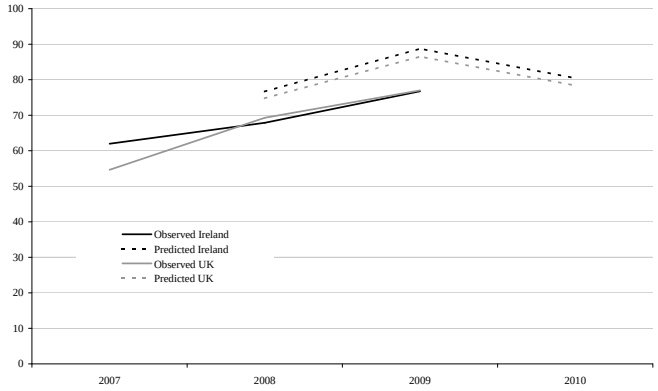
based on their current experiences. However in this survey persons were forced to select one of the answers while many of them probably did not have a plan. Answers of those persons were treated as most probable but it can be a source of bias. Another source of uncertainty regarding the results of that question is that attitudes can also change in time because of economic reasons, or because of the opinions of other emigrants. It is impossible to check directly to what extend the declarations of respondents are reliable and consistent with their further decisions because this survey do not track the same persons in the following years.

One of the ways of indirect verification of declarations is to check if the distribution of the duration of stay until survey in the consecutive years is consistent with the distributions of the duration of stay in the previous years and the knowledge of the declarations of further stay.

The results of the comparison of the observed and "'forecasted"' changes in the distribution of the duration of stay (Figure6) are probably strongly influenced by estimation error but they suggest that the number of persons that that declared further stay longer than one year in 2007 and 2008 and came back home earlier was higher than the number of persons that declared to stay shorter but extended their stay to over one year.

The underestimation of the percentage of persons that stayed more than one year on the basis of the declared further stay from the past data was close to 10 percentage points both in 2008 and 2009. This suggest that there is probably a problem of overestimation of the further stay by respondents but controlling for that the declarations could be considered as a relatively good approximation of the decisions during the year.

Figure 6: The comparison of the observed and projected percentage of persons with duration of stay longer than one year



3.2 Descriptive analysis of the duration of stay

The duration of stay of emigrants can be explained by both classical and NEM theories. The way to confirm one of those theories is to observe if there are differences between groups of emigrants possible to explain on the basis of one of the theories. The most important variables in this context are duration of current stay, plans of further stay. According to the classical theory persons with the shortest duration and plans represent the group of failure emigrants (according to the classical theory). According to the NEM theory they are circulatory emigrants. The persons who declare that they want to stay forever in the host country seem to represent behaviour that reflect classical theory, but it should be also noted that declarations of immediate return (without taking into account duration) can reflect changes in the macroeconomic situation and not exclude explanation based on classical theory. The short-term (circular) migrants, which are typical for NEM theory, are the people that treat migration as an additional source of income that allows them to increase their consumption in Poland. They repeatedly migrate for a short period to earn and save money and remit it or bring with them upon the return. This group includes the majority of low skilled persons in the sample, usually from small towns who work in the UK and in Ireland in occupations not requiring high skills (including language skills). Repetitive returns are a part of the successful migration strategy (see Stark 1991, pp. 147). The other group are long term migrants, who seem to behave in a more 'classical' manner. They emigrate in response to better career or wage perspectives and either do not think about the return (a kind of

an open option) or intend to stay permanently in the host country. They typically have no family obligations in the country of origin or take their family with them, and are more inclined to search better paid employment consistent with their education/qualifications than the short term circulatory migrants. Besides the presented two groups the emigrants who declared medium duration of further stay can be considered as typical for NEM theory because their plans suggest that emigration is temporary despite the incentives that attract emigration. According to the NEM theory that pay attention to the life course perspective and relative comparison of the status of individual at home and host country, the declarations should be diversified as the plans of stay abroad depends on the individual preferences. If the emigration is chosen as an opportunity to earn money but only to improve the economic status in the home country the emigration spells will be probably relatively short because individuals need to come back to home country to fulfil consumption and compare their status with their neighbours in Poland (circular migration). Longer spells of emigration, but connected with the declarations of return in the near future would be probably typical for persons that save money to invest it in the home country or send remittances. The decision about permanent migration is connected with the choice of relative comparison of the status in the destination country instead of home country. The multidimensional nature of the emigration strategy suggests that duration of stay should be supplemented by other features (for example: previous emigration experiences, remittances and wages abroad). The analysis of the simultaneous influence of different features on decisions about the time of return migration is presented in the next part. In this chapter some conclusions are made on the basis of the descriptive analysis of key variables.

The combined information on the duration of stay before the survey and the intended further stay was presented in Figure 7 and Figure8 – each bar represent the share of a group by duration of stay and expected duration of further stay in the total sample (thus, all bars sum up to 100%). The simultaneous analysis of the time spend abroad and plans regarding duration of further stay shows that there is strong positive correlation between those two variables in all obseved periods and countries, but the declarations of very long stay or staying forever were in most cases less frequent than declarations of stay shorter than 3 years. Besides, the group of persons that were abroad relatively short (3-6 months) and planed to return in less than three months was relatively large in 2007 both in UK and Ireland but almost disappeared in 2008 and 2009. On the other hand there was a group of persons who stayed abroad for at least one year and declared that they want to stay forever. This group as a percentage of total population was relatively stable during the time in UK but shrink a bit in Ireland probably because of the huge influence of the crisis on the longer term prospects for Polish migrants. The most numerous group was the group of persons who spend at least 6

months and wanted to spend another 6 months to 3 years.

The diversification between circular migrants and persons who want to return to Poland after relatively short emigration spell because of the failure of their expectations could be made using two types of information. First, all editions of survey included a question about duration of stay preceding the month of survey. Persons who spent in the UK or Ireland less than 3 months were excluded from the survey in order to avoid considering tourists or persons not yet accommodated to the conditions abroad. When the hypothetical length of stay is combined with the information on previous experience abroad (see Figure 10) the existence of circulatory migration is even more evident. The lack of clear differences in the distributions of duration of stay between persons with and without migration experiences confirms that the lack of information was relatively unimportant in the decisions of emigrants. According to the classical economic theory, migration decision once taken, should result in permanent, once-and-for-all migration, i.e. for very long time. As return reflects the failure, or incomplete information, we might expect that after a migration failure a person will either avoid further attempts or, if not, they will again take up another once-and-for-all migration. Survey answers do not seem to confirm these insights for the whole sample. Although the shares of people intending to stay forever or very long are higher among the people without any migration experience, as mentioned above, there is a considerable group of people intending only short term stays. About 2/3 of people in the sample have some previous experience abroad with no significant differences between Ireland and the UK at this point. About 15% of these people plans their stay to be shorter than a year. This is even more than among the persons without any migration experience. More than a half as much plans their stay not to be longer than 3 years. It may, again, suggest that there exists a considerable group of short term, circulatory migrants.

The most important feature of the simultaneous distribution of observed duration of stay and further plans is the positive correlation between those two variables. According to the classical theory except a very short periods of stay connected with the failure of information, the duration of stay seem to be unimportant in the decisions about the future, especially if we assume that persons have full knowledge about the their expected wages abroad. So we should expect the declarations of very long duration of migration or declarations of immediate return 2.1. However if we overrule the assumption that emigrants know their current and future expected wages, the positive correlation between wages and the length of stay can help to understand the positive correlation between length of stay and plans of further stay.

Indeed the positive correlation between duration of stay and further plans can be to some extend explained by relative increase in wages of persons who stay longer abroad. The average level of wages increase with the duration of stay (see Table 9). The positive relation between the plans of further stay of persons and average wages is the result of the on average lower wages of

persons that want to return in less than 1 year and more than one year, but differences in declarations of further stay over 1 year seem not to be correlated with wages.

The relatively high share of emigrants that remit can be seen as an evidence of NEM theory. Remitting or bringing back a part of individual's income to Poland is an intrinsic feature of the migration strategy coming from the relative deprivation theory, and has no rationale according the classical theory. We should expect that the share of remitters should first grow in the duration and than decline. This is because for the shortest stays (like a few months) both the remitting willingness and ability may be low. The willingness may be low because when the persons plan their return within a few months it is more likely that they will bring the money with them, rather than use costly or uncertain channels to transfer it home before the return. The ability, in general, shall grow with time the emigrant spent in the host country but their willingness beyond a certain point may again decrease – classical theory seems to take over here. This is because after some time abroad an emigrant becomes more settled and his bonding with a family tends to relax. Presented data (see Table 10) reveal the relatively high average percentage of persons who send remittances and the non-linear character of the relationship between remitting and the duration of stay. The percentage of persons who remit increase with the duration of stay it the group of persons that plan to come back in less than 3 years, but is relatively lower in case of persons that spend abroad more than a year and want to spend at least another 3 abroad. Further analysis would be needed to verify the suggested remitting patterns in less stable economic conditions, because observations from the years of 2008 and 2009 in which crisis strongly influenced migrant's decisions slightly diverge from presented patterns.

Apart from the presumably evident migrants' categories, the data seem to reflect a considerable change in the character of migration within the last three years. Economic crisis, which adversely influenced the migration opportunities/prospects (by hitting the labour markets in the UK and Ireland) appeared to have also revised the migrants' strategies, downsizing primarily the short term circulatory movements (see Figure 7 and Figure 8). Accuracy of these observations will be verified empirically in the ensuing section. The two described categories of migrants are readily visible in the 2007 survey edition. In 2008 and 2009 the short term migrants seem to constitute the margin of the sample. The results of the 2007 surveys suggest that relatively large part of migration (16% in the UK and 9% in Ireland) are persons who spend up to 6 months in the host country and want to come back in less that 3 months. The respective fractions fell to below 6% and 2% respectively in the subsequent years. Persons intending to come back within 3 years comprise over a half of the total sample in both countries[5], about a half of which

[5]The respective shares are about 10 percentage points higher in Ireland in all years.

is planning to return within a year. Surprisingly, the former fraction is increasing in the subsequent surveys[6]. Some 20% of all respondents in the UK and 10% in Ireland declared that they intended not to return at all. This may suggest that about a half of all emigrants staying currently in the UK and Ireland may be thought the short term circulatory migrants, who treat work abroad as a profitable temporary employment option. About a fifth of all emigrants may be thought the migrants settlers, who want to (or already have) make the host country their new home. The remaining 30% are would-be-permanent migrants – they declare that thay do not want to stay, but would not return in less than 3 years either. 3 years is long enough to presume that the majority of them may become too settled to return.

Observations presented in this part seem to confirm that even general analysis allows diversification of different strategies used by emigrants. These observed strategies are also consistent with the classification of Polish emigrants in London presented in (Eade et al. 2006). In that paper authors divided emigrants into four groups. First group called storks consist of circular migrants, who work in the UK but frequently visit Poland and use this strategy to improve their economic status with the reference to the economic situation in Poland. They are usually employed in low paid occupations. Second group called hamsters are emigrants who emigrate for longer time with the aim to raise capital and use it after coming back to Poland. The third group (searchers) consist of persons who are flexible in terms of settlement decision and emphasize unpredictability of their migration plans. This attitude seems to be independent from the occupational position. The last group is called stayers and consist of persons that have been some time abroad and are decided to remain for good. Those persons use to compare their economic situation with other persons in UK and have strong social mobility ambitions. The socio-economic classification of Polish emigrants presented above is consistent with the types of emigrants distinguished in this article. "'Storks"' are typical circulatory migrants, "'Hamsters"' and "'searchers"' are difficult to distinguish but represent persons who plan to return in one to three years and "'stayers"' represent persons who plan to stay very long or forever.

To conclude, the observations from the NBP survey are consistent with other data sources and confirm that sharp decrease of emigration flow from Poland to UK was the most important reason for the decrease of the number of the stock of emigrants. In the short run emigrants have not changed dramatically their decisions and changes of return migration were relatively

[6]As we mentioned above the surveys are not fully comparable. In particular, 2008 survey sampling was biased to over represent the remitters. This may also result it the overrepresentation of migrants who do not intend to settle permanently or for a very long time. Nonetheless, we would expect that in the times of the tightening labour market both the share of the newly arrived and the share of those intending a short and medium term stay should shrink; only the first regularity seems to be confirmed by our survey data.

Figure 7: Structure of the duration of stay - United Kingdom

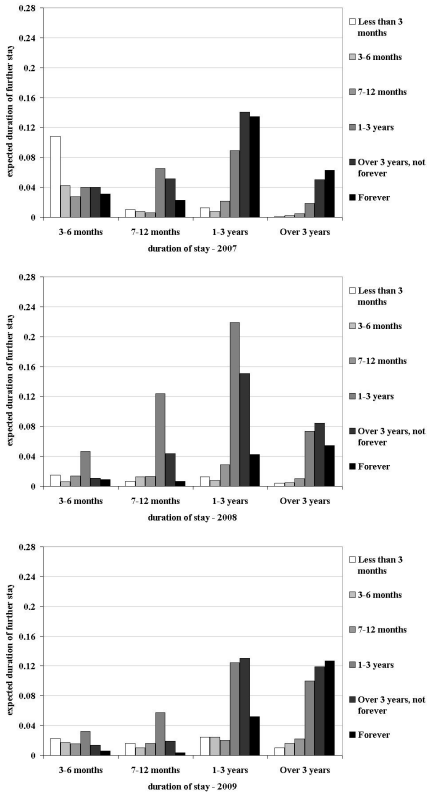
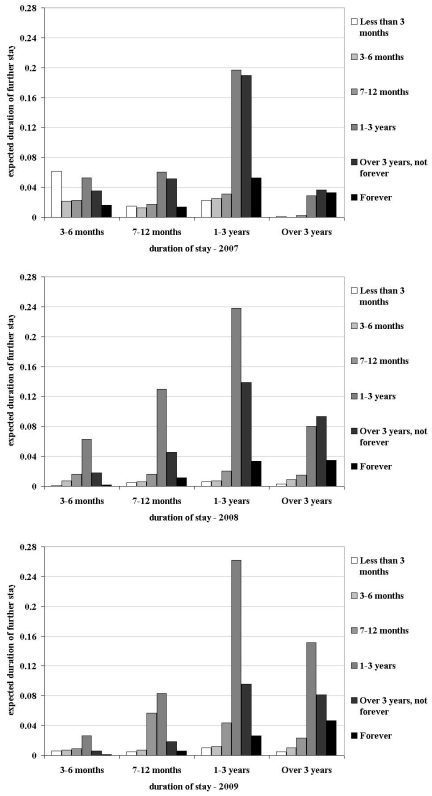


Figure 8: Structure of the duration of stay - Ireland



weaker. It should be also noted that the duration of stay abroad was strongly correlated with further plans. First, the long stay is an indicator of the chosen strategy and it is usually connected with further decisions about private life. The longer is the stay the higher is the "'investment"' in life abroad and thus it can also affect further plans. Secondly, longer stay can be a result of unexpected success even despite previous declarations, which can influence further decisions.

Table 9: Wages by the intended length of stay and the duration of stay.

Duration of stay	Intended length of stay						Total
	less than 3 months	3-6 months	7-12 months	1-3 years	over 3 years, but not forever	forever	
	Wage of emigrant as percentage of average of emigrants in the country (in %)						
3-6 months	76.4	80.1	77.8	84.8	89.3	77.6	80.5
7-12 months	87.8	92.5	90.6	96.3	94.3	96.8	94.4
1-3 years	101.0	95.2	105.5	106.5	107.1	105.2	105.7
over 3 years	111.0	97.4	108.9	133.8	118.7	125.9	123.3
Total	81.7	86.7	93.3	103.1	104.5	106.5	

Source: Own calculations

Figure 9: Structure of the duration of stay - First stay abroad

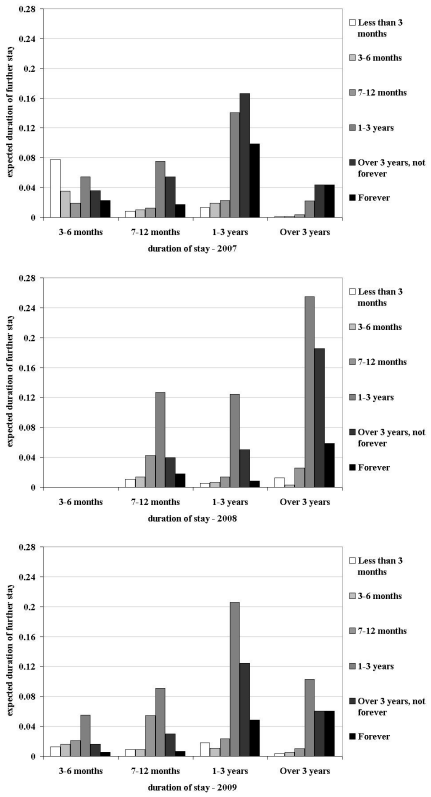


Figure 10: Structure of the duration of stay - Have previous experience abroad

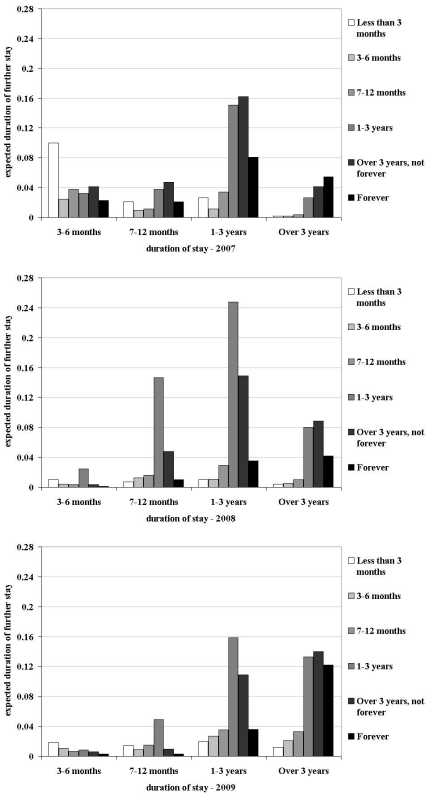


Table 10: Remitting by the intended length of stay and the duration of stay.

Duration of stay	Intended length of stay						Total
	less than 3 months	3-6 months	7-12 months	1-3 years	over 3 years, but not forever	forever	
	Percentage of persons remitting (in %)						
3-6 months	22.2	21.6	35.0	41.9	33.3	42.1	30.6
7-12 months	50.0	43.7	47.3	50.0	53.7	55.2	51.1
1-3 years	46.4	61.5	54.8	57.5	51.7	40.3	51.7
over 3 years	100.0	100.0	83.3	68.4	44.9	36.8	48.7
Total	29.7	37.9	47.6	54.1	48.7	41.1	42.8

Source: Own calculations

3.3 Regression models

Due to survey data specifics, after considering all the pros and cons of various discrete choice models[7] we decided to apply ordered logit model (ordinal logistic regression) to our quantitative analysis. The most prominent argument speaking for that method was capturing of additional, compared to the standard logit, piece of information on duration of migrant's further stay with help of a categorical dependent variable consisting of several ordered categories.

3.3.1 Definitions and formal specification

An ordinary logistic regression is based on the method of maximum likelihood[8] and uses the logistic probability function in order to model the relationship between binary response variable and independent variables, expressed as probability. As already mentioned, the main difference existing between ordinary and ordered logit model is that the response variable in the latter case allows for more than two (ordered) response categories. The probability function applied in the ordered logit model may be noted as follows[9]:

$$P(Y_i > j) = f(X_i'\beta) = \frac{\exp(\alpha_j + X_i'\beta)}{1 + \exp(\alpha_j + X_i'\beta)}, j = 1, 2, ..., M - 1$$

where Y is the value of response variable for the i-th individual given a fixed set of explanatory variables X, Alpha will correspond to j cutpoints (treshold) in the further estimation and Beta to the vector of estimated coefficients. It is vital to remember that ordinal logistic regression is based on one presumption. It assumes namely that the coefficients that describe the

[7] Greene(2003).

[8] We maximize the value of likelihood function, which is the probability function expressed as the function of parameters while observed explanatory variables remain fixed.

[9] According to the definition used by Williams(2006).

relationship between, the lowest versus all higher categories of the response variable are the same as those that describe the relationship between the next lowest category and all higher categories, which is called *Proportional Odds* or alternatively *Parallel Regression Assumption*. In other words, only constants (cut points/tresholds) may differ across response variable categories whereas Betas are supposed to remain the same. However, given that Beta parameters in fact variates significantly across separate categories of response variable the ordered logit coefficients may prove to be distorted. A recommended alternative is, then, to change the model type and to use multinomial or generalized ordered logit (so called *glogit*[10]). As, in the first case, there is a loss of information concerning ordinality of the response variable authors will tend to use the latter one. The following formula depicts the *glogit* probability density function of a generalized ordered logit (gologit):

$$P(Y_i > j) = g(X_i'\beta_j) = \frac{\exp(\alpha_j + X_i'\beta_j)}{1 + \exp(\alpha_j + X_i'\beta_j)}$$

Hence, the probabilities Y will take on each of the categories equal:

$$P(Y_i = 1) = 1 - g(X_i'\beta_1)$$

$$.....$$

$$P(Y_i = j) = g(X_i'\beta_{j-1}) - g(X_i'\beta_j), j = 2, ..., M-1$$

$$.....$$

$$P(Y_i = M) = g(X_i'\beta_{M-1})$$

The formula for the ordinal logistic regression, constrained by the parallel lines assumption, differs from the unconstrained gologit only with Betas, which are the same in the first type of model but vary across response variable categories in the latter type. As both models have their limitations, which is restrictiveness of the assumptions in case of ologit and difficulties to interpret a high number of generated coefficients, it may appear beneficial to use the Partial Parallel Regression which preserve the assumption only there where it is neccessary.

3.3.2 Estimation

In view of the modern theoretical concepts concerning migration, as well as on basis of accessible empirical studies we consider return migration as an effect of a rational, but not ever profit-maximizing, strategy of an individual. A natural, though not flawless, candidate for the possible measure of the individual's strategy appears to be the length of their planned stay abroad, which will serve in our model as a response variable. The higher values it

[10] Fu(1998).

takes the more long-term seems to be the individual's migration strategy. Furthermore, we expect to obtain a significant influence on the tenure not only of traditionally economic factors such as level of wages or job availability, but also of some personal characteristics. Following the main thought of the theory of relative deprivation it is also very likely that the impact of relative wages in the current environment of a migrant may be gaining in importance within the course of time spent abroad compared to other economic determinants, assumed of course they succeeded in finding a job.
Accordingly, three basic groups of factors determining migrants' decisions about their further stay or leave have been taken into consideration: (1) general background qualities comprising gender, age cohorts, level of education, class of the township of origin in Poland, then (2) determinants emphasized especially in the neoclassical theories of emigration such as low wages in Poland as an emigration motive, unemployment in Poland as an emigration motive, former migration experience abroad, duration of the hitherto stay abroad, as well as (3) factors providing some information about migrants' intended strategy and socio-economic arrangements such as possession of real property abroad, having their closest on site, savings, remittances to Poland. Besides that, we consider whether a person performs a job with a higher occupational status than previously in Poland. Due to some technical limitations of the underlying survey we quietly assume every leave means automatically return to Poland. At the beginning an ordered logit has been estimated with the 6-categorical response variable 'Duration of the planned stay abroad' and with the range of explanatory variables described above[11]. In the further step, the basis specification (i) has been extended by two additional variables describing the relative wages of migrants abroad and previously in Poland (specification (ii)). The selected regression results[12] for both specifications display the tables 11 and 12.

With regard to the Proportional Odds constraints Likelihood Ratio and Brant Tests has been carried out, which indicated that the assumption of proportionality has been violated[13], in particular in case of the following variables: 'Property owner', 'First stay abroad' and 'Savings'. It means the level of coefficients for these three variables must have varied significantly across 6 categories of the response variable. Referring to that fact generalized ologit has been carried out afterwards, which confirmed again the variability of coefficients across response variable categories. Introduction of the new type of model contributed to the improvement of model adjustment (higher McFadden's R squared), too. Selected results[14] of the gologit have been depicted in

[11] For more detailed description of the variables see part 3.1 on the page 14.
[12] The full set of ologit estimates in the Appendix.
[13] However, specification link test for single-equation models turned out to be insignificant (insignificant linear predicted value squared), which indicates no specification error.
[14] For a complete set of gologit estimates with no constraints as well as gologit with partially abolished constraints see the Appendix.

Table 11: Selected estimation results of ologit for UK (odds ratios)

Year	2007		2008		2009	
Specification of equation	(i)	(ii)	(i)	(ii)	(i)	(ii)
Gender (female=0)	1.123	1.123	0.895	0.884	0.932	0.839
Age 25-34 (18-24 years = 0)	1.386*	1.410*	1.470**	1.540***	1.393**	1.467**
Property owner	3.852***	3.730***	2.888***	3.229***	3.901***	3.803***
Family on site	1.659***	1.654***	1.556**	1.519**	1.513***	1.440***
Migration motive: low wages	1.325	1.307	0.684***	0.694**	0.734**	0.644***
Migration motive: no job	1.120	1.116	0.644**	0.559***	0.639***	0.603***
Hitherto stay: 7-12 months (3-6 months = 0)	3.976***	3.948***	2.245***	2.375***	1.588*	1.826**
Hitherto stay: 1-3 years (3-6 months = 0)	7.853***	7.803***	3.536***	3.435***	3.085***	3.667***
Hitherto stay > 3 years (3-6 months = 0)	10.47***	10.14***	5.991***	5.700***	6.455***	6.635***
Savings	0.474***	0.465***	0.310***	0.283***	1.070	0.867
Net income abroad (in relation to the mean of the pool)		1.072		1.272		2.239***
Net income in PL (in relation to the mean of the pool)		na		0.627***		0.961
No. of observations	790	784	1494	1403	1461	1298
Pseudo R2	0.138	0.137	0.0918	0.106	0.0951	0.105
** p<0.05, ** p<0.01, *** p<0.001*						

Source: Own calculations

Table 12: Selected estimation results of ologit for Ireland (odds ratios)

Year	2007		2008		2009	
Specification of equation	(i)	(ii)	(i)	(ii)	(i)	(ii)
Gender (female=0)	0.704*	0.656**	1.178	1.129	0.915	0.841
Age 25-34 (18-24 years = 0)	1.375*	1.426*	0.776	0.796	1.220	1.144
Property owner	5.352***	5.638***	5.882***	4.196***	14.27***	10.93***
Family on site	2.124***	2.079***	1.392	1.482*	2.367***	2.581***
Migration motive: low wages	0.987	0.977	0.988	0.953	0.998	0.961
Migration motive: no job	1.519*	1.552*	0.735	0.788	0.851	1.059
Hitherto stay: 7-12 months (3-6 months = 0)	2.590***	2.707***	3.669*	1.691	1.103	1.042
Hitherto stay: 1-3 years (3-6 months = 0)	3.551***	3.784***	4.075**	2.182	2.344**	2.357*
Hitherto stay > 3 years (3-6 months = 0)	6.845***	7.324***	3.308*	2.028	3.050***	2.580*
Savings	0.601**	0.612**	0.153***	0.102***	2.864***	1.962
Net income abroad (in relation to the mean of the pool)		0.795		1.555		4.932***
Net income in PL (in relation to the mean of the pool)		na		1.018		0.870
No. of observations	792	788	992	934	984	875
Pseudo R2	0.0970	0.0983	0.0785	0.0868	0.103	0.120
** p<0.05, ** p<0.01, *** p<0.001*						

Source: Own calculations

the Table 13.

3.3.3 Discussion of results

Both some limitations of the survey methodology[15] and violation of the proportional odds assumption should be born in mind while analysing the regression results. However, those deficiencies do not disturb final interpretation dramatically. While analysing regression results for both specifications ((i) and (ii)) we may observe a weak significance of the general characteristics of migrant. Contrary to some earlier empirical findings (OECD 2008) neither gender nor educational level influenced considerably migrants' declared

[15] These are i.a. differences in methodology of carrying out survey's subsequent editions esp. some additional restrictions put in the sample selection process with regard to remittances in 2008.

Table 13: Selected estimation results of gologit (odds ratios)

		UK			IR		
		2007	2008	2009	2007	2008	2009
Property owner	*ologit*	3.852***	2.888***	3.901***	5.352***	5.882***	14.27***
Intended stay abroad							
< 3 months	*gologit*	0.426	0.259	1.600	1.707	9E+30	0.00731***
3-6 months		1.634	0.338*	1.068	10.39**	7.288	1.5E-08
7-12 months		3.199**	1.116	2.300***	5.748***	3.539	7.298**
1-3 years		5.052***	1.764**	3.639***	6.194***	3.151***	9.129***
> 3 years but not forever		4.276***	5.755***	5.300***	6.346***	6.738***	182.4***
Family on site	*ologit*	1.659***	1.556**	1.513***	2.124***	1.392	2.367***
Intended stay abroad							
< 3 months	*gologit*	1.549	1.513	1.279	1.518	3E+42	77.92***
3-6 months		1.618	0.712	1.625**	2.378***	22.18*	1.974
7-12 months		1.587*	1.348	1.627***	2.409***	1.349	1.938***
1-3 years		2.432***	1.757***	1.550***	2.089***	1.281	3.007***
> 3 years but not forever		1.714**	2.025*	1.569**	1.742	2.035	2.879**
First stay abroad	*ologit*	1.337*	1.001	1.331**	1.157	0.999	1.290
Intended stay abroad							
< 3 months	*gologit*	4.107***	1.052	3.321***	2.390*	4E-22	69.93***
3-6 months		0.939	1.304*	2.234***	0.516*	1E+00	2.022
7-12 months		1.537*	1.001	2.189***	1.343	1E+00	1.736*
1-3 years		1.049	1.001	1.074	1.04	1E+00	0.944
> 3 years but not forever		1.078	1.001	0.881	1.057	1E+00	1.945
Savings	*ologit*	0.474***	0.310***	1.070	0.601**	0.153***	2.864***
Intended stay abroad							
< 3 months	*gologit*	0.251**	10.53***	2.735***	0.137***	8E+20	1.466
3-6 months		0.385**	0.728	1.617*	1.228	25.31***	2.144
7-12 months		0.372***	0.781	1.512*	1.043	0.753	2.457**
1-3 years		0.545**	0.354***	0.97	0.735	0.252***	1.264
> 3 years but not forever		0.576**	0.0655***	0.545**	0.443**	0.0154***	0.224*
	Pseudo R2	0.215	0.198	0.138	0.174	0.237	0.210
	BIC	2700.7	4033.4	4773.2	2719.8	2581.6	2778.5
	N	790	1494	1461	792	992	984

Source: Own calculations

length of stay. Only in case of Ireland in 2009 having tertiary education increased the odds of planning a longer stay by approximately 1.6 times compared to leaving destination country earlier. Thus, we were not able to find sufficient evidence of a greater migrants' propensity to return at the two extremities of their education scale, which has been indicated by other authors (Nekby 2006). Also age, especially in UK, appeared to be significant and tended to increase chances of planning a longer stay by Polish immigrants. The diagrams illustrating probabilities predicted on the basis of ologit model (Figure 9 and 10) seem to demonstrate the relationship in the most convenient manner. Accordingly, all the predicted probability lines, except for the group declaring duration of stay 1-3 years, are positively sloped. In case of Ireland in the year 2009 the relation between age and the probability of a longer stay was converging to a constant.

Taking into account the group of determinants related to classical motives of migration processes comprising unfavourable labour market situation in sending country reflected mainly in low wages and high unemployment the

impact was rather moderate either. Only in UK migrants, who left Poland for the reason of too low wage level or lack of job had significantly smaller odds of prolonging their stay abroad. In Ireland and the rest of surveyed countries the influece was insignificant. On the other hand a relatively long hitherto stay abroad favoured prolongation of the migration stay. As far as variables reflecting migrant's strategy are concerned, a strong significance was observed. In particular owning property increased odds of staying longer than leaving by 3.9 times in UK in 2009 and over 14 times in Ireland at the same time. Living with their family on site also strengthened migrant's plans to stay longer abroad, by ca. 1,5 times in Ireland and over 2 times in case of UK. This finding seems to cross over neoclassical approach. Nonetheless, taking by migrants their own families does not necessarily imply for them settling down forever in destination country but only increasing the chance for prolonging their stay, mostly up to three years, as already indicated in the descriptive part of the analysis. Interestingly, while having own savings decreased chances for a longer stay only in the years 2007 and 2008, in 2009 the sign of this interdependence became positive. We can interpret this change as follows: before the economic slowdown of 2008 most persons saving their money were inclined to spend it after their return to Poland. During the recession period only those migrants might have decided to stay longer who planned to save and spend their money abroad. Predominantly, those stayed who turned out to be most successful abroad and aimed at long-term stay. Besides that a rapid appreciation of the Polish zloty in the second half of 2009 might also have contributed to the decision of some persons to await the turmoil. On the other hand, in our regression remitting money from abroad to Poland turned out to be generally insignificant, as a determinant of a declared duration of stay.

From the point of view of the NEM theory an important finding appears to be a significant (p-value < 0.001) and positive impact of the relative migrants' income level obtained abroad on their future plans in case of all the countries analyzed, though solely in the year 2009. Unsurprisingly, a generally negative influence has been observed on the part of the relative net income migrants used to earn in Poland before their leave their country. Nevertheless, the latter variable was significant for UK only in 2008 and for Ireland not at all. Presumably, these results mirror an increasing role of relative deprivation mechanism within the group of the post-accession wave migrants with regard to the relative wage level typical for the hosting country at the cost of declining relevance of the relative wages migrants had been able to obtain in the country of origin one or two years ago.

Summing up, there is enough evidence congruent with some elements of the NEM theory, in particular with the mechanism of relative deprivation in migration decision taking or diversification of migrants' strategies, which usually do not lead to a permanent stay in the host country. In fact, we deem settling down forever abroad rather exceptional although this will be verified

only in the future on the basis of longer time series. Moreover, remarkable differences in regression estimates for the subsequent years of observation before and after economic crunch may suggest that changes in macroeconomic conditions also matter.

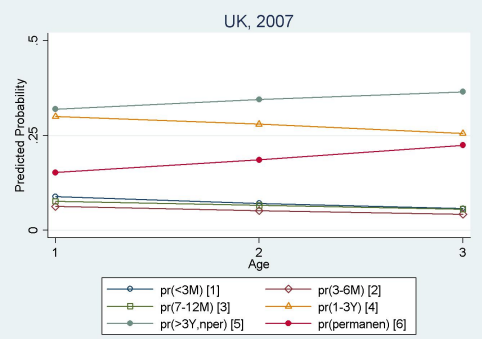
4 Conclusions

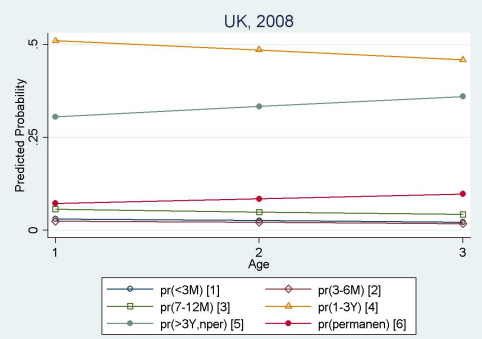
The great wave of emigration from Poland after the UE accession was the phenomenon that influenced both Polish and British Isle's population and labour force. The emigration flows has been hampered in the recent years by economic crisis in Western Europe that appeared relatively mild in Poland. Some experts say that the huge scale of emigration flows in the years 2004-2007 was possible due to the relatively large share of young, mobile generation (20-29 years) of baby boomers of early 1980s. If this hypothesis is correct probably the outflows that were observed in the period 2004-2007 is hardly to be observed in the future. The past experiences of different countries suggest that almost all great waves of emigration were followed by return migration. The reasons of return migration are different on the micro level but the knowledge of the most important trends seem to be important both in the predictions of the future population and labour force changes and in the verification of reliability of different migration theories. This paper has two aims, the first is the empirical analysis of the emigration strategies adopted by Polish emigrants in UK and Ireland and second the verification of the reliability of classical theory of migration versus new economics of migration in the explanation of the migration flows of Polish emigrants.

The empirical analysis of emigration were based on the most important sources of information about Polish emigrants but the most important part was the micro dataset from the survey carried out by National Bank of Poland in the years 2007-2009. The observations suggest that the decreasing number of emigrants observed after 2007 was mainly due to the sharp drop in short term emigration that reflects flows from home to the host country. This observation was confirmed by the data from new registrations of Polish workers in the British Isles and is consistent with the results of the survey that suggest also drop in the number of short term emigrants (up to one year) while the distribution of the plans of further stay of long term emigrants has not changed dramatically despite the crisis.

The results of the survey show that the choice of emigration in comparison to work in Poland was more profitable for low income persons and those persons emigrate relatively more frequently, but there was also a positive correlation between wages in Poland and abroad. What is also important the longer the duration of stay was, the higher was the average wage and the longer was the declared period of further stay. It can be a result of increasing with time information, time to search for better job opportunities and auto-selection of emigrants (those low paid could simply return earlier). In 2007 - the year of the peak of the emigration the circular migration as well as declarations of permanent emigration were relatively frequent. The share of circulatory emigrants amounted to about 16% in UK and 10% in Ireland and permanent emigrants (longer than three years) to about 53% in UK and 43% in Ireland. The influence of the crisis reduced the share of emigrants

Figure 11: Probabilities of the planned stay duration predicted on basis of the ologit model estimated for the UK





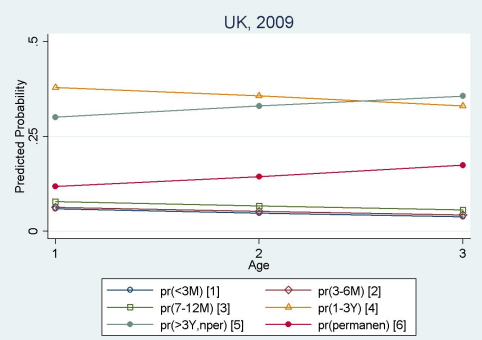
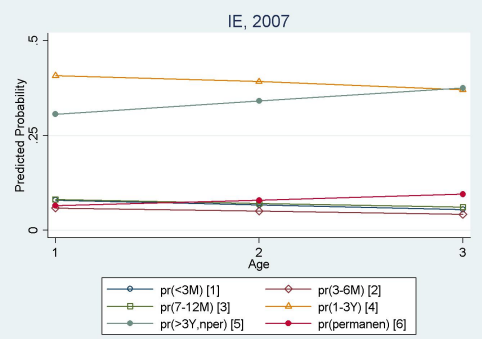
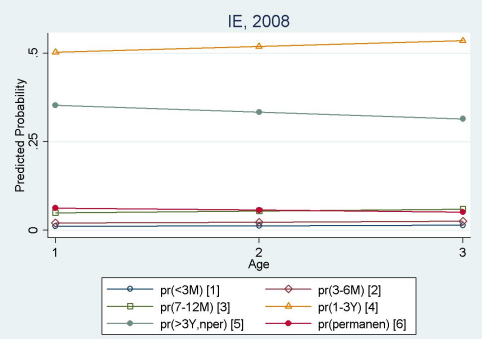
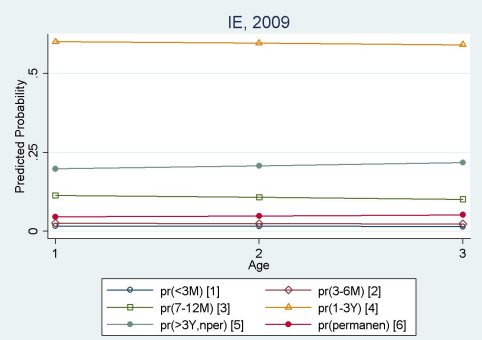


Figure 12: Probabilities of the planned stay duration predicted on basis of the ologit model estimated for IE







that declared permanent emigration to 47% in UK and 28% in Ireland but the circulatory migrants also almost vanished (drop to less than 5% in UK and less than 2% in Ireland) due to very low flow from Poland to British Isles. The changes in the economic situation influenced at once the circulatory migrants who adjusted by staying at home in Poland but the persons who used to declare permanent emigration and invested in their settlement in the British Isles needed time to reconsider their strategy. The results of the empirical analysis were used to verify the frequently used theories that explain migration. The classical theory is usually used in macroeconomic analysis as it is easy implement in the environment of macro variables. The new economics of migration theory gives more attention to the context of emigration and understanding of the individual preferences of emigrants.

The main results of this study suggest that there are differences in the factors that influence simultaneous migration outflows and inflows. The differences in wages and labour market conditions between countries seem to explain relatively well emigration outflows. The economic crisis in the British Isles clearly inhibited emigration outflows. However the decision about the duration of emigration which determines the return migration is more connected to the individual characteristics of the emigrants than to the changes of economic conditions. The changes of the economic situation influenced the distribution of declared further stay relatively less in comparison to emigration outflows. The influence of variables like savings and younger age shorten the emigration plans in all periods. The investments in organisation of live abroad such as relatively long stay before the survey, plans regarding property and family on site as well as signs of success like relatively high wages and professional status abroad were strongly correlated with plans of longer further stay in all periods. The empirical analysis confirmed also the importance of phenomena not explained by classical theory: significant circulatory short-term emigration, declarations of return of the most of emigrants in at last medium term. All these findings suggest that in the perspective of one to three years the return migration flows seem to be less vulnerable to changes in economic conditions and depend more on strategies already adopted by emigrants. This conclusion supports approach represented by the "'New Economics of Migration"' as more useful in the analysis of return migration.

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Appendix 1

Survey methodology - sampling procedure and selected questions from the questionnaire

The stratified -purpose sampling was chosen as a method of including in the sample design the information about emigrants from other data sources as well as a tool of diversification of the sample. The following rules were applied in the sampling procedure:

- the survey was conducted in the places of residence of emigrnats (not in the places where they work) by interviewers that speak Polish. The questionnaires were filled in person by respondents.
- There were restrictions regarding interviewing only one person in each place of residence. The interviews in large emigrants communities as well as interviews with the members of the families of respondents were also forbidden. One interviewer was allowed to carry out not more than 60 surveys.
- Only emigrants who spent at least 3 moths were interviewed
- The target group were persons aged 18-65, on the basis of the information from the Polish LFS survey the proportions of age groups: 18-24, 25-34, 35-44, 45-65 were implied in each of countries separately.
- The samples were distributed between regions in each country on the basis of the information from registration. In the UK the sample was distributed between 8 regions and in Ireland between 6 regions.
- There were also limitations concerning minimum and maximum percentage of female in the sample and minimum percentages of respondents employed in low and high skill occupations and in main economic sectors.

The questionnaire consisted of about 40 questions. Only some of them were used in the analysis. The more extended questions in which wording is important for the interpretation of the results of the analysis is presented below (Table 14) with additional information about the variables in which they were used.

Table 14: Selected questions

Questions	Answers	Comments
P7. Does any of the members of your family live curently in Great Britain/Ireland? (more than one answer is possible)	1. No, no one 2. husband /wife (spouse) 3. children 18 years and older 4. children younger than 18 years 5. parents 6. siblings 7. grandparents	Queastion used to prepare variable "Family on site"
P9. Is it your first employment emigration spell?	1. Yes 2. No	Question used to create variable: "First stay abroad"
P10. How long have you stay in Great Britain/ Ireland?	1. 3-6 months 2. 7-12 months 3. 1 year – 3 years 4. more than 3 years	Question from the survey in 2007, The surveys in 2008, 2009 contains information about period in moths, but were cumulated to be comarable with 2007 results.
P11. How long are you going to stay in Great Britain/ Ireland?	1.shorter than 3 monts 2. 3-6 months 3. 7-12 months 4. 1 year-3 years 5. more than 3 years but not forever 6. Forever	
P12. What was the most important reason for emigration to Great Britain/ Ireland? (please select the most important)	1. The lack of job in Poland 2. Unsatisfactory wage in Poland 3. Discontence over work in Poland because of factors other than wage (ex. better career prospects abroad) 4. Willingness to learn English language 5. Political climat in Poland 6. Family or friends abroad 7. Other	Answers used to create variables (1) "Migration motive:low wages" and (2) "Migration motive: no job"
P14. Please compare your current or last job in Ireland with the last job in Poland? (2007)	1. I have the same occupation as in Poland and consistent with 2. My occupation abroad is differnet than in Poland but consistent with my educational bacground 3. My occupation is differnt than my educational background but requires specific skills 4. My occupation doesn't require specific skills 5. I have not worked abroad until now	Question from 2007 used to create variable "Higher professional status abroad". In 2008 and 2009 this variable created by comparison of questions regarding specific occupations.
P.18 What sort of job have you had before emigration and P.19 What sort of job have you had before emigration (2008,2009)	1. High rank manager 2. Middle/Low rank manager 3. Selfemployed, own business 4.Specialist 5. Skilled worker 6. Basic works 7. char, babysitter 8.other 9. I have not worked	Questions used to create variable: "Higher professional status abroad in 2008 and 2009
P24. Have you collected any savings during your stay abroad?	1. Yes 2. No	Question used to creat variable: "Savings"
P26. Do you own any properties in Great Britain/ Ireland?	1.Yes, I own 2. No, but I'm going to buy proprty in the one year time 3. No, I'm not an owner and I'm not going to buy any property in one year	Question used to create variable: "Own Property"
T1. Do you send any remittances to Poland?	1. Yes 2. No	Question used to create variable: "Remittances to Poland"

Appendix 2

Table 15: Ordinary regression estimates

	UK						**IR**						**NL**		**DE**	
Year	2007		2008		2009		2007		2008		2009		2009		2009	
Specification	(i)	(ii)	(i)	(ii)	(i)	(ii)	(i)	(ii)	(i)	(ii)	(i)	(ii)	(i)	(ii)	(i)	(ii)
Gender (female=0)	1.123	1.123	0.895	0.884	0.932	0.839	0.704*	0.656**	1.178	1.129	0.915	0.841	1.016	1.066	0.731	0.831
	(0.80)	*(0.78)*	*(-1.05)*	*(-1.12)*	*(-0.70)*	*(-1.60)*	*(-2.26)*	*(-2.62)*	*(1.26)*	*(0.88)*	*(-0.70)*	*(-1.23)*	*(0.10)*	*(0.39)*	*(-1.30)*	*(-0.71)*
Age 25-34 (18-24 years = 0)	1.386*	1.410*	1.470**	1.540***	1.393**	1.467**	1.375*	1.426*	0.776	0.796	1.220	1.144	1.129	1.316	1.090	1.170
	(2.08)	*(2.18)*	*(3.17)*	*(3.39)*	*(2.70)*	*(2.91)*	*(2.04)*	*(2.25)*	*(-1.75)*	*(-1.51)*	*(1.23)*	*(0.77)*	*(0.62)*	*(1.28)*	*(0.23)*	*(0.40)*
Age 35-65 years (18-24 years = 0)	1.549*	1.556*	1.321	1.521**	1.556**	1.628**	1.438	1.487*	0.862	0.793	1.134	0.982	1.153	1.289	1.748	1.681
	(2.12)	*(2.13)*	*(1.88)*	*(2.70)*	*(3.02)*	*(3.09)*	*(1.82)*	*(1.98)*	*(-0.81)*	*(-1.19)*	*(0.62)*	*(-0.08)*	*(0.71)*	*(1.09)*	*(1.52)*	*(1.30)*
Education: primary (highschool = 0)	1.922	1.895	1.954	2.974	1.709	1.486	0.565	0.554	0.298	0.288	0.682	0.506	0.204	0.199	6.4e+14	1.7e+14
	(1.16)	*(1.14)*	*(1.21)*	*(1.82)*	*(1.60)*	*(1.06)*	*(-1.00)*	*(-1.04)*	*(-0.86)*	*(-0.85)*	*(-0.44)*	*(-0.78)*	*(-1.43)*	*(-1.39)*	*(0.00)*	*(0.00)*
Education: vocational (highschool = 0)	1.112	1.106	1.162	1.245	1.470*	1.495*	1.372	1.348	0.926	1.100	1.347	1.470*	0.637*	0.537*	0.449*	0.632
	(0.53)	*(0.50)*	*(0.98)*	*(1.40)*	*(2.41)*	*(2.36)*	*(1.55)*	*(1.45)*	*(-0.42)*	*(0.50)*	*(1.72)*	*(2.09)*	*(-1.98)*	*(-2.54)*	*(-2.01)*	*(-1.03)*
Education: tertiary (highschool = 0)	0.944	0.933	1.028	1.368*	1.034	0.922	0.841	0.843	0.905	0.795	1.661***	1.374	0.888	0.623*	0.758	0.843
	(-0.34)	*(-0.41)*	*(0.21)*	*(2.22)*	*(0.30)*	*(-0.67)*	*(-1.12)*	*(-1.10)*	*(-0.61)*	*(-1.28)*	*(3.45)*	*(1.84)*	*(-0.68)*	*(-2.30)*	*(-1.08)*	*(-0.61)*
Property owner	3.852***	3.730***	2.888***	3.229***	3.901***	3.803***	5.352***	5.638***	5.882***	4.196***	14.27***	10.93***	14.72***	10.02***	6.691***	8.601***
	(6.92)	*(6.73)*	*(6.11)*	*(6.42)*	*(9.68)*	*(8.74)*	*(7.01)*	*(7.18)*	*(6.52)*	*(4.90)*	*(9.26)*	*(7.73)*	*(9.09)*	*(7.43)*	*(5.67)*	*(5.75)*
Family on site	1.659***	1.654***	1.556**	1.519**	1.513***	1.440***	2.124***	2.079***	1.392	1.482*	2.367***	2.581***	1.973***	2.736***	1.254	1.104
	(3.65)	*(3.61)*	*(3.03)*	*(2.76)*	*(4.16)*	*(3.44)*	*(5.34)*	*(5.17)*	*(1.88)*	*(2.19)*	*(6.51)*	*(6.59)*	*(4.25)*	*(5.70)*	*(0.91)*	*(0.38)*
First Stay Abroad	1.337*	1.343*	1.001	1.001	1.331**	1.350**	1.157	1.147	0.999	0.999	1.290	1.156	1.443*	1.248	1.280	1.065
	(2.01)	*(2.04)*	*(1.01)*	*(0.94)*	*(2.71)*	*(2.69)*	*(1.02)*	*(0.96)*	*(-1.01)*	*(-0.98)*	*(1.77)*	*(0.93)*	*(2.07)*	*(1.16)*	*(0.95)*	*(0.23)*
Class of town: countryside (small city = 0)	0.660*	0.659*	1.146	1.161	0.862	0.890	0.762	0.782	0.807	0.789	1.194	1.168	1.089	1.038	0.579	0.437**
	(-2.33)	*(-2.34)*	*(1.02)*	*(1.08)*	*(-1.23)*	*(-0.90)*	*(-1.45)*	*(-1.31)*	*(-1.41)*	*(-1.48)*	*(1.21)*	*(0.97)*	*(0.46)*	*(0.18)*	*(-1.93)*	*(-2.73)*
Class of town: big city (small city = 0)	0.815	0.804	0.856	0.877	0.977	0.887	0.981	0.991	0.550**	0.521**	1.430	1.518	0.634	0.522*	0.452*	0.680
	(-1.06)	*(-1.11)*	*(-1.10)*	*(-0.89)*	*(-0.17)*	*(-0.85)*	*(-0.11)*	*(-0.05)*	*(-3.04)*	*(-3.17)*	*(1.41)*	*(1.46)*	*(-1.65)*	*(-2.13)*	*(-2.36)*	*(-1.05)*
Migration motive: low wages	1.325	1.307	0.684***	0.694**	0.734**	0.644***	0.987	0.977	0.988	0.953	0.998	0.961	1.067	0.915	1.281	1.270
	(1.81)	*(1.72)*	*(-3.30)*	*(-3.06)*	*(-2.73)*	*(-3.66)*	*(-0.09)*	*(-0.16)*	*(-0.08)*	*(-0.33)*	*(-0.01)*	*(-0.23)*	*(0.35)*	*(-0.45)*	*(0.86)*	*(0.77)*
Migration motive: no job	1.120	1.116	0.644**	0.559***	0.639***	0.603***	1.519*	1.552*	0.735	0.788	0.851	1.059	0.656	0.657	1.265	1.285
	(0.62)	*(0.59)*	*(-2.90)*	*(-3.72)*	*(-3.39)*	*(-3.56)*	*(2.00)*	*(2.09)*	*(-1.67)*	*(-1.22)*	*(-0.91)*	*(0.30)*	*(-1.92)*	*(-1.81)*	*(0.75)*	*(0.73)*
Hitherto stay: 7-12 months (3-6 months = 0)	3.976***	3.948***	2.245***	2.375***	1.588*	1.826**	2.590***	2.707***	3.669*	1.691	1.103	1.042	1.617	1.948	1.724	2.671*
	(6.55)	*(6.47)*	*(4.25)*	*(4.27)*	*(2.37)*	*(2.86)*	*(4.13)*	*(4.25)*	*(2.22)*	*(0.83)*	*(0.30)*	*(0.11)*	*(1.52)*	*(1.74)*	*(1.19)*	*(1.99)*
Hitherto stay: 1-3 years (3-6 months = 0)	7.853***	7.803***	3.536***	3.435***	3.085***	3.667***	3.551***	3.784***	4.075**	2.182	2.344**	2.357*	6.534***	6.865***	3.976**	7.348***
	(10.67)	*(10.48)*	*(7.19)*	*(6.55)*	*(6.04)*	*(6.46)*	*(6.50)*	*(6.61)*	*(2.81)*	*(1.47)*	*(2.65)*	*(2.27)*	*(5.66)*	*(5.04)*	*(2.88)*	*(3.69)*
Hitherto stay > 3 years (3-6 months = 0)	10.47***	10.14***	5.991***	5.700***	6.455***	6.635***	6.845***	7.324***	3.308*	2.028	3.050***	2.580*	13.26***	13.88***	6.196***	8.828***
	(9.05)	*(8.73)*	*(9.09)*	*(8.11)*	*(10.58)*	*(9.85)*	*(6.54)*	*(6.51)*	*(2.41)*	*(1.34)*	*(3.42)*	*(2.50)*	*(7.50)*	*(6.64)*	*(4.14)*	*(4.53)*
Higher professional status abroad	1.101	1.091	0.917	1.131	0.685***	0.693***	1.322	1.375*	0.955	1.039	0.671**	0.758	0.826	1.317	0.885	1.459
	(0.68)	*(0.60)*	*(-0.78)*	*(1.03)*	*(-3.81)*	*(-3.32)*	*(1.95)*	*(2.20)*	*(-0.34)*	*(0.26)*	*(-2.86)*	*(-1.75)*	*(-1.15)*	*(1.45)*	*(-0.51)*	*(1.43)*
Savings	0.474***	0.465***	0.310***	0.283***	1.070	0.867	0.601**	0.612**	0.153***	0.102***	2.864***	1.962	2.643***	1.056	2.555*	1.425
	(-4.97)	*(-5.03)*	*(-9.07)*	*(-9.28)*	*(0.50)*	*(-0.91)*	*(-2.96)*	*(-2.82)*	*(-8.96)*	*(-9.68)*	*(3.83)*	*(1.50)*	*(3.92)*	*(0.16)*	*(2.25)*	*(0.70)*
Remittances to Poland	1.073	1.066	0.894	0.952	0.770*	0.751*	0.969	0.967	0.996	0.873	1.148	0.951	1.330	0.906	0.723	0.774
	(0.51)	*(0.45)*	*(-1.01)*	*(-0.42)*	*(-2.50)*	*(-2.54)*	*(-0.23)*	*(-0.24)*	*(-0.03)*	*(-0.86)*	*(0.87)*	*(-0.29)*	*(1.63)*	*(-0.52)*	*(-1.28)*	*(-0.94)*
Net income abroad (in relation to the mean of the pool)		1.072		1.272		2.239***		0.795		1.555		4.932***		9.741***		3.275***
		(0.32)		*(1.45)*		*(4.62)*		*(-1.59)*		*(1.94)*		*(5.88)*		*(7.04)*		*(3.48)*
Net income in PL (in relation to the mean of the pool)		na		0.627***		0.961		na		1.018		0.870		0.581**		0.669***
		na		*(-7.01)*		*(-0.76)*		*na*		*(0.16)*		*(-1.12)*		*(-3.28)*		*(-3.84)*
of observations	790	784	1494	1403	1461	1298	792	788	992	934	984	875	690	617	294	268
Pseudo R2	0.138	0.137	0.0918	0.106	0.0951	0.105	0.0970	0.0983	0.0785	0.0868	0.103	0.120	0.196	0.217	0.134	0.154

t statistics in parentheses
* p<0.05, ** p<0.01, *** p<0.001

Table 16: Generalized Ordered Logit estimates with partial proportional odds constraints (Beta method)

UK				IE			
gologit_UK2007autog		gologit_UK2009autog		gologit_IR2007autog		gologit_IR2009autog	
VARIABLES	_plan_pobyt	VARIABLES	_plan_pobyt	VARIABLES	_plan_pobyt	VARIABLES	_plan_pobyt
Beta		Beta		Beta		Beta	
_plec	1.115	_plec	0.921	_plec	0.755*	_plec	0.899
_I_age_2	4.413***	_I_age_2	1.980***	_I_age_2	3.014**	_I_age_2	6.266***
_I_age_3	1.483*	_I_age_3	1.498***	_I_age_3	1.339	_I_age_3	1.07
_I_wyksz_2	2.134	_I_wyksz_2	1.638	_I_wyksz_2	0.509	_I_wyksz_2	118900000
_I_wyksz_3	1.083	_I_wyksz_3	1.248	_I_wyksz_3	6.723***	_I_wyksz_3	0.498
_I_wyksz_4	0.921	_I_wyksz_4	1.043	_I_wyksz_4	2.978***	_I_wyksz_4	1.662***
_Own_property	4.123***	_Own_property	2.010*	_Own_property	5.882***	_Own_property	0.00858***
_wzial_rodzine	1.819***	_wzial_rodzine	1.548***	_wzial_rodzine	2.148***	_wzial_rodzine	54.14***
_PierwszyPobyt	2.806***	_PierwszyPobyt	3.191***	_PierwszyPobyt	2.345**	_PierwszyPobyt	30.96***
_I_klm3_2	0.626**	_I_klm3_2	1.072	_I_klm3_2	0.744	_I_klm3_2	1.105
_I_klm3_3	0.82	_I_klm3_3	0.961	_I_klm3_3	0.992	_I_klm3_3	2.934
reas_low_w	1.276	_reas_low_w	1.147	reas_low_w	1.53	_reas_low_w	1.04
reas_Unemp	1.062	_reas_Unemp	1.041	reas_Unemp	0.772	_reas_Unemp	6.390**
_I_Duration_2	4.231***	_I_Duration_2	1.704***	_I_Duration_2	7.637***	_I_Duration_2	4.284*
_I_Duration_3	7.948***	_I_Duration_3	3.440***	_I_Duration_3	13.34***	_I_Duration_3	0.819
_I_Duration_4	6.645***	_I_Duration_4	7.000***	_I_Duration_4	4.282***	_I_Duration_4	3.230***
_I_Professi_1	2.969***	_I_Professi_1	0.713***	_I_Professi_1	1.295*	_I_Professi_1	0.827
_Savings	0.488***	_Savings	2.589***	_Savings	0.194***	_Savings	2.133
_przekazuje_pieniadze	1.083	_przekazuje_pieniadze	0.775**	_przekazuje_pieniadze	0.923	_przekazuje_pieniadze	5.544***
Gamma_2		Gamma_2		Gamma_2		Gamma_2	
_I_age_2	0.695	_I_age_2	1.005	_I_age_2	0.842	_I_age_2	0.163***
_PierwszyPobyt	0.438***	_I_wyksz_3	1.282	_I_wyksz_3	0.182***	_I_wyksz_2	0.285
_I_Duration_2	1.527	_Own_property	0.73	_I_wyksz_4	0.486**	_I_wyksz_3	8.656
_I_Duration_3	1.728**	_PierwszyPobyt	0.743	_PierwszyPobyt	0.269***	_Own_property	0.00000272
_I_Professi_1	0.333***	_I_klm3_2	0.955	reas_low_w	0.388***	_wzial_rodzine	0.0367***
_przekazuje_pieniadze	1.817***	_reas_low_w	0.789	reas_Unemp	1.327	_PierwszyPobyt	0.0638***
		_reas_Unemp	0.754	_I_Duration_2	0.378***	_I_klm3_3	0.191**
		_Savings	0.686**	_I_Duration_3	0.255***	_reas_Unemp	0.112**
				_Savings	5.197***	_I_Duration_2	0.423
						_I_Duration_3	4.937***
						_I_Professi_1	0.738
						_Savings	0.861
						_przekazuje_pieniadze	0.182***
Gamma_3		Gamma_3		Gamma_3		Gamma_3	
_I_age_2	0.394***	_I_age_2	0.928	_I_age_2	0.470*	_I_age_2	0.245**
_PierwszyPobyt	0.580**	_I_wyksz_3	1.883**	_I_wyksz_3	0.211***	_I_wyksz_2	1.6E-09
_I_Duration_2	2.158**	_Own_property	1.142	_I_wyksz_4	0.343***	_I_wyksz_3	2.504
_I_Duration_3	1.29	_PierwszyPobyt	0.693	_PierwszyPobyt	0.581	_Own_property	763.3***
_I_Professi_1	0.345***	_I_klm3_2	1.092	reas_low_w	0.871	_wzial_rodzine	0.0346***
_przekazuje_pieniadze	1.565*	_reas_low_w	0.812	reas_Unemp	2.472**	_PierwszyPobyt	0.0556***
		_reas_Unemp	0.725	_I_Duration_2	0.218***	_I_klm3_3	0.326
		_Savings	0.607**	_I_Duration_3	0.245***	_reas_Unemp	0.189*
				_Savings	5.349***	_I_Duration_2	0.194**
						_I_Duration_3	2.944*
						_I_Professi_1	0.732
						_Savings	1.253
						_przekazuje_pieniadze	0.220***
Gamma_4		Gamma_4		Gamma_4		Gamma_4	
_I_age_2	0.252***	_I_age_2	0.644*	_I_age_2	0.398**	_I_age_2	0.222**
_PierwszyPobyt	0.410***	_I_wyksz_3	1.178	_I_wyksz_3	0.196***	_I_wyksz_2	0.000000017
_I_Duration_2	0.562	_Own_property	1.771	_I_wyksz_4	0.204***	_I_wyksz_3	2.281
_I_Duration_3	0.707	_PierwszyPobyt	0.341***	_PierwszyPobyt	0.435**	_Own_property	1,176***
_I_Professi_1	0.279***	_I_klm3_2	0.873	reas_low_w	0.529*	_wzial_rodzine	0.0540***
_przekazuje_pieniadze	0.936	_reas_low_w	0.646*	reas_Unemp	1.666	_PierwszyPobyt	0.0315***
		_reas_Unemp	0.488***	_I_Duration_2	0.241***	_I_klm3_3	0.544
		_Savings	0.379***	_I_Duration_3	0.184***	_reas_Unemp	0.131**
				_Savings	3.592***	_I_Duration_2	0.326
						_I_Duration_3	3.319*
						_I_Professi_1	0.915
						_Savings	0.481
						_przekazuje_pieniadze	0.252**
Gamma_5		Gamma_5		Gamma_5		Gamma_5	
_I_age_2	0.237***	_I_age_2	0.553**	_I_age_2	0.373**	_I_age_2	0.131***
_PierwszyPobyt	0.366***	_I_wyksz_3	0.866	_I_wyksz_3	0.117***	_I_wyksz_2	0.000000105
_I_Duration_2	0.395*	_Own_property	2.589**	_I_wyksz_4	0.130***	_I_wyksz_3	7.141
_I_Duration_3	0.557	_PierwszyPobyt	0.265***	_PierwszyPobyt	0.466*	_Own_property	19,346***
_I_Professi_1	0.380***	_I_klm3_2	0.522**	reas_low_w	0.632	_wzial_rodzine	0.0639***
_przekazuje_pieniadze	0.756	_reas_low_w	0.445***	reas_Unemp	2.840**	_PierwszyPobyt	0.0611***
Alpha		_reas_Unemp	0.706	_I_Duration_2	0.197***	_I_klm3_3	1.672
		_Savings	0.203***	_I_Duration_3	0.110***	_reas_Unemp	0.0760**
		Alpha		_Savings	2.170*	_I_Duration_2	0.832
				Alpha		_I_Duration_3	9.735***
						_I_Professi_1	0.339
						_Savings	0.0817***
						_przekazuje_pieniadze	0.140***
						Alpha	
_cons_1	0.617*	_cons_1	0.97	_cons_1	1.177	_cons_1	0.0831**
_cons_2	0.571**	_cons_2	0.704	_cons_2	1.818	_cons_2	2.299
_cons_3	0.343***	_cons_3	0.395***	_cons_3	0.551*	_cons_3	0.393**
_cons_4	0.284***	_cons_4	0.192***	_cons_4	0.286***	_cons_4	0.0402***
_cons_5	0.0713***	_cons_5	0.0730***	_cons_5	0.0649***	_cons_5	0.0165***
Observations	790	Observations	1,461	Observations	792	Observations	984
Log-likelihood	-1059	Log-likelihood	-2047	Log-likelihood	-1057	Log-likelihood	-1057
r2_p	0.183	r2_p	0.127	r2_p	0.149	r2_p	0.2

Table 17: Generalized Ordered Logit estimates with no constraints

	UK			IR		NL	DE	
	2007	2008	2009	2007	2008	2009	2009	2009
Gender (female=1)								
<3M	1.095	2.108	0.806	0.759	7.648E+41	0.707	1.36E-37	9.36E-54
3-6M	1.287	1.511	1.005	0.804	0.645	1.005	1.159	3006.4***
7-12M	0.906	0.729	1.043	0.832	1.553	0.962	1.184	0.873
1-3Y	1.222	0.883	0.89	0.693	1.113	0.925	0.964	1.559
>3Y,npermanently	1.072	0.885	0.901	0.941	0.863	0.591	1.043	0.417
Age 25-34 years (18-24 years = 0)								
<3M	5.744***	14.96***	2.175**	2.35	3.721E+60	6.786	2.23E-42	3E-45
3-6M	2.697**	0.721	2.202***	3.195***	0.00783***	0.954	1.067	6.39e-09**
7-12M	1.556	1.319	1.820***	1.391	0.587	1.474	1.388	8.461*
1-3Y	1.037	1.388*	1.197	1.146	0.798	1.402	1.285	1.514
>3Y,npermanently	0.996	1.721*	1.175	1.188	0.696	0.93	0.998	1.211
Age 35-65 years (18-24 years = 0)								
<3M	1.308	14.94*	1.668	1.174	1.383E+61	0.847	110750246	1.82E-30
3-6M	0.791	1.088	1.519	1.614	0.00656***	1.347	2.367	0.0000625*
7-12M	1.572	1.683*	1.368	1.479	0.439*	1.058	1.024	5.056*
1-3Y	1.329	1.115	1.392	1.176	0.989	1.026	1.608	1.127
>3Y,npermanently	1.573	0.899	1.714*	1.48	1.405	1.672	1.217	4.903
Primary (highschool = 0)								
<3M	0.147	6.46E-10	0.917	0.154	3.51E-18	188251913	7.58E+121	1
3-6M	1.24E-06	8329816.1	0.81	1.04E-07	1	42775471	0.0308	1
7-12M	1579909	1.022	1.597	1449979.1	101273036	0.194*	0.13	1
1-3Y	7.544*	1.224	1.716	0.418	1.207	2.186	1.777	1
>3Y,npermanently	5.108*	8.540***	1.816	0.515	4.56E-08	21.86*	1.45E-12	.
Vocational (highschool = 0)								
<3M	3.003*	0.0925*	1.363	14.97**	7.53E-33	0.336	5.754E+30	1.976E+35
3-6M	2.03	0.377*	1.576	0.855	0.179	3.657	0.417	0.000355
7-12M	1.455	1.2	2.422***	1.409	1.291	1.138	0.537	0.797
1-3Y	0.993	1.174	1.587*	1.305	0.939	1.28	0.641	0.642
>3Y,npermanently	0.839	2.271*	1.008	0.808	0.939	3.651**	0.905	0.168
Tertiary (highschool = 0)								
<3M	1.475	0.100***	0.941	4.904***	1.8E+28	1.058	0.00351	1.58E-06
3-6M	0.722	0.859	0.813	1.256	1.318	1.149	1.354	0.000000690***
7-12M	0.859	0.799	1.05	1.019	0.837	1.3	0.854	1.04
1-3Y	0.698	1.167	1.193	0.594**	0.97	1.923***	0.894	0.97
>3Y,npermanently	1.051	1.975**	0.919	0.369**	1.137	2.471*	0.582	0.723
Property owner								
<3M	0.426	0.259	1.6	1.707	8.618E+30	0.00731***	0.000109	1
3-6M	1.634	0.338*	1.068	10.39**	7.288	1.46E-08	0	1
7-12M	3.199**	1.116	2.300***	5.748***	3.539	7.298**	1.432E+10	2.05E+13
1-3Y	5.052***	1.764**	3.639***	6.194***	3.151***	9.129***	12.77***	2.343
>3Y,npermanently	4.276***	5.755***	5.300***	6.346***	6.738***	182.4***	33.24***	7.792***
Family on site								
<3M	1.549	1.513	1.279	1.518	2.732E+42	77.92***	0.000127	4.226E+75
3-6M	1.618	0.712	1.625**	2.378***	22.18*	1.974	1.085	2.84e-12**
7-12M	1.587*	1.348	1.627***	2.409***	1.349	1.938***	1.37	15.95**
1-3Y	2.432***	1.757***	1.550***	2.089***	1.281	3.007***	2.423***	0.973
>3Y,npermanently	1.714**	2.025*	1.569**	1.742	2.035	2.879**	3.037**	0.831
First stay abroad								
<3M	4.107***	1.052	3.321***	2.390*	4.49E-22	69.93***	2.49E-65	3.24E-47
3-6M	0.939	1.304*	2.234***	0.516*	1.293	2.022	1.483	1.81020e+10***
7-12M	1.537*	1.001	2.189***	1.343	0.999	1.736*	1.393	1.326
1-3Y	1.049	1.001	1.074	1.04	0.999	0.944	1.615*	1.105
>3Y,npermanently	1.078	1.001	0.881	1.057	0.998	1.945	1.443	0.717
Countryside (Small town=0)								
<3M	0.752	6.467**	1.2	0.665	2.22E+102	1.324	0.101	1.6E-89
3-6M	0.651	0.876	0.967	1.237	11.92**	2.258	0.814	3.499
7-12M	0.724	0.663	1.159	1.098	0.766	1.307	1.116	0.484
1-3Y	0.603*	1.26	0.941	0.634	0.695*	0.916	1.103	0.681
>3Y,npermanently	0.521*	1.735*	0.578*	0.456	0.432*	1.434	3.693**	0.308
Big city (Small town=0)								
<3M	0.555	3.728*	1.508	0.531	4.73E-26	4.529	1.014E+20	1.35E-61
3-6M	2.231	0.261***	1.261	1.781	0.226*	0.646	0.183*	12921116.9**
7-12M	1.443	0.342***	0.852	1.087	0.602	0.99	0.364*	1.713
1-3Y	0.876	1.097	0.935	1.04	0.8	1.597	0.96	0.681
>3Y,npermanently	0.547*	1.572*	0.907	0.847	0.727	4.558*	1.877	0.4
Migration motive: low wages								
<3M	1.121	0.561	1.155	1.665	4.42E-08	0.929	3.801E+12	2.3E-45
3-6M	1.114	1.586	0.893	0.497*	2.01	1.002	0.918	0.0000137*
7-12M	1.392	0.645*	0.954	1.316	1.087	1.421	0.761	2.309
1-3Y	1.484*	0.689**	0.743*	0.807	0.902	0.975	1.028	1.163
>3Y,npermanently	1.111	0.718	0.486***	1.039	0.643	0.545	1.889	0.604
Migration motive: no job								
<3M	1.055	0.0534***	0.98	1.202	2.362E+38	9.038*	1.899E+15	3.11E+122
3-6M	0.723	4.861***	0.761	1.053	0.442	0.633	1.255	0.00176

	UK			IR			NL	DE
	2007	2008	2009	2007	2008	2009	2009	2009
7-12M	1.107	0.543**	0.733	1.641	0.648	1.206	0.928	1.697
1-3Y	1.126	0.706	0.521***	1.321	0.785	0.878	0.366**	0.692
>3Y,npermanently	0.996	1.019	0.72	2.360**	0.581	0.473	0.779	1.018
Hitherto stay: 7-12M (3-6M = 0)								
<3M	4.301**	2.232	1.613	13.85***	3.42E+56	5.972*	8.758E+41	4.26E-180
3-6M	7.610***	1.365	1.943*	2.716**	8.89	2.267	2.611	1081.6*
7-12M	9.184***	2.557***	2.406***	1.716	0.784	0.799	1.55	2.922
1-3Y	2.033**	1.976**	1.158	1.605	5.800*	0.695	0.386	11.25*
>3Y,npermanently	1.014	0.423	0.776	1.076	192847909.1***	1.791	2.921E+17	428822031
Hitherto stay: 1-3Y (3-6M = 0)								
<3M	11.86***	1.041	2.569**	19.03***	3.59E+135	1.945	2.17E-08	1E-75
3-6M	18.59***	3.872***	2.275**	2.919***	26.85	5.612**	7.249*	622.6
7-12M	11.46***	4.090***	4.227***	3.294***	1.847	2.210*	8.355***	14.83**
1-3Y	5.007***	3.511***	3.349***	2.138**	2.534	1.368	1.343	17.27*
>3Y,npermanently	2.641***	0.896	3.148**	1.105	106495137	10.30*	3.487E+17	720263521
Hitherto stay>3Y, npermanent (3-6M = 0)								
<3M	170.6***	10.80**	7.533***	2.87E-08	1.75E+107	12.22*	6.52E-39	4.7E-91
3-6M	16.86***	5.186***	6.301***	1677387.7	18.39	5.169**	11.58**	1788529.2*
7-12M	13.07***	4.794***	8.348***	14.78***	0.973	3.009**	19.88***	7.157*
1-3Y	7.324***	5.564***	6.428***	3.702***	2.12	1.537	2.901*	35.43**
>3Y,npermanently	3.008**	2.134*	5.934***	3.288*	154362170.9***	2.169	7.928E+17	563887597
Higher professional status abroad								
<3M	3.274***	0.353	0.74	1.197	9.98E-61	0.813	3.964E+17	1.882E+59
3-6M	1.114	1.396	0.618**	1.46	0.797	0.627	0.48	6762.7**
7-12M	0.866	1.063	0.561***	1.181	1.053	0.594*	1.326	0.876
1-3Y	0.769	0.865	0.757*	1.415*	1.042	0.781	0.826	1.930*
>3Y,npermanently	1.186	0.838	0.809	1.093	1.695	0.292**	0.578	1.651
Savings								
<3M	0.251**	10.53***	2.735***	0.137***	8.282E+20	1.466	1.95E+12	6.892E+59
3-6M	0.385**	0.728	1.617*	1.228	25.31***	2.144	2.48	5.539
7-12M	0.372***	0.781	1.512*	1.043	0.753	2.457**	2.253*	1.182
1-3Y	0.545**	0.354***	0.97	0.735	0.252***	1.264	9.144***	1.34
>3Y,npermanently	0.576**	0.0655***	0.545**	0.443**	0.0154***	0.224*	2.66E-10	0.586
Remittances								
<3M	0.997	4.348*	1.263	0.495	2.698E+22	4.672*	1.647E+13	72791141
3-6M	1.853*	1.48	1.04	0.792	3.591	0.79	1.876	180.6
7-12M	1.424	0.885	0.878	1.067	1.526	1.18	1.920*	2.266
1-3Y	1.003	0.734*	0.750*	0.86	0.984	1.408	0.76	0.712
>3Y,npermanently	0.826	0.955	0.657**	1.134	0.438*	0.849	0.906	0.566
Pseudo R2	0.215	0.198	0.138	0.174	0.237	0.210	0.311	0.438
BIC	2700.7	4033.4	4773.2	2719.8	2581.6	2778.5	1991.1	1037.5
N	790	1494	1461	792	992	984	690	294