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**THE NEW WAVE OF POLISH MIGRATION AFTER EU ENLARGEMENT –  
CURRENT STATE, DETERMINANTS AND OUTLOOK**

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**Abstract**

Following Poland's accession to the EU there has been a major change in outward migration patterns from Poland. In the last three years Poland has witnessed an increased outflow of workers, especially to Great Britain and Ireland, two countries that opened up their labour markets as early as in May 2004. By analyzing different sources of data we try to obtain a fairly consistent view of the scale of migration from Poland to these two countries and of the profile of Polish migrants with respect to such characteristics as age, education, jobs held in the country of immigration, earnings, intended length of stay and reasons for migration. In light of the theories of migration, empirical evidence as well as results of recent surveys of Poles working in Britain and Ireland, the wage-differential between Poland and the two destination countries of migration appears to be a valid explanation for the recent post-accession wave of migration. Given this result we run a simulation of development of wages in Poland, the UK and Ireland to find out if the 'wage-differential' motive for migration is likely to be influential in the coming years. We find that this motive is unlikely to lose significance, even despite the rapid growth of Polish wages in the last few months.

**Keywords:** international migration, determinants of migration, Poland, enlargement, European Union

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## **1. Introduction**

Following Poland's accession to the EU there has been a major change in outward migration patterns from Poland. In the last three years Poland has witnessed an increased outflow of workers, especially to Great Britain and Ireland, two countries that opened up their labour markets as early as in May 2004. The shortage of workers has become a strain on Poland's economy and has raised questions about the consequences for Poland's economic growth in the long run<sup>2</sup>. The severity of these consequences will most likely depend on two major factors: the labour market characteristics of migrants and the length of the migration period. The latter will in turn be related to the determinants of migration. It is thus profoundly important to gain as much insight into these issues as possible, even despite the lack of 'hard' data.

The structure of the paper is as follows. In Section 2, by analyzing different data sources, we try to obtain a fairly consistent view of the magnitude of outward migration from Poland to the UK and Ireland following EU enlargement. We then combine and analyze the results of several surveys of Polish migrants in the UK and in Ireland that were carried out in the post-accession period, in order to obtain information on such characteristics of migrants as: age, education, jobs held in the country of immigration, earnings and intended length of stay. It needs to be stressed at this point that these surveys were not representative and conclusions drawn from these data should be treated with some caution. However, reliable data have so far been unavailable. In Section 3 we try to identify the determinants of the post-accession wave of Polish migration. We analyze the Polish migrants' declared reasons for migration and contrast them with those postulated by various theories of migration as well as with empirical findings on the determinants of migration. Section 4 contains a simulation of the development of wages in Poland, Great Britain and Ireland, the aim of which is to find out if the 'wage-differential' motive of migration is likely to be influential in the coming years. Section 5 concludes.

## **2. Current State**

Poland's joining the EU in May 2004 triggered a major change in outward migration patterns from Poland. The most striking features of this change are: a decline

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<sup>2</sup> For an overview of potential costs and benefits of migration for Poland and other Central European countries see Okólski (2006).

in Germany's importance as the preferred foreign job destination and Great Britain and Ireland's rise in popularity in this respect (cf. table 1).

**Table 1. Poles' preferred foreign job destinations**

Which EU country would you like to work in?' (%)*					Polish migrants' country of work in January-February 2007 (%)**	
	May 2001 (N=379)	Feb 2004 (N=326)	Mar 2005 (N=200)	Oct 2006 (N=164)		Jan-Feb 2007 (N=165)
Great Britain	9	17	27	39	Great Britain	26
Germany	48	36	32	20	Germany	16
Ireland	0	3	6	15	Ireland	10
Holland	4	5	6	4	Italy	6
Spain	2	4	4	4	Belgium	5
France	9	8	5	3	Holland	4
Italy	5	5	5	3	USA	4
Other/don't know	23	22	15	12	Other/don't know	29

\* Answers given by those respondents declaring that they would definitely or probably try to take up employment in one of the EU countries. The surveys were carried out on representative samples of Polish adults.

\*\* The survey was conducted in January and February 2007 on a representative sample of Polish adults (N=930). The percentages refer to 165 persons who were known to be working abroad at the time of the survey.

Source: CBOS (2006b; 2007). The Public Opinion Research Center (CBOS) is a publicly funded independent research centre. It is one of the largest and most renowned public opinion research institutes in Poland.

Accurate and reliable data on the magnitude of outward migration from Poland after May 2004 are lacking. The most commonly cited data on Polish migration to the UK and Ireland are data from the British Worker Registration Scheme<sup>3</sup> and the number of PPS<sup>4</sup> numbers issued to Poles in Ireland. According to these sources, in the period May 2004 - March 2007 approximately 394 thousand Poles (Home Office, 2007) migrated to Britain and 203 thousand<sup>5</sup> to Ireland. These figures should be treated with some caution

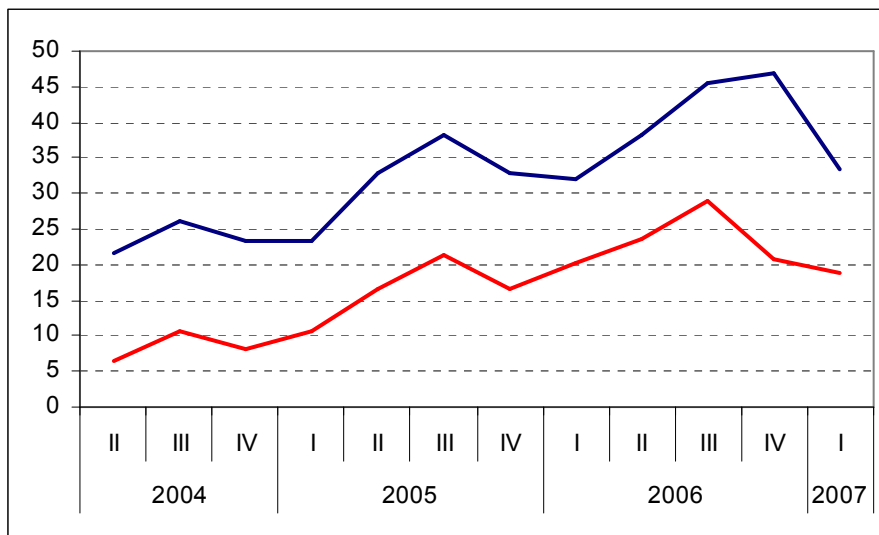
<sup>3</sup> From May 1 2004 most nationals of the new member states (except Cyprus and Malta) who wish to work for more than one month for an employer in the UK need to register under the Worker Registration Scheme.

<sup>4</sup> PPS numbers are social insurance numbers issued by the Irish Department of Social and Family Affairs and are used and needed for employment purposes as well as for access to a variety of public and health services.

<sup>5</sup> Data from the Irish Department of Social and Family Affairs (<http://www.welfare.ie/topics/ppsn/ppsstat.html>).

as it is not certain how many of those who migrated have already come back to Poland. Although there are some doubts as to the reliability of these data when estimating the stock of Polish migrants in the two countries mentioned, the data still capture the dynamics of Polish migration to Britain and Ireland quite well. A closer look at figure 1 reveals that between the second quarter of 2004 and the first quarter of 2007 the inflow of Polish workers grew almost continually, reaching a peak in the second half of 2006.

**Figure 1. Quarterly number of Polish registrations in the British Worker Registration Scheme (blue curve) and quarterly number of PPS numbers issued to Poles in Ireland (red curve) in the period 2nd quarter 2004 - 1st quarter 2007 (in thousands)**



Source: Home Office (2007), Irish Department of Social and Family Affairs

The WRS data may as well underestimate the inflow of migrants as they do not include the self-employed, the number of whom could be as high as 1/3 of those registered in the WRS, according to high Home Office officials (BBC, 27 September 2006). Besides, many Polish migrants might have chosen not to register in the WRS. Indeed, according to the results of a survey of 505 Polish migrants in Britain (University of Surrey, 2006) only 64% of respondents admitted that they had registered in the system. Data from the British Office for National Statistics (Office for National Statistics, 02.11.2006 ) suggest that the number of Polish migrants who migrated to the UK for at least a year reached 66 thousand in 2004-2005. If we compare this figure with the number of Polish WRS registrations made in the period May 2004 – December 2005, we might conclude

that roughly 33% of those registered in the WRS are long-term<sup>6</sup> migrants. The same conclusion could be drawn from the data of the Irish Central Statistics Office. According to data from the Irish population census (Central Statistics Office 2007, p.24) carried out in 2006 the number of persons born in Poland ‘present and usually resident’ in Ireland reached 63.1 thousand on census night in 2006, compared with 2.2 thousand on census night in 2002. If one relates 63.1 thousand to 203 thousand PPS numbers allocated, one may draw the conclusion that about 31% of those Poles who were issued with a PPS number are long-term migrants. The survey responses of Polish migrants about their actual and intended length of stay in Britain and Ireland point to the fact that the percentage of long-term migrants in the total number of Polish migrants in Britain or Ireland might be slightly higher than 1/3 and might oscillate between 30% and 50% (cf. University of Surrey 2006, Anderson et al. 2006, Kinoulty Research 2007). It has to be borne in mind that declarations about the intended length of stay may change and many migrants seem to have adopted a ‘wait-and-see’ approach. We think however that there are reasons to believe that the probability of a long-term stay might rise with time spent in the host country. We found some support for the validity of this hypothesis while comparing the migrants’ declarations of intended length of stay in Britain in the WRS data<sup>7</sup> with declarations made in other surveys. The percentage of migrants, registered in the WRS between April 2006 and March 2007, intending to stay in Britain longer than a year amounted to 14% (Home Office 2007, p.17), whereas migrants’ responses in other surveys indicated that those willing to stay in Britain for 3-5 years constituted 28% (Davis<sup>8</sup> 2006) to 44% (University of Surrey 2006) of the respondents. Consequently, the percentage of undecided persons in the latter studies is lower than that in the WRS data. One of the reasons for these discrepancies between the WRS figures and figures obtained in surveys of Polish migrants in Britain might be the fact that declarations of intended length of stay were expressed in WRS registrations only shortly after the migrants’ arrival in Britain<sup>9</sup>. The migrants’ responses in other studies were obtained some time after their arrival in Britain so that their intentions to stay were founded on some experience gained in the host country and thus their responses could be regarded as more reliable. Schneider et al. (2005, p.83) found out in their survey of 168

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<sup>6</sup> Meaning those staying abroad for at least a year.

<sup>7</sup> These data refer to all migrants from all 10 countries that joined the EU in May 2004.

<sup>8</sup> The survey presented in this source was conducted in September 2006 on a group of 135 Poles encountered in a London street.

<sup>9</sup> We assume that migrants registered in the WRS immediately after taking up a job in Britain.

migrants<sup>10</sup> in the Breckland area in England that those who spent less time in the area were more likely to anticipate a shorter stay. Kropiwiec and King-O’Riain (2006) conducted interviews with 23 Poles working in Ireland and came to the conclusion that the probability of these migrants’ return home diminishes with time spent in the country of immigration.

As regards the demographic characteristics of Polish migrants most sources of data are quite consistent in this respect. About 80% of migrants are 18-35 years old (cf. Home Office<sup>11</sup> 2007, p.10, University of Surrey 2006, p.4, Drinkwater et al. 2006, p.24, Kinoulty Research 2007). They are also relatively well educated, about 2/3 have secondary and 1/4 higher education (cf. University of Surrey 2006, p.5, Zaronaitė, Tirzite<sup>12</sup> 2006, pp.65-66, Anderson et al. 2006, p.36, Kinoulty Research 2007, Radiukiewicz et al. 2006, p.7). Saleheen and Shadforth (2006, p.379) analyzed the British LFS data and concluded that the ‘new’ migrants, many of whom were Polish citizens, were even better educated than the UK-born and migrants who came to Britain in earlier waves of migration.

To conclude this section, present-day knowledge about the magnitude of outward migration from Poland after May 2004 is still incomplete. Available data allow us to assume that the scale of migration is significant and could amount to 3.5%<sup>13</sup> of the Polish labour force. Short-term migration seems to prevail at the moment, but the number of long-term migrants is non-negligible and might increase even further as time goes by.

### **3. Determinants**

There is no single theory generally accepted and capable of explaining the drivers of migration, rather there is a fragmented set of theories developed to a large extent in isolation from one another (World Bank 2006a, p.33). Table 2 presents a brief summary of the determinants of migration according to various theories.

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<sup>10</sup> The survey was carried out in February-April 2005 and 31% of the respondents were Eastern Europeans.

<sup>11</sup> Home Office data (WRS registrations) refer to migrants from A10 countries (10 countries that joined the EU in May 2004), 65% of whom were Polish citizens.

<sup>12</sup> This study concerns immigrants in Lincolnshire (England), 30% of whom were Polish citizens.

<sup>13</sup> Own calculations: total of WRS registrations and PPS numbers issued to Poles in May 2004-March 2007 as a percentage of Polish labour force (Eurostat LFS data) in the second quarter of 2004.

**Table 2. Determinants of international migration according to theories of migration.**

Theory/approach	Main driver(s) of international migration
Neoclassical	Differences in wages between countries
World systems theory	Capitalist market formation in the developing world. The penetration of capitalist economic relations into non-capitalist or pre-capitalist societies creates a mobile population prone to migrate.
Dual labour market theory	Permanent demand for immigrant labour inherent the economic structure of developed economies as they are characterized by dual labour markets: a primary sector (secure employment conditions, comparatively high wages and social security standards) and a secondary sector (low wages, little security and difficult work conditions). Nationals rarely accept the positions offered by the secondary sector, which can be attractive to immigrants.
Human capital approach	International income or wage differentials, but also due to differences in employment rates (employment chances). Individual human capital characteristics that increase the probability of employment in the destination country (education, experience, language skills) will increase the likelihood of international movement, <i>ceteris paribus</i> .
New Economics of Labor Migration	Incentives for migration are to a large extent the consequence of market failures. Wage differentials are not a necessary condition for international migration to occur - households may wish to diversify sources of income and minimize risk through migration even in the absence of wage differentials.
Network theory	Social networks are a consequence of migration, but allow for reduction of costs and risks associated with migration, thus making international migration relatively easy and attractive.

Source: World Bank (2006a)

The most influential approach to labour migration is rooted in neoclassical economic theory, which perceives migration as a consequence of wage differentials and a means of equalizing inequalities in wages and living conditions. Wage or income differentials play an important role in other theories as well, although more attention is paid to such issues as the structure of the host country's labour market, the human capital characteristics of migrants as well as the existence of social networks in the country of immigration. It becomes evident that international migration is a complex issue and a result of interplay between various 'push' and 'pull' factors, examples of which are presented in table 3.



**Table 3. Motivations for migration**

	Push factors	Pull factors
Economic and demographic	Poverty, unemployment, low wages, high fertility rates, lack of basic health care and education	Prospects of higher wages, potential for improved standard of living, personal or professional development
Political	Conflict, insecurity, violence, poor governance, corruption, human rights abuses	Safety and security, political freedom
Social and cultural	Discrimination based on ethnicity, gender, religion	Ethnic (diaspora migration) homeland, freedom from discrimination

Source: World Bank (2006b)

Empirical research (for a survey of earlier empirical studies of determinants of migration see Bauer, Zimmermann 1999) has produced mixed results about the importance of spreads in per capita income between countries as a significant determinant of migration. However, more recent studies concentrating on determinants of migration flows into EU countries (e.g. Mitchell, Pain 2003, Peridy 2005, Zoubanov 2004) have confirmed that income differentials between the host and source location do matter. Moreover, there can be significant country-specific differences as regards the impact of income differentials as well as the impact of other determinants of migration (cf. Zoubanov 2004).

As regards the determinants of the post-enlargement outward migration from Poland and other new EU member states the income factor appears to be the most important driver, whereas the situation on the job market less so (cf. Blanchflower et al., p.4). This hypothesis seems to be confirmed by the results of surveys carried out among Polish migrants in Britain and Ireland. According to the results of the survey<sup>14</sup> conducted by the University of Surrey (2006) among 505 Polish migrants in Britain, 58% of them chose ‘financial/lack of jobs in Poland’ as a reason for migration, 41% chose ‘more options/easier to live’, which is also indirectly related to money-driven motivations, and only 31% chose ‘personal or professional development’. In a survey of 44 Polish migrants in Ireland (Radiukiewicz et al. 2006, p.19) 59% of them pointed to their ‘financial situation’ as a reason for migration, ‘emigration of relatives or friends’ was chosen by 32% of respondents, ‘better job offer in Ireland’ by 20%, ‘lack of job in

<sup>14</sup> The survey was conducted in October 2006 on a representative sample of Polish adults (N=999).

Poland' by only 14% of respondents. Finally, in a survey<sup>15</sup> of 4715 of Polish employees working in medium-sized and large enterprises in Poland (IIBR 2006) 49% of respondents would be willing to work abroad if offered a job similar to that held in Poland. 'Higher earnings than those in Poland' was the most often indicated factor (indicated by 99% of those willing to migrate) potentially influential in making the decision to work abroad. The 'opportunity to learn a foreign language' came second with 96%, then the 'opportunity to gain professional experience' (92%), 'the general situation in Poland' received 78% responses, 'few attractive job offers in Poland' was chosen by 74% of respondents, 'better job position abroad' by 74%, 'opportunity to get to know another culture' by 72% and 'change of environment' by 52%. Although the data presented above need to be treated with caution, they seem to support the hypothesis that the discrepancy between the level of earnings in Poland and that in the UK or Ireland seems to be the primary determinant of migration from Poland in the post-accession period. Those motivations connected with job quality and human capital development seem to play a comparably lesser role in making a decision to migrate than the wage factor. An important result of the surveys is that most Polish migrants in the two countries analyzed work in unskilled or low-skilled positions (for details see: Home Office 2007; University of Surrey 2006, Anderson et al. 2006) and earn only slightly more than the minimum wage (cf. Home Office 2007, p.17, Anderson et al. 2006, Drinkwater et al. 2006, p.24, Kinouly Research 2007). Nevertheless, according to the CBOS (2006b) survey the minimum wage or slightly more than the minimum wage is attractive enough to encourage job migration from Poland. As many as 42% of the respondents inclined to migrate would do so if offered a job paying 5220 PLN or less monthly (CBOS 2006b, p.10). This amount corresponds to 1330 EUR, assuming that 1 EUR = 3.9 PLN, which is comparable to the Irish monthly minimum wage. The fact that most Polish migrants work in unskilled jobs that do not match their qualifications points to the fact that the job's compatibility with a migrant's education is not a prerequisite for the decision to migrate. The studies conducted by CBOS (2006a, p.6) revealed that the job's being well-paid was the only job characteristic that visibly became more strongly positively correlated with job satisfaction in the period 1994-

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<sup>15</sup> The survey was carried out in October/November 2006 by means of the CAWI (Computer Assisted Web Interviewing) method.

2006<sup>16</sup>. On the other hand, the fact that the job matched the worker's qualifications became less strongly (but still positively) correlated with job satisfaction. These results would suggest that nowadays Poles in general, and not only those migrating, derive more satisfaction from work if it is well-paid, and pay less attention to the fact that the work does not require the utilization of their skills or qualifications. This would provide a viable explanation why many Polish migrants in Britain and Ireland work in unskilled or low-skilled positions.

To conclude this section, wage differentials between Poland and the UK or Ireland seem to be the most important determinant of the new wave of out migration from Poland in the post-accession period. Although many Polish migrants in those two countries work in unskilled jobs paying slightly more than the minimum wage, this level of earnings seems attractive enough to migrate. We argue that the starting point in making any predictions about Polish migration trends is to compare and analyze the development of wages in Poland and the two islands.

#### **4. Outlook**

The analysis carried out in the previous section helped identify wage differentials between Poland and the UK and Ireland as the most significant migration 'push/pull' factor. Given this result we ran a simulation of the development of comparable wages in Poland in order to find out if the 'wage-differential' motive of migration is likely to be influential in the coming years. Comparable monthly net wages in the last four quarters<sup>17</sup>, both minimum and average, were approximately three times lower in Poland than in Great Britain and Ireland (see table 4).

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<sup>16</sup> The study by CBOS (2006a) measured the coefficient of correlation between job satisfaction and such job characteristics as: 'the job gives one the feeling of doing something important', 'it is interesting', 'it is well-paid', 'stability of employment', 'allows one to fully utilize one's skills' and 'attractive perks'. The coefficients were calculated for the years 1994, 1997, 1998, 2006 when surveys were carried out on representative samples of Polish adults.

<sup>17</sup> q1 2006 - q4 2006 for Ireland and q2 2006 – q1 2007 for Poland and Great Britain

**Table 4. Comparable average and minimum wages in Poland, Ireland and Great Britain**

	Average, monthly net wage in the last four quarters (Purchasing Power Standard)					Minimum net wage in 2006 (PPS)
	Industry*	Construction	Hotels and restaurants**	Financial intermediation	Public sector***	
Poland	747	705	540	1329	728	265
Ireland	2039	2220	1970	2395	2548	1002
Great Britain	2157	2194	1629	2647	2253	962

\* for Great Britain the data are for manufacturing only

\*\* for Ireland the definition of the sector is different from that for Poland and Great Britain

\*\*\* administration, education and healthcare in Poland and Great Britain, public sector excluding healthcare in Ireland

Source: Own calculations based on Eurostat, Polish Central Statistics Office, Central Statistics Office Ireland, British National Statistics Online data.

After having made some assumptions about the average gross wage dynamics in Ireland and Great Britain, the level of taxes and Purchasing Power Standard we computed the average yearly growth rate of Polish average wages needed to reach the British and Irish minimum and average wage levels in comparable sectors of the economy in a 10-year and a 30-year scenario. We then calculated the number of years needed for Polish wages to reach the Irish/British wage levels in each scenario. The assumption underlying the comparison of net wages measured in Purchasing Power Standard (PPS) was that migrants spend the majority of their earnings abroad. Due to data limitations tax rates and PPS were assumed to be at 2005 level.

We conducted the computations according to two scenarios:

- **Scenario I:** assumed yearly growth rate of earnings equal to the average from the period: q1 2003 - q1 2007
- **Scenario II:** assumed yearly growth rate of earnings equal to the average from the last four quarters.

The actual growth rates observed in the Polish economy in the period covered by both scenarios are presented in table 5.

**Table 5. Average growth rates of average wages in Poland**

	Industry	Construction	Hotels and restaurants	Financial intermediation	Public sector
Scenario I	4,3	5,8	3,6	4,6	5,6
Scenario II	6,1	11,3	4,6	5,5	5,8

Source: Own calculations based on Polish Central Statistics Office

### *Scenario I*

The results of the simulation indicate that Polish average wages would have to grow approximately 7-10% yearly to reach the Irish net average wage level in 30 years' time and 11-20% (depending on the sector) to reach the Irish level in 10 years' time (see table 6). In order to converge to the Irish minimum wage in 30 years' time Polish average wages would have to grow at the pace of 6-7%, while convergence within 10 years would require wages to grow 8-12% per year respectively.

Growth rates needed for Polish wages to reach British average wage levels are lower than those computed for Ireland. Convergence to average British earnings within the next 30 or 10 years would require average wages in Poland to grow 6-8% and 11-16% per year respectively. Average wages in Poland would have to grow 4-6% yearly in order to reach the British minimum wage level in 30 years' time and 6-10% (depending on the sector) to reach that level in 10 years' time.

**Table 6. Simulation results for comparable wages in Scenario I**

<b>Ireland</b>					
	Industry	Construction	Hotels and restaurants	Financial intermediation	Public sector
Average yearly growth rate of earnings in Ireland	4.62	4.52	4.89	4.86	5.80
Average yearly growth rate of earnings in Poland needed to achieve convergence with Irish average wages:					
within the next 30 years	8.19	8.59	9.51	6.94	10.32
within the next 10 years	15.68	17.22	19.38	11.22	19.93
Average yearly growth rate of minimum wage in Ireland*			4.94		
Average yearly growth rate of earnings in Poland needed to achieve convergence with Irish minimum wages:					
within the next 30 years	5.97	6.17	7.12	n.a.	6.06

within the next 10 years	8.07	8.69	11.63	n.a.	8.35
<b>Great Britain</b>					
	Industry	Construction	Hotels and restaurants	Financial intermediation	Public sector
Average yearly growth rate of earnings in Great Britain	3.95	3.99	2.86	3.70	4.03
Average yearly growth rate of earnings in Poland needed to achieve convergence with British average wages:					
within the next 30 years	7.69	8.00	6.72	6.11	8.03
within the next 10 years	15.58	16.48	14.87	11.09	16.48
Average yearly growth rate of minimum wage in Great Britain*			3.65		
Average yearly growth rate of earnings in Poland needed to achieve convergence with British minimum wages:					
within the next 30 years	4.53	4.73	5.66	n.a.	4.62
within the next 10 years	6.30	6.91	9.81	n.a.	6.58

\* we assumed that the minimum wage constituted a constant proportion of the average wage in each country

“n.a”. – wages in Poland are already higher than those in Ireland or Great Britain

Source: Own calculation based on Eurostat, Polish Central Statistics Office, Central Statistics Office Ireland and National Statistics Online data

According to this scenario convergence of Polish average wages to the British or Irish net wage level is not likely in the next 10 or 30 years, and in order to converge to the level of Irish or British minimum wages Polish wages would have to grow at rates closer to those achieved only recently. We augmented the net wages simulation by a gross wage and tax wedge analysis. The fact that the tax wedge in Poland is high whereas taxes in Ireland and United Kingdom are relatively low implies that net wage convergence between Poland and the two countries analyzed is likely to be postponed. Average yearly growth rates required to make gross wages in Poland equal to British/Irish ones are approximately 1-3 percentage points lower than those computed for net wages. In some categories the comparable gross average wage level in Poland is already higher than minimum wages in the two countries of immigration<sup>18</sup>. The period needed to achieve convergence falls between 4-39 years depending on the sector and the wage category. It must be pointed out however that these numbers are indicative only as the uncertainty associated with forecasts for such a long period is extremely high. Under

<sup>18</sup> ‘Industry’, ‘Financial intermediation’ and ‘Public sector’ compared with the minimum wage in Ireland and ‘Financial Intermediation’ compared with Great Britain.

the assumptions made for scenario I average gross wages in construction in Poland would become equal to the Irish and British minimum wage in 2 and 7 years' time respectively.

### ***Scenario II***

The last four quarters in Poland were characterized by dynamic wage increases, especially in construction and in industry. Average growth rates in these sectors amounted to 6.2 and 11.3% respectively. In scenario II we assumed that last year's high growth dynamics marked the starting point of a new trend.

According to this 'optimistic' scenario wages in Poland would have to grow at current historically high rates for at least several years in order to reach Irish/British average wage levels. Fastest convergence can be expected in construction, but Polish earnings still would not be equal to the minimum wage in Ireland or Great Britain within the next 4-6 years. Similarly to the results obtained in scenario I, lowering taxes in Poland relatively to those in Ireland/Great Britain might speed up the convergence of Polish wages to British/Irish ones (see table 7).

**Table 7. Simulation results for net and gross wages in Scenario II**

<b><i>Net wages</i></b>					
	Industry	Construction	Hotels and restaurants	Financial intermediation	Public sector
Number of years needed to reach the Irish average wage level	35	13	-	-	-
Number of years needed to reach the British average wage level	43	14	57	27	33
Number of years needed to reach the Irish minimum wage level	19	6	-	n.a.	25
Number of years needed to reach the British minimum wage level	8	4	34	n.a.	10
<b><i>Gross wages</i></b>					
	Industry	Construction	Hotels and restaurants	Financial intermediation	Public sector
Number of years needed to reach the Irish average wage level	29	11	-	-	-
Number of years needed to reach the British average wage level	40	13	53	24	31
Number of years needed to reach the Irish minimum wage level	n.a.	1	-	n.a.	n.a.
Number of years needed to reach the British minimum wage level	3	2	25	n.a.	4

“-”convergence is not possible because the growth rates in Poland are lower than those in Ireland or Great Britain or the time needed to achieve it is longer than 60 years.

“n.a”. – wages in Poland are already higher than those in Ireland or Great Britain

Source: Own calculation based on Eurostat, Polish Central Statistics Office, Central Statistics Office Ireland, National Statistics Online data

Average Polish growth rates needed to reach British/Irish net wage levels obtained in scenario II are in most sectors approximately 0.5-2 percentage points lower than those obtained in scenario I. Only in comparison with average earnings in Ireland in ‘financial intermediation’ and ‘hotels and restaurants’ would Polish growth rates have to be higher to higher than those computed in the previous scenario. Convergence with minimum wages in Great Britain in both 10 and 30 years’ time requires ‘realistic’ growth rates of 5-6% in most sectors. Convergence to minimum wages in Ireland is less likely but still possible.

In both scenarios we explicitly assumed that Polish migrants spend most of their earnings abroad. This assumption may not necessarily hold. If Poles in Ireland or in Great Britain send the bulk of their earnings to their families in the home country or save for future spending in Poland, it seems more appropriate to compare the level of average wages in euros and not in PPS. This does not change the implications of the previous simulations. Growth rates needed to achieve convergence would still have to be several percentage points higher than those obtained in scenarios I and II. Convergence to British or Irish average wages in 10 years’ time would require Polish average wages to grow c.a. 20% each year, which is even less likely than required growth rates obtained in the analyses presented so far. It needs to be stressed however that this result was obtained assuming average exchange rates for the previous four quarters without taking into account any possible future exchange rate movements.

In the remaining part of the analysis we assumed that GDP per capita is a valid proxy for the wage level (cf. World Bank 2006b). We took the average GDP growth-rates in Poland and other ‘new’ EU members in the last 3 and 10 years and applied them to their GDP per capita in 2005 (PPS, UE-15=100) to find out how much convergence is likely to have been achieved by 2020 (see table 8). Obviously the results of such simulations depend on assumptions made, however for Poland there is no difference between the three scenarios. The income-level gap between Poland and EU-15 will probably still be high in 2020. It is thus likely that in the next few years the difference in



the level of GDP per capita between Poland and the UK/Ireland may still be one of the key factors motivating Poles to migrate..

**Table 8. Comparable GDP per capita in EU-8 I as a percentage of GDP level in EU-15**

	in 2005	in 2020		
		Scenario 4-2*	Scenario for the 10 - year average**	Scenario for the 3 - year average***
Czech Republic	68	91	73	109
Estonia	55	74	123	167
Latvia	45	60	96	144
Lithuania	48	64	88	103
Hungary	58	77	79	79
Poland	46	62	60	68
Slovenia	76	101	98	107
Slovak Republic	53	71	69	99

\*\* We assume that average yearly GDP per capita growth rate in 8 new member states is equal 4 per cent and 2 per cent in EU-15 countries.

\*\* We assume that average yearly GDP per capita growth rate in each country for the last 10 years.

\*\*\* We assume that average yearly GDP per capita growth rate in each country for the last 3 years.

We assume population growth rate to be equal zero."

Source: Own calculations based on Eurostat data, Heinz, Ward-Warmedinger (2006,p.17).

The results of simulations presented in this Section indicate that wage differences will probably remain an important ‘push/pull’ factor in the nearest future. This conclusion is reinforced by the non-decreasing number of vacancies in British and Irish economies, which goes to show that in the short term the ability of these economies to absorb new migrant workers will probably remain high. Despite the sizable inflows of new migrants after EU enlargement there were 604.5 thousand vacancies in the United Kingdom in the fourth quarter of 2006, almost unchanged from mid-2004. Similarly in Ireland, 144 thousand vacancies were recorded in 2006, which represents an increase of 18% since 2005 and is the highest number of vacancies on record (since 1988).

## **5. Conclusion**

We conclude that in light of the theories of migration, empirical evidence as well as results of recent surveys of Poles working in Britain and Ireland the wage-differential between Poland and the two destination countries of migration appears to be a valid explanation for the recent post-accession wave of migration. We have found that this motive is unlikely to lose significance in the coming years, even though Polish wages have been growing rapidly in the last few months. The implication of this is that either the outflow of workers will continue in the nearest future or that many Polish migrants are unlikely to come back home very soon.

Relatively cheap labour force has been one of the factors attracting Foreign Direct Investment inflows to Poland in recent years. However, the outflow of workers has brought about severe shortages of labour in many sectors of the economy and has strengthened wage pressures. Thus it appears to threaten the existence of a competitive advantage the Polish economy has enjoyed so far. Our analysis shows that the high tax wedge in Poland combined with relatively low taxes in Ireland and the United Kingdom is likely to postpone the net wage convergence. Lowering the tax wedge might both speed up the convergence of earnings and lower the cost of labour in Poland. In our opinion it is an important policy implication as far as managing migration is concerned.

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