

**Labour mobility within the EU in the context of enlargement and the functioning
of the transitional arrangements**

VC/2007/0293

Deliverable 8

CMR, University of Warsaw

Country report: Poland

Agnieszka Fihel†, Paweł Kaczmarczyk†, Joanna Mackiewicz-Łyziak††, Marek Okólski†

Abstract

The 2004 EU enlargement constituted one of the most important emigration stimulus in the whole contemporary history of Poland. In fact, no other historical event has been associated with such a rapid outflow and a fundamental change in mobility directions and socio-demographic structure of migrants. According to recent estimates the number of Polish nationals staying abroad for longer than 2 months increased within 3 years – from 2004 to 2007 – from approximately 1 to 2.3 million. These developments are to be associated not only with the demographic potential of Poland but also with a situation, where there is a great number of people who are redundant in economic terms, and who could easily be turned into a highly mobile population. The post-accession migration developments in Poland are strongly correlated with the institutional framework. The increase in inflow from Poland was observed in all European countries, but the three countries that in 2004 did not introduce labour market restrictions towards Polish citizens became major migration magnets, while the role of those countries that introduced Transitory Arrangements (including Germany) significantly diminished. United Kingdom became the most important receiving country for Polish migrants attracting more than half a million persons (a 25-fold increase since 2002). In fact, recent migration from Poland to the UK is one of the most rapid and intense flows in contemporary Europe. The introduction of the Transitory Arrangements is also to be linked with significant changes with regard to structural features of migration. Polish citizens choosing countries that did not introduce labour market restrictions are, generally, younger and better educated, and are originating from both small and large cities. Demographic impact of recent migration is particularly severe in the south-eastern part of Poland. With regard to the labour market, migration is typically perceived as a main contributor to recent changes leading from jobs' shortages to shortage of workers. However, due to the fact that massive post-accession outflow is accompanied by good economic performance and gradual improvement of the situation on the labour market there are serious difficulties with assessment of the impact of migration on the labour market. As we argue, the impact of the post-accession outflow on the Polish labour market is greatly exaggerated. The recent labour market situation is rather an outcome of an interplay between complex set of factors. Within them, migration plays an important, but definitely not decisive, role.

† Centre of Migration Research, University of Warsaw

††Faculty of Economic Sciences, University of Warsaw

Contents

1	Introduction	1
2	Macroeconomic and Labour Market Development	2
2.1	Macroeconomic Development.....	2
2.2	Labour Market Development	6
3	Institutional setting for labour migration.....	9
3.1	Regulations on migration.....	9
3.2	Main documents and programs shaping Polish migration policy	10
4	Patterns of labour mobility from Poland	11
4.1	Relevant data sources and their limitations.....	11
4.2	Scale and directions of the outflow from Poland before and after EU enlargement.....	13
4.3	Characteristics of Polish migrants	19
5	Effects of migration on the Polish economy.....	23
5.1	Demographic effects	23
5.1.1	Short-term effects.....	23
5.1.2	Long-term effects.....	25
5.2	Labour market effects – from oversupply to the shortage of labour?	28
5.3	Remittances	35
6	Conclusions.....	38
7	References.....	40

1 Introduction

Poland is by far demographically the largest NMS of the European Union. Its meaning for European migration results not only from that. Another, probably the main factor here is a great number of people who are redundant under present economic conditions and present stage of the transition, and who are or could easily be turned into a highly mobile population.

Since 1948 through early 21st century migration in Poland had been repressed. Initially, in accord with the doctrine of 'cold war', the communist regime discouraged and strictly controlled all international movements of the population. In effect, in the early 1950s the border crossing was virtually accidental. The thaw of the post-Stalinist period and a detente in international relations, especially after the mid-1970s, brought about a limited freedom of international travelling and some forms of migration, mainly related to family reunion. Still only a tiny minority of the population were able to become a migrant.

In the 1970s and 1980s a growing number of Poles involved in a circular international travelling under the guise of tourism, mainly to neighbouring countries. Major motive of those journeys was money making, either through petty trade, or merchandise smuggling, or occasional work. Rationale behind those movements, which usually took a couple of weeks to a couple of months and were rewarded with proverbial pennies, was a dysfunctional Polish market characterised among other things by persistent shortages of consumer goods, very low cost of living (and wage rates) and greatly overvalued foreign currencies (relative to the official exchange rate). Even a small amount of money earned by means of a foreign trip or a small quantity of goods privately imported by a traveller significantly contributed to his/her household affluence.

Circular mobility of Polish false tourists took on a massive scale after 1988 when the freedom of out-movements became unlimited. Other forms of mobility, especially regular migration for work, however, remained scarce. Although many principal receiving countries lifted the visa requirement to the citizens of Poland, they continued to protect their labour market against the inflow of Polish workers. This is why a huge migratory potential, which has been activated in the 1990s was mainly channelled to clandestine employment in western and southern countries of Europe and in USA.

Paralelly, since the beginning of the economic transition the internal mobility within Poland remained at a relatively low scale. As indicated by the Central Population Register and the 2002 Population Census, propensity of the Polish workforce to move between Polish regions and/or between urban and rural areas has not been elevated. This stemmed from the fact that in Poland, in contrary to the countries in

Western Europe, there was no metropolis or industrial region able to absorb large numbers of non-resident population. Moreover, work in such large Polish cities, as Warsaw, Cracow or Wroclaw has never been more profitable than in Berlin, Brussels, London or Rome, while the living costs have been much the same. The development of the services sector in the Polish cities, as well as investments in infrastructure partially financed by European Funds, may increase the level of internal mobility in the future.

The importance of the accession of Poland to the European Union for the population movements stems from the very fact that after long history of struggling for the freedom to move, it created the very first opportunity for Polish people not only to decide if they want to stay or go but above all to choose the form of mobility, residence status in a foreign country, length of stay or employment there, and to a large degree the country of destination.

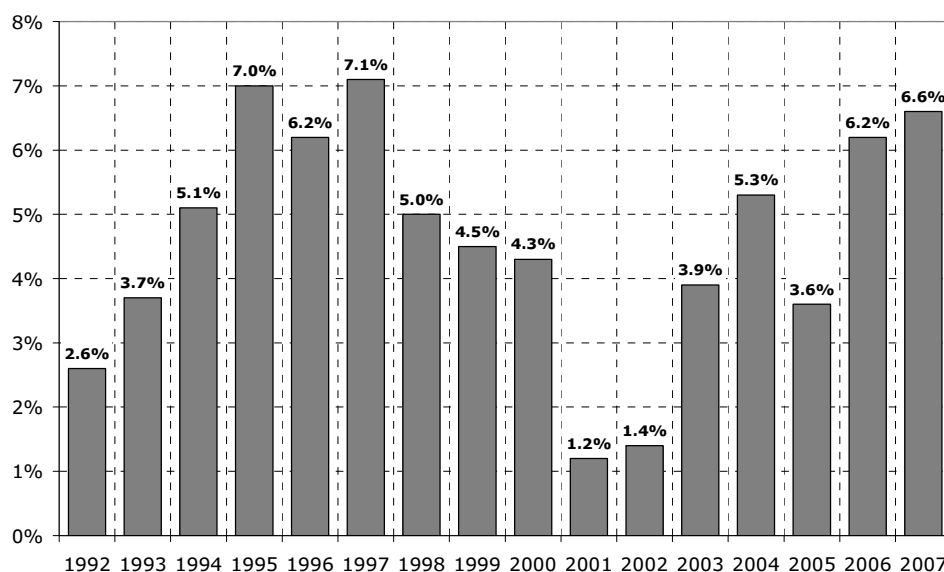
2 Macroeconomic and Labour Market Development

2.1 Macroeconomic Development

At the turn of decades Poland experienced a significant fall in GDP growth rates, which was caused by so-called Russian crisis and Persian Gulf events combined with restrictive monetary policy. In 2003 the situation considerably improved and this tendency reinforced in the following years, after the Poland's accession to the European Union in May 2004 (Figure 1).

Like a major part of economies in the Centre and East European region Poland is in the period of a strong GDP growth. In 2006 real GDP growth reached 6.2% y/y and in 2007 – 6.6% y/y, compared to 6,4% and 6,5%, respectively, in the Czech Republic, 8.5% and 10,4% in Slovakia, 3.9% and 1.3% in Hungary (source: Eurostat).

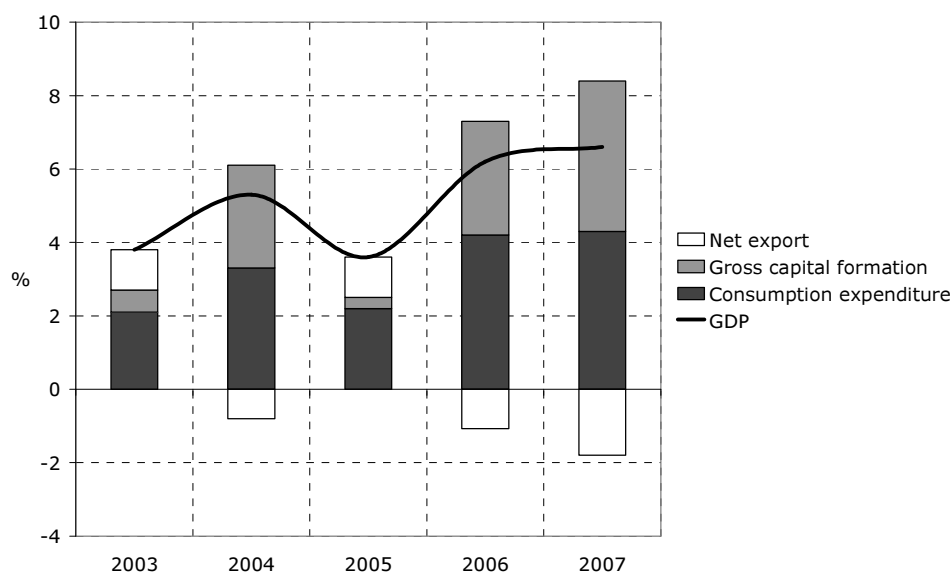
Figure 1: Annual real GDP growth



Source: Central Statistical Office.

Domestic demand has been the main driving force of the GDP growth in Poland since 2003 (Figure 2, Table 1). The structure of GDP growth is favorable. Polish economy faces strong investment dynamics: gross capital formation grew by 16.1% in 2006 and by 19.9% in 2007. It is combined with relatively high consumption dynamics: consumption expenditures increased by 5.2% y/y in 2006 and 2007 (Table 2). Exports continue to rise significantly (14.6% y/y in 2006 and 8.4% y/y in 2007), yet due to recovery in the domestic demand and import acceleration (annual growth rate of 17.3% in 2006 and 12.2% in 2007), the contribution of the net export to GDP growth has been negative since the 3rd quarter of 2006. The most recent figures of the 1st quarter 2008 show the annual GDP growth rate of 6.1%.

Figure 2: Structure of GDP growth, contribution of selected components, annual data



Source: Central Statistical Office.

Table 1: Structure of GDP growth, contribution of selected components, quarterly data

	2005				2006				2007				2008
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
GDP	2.4	3.2	4.3	4.4	5.4	6.3	6.6	6.6	7.3	6.5	6.5	6.4	6.1
Domestic uses	1.4	0	2.7	5.6	5.8	6.4	7.6	9.3	9.5	9.4	8.6	6.6	6.5
Consumption expenditure	1.6	2	2.6	2.7	5.1	4.1	4.4	3.5	5.8	4.4	4.2	2.8	3.6
Individual consumption expenditure	0.9	1.1	1.8	1.5	3.4	3	3.5	2.7	4.5	3.1	3.1	2	3.7
Gross capital formation	-0.2	-2	0.1	2.9	0.7	2.3	3.2	5.8	3.7	5	4.4	3.8	2.9
Gross fixed capital formation	0.1	0.7	1.1	2.6	1	2.4	3	4.2	3	3.3	3.2	4.3	2.2
Net export	1	3.2	1.6	-1.2	-0.4	-0.1	-1	-2.7	-2.2	-2.9	-2.1	-0.2	-0.4
Gross value added	2	2.9	3.3	3.4	4.4	5.3	5.3	5.9	6.9	5.7	5.5	5.4	4.9

Source: Central Statistical Office.

Table 2: Growth of the real GDP and its components (in per cent, y/y)

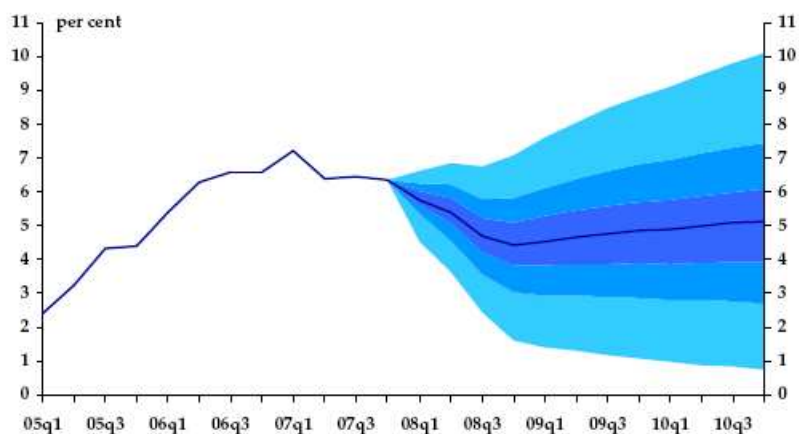
	2000	2001	2002	2003	2004	2005	2006	2007
GDP	4.3%	1.2%	1.4%	3.9%	5.3%	3.6%	6.2%	6.6%
DOMESTIC USES	3.1%	-1.3%	1.0%	2.8%	6.2%	2.5%	7.3%	8.3%
Consumption expenditure	2.9%	2.3%	3.0%	2.7%	4.3%	2.7%	5.2%	5.2%
Individual consumption expenditure	3.0%	2.3%	3.4%	2.1%	4.7%	2.1%	5.0%	5.0%
Public consumption expenditure	2.1%	2.7%	1.4%	4.9%	3.1%	5.2%	6.1%	5.8%
Gross capital formation	3.9%	-13.4%	-7.2%	3.3%	14.7%	1.4%	16.1%	19.9%
Gross fixed capital formation	2.7%	-9.7%	-6.3%	-0.1%	6.4%	6.5%	14.9%	17.6%
EXPORTS	23.2%	3.1%	4.8%	14.2%	14.0%	8.0%	14.6%	8.4%
IMPORTS	15.5%	-5.3%	2.8%	9.6%	15.8%	4.7%	17.3%	12.2%

Source: Central Statistical Office.

As far as growth prospects are concerned, according to the most recent macroeconomic projection prepared by the National Bank of Poland (2008a), there

will be a slowdown in the economic growth in the second half of 2008 to below 5.0% y/y, followed by a gradual increase of the growth rate to approx. 5.0% in 2010 (Figure 3). GDP dynamics is expected to stay close to or slightly below the growth rate of the potential output, which will on average amount to 5.5% y/y in 2008-2010. The high growth rate of the potential output will be supported by a significant accumulation of the capital stock and a reduction in the equilibrium unemployment rate (NAIRU), partly explained by increasing productive capacity.

Figure 3: GDP growth projection, 2008-2010



Source: National Bank of Poland.

Table 3 presents main macroeconomic indicators in 2001-2007. The following observations should be made:

- Current account balance and general government balance are under control.
- Since the EU accession in May 2004 Polish economy foreign direct investment has increased substantially.
- Fast growth of the economy (demand pressure) combined with increased dynamics of prices of foodstuffs, fuels and energy have made CPI inflation rise sharply from 1.0% y/y in 2006 to 2.5% y/y in 2007 (annual averages). Since the 3rd quarter 2007 CPI inflation has been above the NBP inflation target of 2.5%, being equal 3.5% in the 4th quarter 2007 and 4.1% in the 1st quarter 2008.
- An acceleration of the GDP growth since 2003 has been accompanied by a significant fall in the unemployment rate, from 19.9% in 2002 to 9.6% in 2007, according to LFS data (at the same time registered unemployment rate decreased from 20% in 2002 to 11.4% in 2007) However, the economic activity rate has been relatively stable in the period under consideration.

Table 3: Main macroeconomic indicators, 2001-2007

	2001	2002	2003	2004	2005	2006	2007
Real GDP growth	1.2	1.4	3.9	5.3	3.6	6.2	6.6
Current account balance in % of GDP	-2.8	-2.5	-2.1	-4.2	-1.6	-3.2	-3.7
General government balance in % of GDP	-5.2	-6.1	-5.6	-5.9	-3.9	-4.0	-2.0
General government debt in % of GDP	37.6	42.2	47.1	45.7	47.1	47.6	45.2
Foreign direct investment in EUR millions	6 374	4 371	4 067	10 453	8 317	15 061	12 843
Consumer price index in %	5.5	1.9	0.8	3.5	2.1	1.0	2.5
Producer price index in %	1.6	1.0	2.6	7.0	0.7	2.3	2.3
Money market rate in %, end of period	11.7	6.7	5.5	6.5	4.6	4.2	5.7
Employment rate (15-64)	53.4	51.5	51.2	51.7	52.8	54.5	57.0
Economic activity rate (15-64)	65.5	64.6	63.9	64.0	64.4	63.4	63.2
Unemployment rate (Eurostat)	18.2	19.9	19.6	19.0	17.7	13.8	9.6
Unemployment rate (registered, end of year)	17.5	20.0	20.0	19.0	17.6	14.8	11.4
Average monthly gross nominal wages and salaries, annual dynamics in %	8.0	2.6	4.2	4.0	3.8	4.9	8.7

Source: Central Statistical Office, National Bank of Poland, Eurostat, International Monetary Fund.

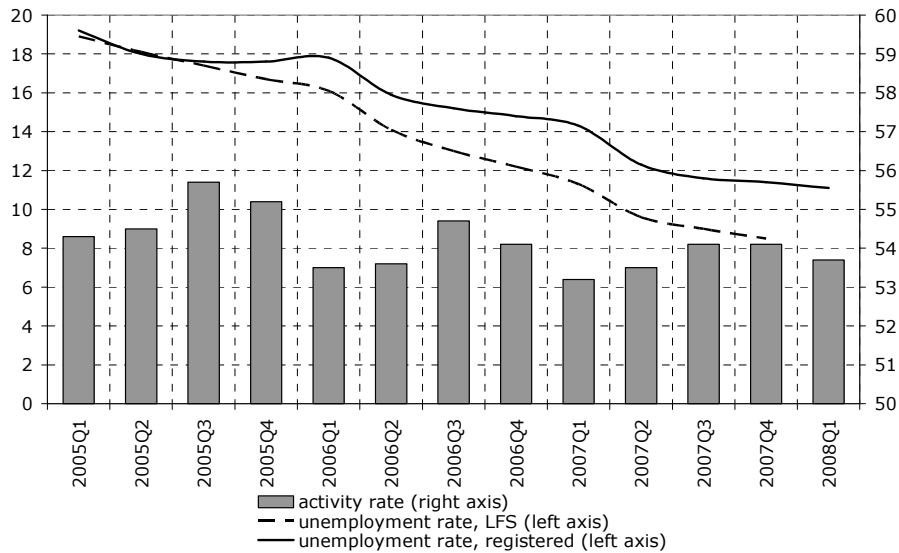
2.2 Labour Market Development

Fast economic growth, which contributed significantly to decrease in unemployment rate, did not cause improvement in economic activity of the Polish society. Activity rate has remained almost unchanged during recent years (Figure 4), amounting in the 1st quarter 2008 to 53.7%, which is far below the EU average. The main factor behind the low activity rate in Poland is the deactivation of large number of people acquiring rights for early retirement benefits. In 2007 the activity rate of population aged 55-64 reached 31.8% and was the second lowest in the EU (according to Eurostat data only Malta noted lower activity rate of this age group). Another explanation of this phenomenon is the low activity rate of females. As a consequence, a relatively high number of economically inactive persons constitutes a serious problem of the Polish labour market. This number was growing during last few years (from 14 millions in the 4th quarter 2005 to 14.5 millions in the 1st quarter 2008). Low rate of economic activity combined with significant outflow of workforce (see Table 4 in the 4th section) have created difficulties for the employers to find highly qualified as well as not qualified workers. On the other hand, some positive trends in the Polish labour market in the recent period can be noted. Except decreasing unemployment rate (as indicated by registered unemployment rate as well as LFS data), a number of employed persons has been gradually growing and the structure of employment has become more beneficial (decrease of employment in agriculture and increase in services).

Since the 3rd quarter 2006 a percentage of Polish enterprises declaring problems with hiring employees has been above 10%, reaching 14.2% in the 3rd quarter 2007. Shortage of employees remains one of the most important barriers in enterprises' activity (Figure 5). Lack of employees is evident mostly in the

construction – more than 25% of firms has been facing a problem of this kind since 2006, approaching 35% in the 1st quarter 2007. In other sectors of the economy a mismatch between labour demand and supply seems narrower but still severe – more than 10% of enterprises in the industrial manufacturing sector and less than 10% in the transport and trade sectors are affected.

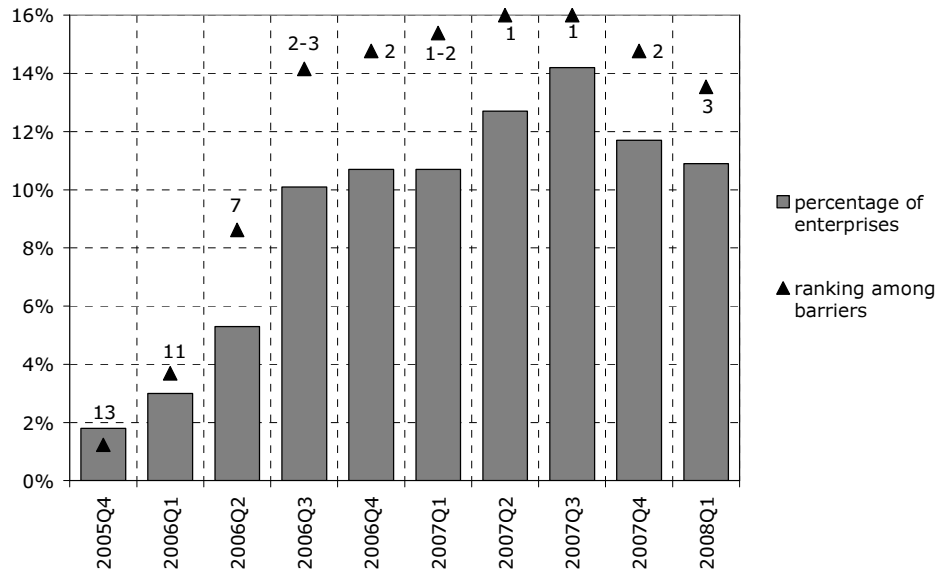
Figure 4: Unemployment rate and activity rate in Poland, 2005-2008



Source: Central Statistical Office.

Also the number of vacancies reported by employers increased in 2005-2007 from approximately 193 thousands to 253 thousands (Figure 6).

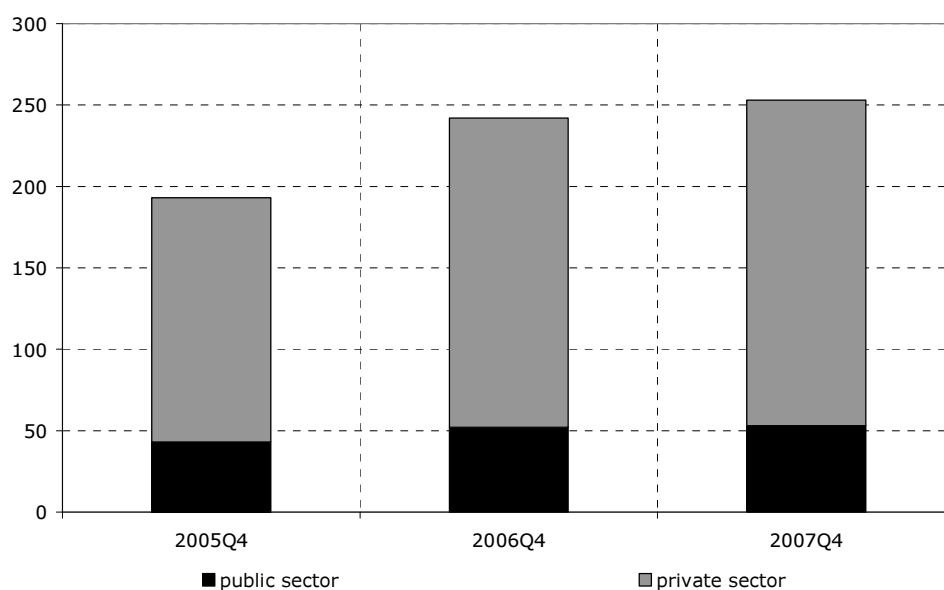
Figure 5: Shortage of employees: percentage of firms declaring problems with hiring employees and ranking of this problem among development barriers



Source: National Bank of Poland (2008b).

As a result, there has been a growing wage pressure: average monthly gross wages and salaries increased by 8.7% (in nominal terms) in 2007 compared to 4.9% in 2006 and 3.8% in 2005 (Table 3). Producer surveys show that the percentage of enterprises planning to increase wages has been growing since 2006. According to the plans formed by enterprises in the 1st quarter 2008 around 45.4% of employees were to benefit from wage increases in the 2nd quarter 2008 (source: NBP).

Figure 6: Number of vacancies (in thousands)



Source: Central Statistical Office

3 Institutional setting for labour migration

3.1 Regulations on migration

The 2004 EU enlargement enabled Polish citizens to work abroad in several EU member states without any temporal or sectoral conditions. With the passing of time, labour restrictions were lifted in the subsequent countries:

The date of lifting labour market restrictions	EU member states
Since May 1 st , 2004	Three old EU member states: Ireland, Sweden and the UK Eight new EU member states: Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Slovakia, Slovenia
Since May 1 st , 2006	Four old EU member states: Finland, Greece, Spain, Portugal; Iceland (EEA)
Since July 31 st , 2006	Italy
Since January 1 st , 2007	Two new EU member states: Bulgaria and Romania
Since May 1 st , 2007	The Netherlands
Since November 1 st , 2007	Luxembourg
Since July 1 st , 2008	France

The rest of EU member states, namely Austria, Belgium, Denmark, Germany, and Malta, hold transitional periods with the reference to labour migrants from the new EU member states, and probably this situation will remain unchanged until May 1st, 2009.

In Poland several institutions of public authorities are competent with respect to the inflow of non-citizens. They are:

- Ministry of Interior and Administration shapes Polish migration policy and deals with the matters related to citizenship and repatriation;
- The Office for Foreigners deals with entry of foreigners in the territory of Poland, the residence in it, and grants legal protection of refugee or tolerated status;
- Ministry of Labour and Social Policy deals with work permits to foreign citizens.

3.2 Main documents and programs shaping Polish migration policy

The most important acts, issued over the last decade, reflect the most important challenges to be met by Poland. These challenges included the adjustment of Polish law to the standards of the EU, and, over the last 2 or 3 years, encountering the shortages at the domestic labour market.

As far as the *Polish EU accession* is concerned, several important acts should be mentioned. The most recent include the 2006 Act on the "Entry into the Territory of the Republic of Poland, Stay and Exit from Such Territory of the Nationals of European Union Members States and Their Family Members". This act implemented the resolution of the European Parliament with regard to the right of the EU citizens to move and reside freely within the NMS. In 2007 the amendment to the "Act on State Border Protection and Border Guard" was implemented. According to this act, after entering the Schengen zone the rules of crossing the Polish borders will be regulated by the Schengen Borders Code.

As far as the *labour shortages* are concerned, many amendments issued by the Ministry of Labour and Social Policy were introduced in order to promote employment of aliens in Poland, especially recruiting from the eastern neighbours of Poland. Since 2007 citizens of Belarus, Russian Federation and Ukraine are allowed to work without permit up to 3 months in span of 6 months in the following economic sectors: agriculture, cultivation, breeding or on the boards of companies. Except for the latter, seasonal workers still need visa with permission to work, however, this permit is issued by a consul once a foreigner submitted an intention statement from the Polish employer. In the subsequent amendment, the Ministry lowered the fee paid by the Polish employers wishing to employ a foreigner.

Since the inclusion of Poland into the Schengen zone, the so-called *Polish Chart* was implemented. The Polish Chart, confirming belonging to the Polish nation, is entitled to the people of Polish origins living at the territory of the former Soviet Union. The owners of the Polish Chart are entitled to receive the Polish visa free of

charge, take up employment and conduct economic activity in Poland on the same basis as the Polish citizens. According to the estimates quoted by Kępińska (2007), they are approximately 2.7 million people of Polish origin living in the former Soviet Union, mostly in Belarus and Ukraine. The true scale of inflow to Poland is yet unknown, as Polish Charts started to be issued in April 2008 (according to non-official data, the scale of phenomenon is very small, so far).

Last, but not least, in 2007 two programs directed towards Polish emigrants were introduced. The first one, entitled "Closer to work, closer to Poland" and implemented by the Ministry of Foreign Affairs, aims at increasing protection of Polish migrants abroad. As part of this program, new consulates are to be open, standards of services in the old ones is to be improved and information on working conditions in the EU is to be distributed. It includes also actions of Polish diplomats in the EU countries, such as visiting Polish organizations abroad or looking after a good image of the Polish society. The second program, entitled "Comeback" and implemented by the Ministry of Labour and Social Policy, aims at promoting returns of Polish emigrants. As part of this program, a special website was created, consisting of information regarding taxes and insurance in Poland, useful documents forms and job offers on the Polish labour market.

4 Patterns of labour mobility from Poland

4.1 Relevant data sources and their limitations

There are several sources of information on international migration to and from Poland, none of them, however, serve as a comprehensive and fully reliable dataset. In contrast to the old EU member states, specific migration registration system applied in the East-Central Europe relies on the fact of cancellation permanent stay, which is by most emigrants perceived as unnecessary, or even disadvantageous. Thus, the definition of an emigrant applies to a person who cancelled the permanent residence in Poland and declared an intention to leave for another country, whereas of immigrant to a person (of Polish or foreign citizenship) who registers as a permanent resident coming from abroad. This concept of migrant in no way relates to the duration (neither actual nor declared) of stay in the destination country, which makes migration statistics in the EU NMS countries incompatible with the respective statistics in a large majority of other countries (Okólski, 1997).

It might be stated that from all NMS Poland has the most numerous and the most trustworthy sources of information on international migration. They include:

1. The Central Population Register (so-called PESEL register), gathered by the Central Statistical Office in Poland, includes records on permanent residents of Poland, among them migrants (persons who have cancelled their permanent residence in Poland). This category overwhelms a small fraction of all actual migrants.

2. Population Censuses, conducted by the Central Statistical Office in Poland, which reflect the actual number of immigrants and emigrants. This is a very comprehensive and detailed source of information; however, the last Population Census was conducted in 2002, which makes its results useless in the view of postaccession migration developments.

3. Data gathered by Polish government institutions, such as the Ministry of Labour and Social Policy, the Ministry of Economy, the Ministry of Health, the Social Insurance Institution. The data gathered by the above-mentioned institutions is limited to a narrow categories of migrants (such as migration of health professionals) and, since not published regularly, not easily available.

4. The Polish Labour Force Survey, conducted every quarter since 2004 by the Central Statistical Office in Poland, serves as a detailed and comprehensive datasource. According to the applied methodology, a randomly selected household is visited by a pollster who gathers information about every household member, regardless of his/her status: in Poland or abroad. However, if all members of a household are emigrants, there is nobody left to report it to a pollster. Therefore, the LFS underestimates the scale of the outflow.

5. Information gathered in the main destination countries, which differ from each other in character and quality. It has been proved that in spite of efforts the trial of creating unified, international, harmonious system of gathering and verifying migration data, failed (Bijak *et al.*, 2004). Consequently, information referring to the same migration flow, but gathered by two countries (of origin and of destination) differ significantly.

The subsequent analysis is based on most of the above-mentioned datasources, although the most use is made of the LFS. It was already mentioned that the LFS underestimates the scale of emigration. However, as it follows from the comparison of outcomes of the LFS data and the last Population Census, several mobility features, such as dynamics, directions of flows, demographic and social structure of migrants, seem to be well reflected and representative. The hitherto-dominating outflow from Poland has consisted mostly of single family members, not of the whole families and, therefore, the LFS served as a good reflection of the real mobility phenomena. This pattern of the emigration may change in the future, but for the first years after the EU Enlargement the LFS remains the best available datasource referring to directions of mobility and socio-demographic characteristics of migrants.

On the basis of the Polish LFS the so-called Migrants' Database has been compiled. It consists of two categories of migrants aged 15 and over, each as numerous as over 1,800 persons, who have stayed abroad for at least 2 months either in the period 1999-2003 (further called pre-accession migrants), or in the period from 1st May 2004 to 31st December 2006 (post-accession migrants)¹.

4.2 Scale and directions of the outflow from Poland before and after EU enlargement

The 2004 EU enlargement constituted one of the most important emigration stimuli in the whole contemporary history of Poland. In fact, no other historical event has been associated with such a rapid outflow and a fundamental change in mobility directions and socio-demographic structure of migrants. Several data sources indicate that since the beginning of the year 2004 the scale of the outflow from Poland remained at an elevated level.

To start with the population register, that captures only those migrants who change their permanent, in the 1990s and 2000s approximately 20-25 thous. persons deregistered yearly from Poland. In 2006 this number reached 47 thous. persons, which might herald an increased propensity of long-term emigration. All in all, the number of those who de-registered in the period 2004-2006 (88 thous.) constitutes only a marginal fraction of those who *de facto* decided to leave the country.

Due to the fact that the population register does not provide a reliable information on the post-accession outflow, the Central Statistical Office (CSO, 2008) prepared estimates of emigration based on the Polish LFS and data gathered in the destination countries. These estimates render a true post-accession exodus: the number of Polish nationals staying abroad for longer than 2 months increased within 3 years – from 2004 to 2007 – from app. 1 to 2.3 million (Table 4). This increase was observed in all European countries, both in the countries that prior to 2004 were the main destinations, such as Germany and Italy, and new countries, such as Ireland and the United Kingdom. Very rapidly, in the two years after the EU enlargement the United Kingdom became the most important receiving country for Polish migrants attracting more than half a million persons, which was a 25-fold increase since 2002. A similar situation occurred in Ireland which occupied the third position among destinations as far as number of Polish migrants is concerned.

¹ Unfortunately, due to methodological reasons it is impossible to distinguish between short- and long-term migrants in the general category of those who left after May 1st 2004.

Table 4: The number of Polish citizens staying abroad for longer than two months by destination country, estimates, in thous.

Destination	May	End of 2004	End of 2006	End of 2007
Total	786	1000	1950	2270
European Union	451	750	1550	1860
Austria	11	15	34	39
Belgium	14	13	28	31
France	21	30	49	55
Germany	294	385	450	490
Ireland	2	15	120	200
Italy	39	59	85	87
Netherlands	10	23	55	98
Spain	14	26	44	80
Sweden	6	11	25	27
United Kingdom	24	150	580	690

Source: Central Statistical Office (2008).

The Polish Labour Force Survey confirms the conclusions made by the CSO with regard to the fundamental change of geographic directions of Poles' mobility. According to the LFS, the position of main and dominant destination country, which was prior to the EU enlargement occupied by Germany (32% of pre-accession migrants, Table 4.2), has been thereafter overwhelmed by the United Kingdom (31% of post-accession migrants). Together with Ireland and Sweden, the three countries that in 2004 did not introduce labour market restrictions attracted 12.1% of pre-accession migrants and as many as 42.4% of post-accession migrants (increase by 30% percentage points, Table 5, Figure 7), whereas respective shares for the main receiving countries prior to the accession: Germany, US and Italy, decreased from 63% to 36%. Thus, the role (the rank and the percentage of Polish migrants) of those countries that in 2004 introduced short- or long-term labour market restrictions² towards Polish citizens significantly diminished (Figure 7), although most countries registered a significant increase in number of Polish migrants.

² Countries with short-term restrictions include those, that on May 1st, 2004, introduced labour restrictions but until today withdrew them. Countries with long-term restrictions include those that are going to keep labour restrictions until May 1st, 2009 (see subsection 3).

Table 5: Polish pre- and post-accession migrants by destination country, in per cent

Destination country	Pre-accession		Post-accession	
	%	Rank	%	Rank
Germany	32.1	1	18.9	2
US	19.3	2	9.1	3
Italy	11.9	3	8.4	4
UK	9.7	4	31.4	1
France	3.8	5	3.2	5
Belgium	3.4	6	1.7	10
Netherlands	3.0	7	3.0	7
Austria	2.9	8	1.5	11
Spain	2.6	9	3.1	6
Greece	1.6	10	1.5	11
Ireland	1.4	11	9.1	3
Sweden	1.0	12	1.9	9
Canada	1.0	13	0.8	12
Norway	0.5	14	2.0	8
Other in Europe	1.8		3.5	
Other not in Europe	3.9		0.9	

Notes: Pre-accession migrants: aged 15 and over who have been abroad for at least 2 months in the period 1999-2003;

Post-accession migrants: aged 15 and over who have been abroad for at least 2 months in the period May 1st 2004-31st December 2006.

Source: CMR Migrants' Database, based on the Polish LFS.

Figure 7: The change in mobility directions. Polish pre- and post-accession migrants by group of destination countries, in per cent



Notes: Pre-accession migrants: aged 15 and over who have been abroad for at least 2 months in the period 1999-2003; Post-accession migrants: aged 15 and over who have been abroad for at least 2 months in the period May 1st 2004-31st December 2006; Destination countries without restrictions: Ireland, UK, Sweden, the NMS (excluding Bulgaria, Malta and Romania); with short-term restrictions: Finland, France, Greece, Island, Italy, the Netherlands, the NMS (including Bulgaria and Romania), Portugal and Spain; with long-term restrictions: Austria, Belgium, Denmark, Germany, Luxembourg, Norway.

Source: CMR Migrants' Database, based on the Polish LFS.

The British case provides the best example of how lack of labour market restrictions influenced directions of the outflow from Poland. Recent migration from Poland to the UK is one of the most rapid and intense flows in contemporary Europe. According to the UK national insurance system, until the fiscal year 2002/03 (which was April 1st 2002-March 31st 2003) Poles did not constitute any important national group of immigrants (Table 6). However, just one year later over 11 thous. Poles applied for a national insurance number and, thus, became 9th most numerous nationality. Since then Polish migrants have been occupying the first rank among all nationalities entering the British labour market, with 63 thous. applications in 2004/05 (14% of all applications), 171 thous. in 2005/06 (26%) and 223 thous. in 2006/07 (31%).

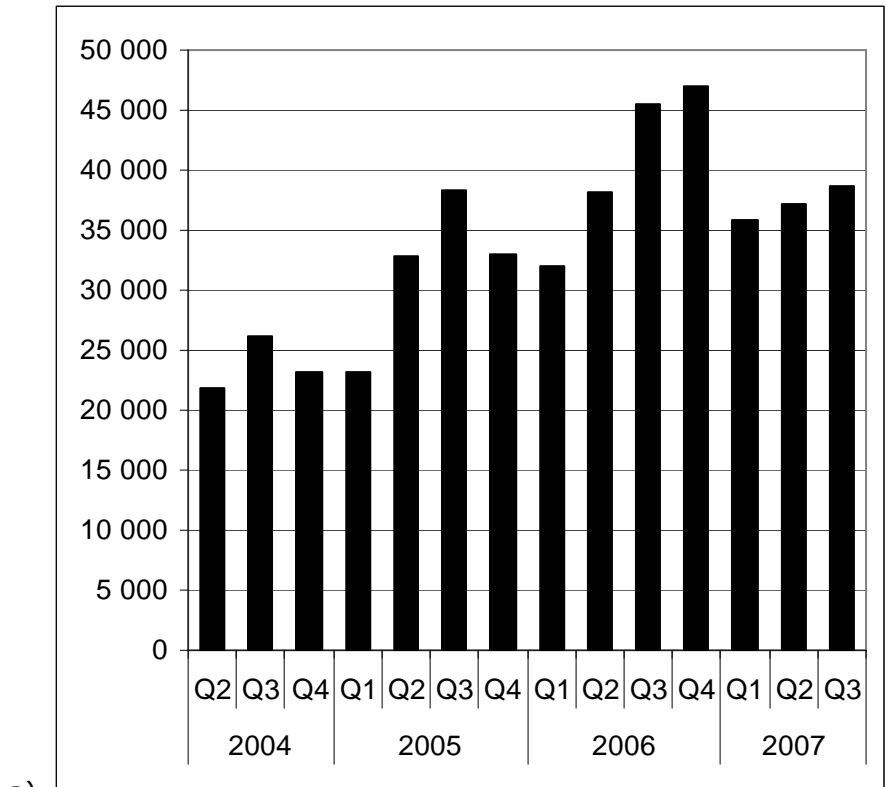
Table 6: The number of national insurance numbers allocated to foreigners in the UK, by country of citizenship (10 most important) in fiscal years (April 1st-31st March) 2002/03-2006/07

2002/3		2003/4		2004/5		2005/6		2006/7	
Total	349,2	Total	370,8	Total	439,7	Total	662,4	Total	713,5
India	25	India	31,3	Poland	62,6	Poland	171,4	Poland	222,8
Australia	18,9	South Africa	18,4	India	32,7	India	46	India	49,3
South Africa	18,6	Australia	17,1	Pakistan	20,3	Lithuania	30,5	Slovakia	28,8
Pakistan	16,8	Pakistan	16,8	South Africa	19,3	Slovakia	26,4	Pakistan	25,3
France	13,8	Portugal	14	Australia	16,6	South Africa	24	Australia	24,4
Philippines	11,8	China	13,3	Lithuania	15,5	Australia	23,8	Lithuania	24,1
Spain	11,7	France	13,1	France	13,3	Pakistan	22,3	France	20,2
Zimbabwe	10,3	Spain	11,9	China	12,6	France	17,2	South Africa	16,9
Iraq	10,1	Poland	11,2	Portugal	12,2	Latvia	14,2	Germany	15,2
Portugal	9,8	Philippines	10,7	Slovakia	10,5	Germany	13,3	China	13,2

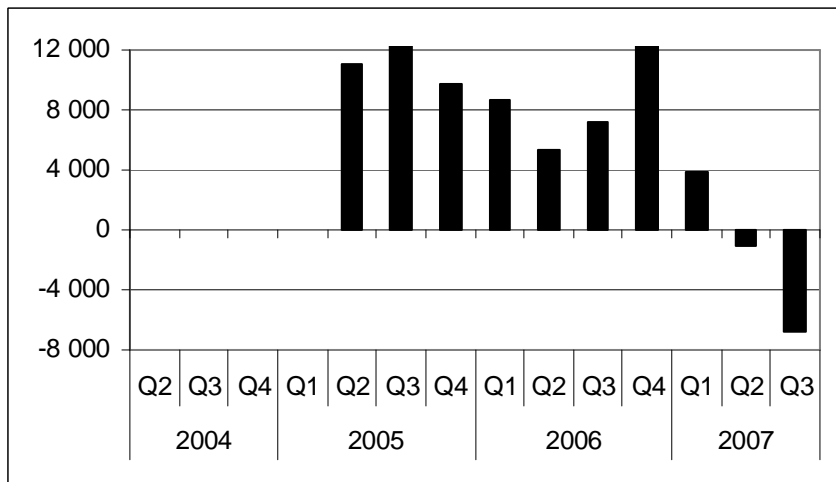
Source: based on Department for Work and Pensions (2007).

According to the Worker Registration Scheme allotted exclusively for the NMS citizens, in the period May 1st 2004-30th September 2007 over 470 thous. Poles entered this country in order to work (Figure 8a). The most intensive inflow took place in 2005 and 2006, mostly in non-winter months. Recently, however, this inflow has been suppressed: in three quarters of 2007 over 110 thous. Poles were registered, which was less than a year before (Figure 8b). Among all NMS citizens Poles constituted the vast majority: 78%.

Figure 8: The number of Polish applications to the WRS (a) and the absolute change respectively to the corresponding period of previous year (b), May 1st 2004-30th September 2007



a)



b)

Source: Accession Monitoring Report (2007), based on the British WRS.

With regard to migration to Germany one remark must be made, namely, the LFS does not include mobility that lasts less than 2 months. This in particular applies to seasonal flows of Polish workers, who in number of almost 280 thous. persons migrate each year from Poland to Germany. If this number was added to the total

of Polish migrants in Germany, the latter, instead of the UK, would remain the main destination for Polish workers. However, when the average length of stay abroad is considered, the United Kingdom became in 2004 the key geographical direction of Polish migrants.

4.3 Characteristics of Polish migrants

According to the Polish LFS, prior to the 2004 EU enlargement the outflow from Poland has been masculinized (men constituted 57% of migrants) and thereafter this feature became even more visible (65%). This, in comparison to 47% of men in general adult population of Poland, reveals high selectivity of outmigration with regard to sex. The rise in men's general propensity to undertaking international migration was observed in most destination countries.

Another selective force of migration from Poland refers to young persons. The outflow from Poland is dominated by persons aged 20-39, especially aged 20-29, who constituted 45% prior to the EU enlargement and 52% thereafter. Female migrants were on average younger by 1 year than males. Since the EU enlargement the age structure of Polish migrants became significantly younger: the mean age decreased by 1.5 year (from 33.9 to 32.4), whereas the median age by 2 years (from 30 to 28). This change in age structure was mostly caused by the rising importance of Ireland and the United Kingdom among the destination countries. As a matter of fact, these countries attract in particular very young migrants: before the EU enlargement and afterwards the percentage of those aged 20-29 was as high as 70% in the UK, whereas the median age was 25, which was the lowest among all receiving countries. In other words, the increase in share of those going to Ireland and the United Kingdom resulted in the rise in number of young migrants.

Apart from the gender and age, the level of education is another selective factor as far as the outflow from Poland is concerned. In general, in the 1990s Polish migrants were rather low-qualified, which resulted from the fact that institutional restrictions in EU15 pushed Polish migrants into 'informal' ('secondary') segment of the labour market, which was highly disadvantageous for the highly-skilled. Working abroad was then related rather with performing simple, low-paid and insecure jobs, which could be profitable only for unemployed and low-qualified Poles.

According to the Polish LFS, the pre-and post-accession outflow from Poland was dominated by persons with secondary vocational and vocational degree, who constituted, respectively, 61% and 59% of migrants. After 2004, however, the share of University graduates significantly rose. Every fifth post-accession migrant has graduated from University, which in comparison to 14.3% of University

graduates in the overall population of Poland (in 2004) indicates the appearance of brain drain phenomenon. This is in particular the case of female migrants, out of whom 27% were highly-skilled persons.

Again, just like in the case of age distribution, this change in migrants' education structure has been caused by increasing dominance of the UK and Ireland among destinations, as those two countries to the greatest extent attract University graduates. The post-accession flow of highly-skilled migrants into the above-mentioned two countries consisted mostly of very young persons: at the moment of the EU enlargement 50% of them were aged 25 and under, further 25% aged 26-27. This leads to the conclusion that many University graduates going to Ireland and the UK have never searched for employment opportunities in the home-country but left Poland straight after finishing education.

From the above analysis appears that the three EU15 member states that did not introduce labour market restrictions, have attracted younger and better educated persons, probably having at least basic knowledge of English (or other foreign languages) than traditional destinations. Most of those young persons who headed for UK and Ireland whatsoever initialized their occupational activity by undertaking international migration. This means that the possibility of working without restrictions in the EU15 gave an impulse for emigration to a new group of persons, mostly those who would not cope with working regulations abroad in the previous time. It might be also probable that, to some extent, young migrants who before May 1st 2004 went to countries other than Ireland, Sweden and the United Kingdom, after the Polish accession have changed their hitherto directions of mobility and moved to the three above-mentioned countries.

This change not only in scale of migration, but also in the socio-demographic structure of migrants, resulted from increasing role of pull factors in migration mechanism. Due to the lack of transitional restrictions in Ireland, Sweden and the United Kingdom, the entrance into foreign labour markets involved little effort and cost and, thereby, little risk. In opposite to what took place prior to the EU enlargement, when migration constituted a necessity for those who could not make their living in the region of origin, thereafter foreign labour markets attracted younger and better educated persons, as these particular features increase the chances of success at the labour market. In this way such pull factors, as possibility of acquiring higher level of financial and human capital started to play a more relevant role than in the previous period.

The higher propensity of migration would not have taken place, if the main post-accession destination countries had not registered economic prosperity and ensuing high demand for labour (expressed inter alia in huge numbers of vacant jobs). The United Kingdom and Ireland serve as good examples of large labour markets

absorbing tens of thousands Polish labour migrants within a very short, two- or three-year period. In this context, however, high percentage of university graduates among migrants in those countries may not be associated with the full use of human capital at destination labour markets. On the contrary, data gathered by the British WRS indicate that, regardless of the level of education, migrants from the NMS are involved mostly in occupations requiring low qualifications. Consequently, limited promotion prospects at the British labour market may result in the wave of returns, especially as far as University graduates are concerned, which could create instability in labour supply.

In spite of the growing role of the pull factors, push factors related to the transition to market economy seem to be crucial as far as the post-accession outbreak of international mobility is concerned. They include relevant problems in the way the Polish labour market functions, such as maintaining high level of unemployment and coming to the fore serious skill mismatches. This is particularly visible in geographic context of the outflow from Poland. Most pre- and post-accession migrants recruit from rural areas and small (less than 50 thous. inhabitants) cities. The share of persons from the two above-mentioned kinds of settlement constituted 70 of pre- and 67% of post-accession migrants, whereas of those from medium (50-100 thous. inhabitants) and large (over 100 thous. inhabitants) cities were, respectively, 10% and 20% of pre-accession, and 9% and 24% of post-accession migrants. Moreover, migrants are mostly recruited from Southern and Eastern Poland. These regions are either rural and underdeveloped (the case of the East and the South-East) or the most populated areas (the case of South-Centre and South-West). This pattern of spatial selectivity of Polish migrants is strongly related to work opportunities at the place of residence.

To summarize, the 2004 EU enlargement has been followed by rapid increase in the scale of international mobility from Poland. This rise was recorded in most European countries, those that introduced and those that did not introduce labour restrictions. However, the latter started to play a more important, or in the case of UK, the key role among destinations. As long as in the period prior to the 2004 EU enlargement Polish migration potential found an outlet in incomplete mobility of temporary, mostly irregular workers to Germany, Italy and US, since May 1st 2004 Polish labour surpluses have been set in motion all over Europe. In fact, Polish accession into the EU triggered off local development, entrepreneurship and proactive attitudes and behaviours, including spatial mobility, among individuals.

The deterioration of the world economic trends in 2008 and 2009 has provoked the questions on possible future migration flows, especially return migration. In 2008 the Central Statistical Office conducted a supplementary LFS based study on inflow of foreigners and return migrants to Poland (CSO 2008b). The latter were defined as Polish citizens aged 15 and over who have been abroad for at least 3 months.

Estimates based on the BAEL survey indicate a notable increase in the scale of return migration in the recent years: as far as the number of return migrants has been constant in the period 2000-2003 at the level of 30-40 thousand annually, it increased in the following years to 60 thousand in 2005 and 213 thousand in 2007. Still, however, the increase in return migration does not pose a transition of Poland from a net sending to a net receiving country.

The recent inflow to Poland has been to a large extent determined by initial plans made by migrants themselves: according to the CSO (2008b), 38% of migrants who returned in 2004-2008 had not planned to stay longer abroad, mostly due to the fact that they had performed only a seasonal or temporary work there. Those who returned due to the change in economic situation in Poland constituted a marginal proportion of all return migrants (2%), whereas those whose contracts abroad had not been prolonged merely 12%. In this context an important point is that most Polish migrants working in the EU members states have already access to the social benefit systems of the receiving countries, which might prevent them from returning to Poland in case of unemployment.

Recent economic developments seriously strengthen the public debate on future migration flows. However, links between economic crisis and migration from Poland are unambiguous. On the one hand, the majority of recent Polish migrants constitute labour migrants. Thus, worse economic conditions in countries of destination are supposed to seriously impact the scale of future outflow from Poland. Additionally, migrants from the New Member States are strongly represented in those sectors of economy which are particularly affected by economic slowdown (construction, manufacturing). Higher living costs in most important destination countries are another factor which could induce more people to return. However, working conditions abroad may still remain better than those in Poland. Moreover, labour force from the NMS proved to be highly flexible and much cheaper than natives. In case of the UK, unemployment rates of Polish migrants are increasing on much smaller pace than those of native labour force. In many cases, economic downturn may lead to shifts from legal to illegal jobs with neutral effect on migration itself. All in all, it is very important not to overestimate the role of world economic trends for future outflows and return migration to Poland. It depends on a complex set of factors which remain unclear for both participants as well as observers of migratory phenomena.

5 Effects of migration on the Polish economy

As described in the previous part, EU-enlargement and the opening of the EU labour markets to Polish citizens has led to massive outflow in post-2004 period. Such a massive migration is supposed to have a significant impact on the economy and society. Following part summarizes recent findings related to demographic and economic effects of post-accession mobility from Poland.

5.1 Demographic effects

5.1.1 Short-term effects

Already quoted estimate of recent migration from Poland provided by the Central Statistical Office speaks of one million and 950 thousand persons as for 1 January 2007. Additionally, from their analysis it follows that the size of that category of the population increased by one million and 70 thousands after 1 May 2004³. Due to the fact that over the corresponding period approximately 80 thousand people emigrated from and 25 thousand people immigrated to Poland, the total net loss of population between May 2004 and 1 January 2007 could be estimated at around one million and 100 thousand, i.e. 2.8% of the total population of Poland. With regard to persons at age 15-59 the net loss was slightly higher and equaled 4.0% of the resident population at that age (Okólski, Mioduszevska, 2008).

Following the line of reasoning as presented in the previous part, we will refer now to major demographic and social characteristics. A point of reference should be the share of net outflow in the post-accession period relative to respective resident population (on 1 May 2004), i.e. 3.3% (Kaczmarczyk, Okólski, 2008b):

With regard to sex and age, the outflow of men (net loss – 4.4%) was by more than 50 per cent greater than that of women (2.2%). The largest loss according to age was noted in the group 25-29 years (9.3%) whereas the other groups lost, respectively: 20-24 years – 8.8%, 30-44 years – 3.8%, 45+ years – 1.1% and 15-19 years – 0.8%.

With regard to the educational attainment, three categories of educational attainment - tertiary (university diploma or equivalent), other post-secondary and secondary completed, and vocational - encountered loss of around 4%. In the group with education level lower than vocational the loss was merely 1%. There were, however, considerable differences between males and females. Males with post-secondary (other than tertiary) and secondary education suffered the largest loss (5.8%), followed by those with vocational education (5.4%), tertiary (5.0%) and lower (1.4%). In females the largest

³ Due to methodological reasons we are not able to refer to the most recent estimate published in July 2008.

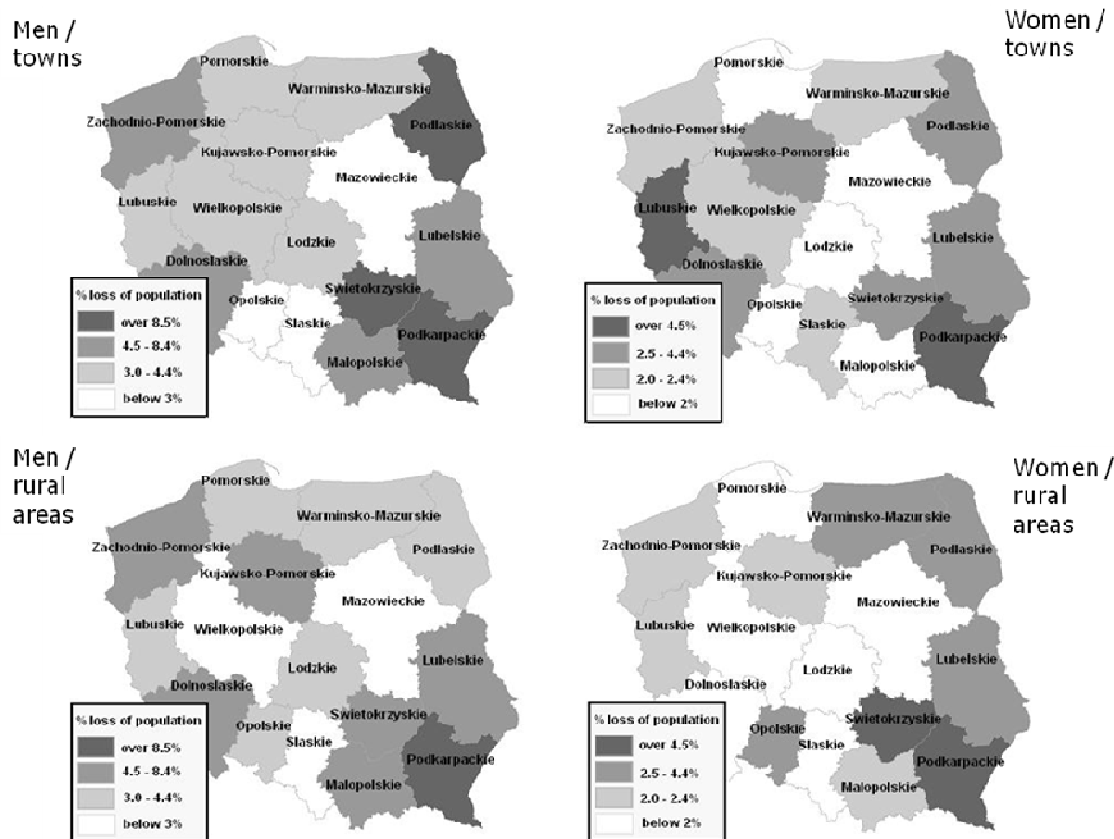
loss was noted among those with tertiary education (3.3%), whereas women with post-secondary and secondary education lost 3.1 per cent, with vocational – 2.4% and with lower – 0.6%.

In a cross-regional perspective the loss varied significantly from 1.8% (Mazowieckie voivodship, including capital city Warsaw) to 7.2% (Podkarpackie voivodship). There were also important differences noted with regard to urban/rural population, type of settlement and sexes. The population loss of rural areas was 3.5% (4.7 and 2.4%, respectively for males and females) and it exceeded the loss of urban areas by 0.4 point. Additionally, in the age group that was the most strongly affected by the population outflow - 25-29 - the loss in the rural population amounted to 9.5% and in the population of medium-sized and small towns to 10.0% whereas in the population of large towns to 8.2%. In the group 20-24 in the two former groups it was 9.6% and in the latter group 7.0%. The largest loss in male rural population was noted in Podkarpackie voivodship (9.0%) while in male urban population – in Swietokrzyskie voivodship (10.3%). The losses in female rural and urban populations were generally much lower (between 0.6% and 5.9%) (cfg. Figure 9).

To conclude, short-term demographic consequences of the post-accession outflow reflect to a large extent a great variation of the intensity of migration among various groups of the population. Observed patterns are consequence of strong selectivity mechanisms, particularly with regard to sex, age, education, and region of origin. The selectivity analysis might lead to so-called 'crowding out' hypothesis claiming that a great part of the post-accession outflow involved redundant workforce living in regions or sub-regions or in some other enclaves with a significant share of semi-subsistence economy⁴. This effect seems to be particularly well taken in case of the south-eastern part of Poland and might suggest a predominance of labour overflow effects (see below).

⁴ This hypothesis, put forward by Marek Okólski, is discussed and evaluated in the chapter "Brain drain, brain gain and brain waste". It refers to the outflow of economically redundant population from peripheral and rural regions of Poland.

Figure 9: Loss of population (in per cent), men / women and towns / rural areas



Source: Okólski, Mioduszewska, 2008

5.1.2 Long-term effects

The assessment of the long-term impact of migration on the demographic structures seems to be an extremely difficult task and it is mainly due to the fact that a large part of recent mobility from Central and Eastern Europe is temporary and/or only partially registered. There exist no reliable statistical data showing the whole complexity of mobility – both in internal and international terms – in the transition period. Therefore, any considerations of the impact of recent mobility on population structures are bound to be biased.

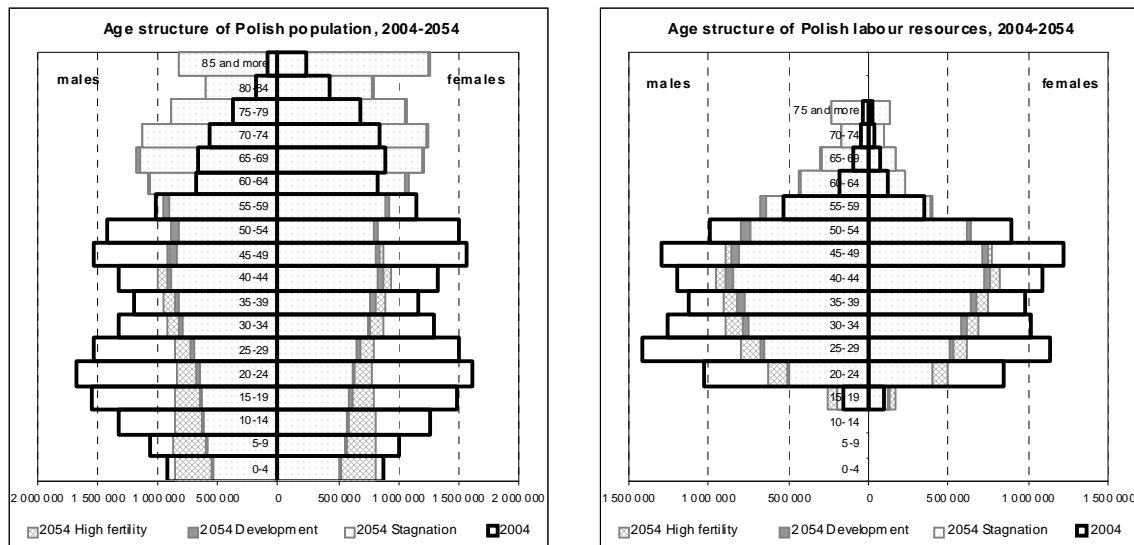
The most interesting (and reliable) demographic projection including migration phenomena presented so far was provided by the CEFMR research team (Kupiszewski, 2007). While presenting the forecast for years 2004-2054 the authors took into account different scenarios concerning both internal and international mobility. Following assumptions have been made (Bijak, 2007):

- the fertility (measured by the TFR) was assumed to increase slowly from the very low recent level (1.2) up to 1.5 in 2054; the alternative scenario was also tested - in case of the 'high fertility' scenario a higher pace of increase (0.01 a year) was assumed and as a consequence the target value should be around 0.5 higher than in the basis scenario;

- with regard to mortality, a steady increase of life expectancy (e_0) was assumed: according to the assumptions, life expectancy values should reach 80.4 years for men and 85.8 years for women (2054);

- with regard to mobility, two possible scenarios were considered: 1) 'Development and Liberalisation' scenario which assumes economic development (2-5% of annual GDP growth) and gradual liberalization of migration policies, 2) 'Stagnation and Control' scenario assuming slow pace of economic development and restrictive migration policies.

Figure 10: Recent and forecasted structures of Polish population and Polish labour force, 2004 and 2054



Source: Bijak, 2007: 13.

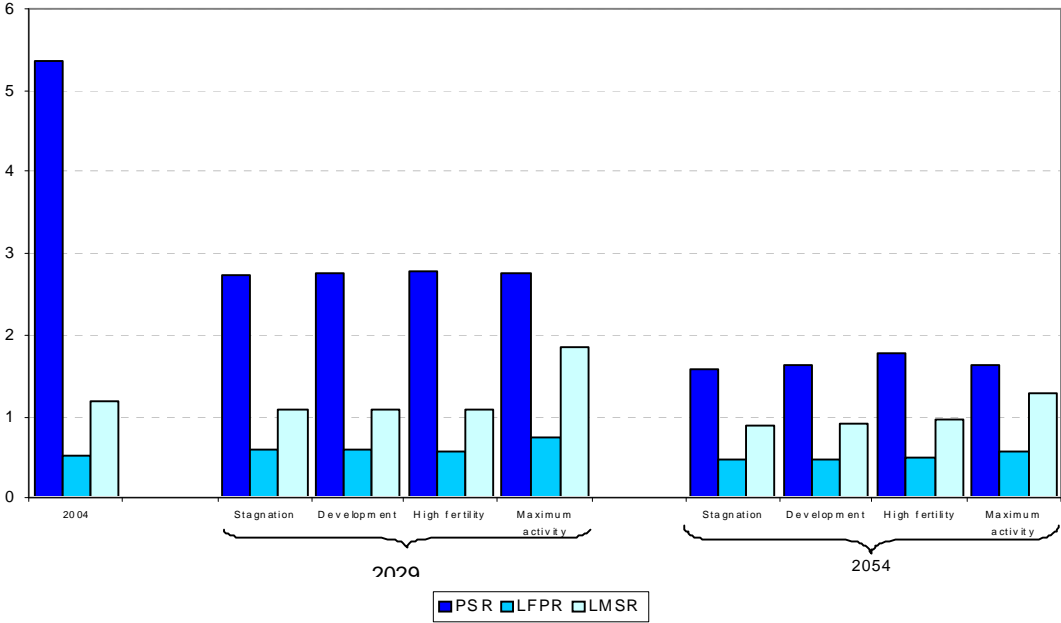
According to the forecast, the size of the Polish population is expected to decline from 38.2 million in 2004 to 29.4 million (stagnation scenario), to 30,3 million (development scenario) or to 33.4 million (high fertility scenario). Accordingly, in all cases a significant decrease in the number of people is expected by 2054: by 21%, 23% and 13% respectively. However, far more important changes relate to the structure of the population (Figure 10).

Fig 10 shows severe changes in the age structure of the total population and of labour market resources. With regard to the labour force resources one can expect a decline in the number of people in the labour force from 17.2 million in 2004 to 12.3 million ('stagnation and control' scenario), 12.8 million ('development and liberalization' scenario) or 13.9 million ('high fertility' scenario) in 2054 which is supposed to have a very significant impact on the Polish labour market and the welfare system.

Moreover, we should expect a serious burden for the Polish labour market (and Polish social security system) regardless of assumed scenario. E.g. if we assume a gradual increase of the participation rates to the maximum average European values for a given age – the so-called 'maximum activity' scenario – one should still predict a decrease of

the labour force by 12% (to 15.1 million in 2054) (Bijak, 2007). This tendency is clearly visible while analyzing main demographic and labour market indicators (Figure 11).

Figure 11: Demographic and labour market indicators: base year and forecast, 2004, 2029 and 2054⁵



Source: Kaczmarczyk, Okólski, 2008a, based on Bijak, 2007: 15.

As shown on Figure 11 Potential Support Ratio is predicted to fall by around 50% till 2029 and by 67-70% (depending on the scenario) till 2054. The value of LMSR (indicating a ratio between the economically active and the inactive population, thus this indicator may serve as a proxy of the overall support of the labour market) in 2004 was equal to 1.18 which does suggest a relatively poor labour market situation already at the departure point. However, LMSR is expected to decline to around 1.10 in 2029 (according to all scenarios except maximum activity scenario) and to values between 0.89 (stagnation) and 0.96 (high fertility) in 2054 (value for the development scenario: 0.92). From the presented data it follows that regardless of the expectations of many politicians (so-called replacement migration debate) future immigration should not be perceived as a potential solution neither in terms of demographic structures (PSR) nor in terms of the labour force (LMSR). Additionally, the issue of recent – and possible future – outflow from Poland should not be forgotten. In fact, the real demographic effects of migration can be far less beneficial than foreseen in the presented forecast (if accounted for persons who are leaving temporarily but could prolong their stay and become permanent migrants in the future).

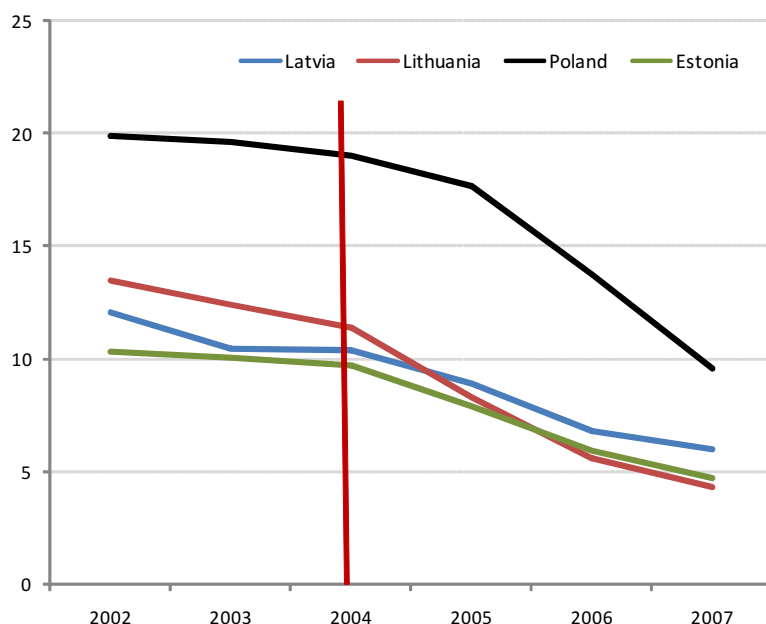
⁵ Whereas:
Potential Support Ratio (PSR) is defined as the ratio of population in the productive age (15–64) to population aged 65 years and more;
Labour Force Participation Rate (LFPR) is defined as a share of the total labour force resources in the total population (aged 15 years and more);

5.2 Labour market effects – from oversupply to the shortage of labour?

Massive outflow of labour – as observed in Poland and other NMS – is supposed to have a significant impact on the labour market in sending countries, and the list of potential effects include decline in unemployment (in the short term), a rise in the number of vacancies, pressure on wages (in the medium term) and, ultimately, upward occupational (and social) mobility and immigration of foreign labour (in the long term) (Kaczmarczyk, Okólski, 2008b).

Most of the pre-accession public debate concentrated on the first issue and the so-called unemployment export hypothesis. This hypothesis predicts a positive impact of outgoing migration on the situation in the domestic labour market – through assumed outflow of unemployed migration is supposed to be a serious labour market relief.

Figure 12: Unemployment rates in Poland and the Baltic states, 2002-2007



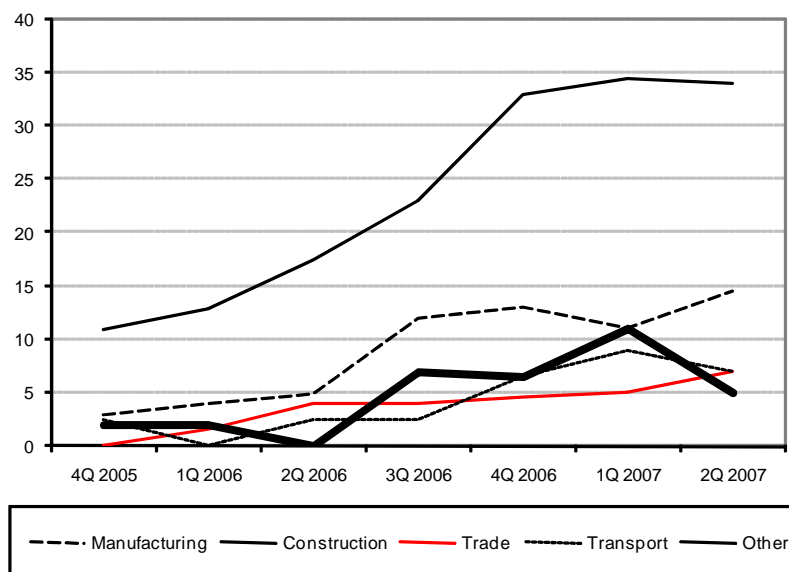
Source: Authors' elaboration based on the EUROSTAT data

Figure 12 shows that, in fact, since 2004 a serious improvement in the situation on the labour market is observed both in Poland and in other important sending countries of the region. It is important to note that in the pre-accession period, Poland was struggling with serious job shortages and high unemployment (in 2002 the unemployment rate reached approximately 20%). The gradual improvement of the situation in the labour market was already visible in 2003, but has gained much momentum after May 2004. Between the 2nd quarter of 2004 and the 1st quarter of 2007 the number of unemployed individuals decreased from 3.1 million to 1.5 million. In 2007 the unemployment rate (according to LFS) fell to below 10%.

Labour Market Support Ratio (LMSR) is defined as the ratio of the economically active to the economically inactive population (aged 15 years and more).

Moreover, the post-2004 migration seems to have led not only to the reduction of unemployment but also to labour shortages. As suggested already (see part 2.2.2) since 2005 the number of vacancies has been rising rapidly and a growing number of companies have been reporting hiring difficulties. The shortage of workers became particularly severe in construction (where over 30% of companies reported hiring difficulties) and in manufacturing (15%) (cfg. Figure 13).

Figure 13: Share of companies reporting problems with labour supply, by sector (in per cent)

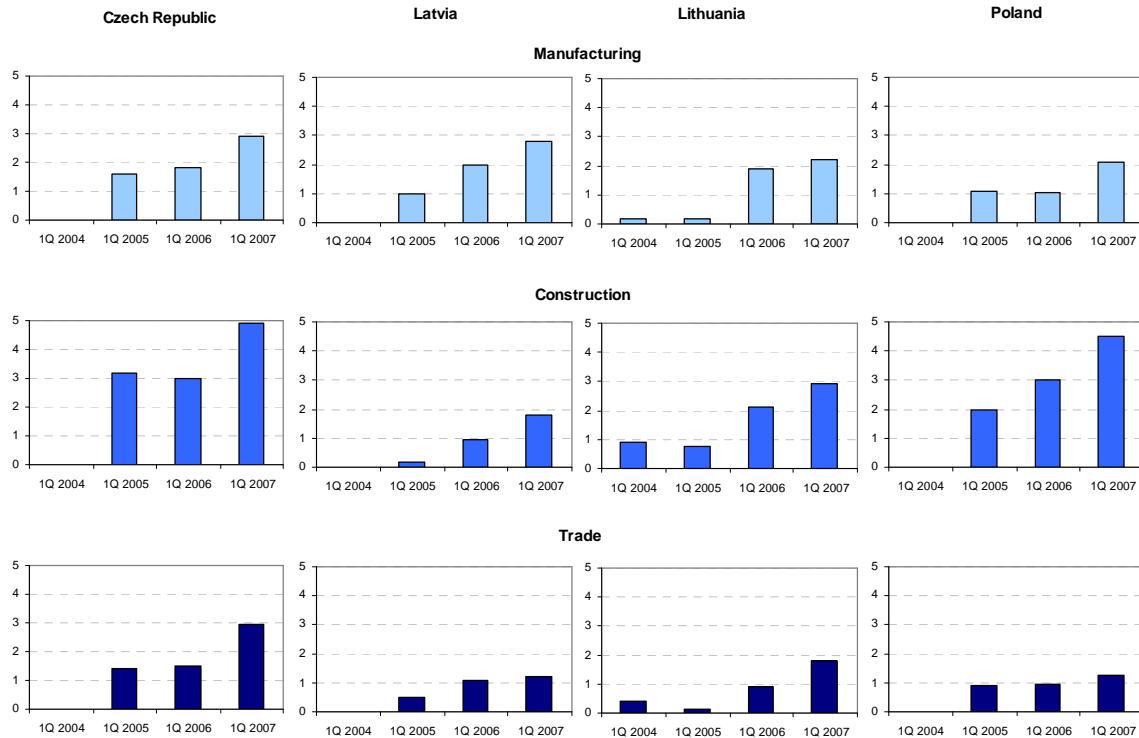


Source: Kaczmarczyk, Okólski, 2008a.

Since 2007, labour shortages are declared (by companies) as the most important barriers to growth. The average vacancy rate is still relatively low (just over 1% in 2007) but in some sectors (i.e., construction) it has exceeded 5% (NBP, 2007, World Bank, 2007, see also part 2.2.2).

With regard to wages, no significant wage pressure was noted on the aggregate level in the early post-accession phase. Between 2004 and 2006, wages in Poland rose rather moderately (by around 2%, in real terms). However, in 2007, the average monthly salary rose by 9% while in a few sectors the increase was significantly higher (agriculture – 11%, construction – 15.7%). Additionally, since 2006 the increase in real wages is far more dynamic than changes in productivity.

Figure 14: Vacancy rates by sector, 2004-2007 (in per cent)



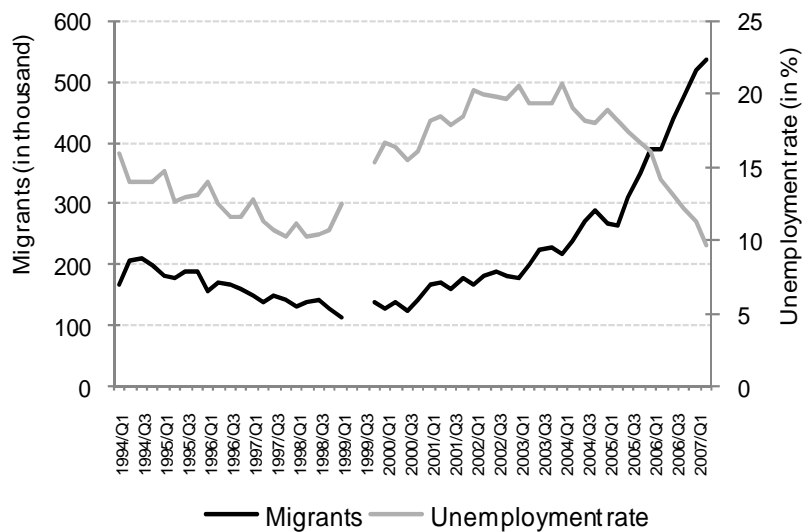
Source: World Bank, 2007

All the arguments presented above strongly support the hypothesis that, since the 2004 enlargement, migration constitutes a serious labour market relief (in terms of unemployment) and, in a relatively short period, it has led to labour shortages. This observation can be supported by the analysis of the relationship between the unemployment rate and the number of Polish migrants staying temporarily abroad (both according to LFS). From the data presented in Figure 15, it follows that from the late 1990s until EU enlargement, unemployment was one of the most important push factors (which is clearly indicated by a very high positive correlation)⁶. However, since 2004, the rising intensity of migration was accompanied by declining unemployment, which, in sum, led to an inverse change in the relationship and may suggest a straightforward causal relationship⁷.

⁶ Pearson correlation coefficient for the period 1999 (4th quarter) - 2004 (1st quarter) equaled 0.80.

⁷ Pearson correlation coefficient for the period 2004 (2nd quarter) - 2007 (2nd quarter) equaled -0.98.

Figure 15: Migrants from Poland and unemployment rate according to LFS, 1994-2007



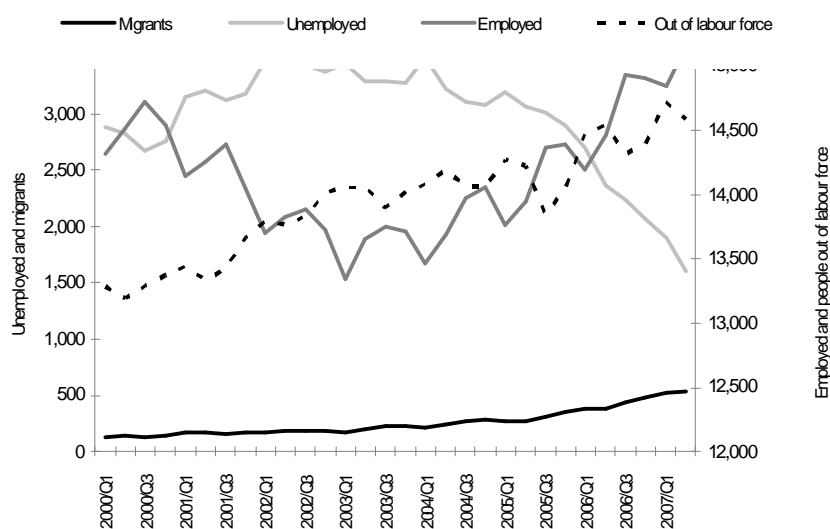
Source: Kaczmarczyk 2008a

However, the currently available statistical evidence does not permit a general claim to be made that labour migration (even massive migration, as in the post-accession phase) is the primary factor influencing the situation on the domestic labour market. The following points require particular emphasis:

- Since 1989, migration from Poland – a country with significant outflows of persons observed in the pre- and post-transition phase – coincided with a massive restructuring of the economy, which significantly influenced the labour market. In fact, the situation within the labour market is to be understood as an outcome of the interplay of many factors, including economic growth (business cycle), the gradual restructuring of the economy (e.g., the privatization of state-owned companies, inflow of FDI, etc.), long-term developments (see below) as well as the international mobility of persons.
- Additional effects which should be taken into account include: changes in educational system (particularly with regard to vocational education), low rates of internal mobility and low level of occupational mobility (resulting in a very low flexibility of the labour market) and last, but not least, long-term developments (demographic change, technological change, education, etc.).
- Recent analyses of the labour market situation in other CEE countries indicates that the increasing number of job openings is not necessarily a result of outflow, but rather the offshoot of a favourable economic climate (clearly visible in case of Hungary or the Czech Republic, both of which also noted significant job shortages despite the lack of (mass) (e)migration). Notwithstanding it is clear that the interplay between economic growth and mobility almost certainly exacerbates the shortages of skills and workers on the Polish labour market.

- An obvious factor that brings about a reduction in the number of unemployed individuals is growth in employment. Indeed, mainly due to very good economic prospects (partially related to the EU accession) the number of employed individuals increased from 13.7 million in 2004 to 15.2 million in 2007. This effect is clearly visible in view of the data presented in Figure 16.

Figure 16: Migration and labour market phenomena according to the LFS, 2000-2007



Source: Kaczmarczyk, Okólski, 2008b.

- If we compare the scale of migration (even as massive as it is in the Polish case) and the scale of other labour market aggregates (employment, unemployment) the most reasonable conclusion appears to be that the outflow of persons cannot influence the situation on the domestic labour market in a very significant way (cf. Figure 16).

- The data presented above elicited two additional phenomena which throw the unemployment export hypothesis into question. The first one relates to the economic activity of population: a significant reduction in the number of unemployed individuals observed in last 3-4 years may have resulted from a growing number of inactive persons. This phenomenon is clearly demonstrated by the very low, and decreasing, participation rate (e.g., 53.6% in the 2nd quarter of 2006). It may seem obvious that individuals that left the labour force within the domestic labour market can become international migrants, but this hypothesis cannot be proven on the aggregate level. Data on the micro-level suggest however that in the post-accession period international migration is relatively seldom an 'escape' from unemployment⁸.

⁸ According to recent survey data, around 50% of all leaving abroad constituted persons who have had a permanent job before leaving abroad (Kaczmarczyk 2008).

From the preceding analysis it follows that, as we argue, the impact of the post-accession outflow on the Polish labour market is greatly exaggerated. The recent labour market situation is rather an outcome of an interplay between complex set of factors. Within them, migration plays an important, but definitely not decisive, role. Moreover, perhaps the most significant factor is completely absent from most analyses. We argue that the crowding-out phenomenon may be a necessary precondition for newly acceded countries to catch up with the core countries of the EU15. With regard to this hypothesis, the impact of the recent outflow is of extreme importance. Even if it does not directly result in a decrease in unemployment, international migration is bringing about significant changes on the labour market. Notwithstanding it is important to note that although migration had an overall positive impact on the labour market, the changes observed in the latter had much more complex sources.

Figure 17: Work permits for foreigners, by skill structure and region of origin, 2003 and 2006



Source: Kaczmarczyk, 2008b.

In the public debate on the current situation on the Polish labour market the immigration of labour slowly becomes a very serious issue. Inflow of foreign workers is supposed to be an answer to massive out-migration and severe labour shortages. Against this background it is important to note that Poland is still a country with relatively limited experiences with immigration. According to official sources the scale of the inflow is low (or very low):

- The 2002 National Census indicated as many as 40.6 thousand foreigners.
- Register data indicated e.g. an inflow of 9.5 thousand in 2004 and 9.4 in 2005; the cumulated inflow for years 1990-2005 equaled 116.6 thousand. As for the end of 2006 the stock of foreigners in Poland was as high as 54.9 thousand (0.14% of the total population).
- Similar results reveals Labour Force Survey data: 58.5 thous. foreigners (0.19% of the total) (in 2006).
- In 2006 the stock of temporary foreigners equaled 37.6 thousand (two major groups: Ukrainians – 28%, and Germans – 8%).

On the other hand, however, several statistics suggest that illegal migration may be of some importance. E.g. in 2004 approximately 62 million of visiting foreigners were reported, in 2006 this number was as high as 65.2 million. In 2006 over 1.3 million visas were issued, most of them in Ukraine (over 600 thousand), the Russian Federation and Belarus.

Consequently, the scale of legal employment of foreigners in Poland is very low. The number of individual work permits issued annually oscillates around 10-15 thousand. Additionally, an interesting tendency is visible while analyzing the skill structure and regions of origins of incoming migrants (cf. Figure 17).

From the above presented data it follows that:

- A majority of legally employed foreigners concentrate in skilled or highly skilled jobs. It refers not only to persons from the EU15 countries but also from post-Soviet countries. This may suggest that data on work permits reveals only a small – and highly specific – fraction of the immigrant labour market.

- A dual structure of the immigrant labour market is more or less clearly visible. Persons coming from the well-developed countries are employed at managerial positions while migrants from Ukraine, Belarussia and Russia are taking up employment also as unskilled or skilled workers.

To assess the scale of demand on foreign labour in Poland a nationally representative survey among Polish companies was conducted in the 3rd quarter of 2007 (Grabowska-Lusinska, Zylisz, 2008). The sample comprised as many as 5 thousand Polish companies of all sizes. The main task was to estimate the scale of employment of foreigners in Polish economy (during last 12 months – later referred to as 'real demand') and plans regarding future employment which seems particularly interesting in the context of recent situation on the labour market ('potential demand').

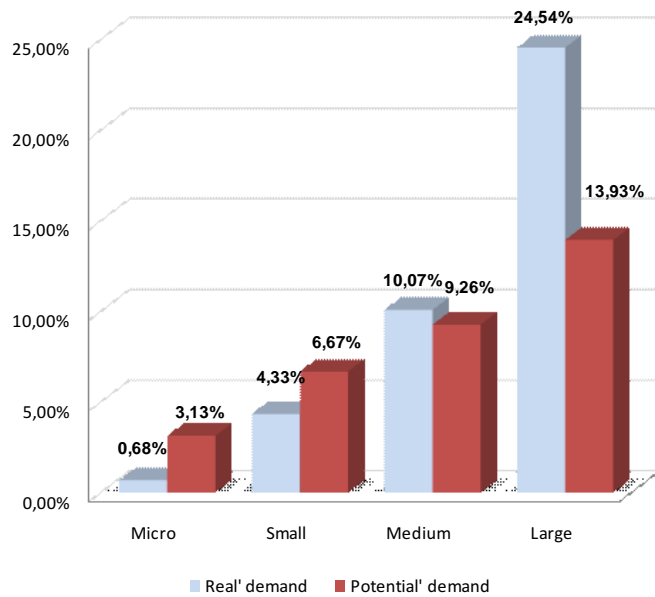
Table 7: Plans regarding employment of foreign labour in Polish companies

Plans regarding employment of foreigners	Share of companies (N=5 000)
Already employed (or employed in the last 12 months)	0.99%
There are plans to employ foreign labour	3.30%
No plans, but perceived as a reliable option	18.20%
No plans, not reliable option	78.50%

Source: Kaczmarczyk 2008b

From the data presented in table 7 it follows that – so far – the scale of the phenomenon is extremely low. Merely 1% of surveyed companies have had experiences with employment of foreign labour. Additionally, from the analysis of survey data it follows that the average number of persons employed was very low and varied from 1.6 person (micro companies) to 5.5 persons (medium companies). With regard to the 'potential' demand, it seems that plans of Polish employers do not necessarily reflect the situation on the market and media pressure – only 3.3% of surveyed companies were planning to employ foreign labour in the near future.

Figure 18: 'Real' and 'potential' demand for foreign labour in Polish companies, by size, 4th quarter of 2007



Source: Kaczmarczyk 2008b

Figure 18 shows that there is a clear division between companies of different size regarding demand on foreign labour. Only large companies have already had experiences with immigrant employees – in this case the scale of the phenomenon was relatively high: over 25% of companies of this size have already made experiences with employment of foreigners (mainly at managerial positions). On the other hand, growing interest in employing foreigners is visible particularly in case of micro and small companies.

Last but not least, the survey data revealed that, firstly, pattern of employment (in general) reflects the structure of work permits and, secondly, that Polish employers have experiences predominantly with immigrant labour from neighboring countries with strong political, economic and/or cultural ties to Poland.

5.3 Remittances

There are two main reliable data sources available on the total value of remittances to Poland. According to the estimates of the World Bank, officially recorded remittances amounted to 2.710 million USD in 2004, 3.549 million USD in 2005 and 4.364 million USD in 2006. Estimates presented by the National Bank of Poland were based on two major traceable inflows: private transfers and the compensation of employees. In a recently released data set on remittances to Poland a new approach has been applied, namely given the incompleteness of official data and the dramatic increase in the scale of Polish mobility, both official and survey data sources were used to obtain more reliable data on money transferred from abroad (cfg. Table 8).

Table 8: Remittances sent to Poland according to the most recent estimates of the National Bank of Poland, in millions of PLN

Category / year	2004	2005	2006	2007
Private transfers	4 074	5 911	9 139	11 776
Compensation of employees	13 110	15 127	17 130	17 506
Taxes	-1 849	-2 128	-2 402	-2 458
Expenses abroad	-4 839	-5 578	-6 308	-6 450
Remittances total	10 496	13 332	17 559	20 374

Notes: Exchange rate (9th April 2008): 1 EUR = 3.45 PLN. According to the methodology applied, total remittances are the sum of private transfers (money transferred by migrants staying abroad for a year or longer) and the compensation of employees (money transferred by short-term migrants) minus taxes paid by short-term migrants and their spending abroad.

Source: NBP 2008

The data presented above indicates a significant increase in the value of money remitted to Poland. Between 2004 and 2007, private transfers increased by 189%, while the compensation of employees by 34%. The total value of remittances in 2007 was 94% higher than it was at around the time of accession, and this change was mainly attributable to the increase in funds sent by persons staying abroad for twelve months or longer. This data indicates a clear shift with regard to the major countries in which migrants temporarily work and reside. In 2004, most private transfers (35%) were sent from Germany, in 2007 from the United Kingdom (34%) and from Ireland (35%)⁹.

According to data from the World Bank, in 2004 the total of officially recorded remittances to Eastern Europe and the former Soviet countries amounted to 8% of the global value of remittances and 12% of the total remittances received by developing countries (Mansoor, Quillin, 2006). However, in most cases the relative importance of remittances was rather small¹⁰. In Poland's case, the share of remittances was significantly below 2% and remained more or less stable despite massive post-accession outflow of persons: in 2006, remittances constituted around 1.3% of the Polish GDP. According to the recent, updated estimates of total remittances provided by the National Bank of Poland, this share has risen slightly higher but is still relatively low – in 2007 it amounted to 1.8% of GDP. Similar conclusions can be obtained from a comparison between remitted funds with the total value of exports. In 2007 remittances constituted less than 5% of incomes from exports (4.5%). Thus, in Polish case migration should not be perceived as a substitute for international trade. Remittances can appear slightly more important if compared with incoming foreign direct investment. In 2006 the total value of FDI into Poland amounted to 11 093 million EUR. In the same period, remittances totalled 6 344 million EUR. It can be concluded that – along with the growing intensity of migration after May 2004 – the inflow of remittances to Poland has become increasingly significant (but still small in relative terms).

⁹ Increases of 470% and 769%, respectively.

¹⁰ Only three countries of the region – Moldova, Bosnia and Herzegovina and Albania – were placed among the top 20 migrants' remittances-receiving countries in the world, with shares of remittances in GDP ranging from 15 to 25%.

Generally, the macro impact of remittances on Poland is rather limited. The relative importance of money sent from abroad is the outcome of a relatively large and quickly-expanding economy. According to the analysis done by Leon-Ledesma and Piracha (2001) migration influences two major GDP components in a statistically significant way – investment and the private consumption, whereby the elasticity with respect to consumption is estimated to be almost twice that of investment. In a relatively large country – such as Poland – these effects should predominantly be reflected on the regional and local scale.

Conclusions from selected studies on Polish sending communities and regions are quite similar: only in exceptional cases does labour mobility have a significant (positive) impact on the local economy (Jazwinska, Okólski, 2001; Jazwinska *et al.*, 1997). This is due to a few reasons. Firstly, the percentage of households receiving remittances is typically relatively low. Secondly, a majority of households spent money almost exclusively on private consumption, mostly because the totality of remittances was not large enough to be invested (e.g., in production). Additionally, communities may become dependent on the transfers of remittances from abroad. Remittances may also have real effects on local economies, although these are not as significant with regard to generating additional consumption or investment demand. Surveys carried out in various regions (among others in Lower and Upper Silesia, Podlasie and Podhale) showed that localities with higher shares of migrant households tended to have more modern housing stock as well as more highly developed infrastructure (sewage and water pipelines, telecommunication, roads, etc.) or tourist facilities. A positive – although limited - impact on entrepreneurship was also noted (Frejka *et al.*, 1998; Jonczy, 2003; Jażwinska, Okólski, 2001)¹¹.

Recently, a detailed analysis of the scale and usage of remittances in the pre- and post-accession period was provided by Kaczmarczyk (2008) and was based on an ethnosurvey completed in 2007 in four Polish regions. The average savings of post-2002 migrants amounted to around 2 900 EUR. Spending abroad constituted on average less than 10% of disposable income. As a consequence, the average sum of money transferred back home ranged from 2 300 EUR to 3 400 EUR. According to econometric analyses, the scale of remittances was strongly dependent on the duration of time spent abroad and the destination country (relatively higher in the UK and Ireland), though it depended to lesser degree on the structure of the household. In those households which received remittances, money sent back from abroad turned to be very important part of households' budgets: on average, remitted money (by one migrant) constituted over 40% of total annual net income; in the case of migrants staying in the UK or Ireland, this share was even higher (over 52%).

¹¹ In this context, the most striking example of the importance of remittances for local economies was recorded in the Opole region. In 2000 the officially-reported disposable monthly income per capita in the Opole region amounted to 630 PLN, but the value including remittances was estimated at 840 PLN. Due to this adjustment, the position of the Opole region in the ranking of all Polish regions should be modified from 10th (among 16 regions) to 1st.

In all communities being surveyed, the highest share of households used remittances in order to finance current expenses (around 46% of receivers). Quite typically, the share of investment spending was very low (around 3% of households). However, a relatively new tendency to invest in human capital was clearly visible: 13% of respondents declared that they spend remittances on their own education, and an additional 18% financed the education of their children. This data must be re-evaluated if we include information not only on the share of households identifying a particular manner of spending but also the value of expenses. The relative value of remittances used to finance current expenses was relatively low and comparable to education expenses. On the other hand, paradoxically, savings and/or investments were generally much higher than other types of spending.

The analysis of allocation methods of recent migrants reveals a strong duality within Polish migration. On the one hand, a large majority of migrants follow a strategy, which, in many cases, may simply boil down to a 'survival strategy'. It pertained to individuals in a relatively difficult economic situation, often unemployed in Poland, who predominantly used migration to gain additional disposable income for their household budgets. On the other hand, however, in the post-accession phase other strategies play a relatively more important role. The first one ('financial independence strategy') was relatively common among young people, who, thanks to money earned abroad, had a chance to gain financial independence, the second ('development strategy') comprised relatively well-off people, in whose case remittances were used to cover costs of housing, investment, and education. Interestingly, the latter strategies are not limited to households that find themselves in a relatively more favourable financial situation. The group spending money on education mainly included individuals from households of relatively unsound financial standing, located in peripheral regions – mostly rural areas or tiny towns. This indicates a strong pressure on the side of the Polish labour market, which compels individuals to improve marketable skills or consider a change of career. In this context, the recent outflow from Poland may not only allow for considerable reforms of the labour market (via the 'crowding-out' effect) but may also contribute to structural changes within the labour force (with regard to skill mismatch).

6 Conclusions

Poland is a country with a large demographic potential but also, as suggested in the report, with a relatively large number of people who are redundant in economic terms (with particular reference to the labour market). Additionally, it is a country with a long migration history, including long-lasting patterns of labour mobility (at least since early 1970s). Against this background post-enlargement flows cannot be perceived as completely unexpected phenomenon. Notwithstanding, the scale and dynamics of the post-2004 mobility is spectacular: according to the recent estimates provided by the Polish Central Statistical Office between 2004 and end of 2007 the number of Poles staying temporarily abroad more than doubled. Other sources strongly support this observation.

The analysis of available data leads to a set of conclusions related to the institutional framework, particularly to the introduction of the Transitory Arrangements:

- Those countries who imposed no restrictions noted the highest number (and dynamics) of migrants; it refers mainly to Ireland and the United Kingdom, which in a very short period of time became the main destinations for Polish migrants.
- In case of other countries, even if the scale of migration is on the rise, they are losing their importance in relative terms (with Germany as a perfect example).
- Very important changes with regard to structural features were noted. People choosing countries that did not introduce labour market restrictions are, generally, younger and better educated, and are originating from both small and large cities. Migration to these countries means little effort and little risk, additionally there is a chance to take up a legal employment abroad.

Even if scale of the outflow is massive (as it is in the Polish case), migrants still represent relatively small fraction of the population. Therefore, short- and long-term demographic effects of recent migration are very difficult to assess. Notwithstanding, it is important to note very diverse regional patterns of mobility and net losses of population – these effects may seriously impact Polish regional policy in the near future. With regard to the labour market, migration is typically perceived as a main contributor to recent changes leading from shortage of jobs to shortage of workers (as stated in the recent World Bank report). However, the impact of international mobility on labour market situation is exaggerated. As we argue, not only negative but also positive effects should be considered. Among them the so-called ‘crowding-out’ hypothesis seems to be the most important one and suggests that the recent outflow may have very positive long-term effects for Polish economy and society.

Last but not least, an extremely important issue– both with reference to the scale of mobility and its consequences – is the return migration. Since 2007 this particular topic is winning more and more importance in public (and scientific) debates on migration. However, at this stage it would be extremely difficult to provide an in-depth analysis of the phenomena. On the one hand, taking into consideration the scale and patterns of Polish post-accession mobility, it would be highly reasonable to expect a reverse flow of returnees. The only question is the scale and pace of the process. On the other, our knowledge on the process is so far limited to more or less anecdotal evidence. Scientific analyses available exemplify rather methodological difficulties than provide reliable data¹². Thus, even if the dynamics of the inflow is slowing down (particularly in 2007) there is still no strong evidence showing a massive wave of Polish return migration.

¹² As a good example the recent IPPR report may serve (Pollard, Lattore, Sriskandarajah, 2008). Authors provided an estimate of around 50 per cent of Polish migrants who supposedly already leave the UK and come back to Poland. However, this estimation is based on comparison of the data coming from completely different sources (WRS and LFS), both imperfect in assessing the scale of mobility (although for different reasons).

7 References

- Accession Monitoring Report.** 2007, 2008. London: Home Office: Department for Work and Pensions.
- Bijak, Jakub.** 2007. "Demographic developments". In *ARGO 2005 – European Cooperation In Labour Migration: Search for Best Practices. Polish Country Report* ed. Kupiszewski, Marek. Warsaw: CEFMR.
- Bijak, Jakub, Kupiszewski, Marek, and Anna Kicingier.** 2004. International migration scenarios for 27 European countries, 2002-2052, *CEFMR Working Paper 4/2004*, Warsaw: CMR.
- CSO. 2008.** *Informacja o rozmiarach i kierunkach emigracji z Polski w latach 2004-2007 [Information on the scale and directions of emigration from Poland in 2004-2007]*, Warsaw: CSO.
- CSO. 2008b.** *Informacja o badaniach zasobów imigracyjnych w Polsce w 2008 r. [Information on research on immigrant stock in Poland in 2008]*, CSO: Warszawa.
- Department for Work and Pensions.** 2007. *National Insurance Number Allocations to Overseas Nationals Entering the UK – 2006/07*. London: Department for Work and Pensions.
- Frejka, Tomas, Okólski Marek, and Keith Sword,** ed. 1998. *In-depth Studies on Migration in Central and Eastern Europe: the Case of Poland*, United Nations, New York and Geneva: UN.
- Grabowska-Lusińska, Izabela, and Anna Żylicz.** 2008. *Czy polska gospodarka potrzebuje cudzoziemców? [Does Polish economy need foreign labour?]*. Warsaw: CMR UW.
- Jaźwinska, Ewa, and Marek Okólski,** ed. 2001. *Ludzie na hustawce. Migracje między peryferiami Polski i Zachodu [People on the Swing. Migration from Polish Peripheries to Peripheries of the West]*, Warsaw: Wydawnictwo Naukowe Scholar.
- Jończy, Romuald.** 2003. *Migracje zarobkowe ludności autochtonicznej z województwa opolskiego. Studium ekonomicznych determinant i konsekwencji [Migration for work of indigenous population from Opole region. A study on economic determinants and consequences]*. Opole: University of Opole.
- Kaczmarczyk, Paweł, and Wojciech Łukowski,** ed. 2004. *Polscy pracownicy na rynku Unii Europejskiej [Polish workers on the EU market]*, Warsaw: Scholar.
- Kaczmarczyk, Paweł.** 2005. *Migracje zarobkowe Polaków w dobie przemian [Migration for work in the era of change]*, Warsaw: WUW.
- Kaczmarczyk, Paweł.** 2008a. *Cudzoziemscy pracownicy w Polsce [Foreign labour in Poland]*. In: Kaczmarczyk, Paweł and Marek Okólski ed. *Polityka migracyjna jako instrument promocji zatrudnienia i ograniczania bezrobocia [Migration policy and labour market change]*, Warsaw: WNE UW.
- Kaczmarczyk, Paweł,** ed. 2008b. *Współczesne migracje Polaków – aspekty regionalne i lokalne [Recent migration of Poles – regional and local aspects]*, Warsaw: CMR UW.
- Kaczmarczyk, Paweł, and Marek Okólski.** 2008a. *Economic impact of migration on Poland and Baltic states*, Oslo: FAFO.
- Kaczmarczyk, Paweł, and Marek Okólski,** ed. (2008b). *Polityka migracyjna jako instrument promocji zatrudnienia i ograniczania bezrobocia [Migration policy and labour market change]*, Warsaw: WNE UW.

- Kępińska, Ewa.** 2007. "Recent Trends in International Migration. The 2007 SOPEMI Report for Poland". *CMR Working Papers 29/87*, Warsaw: Centre of Migration Research, University of Warsaw.
- KPMG.** 2008. *Migracje pracowników – szansa czy zagrożenie?* [Labour migration – a threat or a chance?], Warsaw: KPMG.
- Kupiszewski, Marek,** ed. 2007. *ARGO 2005 – European Cooperation In Labour Migration: Search for Best Practices. Polish Country Report*, CEFMR: Warsaw
- Leon-Ledesma Miguel, and Matloob Piracha.** 2004. "International migration and the role of remittances in Eastern Europe", *International Migration*, 4.
- Mansoor, Ali M., and Bryce Quillin.** 2006. *Migration and Remittances. Eastern Europe and the Former Soviet Union*, Washington: World Bank.
- National Bank of Poland.** 2007. *Wstępna informacja o kondycji sektora przedsiębiorstw ze szczególnym uwzględnieniem stanu koniunktury w I kw. 2007*, Warsaw: Narodowy Bank Polski. Departament Analiz Makroekonomicznych I Strukturalnych.
- National Bank of Poland.** 2008. *Nowa metoda szacunku dochodów z pracy Polaków za granicą*, Warsaw: Narodowy Bank Polski. Departament Statystyki.
- National Bank of Poland.** 2008a. *Inflation Report, February*, Warsaw: NBP.
- National Bank of Poland.** 2008b. *Informacja o kondycji sektora przedsiębiorstw ze szczególnym uwzględnieniem stanu koniunktury w II kw. 2008 r.*, Warsaw: NBP, available at: <http://www.nbp.pl/publikacje/koniunktura/raport2kw2008.pdf>
- Okólski, Marek.** 1997. *Statystyka imigracji w Polsce. Warunki poprawności, ocena stanu obecnego, propozycje nowych rozwiązań*, *ISS Working Papers – Seria: Prace Migracyjne* (currently *CMR Working Papers*), No. 2.
- Pollard, Naomi, Latorre, Maria, and Jaideep Sriskanradajah.** 2008. *Floodgates or turnstiles? Post-EU enlargement migration flows to (and from) the UK*. London: IPPR.
- World Bank.** 2006. *Labour Migration from the New EU Member States. Quarterly Economic Report Part II: Special Topic*. Washington: World Bank.
- World Bank.** 2007. *From Shortage of Jobs to Shortage of Skills. Quarterly Economic Report Part II: Special Topic*. Washington: World Bank.