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## MULTISTAGE NATURE OF LABOR MIGRATION FROM EASTERN AND CENTRAL EUROPE (EXPERIENCE OF UKRAINE-POLAND-UK, GERMANY DURING THE PERIOD 2002-2011)

In modern conditions the globalization is dominant trend in international relations is, one of the most important aspects of which is the international labor migration. Moving of human resources, caused by socio-economic, military, ethnic and religious factors becomes increasingly important. The significant increase in the scale of international migration, involves considerable amounts of its labour resources actualises research of international labour migration as a form of international political relations and its impact on world politics. Currently the European Union is one of the traditional centers of gravity of the labor force, where the total number of foreign workers each year varies within 4-7,5 million.

In 2004, fears of massive flows of immigrants from an unprecedented eight new eastern European countries (with lower wages and higher unemployment than in the EU) were prevalent. These fears played a crucial role in debates that led to four-fifths of the EU-15 restricting access to A-8 workers (the A8 countries were eight of the ten countries that joined the European Union in 2004, namely Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia).

The experience since the 2004 enlargement shows that were no of large movements of people across the continent. However, the size and impact of migration flows is varying from new Member State (NMS) to old Member State and is not necessarily determined by the degree of the imposed restrictions. The main focus of research is multistage nature of labor migration flows. As example we investigate such process from Poland to the UK and Germany and as a consequence provoking the same processes from Ukraine to Poland. In particular, there is a structuring of migration from these countries, reflecting the features of integration stages of new EU Member States. This allows us to consider that this type of labor migration within the multistage model to include periods of time that take into account the inertia of moving the labor. Using the results of statistical data on migration processes on the borders of Ukraine-Poland for the period 2004-2013 are systematized. The possibility of prediction these processes in the future are considered. In particular, the use of such models to predict similar processes towards Romania-Italy-France after work permit citizens of Romania and Bulgaria, regardless of the skills of workers from these countries is viewed. This article examines the structure and motivation of labor migration from Central and Eastern Europe after EU enlargement in 2004. The nature and consequences of the labor movement resources of the new EU's Member States are analyzed.

Many A-8 migrants in UK and German have arrived on temporary or permanent work permits (nearly 900,000 during the first year in Germany), but suggestions of migration through less formal routes are appearing in recent analyses of transitional arrangements, including a report from the European Commission in 2006. One of the notable observations of the 2004 enlargement has been the effect that restrictive policies have had on diverting larger-than-predicted flows of A-8 migrants to the unrestricted labor markets of the UK and Ireland. For example, between May 2004 and September 2006, around 487,000 A-8 nationals registered to

work in the UK; some of those who registered had been there illegally and were able to become legal thanks to the accession. In total the European population was increased by almost 26% with the new accessions (Boeri & Brücker, 2005; Desiderio, 2012, p. 46).

Against this background the UE-15 countries decided at the Goteborg summit of the European Council to impose transitional periods for the free movement of workers from NMS. The so-called "2+3+2" formula allows the individual member states to suspend the free movement of labour for a period of up to seven years. It requires Member States to indicate their intentions regarding labour mobility in 2006 and 2009 and then by 2011 to lift all restrictions. However, with the accession of Bulgaria and Romania in 2007, two countries also covered by the "2+3+2"rule, access to employment can theoretically be blocked until 2014.

The mobility of workers in Europe thus remains an important resource both in terms of employment and European competitiveness and is a central concern for Member States today. It is also central to the priorities of the 2007-2010 Action Plan and the new phase of the Lisbon Strategy (2008-2010), which aims to make the European Union the most competitive economy in the world and achieve full employment by 2010. These include numerous provisions aimed at facilitating and structuring worker mobility by providing more guarantees for both employers and employees.

The selective enforcement of migration limits during the transitional periods had two effects: first, the existing limits have hindered migration such that total migration into the EU is apparently lower than in case of an EU-wide enforcement of the Community Law for the free movement of labour. Second, migration flows have been distracted away from the preferred destinations towards countries which have opened their labour markets immediately after the EU Eastern enlargement. Table 1 shows the development of the migration flows in the course of the EU Eastern enlargement.

**Table 1. Inflows of permanent immigrants into EU-15 countries, 2003-2009**

|  | 2002 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|---|---|
| **Ireland** | 43 200 | 24 700 | 66 000 | 88 900 | 89 600 | 67 600 | 38 900 |
| **Italy** | 120 100 | 153 100 | 193 500 | 171 300 | 537 200 | 489 100 | 369 000 |
| **Spain** | .. | .. | .. | .. | 691 900 | 409 600 | 334 000 |
| **Denmark** | .. | 21 000 | 21 600 | 23 900 | 30 300 | 45 600 | 38 400 |
| **Belgium** | .. | .. | 35 000 | 35 600 | 40 300 | 43 900 | 37 700 |
| **Germany** | 231 300 | 230 500 | 196 600 | 165 200 | 232 800 | 228 300 | 197 500 |
| **Norway** | 22 500 | 24 900 | 25 800 | 28 300 | 43 700 | 48 900 | 43 100 |
| **Finland** | 9 400 | 11 500 | 12 700 | 13 900 | 17 500 | 19 900 | 18 100 |
| **Portugal** | 11 000 | 13 100 | 11 500 | 25 100 | 42 900 | 65 900 | 59 900 |
| **Austria** | 51 900 | 57 100 | 56 800 | 30 800 | 47 100 | 49 500 | 45 700 |
| **France** | 170 200 | 198 600 | 190 000 | 195 300 | 184 500 | 192 200 | 178 700 |
| **Sweden** | 47 900 | 49 300 | 53 800 | 78 500 | 74 400 | 71 000 | 71 300 |
| **Netherlands** | 65 200 | 64 800 | 69 400 | 73 000 | 80 600 | 89 600 | 90 500 |
| **United Kingdom** | 260 200 | 322 900 | 369 400 | 354 200 | 364 400 | 347 600 | 397 900 |

Source: (CSO, 2012)

Investigation of multistage nature of labour migration in further analysis has to be estimations of the migration potential under the transitional arrangements and of the free

movement of workers. There exists a large literature which has estimated the migration potential from the A-8 and other countries to EU-15 after EU enlargement 2004 and 2007. While the total increase in the stock of migrants from A-8 countries, especially from Poland in EU-15 and from Ukraine to Poland which took place during the first four years after the accession is consistent with most estimates which have been carried out prior to the EU Eastern enlargement, the multistage character of migration flows away from Poland towards German and UK; from Ukraine towards Poland has not been predicted by the existing literature.

The long-run migration stock from the A-8 in EU-15 has been forecasted by most econometric studies at about three to five per cent of the population of the new member states, while the net have been estimated at about 200-300 thousands person per annum (Alvarez-Plata et al., 2003; Bauer and Zimmermann, 1999; Boeri and Brücker, 2001; Bruder, 2004). These estimates have been confirmed by some recent estimates which have been carried out after enlargement and use current data (Brücker et al., 2009b; Pytlikova, 2007; Zaiceva, 2006). Nevertheless, some studies obtained significantly lower (Fertig, 2001; Fertig and Schmidt, 2001; Dushmann et al., 2003) or higher estimates of the long- and short-run migration potential (Sinn et al., 2001)

All these forecasts rely on the counterfactual assumption that all EU member states open their labour market at the same time. Under this assumption, most studies forecasted a higher migration potential for Poland and Ukraine and a substantially lower one for German and UK compared to the actual development after EU enlargement (Dustmann et.al., 2003). However, since the rules of the free movement of workers have been not applied in the entire EU at the same time we cannot falsify the existing studies. Note that it was not possible to forecast the migration potential from NMS under transitional arrangement before EU enlargement, since the selective application of transitional arrangements for the free movement of labour has no historical precedent.

In the second step we used the pre- and post-Enlargement shares of Poland, Germany and UK in the total migration stock and flows from the NMS for the calculation of migration scenario for Poland, German and UK, as result in non-EU countries, in particular Ukraine, under the assumptions that the pre-Enlargement distribution of migration shares across the EU-destination countries would have been constant in case of an EU-wide introduction of the free movement and that the post-Enlargement distribution of migration flows would remain constant if the transitional arrangement are applied until 2011.

A model of multistage nature of labour migration requires large time series of migration data. We used data from Germany, UK, Poland and Ukraine. Our data set covers the period 2002 to 2009, which gives 8 time series observation. We include 4 sample countries for which continues time series were available. We distinguish EU and non-EU sample here. The data on migration flows are derived from statistics of the examined countries. Whenever possible I have used the national population statistics, however national data sources and national concepts differ across the EU and in the neighbour countries some measurement error is unavoidable. Indicators of the employment and unemployment rates, total labour force and other parameters that characterise the labour force have been taken from the Eurostat Labour Forse Survey (LFS) and the statistics from annual reports of Organisation for Economic Co-operation and Development (OECD) in the remaining cases. However, in order to avoid structural breaks I rely only on one data source for given destination. These data have then been aggregated to calculate the number of migrants in the EU-15.

For econometric estimations of the dependence of labour migration on economic indicators I have been used the GDP per capita at current exchange rates and purchasing power parities , GDP per person employed, average annual wages, which have been taken from the World Development Indicators of the World Bank (2013).

Estimates from simulations (Boeri and Brücker, 2001), prior to the EU enlargement in 2004, suggested that the foreign population originating from the Eastern Europe countries in particular from Ukraine residing in the NMS raised in 18% after the enlargement. Net migration inflows in the EU would start to increase immediately to a maximum of about individuals per year, and reach their highest levels 30 years after the opening of the market. The scale of the outflow from this simulation turned out to be rather unrealistic, given that about 2 million Poles alone per year migrated (short-term movement) by 2007. Transitional limitations on free mobility were imposed, leading to a leading role in reception of NMS migrants for the countries that opened their labour markets immediately. Concerning the share of labour migrants, the simulations were too pessimistic, because more than 80% (of Polish migrants) turned out to be labour migrants. Although worries about a burden on the welfare states of receiving countries dominated the public debate, a strong demand for labour during prosperous growth years created a very important pull factor for workers from NMS. Gradually all EU members lifted the restrictive measures. An expected result was a greater dispersion of NMS across EU15 countries, but the outcome of the 'natural experiment' was interrupted by the economic crisis in 2008.

Migration flows in Poland are still largely outward and have increased steadily during the last decade and especially since the country's accession to the EU in May 2004. Precise figures on emigration are difficult to obtain, as most people do not declare emigration. The national Labour Force Survey provides a lower-bound estimate of about 537 000 Poles who had been abroad for more than two months in the second quarter of 2007, up 38% from the same quarter of 2006. About half of these Poles were abroad for more than 12 months. Post-accession labour emigration has been disproportionately female, younger and better educated. The main destinations are the UK and Ireland, although migration to Germany, Norway and Sweden has also been high. With the ongoing expansion of Poland's economy, an improving exchange rate and rising wages, there are some signs of a slowdown of emigration in the second half of 2007.

Compared to other OECD countries, migration movements play a limited role in Hungary. This appears to be the case for both in- and outflows, although the current registration system is not designed for monitoring long-term emigration. Immigrants account for less than 2% of the population, and the vast majority of these are Hungarian speaking. After the 2005 peak with an inflow of almost 25 600 foreign nationals, immigration to Hungary decreased by 14% to about 19 400 in 2006. In spite of a strong decline in recent years, Romanians remained the main nationality concerned (about 6 800, compared to more than 12 100 in 2004), followed by Ukrainians. Chinese are now the third most important nationality among the inflows, following a strong increase (almost 1 500 in 2006, compared to about 550 in 2005).

These flows have boosted the UK and Ireland's economies. Studies from academia, government, and business have shown that employment has risen; skill shortages are being filled; and inflation is being kept low.

The experience of the first phase of the transitional arrangement that was provided for the liberalization of the labour markets of the EU-15 counties, has shown, that waves of fear of the migration flows from the A-8 were overstated. Therefore we can say that by 2011 (finishing of the transitional period) all EU-15 countries completely abolished all restrictions on the

movement of workers from A-8 countries. And this process was finished in the beginning of the 2014 for the new EU countries Bulgaria and Rumania.

Before EU enlargement a series of assessments has determined the potential of migration between EU-15 and candidate countries for accession to the EU. It was found that in the case of complete removal of barriers to international labour migration about 1-2.5 million workers of the new EU countries further employ in the EU-15. However, the impact of EU enlargement on the general dynamics of migration flows (including third countries) and the EU-25 was not researched.

**Table 2. Inflows of permanent immigrants into A-8 countries, 2003-2009 (in thousands)**

|  | 2002 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|---|---|
| **Czech Republic** | 57 100 | 49 700 | 55 900 | 63 000 | 98 800 | 71 800 | 39 000 |
| **Hungary** | 19 370 | 22 160 | 25 580 | 23 570 | 22 610 | 35 550 | 25 580 |
| **Slovak Republic** | 4 560 | 7 920 | 7 670 | 11 310 | 14 850 | 16 470 | 14 440 |
| **Slovenia** | 8 010 | 8 600 | 13 290 | 18 250 | 27 500 | 28 060 | 27 390 |
| **Poland** | 30 330 | 36 850 | 38 510 | 34 210 | 40 640 | 41 830 | 41 280 |
| **Estonia** | .. | 760 | 980 | 1 490 | 1 950 | 1 930 | 2 230 |

Source: Source: International Migration Outlook 2013- OECD2013

Currently every country in the EU retains its own system of regulation of labour immigration from third countries. However, it could be the premise for which the EU countries without being formally obliged to harmonize its immigration regime for workers from third countries, it is still used measures to develop common principles of migration policy, and in the period of the EU certain formal and informal factors could contribute to the convergence of EU migration policy.

There exists a large amount of literature which analyses the international labour migration (ILM) and which shows that the theory of international migration flows have different definitions for the key factors that influence on the decision of workers to migrate, but the majority of them focuses on the difference in expected income in the donor country and the recipient country and the situation in labor market. But these theories cannot fully describe the patterns of ILM. Comparative analysis of theories and results of empirical tests give reason to believe that the phenomenon is complex ILM phenomenon that is not only economic but also political and social dimension.

Theory on how people make the decision to migrate, or not, is often seen from a rational choice perspective as a cost-benefit calculation (Massey, 1999). Where neoclassical models picture the migration decision on the individual level, new economics of labour migration assign it to the household strategy of risk diversification by sending household members abroad to secure the household income (Stark & Bloom, 1985). An income equation based on expected earnings at home is compared to expected earnings if the person would move abroad. In neoclassical economics migration is seen as an investment in human capital, or 'investment in the productive use of human resources" (Brücker et al., 2007; Massey, 1999). From this idea follows that a person will decide to migrate if the discounted returns to investment (in human capital) are greater abroad than at home, in order to maximise the life-time utility function (Borjas, 2013). Income expectations are based on wage levels and employment opportunities.

In order to study the impact of economic factors on multistage nature of labor migration from the new EU member states, in particular Poland to the German and UK was based on the following equation:

$$ln(FLOWSplge,pluk) = c_1 + c_2 * ln(AVEWAGESge,uk) + c_3 * ln(EMPPOPULge,uk) + c_4 * ln(GDPPCge,uk) + c_5 * ln(GDPPEPge,uk) + c_6 * ln(LFRATEge,uk) + c_7 * ln(UERATESge,uk) + c_8 * ln(AVEWAGESpl) + c_9 * ln(EMPPOPULpl) + c_{10} * ln(GDPPCpl) + c_{11} * ln(GDPPEPpl) + c_{12} * ln(LFRATEpl) + c_{13} * ln(UERATESpl)$$

where *FLOWS* denotes the dependence of migration flows from economic indicators, namely: *AVEWAGES* – average annual wages, *EMPPOPUL* – employment to population ratio, *GDPPC* – GDP per capita, *GDPPEP* – GDP per person employed, *LFRATE* – labor force participation rate, *UERATES* – unemployment rate, of sample countries – Poland (*pl*), Germany (*ge*), United Kingdom (*uk*) in destination from Poland to Germany (*plge*) and from Poland to UK (*pluk*). The equation covers the period from 2002 to 2012. In the estimation were used logarithms of these indicators.

The estimation result have shown that some variables of equations are insignificant and do not affect on the results, i.e. on the dependence of migration flows. Consequently in the next calculation of the regression equation for migration flows from Poland to German is as follows:

$$ln(FLOWSplge) = 0.16675 + 0.601489 * ln(GDPPCge) - 0.156944 * ln(UERATESpl)$$

The results of the regression equation displayed in Table 3. According to estimation the labor migration from Poland to Germany depends on economic factors such as GDP per capita in Germany and unemployment rate in Poland. This assumes that the main reason of migration is the difference of economic development of both countries. Also suggests that an additional factor of polish labour migration is the attractiveness of Germany as the host country in relative proximity that confirmed the constant migration flows from Poland since 1992 (Poland was one of the main sending countries of migrants in Europe, in particular to Germany (around 250 000 workers per year), when was created a single market, which is composed of a free trade area (for goods) with some common policies on product regulation, and freedom of movement of the factors of production (capital and labour) and of enterprise and services.

**Table 3. Estimation result**

|  | Coefficient | t-Statistic |
|---|---|---|
| *C* | 0.166750 | 0.039243 |
| *ln(GDPPCge)* | 0.601489 | 1.596072 |
| *ln(UERATESpl)* | -0.156944 | -1.081463 |
|  |  |  |
| R-squared | 0.751215 |  |

Source: Own calculations in the program EViews 8.0. based on data from World Development Indicators of the World Bank

Another element that explains East-West migration from an economic point of view stems from the dual labour market theory by Michael Piore (1986). He explains that countries with developed economies have an inherent demand for both low-end and specifically skilled labour

which cannot be met by the internal workforce. Therefore foreign labour is 'demanded' or attracted to work in highly developed economies, such as in Western Europe. A consequence for migrants is that they often end up in jobs below their skill level, resulting in brain waste. To conclude this model, a simple demand and supply framework for labour shows that demand for labour in destination countries on the on hand and oversupply of labour in source countries of migration provide a likely explanation for migration incentives (pulled by destination countries) (Massey, 1999; Piore, 1986).

One of the components of migration costs, that in general increases the cost for most people, is risk aversion and uncertainty. Assuming that in general people are risk averse, uncertainty and risk of migration increase the cost. Risk is often focused in employment opportunities in the expected earnings equation. Again this cost of risk is substantially lowered by opening the EU market to CEE (Brücker et al., 2007).

In order to the results of the regression equation labour migration flows from Poland to UK these do not depend on economic factors. Unlike Germany, the flow of migrants from Poland to UK depends on the institutional factor and is directly dependent on the availability of transitional arrangements for the new EU countries between 2004 and 2007 and the free movement.

According to literature on migration theory, institutional factors allowing or hindering people to migrate are of very high importance in actual migration flows (Brücker et al., 2007; Martin, 2009; Martin & Taylor, 1996; Massey, 1999). Part of the explanation for the rapid rise in post-accession migration is the regularisation of mobility to the EU15, where it was illegal before (Budnik, 2007; Kaczmarczyk et al., 2010).

The immediate opening of some labour markets is only partly reflected in the number of Polish migrants and does not simply explain the scale of post-accession migration (Kahanec, Zaiceva, & Zimmerman, 2009).

The immediate opening of some labour markets is only partly reflected in the number of Polish migrants and does not simply explain the scale of post-accession migration (Kahanec, Zaiceva, & Zimmerman, 2009). In fact all European destinations received more Poles since the European enlargement.

The next stage of the study is the estimation of the nature of labor migration from Ukraine to the new EU countries, in particular Poland. The key factors that led Ukrainians to seek employment abroad since the early 90 's were sharp increases in unemployment, falling incomes, hyperinflation, liberalization of entry, as well as facilitating access to information about employment opportunities abroad. International labour migration significantly softened the shock to the labor market of Ukraine, with the role of old and NMS. In late 2004 - early 2005, from the ten most attractive countries for emigrants from Ukraine seven were the EU countries.

Cooperation between Ukraine and the countries - members of the EU labor migration is at its lowest stage of development compared to the relationship in the movement of goods, services and capital. Total in labor migration from Ukraine EU operates under the general rules established in relation to third countries.

As we can see from Figer1 the inflows of Ukrainians to Poland in last decades is the most numerous in comparison to the other CCE countries, which are non-EU. Also note that as a result of the EU-enlargement in 2004, when Poland became a part to the EU, we observed the increase the migration flows from Ukraine by 30-40% compared to previous years before the EU enlargement.

**Figure 1. Inflows of foreign population by nationality. Poland 2002-2011(in thousands)**
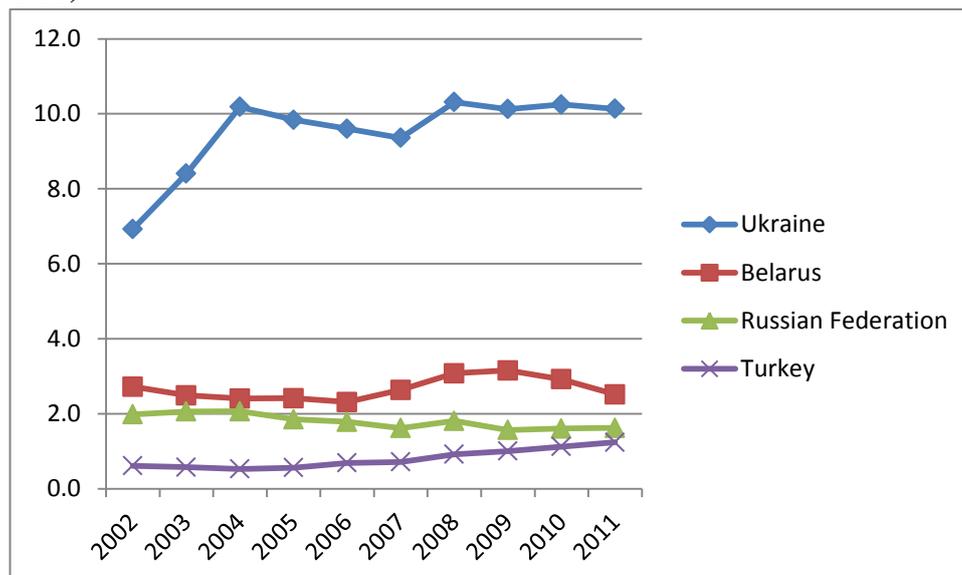


Source: International Migration Outlook 2013- OECD2013

The impact of EU enlargement in 2004, the intensity and structure of migration flows from Ukraine to the EU is estimated using econometric methods for the period from 2002 to 2012.

$$ln(FLOWSuapl) = c_1 - c_2 * ln(EMPPOPULua) + c_3 * ln(GDPPCua) + c_4 * ln(GDPPEPua) + c_5 * ln(LFRATEua) + c_6 * ln(UERATESua) + c_7 * ln(EMPPOPULpl) + c_8 * ln(GDPPCpl) + c_9 * ln(GDPPEPpl) + c_{10} * ln(LFRATEpl) + c_{11} * ln(UERATESpl)$$

where *FLOWS* denotes the dependence of migration flows from economic indicators, namely: *EMPPOPUL* – employment to population ratio, *GDPPC* – GDP per capita, *GDPPEP* – GDP per person employed, *LFRATE* – labor force participation rate, *UERATES* – unemployment rate, of sample countries – Poland (*pl*), Ukraine (*ua*), in destination from Ukraine to Poland (*uapl)*. In the estimation were used logarithms of these indicators.

As in the previous cases of study migration flows from Poland to German and UK the estimation result have shown that some variables of equations are insignificant and do not affect on the results, i.e. on the dependence of labour migration flows. Consequently in the next calculation of the regression equation for migration flows from Ukraine to Poland is as follows:

$$ln(FLOWSuapl) = -0.096 - 0.25781 * ln(EMPPOPULua) + 0.29679 * ln(GDPPEPpl)$$

The results of the regression equation displayed in Table 4. As a result of this study I can make a conclusion that labour migration from Ukraine to Poland depends on 2 economic factors: the employment to population ratio in Ukraine and GDP per person employed in Poland. This means that growth of GDP per person employed in Poland encourages Ukrainians to migrate to neighboring Poland, if in the same period of time the indicators of the employment are decreasing in Ukraine.

**Table 4. Estimation result**

|  | Coefficient | t-Statistic |
|---|---|---|
| *C* | -0.096002 | -0.066140 |
| *ln(UERATESua)* | -0.257810 | -1.181563 |
| *ln(GDPPCpl)* | 0.296785 | 2.331323 |
|  |  |  |
| R-squared | 0.552924 |  |
|  |  |  |

Source: Own calculations in the program EViews 8.0. based on data from World Development Indicators of the World Bank

It is worth mentioning on several caveats in these estimates: first, the estimates under current economic conditions are based only few annual observations, which might be insufficient to indentify the parameters of the labour migration dependence on economic indicators; second, particularly the migration data used for the estimates are subject to measurement error which may bias the results in one way or another.

According to conducted studies I can answer and confirm the main issue of research concerning correctness assertion about multistage nature of labour migration after EU enlargement 2004.

Multistage nature of migration flows characterised in 3 stages: The first stage distinguishes the migration flows up to 2004. The main tendency of this stage is the latency of migration flows, i.e., invisibility, which means a gradualism; there were no significant economic and institutional changes that could lead to mass migration from the sample countries.
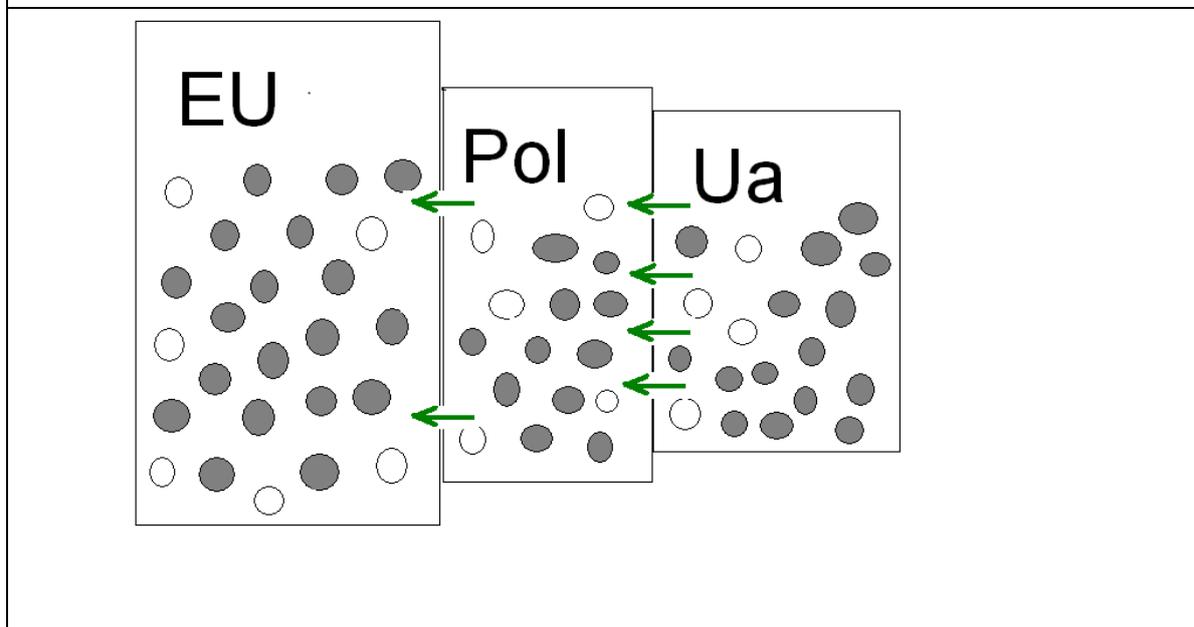
Figure 2 shows the filled and empty circles denoting occupied and vacant spaces, which attract migrant workers from one country to another.

**Figure 2. Multistage of labour migration after EU-enlargement**



a) First stage (up to 2004): latent labor migration
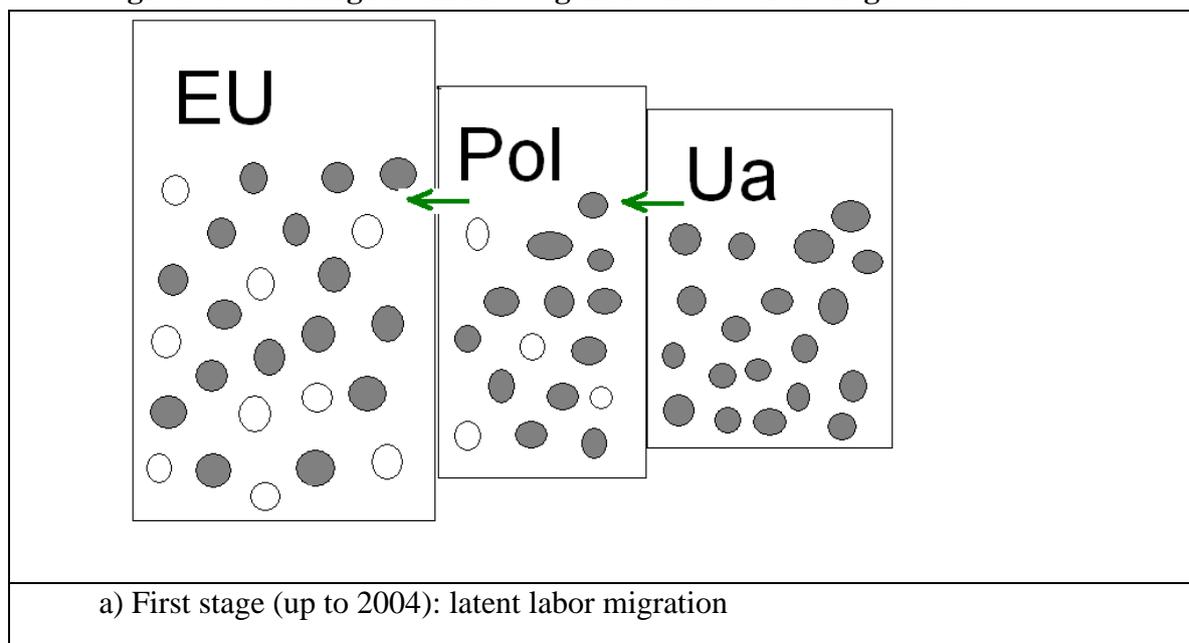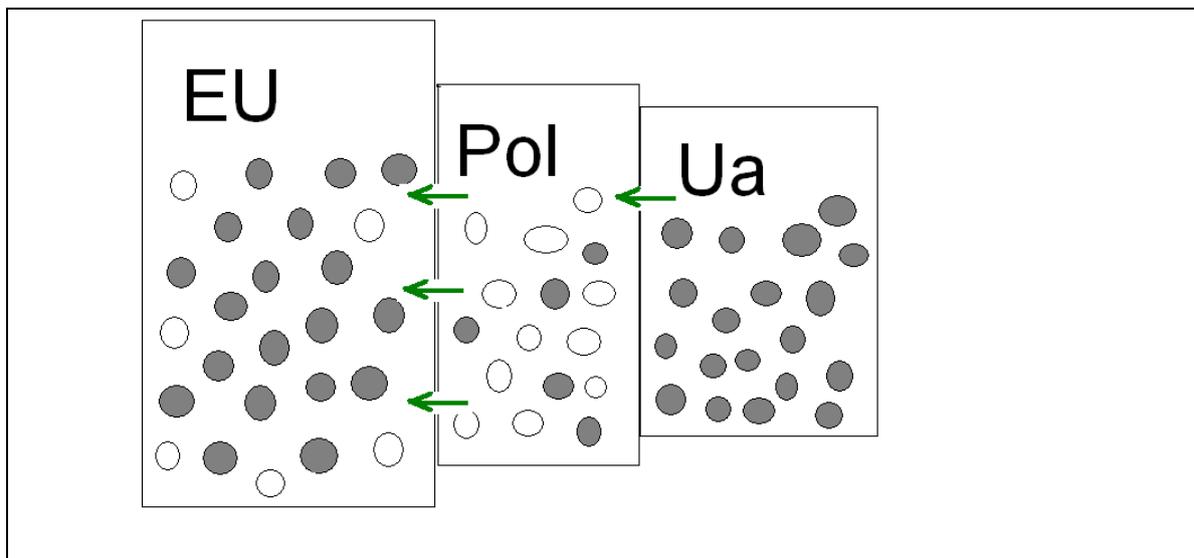
b) Second stage (after and near 2004): sharp Polish latent Ukrainian labor migration



c) Third stage (near 2012): permanent Polish sharp Ukrainian labor migration

Source: Own elaboration

The second stage is covering the period after accession. It is characterised by a sharp increase in migration of new EU member states to EU-15 and continuing latency migration from third countries. The following conclusions can be drawn as a result of the above research, including regression estimations of economic factors, which have been conducted by Least Squares Method (NLS and ARMA). As earlier mentioned the driving force for migration flows are both economic and institutional factors. As a result, regression estimates, I concluded that the migration from Poland to Germany more depended on the economic factors such as GDP per capita in Germany and unemployment rate in Poland. Unlike UK, where the economic performance had no direct significant impact on migration from Poland. In this case, here have been played a major role of the EU enlargement to the East and the adoption of relevant documents on the free movement of workers from new EU countries, even, that this process was completed only in 2011.

Regarding the migration flow of Ukraine, the Figure 2 shows that migration continued to be more latent. Although due to some data we can observe the increase of migration from Ukraine to Poland after EU enlargement on 30-40%. But as a result of regression estimates, it was determined that the on labour migration from Ukraine have affected only economic performance both at home and in Poland. Growth of migration clearly observed, but remains an open question whether this migration began immediately after enlargement or some lag, i.e., whether on 2 or 3 stage. The problem of the determination of this issue is the lack and unreliability of data on Ukraine, there is a high probability of illegal migration, which can distort the results of the evaluation, as well as seasonal migration, which related to proximity of the borders of Poland.

In the third stage, we can see the gradual and permanent nature of migration from Poland and sharp labour migration from Ukraine, which was caused by a sharp increase in job vacancies in Poland, formed as a result of mass emigration in previous years.

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