THE EU EASTERN ENLARGEMENT AND THE IMPACT OF FOREIGN DIRECT INVESTMENT ON MIGRATION

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ABSTRACT:

Numerous studies on the eastern enlargement of the European Union (EU) indicated that as a result of the new dynamic there, a significant increase of emigrants from the new members should be expected that might cause serious disturbances of the labor markets in the West. During the accession negotiations with the ten applicant countries from Central and Eastern Europe transitional periods have been imposed, limiting the access of the citizens of these countries to the European job market during the first five to seven years. In this paper I claim that migration in an enlarged European Union is not driven by the traditional concept of labor demand and supply, but other factors need to be taken into account, such as the shift of the investment to the East as result of the new economic environment in Europe after the enlargement. Therefore, it is not only the wealth of the Eastern European countries, but also the inflow of foreign direct investment (FDI) that would determine migration trends in the enlarged EU.

On May 1, 2004, eight Central and East European Countries (CEECs) joined the European Union, thus completing a ten-year association and accession process. This unprecedented step provoked a serious debate about whether the new members should be allowed to gain immediate access to the common labor market of the European Union. The concerns are mostly related to the fact that there is still a huge gap of the income per capita between these countries and the current fifteen EU members (EU-15). Therefore, the most frequently asked questions in relation with the enlargement are: how large the East-West migration trends will be as a result of the new realities in Europe and what would be the driving forces behind these trends. It is predicted that significant migration would take place after May 1, 2004, since the enlarged Union would have been expected to apply one of its four fundamental freedoms on the whole of its territory, namely the free movement of people. During the negotiations under the pressure of Germany and Austria, the European Commission insisted for a transitional period of at least five years, during which the new members will be excluded from the European job market. It was also agreed that afterwards each of the EU-15 members could individually decide to restrict for two more years the free movement of labor between the old and the new members. Britain is the only member that declared that it will not apply these restrictions and will enable immediate access to its labor market. The outcome of the negotiations on the chapter of free movement of persons provoked debates in the old continent.

**Expected Migration Trends: the Debate Among Scholars**

The recent studies indicate that the greatest concerns among the incumbent members are related to the issues of migration and labor movement, price adaptation and real wage accommodation, as well as economic growth and convergence of the new members. So far, there has been a major debate in the literature over two sets of issues: (a) whether migration levels from the new to the old EU countries will increase; and (b) how much migration will affect employment and economic growth as a result of the enlargement.

Authors like Collinson (1993) and Buechler and Buechler (1987) offer a historic overview of the issue in Europe and assert the hypothesis that after World War II

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1 This research was supported in part by the Charles Phelps Taft Memorial Fund of the University of Cincinnati. I have greatly benefited from comments and suggestions by Stephen Mockabee, Brian Lawson, Philip Neal Ritchey, Michael Margolis and Richard Harknett.

2 The eight CEECs that joined the EU on May 1, 2004 are: Czech republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia. Bulgaria and Romania are currently negotiating and are expected to join the Union in 2007.

3 The current 15 members of the EU are: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden and the United Kingdom.
migration is driven by the surplus of labor in economies such as those of former Yugoslavia and Turkey, on the one hand, and labor demand in the West, on the other. In some of the macroeconomic models migration is explained as a demand of labor. Gregory Mankiw assumes that growth depends on the available labor and capital and there is full employment in the economy (Mankiw 1997, 99-100). Therefore, the increase in labor as a result of the immigration leads to higher GDP. In other words, provided the output per worker remains constant, immigration ultimately results in increased wealth of the country. That is how higher immigration to Western Europe in the 1960s and 1970s led to much faster growth in these countries.

Other authors like Staubhaar (2002) test the hypothesis that migration depends on the average income per capita, unemployment and geographic proximity, claiming that except for the geographic proximity all the other variables are significant. Staubhaar’s analysis predicts an annual inflow of about 420 thousand migrants.

Migration as a dependent variable has been extensively studied in different models. The European Commission concludes that a growing number of migrants during the first years after the end of the Cold War was followed by a decrease of the net flow later at much lower levels of 100 to 180 thousand persons annually (Eurostat 1999; The Economic Impact of Enlargement 2001, 25). The data also indicate that the number of the CEECs nationals residing in the EU represents .2 percent of the EU population. In the same way, temporary employment from these countries amounts to about .2 percent of total EU employment.

On the grounds of the empirical data of the current migration from CEECs and the experience of the previous enlargements, the Commission assumes that around 180 thousand migrants from the first eight accession countries (AC-8) enter each year into the EU.4 The destination patterns follow the present distribution of CEEC 10 residents in the EU-15, as two thirds of the migrant force is directed to Germany and one tenth to Austria due to such factors as geographical proximity (The Economic Impact of Enlargement, 2001: 40-1). Other studies, such as Bauer and Zimmermann (1999), as well as Hille and Staubhaar (2000) predict between a quarter and two million people annual inflow from the East to the West. Orlowski and Zienkowski (1999), as well as Fertig and Schmidt (2000) claim that migration would not surpass seventy thousand people annually.

Nonetheless, all these models agree that migration is only a part of the overall integration effect of the enlargement. The accession of CEECs stimulates economic growth in this area and their convergence with the economies of the western countries. Therefore, the speed of this economic integration has a significant impact on the reduction of the existent economic difference. A group of authors, such as Bruecker et al (2000), and Bauer and Zimmerman (1999) concludes that in the short run, however, EU enlargement without transitional arrangements restricting the access to western labor markets would lead to higher migration to the West. They claim that in the near future the EU labor market will not be able to fully absorb the additional migrant labor force and there will be an increase in unemployment.

The problem of migration has been approached differently by authors like Ardittis (1994), Baldwin (1994), Brochmann (1996), and Fassmann and Muenz (2003), who focus on the political aspects and social implication of the migration on

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4 AC-8 includes the eight applicants from CEE, excluding Bulgaria and Romania, the accession of which is supposed to take place later according to the assessment of the Commission.
the European continent. They claim that an open labor market will reduce immigration pressure and speed up the closing of the existent immigration gaps in the long run (Fassman and Muenz 2003, 5).

A third group of researchers analyze the economic implications of the enlargement dynamic. They attempt to simulate different scenarios of the enlargements on the grounds of the relationship between migration, employment and economic growth. Kohler, Keuschnigg and Heijdra (2000 and 2004) investigate the immigration as an independent variable and come to the conclusion that in the near future the newly arriving foreign workers will need some transitory search period before they find a job, and therefore, will contribute to a raise in the unemployment rate. Nonetheless, they expect that the fast labor market dynamics should quickly eliminate this increase in unemployment and, therefore, in the long run would not affect the unemployment equilibrium (Heijdra, Keuschnigg and Kohler 2004, 13). They also assume that the level of migration is driven only by the income per capita gap in East and West and therefore, the high willingness of East Europeans to migrate. These analyses, however, do not take into account the growth of investment in the CEECs as an alternative explanation for migration trends among the citizens of the ten Eastern European countries.

Thus, after testing the dominant explanatory hypothesis in the literature about migration, I introduce a new independent variable -- foreign investment. This variable influences the growth of the gross domestic product (GDP) and ultimately determines the number of Eastern Europeans willing to leave their countries looking for better employment opportunities in the West. Therefore, I expect that the overall migration trends have been influenced by multiple interacting variables and if they are taken into their complexity, they may lead to a different conclusion than the one assumed during the negotiations with CEECs-10 on the chapter of the free movement of persons.

THE DRIVING FORCES OF MIGRATION FROM CEECS: DIFFERENT HYPOTHESES

For the purpose of this research, I will first test the traditional explanation that economic migration is driven by the richness of the countries of immigration (measured as GDP per capita), the labor surplus of their economies (measured as unemployment rate) and the trends of convergence with West European economies (measured as GDP growth). If this hypothesis is confirmed, it should be expected that the countries in the East would export labor force to the current EU-15 and thus cause serious disturbances of the job market in the west after the enlargement. In other words, the logic of the East-West migration model of the 1960s and 1970s is reproduced in the 1990s and will continue after the enlargement. If this hypothesis, however, is not confirmed, then I will look for alternative explanations about migration trends to the West. Such an explanation could be that the number of migrants from these countries depends on the job opportunities in the West. In other words, if a tendency of production shift of the major companies to the East is expected because of the cheap factor prices in the new EU members, then probably the Western market will be quite rigid and would offer significantly fewer opportunities than before the enlargement has taken place. This expectation would be confirmed by the study of the EU commission that for CEECs-10 there is a slightly decreasing trend of
people moving from the new to the old EU members (Figure 1). Therefore, it would be illogical to expect people to seek employment in a more rigid market, while they would have better prospects for employment at home. The argument is also supported by research on Southern Enlargement (1982 - 1986), where under similar dynamics of accession of poorer countries with high levels of migration towards the “old EU members,” the ultimate outcome was a decreasing trend of migrants from the then “new members” (Staubhaar 2002, 6)².

The second hypothesis assumes that under the new dynamics of the enlargement, the companies in the West would have the possibilities to shift their production to the East, driven by the equal competition environment and cheaper factor prices there. This would influence the economic wealth measured in GDP in the new members and unemployment in the old ones. As a result, instead of a dramatic increase of migration to the West, I would expect a “division of labor” within the EU and “migration of investment” to the East.

*Data Collection and Conceptual Definitions of the Variables*

For the purpose of this analysis, the data are collected from Eurostat -- the official website of the statistical bureau of the European Union, as well as from the official reports that the European Commission prepares for each of the applicant countries from 1993 to 2000⁶. In this way, I expect to avoid possible imprecision due to different methods of collecting and processing data. A substantial part of these data, however, is collected by the national statistical bureaus or agencies and submitted to the Commission. The only variable that has not been collected solely from Eurostat is unemployment rate due to lack of data for the early years of the time series. Since the methodology in collecting data about unemployment is relatively uniform, rather than leaving missing data, other sources, such as OECD and UNCTAD have been used. If the sources indicate different values for the same period of time the data have been averaged⁷.

The independent variables in the first hypothesis are gross domestic product (GDP) per capita for each of the cases, GDP growth, unemployment rate and foreign direct investment. GDP per capita (i.e. GDP divided by the total population of the country) at current prices measures how poverty influences the decision to immigrate. It is defined as the sum of the gross values added of all resident producers at market prices, plus taxes less subsidies on imports, calculated in purchasing power standards.⁸ GDP growth is measured as gross domestic product at constant prices, measured in

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⁵ The Southern Enlargement of EU (1982-1986) included Greece (1982), as well as Portugal and Spain (1986).
⁶ The Eurostat data are available on the world wide web, 02/20/04 http://europa.eu.int/comm/eurostat/newcronos/queen/display.do?screen=welcome&open=/&product=YES&depth=2&language=en.
⁷ These were the cases for Estonia in 1997 and 1998, Latvia in 1997 and Romania in 1994.
national currency as a percentage change over the previous year. The purpose is to investigate how the prospect for convergence influences the decision to leave the country. Unemployment rate is used to operationalize the labor surplus of the economies in the East and the extent to which difficulties to find a job at home motivates people from CEEC-10 to leave their countries. Unemployed persons comprise persons aged 15 to 74 who were: (a) without work during the reference week, (b) currently available for work, i.e. were available for paid employment or self-employment before the end of the two weeks following the reference week; (c) actively seeking work, i.e. had taken specific steps in the four weeks period ending with the reference week to seek paid employment or self-employment or who found a job to start later, i.e. within a period of at most three months.

In order to test the second hypothesis, I introduce foreign investment flows as an independent variable. FDI includes the new, additional and subsequent investments carried out in a given calendar year, net of divestments. They are recorded under the heading of “direct investment, net”, in the financial account of the balance of payments and are measured in US dollars. The FDI stock consists of the cumulative FDI inflows recorded since inception, adjusted for depreciation, exchange rate variation, accounting changes and other correcting factors (Kalotay 2001, 260).

The dependent variable in both hypotheses is net migration rate measured as a difference between the emigration (people leaving the country) and the immigration (foreigners/aliens who settle in the respective countries) for each of the new members per 1,000 people. In this way, the model is more sensitive capturing not only the number of people leaving the country, but also those who settle in. The cases when the country receives a high number of immigrants would have a substantially lower migration coefficient compared to a country with the same amount of emigrants, but much lower levels of immigration. In this way, the variable coefficient offers a more precise picture of the underlying trends in the applicant countries.

The Traditional Model of Explaining Migration

The extent to which the decision to migrate to the West is influenced by poverty and labor surplus in the East can be quantified through a linear regression, where:

\[ \text{Net migration rate} = b_1 + b_2 \text{GDP}_{t-1} + b_3 \text{GDP growth}_{t-1} + b_4 \text{unemployment rate}_{t-1} + \varepsilon \]

The independent variables in this equation are gross domestic product (GDP) of each country, the growth of GDP and the unemployment in the country, where all the three variables are taken for the previous year. For the purpose of avoiding heteroscedasticity, dummy coded variables for all the years, but one have been included. The logic behind this regression is that the decision of the people to migrate

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depends on their income measured in purchasing power parities. The independent variables are lagged (t - 1), since the decision to migrate is taken beforehand, influenced by the standard of living, expectations for improvement and job opportunities.

The statistical test indicates at .05 levels of significance that no relationship exists between the independent variables unemployment and GDP growth, and migration as a dependent variable. Nonetheless, the regression analysis indicates that there is a relationship between the levels of GDP and migration, i.e. the economic wealth of each country influences inversely the decision of its citizens to leave it (Table 1). Therefore, the traditional model of explaining migration in the 1960s and 1970s is not a plausible explanation for the undergoing processes.

**An Alternative Model of Explaining Migration**

Next, it is necessary to explore whether and the extent to which foreign direct investment per capita (FDI) influences the wealth of these nations, and therefore, is able to halt the willingness of the people from these countries to migrate. I test the second hypothesis by introducing this independent variable and testing separately the influence of FDI on GDP per capita, on the one hand, as well as the influence of FDI and GDP per capita on net migration, on the other. In this way, GDP per capita is an intervening variable (Frankfort-Nachmias and Nachmias 2000, 406-7). The outcome is expected to show that as soon as the country reaches certain levels of GDP, the migration rate decreases significantly:

\[ \text{GDP per capita in PPP (t -1)} \]

\[ \text{FDI per capita (t -2)} \]

\[ \text{Net migration rate (t)} \]

The complex dynamics of the enlargement suggest that an increased inflow of FDI, due to the access to the common market and the common rules of economic competition in the Union, will affect the GDP (an intervening variable) positively; and will ultimately keep the migration levels lower than expected. The test indicates at .05 levels of significance that such a relationship between the variables exists (Tables 2A and 2B). With the help of the path coefficients it is possible to estimate the indirect effect of the FDI on the migration rate, which accounts for .186 (Table 2C). Therefore, every additional thousand US dollars per capita invested in the economies of CEECs increases the GDP per capita, measured as PPP, which ultimately results in a decrease of the net migration rate with one person per about 5,400 citizens of the new members.

As far as the direct effect of FDI on the net migration rate is concerned, the test indicates that it is not statistically significant at .05 levels. Nonetheless, it should be taken into account that due to the small sample size (only 52 cases), the power of the relationship is quite weak (.17 at .05 levels of significance). Therefore it is highly likely that we are unable to detect it under the present research conditions.
SOURCES OF MIGRATION: CONTENDING FINDINGS AND EXPLANATIONS

The results indicate that the number of the migrants from the ten CEECs that participate in the EU Eastern enlargement does not depend on the level of the unemployment; i.e. whether they are labor surplus economies. Thus, this model rejects the dominant assumption of the 1970s and 1980s that labor surplus (or in other words unemployment) is the major driving force of migration. Instead, migration is driven by the level of GDP and the capacity of the economies in the East to attract and absorb investment. Therefore, figures like hundreds of thousands of East Europeans annually flooding the job markets in the West seem quite overestimated.

In support of this argument there are also linguistic and sometimes cultural factors that prevent potential migrants from leaving their countries despite their willingness to do so. In addition, the new members have a relatively weak demographic potential to export labor force, since they have aging population with a very low natural growth (Figure 2). In this way, they do not bring much additional workforce to the EU, and therefore, do not improve the current unfavorable demographic structure of the EU aging population. Ultimately, this could challenge the European pension and social security system in the near future. The redistribution effects would promote reforms in the EU social model, such as lower unemployment benefits, increased pension age and more comprehensive social reforms. A snapshot at the destination of the migrants for 1999 shows that less than 40 percent emigrated to the EU countries, whereas almost the same percentage would be expected to migrate towards either other European countries or North America, mostly Canada and the US (Figure 3).

The model, however, does not suggest that we may not expect any tendencies of growth in migration. There might be such trends among highly qualified labor force and low-qualified, and low paid workers. In certain sectors of the economy, the candidates from the Eastern European countries would have better chances on the EU job market compared to other candidates from the third countries, such as India and China. In this way, it could be expected that the share of the applicants from these developing countries would decrease at the expense of citizens from the new members, thus making the EU job market more European than international.

WEAKNESSES AND CAVEATS OF THE MODEL

A common problem is the uniform methods of collecting data across different countries. Eurostat and other data bureaus are still heavily dependent on data collection from national governments, while the latter have not achieved full methodological compatibility. In particular cases, such as FDI and employment rate, national governments tend to overestimate (or underestimate) these values for reasons related to domestic politics. It has to be taken into account that a time series analysis with 55 cases like this one supposes a relatively high probability to accept a false hypothesis or reject the hypothesis, when in fact it is true. Despite the limitation of the model, for the heuristic purposes of this study, it clearly shows the existence of indirect effect of foreign investment migration through a change of the GDP per
One of the ways to verify these findings is to extent this research and collect data from a survey among the citizens of all the accession countries.

In addition, this model assumes that emigration from CEECs in the last decade is economically driven. But that is not always the case. In some Baltic countries, such as Latvia and Estonia, the high migration rate during the first years following their independence was mostly political. The formation of the new nation-states led to increased fears of isolation among the Russian speaking minorities there, which resulted in an increased migration of this population to Russia.

Finally, this model does not take into account the geographical proximity as a factor that determines the destination of the potential migrants. This was precisely why Germany and Austria were the countries that insisted on transitional periods for East Europeans. Although some authors like Staubhaar (2002) claim that this factor is not significant, the statistical test in this research indicated that there is a variance of the trends among different CEECs, and in some cases, such as Poland, geography matters.

**CONCLUSION**

The analysis of the factors that determine migration from CEECs to the West indicates that its driving forces in the 1990s are much different that during the 1970s and 1980s. It is not the surplus of labor force, but the wealth of the countries, that is able to explain the trends. However, it is insufficient to use this relationship as the only explanation of an increased migration to the West, since the accession of the ten new members is much more complex phenomenon, whose outcomes are shaped by multiple variables. The inflow of FDI to the new members is “the flipside of the coin” as far as migration is concerned. Thus, the shift in foreign investment, as well as cultural and demographic arguments, are the reasons why much lower than predicted migration should be expected.

The workforce of the new members in the enlarged EU could hardly lead to substantial disturbances of the job market there. It would rather shift the balance among foreign labor in favor of the European and at the expense of third countries. The policy implications of this research indicate that there might have been another optimal outcome of the negotiations on free movement of persons with the accession countries outside the agreed transitional period of five plus two years. Another option could be if the commission advocated fewer restrictions at the EU level and larger decision-making freedoms at national level for those of the EU members that due to geographic proximity face threats of larger than the average number of migrants from some of the new members. Alternatively, an automatic mechanism can be introduced in the future to impose restrictive measures for access of particular CEECs, whose migrants to the EU-15 have disproportionally increased over a short period of time.
REFERENCES


Table 1. Influence on Net Migration Rate, 1993-2000\textsuperscript{11}

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard error (+)</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP per capita in purchasing power parities lagged</td>
<td>-0.001 0.000</td>
<td>-3.553*</td>
<td></td>
</tr>
<tr>
<td>Gross Domestic Product growth lagged</td>
<td>-0.01 0.102</td>
<td>-0.103</td>
<td></td>
</tr>
<tr>
<td>Unemployment rate lagged</td>
<td>0.034 0.082</td>
<td>0.414</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>4.876 2.079</td>
<td>2.403*</td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>.213</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-statistic</td>
<td>3.458* on 3 and 44 degrees of freedom</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{11} Yearly dummy variables are included for all years, but one (2000). Alternatively, the same test has been repeated for other years with the same outcome. The purpose of the test is to control the fixed effect of the year on the regression. Since all of the coefficients for the dummy variables are insignificant and have no fixed effect on the regression results, therefore, they are not reported in the table.

* significant at the .05 level.
Source: European Commission annual reports on the accession countries.
### Table 2A. Influence on Net Migration rate 1994-2000

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard error</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP per capita in PPP lagged (t -1)</td>
<td>-.0005</td>
<td>.000</td>
<td>-4.854*</td>
</tr>
<tr>
<td>FDI per capita lagged (t –2)</td>
<td>.003</td>
<td>.003</td>
<td>.891</td>
</tr>
<tr>
<td>Constant</td>
<td>4.667</td>
<td>.801</td>
<td>5.825*</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>.304*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-statistic</td>
<td>12.132*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at the .05 level.


### Table 2B. Influence on GDP per capita in PPP (t)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard error</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Direct Investment per capita lagged (t - 1)</td>
<td>9.230</td>
<td>3.986</td>
<td>2.316*</td>
</tr>
<tr>
<td>Constant</td>
<td>7055.2</td>
<td>640.6</td>
<td>11.014*</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>.077*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-statistic</td>
<td>5.363*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at the .05 level.

### Table 2C. Model with Path Coefficients that Explains the Effects of FDI and GDP per Capita on the Net Migration Rate for the CEEC (1993-2000)

\[
\begin{align*}
&\text{GDP per capita in PPP (t -1)} \\
&\text{FDI per capita (t -2)} \\
&\text{Net migration rate (t)}
\end{align*}
\]

\[\beta = .308 \times .604 = .186\]

To estimate the indirect effect we multiply the standardized coefficients of paths connecting two variables via intervening variables. Thus, the indirect effect of the FDI per capita on the net migration is \( P_{21}(P_{32}) \) or \( \beta_{21}(\beta_{32}) = .308(.604) \), which amounts for .186. The direct effect via GDP per capita is the standardized coefficient for FDI per capita from the regression in table 2A (.111), which in this case is not statistically significant at .05 level (Frankfort-Nachmiyas and Nachmiyas 2000, 406-7).
Figure 1. *Net migration rate from CEECs per 1000 people 1990-1999.*
Figure 2. Natural Growth Rate for the Ten CEECs (1994-2001)
The seven CEECs included in this calculation are: Czech Republic, Estonia, Latvia, Lithuania, Romania, Slovakia, Slovenia.

Figure 3. Direction of Emigration from Seven CEECs for 1999\textsuperscript{12}.