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UNION: MIGRATION AND EU  
ENLARGEMENT**

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## **Abstract**

Citizens of EU Member States have the fundamental right of free movement within the EU Union, and of freely choosing where to live and work within the EU. However, this right was temporarily constrained for citizens of the new Member States following the enlargement of the EU from 15 to 27 Member States. The severity of restrictions for newcomers varied substantially across the 15 old Member States. This paper analyzes whether the variations in entry restrictions influenced the distribution of migrants across the EU-15 states. To assess the effects of entry restrictions, it models and compares the distribution of migrants across the EU-15 countries prior to the enlargement with that after the enlargement. The analysis uses aggregate data on migrant stocks and migrant flows from the new Member States to the EU-15 states. The results suggest that the migration policies only had a very weak effect and did not create a new migration regime. The destination preferences of past emigrants from the East are by and large replicated by migrants who came after their home countries became members of the EU.

**Keywords:** Immigration, EU Enlargement, Immigration Policy

**JEL Codes:** J11, J61

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## Introduction

The first decade of the new millennium has seen the European Union (EU) enlarge from 15 to 27 member states, adding Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovenia, and Slovakia on May 1, 2004, and Bulgaria and Romania on January 1, 2007 (see Figure 1). This enlargement exceeded any of the previous EU enlargements. Moreover, the development gap between the incoming members and the long-term members was bigger than ever before at the time of accession.

The uneven development levels of new and old members has been a source of uncertainty as EU citizens enjoy the fundamental right of free movement within the European Union and the right to live and work anywhere within the EU boundaries. The new Member States hoped that the free mobility following accession will lead to reduced unemployment and an influx of remittances. In contrast, the old Member States (EU-15) feared that the income differentials would trigger a substantial flow of migrants from the poorer Eastern states to the richer states in the West and cause severe labor market disturbances. Prior to the eastern enlargement, the long-term EU Member States already hosted large foreign populations and many studies indeed predicted a further influx of immigrants from the East following the enlargement. Alvarez-Plata et al. (2003), for example, estimated that – in the long-run – 2.2 million workers from the new Member States will move to one of the EU-15 countries. Not surprisingly, concerns about negative social, political and economic impacts due to immigration from the East grew louder. To address these concerns, the EU decided to give each Member State the right to impose entry restrictions for persons from the 12 new Member States. These restrictions may be in effect for a maximum of seven years after accession. The vast majority of EU-15 countries took advantage of this provision whereas only few countries decided to fully open their borders immediately or impose only light entry restrictions. Eventually, the privilege of free movement will be extended to all citizens from the new members at the Eastern periphery.

A recent report of the European Commission (2009) indicated that the number of citizens from the 2004 accession states living in one of the old Member States more than doubled, increasing from 900,000 at the end of 2003 to 2 million in 2009. Moreover, it concluded that “post-enlargement intra-EU mobility flows have not led – and are unlikely to lead – to serious labor market disturbances, with respect to both real wages and unemployment trends.” (EU Commission 2009, p.122). And, Kahanec and Zimmermann (2009) concluded that post-enlargement migration contributes to an efficient allocation of production factors and thus enhances the prospects of economic growth in the EU.

While recent research has increasingly focused on the impacts of post-enlargement migration on both origin and destination countries (Barrell et al. 2007), relatively little attention has been devoted to the distribution of migrants from the new Member States across the old Member States. This issue takes on added significance in light of the variations in temporary entry restrictions across EU countries that range from very mild or no restrictions to severe limitations on entry for migrants from the East. There are two related questions that need further investigation. First, did the strictness of policies have a measurable effect on the magnitude of inflows from the new Member States? Second, did the policies set the stage for a new migration regime within Europe where the destination choices made by emigrants from the East are

substantially different than before the accession when all persons of the East were subject to the very restrictive immigration policies from non-EU countries. So far the literature has focused on the increases in migration flows and claims that the policy arrangements may have diverted some migrants from the East to countries with very generous transitory migration policies (Kahanec et al. 2009).

This paper argues that the variations in entry restrictions had a weak influence on the distribution of migrants across the EU-15 states and – vis-à-vis the traditional predictors of migration flows such as distance, income and employment disparities – most certainly did not have a decisive impact on the total number of migrants. The empirical analysis uses Eurostat data complemented by information from the respective national statistical offices on migrant stocks and migration flows between the new Member States and the EU-15 states. To assess the effects of entry restrictions, it models and compares the distribution of migrants across the EU-15 countries prior to the enlargement with that after the enlargement.

The remainder of the paper is organized in four sections. Following this introduction, the background section presents salient background information on the EU, EU migration patterns, and migration policies enacted following the EU enlargement. The third section presents the empirical analysis, including methodology, data and results. The last section offers concluding remarks.

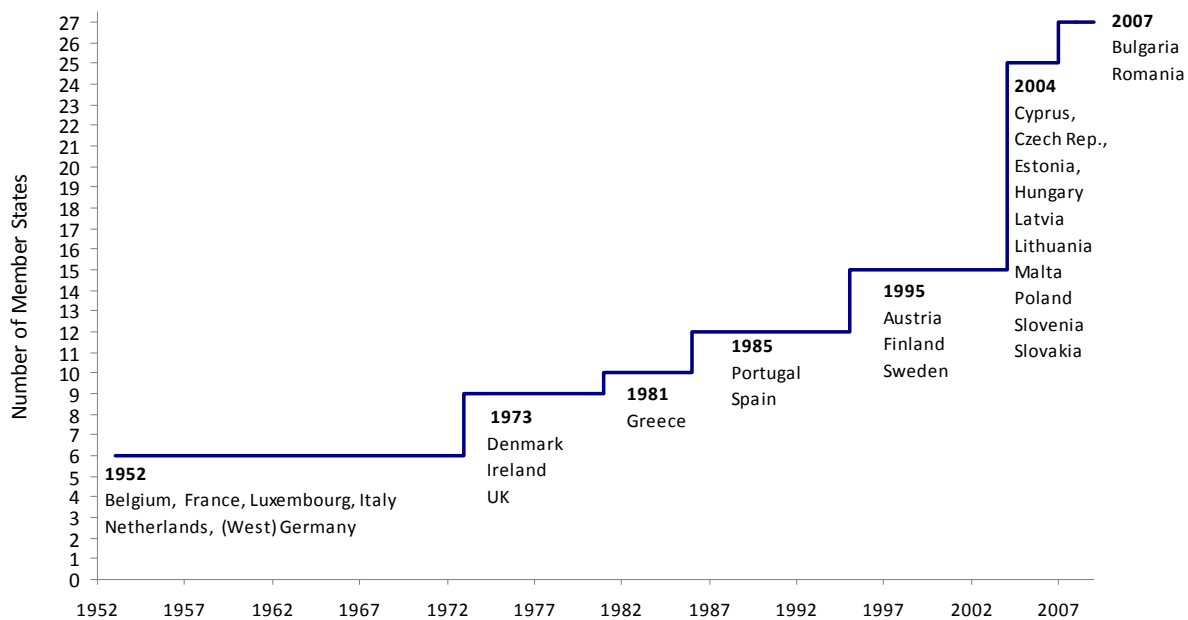


**Figure 1.** EU Member States  
 Source: [http://europa.eu/abc/maps/index\\_en.htm](http://europa.eu/abc/maps/index_en.htm)

## Background

### *Context of Eastern EU Enlargement*

Applying the hard lessons learned after the Second World War, European countries focused on peaceful cooperation and integration instead of nationalism. In the early years, the focus was predominantly on economic cooperation. Six nations (Belgium, France, Germany, Luxemburg, Italy and the Netherlands) founded the forerunners of the EU,<sup>1</sup> and since the 1970s new Member States have been added every decade (see Figure 2 for a timeline of the extensions). The formal renaming to ‘European Union’ in 1993 came along with far reaching extensions (Treaty of Maastricht) and the early emphasis on economic cooperation has been expanded towards political, financial, and social integration. The introduction of a common currency, the euro, is a symbol of the new Europe in the 21<sup>st</sup> century.



**Figure 2.** Member States of the European Union and their Years of Accession

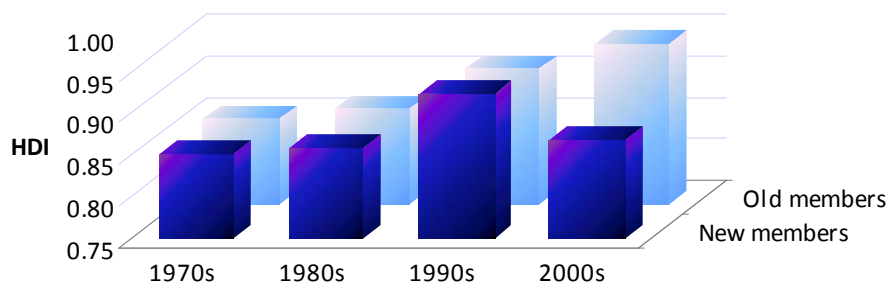
Important to understanding the nexus between migration and enlargement, is the comparison of development levels of the old member countries versus those of the new members. If people migrate in response to employment and wealth differences then large disparities between countries will induce substantial migration flows unless constrained by legal access restrictions. Figure 3 shows the average human development indices<sup>2</sup> of the old members and the new members, separately for the enlargements of every decade since the 1970s. Prior to the

<sup>1</sup> Notably the European Coal and Steel Company, the European Economic Community, and the European Atomic Energy Community, which were merged into the European Community (EC) in 1967.

<sup>2</sup> The human development index (HDI) is a composite measure that combines indicators of health (life expectancy), education (school enrolment and literacy rate) and wealth (GDP per capita). The index varies between 0 (lowest

enlargements of the new millennium, the disparities between the newcomers and the established members were small. The enlargement of the 1970s added three countries: Denmark, which, in 1975 had a higher human development index than any of the original six Member States; the UK whose human development index was similar to the average of the six original members; and Ireland which, at that time was the least developed member but today ranks first among all 27 EU states. Given the lack of severe disparities, migration flows from the new to the old Member States were not an issue. The exception was Ireland. But Ireland had traditionally sent large numbers of workers to the UK and it was not expected that membership in the EC would change that pattern drastically.

The enlargements of the 1980s added three countries of the southern European periphery, all of which had a lower per capita GDP than the old Member States as well as lower human development indices. Most importantly, however, the new additions had a history of emigration and were part of the postwar guestworker migration flows towards the richer northern European countries. Thus, the old members feared a huge influx of migrants from the South, and responded with a joint EC policy that temporarily restricted immigration from Greece, Portugal, and Spain. However, as Massey (2008) pointed out, unlike US policies under the NAFTA umbrella, EU policies focused on integration and convergence of development levels, and invested heavily to reduce development gaps through, for example, the European Regional Development Fund. Thus, “[d]espite initial misgivings by some EU members, the poor four – Ireland, Spain, Portugal and Greece – were successfully integrated into the system. Ireland prospered abundantly as its per capita income rose from 63 percent to 111 percent of the EU average. Although absolute income gaps persisted for the other countries, the relative size of the income differential fell everywhere.” (Massey 2008).



**Figure 3.** HDI of New Member States and Old Member States

The three countries added during the 1990s – Austria, Sweden, and Finland – actually had, on average, a higher human development index than the old members. Finland, which was the poorest of the three countries, had historical ties to neighboring Sweden that also had been the major destination of Finnish migrants.

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level) and 1 (highest level). As of 2005, Ireland had the highest HDI among the EU countries (HDI=0.959) whereas Romania had the lowest (HDI=0.813).

**Table 1.** Population and GDP per capita in EU countries, 2006

Country	Population [millions]	GDP per capita [€]	GDP per capita [PPS]
Old Member Nations (EU-15)			
Austria	8.3	31,100	30,200
Belgium	10.5	30,000	28,900
Denmark	5.4	40,500	29,700
Finland	5.3	31,700	27,300
France (1)	63.0	28,400	26,500
Germany	82.4	28,200	26,700
Greece	11.1	19,300	22,700
Ireland	4.2	41,100	33,500
Italy	58.8	25,100	24,300
Luxembourg	0.5	71,600	65,400
Netherlands	16.3	32,700	31,000
Portugal	10.6	14,700	17,500
Spain	43.8	22,300	24,000
Sweden	9.0	33,700	28,200
United Kingdom	60.4	31,500	27,900
Average (EU-15)	389.6 (sum)	32,127	29,587
New Member Nations (EU-12)			
Bulgaria	7.7	3,300	8,700
Cyprus	0.8	18,900	21,900
Czech Republic	10.3	11,100	18,600
Estonia	1.3	9,800	15,900
Hungary	10.1	8,900	15,300
Latvia	2.3	7,100	13,100
Lithuania	3.4	7,000	13,500
Malta	0.4	12,400	17,700
Poland	38.2	7,100	12,400
Romania	21.6	4,500	8,800
Slovakia	5.4	8,300	14,900
Slovenia	2.0	15,200	20,800
Average (new members)	103.5 (sum)	9,467	15,133
Average (EU-27)	493.0 (sum)	23,500	23,500

Source: Euro Stat

The most recent enlargement, however, poses a new situation. The new members are, on average, substantially less developed than the old member nations (see Figure 3) and much of this gap can be attributed to a difference in wealth. In fact, the East-West difference in GDP per capita is a forceful incentive to move west. In 2006, the average GDP per capita in the new Member States was € 9,467 or less than 30% of the average GDP per capita in the EU-15 (Table 1). Among the new member countries, the small island country of Cyprus had the largest GDP per capita with € 18,900, while the per capita GDP of the poorest countries – Bulgaria and Romania – only amounted to € 3,300 and € 4,500, respectively. Even when expressed in PPS, the difference is still stunningly high, with the new member nations on average only enjoying half of the purchasing power than the EU-15 countries.

Thus, if given the opportunity, people of the new member states have a forceful incentive to leave their country, and live and work in one of the richer EU-15 countries. There most certainly is a huge potential for a mass exodus from the East to the West. Taken together, the 12 new Member States have a population of 103 million people or more than 20 percent of the entire EU-27 population. With about 38 million people, Poland is the biggest country of the new accession countries, followed by Romania with about 22 million people. In fear of a tremendous influx of newcomers from the East, almost all EU-15 states imposed some sort of restriction on free movement. The following section reviews the transition migration restrictions imposed by the EU-15 countries.

### *Transitional Migration Policies for Eastern Expansion*

The European Union does not have a comprehensive policy that regulates migration *into* the EU. Instead, each EU country designs its own policies for immigration from *non*-Member States. Since the second half of the 1990's, all EU countries have increasingly tightened their immigration policies, mostly by imposing stricter rules for obtaining visas and reducing work permits quotas (Boeri and Brücker 2005). This made it more and more difficult for non-EU residents to settle within EU borders. Clearly, before joining the EU, European citizens from Central and Eastern Europe were subject to the same immigration restrictions as any other non-EU country. Those who were granted entry mainly chose to settle in Germany, Austria, and Italy. These destination countries are in close proximity to the Eastern countries and historically share social and cultural ties. Boeri and Brucker (2005) estimated that Germany received 57 percent of total migrants from the ten 2004 accession countries, Italy 9.5 percent and Austria 7.3 percent.

To smooth the transition toward free mobility among all 27 EU countries, the old member nations were granted the right to design their own immigration restrictions for citizens of the new EU countries, to be in effect for a limited time of two years. Thereafter, each EU-15 country was given a three-year window during which to transition towards EU policies of unrestricted mobility. Only in case of severe disturbances in the labor market is a Member State allowed to extend restrictions for an additional two years.

Boeri and Brücker (2005) summarize the restrictiveness of immigration policies during the two years following accession. Most of the EU-15 countries apply very stringent policies, basically imposing pre-accession rules with strict rules on work, residence and welfare access for the new member states, except for the very small new Member States Cyprus and Malta. Denmark, Ireland and the UK were more welcoming to workers from the new Member States, but a work permit – usually issued for a very limited time only – was required for the newcomers from the East. Moreover, these countries also limited access to welfare benefits. Only one country, Sweden, chose to adopt the unrestricted EU migration policies from the very beginning. Table 2 summarizes the transitional migration policies of the old Member States.

The migration restrictions were enacted to avoid negative impacts on wages and unemployment, but also ease social tensions related to large influxes of migrants. Thus, they served the self-interest of the receiving country. Moreover, the decisions to impose restrictions do not take place in a vacuum. In the absence of restrictions, another EU country's strict restrictions may trigger an even greater influx of migrants. Boeri and Brücker (2005) refer to it as a "race-to-the-top" in terms of migration restrictions and many countries that initially favored a liberal position



towards immigration from the new members subsequently adopted tighter policies. The underlying rationale is that these countries "... took into account externalities in migration flows, namely potential diversion of flows from countries closing borders to countries adopting more liberal arrangements (Boeri and Brücker 2005, p. 638). Given this perspective, it is not surprising that only one country, Sweden, opened its borders completely to the residents of the new Member States.

**Table 2.** Summary of transitional migration policies towards workers from new Member States

Country	Two-year labor market restriction	Possible extension	Exceptions	Other restrictions	Quotas
Austria	yes	yes			
Belgium	yes	yes			
Denmark	no			1-yr work permits	
Finland	yes				
France	yes	yes, 26 months			
Germany	yes	yes			
Greece	yes				
Ireland	no			Work permits for limited time	
Italy	yes	yes, 3 months			yes
Luxembourg	yes	yes, 6 months			
Netherlands	yes	yes, 12 months			
Portugal	yes				yes
Spain	yes		limited number of Polish workers allowed		
Sweden	no				
UK	no			Work permits for limited time	

## Empirical Analysis

### *Methods and Data*

To test the hypothesis whether the fragmented jurisdictions regarding the transition migration policies across the EU created a new migration regime, we compare the pre-accession (year 2000/01) with the post-accession (year 2006) distribution of migrants from the new Member States across the old Member States. If the migration policies had an impact on the migration flows from East to West, then they should contribute significantly to the variation in migration patterns after controlling for the traditional predictors of aggregate migration patterns.

As a point of departure, we postulate that migration can be captured in a disequilibrium model (Sjaastad 1962, Todaro 1969, Hunt 1993) where migration is seen as a response to spatial disparities in economic opportunities, taking into account the costs of migration. Compatible with Sjaastad's view that individuals' migration decisions are based on maximizing the present

value of actual and future benefits in the current location versus the new location, the aggregate migration flows can be represented as a function of earnings and employment opportunities in origin and destination, as well as the costs of migration. Unemployment and wages are frequently used attributes to characterize the spatial variations in opportunities to which people respond through migration, and the population sizes proxy the quantity of opportunities. Distance is a good proxy for the costs of migration (including non-pecuniary costs). In addition, we also consider network effects. Their central role for migration decisions has been widely noted (Massey 1988; Waldorf 1994, 1996; Waldorf, Esparza and Huff 1990) as networks provide assimilation aid for newcomers, thus lowering the cost of migration.

The pre-accession migration regime is described via the migrant stock variable,  $S_{ij}$ . It denotes the stock of immigrants from country  $i$  (new Member States) living in country  $j$  (old Member States) in 2001. The stock of migrants in  $j$  is the cumulative outcome of net-migration since 1990. Prior to the 1990s, the political realities of the “iron curtain” precluded migration from the East to the West, and thus migrants arriving during the 1990s were the pioneers of the regime who, unlike those who arrived more recently, could not yet rely on network assistance.

In addition to modeling the absolute size of the stock which is the combined outcome the decision to migration (and not return) and the destination choice, we also analyze the proportion  $pS_{ij}$ , defined as share of migrants from country  $i$  who chose country  $j$  as their new residence:

$$pS_{ij} = S_{ij} / \sum_j S_{ij}$$

Unlike the absolute size  $S_{ij}$ , the proportion only speaks to the destination choice. It is an approximation for the relative preference of those who decided to emigrate from country  $i$  for choosing destination country  $j$  during the pre-accession period.

For the post-accession migration regime, we focus on the flow,  $M_{ij}$ , rather than the stock of migrants in 2006, and the destination preference is defined as the share of migrants from country  $i$  who chose country  $j$ :

$$pM_{ij} = M_{ij} / \sum_j M_{ij} .$$

For both the absolute stock and flow sizes,  $S_{ij}$  and  $M_{ij}$  respectively, we specify extended gravity models that include per capita earnings (E), unemployment rates (UE), distance (D), and population sizes (P) of origin and destination countries. For the flow data of the post accession period, the model controls for network effects (N) which are assumed to be non-existent in the pre-accession period, as well as the migration policies (POL) imposed by the destination country for migrants from origin country  $i$ . We choose a double-log functional specification such that the parameters, estimated via ordinary least squares, can be interpreted as elasticities of migration’s response to changes in the exogenous variables.

$$S_{ij} = \alpha_o E_i^{\alpha_1} E_j^{\alpha_2} UE_i^{\alpha_3} UE_j^{\alpha_4} D_{ij}^{\alpha_5}$$

$$M_{ij} = \beta_o E_i^{\beta_1} E_j^{\beta_2} UE_i^{\beta_3} UE_j^{\beta_4} D_{ij}^{\beta_5} N_{ij}^{\beta_6} POL_{ij}^{\beta_7}$$

It is hypothesized that  $\alpha_1$ ,  $\alpha_3$ , and  $\alpha_5$  in the stock equation, and  $\beta_1$ ,  $\beta_3$ , and  $\beta_5$ , in the flow equation are negative, whereas all other parameters are expected to be positive. Estimation is straightforward via OLS. In the case where the dependent variable is the proportion that expresses the relative preference for a destination, OLS estimation techniques are inadequate as they do not ensure that the predicted values are within the interval  $[0,1]$ . Thus, when modeling  $pS_{ij}$  and  $pM_{ij}$  we specify fractional logit models which satisfy this requirement and allow the dependent variable to take on zero values. The fractional logit models are estimated using quasi-maximum likelihood estimators (Papke and Wooldridge 1996).

**Table 3.** Data Definitions and Sources

Variable	Definition	Source
<i>Country Attributes</i>		
P	Population	Eurostat
E	Per capita net earnings of a full time employee who is single w/o children [€]	Eurostat
UE	Unemployment rate	Eurostat
$S_i$	Stock of expatriates from i living in old member states in 2001	Eurostat
$M_i$	Number of migrants from i to old member states in 2006	
<i>Attributes of Interaction</i>		
$M_{ij}$	Number of migrants from country i to country j in 2006	Eurostat
$pM_{ij}$	$M_{ij}$ expressed as a proportion of $M_i$	
$S_{ij}$	Number of people from country i living in country j in 2000/01	Eurostat
$pS_{ij}$	$S_{ij}$ expressed as a proportion of $S_i$	
$D_{ij}$	Population weighted distance between i and j [km]	CEPII
$N_{ij}$	Network effect = $pS_{ij}$	
$POL_{ij}$	Policy dummy: 1 = mild or no immigration restriction; 0 = otherwise	
$E_{j/i}$	Destination-origin ratio of per capita net earnings $E_j/E_i$	
$UE_{j/i}$	Destination-origin of unemployment rates $UE_j/UE_i$	

The data were extracted from EuroStat and various statistical offices of the involved countries. They refer to migration from the 12 new Member States to 13 old Member States, thus resulting in  $n=156$  observations (origin-destination pairs). Data for two of the old Member States – Belgium and Ireland – were incomplete and we thus excluded them from the analysis. Since both Belgium and Ireland have small population sizes – combined they account for less than four percent of the EU-15 countries’ population, their exclusion is unlikely to bias the results. The exclusion also does not imply a systematic bias in terms of migration policies as Belgium and Ireland have very different migration restrictions, with Belgium having very strict and Ireland having very liberal policies.

The data definitions and sources are summarized in Table 3. We distinguish between two types of variables, those describing the countries (country attributes) and those describing the origin-destination pair (attributes of interaction). Table 4 displays the descriptive statistics, for the pre-accession period (2000/01) and the post-accession period (2006). One of the key variable is the

policy variable,  $POL_{ij}$ , that measures the stringency of destination country's  $j$  transitional migration policy for country  $i$ , following Boeri and Brucker's (2005) classification described above. It is a dummy variable that takes on the value one if a destination country  $j$  imposes mild or no migration restrictions on origin country  $i$ , and zero otherwise, with a mean of 0.32 and a standard deviation of 0.47. Thus, 68 percent of the 156 flows are constrained by severe immigration restrictions. Of particular interest are also the economic attributes as they show that old and new Member States have opposing trends since the beginning of the 21<sup>st</sup> century. On average, the unemployment rates in the old Member States declined substantially, from 11.4 percent to 7.9 percent. In contrast, the new Member States had a slight increase in unemployment from 6.2 to 6.8 percent. Furthermore, average per capita earnings in the new Member States increased by more than 40 percent, from €7,027 to almost €10,000 whereas, on average, the rise in the new Member States was much more modest. The destination-origin earnings ratio,  $E_{j/i}$ , therefore dropped between 2000 and 2006, but the spatial income disparities continue to exist. In fact, in 2006, the average earnings in the EU-15 countries were about 15 times higher than in the EU-12 countries.

Among the interaction variables, the distance variable accounts for the countries' internal population distribution. This is of particular importance for the Scandinavian countries Sweden and Finland, as most of their populations are located in the countries' southern portions. On average, the origin-destination linkages extend over 1,555 km. The maximum distance of 3,780km separate Cyprus and Portugal, and the shortest distance of only 240 km is between Slovenia and Austria. The proportions  $pS_{ij}$  are used as a proxy for the network effect, as the proportion of prior emigrants from a country who have chosen to live in country  $j$  are thought of a salient impetus for the destination choice of later emigrants who can rely on their information and assistance. Note that the proportions  $pS_{ij}$  and  $pM_{ij}$  have – by definition – identical means of 0.077.<sup>3</sup> Note also that the standard deviation is slightly higher in the post-accession than in the pre-accession period, suggesting that extreme preferences for particular destination countries have become more common.

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<sup>3</sup> Distributing the total number of migrants leaving an origin country uniformly across 13 destination countries implies that, on average, every country receives 7.7 percent of the emigrants.

**Table 4.** Descriptive Statistics

Country Attributes	Pre-accession (2000/01)				Post-accession (2006)			
	Origins (n=12)		Destinations (n=13)		Origins (n=12)		Destinations (n=13)	
	mean	std	mean	std	mean	std	mean	std
P	8,660,351	11,103,654	27,882,372	27,572,270	8,618,349	11,079,530	28,785,544	28,346,919
E	7,027	5,070	34,289	9,818	9,915	6,120	39,832	10,497
UE	11.4	5.8	6.2	3.1	7.9	2.9	6.8	2.1
$S_i$	140,000	182,000		NA		NA		NA
$M_i$		NA		NA	51,520	86,752		NA

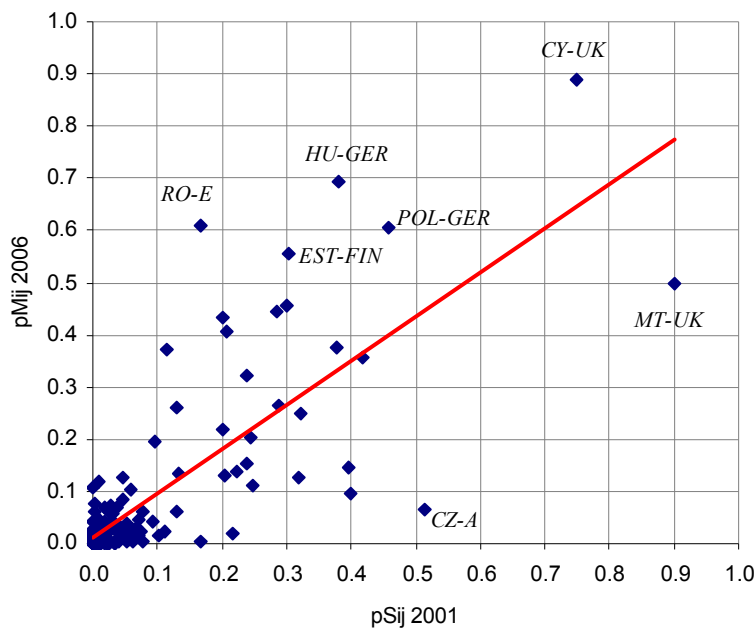
Interaction Attributes	2001		2006	
	mean	std	mean	std
$M_{ij}$			3,963	17051
$pM_{ij}$			0.077	0.151
$S_{ij}$	10,769	28,994		
$pS_{ij}$ (=N <sub>ij</sub> )	0.077	0.126	0.077	0.139
$D_{ij}$	1,555	755		
$POL_{ij}$		NA	0.32	0.47
$E_{j/i}$	17.95	39.77	15.12	30.46
$UE_{j/i}$	0.72	0.55	0.89	0.29

### Results

We begin our analysis with a simple bivariate comparison between the shares of emigrants from a new Member State choosing a particular old Member State in the pre-accession period versus in the post-accession period, i.e., a comparison between  $pS_{ij}$  and  $pM_{ij}$ . As shown in Figure 4, there is a very strong positive relationship between the pre-accession and the post-accession destination preferences ( $R^2 = 0.612$ ).

If the old Member States that imposed severe immigration restrictions were successful, then we should see that their probabilities of being selected by migrants from the East should decline ( $pM_{ij} < pS_{ij}$ ), i.e., located below the diagonal in Figure 4, whereas the countries with no or very mild restrictions such as Sweden and the UK, should have increased probabilities of being selected and thus consistently appear above the diagonal. However, the origin-destination linkages that show large disparities between the pre- and post accession period do not necessarily involve the countries that are at the extremes of the policy spectrum. For example, Germany is one of the countries with extremely severe restrictions on immigration for the new Member States. However, as shown in Figure 4 and Table 5, Germany scored even higher in the preference ranking in 2006 than in 2000/01 for eight of the 12 new Member States. In particular, its preference status increased in two of the most populated new Member States, namely Poland and Hungary. Similarly, Spain has restricted immigration of new members during the transition period yet its preference ranking increased for all twelve new members. In contrast, Sweden improved its standing in the preferences for only five of the 12 new Member States even though it imposed absolutely no restrictions and fully endorsed the EU doctrine of free mobility within the EU for all new members from the very beginning. Similarly, the UK's preference ranking increased for only five new Member States. While for Greece and France the preference rankings consistently declined in accordance with the strict immigration policies, overall Table 5 shows

the vast majority of countries that imposed restrictions had their selection probabilities increased by at least 4 of the 12 new Member States. This suggests that the migration policies had – at most – a very mild effect on the distribution of migrants across the countries of the West.



**Figure 4.** Relationship between 2001 and 2006 migration preferences (A Austria, CY Cyprus, CZ Czech Rep., E Spain, EST Estonia, FIN Finland, GER Germany, HU Hungary, MT Malta, RO Romania, UK United Kingdom)

**Table 5.** Changes in pre- and post accession preference rankings

Old Member States without or with mild Immigration Restrictions	# of new member states with $pM_{ij} > pS_{ij}$ *	Old Member States with severe Immigration Restrictions	# of new member states with $pM_{ij} > pS_{ij}$ *
Sweden	5	Austria	4
UK	5	Finland	5
Denmark	8	France	0
		Germany	8
		Greece	0
		Italy	5
		Luxembourg	10
		Netherlands	8
		Portugal	4
		Spain	12

\* Number of new Member States more likely to select destination in the post- than in the pre-accession period:  $pM_{ij} > pS_{ij}$

While the above overview is informative it is certainly not sufficient to fully assess the effects of the fragmented migration policies. It may very well be that a country's decline in the preference rankings maybe due to a deterioration of economic conditions rather than its successful implementation of a no-entry policy. The results of the expanded gravity models will shed light on the influence of variables other than the policy restrictions.

Table 6 shows the estimation results of the expanded gravity models described in the previous section. Four models each were estimated for the pre-accession period (upper panel) and the post-accession period (lower panel). In each case, Model 1 estimates the variations in absolute sizes of the migrant stock and flow, respectively, i.e.,  $S_{ij}$  and  $M_{ij}$ , accounting for earnings, unemployment and the traditional predictors of a gravity model distance and population. In the post-accession model, the effects of networks and the policy are also accounted for. The second model (Model 2) differs from the first only in that the economic descriptors are not entered separately but as destination-origin ratios. Model 3 and 4 differ from the first two models in that they estimate the variations in shares,  $pS_{ij}$  and  $pM_{ij}$ , respectively, rather than the absolute size of stocks and flows.

Turning first to Model 1, the flow (stock) of migrants is, as expected, significantly influenced by economic conditions in the origin and in the destination. However, the direction of the effects during the pre-accession period is not fully in accordance with our prior expectations. While higher earnings in the destination significantly increases the stock of migrants – a one percent increase in earnings in the destination increases the stock by 1.352 percent – earnings in the origin are not significant. Even more surprising, higher unemployment rates in the destination also are estimated to increase the migrant stock whereas increased unemployment in the origin decreases migrant stock. These unexpected results may be due to the fact that the economic attributes are measured for 2000 whereas the size of the migrant stock is the results of the accumulated migration flows (and return flows) of the 1990s.

During the post-accession period, the true driving force is the network effect,  $N$  which turns out to be highly significant both in Model 1 and Model 2. While some economic variables are important for the post-accession regime, and the magnitude of its effect is huge and the conclusions drawn from the initial bivariate analysis are confirmed. Migration during the pre-accession period is a powerful predictor for the migration flows during the post-accession period. Network effects trump the influence of economic conditions. Nevertheless, Model 1 suggests that the post-accession migration regime is influenced by the unemployment rates rather than earnings in the destination. It is estimated that a one percent increase in the destination country's unemployment rate will lower the influx of migrants by 1.344 percent. Economic conditions in the origin either have no significant impact (earnings), or the effect is associated with an unexpected sign (unemployment rate). Interestingly, using earning ratios (Model 2) instead of entering earnings separately for origin and destination (Model 1), does yield the expected effect. Both in the pre- and the post-accession period the effects in significantly positive, but it is substantially higher in the post-accession period. Increasing the ratio by one percent increases the migration flows by about half a percent.

**Table 6.** Estimation Results<sup>a</sup>

<b>Pre-accession regime (n=156)</b>								
	Model 1:Log Sij		Model 2:Log Sij		Model 3:pSij		Model 4:pSij	
	b	SE <sub>b</sub>	b	SE <sub>b</sub>	b	SE <sub>b</sub>	b	SE <sub>b</sub>
Intercept	<b>-22.117</b>	7.772	<b>-9.591</b>	3.632			-2.950	2.443
Log E <sub>i</sub>	-0.222	0.165			-0.224	0.124		
Log E <sub>j</sub>	<b>1.352</b>	0.513			1.023	0.636		
Log E <sub>j/i</sub>			<b>0.009</b>	0.004			<b>0.275</b>	0.098
Log UE <sub>i</sub>	<b>-0.650</b>	0.305			-0.042	0.321		
Log UE <sub>j</sub>	<b>1.048</b>	0.366			-0.084	0.291		
Log UE <sub>j/i</sub>			<i>0.611</i>	0.312			-0.124	0.183
Log P <sub>i</sub>	<b>0.860</b>	0.146	<i>0.793</i>	0.138	-0.231	0.144	<i>-0.266</i>	0.162
Log P <sub>j</sub>	<b>0.697</b>	0.139	<b>0.866</b>	0.118	<b>0.812</b>	0.107	<b>0.880</b>	0.106
Log D <sub>ij</sub>	<b>-1.114</b>	0.316	<b>-1.452</b>	0.297	<b>-1.459</b>	0.367	<b>-1.556</b>	0.336
R-sq adj.	0.543		0.516					
<b>Post-accession regime (n=156)</b>								
	Model 1:Log Mij		Model 2:Log Mij		Model 3:pMij		Model 4:pMij	
	b	SE <sub>b</sub>	b	SE <sub>b</sub>	b	SE <sub>b</sub>	b	SE <sub>b</sub>
Intercept	<i>-11.540</i>	6.760	<b>-12.946</b>	2.798	-6.465	6.941	<b>-10.826</b>	0.010
Log E <sub>i</sub>	<b>-0.492</b>	0.147			-0.167	0.169		
Log E <sub>j</sub>	0.361	0.441			-0.246	0.521		
Log E <sub>j/i</sub>			<b>0.524</b>	0.129			0.129	0.142
Log UE <sub>i</sub>	0.449	0.476			-0.185	0.513		
Log UE <sub>j</sub>	<b>-1.344</b>	0.458			0.486	0.459		
Log UE <sub>j/i</sub>			<b>-0.909</b>	0.325			0.353	0.363
Log P <sub>i</sub>	<b>0.909</b>	0.147	<b>0.834</b>	0.131	0.080	0.172	0.109	0.147
Log P <sub>j</sub>	<b>0.554</b>	0.102	<b>0.512</b>	0.097	<b>0.581</b>	0.0043	<b>0.570</b>	0.155
Log D <sub>ij</sub>	<b>-0.634</b>	0.262	<b>-0.624</b>	0.242	<b>-0.652</b>	0.311	<i>-0.587</i>	0.340
N <sub>ij</sub>	<b>6.668</b>	0.967	<b>6.612</b>	0.960	<b>5.537</b>	1.111	<b>5.414</b>	1.045
POL <sub>ij</sub>	0.303	0.308	0.347	0.294	<i>0.553</i>	0.289	0.445	0.296
R-sq adj.	0.710		0.679					

<sup>a</sup> significant (p<0.05) parameter estimates in bold,. Significant (p<0.10) estimates in italic.

The traditional predictors of the gravity model are highly significant in both periods. In the pre-accession period, the direction of the effects of the traditional gravity model predictors – population and distance – are significant, with the populations having positive effects on the migrant stock, and distance having a negative effect. Looking jointly at the estimated effects of distance and earnings in the destination, the pre-accession model suggests that an income-distance trade-off of 8.24 percent. That is, a ten percent increase in distance requires an increase in income by 8.24% to be offset. Similarly, in the post-accession period, distance is a migration deterrent, but it seems that its effect has diminished substantially between the pre-accession period and the post accession period. Whereas it was estimated that a one percent distance increase lowered the migrant stock by about 1.1 percent, the effect during the post accession period dwarfed to 0.6 percent. This may be an indication that – due to the overall efforts to improve the connectivity between the East and the West – transportation costs and communication costs for long distances are significantly lower in 2006 than during the 1990s.



Turning finally to the important policy variable, the results for both Model 1 and Model 2 suggest that migration policies had no effect on the migration flows. Model 3 does suggest that they had a modest effect on the destination preferences, significant at the 10 percent level. However, the estimated impact is weak – see the marginal effects shown in Table 7 – and does not seem to be robust, as it loses its significance in Model 4.

**Table 7.** Marginal Effects of Models 3 and 4

<b>Pre-accession regime (n=156)</b>				
	Model 3:pSij		Model 4:pSij	
	Marginal Effect	SE <sub>b</sub>	Marginal Effect	SE <sub>b</sub>
Log E <sub>i</sub>	<b>-0.0089</b>	0.0043		
Log E <sub>j</sub>	0.0407	0.0277		
Log E <sub>j/i</sub>			<b>0.0110</b>	0.0033
Log UE <sub>i</sub>	-0.0017	0.0130		
Log UE <sub>j</sub>	-0.0033	0.0120		
Log UE <sub>j/i</sub>			-0.0050	0.0070
Log P <sub>i</sub>	-0.0092	0.0065	-0.0106	0.0077
Log P <sub>j</sub>	<b>0.0323</b>	0.007	<b>0.0351</b>	0.0070
Log D <sub>ij</sub>	<b>-0.0580</b>	0.0101	<b>-0.0621</b>	0.0083
<b>Post-accession regime (n=156)</b>				
	Model 3:pMij		Model 4:pMij	
	Marginal Effect	SE <sub>b</sub>	Marginal Effect	SE <sub>b</sub>
Log E <sub>i</sub>	-0.0058	0.0061		
Log E <sub>j</sub>	-0.0085	0.0182		
Log E <sub>j/i</sub>			0.0046	0.0053
Log UE <sub>i</sub>	-0.0064	0.0178		
Log UE <sub>j</sub>	0.0168	0.0167		
Log UE <sub>j/i</sub>			0.0125	0.0134
Log P <sub>i</sub>	0.0028	0.0059	0.0039	0.0052
Log P <sub>j</sub>	<b>0.0201</b>	0.0043	<b>0.0202</b>	0.0040
Log D <sub>ij</sub>	<b>-0.0226</b>	0.0106	<i>-0.0208</i>	0.0114
N <sub>ij</sub>	<b>0.1918</b>	0.0509	<b>0.1919</b>	0.0522
POL <sub>ij</sub>	<i>0.0212</i>	0.0122	0.0171	0.0118

## Conclusions

After the fall of the Iron Curtain in the early 1990s, the European Union made a concerted effort to integrate the young democracies into its sphere of influence. In the first decade of the new Millennium, the European Union made a bold move by adding 12 additional members from the East. Compared to the West, the economies of the eastern countries lagged behind. The strong spatial disparities, combined with the huge population, created the fear of a mass influx of migrants from the East into the West. The EU thus granted each Member State the right to temporarily impose entry restrictions for persons from the 12 new Member States. While most EU-15 countries took advantage of this provision, others decided to fully open their borders immediately or impose only light entry restrictions. The main focus of the paper is the question whether the policies set the stage for a new migration regime within Europe where the destination choices made by emigrants from the East are substantially different than before the accession when all persons of the East were subject to the very restrictive immigration policies from non-EU countries.

Our results suggest that the migration policies had no or – at most – a very weak effect on creating a new migration regime. Moreover, the forces influencing migration have changed in strength but not in direction when comparing the pre-accession migration regime with the post-accession migration regime. In particular, the migration-deterrent distance effect seems to have become substantially weaker. The most powerful predictor of migration is the network effect. The destination choices of past emigrants from the East by and large are replicated by the migrants who came after their home countries became members of the EU. The implication is that – in the long run – we can expect that the migration regime of East-West migration in the European Union will remain stable.

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