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## Non-Technical Summary

The present paper assesses the likely consequences of EU enlargement for East West migration. Beyond the mere reduction of moving costs we identify several aspects of EU membership that may influence migration decisions. First some macroeconomic and political factors connected with the EU membership issue are discussed. We argue that different developments of East-West European income gaps as well as Western European immigration policy can be expected, depending on whether an Eastern European country is or is not granted EU membership. Secondly, the influence of these factors on migration decisions is formalized using a microeconomic model that focuses on the expected future immigration policy as a determinant of individual migration decisions. The model shows that in view of the expected liberalization of immigration policy in case of an EU membership, migration decisions of Eastern European citizens are likely to be postponed or even cancelled. By contrast, if EU membership is refused, fear of future restrictions on immigration will lead to early migration decisions and increase current migration flows. Finally, some casual evidence drawing on the experiences of the EU South enlargement in the 1980s is considered. We examine the development of per capita income and migration flows of Spain, Portugal and Greece in the period following their joining of the EU. The data show that in the aftermath of the EU South enlargement no drastic increases in migration flows could be observed. On the contrary, in all three cases net emigration has since then substantially declined. We conclude that granting EU accession to Eastern European countries will not necessarily induce massive East-West migration flows. On the contrary, if macroeconomic and political determinants of migration behaviour are taken into account a decline in migration is likely to occur.

# EU Enlargement and Immigration

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## Abstract

This paper assesses the consequences of EU enlargement for East West migration. In the theoretical part, we identify several factors in addition to the reduction of moving costs by which EU membership influences migration. Specifically, EU accession affects income gaps. Moreover, if EU membership is refused, fear of future restrictions on immigration will lead to increased current migration. Additionally, casual evidence from the 1980s EU South enlargement is examined. Since then no increases in migration flows from Spain, Portugal and Greece were observed. We conclude that granting EU accession to Eastern European countries will not necessarily induce massive East-West migration flows.

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# 1 Introduction

The applications for EU membership of several Eastern European countries have raised concerns about an uncontrolled increase in East-West migration flows, leading to rising unemployment and an erosion of Western welfare states.<sup>1</sup> Perspectives of that kind are supported by microeconomic models in the tradition of Hicks (1932) and Harris/Todaro (1970). According to this approach, migration decisions are primarily determined by the income gains net of migration costs that can be expected when moving to the destination country. At prevailing differences in wages and social security benefits between Eastern and Western European countries, an EU East enlargement would facilitate factor mobility and reduce migration costs, thus encouraging East-West migration.

According to this line of argument, however, the only consequence of an EU membership taken into account is the reduction of direct migration costs, implicitly assuming that all other circumstances either remain unchanged or do not influence individual migration decisions. By contrast, in recent interdisciplinary migration models it is argued that analyzing isolated individuals is not sufficient to explain actual migration flows, and that, apart from the direct migration gains and costs, macroeconomic, social and political factors are important determinants of migration behaviour.<sup>2</sup> In particular, political events such as joining the EU influence expectations on future migration options which in turn affect the incentives for immediate emigration. In addition, expected macroeconomic and political developments in the country of origin influence individual migration decisions. Whereas in the case of a positive decision on the application for membership a more liberal immigration policy and a catch-up process in Eastern European per capita income are likely to occur, restrictions on immigration and widening income gaps may be anticipated if the application is turned down.

Taking into account these effects, the present paper assesses the likely consequences of EU enlargement for East West migration. We conclude that granting EU accession to Eastern European countries will not necessarily induce massive East-West migration flows. On the contrary, if macroeconomic and political determinants of migration behaviour are taken into account a decline in migration is likely to occur. To arrive at this conclusion, we combine three different approaches. Firstly, in the following section some macroeconomic and political factors connected with the EU membership issue are discussed in an informal way. Specifically, we argue that different developments of East-West European income gaps as well as Western European immigration policy can be expected, depending on whether an Eastern European country is or is not granted EU membership. Secondly, in section 3 the influence of these factors on migration decisions is formalized using a microeconomic model. Drawing on Burda's (1995) work on the

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<sup>1</sup>cf. e.g. Sinn (1999), (1998:125 ff.), Layard et al. (1992).

<sup>2</sup>cf. e.g. Faist (1998), Hammar and Tamas (1997), Massey et al. (1993).

option value of waiting we develop a two-period migration model that takes into account uncertainty about the possible future gains from migration. Whereas Burda concentrates on the influence of expected income gaps on migration, we mainly focus on the expected future immigration policy as a determinant of individual migration decisions. The model shows that in view of the liberalization of immigration policy expected in case of an EU membership, migration decisions of Eastern European citizens are likely to be postponed or even cancelled. By contrast, if EU membership is refused, fear of future restrictions on immigration will lead to early migration decisions and increase current migration flows.<sup>3</sup> Section 4 finally considers some casual evidence drawing on the experiences of the EU South enlargement in the 1980s. We examine the development of per capita income and migration flows of Spain, Portugal and Greece in the period following their joining the EU. The data show that in the aftermath of the EU South enlargement no drastic increases in migration flows were observed. On the contrary, in all three cases net emigration has since then substantially declined. Section 5 summarizes the results.

## 2 Macroeconomic and political aspects of EU accession and migration behaviour

For the migration decision of an Eastern European citizen the future development that can be expected in the case of a positive or negative decision on the EU application for membership of her home country is relevant. Since the possible future development in the case of a successful or unsuccessful application as well as the EU accession itself is uncertain, in deciding on migration several risk factors must be taken into account. With respect to migration decisions under risk Burda<sup>4</sup> and Siebert<sup>5</sup> have noted the possibility of an option value of waiting: It is argued that in view of uncertain future income gaps between home and destination country it may be rational to postpone the migration decision in order to acquire new information in the course of waiting. Migration in this kind of model is undertaken only if the income gap is seen to widen, whereas in the case of a narrowing income gap the migration decision will be cancelled.<sup>6</sup> Aggregate migration flows are therefore positively related to expected income gaps and will diminish if a convergence of incomes at home and abroad is anticipated but increase if incomes are expected to diverge.

This so-called option value of waiting, however, presupposes that migration may be postponed without additional costs, i.e. it takes future migration op-

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<sup>3</sup>Akerlof et al. (1991: 44) mentions a similar point with respect to the migration flows from East to West Germany immediately preceding unification.

<sup>4</sup>cf. Burda (1995).

<sup>5</sup>cf. Siebert (1993).

<sup>6</sup>cf. Burda (1995: 5 ff.).

portunities for granted.<sup>7</sup> If instead a more restrictive immigration policy of the host country is imminent and the potential migrant must consider the possibility that future migration will become considerably more difficult or even impossible, the value of the waiting option may be reversed and it may become rational to migrate immediately. Apart from future macroeconomic developments expected changes in immigration policy are therefore an additional important aspect in migration decisions, and present aggregate immigration flows will be the higher the more restrictive future immigration legislation is anticipated to be.

Furthermore, political migration theories emphasize the relationship between migration and political participation, arguing that citizens' dissatisfaction with the situation in their home country may be expressed either by voice (voting behaviour) or by exit (leaving the country).<sup>8</sup> While voice is the normal type of political protest, if individuals are unable to influence their situation by voting they may resort to migration into another country. In particular, repressive regimes leaving no opportunity to express dissatisfaction by voice will experience more emigration than democratic states based on multiparty systems and sustained by welfare provisions. In the process of democratization emigration can therefore be expected to decline. Finally, political scientists point out that political and social instability in their home country may induce people to migrate for reasons of security.<sup>9</sup>

Turning to the issue of European East-West migration, different developments of Eastern European income levels and Western European immigration policy can be expected, depending on whether the decision on an application for membership is favourable or unfavourable. Consider first the possible consequences of a positive decision on the application of an Eastern European country. In this case support for the assumption of a narrowing East-West income gap may be drawn from the hypotheses of catching-up and convergence clubs known from macroeconomic growth theories. The catching-up hypothesis, most notably represented by Abramovitz<sup>10</sup>, is concerned with the explanation of diverging and converging processes of economic growth. It states that economies characterized by a productivity lag (the so-called laggards) with respect to the technologically leading nations (the so-called industrial leaders) have the opportunity of rapid catching-up processes. The productivity gap is explained by the prevalence of a comparatively obsolete stock of capital embodying out-dated technological know-how. By importing modern capital goods from the industrial leaders it is thus possible to achieve considerable technological leaps.<sup>11</sup> Additional factors such as

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<sup>7</sup>cf. Burda (1995: 5).

<sup>8</sup>See Ahmed (1997: 174 f.).

<sup>9</sup>cf. e.g. Ahmed (1997: 171 ff.), Faist (1997: 259 f., 271 f.).

<sup>10</sup>see, for example, Abramovitz (1986), (1990), (1991).

<sup>11</sup>The argument is thus based on the presumption known from vintage models that the most recently implemented capital goods embody the present state of technological know-how (see Abramovitz (1986: 221), Seiter (1997: 69)).

a high amount of hidden unemployment in the agricultural sector may help to enhance overall productivity in the catch-up process.

However, not all countries exhibiting large productivity gaps are capable of actually realizing that kind of rapid growth potential. The economy in question must be able to successfully implement and apply the technological know-how imported from the leader countries. The preconditions for this are summarized by the concept of social capability and include the level of education, the characteristics of financial, political and social institutions as well as the intensity of trade relations with the industrial leaders. In the course of catching up the social capability of the laggard countries is expected to improve, thus creating a positive feedback effect accelerating the catch-up process. Empirical investigations indicate that convergence of per capita income levels is observable only among economies comparable with respect to their level of education, political institutions etc. Accordingly so-called convergence clubs may be empirically identified,<sup>12</sup> exhibiting convergence of per capita incomes at the level of the respective leader economies.<sup>13</sup>

The current EU member states form a relatively homogeneous group of economies that may be regarded as a convergence club. For an Eastern European country characterized by a technological lag but with sufficiently developed social capability accession to the EU may make it possible to join the EU convergence club and will crucially improve its chances for rapid growth. If the decision on membership is favourable faster growth of per capita incomes and closing up to Western European income levels can therefore be expected. Since macroeconomic and developmental migration theories indicate that the developmental lags between home and host country incentivate migration,<sup>14</sup> anticipated convergence decreases future income advantages from migration and discourages decisions to leave.<sup>15</sup>

With regard to the political and social aspects influencing migration behaviour it is safe to assume that if EU membership is granted Western European immigration policy will be liberalized with respect to Eastern European immigrants. It is well known that the Treaty establishing the European Community grants free movement of workers and their dependants as well as freedom of establishment in other member states.<sup>16</sup> In case EU membership is granted, potential Eastern European migrants need no longer fear possible future restrictions of Western immigration policy and thus have no incentive to migrate early.

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<sup>12</sup>cf. e.g. Baumol/Wolff (1988), Baumol/Blackman/Wolff, (1989, Ch. 5), Baumol/Nelson/Wolff (1994).

<sup>13</sup>The phenomenon of convergence clubs is connected with the existence of multiple equilibria in the sense of different steady state growth paths that define attractor states for growth processes of the economies belonging to the various convergence clubs.

<sup>14</sup>see Fischer, Martin and Straubhaar (1997b), Barro and Sala-i-Martin (1995: 288).

<sup>15</sup>cf. Fischer, Martin and Straubhaar (1997a: 86).

<sup>16</sup>cf. Treaty establishing the European Community, Art. 39, Par. 1, Art. 43.

The guarantee of free movement also entails the abolition of any discrimination based on nationality as well as administrative practices forming an obstacle to worker's migration.<sup>17</sup> Accordingly, in the course of European harmonization gradual adjustments of Eastern European social security systems to Western European levels are likely to occur. Moreover, the Treaty supposes community policy to contribute to the development and consolidation of democracy and the rule of law as well as the respect for human rights and fundamental freedom.<sup>18</sup> EU membership can therefore be expected to support the process of democratization. In most Eastern European countries a return to socialist regimes is highly unlikely. However, as in Turkey, the stabilizing effect of EU membership is certainly important. With rising per capita income, enhanced social security systems and increased political and social stability migration becomes less attractive. The anticipated favourable political and social circumstances will thus further diminish East-West migration flows.

Consider, by contrast, the likely developments if the EU membership application is rejected. According to the convergence clubs hypothesis we may assume that similar to the current EU member states, the post-socialist Eastern European countries also constitute a homogeneous group of economies exhibiting convergence at a lower level of per capita income. If an Eastern country is not granted membership, its growth performance may remain limited by the possibilities of the Eastern convergence club and be expected to further diverge from Western European levels. Anticipated divergence will increase the possible gains from migration and provide an incentive to leave for better opportunities in the West.

Political and social aspects may help to encourage migration plans. If more and more people are seen to leave the East for economic reasons, concerns of mass immigration may induce Western European countries to restrict immigration, thus causing further migration waves for fears that in the future immigration might no longer be an option. Dissatisfaction with economic performance, lack of social security support and an increasing number of migrants may contribute to destabilize the political and social situation and help to encourage decisions to leave. Western immigration policy designed to limit migration may thus, paradoxically, give rise to even greater migration flows. We conclude that, if the application for membership is rejected, an increase in the number of migrants is likely to occur.

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<sup>17</sup>cf. Treaty establishing the European Community, Art. 40.

<sup>18</sup>Art. 177, Par. 2.



### 3 A model of migration decision under uncertainty

To formalize the interaction of growth prospects, immigration policy and migration decisions, we use a model with two countries. The “origin” country represents the prospective EU members, and the “destination” country stands for the EU. The model extends over two periods  $t = 1, 2$ , during each of which migration from the origin to the destination country may occur. There are two kinds of uncertainty in the model, the first relating to the second period income, the second concerning the destination country’s immigration policy.

#### 3.1 The emigration decision

Residents of the origin country are induced to migrate by differentials in living standards. Such a difference occurring in period  $t = 1, 2$  is denoted by  $\Delta w_t$ . While it is most natural to think of this variable as a wage differential, one may equally well interpret it as a difference in welfare benefits, or even in kind transfers such as public schools or housing. For the sake of brevity, we call  $\Delta w_t$  the income differential. In this notation, a positive value of  $\Delta w_t$  indicates that in period  $t$  the income is higher in the destination country than in the home country.

We assume that the second period income differential can take on two values. With probability  $p$ ,  $0 < p < 1$ , it is  $\Delta w_2^+$ , and with the remaining probability  $1 - p$  it is  $\Delta w_2^-$ , with  $0 \leq \Delta w_2^- < \Delta w_2^+$ . Thus,  $\Delta w_2^-$  stands for the state of nature where the origin country prospers and thereby catches up to the destination country. On the other hand,  $\Delta w_2^+$  represents either a severe economic downturn of the origin country or substantial growth restricted to the destination country alone. We denote by  $E\Delta w_2 = p\Delta w_2^+ + (1 - p)\Delta w_2^-$  the expected income differential.

Turning to the second source of uncertainty, we assume that the authorities of the destination country may impose a more restrictive immigration policy at the beginning of period 2 and denote the probability that emigration is still possible in period 2 by  $\pi$ ,  $0 < \pi \leq 1$ .<sup>19</sup>

Migration is costly. The moving costs encompass the monetary and time costs of traveling and shipping property, but, more importantly, they also reflect the monetary equivalent of non-pecuniary utility losses incurred by moving. For example, such losses may be due to personal acquaintances or an affection for one’s home region. We assume a continuum of individuals residing in the origin country who differ with respect to their moving costs  $m$ . The cumulative distribution function of  $m$  is  $F(m)$  with a density  $f(m) \equiv F'(m)$ . It is assumed that  $f(m)$

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<sup>19</sup>This probability may be interpreted in two ways. First, with probability  $\pi$ , the border may be closed for all those who desire to immigrate. Second, only a (randomly chosen) fraction  $\pi$  of such persons will be admitted. From the individual emigrant’s point of view, both interpretations are equivalent, since her own chance of being admitted is always given by  $\pi$ .

is positive on  $[\Delta w_2^-, \Delta w_2^+]$ , and zero otherwise.<sup>20</sup> Finally, all costs and benefits occurring in period  $t = 2$  are discounted with the interest rate  $r > 0$ .

An agent living in the origin country may emigrate in the first period, or stay until period 2 and then decide whether to migrate.<sup>21</sup> An agent emigrating in the first period is not affected by a closing of the border occurring later on.<sup>22</sup> She incurs moving costs in the first period and obtains the income differential in both periods. Since the future income differential is unknown *ex ante*, the relevant figure is its expected value. Altogether, the present value of the expected utility gain from moving in the first period is

$$\Delta w_1 + \frac{E\Delta w_2}{1+r} - m.$$

For agents having decided to stay in the first period the state of nature in period 2 is revealed *before* the second period decision is taken. Accordingly, the second period choice may depend on the realization of the income differential. Assuming that in the second period moving costs only accrue if the agent is allowed to immigrate, it is optimal to plan emigration if the income differential exceeds the moving costs, i.e. if and only if the income differential is high. This rule describes the desired action of the agent, not her actual behaviour. Only if she happens to be admitted to the destination country will she in fact migrate. Thus, conditional on not having emigrated in period 1, the agent will realize an expected second period payoff given by

$$\pi p(\Delta w_2^+ - m).$$

To determine the optimal migration decision in period 1, the payoff from migrating immediately is compared to the payoff from staying in period 1 and emigrating in period 2 in case the high income differential is realized. Discounting the second period payoff, the condition for moving in period 1 is<sup>23</sup>

$$\Delta w_1 + \frac{E\Delta w_2}{1+r} - m \geq \frac{\pi p(\Delta w_2^+ - m)}{1+r}. \quad (1)$$

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<sup>20</sup>This assumption merely serves to keep the presentation as simple as possible. More generally, a positive mass of agents with moving costs lower (higher) than the low (high) income differential could be allowed for. Under assumptions weaker than inequalities (2) below, all such individuals would emigrate in the first period (never emigrate). The comparative statics effects derived in subsection 3.2 remain unchanged.

<sup>21</sup>We do not allow for return migration. Thus, an agent who emigrates in period 1 also stays in the destination country in period 2. This simplification is a slight departure from reality, as is shown by the evidence on some Turkish immigrants to Germany. Most of these, however, return home for retirement. We abstract from this in order to avoid modeling a life cycle savings decision (see Dustmann (1995) for a treatment of this issue). A possible justification may be that return migration is costly, too, and that this prevents agents from choosing this option.

<sup>22</sup>This amounts to saying that the EU does not send home citizens of the accession countries who already reside in the Community if accession finally is denied.

<sup>23</sup>For simplicity, we assume that an agent moves whenever she is indifferent to both choices.

Let  $m^*$  be the solution of (1) as an equality. From  $\pi p/(1+r) < 1$ , we have (1) with a strict inequality if  $m < m^*$ , whereas (1) is false for all  $m > m^*$ . Thus, all agents with moving costs equal or less than  $m^*$  will emigrate in the first period. Agents whose moving costs exceed  $m^*$  will stay until period 2 and then leave the origin country if and only if the income differential is high.

Usually, it makes sense to emigrate immediately, because one can enjoy the income differential twice and must bear the moving costs only once. However, for some individuals, it pays to wait and see. Agents with a high value of moving costs would stay at home forever if they knew that the income differential will remain small, and they would emigrate immediately if it were sure that the income differential will be high. Consequently, such individuals stay and reconsider their decision in the second period. As in the model by Burda (1995), uncertainty about the future income differential creates an option value of postponing the emigration decision.

## 3.2 Policy evaluation

In the context of the present model, accession of the origin country to the EU can affect the immigration decision through three different effects. Firstly, prospects on living standards in the origin country may improve according to the hypothesis of catching-up and convergence clubs. Secondly, moving costs are reduced, for example because the legal systems are harmonized, or because educational certificates are acknowledged. Finally, the right to migration between the EU member states is guaranteed by the European treaties, the risk of a closure of the border thus being eliminated.

The effects of the first two policy changes are well-established in migration theory,<sup>24</sup> we therefore restrict ourselves to reporting the main results.<sup>25</sup> A successful catching up process of the origin country may be modeled as a decrease in  $p$ , indicating that the bad state of nature becomes less likely. In this case, immigration becomes less attractive in the first period as the expected income differential decreases. Some agents will therefore postpone their decision to the second period. In addition, as the bad state of nature is less probable, it is less likely that these agents will decide to emigrate in the second period. Improved income prospects in the origin country therefore lead to a decrease in immigration in the first period, and also reduce the total expected number of immigrants present in the destination country at the end of period 2.

Consider now a change in moving costs. One expects that a decrease in moving costs leads to increased immigration in the first period and to an increase in the total number of immigrants. A way to formalize this is to change the distribution function of  $m$  in the sense of first order stochastic dominance, i.e. low moving

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<sup>24</sup>cf. e.g. Burda (1995), Siebert (1993).

<sup>25</sup>The formal proofs may be obtained from the authors upon request.

costs become more probable.<sup>26</sup> As can be shown, this has indeed the plausible effect of increasing migration.

We finally turn to the destination country's immigration policy, formally represented by the parameter  $\pi$ . In particular,  $\pi = 1$  if the origin country is a member of the EU due to the EU treaty grant of free movement. On the other hand, if the origin country is not a member of the EU immigration may well be restricted, implying  $\pi < 1$ . We thus associate the refusal of EU membership to the Eastern European countries with a decrease in  $\pi$  below unity.

In order to focus on the interesting case where marginal policy changes can affect the migration decision at all, we restrict attention to parameter values which satisfy

**Assumption**  $f(m^*) > 0$ .

Since the density function is positive only for moving costs between the low and the high second period income differential, the assumption implies that

$$\Delta w_2^- < m^* < \Delta w_2^+. \quad (2)$$

Thus, our assumption essentially states that the good and bad states of nature in the origin country differ substantially. The low income differential has to be quite small, while the high one is supposed to be very high.

Applying the implicit function theorem to (1) we obtain

$$\frac{d m^*}{d \pi} = -\frac{p(\Delta w_2^+ - m^*)}{1 + r - \pi} < 0.$$

For the number of immigrants in the first period this implies

$$\frac{d F(m^*)}{d \pi} = f(m^*) \frac{d m^*}{d \pi} < 0 \quad (3)$$

and in the second period

$$\frac{d \{\pi p[1 - F(m^*)]\}}{d \pi} = p[1 - F(m^*)] - \pi p f(m^*) \frac{d m^*}{d \pi} > 0. \quad (4)$$

The expected total number of immigrants changes according to

$$p[1 - F(m^*)] + (1 - \pi p) f(m^*) \frac{d m^*}{d \pi}.$$

The sign of this derivative may not be determined without further assumptions. However, if the distribution of moving costs is uniform with density  $f(m) \equiv f$ ,

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<sup>26</sup>Thus, a distribution function  $G(m)$  is said to display smaller moving costs than  $F(m)$  if  $G(m) > F(m)$  for all  $m$  such that  $1 > G(m), F(m) > 0$ .

it simplifies to

$$\begin{aligned}
& pf \cdot (\Delta w_2^+ - m^*) + (1 - \pi p) f \cdot \frac{d m^*}{d \pi} \\
&= pf \cdot (\Delta w_2^+ - m^*) \left( 1 - \frac{1 - \pi p}{1 + r - \pi p} \right). \tag{5}
\end{aligned}$$

From  $r > 0$ , this expression is positive. Thus, (3), (4) and (5) yield

**Proposition 1** *If the probability of an open border in the second period increases, the number of immigrants decreases in the first period and increases in the second period. If moving costs are uniformly distributed, the total expected number of immigrants increases.*

This proposition points out the way immigration policy of the destination country may affect the option value of waiting. If the probability that migration in the future will still be an option increases, waiting becomes more valuable. This, in turn, induces some agents to stay in order to use the information on second period incomes for their decision. By contrast, if  $\pi$  declines it must be feared that this information will be worthless because immigration may be prohibited. In this case, more immediate immigration will be triggered.

Occasionally it has been claimed that immigration imposes costs on the host country. Although this concern is not necessarily well founded, for the sake of argument we assume that every immigrant causes costs amounting to  $c$  for the destination country in the arrival period. For an example of such costs we might refer to language training that must be provided to newly arrived immigrants. In this case the expected present value of these costs is

$$cF(m^*) + c \frac{\pi p [1 - F(m^*)]}{1 + r}.$$

Taking the derivative with respect to  $\pi$  and assuming that moving costs are uniformly distributed, we obtain

$$cf \cdot \left( 1 - \frac{\pi p}{1 + r} \right) \frac{d m^*}{d \pi} + cf \cdot \frac{p}{1 + r} (\Delta w_2^+ - m^*).$$

Inserting  $d m^* / d \pi$  and collecting terms shows that this derivative is zero. Hence we have

**Proposition 2** *Assume that immigrants impose a constant per capita cost on the host country in the period of arrival. Then the expectation of the present value of these costs is unaffected by a change in the probability of admission of immigrants in the second period.*

However, it might also be argued that immigration is beneficial for the destination country, e.g. because immigrants bring in new ideas. As Proposition 2 is independent of the sign of  $c$ , the present value of such benefits is unaffected by a change in the frontier regime occurring in period 2. Thus, Proposition 1 essentially features a shift in the timing of immigration rather than a genuine change in aggregate flows.

Combining the three effects of EU enlargement, we see that two of them favour lower first period immigration, while only one of them works towards increased immediate immigration. Of course, it is possible that reduced moving costs will outweigh the aggregate effect of improved economic perspectives and reduced fear of a closed border. Nevertheless, the results of this section cast doubt on the vision that granting the Eastern European countries accession to the EU will result in tremendous inflows of Eastern European immigrants. This is particularly true in the short run that politicians thinking in electoral cycles are mainly concerned with. But even in the long run, a strong positive effect of EU enlargement on immigration is not obvious from a theoretical point of view. In particular, the clear prospect of EU membership should strengthen the hope of substantially better living conditions in these countries, thus inducing their citizens to postpone emigration plans, and possibly cancelling them for good.

## 4 Development of per capita income and migration flows after EU accession: Experiences from the EU South enlargement

In order to get an idea of the consequences of a possible EU East enlargement it may be instructive to draw from the experiences gained following the EU South enlargement in the 1980s. In the run-up to the EU accession of Spain, Portugal and Greece similar fears of imminent uncontrolled migration flows were expressed.<sup>27</sup> We therefore examine as a case study the development of economic growth and migration flows of these countries after their admission to the EU.<sup>28</sup> Consider first the issue of convergence of per capita incomes. With regard to the most frequently reported relative convergence the relevant figure is the development of real per capita incomes of Spain, Portugal and Greece divided by the average real per capita income of the original six EU member countries.

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<sup>27</sup>See, for example, Eckstein (1982), Klauder (1983).

<sup>28</sup>A similar reasoning has recently been put forward by Straubhaar (1998).

## Per Capita GDP relative to Per Capita GDP in EU6

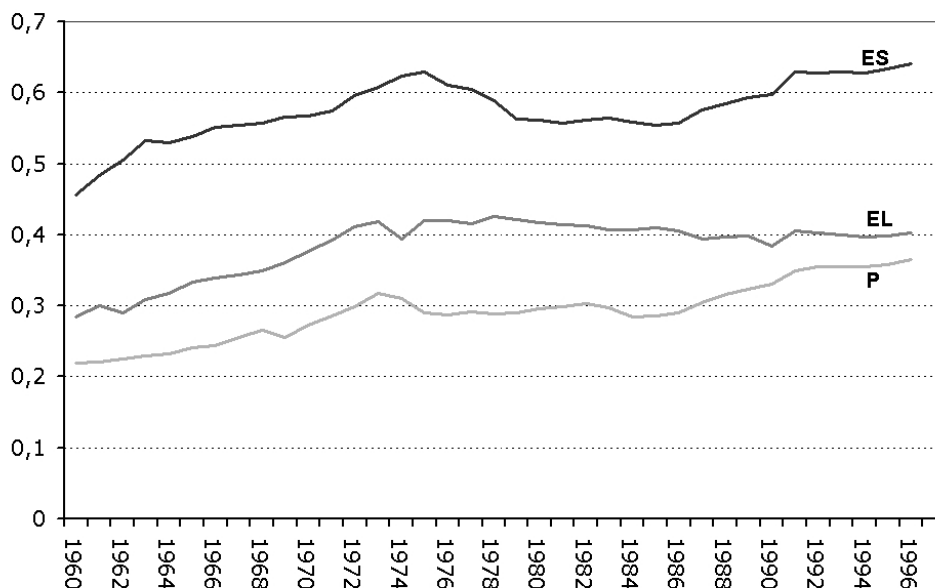


Figure 1. Sources of data: OECD (1999), Maddison (1995), Statistisches Bundesamt (1999), own calculations.

Figure 1 shows that Portugal and Spain have experienced a steady increase in this ratio since the early 1960s. Remarkably, after a period of stagnation in the early 1980s, this convergence has regained impetus following the EU accession in 1986. By contrast, for Greece since about 1980 a stagnation in relative per capita income is observable. Thus, at least in Spain and Portugal, EU membership seems to have spurred economic growth.

With respect to the development of migration flows, complete data on the number of migrants from Southern Europe to the remaining EU countries are only available for Spain but not for Portugal and Greece. The following diagram shows the total number of Spanish emigrants to Europe between 1970 and 1996:

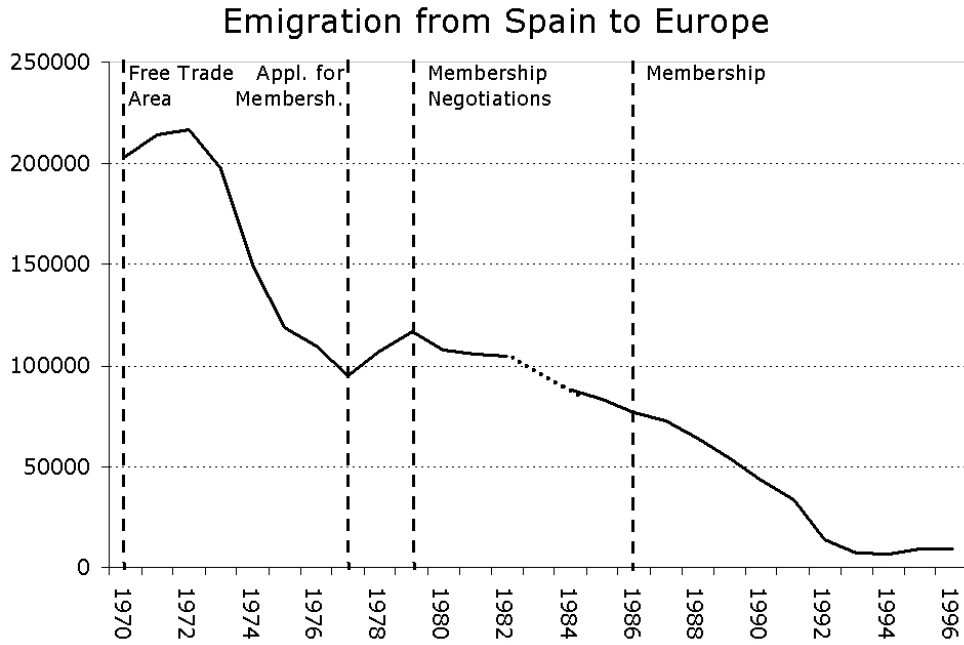


Figure2. Source of data: España, Anuario Estadístico, various issues.

In this figure, migration flows are contrasted with the milestones of Spain’s integration into the EU.<sup>29</sup> These events are the free trade agreement between Spain and the European Economic Community in 1969, Spain’s application for membership in 1977, the beginning of the negotiations in 1979 and accession to the European Community in 1986. Generally, emigration from Spain to the rest of Europe has diminished rather than increased. In fact, a few years after the establishment of the free trade area the number of emigrants per year dropped from over 200,000 in 1970 to less than 120,000 in the late 1970s and since then has continued to decline. Since the beginning of the 1990s the number of emigrants from Spain to Europe has leveled off at about 2,000 to 3,000 per year.

Data on total net migration are available for all three Southern European countries. With regard to Spain and Portugal data for the period from 1970 to 1996 yield the following picture:

<sup>29</sup>For the year 1983 no comparable data on total emigration are available.



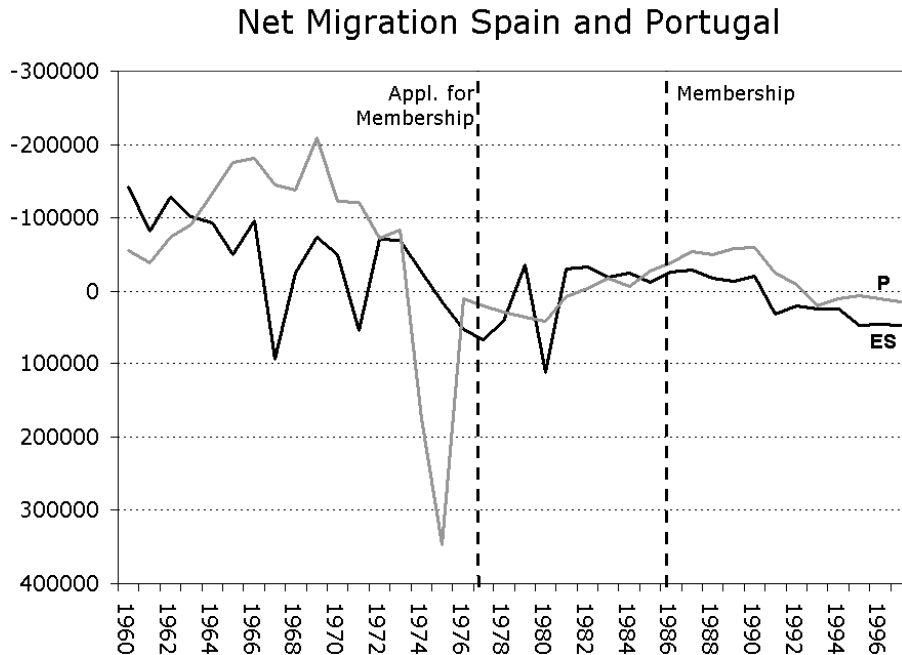


Figure 3. Source of data: Eurostat (1999).

Figure 3 gives the difference between immigration and emigration for each year since 1960. In both countries, no drastic increases in net migration after joining the EU are observable. With regard to Portugal in particular total net emigration has clearly declined since the 1970s. Moreover Portuguese as well as Spanish migration numbers gained constancy after the commencement of membership negotiations. During the 1990s both Spain and Portugal even became immigration countries.

The decline in net emigration is even more obvious in the case of Greece:

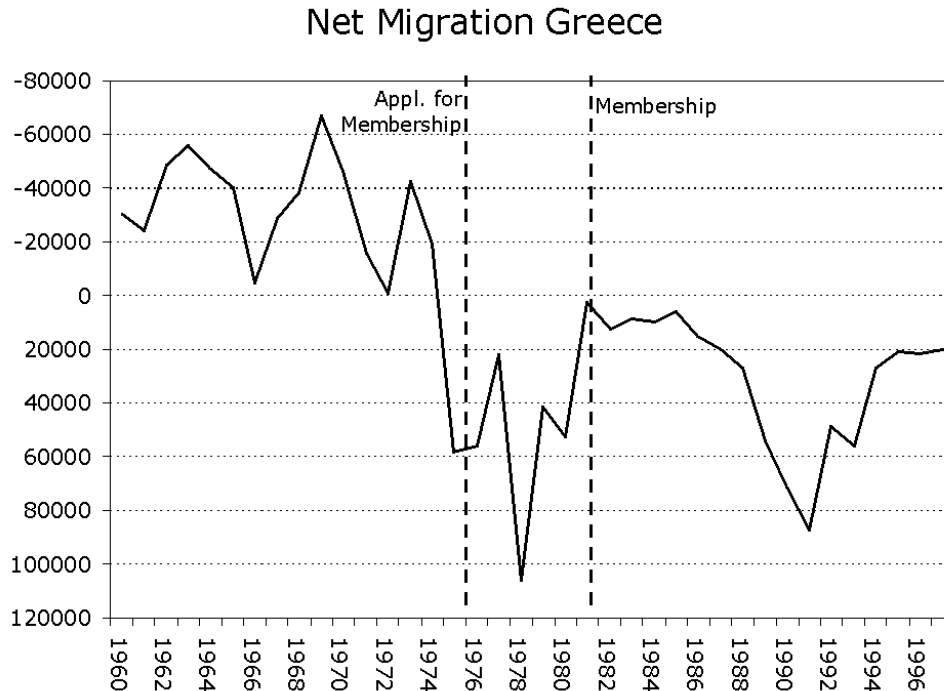


Figure 4. Source of data: Eurostat (1999).

The diagram shows that in the aftermath of her EU membership application and commencement of membership negotiations Greece evolved from an emigration country to an immigration country.

In all three countries, the application for EU membership was preceded by the fall of dictatorships. In the aftermath of these events in the mid-70s, net emigration declined sharply in Greece and in particular in Portugal. This supports the hypothesis put forward in section 2 according to which the establishment of a democratic regime reduces emigration. Thus, the drop in emigration figures in the late 70s cannot be attributed uniquely to EU membership. However, political integration into Europe has probably helped to stabilize the new democracies and thus contributed to keeping emigration numbers low. Finally, it must be observed that the peak in net immigration into Portugal in 1975 also reflects people returning from the former colonies which had gained independence shortly after the Portuguese revolution. Similarly, there was substantial relocation of ethnic Greeks from the Soviet Union in the early 70s. Nevertheless, Portuguese and Greek emigration numbers in the 80s have stayed below their pre-application levels.

Based on an analogy with the Turkish immigration to Germany, and using the wage gaps between Germany and Turkey in the 1960s, Sinn (1999) estimates the number of future immigrants from Eastern Europe at 4 million. While we refrain from drawing any quantitative conclusions from the casual facts presented in this section, the experiences from the EU South enlargement suggest that

such a number is exaggerated. Instead, these observations support the reasoning put forward in sections 2 and 3 implying that EU membership by no means necessarily induces uncontrolled immigration into the core EU member states. On the contrary, in the aftermath of their EU accessions net emigration from all three Southern European states has substantially declined.

## 5 Conclusion

In this paper the impact of the future enlargement of the EU on East-West migration has been discussed. Beyond the mere reduction of moving costs we identified several effects of EU membership that may influence migration decisions. Without a clear prospect of accession, residents of Eastern Europe might emigrate immediately for fear of a more restrictive border regime in the future. Additionally, membership is likely to favour convergence of per capita incomes and enhance political and social stability, thus reducing the incentives to emigrate. This reasoning shows that the emigration decision is complex. We therefore conclude that immigration to the EU will not necessarily be as high as some estimates suggest. In any case, a detailed empirical investigation into the determinants of emigration decisions is highly desirable.

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