Welfare Magnets in Europe and the Costs of a Harmonised Social Assistance*

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Abstract

The enlargement of the European Union has increased concerns about the role of generous welfare transfers in attracting migrants. This paper explores the issue of welfare migration across the 15 countries of the pre-enlargement Union and finds a significant but small effect of the generosity of welfare on migration decisions. This effect, however, is still large enough to distort the distribution of migration flows and, possibly, offset the potential benefits of migration as an inflow of mobile labour into countries with traditionally sedentary native workers. A possible way to eliminate these distortions is the harmonisation of welfare at the level of the Union. The second part of the paper estimates the costs and benefits of what could be the first step in this direction: the introduction of a uniform European minimum income. The results show that, for a realistic minimum income threshold, the new system would cost about one fourth of what is currently spent on non-pension social protection. Despite its reasonable cost, the distribution of net donors and net receivers across countries is such that the actual implementation of this system would be politically problematic.

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1 Introduction

The most recent projections (Alvarez-Plata et al. (2003)) indicate that, in the absence of any restriction to the free movement of persons, the recent enlargement of the European Union should gen-

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erate a flow of approximately 200,000 persons from the accession countries into the pre-enlargement Union, with a long-run stock of 2.3 million persons. The effects of such an increase in migration have been recently analysed by academics as well as policy makers (Boeri et al. (2001), Sinn (1999)). Among other considerations, much concern has risen about the impact of larger migration flows on the welfare state institutions of the receiving countries (see Kvist (2004), Sinn(2004a), Sinn (2004b)).

This paper estimates the extent to which welfare generosity affects the location decisions of migrants in the 15 countries of the pre-enlargement Union and uses these econometric results to predict the cost and the impact of a harmonised European minimum income scheme.

Migration from Eastern Europe can have both positive and negative effects on the economies of the receiving countries. On the one hand, the enlargement, involving countries with younger and growing populations, is expected to alleviate the financial strain of many countries' public pension systems. On the other hand, since migrants use the welfare state relatively more than native citizens (Boeri et al. (2000)), they may also increase pressure on its sustainability. Hence, immigration could be potentially driven, among other things, also by the generosity the welfare system. The large variation in the welfare institutions of the core European countries could, then, distort the distribution of migration flows.

This is a very important issue, especially since an efficient distribution of migration flows would be extremely beneficial for the European labour markets. In fact, contrary to the United States, European workers are very immobile, making it difficult for the economy to adjust to asymmetric changes in labour demand. This is particularly true after the introduction of the Euro, that eliminated the exchange rates, an instrument that has been normally used in the past for stabilizing the economy after asymmetric shocks.

Almost by definition, migrants are a very mobile form of labour and, as long as they move into areas where labour is scarce and wages are high, they can play a crucial role in counterbalancing the low mobility of native European workers. High wages and high employment probabilities, rather than the generosity of welfare, should be the main driving forces of migration.

Put in other words, to the extent that migrants from eastern Europe choose their destination on the basis of the generosity of welfare, the potential benefits of acquiring a more mobile labour force will be lost. Moreover the distribution of the costs (in terms of higher social expenditure) of

the expected larger migration flows will be unevenly distributed, to the expenses of countries and regions where financial pressure on welfare is already high.

The issue of welfare induced migration has already received a good deal of attention in the economic literature. Early studies were generally based on aggregate data and showed the states with more generous benefits were also associated with slightly larger inflows of migrants. With aggregate data, however, it is impossible to focus on those subgroups of the population (large families, single parents, women, etc.) who are more likely to consider the generosity of welfare an important element in their migration decisions. Using micro data at a more disaggregated level other authors (Blank (1988), Borjas (1999), Gramlich et al. (1984), Meyer (2000)) still found a significant impact of welfare on migration. Even the most recent strand of papers (McKinnish(2005), Gelbach (2004), Walker (1994)), that rely on difference-in-difference methods, confirm the existence of some welfare migration, especially for the most vulnerable groups of the population. Nevertheless, these effects are generally considered too small to seriously affect policy making.

All these studies, however, are based on the United States, where labour mobility is relatively high for native workers as well and the role of migration as a stabilizer after asymmetric shocks is somewhat less important. This paper focuses on Europe and shows that the effect of welfare generosity can be large enough to offset the changes in migration patterns that would arise from an asymmetric shock on unemployment.

Besides its focus on geographical labour reallocation, this paper also contributes to the literature by providing the first estimates of welfare migration across European countries, something that could not be done in the past due to the lack of cross-country comparable data. In fact, our empirical analysis, using data from the European Community Household Panel (ECHP), shows that migrants into the pre-enlargement European Union choose their destination on the basis, among other things, of the generosity of welfare.

The paper, then, moves on from this result to argue that, if it is true that differences in the generosity of welfare affect the distribution of migration flows, there is scope for claiming more harmonisation in welfare policies within the Union. A first step in this direction would be the creation of a European-wide safety net: a last resort income benefit that would be paid to any resident in the Union whose income, adjusted by household size and purchasing power, falls below a certain threshold.

Almost all Member States already offer some sort of minimum income scheme – with the notable exceptions of Greece and Italy – but payments as well as access conditions differ a lot across countries. Not only may these differences affect negatively the distribution of the welfare costs of migration, but they could also dramatically reduce the potential benefits of migration in terms of labour reallocation.

Implementing such an harmonized system of income protection is not going to be easy: Member Countries will have to adjust their existing schemes to the new rule, some of them will have to increase benefits and other will have to reduce them, some countries might not be able to afford a system of this type for many reasons (large income differences, high poverty rates, low levels of taxation, etc.). In other words, there will be losers and winners, and losers will tend to disagree with the proposal.

This paper estimates the overall cost of a European-wide minimum income scheme under various assumptions about its generosity. We also compute the distribution of costs and benefits among European Member States in order to understand which countries will benefit more from such a reform and where opposition is most likely to arise.

The paper is organised as follows. Section 2 briefly describes the data. Section 3 presents the empirical analysis of the correlation between welfare generosity and migration decisions. Section 4 presents and discusses the estimation of the costs and benefits of a European minimum income scheme. Section 5 concludes.

2 The Data

2.1 The European Community Household Panel

The *European Community Household Panel* is a panel dataset of households that covers all the 15 pre-enlargement countries of the European Union. The ECHP started in 1994 and 8 waves of data have been released so far, covering the period from 1994 to 2001. Not all countries entered the survey at the same time and for three of them - Germany, Luxembourg and the United Kingdom - the original sample has been replaced after the first three waves with harmonised versions of household panels already been produced nationally: the German Socio-Economic Panel (GSOEP),

the Luxembourg's Socio-Economic Panel (PSELL) and the British Household Panel Survey (BHPS). When possible data from the existing panels have been provided for the first three years too. Identical sampling procedures are applied in all countries and individuals are administered the same set of questions, thus making the data highly comparable across countries.

Respondents to the ECHP questionnaire are also asked various questions about migration and citizenship. In what follows migrants are identified as those who either indicated to be citizens of a non EU-15 country or were born abroad and lived in a different country before arriving in the place of current residence.

We adopt this dual definition because it allows to cover the largest set of countries (e.g. there is no information on citizenship for Germany but migration trajectories are reported) and also because it is the one that performs better in comparison with official migration data from the OECD, as shown in Table 1. There still exist discrepancies, which are sometimes quite large, between our estimates of the stock of foreign population and the official data but, considering that the ECHP is not explicitly designed for the study of migration and that the sample of migrants in some countries is relatively small, the overall performance of the ECHP can be considered satisfactory.

Another important piece of information available from the ECHP is the year of arrival in the current country of residence, which allows to match to each individual the economic conditions of all possible destination countries at the time the decision to migrate was taken. However, since data on welfare generosity and macroeconomic conditions are not easily available for the very past years, only migrants who arrived in the country of present residence in or after 1970 have been considered. The sample has also been restricted to individuals who were aged between 15 and 55 at the time of arrival. Unfortunately, the data on welfare generosity are not available for Luxembourg and this country has been dropped from our sample.

Eventually, the empirical exercise of section 3 uses a sample of 3038 migrants from outside the pre-enlargement EU-15, distributed in 14 countries of the European Union according to Table 2. Summary statistics are also shown in Table 2, together with the distribution of the years of arrival for each destination country.

The data show that migrants usually move in their late twenties and that they are rather evenly distributed by gender with some countries, like Italy, where the presence of women is particularly high (probably because they cluster into female-dominated occupations, like nursing). The distri-

bution of education is more varied with the Nordic and the anglo-saxon countries attracting the most educated migrants (with some exceptions like Greece and Spain).

For many countries the first nineties have been the years of most intense immigration but the data indicate a large variation in the sequence of migration waves across countries, resulting in a rather even distribution of arrivals for the entire Union.

It is worth mentioning here a couple of caveats of this sample. It is a known fact that some countries are often used as a port of entry (e.g. Italy, Spain, Greece, etc.) and the final destination of migration might not be the one observed in the data. Keeping this in mind, there is very little we can do about it, as the ECHP does not contain questions about the intention to leave the country in the future. We can only argue that most immigrants, who only transit in one country with the intention to move to another one, typically do that illegally and are, thus, very unlikely to be captured by our data. In fact, for most countries the ECHP covers only legally registered individuals and is, therefore, likely to capture those immigrants who have reached their final destination. On the other hand, however, most illegal migrants will not be covered by our analysis.

2.2 OECD Data-base on Benefit Entitlements and Replacement Rates

Data on welfare generosity come from the *OECD Data-base on Benefit Entitlements and Replacement Rates,* which has been normally used in the literature to describe the generosity as well as other characteristics of the welfare systems in the countries of the OECD (Blanchard et al. (2000), Nickell et al. (1999), Nickell et al. (2005)). In particular, this database measures the generosity of welfare by computing the ratio between income out of work, i.e. from welfare benefits, and income in work, i.e. some measure of the average wage. These figures, called replacement rates, are computed for several family types (e.g. single, couple with and without children, etc.), income levels (e.g. average earnings or 2/3 of the average earnings) and various durations of unemployment (from the first month up to the 60th month), as some benefits, like unemployment insurance, are paid only for a limited period of time.

The OECD produces these figures taking the average wage in the manufacturing sector (what is usually called the wage of the "average production worker" or APW) as a measure of earnings and, on the basis of each country's regulations, computes the amount of benefits a typical worker with that level of earnings is entitled to in case of unemployment. The calculation considers all

cash benefits, i.e. unemployment benefits, housing benefits, family benefits and minimum income programmes.

The OECD Data-base on Benefit Entitlements and Replacement Rates exists in two versions. The first one contains gross replacement rates, i.e. computed without considering the taxation of benefits, which are indeed taxed in many OECD countries and goes back as far as 1960. The second version of the database includes taxes in the calculations but, unfortunately started only in 1995, thus, this paper uses gross benefits from the first version of the database[1].

Since our interest lies in the separate identification of the effects of the wage and of welfare benefits on the destination of migrants, it has been necessary to reconstruct the level of the benefit from the replacement rate by multiplying the ratios by the APW earnings. Moreover, given that our identification strategy is based on the comparison of the combinations of wages, employment possibilities and welfare generosity across the destinations countries, the benefits have been adjusted for their purchasing power.

Figure 1 shows the evolution over time and across countries of the measure of welfare generosity that will be used for the empirical analysis of section 3. These numbers are computed averaging the total amount of welfare benefits (in PPP-weighted current ECUs) over two income levels (APW and 2/3 of APW earnings), 3 family types (single, couple with dependent spouse, couple with working spouse) and several durations of unemployment (from 0 to 60 months).

The data in Figure 1 confirm what is a well known fact, that welfare institutions vary considerably across countries and offer a good deal of variation that can be exploited for econometric identification. Moreover, contrary to what has been sometimes argued (Blanchard et al. (2000)), the generosity of welfare benefits changes noticeably also over time within countries, although this is not readily evident from the figure because the benefits are measured in current ECUs.

[1]Remember that the ECHP samples individuals in 1994 and then follows them over time. Hence, the very few migrants who arrived after 1995 are necessarily family reunions into sampled households.

3 Welfare generosity and the choice of migration: an empirical model

In this section we borrow heavily from McFadden (1974) and Maddala (1983) to describe a structural model of the destination choice of migrants. We are implicitly assuming that the decision to migrate has already been taken and the only choice to be made concerns the country of destination. Meyer (2002) also uses a similar model and compares it with other empirical strategies that have been attempted in the literature.

Suppose that each individual i is faced with D alternative destination countries and utility obtainable from migrating into country d is:

$$U(\mathbf{x}_{id}) = V(\mathbf{x}_{id}) + \eta_{id} \tag{1}$$

where $V(\mathbf{x}_{id})$ is a deterministic function of a set of intrinsic characteristics of country d, possibly varying across individuals, $\mathbf{x}_{id}$ (i.e. prevailing unemployment rate, average wages, etc.). η_{id} is a random component of utility for individual i moving to country d. For simplicity, assume that $V(\mathbf{x}_{id})$ is linear: $V(\mathbf{x}_{id}) = \mathbf{x}_{id}\boldsymbol{\beta}$.

Individual i will, therefore, choose destination d if:

$$U(\mathbf{x}_{id}) > U(\mathbf{x}_{ik}) \quad \text{for all } k \neq d \tag{2}$$

Assuming that the random utility components η_{id}'s are all independently and identically distributed (over both i and d) according to a type I extreme-value distribution[2], the probability that individual i chooses destination d can be rewritten as[3]:

$$\Pr\left\{V(\mathbf{x}_{id}) + \eta_{id} \geq V(\mathbf{x}_{ik}) + \eta_{ik} \quad \text{for all } k \neq d\right\} = \frac{e^{\mathbf{x}_{id}\boldsymbol{\beta}}}{\sum_{k=1}^{D} e^{\mathbf{x}_{ik}\boldsymbol{\beta}}} = P_{id}(\mathbf{x} \mid \boldsymbol{\beta}) \tag{3}$$

Equation (3) clearly indicates that the identification in this model comes from comparing the

[2]A random variable η_i has the type I extreme-value (or log Weibull) distribution if:

$$\Pr\left\{\eta_i \leq \eta\right\} = \exp\left[-e^{-\eta}\right]$$

[3]This specification satisfies the property of indipendence from irrelevant alternatives (see Maddala (1983)).

same individual faced with different alternative destinations. In fact, since each individual i is only observed taking one destination d, all individual characteristics that do not vary across countries (age, education, etc.) are collinear and cancel out in the specification of P_{id}.

The log-likelihood function for a sample of N migrants facing D destinations can, then, be written as:

$$L(\boldsymbol{\beta}) = \sum_{i=1}^{N} \sum_{d=1}^{D} f_{id} \log P_{id}(\mathbf{x} \mid \boldsymbol{\beta}) \tag{4}$$

where $f_{id} = 1$ if individual i chooses destination d and zero otherwise.

The model described in equation (4) is estimated under various specifications of the utility function $U(\mathbf{x}_{id})$. Initially, we simply want to replicate the known result that employment possibilities and wages are the main determinants of the destination of migration. In order to test this hypothesis, the set of destination attributes, $\mathbf{x}_{id}$, includes the unemployment rate and the average real wage in each destination country d corresponding to the year in which individual i settled into his/her country of current residence.

As additional controls, we always include a set of destination country dummies and 4 time period dummies for arrivals before 1980, between 1980 and 1985, between 1985 and 1990 and after 1990. These two sets of dummies are also interacted, thus allowing destination-specific effects (the strictness of migration laws, networks of migrants already present in the country, etc.) to change at discrete time intervals.

Results are shown in the first column of Table 3 and indeed confirm that migrants tend to go into countries with lower unemployment rates and higher real wages. The second column of Table 3 repeats the same estimation adding to the set of explanatory variables the interactions between the log of the unemployment rate and of the wage with some individual characteristics, to check whether some groups are particularly sensitive to the conditions of the labour market.

The results indicate that the migration decisions of the more educated are less affected by unemployment and wages, perhaps because they generally have good changes of finding a job and their actual earnings are less correlated with the average. Those who migrate early in their lives (before 25 years old) also appear to attach less importance to the wage, probably because they see their experience in a different country also as an investment in human capital and are,

therefore, willing to accept lower wages (compared to what they could earn in other destinations). Interestingly, there seems to be no detectable differences between men and women.

The third column of Table 3 introduces our measure of welfare benefits associated with the year of arrival in the destination country (in logs). The results show a positive and significant coefficient, indicating that, indeed, migrants are more likely to move into countries with more generous welfare benefits. This effect is reinforced when the measure of welfare generosity is interacted with the individual characteristics, as in column 4. Among the interaction coefficients, only the one with the gender dummy is significant, indicating that women are relatively less attracted by high-benefit countries.

To get a first idea of the magnitude of these estimated effects, one could simply compare the coefficients of the log wage and the log benefit, which share the same unit of measurement. For example, from the figures in column 4 the effect of wages is more then 10 times larger than that of benefits.

More formally, one could look at the effect on migration into one country of changes in unemployment, wages and benefits either in the same or in the other countries. In fact, according to equation (3), the effect of a change in the $j-th$ characteristic of country d on the probability of migrating in country d is equal to:

$$\frac{\partial P_{id}(\mathbf{x} \mid \boldsymbol{\beta})}{\partial x_{jid}} = P_{id}(\mathbf{x} \mid \boldsymbol{\beta}) \ [1 - P_{id}(\mathbf{x} \mid \boldsymbol{\beta})] \ \beta_j \tag{5}$$

while the effect on the same probability of a marginal change in the same $j-th$ characteristic of another country $k \neq d$ is:

$$\frac{\partial P_{id}(\mathbf{x} \mid \boldsymbol{\beta})}{\partial x_{jid}} = -P_{id}(\mathbf{x} \mid \boldsymbol{\beta}) \ P_{kd}(\mathbf{x} \mid \boldsymbol{\beta}) \ \beta_j \tag{6}$$

Using equation (5), Table 4 reports the direct effects of a change of one standard deviation in each of the three variables of main interest - the unemployment rate, the average wage and the generosity of welfare - as implied by the estimates in column 4 of Table 3 and computed for a representative person (male, aged 25, with primary education and arrived in 1990). As indicated by the last two columns, the effect of a one-standard deviation change in the unemployment rate (which is a huge change of more than 3 percentage points) is only in a few countries comparable to

a similar change in welfare benefits.

Perhaps, it is easier to interpret the ratio between the change in wages and benefits, since they are both measured on the same scale. The ratios in the last column of Table 4 show that increasing welfare benefits by one-standard deviation induces an increase in migration flows that is on average only 27% of what a similar change in wages would have generated. Only in Italy the size of the two effects is comparable but in this country benefits are extremely low and the simulated change of one-standard deviation leads to benefits more than 7 times higher.

The full matrix of both direct and cross- marginal effects computed for the reference person according to equations (5) and (6) is reported in Table A2 in the appendix. These numbers are useful to conduct the thought experiment reported in Table 5, which tries to relate these estimates to the initial issue of labour reallocation.

Suppose that there are only to possible destination countries, A and B, and that they are initially identical, with unemployment equal to 6% and welfare benefits of 5,000 euros per year (approximately the averages across the 14 countries used for the estimation). Migration flows will, then, be evenly distributed across the two countries, with the reference person migrating to any of them with a probability of 50%. This is the benchmark situation described in the first panel of Table 5.

Suppose now - panel 2 in Table 5 - that the two countries are hit by an asymmetric shock on unemployment (assume, for simplicity, that wages are rigid) which goes up to 7% in country A and down to 5% in country B. The estimates of Table 3 predicts that this will generate a reduction of about 0.045 in the flow of migrants to country A and a symmetric increase for country B. This change in migration flows would, then, help to absorb the shock even if no native worker would move from A to B.

What would happen if benefits were changed too? Panel 3 computes the effect on the migration probabilities of a 20% increase in country A's benefits associated with an identical and simultaneous reduction in country B. The results indicate that the effect would be very similar that of the change in unemployment simulated in panel 2. In fact, when one computes the joint effect (panel 4) of these two asymmetric changes - to unemployment and benefits - one finds that changing benefits by 20% (a rather feasible reform) would almost completely offset the induced variations in migration flows generated by a notable, but not unreasonable, unemployment shock.

This is an important result. It is true that welfare generosity is a lot less important than labour market conditions in determining the location decisions of migrants, nevertheless its effect is large enough to dramatically reduce, and possibly completely offset, the potential benefits of migration in terms of labour reallocation, especially in countries with traditionally low geographical mobility. In fact, while the direct effect of welfare benefits on migration choices is small, the cross-effects are sometimes surprisingly high (see Table A2).

4 A European-wide minimum income

The analysis conducted in the previous section shows that differences in welfare generosity across countries may generate important distortions in the flows of migrants. A possible solution to this problem would be the harmonisation of welfare at the level of the Union.

A first step in this direction could be the creation of a European Minimum Income (MI), a scheme by which every household in the Union would be guaranteed a minimum income level, adjusted by the purchasing power of each country and equivalised for family type. This scheme may also substitute many of the existing welfare transfers currently being paid to low income households, such as housing or family benefits.

In this section we use the 1999 wave of the ECHP to investigate the cost and the feasibility of a harmonised MI across the pre-enlargement EU-15 under various assumptions about its generosity and financing method.

We consider three different MI levels, defined on a monthly base at PPP-equivalent euros. As a benchmark we take a MI of 608.5 monthly euros for a single person without children, a level that corresponds to the average of the minimum income schemes that were offered in 1999 by the countries of the Union[4] (see Kazepov et al. (2001)). A lower - 300 monthly PPP euros - and a higher - 1,000 monthly PPP euros - MI levels are also considered for comparison purposes. Table 6 converts these levels in 1999 euros for each country.

For each MI level we, then, compute the number of eligible households (by country and in the EU-15 as a whole) and the cost of the programme. All the households with total incomes below

[4]Minimum income programmes exist in all the countries of the pre-enlargement EU-15, with the exception of Greece and Italy.

the MI level are guaranteed a transfer equal to the net difference between their actual income and the MI. Formally, the total cost for country d, TC_d, is computed as:

$$TC_d = \sum_{h=1}^{H_d} w_h(e_h MI - I_h)1(I_h < e_h MI), \quad \text{for each } d \tag{7}$$

where 1(.) is an indicator function, equal to 1 when the condition between brackets is satisfied and 0 otherwise; H_d is the total number households in the country; MI is the monthly minimum income level for a single person (in PPP-euros); e_h is an equivalence coefficient that transforms the MI level for a single person into the appropriate amount for family h; I_h is the total household monthly income (also in PPP-euros), excluding most welfare transfers; w_h is a household weight, adjusted to report the sample to the actual size of the population.

Summing over all the countries yields the overall cost of the programme for the entire Union:

$$TC = \sum_{d=1}^{15} TC_d \tag{8}$$

Household income is defined as the sum of incomes from all family members and all sources, excluding those social transfers that may be replaced by the MI: unemployment benefits, family related allowances, sickness/invalidity benefits, education related allowances, any other personal benefit, social assistance and housing allowance. The equivalence scale we adopt is the one officially used by the OECD, which equals one for single adults and adds 0.7 for any additional adult and 0.5 for any additional children below 14 years-old.

Notice that we are neglecting any labour supply response. In principle, in fact, some households may react to the introduction of the new scheme by reducing their labour supply in order to become eligible. Taking this effect into consideration would not change our results significantly for two reasons. First, the size of the response depends on the wage elasticity of labour supply, which we know from many empirical studies to be extremely low, especially in Europe (Blundell et al. (2000), Pistaferri (2003)). Second, the new scheme is simply going to replace existing ones and we are actually decreasing the total amount of social transfers (see the discussion over Figure 1 below).

4.1 Financing

We consider two possible scenarios for the financing this hypothetical European Minimum Income. These two financing methods share the common feature that taxes will be levied only on those households whose income exceeds the MI threshold by at least 20%. This should ensure, at least to some extent, that the marginal tax rates around the MI threshold are not excessively high and discourage employment. More complicated mechanisms could be envisaged for this particular purpose, for example a gradual withdrawal of the benefit as household income increases.

The first scenario is a simple undifferentiated lump-sum tax on each household of the Union. In this case the unique EU-wide lump-sum tax, t, is computed as:

$$t = \frac{TC}{N.ofHouseholds|(I_{hd} > 1.2 \cdot e_{hd} \cdot MI)} = \frac{\sum_{d=1}^{D}\sum_{h=1}^{H_d} w_{hd}(e_{hd}MI - I_{hd})1(I_{hd} < e_{hd}MI)}{\sum_{d=1}^{D}\sum_{h=1}^{H_d} w_{hd}1(I_{hd} > 1.2 \cdot e_{hd} \cdot MI)} \quad (9)$$

The second option is similar but uses an undifferentiated proportional instead of lump-sum tax, identical for all households in the Union. The unique EU-wide tax rate is, then, calculated as the ratio of total costs (TC) and aggregate income of all taxpayers, as follows:

$$\tau = \frac{TC}{AggregateIncome|(I_h > 1.2 \cdot e_{hd} \cdot MI)} = \frac{\sum_{d=1}^{D}\sum_{h=1}^{H_d} w_{hd}(e_{hd}MI - I_{hd})1(I_{hd} < e_{hd}MI)}{\sum_{d=1}^{D}\sum_{h=1}^{H_d} w_{hd}1(I_{hd} > 1.2 \cdot e_{hd} \cdot MI)I_{hd}} \quad (10)$$

with household incomes computed at PPP values.

In both cases the tax system is centralised and rich countries pay more into the new scheme than they receive, generating a considerable redistribution of resources across the Union.

Of course, one could also impose a system of autarchy at the country level, so that the amount of the lump-sum or proportional tax is differentiated by country and computed in order to guarantee that each country is able to pay the MI benefits to its citizens. This is a less interesting solution because there would be no redistribution of resources across the countries of the Union. But it is also less feasible because, an autarkic system with a common MI would be financially unfeasible for several countries (typically the poorest ones) with proportional taxes sometimes exceeding 100%.

4.2 Gains

In order to measure of how advantageous the new system is for each country we compute the difference between what each of them receives from the centralised system (TC_d) and the total tax bill to be paid. The gains for a generic country d under the lump-sum tax regime, G_d^{LP}, can be computed as follows:

$$G_d^{LP} = t \sum_{h=1}^{H_d} w_h 1(I_h > 1.2 \cdot e_{hd} \cdot MI) \tag{11}$$

While, in a proportional system, G_d^P, these are:

$$G_d^P = \tau \sum_{h=1}^{H_d} w_h 1(I_h > 1.2 \cdot e_{hd} \cdot MI) I_h \tag{12}$$

Countries with negative gains are net donors of the system, or losers, while net recipients, with G greater than 0, are winners.

4.3 Recipients, costs, winners and losers

This section discusses the results of our policy exercise. Figure 2 plots the number of eligible households and the related annual costs for the three MI levels that we consider. At the lowest MI level, about 15 millions households receive a transfer from the system with an aggregate cost of 56 billions of euros. These numbers go up to 44 millions recipient households and a total expenditure of 227 billions of euros for the more reasonable MI level of 608.5 PPP-euros for a single person. Finally, when we allow for an overly generous MI at 1,000 PPP-euros for a single person, we get a total of almost 90 million recipient households (more than half of all the households in the EU-15) facing an aggregate cost of 750 billions of euros.

Note that these last figures are extremely unrealistic. The most generous MI in Europe is the Danish one, which pays the equivalent of 832 PPP-euros for a single without children (Kazepov et al. (2001)).

To get a better idea of how these numbers compare to what the countries of the EU-15 currently spend for welfare benefits, Figure 2 also reports the total cost of the MI programme in percentage of current social expenditure on similar programmes (these are the numbers next to the diamonds

in the picture).

The data on social expenditure come form the OECD Social Expenditure Database and the measure that we consider here is the sum of public spending in the following categories: disability benefits, occupational injury and disease, sickness benefits, services for elderly and disabled, family cash benefits and services, unemployment, housing and other contingencies.

The least generous scheme would cost only 6% of what the countries of the EU-15 currently spend on these categories of social protection and even the most generous would cost less than the current bunch of benefits (79%). The most reasonable MI would cost approximately 24% of current expenditure.

Figure 3 shows the distribution of recipients by country. In the middle case (MI=608.5), the countries with the largest number of eligible households are Germany, the United Kingdom, Italy, France and Spain, which are also the most populous ones (in terms of both individuals and households).

On the cost side, Figures 4 and 5 show the distribution of total costs by country, both aggregate and per household. In absolute values the United Kingdom, Germany, Italy, France and Spain are still the countries with the highest costs, but if one divides the total cost by the number of household in the country (Figure 5) Ireland, Portugal, Finland, Spain and Sweden (with $MI = 608.5$) appear to be the countries with the highest expenditure per family.

Having investigated the costs and the benefits of the new scheme, the remaining figures and tables try to identify the losers and the winners of our policy exercise. Financing the new system with a common lump-sum tax would require each household to pay 422.2 PPP-euros per year for a MI of 300 PPP-euros per month for a single person. The second MI level of 608.5 PPP-euros requires a lump sum tax of 2,395.5 PPP-euros per year, while the most generous MI would imply a yearly lump-sum of 16,939.9 PPP-euros. With a proportional system, the implied tax rates would be 1.7%, 8% and 43% for the three MI levels respectively.

Going through Figures 6 and 7 and referring to the summary table (Table 7) Finland, Greece, Ireland, Portugal, Spain and Sweden are definitely going to win under any scenario considered in this exercise. The United Kingdom is also likely to be among the countries that will gain from the new system, being a loser only under a proportional tax regime and for the highest value of the MI. While the presence of the Mediterranean countries among the winners is somewhat expected, for the

other countries that might seem surprising. However, if one takes a closer look at the distributions of household types in Finland, Sweden and the United Kingdom, one notices a strong incidence of single member households, probably students, and lone parents. The high risk of poverty of these household types explains why these countries appear in the group of net receivers.

Among the clear losers are Austria, Belgium, Denmark, France, Germany and Luxembourg. Borderline cases are Italy and the Netherlands. This last country is likely to be a net donor for average and high levels of the MI under both financing regimes, while it will gain from the system only with a very low MI. Italy is a more complicated case: it appears three times among the winners and three times among the losers. Moreover, for the middle MI, it ranks among the losers under a lump-sum system and among the winners with a proportional tax scheme.

5 Conclusions

The results of this paper suggest that welfare generosity acts as a migration magnet across the countries of the European Union. This finding supports the concerns expressed by many observers of a potential threat to the welfare state posed by the enlargement of the Union. On the other hand, however, the same estimates indicate that the size of these welfare magnets is relatively low, compared to the role of labour market conditions, such as the unemployment rate and the level of wages.

The issue, then, is not whether migrants will flood into countries with generous welfare benefits, but to what extent the variation in the welfare institutions across the countries of the Union will generate distortions in the flows of migration. The empirical analysis conducted in the first part of this paper shows that these distortions can be large enough to reduce, and possibly completely offset, the potential benefits of acquiring a more mobile labour force. This is, in fact, one of the most important advantages that increased migration can offer to the countries of the pre-enlargement Union, an area where native workers traditionally move a lot less than, for example, their North-American counterparts.

The second part of the paper explores the feasibility of one possible solution to this problem: the creation of a more harmonised welfare system across the Union through the introduction of a uniform minimum income programme. Under various assumptions about the generosity and the

method of financing, we compute the costs and the benefits of such a scheme for each country of the pre-enlargement Union.

The results indicate that, for realistic minimum income values, the new system would cost about one fourth of what is currently spent on social protection and, considering that a programme of this type could replace many of the existing social transfers (such as family, housing and other social assistance provisions), its cost does not seem unbearable.

The distribution, rather than the level, of the costs of this programme is more likely to create obstacles to its actual implementation. Imposing a uniform minimum income to all countries and requiring each of them to autonomously finance its own payments is not a feasible strategy, because the poorest countries would be unable to face the cost. The introduction of the new system will probably require a certain degree of redistribution, with some countries receiving more than they pay.

We simulate the effects on the distribution of costs and benefits across countries of financing the minimum income with a lump-sum or a proportional tax, which are identical for all households of the Union, regardless of their country of residence. The results indicate that, under most tax schemes and minimum income levels, the net receivers, or winners, are Finland, Greece, Portugal, Spain, Sweden and the United Kingdom, while Austria, Belgium, France, Germany, Luxembourg and the Netherlands usually loose out by paying more than they receive. Italy is the only really uncertain case, being among the losers for the smallest values of the minimum income and among the winners for the most generous ones.

Despite its reasonable cost, this distribution of net donors and net receivers is such that the actual implementation of the system would be politically problematic.

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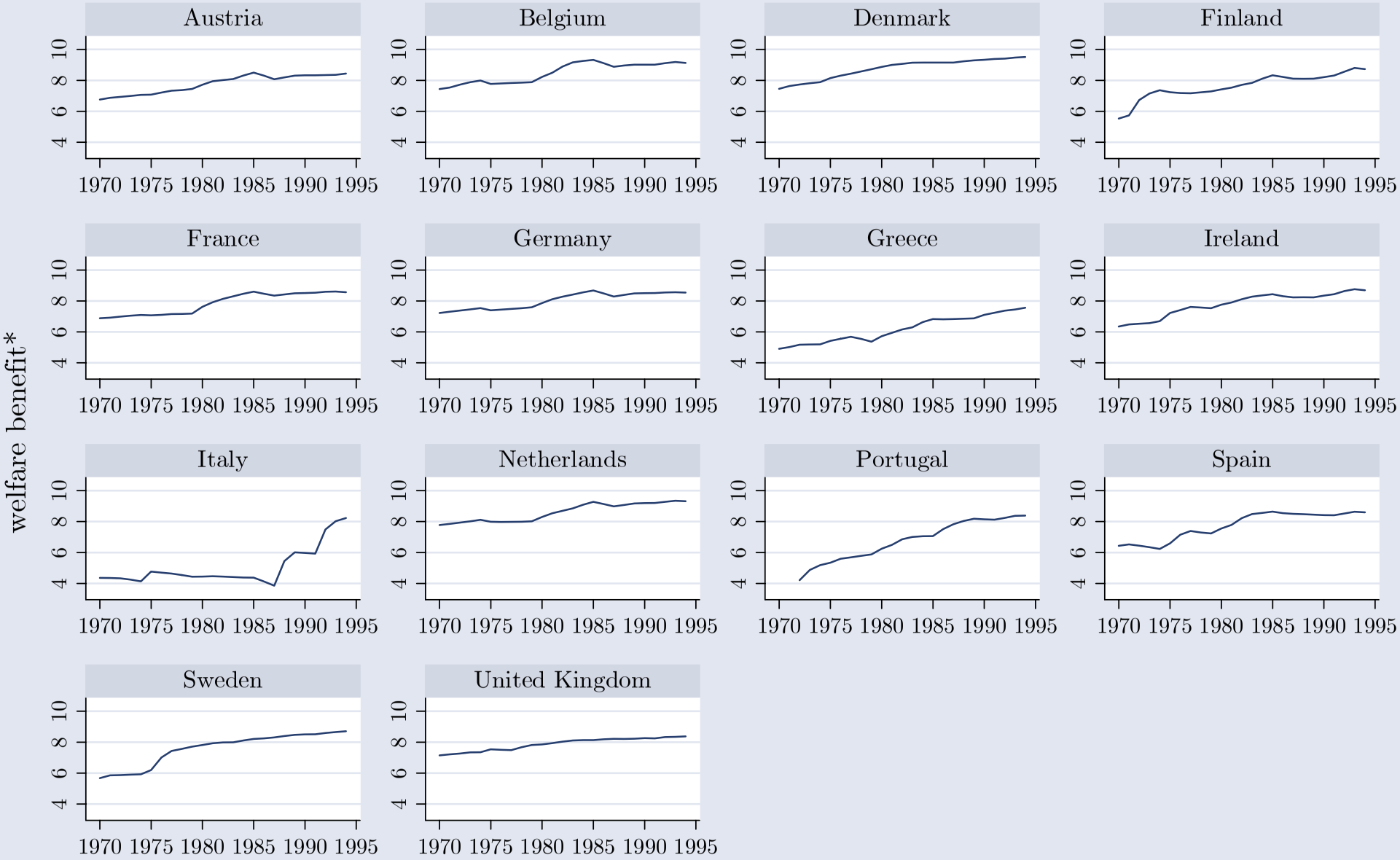
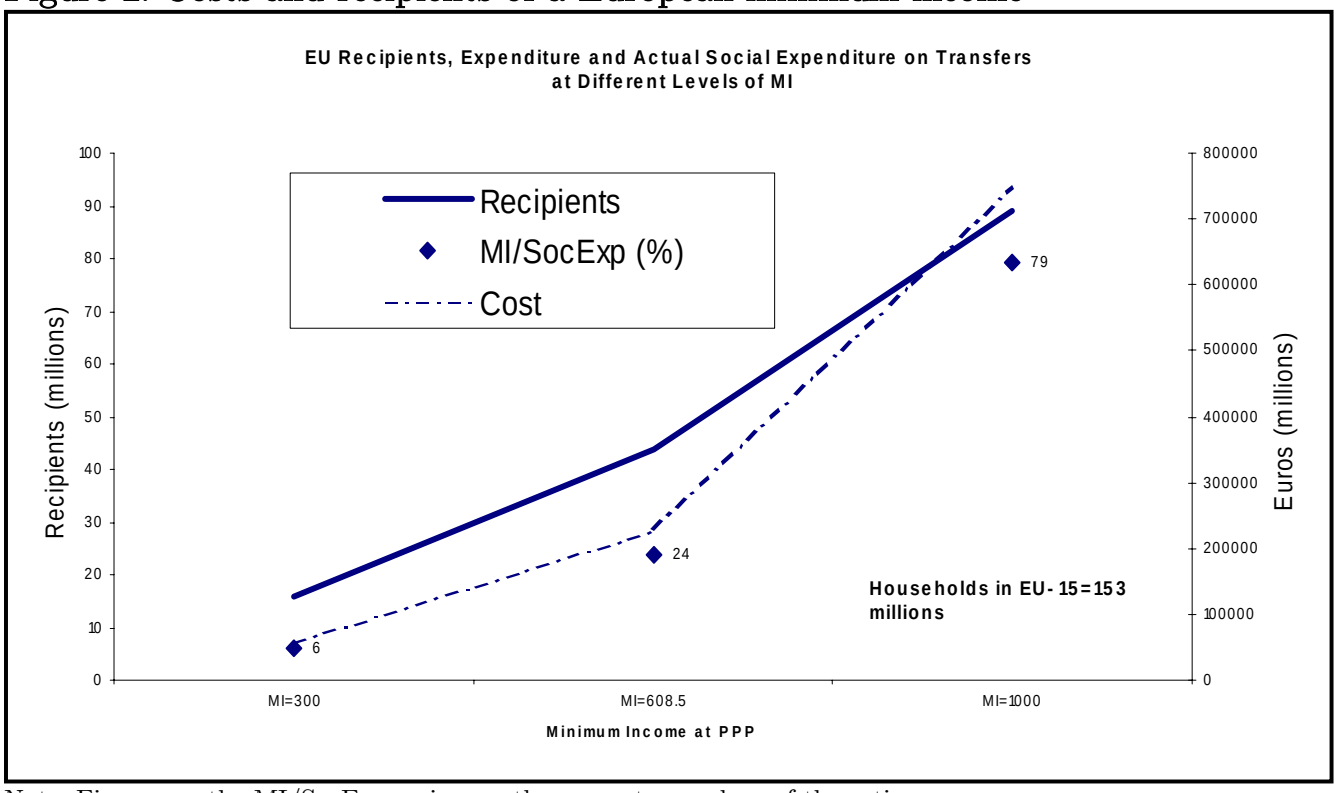
Figure 1. Gross welfare benefits by country



*in log of PPP-weighted current ECUs

Figure 2. Costs and recipients of a European minimum income



Note: Figures on the MI/SocExp series are the percentage values of the ratio.

Figure 3. Recipients of a European minimum income by country

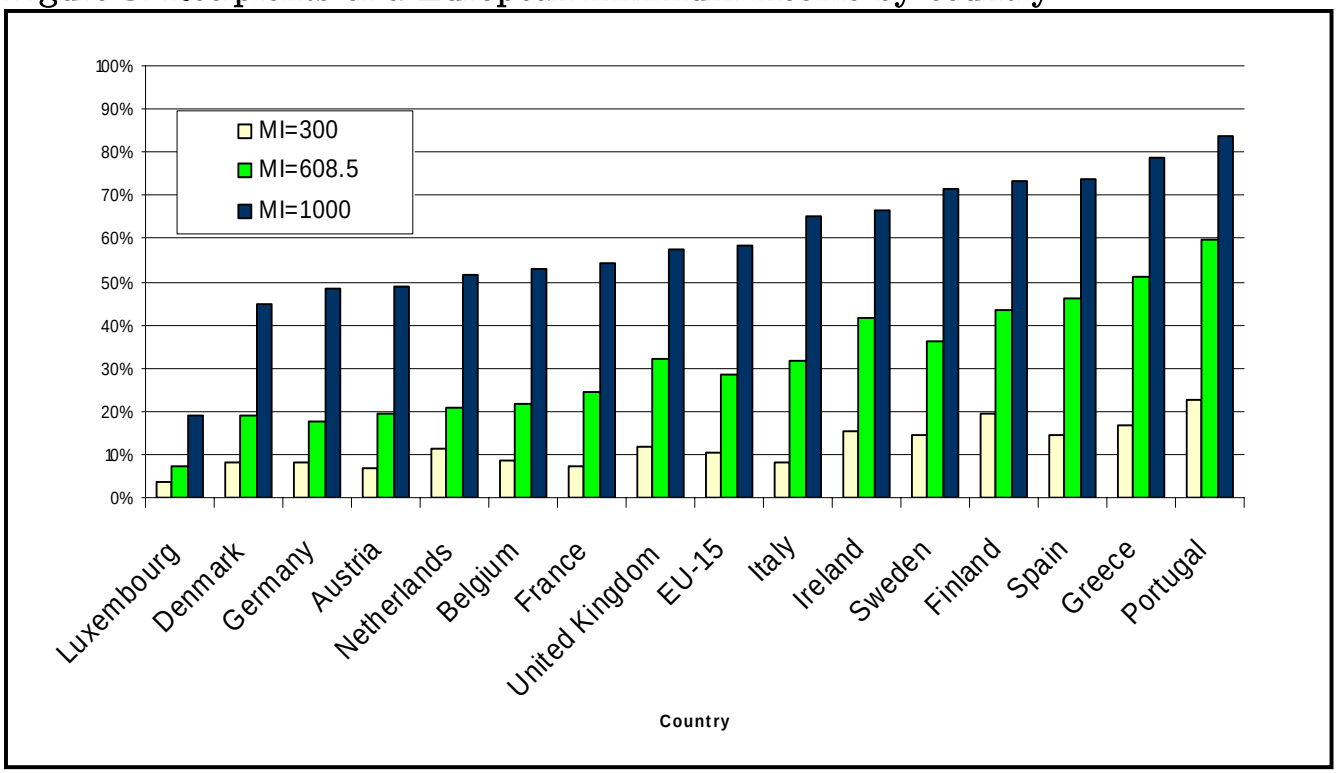


Figure 4. Costs of a European minimum income by country

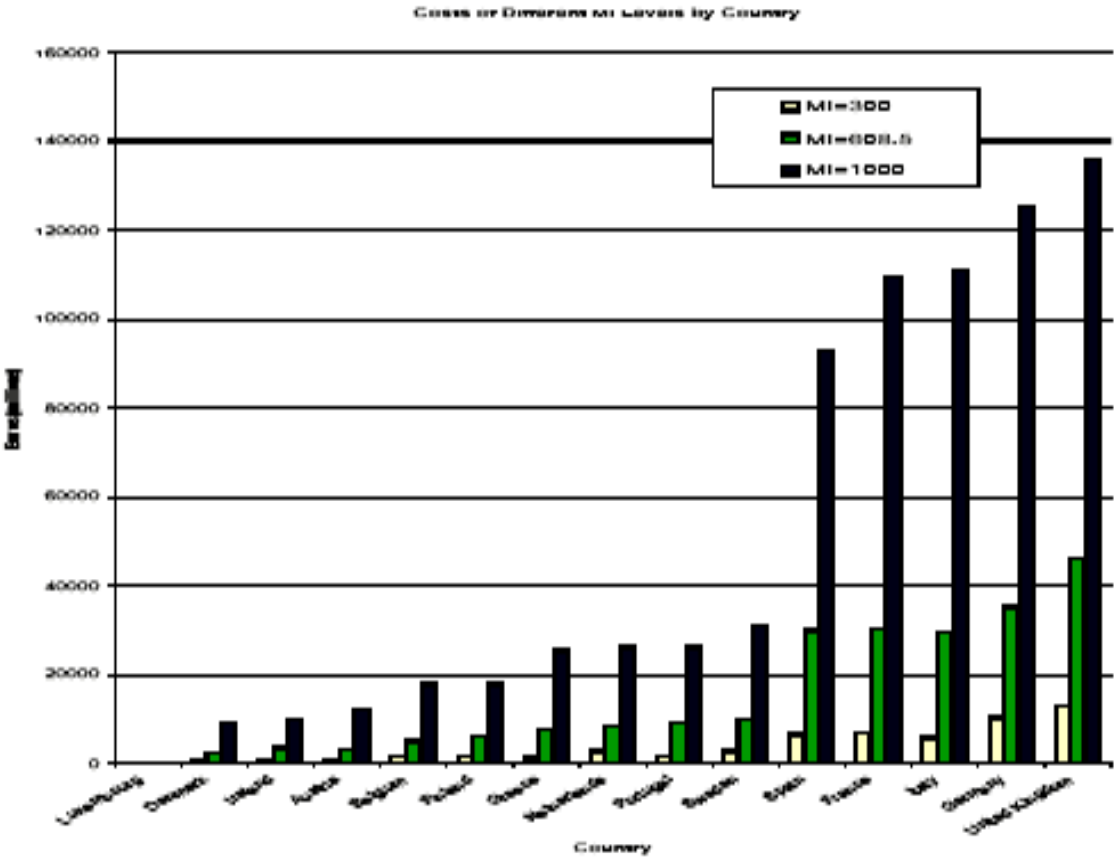
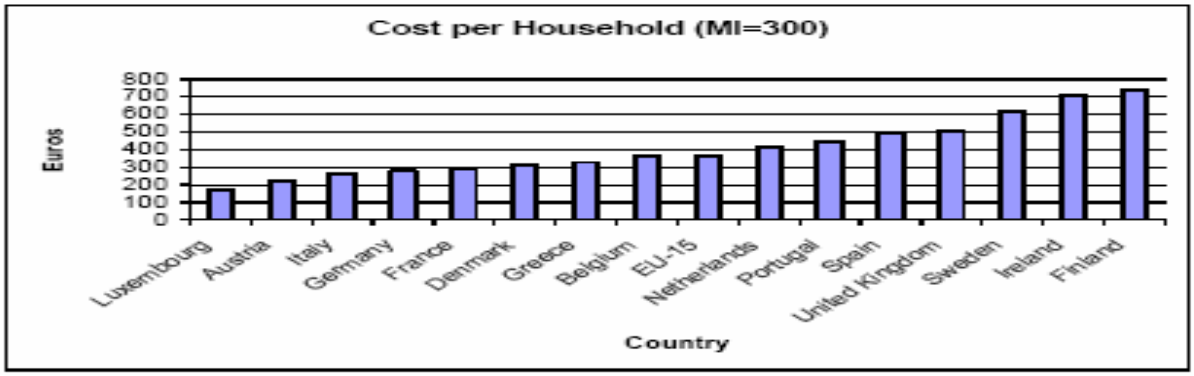
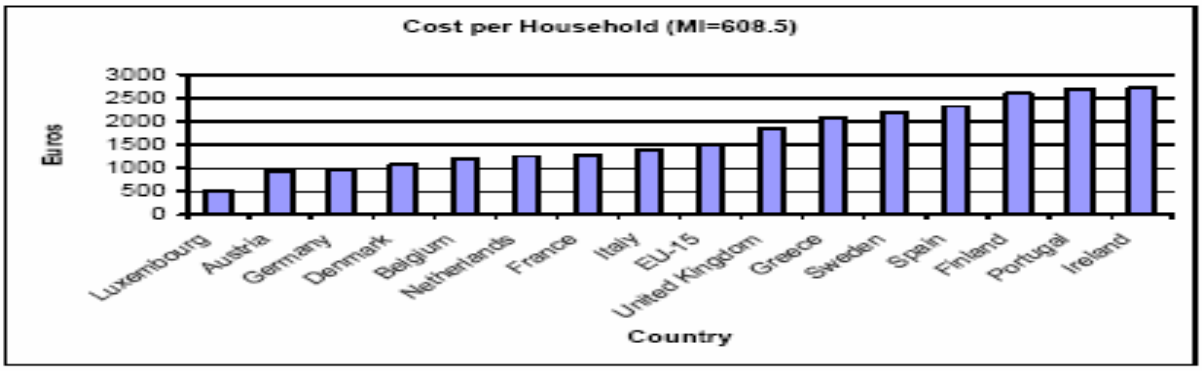


Figure 5. Cost per household





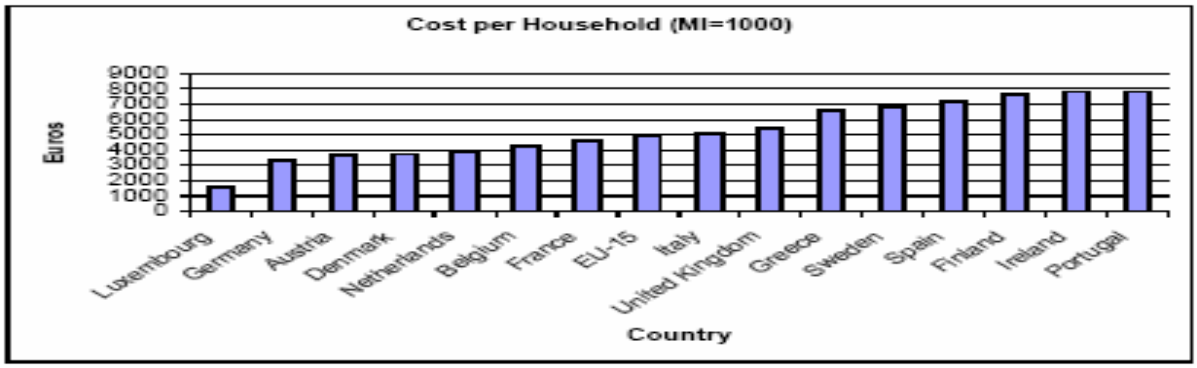


Figure 6. Gain per household. Lump-sum regime

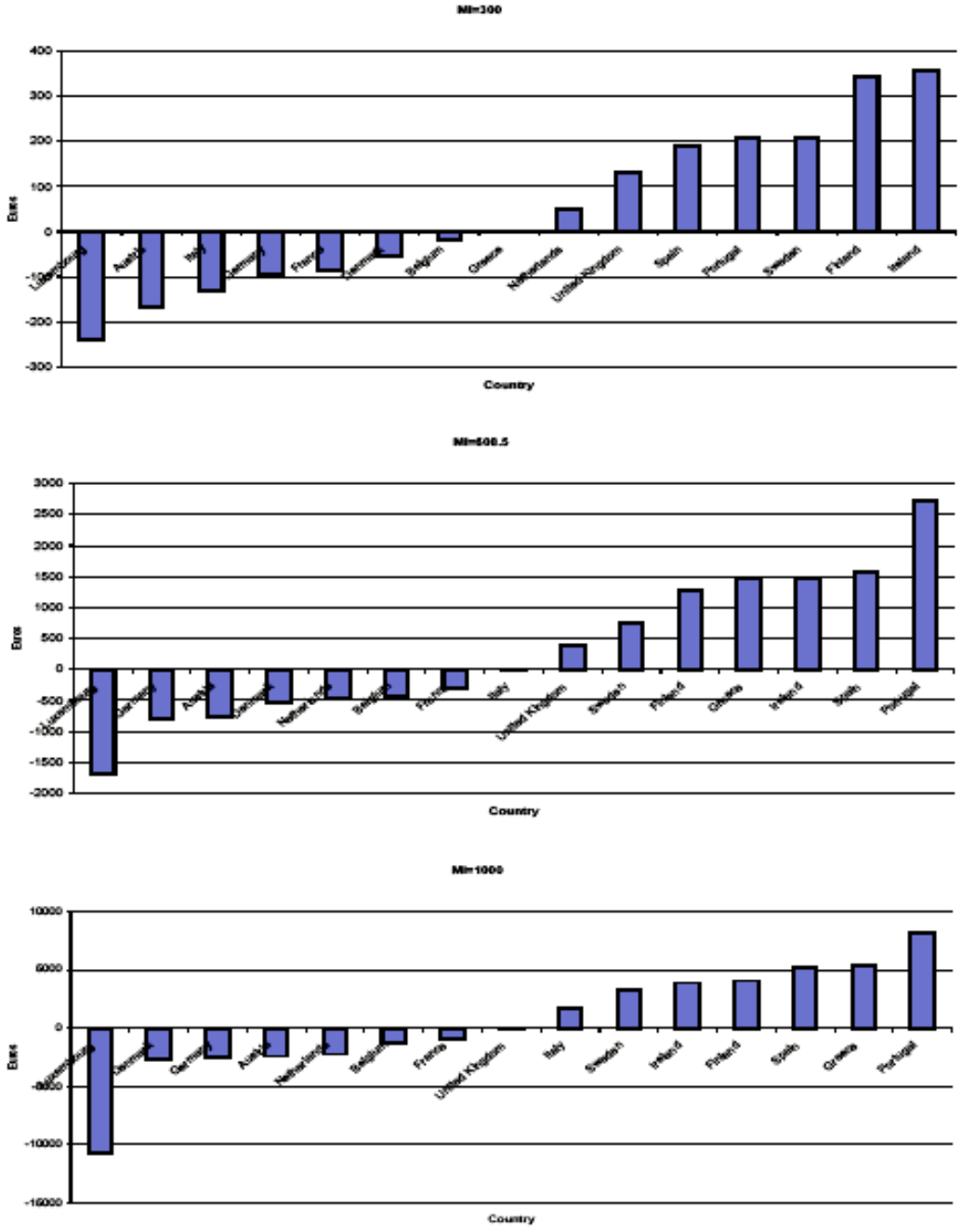


Figure 7. Gain per household. Proportional tax regime

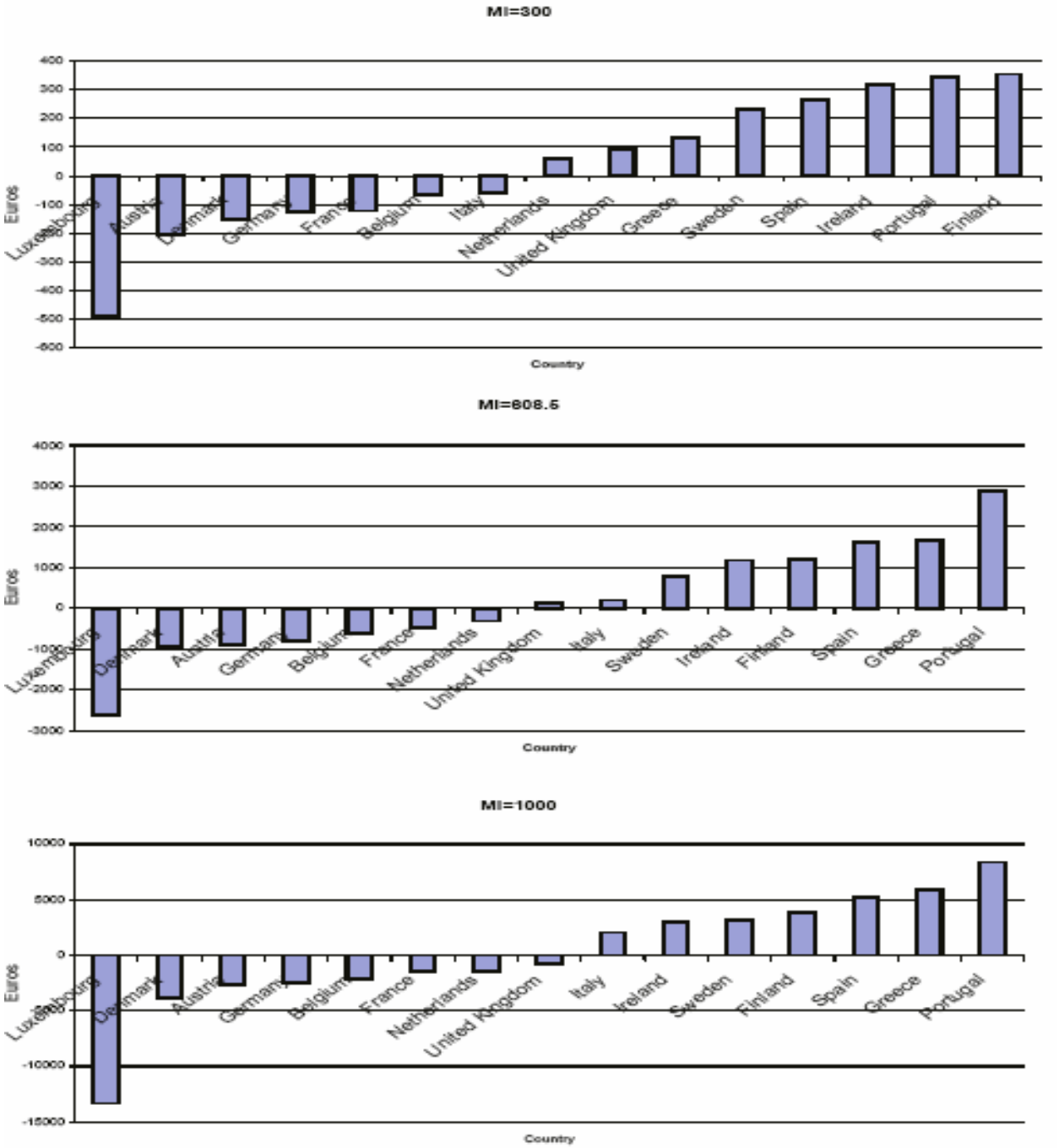


Table 1. Comparison of data sources

Stock of foregin population in 2001

Country	OECD[1]	ECHP[2]
Austria	9.40	6.48
Belgium	8.21	8.63
Denmark	5.00	3.46
Finland	1.90	3.51
France	..	7.52
Germany	8.88	13.05
Greece	7.00	4.41
Ireland	3.90	3.73
Italy	2.36	1.57
Luxembourg	37.55	35.58
Netherlands	4.26	1.61
Portugal	2.17	2.47
Spain	2.74	1.64
Sweden	5.34	3.87
United Kingdom	4.39	3.53

1. Source: Trends in International Migration, OECD, 2003 edition. Table A.1.5

2. Foreign population defined as persons who declare to be citizens of a foreign country or that they were born in a foreign country (or both)

Table 2. Summary statistics

Country of destination	sample size	age at arrival	female	secondary education	tertiray education	Distribution of year of arrival (frequencies)			
			means (and stand.dev.)			<1975	<1980	<1985	<1990
Austria	324	27.9	0.54	0.46	0.17	0.14	0.22	0.30	0.49
		(8.89)	(0.50)	(0.50)	(0.38)				
Belgium	105	25.9	0.49	0.31	0.36	0.23	0.41	0.57	0.82
		(8.07)	(0.50)	(0.47)	(0.48)				
Denmark	127	26.5	0.56	0.28	0.28	0.13	0.20	0.34	0.67
		(8.66)	(0.50)	(0.45)	(0.45)				
Finland	184	30.4	0.48	0.43	0.36	0.10	0.19	0.41	0.61
		(7.77)	(0.50)	(0.50)	(0.48)				
France	309	27.2	0.56	0.13	0.24	0.28	0.49	0.67	0.82
		(9.07)	(0.50)	(0.34)	(0.43)				
Germany	950	25.6	0.53	0.28	0.07	0.45	0.59	0.68	0.81
		(7.87)	(0.50)	(0.45)	(0.25)				
Greece	273	28.2	0.61	0.40	0.33	0.05	0.16	0.29	0.43
		(8.64)	(0.49)	(0.49)	(0.47)				
Ireland	30	30.8	0.40	0.40	0.40	0.20	0.40	0.53	0.77
		(7.41)	(0.50)	(0.50)	(0.50)				
Italy	85	27.7	0.66	0.52	0.12	0.09	0.25	0.41	0.66
		(7.68)	(0.48)	(0.50)	(0.32)				
Netherlands	64	26.2	0.59	0.08	0.05	0.14	0.27	0.34	0.64
		(8.08)	(0.50)	(0.27)	(0.21)				
Portugal	120	29.9	0.56	0.28	0.18	0.09	0.54	0.69	0.85
		(11.33)	(0.50)	(0.45)	(0.38)				
Spain	114	28.1	0.52	0.35	0.39	0.10	0.22	0.39	0.67
		(8.75)	(0.50)	(0.48)	(0.49)				
Sweden	139	28.3	0.61	0.49	0.28	0.03	0.10	0.18	0.37
		(8.72)	(0.49)	(0.50)	(0.45)				
United Kingdom	214	27.5	0.51	0.34	0.41	0.19	0.34	0.47	0.66
		(8.97)	(0.50)	(0.47)	(0.49)				
Total	3038	27.2	0.54	0.33	0.21	0.24	0.38	0.50	0.68
		(8.63)	(0.50)	(0.47)	(0.41)				

Source: ECHP 1994-2001.

Table 3. 14-countries conditional logit estimates for the destination of migration

	Only migrants from outside the EU-15, arrived between 1970 and 1994			
	[1]	[2]	[3]	[4]
(log) unemployment rate [lURATE][1]	-0.517***	-0.600***	-0.571***	-0.538***
	(0.093)	(0.108)	(0.108)	(0.109)
(log) wage [lWAGE][2]	4.449***	5.611***	5.649***	5.332***
	(0.704)	(0.743)	(0.752)	(0.767)
(log) welfare benefit [B][3]			0.306**	0.432***
			(0.119)	(0.133)
Interaction terms: individual characteristics (at the time of arrival) with...				
(Age at arrival-25)*[lURATE]		0.007	0.006	0.006
		(0.004)	(0.004)	(0.005)
Female*[lURATE]		-0.036	-0.039	-0.077
		(0.075)	(0.075)	(0.076)
Secondary education*[lURATE]		0.005	-0.000	-0.029
		(0.087)	(0.087)	(0.089)
Tertiary education*[lURATE]		0.743***	0.732***	0.745***
		(0.107)	(0.107)	(0.108)
(Age at arrival-25)*[lWAGE]		-0.070***	-0.070***	-0.070***
		(0.014)	(0.014)	(0.017)
Female*[lWAGE]		-0.257	-0.238	0.216
		(0.244)	(0.245)	(0.297)
Secondary education*[lWAGE]		-1.914***	-1.896***	-1.612***
		(0.290)	(0.292)	(0.350)
Tertiary education*[lWAGE]		-1.785***	-1.761***	-1.983***
		(0.318)	(0.320)	(0.387)
(Age at arrival-25)*[B]				0.000
				(0.004)
Female*[B]				-0.175***
				(0.064)
Secondary education*[B]				-0.113
				(0.072)
Tertiary education*[B]				0.093
				(0.084)
Observations	42058	42058	42058	42058
Individuals	3038	3038	3038	3038
Log-Likelihood	-6564.39	-6487.91	-6484.48	-6477.38

All specifications include a full set of destination country dummies, 4 5-year period dummies and the interactions between these two sets of dummies.

1. Source: OECD Economic Outlook. Values in percentage.

2. Annual compensation per employee in the private sector. Source: OECD Economic Outlook. All values are expressed in PPP/ECU.

3. Monthly benefit received a typical person aged 40 who has continuously worked and paid contributions since the age of 18, averaged over a period of 60 months of non-employment, two earning levels (100% and 33% of the earnings of the average production worker) and three family types (single, one-earner couple, two-earners couple). Source: OECD Data-base on Benefit Entitlements and Replacement Rates. All values are expressed in PPP/ECU.

Standard errors in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 4. Effects of one-standard deviation increases for the reference person [1]

Country	Effect of an increase of 1 standard deviation in: own unemp. rate [1]	own wages [2]	own benefits [3]	Relative size of the own benefit effect [3]/[1]	[3]/[2]
mean	6.7	18163.9	4986.0		
std.dev.	3.1	3412.8	2993.7		
Austria	-0.0358	0.1067	0.0277	0.77	0.26
Belgium	-0.0112	0.0427	0.0071	0.64	0.17
Denmark	-0.0123	0.0537	0.0064	0.52	0.12
Finland	-0.0268	0.0717	0.0187	0.70	0.26
France	-0.0114	0.0619	0.0143	1.25	0.23
Germany	-0.0539	0.1549	0.0387	0.72	0.25
Greece	-0.0111	0.0633	0.0300	2.71	0.47
Ireland	-0.0015	0.0105	0.0030	1.96	0.29
Italy	-0.0041	0.0229	0.0239	5.88	1.04
Netherlands	-0.0107	0.0346	0.0054	0.50	0.16
Portugal	-0.0039	0.0227	0.0040	1.01	0.17
Spain	-0.0040	0.0342	0.0069	1.71	0.20
Sweden	-0.0275	0.0506	0.0099	0.36	0.20
United Kingdom	-0.0173	0.0631	0.0187	1.08	0.30
Average	-0.0165	0.0567	0.0153	0.93	0.27

1. Male, aged 25, primary education, arrived in 1990.

Table 5. Simulated effects of increased dispersion in unemployment and welfare generosity

All effects are computed for the reference person[1]

	Migration probability	absolute change	Unemployment rate	change (%)	Annual welfare benefits	change (%)
1. Benchmark						
Country A	0.500	-	6.0	-	5000	-
Country B	0.500	-	6.0	-	5000	-
2. Effect of increased dispersion in unemployment						
Country A	0.455	-0.045	7.0	0.17	5000	0.00
Country B	0.545	0.045	5.0	-0.17	5000	0.00
3. Effect of increased dispersion in welfare						
Country A	0.544	0.044	6.0	0.00	6000	0.20
Country B	0.456	-0.044	6.0	0.00	4000	-0.20
4. Cumulative effect of increased						
Country A	0.498	-0.002	7.0	0.17	6000	0.20
Country B	0.502	0.002	5.0	-0.17	4000	-0.20

1. Male, aged 25, primary education, arrived in 1990.

Table 6. Conversion table from PPP to Euros

Minimum Income Levels for a Single Member Household (in euros)			
Country	MI=300	MI=608.5	MI=1000
Denmark	365	740	1216
Netherlands	291	590	969
Belgium	307	622	1023
France	316	640	1052
Ireland	310	629	1033
Italy	260	526	865
Greece	236	478	785
Spain	248	504	828
Portugal	219	444	729
Austria	304	616	1013
Finland	359	728	1197
Sweden	376	763	1255
Germany	313	634	1042
Luxembourg	293	594	976
United Kingdom	335	679	1116

Table 7. Winners and losers

Winners and Losers						
	Lump Sum Regime			*Proportional Regime*		
Country	MI=300	MI=608.5	MI=1000	MI=300	MI=608.5	MI=1000
Denmark	L(10)	L(12)	L(14)	L(13)	L(14)	L(14)
Netherlands	W(7)	L(11)	L(11)	W(8)	L(9)	L(9)
Belgium	L(9)	L(10)	L(10)	L(10)	L(11)	L(11)
France	L(11)	L(9)	L(9)	L(11)	L(10)	L(10)
Ireland	W(1)	W(3)	W(5)	W(3)	W(5)	W(6)
Italy	L(13)	L(8)	W(7)	L(9)	W(7)	W(7)
Greece	W(8)	W(4)	W(2)	W(6)	W(2)	W(2)
Spain	W(5)	W(2)	W(3)	W(4)	W(3)	W(3)
Portugal	W(4)	W(1)	W(1)	W(2)	W(1)	W(1)
Austria	L(14)	L(13)	L(12)	L(14)	L(13)	L(13)
Finland	W(2)	W(5)	W(4)	W(1)	W(4)	W(4)
Sweden	W(3)	W(6)	W(6)	W(5)	W(6)	W(5)
Germany	L(12)	L(14)	L(13)	L(12)	L(12)	L(12)
Luxembourg	L(15)	L(15)	L(15)	L(15)	L(15)	L(15)
United Kingdom	W(6)	W(7)	W(8)	W(7)	W(8)	L(7)

Note: W-winner, L-loser. Between brackets country rank by column based on annual gain per household (PPP). (1) First of the winners, (15) Last of the losers.

Table A1. Robustness check

	Only migrants from outside the EU-15, arrived between 1970 and 1994		
	[1]	[2]	[3]
(log) unemployment rate [lURATE][1]	-0.925***	-0.958***	-0.949***
	(0.137)	(0.151)	(0.152)
(log) wage [lWAGE][2]	0.875	4.113***	4.374***
	(1.254)	(1.340)	(1.378)
Public expenditure on unemployment related benefits (% of GDP) [B][3]	0.354***	0.363***	0.312**
	(0.134)	(0.135)	(0.157)
Interaction terms: individual characteristics (at the time of arrival) with...			
(Age at arrival-25)*[lURATE]		0.005	0.004
		(0.005)	(0.005)
Female*[lURATE]		-0.155***	-0.163***
		(0.032)	(0.038)
Secondary education*[lURATE]		0.008	0.014
		(0.090)	(0.091)
Tertiary education*[lURATE]		-0.153	-0.062
		(0.538)	(0.650)
(Age at arrival-25)*[lWAGE]		-0.042	-0.075
		(0.105)	(0.107)
Female*[lWAGE]		0.745***	0.739***
		(0.134)	(0.135)
Secondary education*[lWAGE]		-5.583***	-6.305***
		(0.634)	(0.765)
Tertiary education*[lWAGE]		-6.337***	-6.483***
		(0.739)	(0.890)
(Age at arrival-25)*[B]			0.002
			(0.006)
Female*[B]			-0.027
			(0.093)
Secondary education*[B]			0.187*
			(0.108)
Tertiary education*[B]			0.029
			(0.119)
Observations	18882	18882	18882
Individuals	1683	1683	1683
Log-Likelihood	-3140.257	-3053.4802	-3051.7642

All specifications include a full set of destination country dummies, 4 5-year period dummies and the interactions between these two sets of dummies.

1. Source: OECD Economic Outlook. Values in percentage.

2. Annual compensation per employee in the private sector. Source: OECD Economic Outlook. All values are expressed in PPP/ECU.

3. Source: Comparative Welfare State Dataset (2004) by Evelyne Huber, Charles Ragin, John D. Stephens, David Brady, and Jason Beckfield based on various OECD data sources.

Standard errors in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

Table A2. Cross-effects of one-standard deviation increases for the reference person[1]

(all effects are multiplied by 100)

Unemployment rate

	AUT	BEL	DEN	FIN	FRA	GER	GRC	IRL	ITA	NLD	PRT	ESP	SWE	UKG
AUT	-3.577	0.162	0.180	0.398	0.169	0.989	0.161	0.021	0.057	0.154	0.054	0.057	0.396	0.257
BEL	0.234	-1.117	0.074	0.164	0.070	0.408	0.066	0.009	0.024	0.064	0.022	0.024	0.164	0.106
DEN	0.280	0.080	-1.226	0.197	0.084	0.489	0.080	0.011	0.028	0.076	0.027	0.028	0.196	0.127
FIN	0.327	0.093	0.104	-2.680	0.098	0.570	0.093	0.012	0.033	0.089	0.031	0.033	0.229	0.148
FRA	0.316	0.090	0.100	0.222	-1.142	0.551	0.090	0.012	0.032	0.086	0.030	0.032	0.221	0.144
GER	1.055	0.301	0.335	0.741	0.315	-5.392	0.300	0.040	0.106	0.288	0.101	0.106	0.739	0.479
GRC	0.246	0.070	0.078	0.173	0.074	0.430	-1.107	0.009	0.025	0.067	0.024	0.025	0.173	0.112
IRL	0.055	0.016	0.017	0.039	0.016	0.096	0.016	-0.154	0.006	0.015	0.005	0.006	0.038	0.025
ITA	0.109	0.031	0.035	0.077	0.033	0.191	0.031	0.004	-0.406	0.030	0.010	0.011	0.076	0.050
NLD	0.207	0.059	0.066	0.145	0.062	0.361	0.059	0.008	0.021	-1.074	0.020	0.021	0.145	0.094
PRT	0.062	0.018	0.020	0.043	0.018	0.108	0.018	0.002	0.006	0.017	-0.392	0.006	0.043	0.028
ESP	0.135	0.039	0.043	0.095	0.040	0.236	0.038	0.005	0.014	0.037	0.013	-0.403	0.095	0.061
SWE	0.210	0.060	0.067	0.148	0.063	0.367	0.060	0.008	0.021	0.057	0.020	0.021	-2.753	0.096
UKG	0.341	0.097	0.108	0.239	0.102	0.595	0.097	0.013	0.034	0.093	0.033	0.034	0.238	-1.728

Average wages

	AUT	BEL	DEN	FIN	FRA	GER	GRC	IRL	ITA	NLD	PRT	ESP	SWE	UKG
AUT	10.675	-0.618	-0.787	-1.064	-0.916	-2.840	-0.919	-0.145	-0.321	-0.498	-0.315	-0.483	-0.729	-0.939
BEL	-0.698	4.266	-0.325	-0.439	-0.379	-1.173	-0.380	-0.060	-0.133	-0.206	-0.130	-0.200	-0.301	-0.388
DEN	-0.836	-0.306	5.368	-0.526	-0.453	-1.405	-0.455	-0.072	-0.159	-0.247	-0.156	-0.239	-0.360	-0.465
FIN	-0.975	-0.356	-0.454	7.168	-0.529	-1.638	-0.530	-0.084	-0.185	-0.287	-0.182	-0.279	-0.420	-0.542
FRA	-0.943	-0.345	-0.439	-0.593	6.193	-1.584	-0.513	-0.081	-0.179	-0.278	-0.176	-0.269	-0.406	-0.524
GER	-3.149	-1.151	-1.466	-1.981	-1.707	15.488	-1.713	-0.270	-0.598	-0.928	-0.588	-0.900	-1.357	-1.750
GRC	-0.735	-0.269	-0.342	-0.463	-0.399	-1.236	6.326	-0.063	-0.140	-0.217	-0.137	-0.210	-0.317	-0.409
IRL	-0.164	-0.060	-0.076	-0.103	-0.089	-0.275	-0.089	1.046	-0.031	-0.048	-0.031	-0.047	-0.071	-0.091
ITA	-0.326	-0.119	-0.152	-0.205	-0.177	-0.548	-0.177	-0.028	2.286	-0.096	-0.061	-0.093	-0.141	-0.181
NLD	-0.617	-0.226	-0.287	-0.388	-0.335	-1.037	-0.336	-0.053	-0.117	3.463	-0.115	-0.176	-0.266	-0.343
PRT	-0.185	-0.067	-0.086	-0.116	-0.100	-0.310	-0.100	-0.016	-0.035	-0.054	2.274	-0.053	-0.080	-0.103
ESP	-0.403	-0.147	-0.188	-0.254	-0.219	-0.678	-0.219	-0.035	-0.077	-0.119	-0.075	3.419	-0.174	-0.224
SWE	-0.628	-0.230	-0.292	-0.395	-0.341	-1.056	-0.342	-0.054	-0.119	-0.185	-0.117	-0.180	5.059	-0.349
UKG	-1.016	-0.372	-0.473	-0.640	-0.551	-1.708	-0.553	-0.087	-0.193	-0.300	-0.190	-0.291	-0.438	6.308

Welfare benefits

	AUT	BEL	DEN	FIN	FRA	GER	GRC	IRL	ITA	NLD	PRT	ESP	SWE	UKG
AUT	2.772	-0.103	-0.094	-0.277	-0.211	-0.710	-0.435	-0.042	-0.335	-0.078	-0.055	-0.097	-0.142	-0.278
BEL	-0.181	0.712	-0.039	-0.115	-0.087	-0.293	-0.180	-0.017	-0.138	-0.032	-0.023	-0.040	-0.059	-0.115
DEN	-0.217	-0.051	0.640	-0.137	-0.105	-0.351	-0.215	-0.021	-0.166	-0.039	-0.027	-0.048	-0.070	-0.138
FIN	-0.253	-0.059	-0.054	1.870	-0.122	-0.410	-0.251	-0.024	-0.193	-0.045	-0.032	-0.056	-0.082	-0.160
FRA	-0.245	-0.058	-0.052	-0.155	1.428	-0.396	-0.243	-0.023	-0.187	-0.043	-0.031	-0.054	-0.079	-0.155
GER	-0.818	-0.192	-0.175	-0.517	-0.394	3.873	-0.811	-0.078	-0.624	-0.145	-0.103	-0.181	-0.265	-0.518
GRC	-0.191	-0.045	-0.041	-0.121	-0.092	-0.309	2.996	-0.018	-0.146	-0.034	-0.024	-0.042	-0.062	-0.121
IRL	-0.042	-0.010	-0.009	-0.027	-0.020	-0.069	-0.042	0.301	-0.032	-0.008	-0.005	-0.009	-0.014	-0.027
ITA	-0.085	-0.020	-0.018	-0.054	-0.041	-0.137	-0.084	-0.008	2.388	-0.015	-0.011	-0.019	-0.027	-0.054
NLD	-0.160	-0.038	-0.034	-0.101	-0.077	-0.259	-0.159	-0.015	-0.122	0.542	-0.020	-0.036	-0.052	-0.101
PRT	-0.048	-0.011	-0.010	-0.030	-0.023	-0.078	-0.048	-0.005	-0.037	-0.009	0.397	-0.011	-0.016	-0.030
ESP	-0.105	-0.025	-0.022	-0.066	-0.050	-0.169	-0.104	-0.010	-0.080	-0.019	-0.013	0.689	-0.034	-0.066
SWE	-0.163	-0.038	-0.035	-0.103	-0.079	-0.264	-0.162	-0.016	-0.125	-0.029	-0.020	-0.036	0.987	-0.103
UKG	-0.264	-0.062	-0.056	-0.167	-0.127	-0.427	-0.262	-0.025	-0.202	-0.047	-0.033	-0.059	-0.086	1.866

1. Male, aged 25, primary education, arrived in 1990.