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Immigration to the Land of Redistribution

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Abstract

Negative perceptions about migrants in Europe, the Continent with the largest social policy programmes, are driven by concerns that foreigners are a net fiscal burden. Increasing concerns are pressing Governments, in the midst of the recession, to reduce welfare access by migrants or further tighten migration policies. Are there politically feasible alternatives to these two hardly enforceable (and procyclical) policy options? In this paper we look at economic and cultural determinants of negative perceptions about migrants in Europe. Based on a simple model of the perceived fiscal effects of migration and on a largely unexploited database (EU-Silc), we find no evidence that legal migrants, notably skilled migrants, are net recipients of transfers from the state. However, there is evidence of "residual dependency" on contributory transfers and self-selection migrants more likely to draw on welfare in the countries with the most generous welfare state. Moreover, those favouring redistribution to the poor do not overlap with those considering migrants as part of the same community. A way out of the migration dilemma facing Europe involves i. co-ordinating safety nets across the EU, and ii. adopting explicitly selective migration policies. Other options involve restricting welfare access by migrants and subsidising voluntary return migration of low-skilled migrants during the recession.

Keywords: Migration policy, Welfare access, Fiscal externality.

JEL classification codes: J38, J5

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Immigration to the Land of Redistribution

1. Introduction

Immigration to Europe increased sharply in the last 20 years. The countries that attracted most of the migrants are currently experiencing one of the worst recessions in history. Pressures from public opinion are mounting to further tighten migration policies and cut on welfare access by migrants. But these policies are not fully enforceable, may reduce the assimilation of those migrants who are already in Europe, somewhat reduce the work of automatic stabilizers just while they should be fully operational to counteract the recession and can be challenged on equity grounds. At the same time, there are costs in doing nothing related to social cohesion, as witnessed by the development of xenophobic movements across Europe and increasing concerns of citizens with respect to the role of immigrants.

In this paper we discuss ways out of this policy dilemma. We start by characterising the evolution of sentiments of Europeans vis-à-vis migrants, identifying the main determinants of the mounting negative perceptions concerning their role in society. We find that migration to the land of redistribution perhaps unsurprisingly creates dominant concerns about the sustainability of these policies under large inflows of migrants. Thus, we develop a simple model enabling us to isolate the main channels by which migration may affect redistributive policies and the perceptions of citizens as to the relation between migration and social policies. Guided by this model, we then go back to the data and analyse available evidence on the (static) net fiscal position of migrants, on their "residual dependency" on social transfers and on the role played by welfare floors in self-selecting low-skilled migrants. We also look at the, admittedly scant, evidence available on perceptions about redistribution and identity of Europeans. Our main findings are that there are both economic and

cultural reasons for the growing concerns of Europeans. However, the policy response, which so far involved a tightening of migration restrictions, is clearly inadequate to cope with these concerns. Thus, in the last section of the paper we propose a threefold strategy to deal with the European migration policy dilemma. This is based on a mix of selective migration policies, incentives to return migration of unskilled migrants and co-ordination of welfare minima at the European scale.

The structure of the paper is as follows. Section Two dwells on perceptions of Europeans about migrants. Section Three evaluates the net fiscal position of migrants and their residual dependency on welfare by also disentangling contributory from non-contributory transfers. Section Four provides evidence on the perceived identity of natives and on preferences for redistribution. Finally, Section Five discusses policy options for Europe.

2. Opinions of EU citizens about migrants

Perceptions of Europeans with respect to the economic and social role of migrants are deteriorating, notably in the countries recently experiencing the largest immigration waves. These perceptions turned into outright hostility vis-à-vis migrants as the recession deepened at the beginning of 2009. We document in this section that a driving force of these negative perceptions are concerns over the net fiscal position of migration, that is, their access to social welfare and the pressure exerted on state transfers by those being displaced by migrants.

2.1. Overall Perceptions

Table 1 draws on two waves of the European Social Survey, an EC-sponsored cross-sectional survey initiated in 2002. The focus is on the five largest recent immigration EU countries. The table displays the fraction of respondents agreeing with general statements as to the overall social and economic desirability of immigration. In

particular, individuals agree that "it is bad for [country]'s economy that people come to live here from other countries" or that "[country] is made a worse place to live by people coming here to live from other countries". There is also a question on the desirability of measures forcing migrants to leave, i.e. "people who come here to live and are unemployed for a long period, should be made to leave". This question unfortunately was not repeated in 2006, but a very similar one was included in a February 2009 Harris survey: "Do you support government asking immigrants to leave the country if they do not have a job"?

As shown by the table, negative perceptions appear to be increasing over time in all countries. Although the ESS and the Harris surveys are not strictly comparable, the support to measures forcing unemployed migrants to leave would also seem to have grown significantly during the Depression. In all countries a majority of citizens was in February 2009 in favour of repatriating migrants becoming long-term unemployed. Previous work on preferences over immigration policy (Scheve and Slaughter, 2001; Boeri et al., 2002; Mayda and Rodrik, 2001 and O'Rourke, 2003) also found increasing concerns over the economic consequences of migration, notably among the unskilled workers.

Table 1
Perceptions in the largest EU immigration countries

% of respondents agreeing with the following statements		Germany	Spain	France	United Kingdom	Italy [1)]
"immigration bad for country's economy"	ESS 2002	29	23	28	43	25
	ESS 2006	38	24	39	45	41
	2006-2002	**9**	**1**	**11**	**2**	**16**
"immigrants make country worse place to live"	ESS 2002	33	34	37	41	39
	ESS 2006	41	35	42	46	54
	2006-2002	**7**	**1**	**5**	**5**	**14**
"unemployed immigrants should be made to leave"	ESS 2002	50	25	32	53	49
	Harris 2009	67	71	51	78	79
	2009-2002	**17**	**46**	**19**	**25**	**30**

Notes: [1)] The ESS survey took place in Italy only in 2002 and 2004.

What drives negative perceptions of Europeans with respect to migrants? The 2002 wave of the ESS allowed for a battery of questions on specific dimensions of the immigration problem, allowing us to assess the determinants of these negative perceptions. In particular, questions were included as to the fiscal position of migrants, the effects of migration on job opportunities and wages of natives as well as on poverty and crime rates. Thus, it is possible to evaluate the importance of each of these factors in affecting overall perceptions about migrants.

2.2. Specific sources of concern

Table 2 displays a multivariate analysis of the determinants of the negative sentiments of Europeans vis-a-vis migrants, pooling cross-sectional observations across all countries covered by the 2002 ESS wave and using OLS estimators. All variables are expressed as 0-5 indexes (some were actually in a 0-10 range, but were rescaled for the purpose of comparability): where 0 means full agreement and 5 full disagreement. The dependent variable relates to the overall assessment of the economic role of migrants ("immigration is good or bad for our economy?") already summarised in Table 1. Among the independent variables, indexes capturing concerns about the net fiscal position of migrants ("*Most people who come to live here work and pay taxes. They also use health and welfare services. On balance, do you think people who come here take out more than they put in or put in more than they take out?*"), the effects on poverty and unemployment rates (averaging scores for two questions[1], namely "*immigrants take jobs away*" and "*harm prospects of the poor*"), wages ("*average wages are reduced by migrants*") and crime ("*immigrants make* [country]*'s crime rate worse*"). We also add variables capturing personal characteristics such as age, gender, educational attainment, citizenship, income level and ideology. We run a simple linear regression as the various indexes (with the partial exception of the crime index) are distributed over the entire range of values (see Figure A1 in Annex A).

[1] Dustmann and Preston (2004) carried out a factor analysis of these indexes finding that the question on job opportunities had a much stronger effect on the perceived net fiscal position than on the labour market (wage) index.

Two facts are particularly important. First, the single most important characteristic affecting perceptions is education: highly educated individuals have a much more favourable perception of migrants than the other socio-economic groups.

Second, the net fiscal position of migrants is by and large the main driver of negative perceptions, followed by concerns over poverty among natives and crime. All this suggests that the net access of migrants to state transfers is the key concern of Europeans. The second most important determinant of negative perceptions, namely concerns about migration related to poverty and unemployment, can be interpreted as a by-product of concerns about migration-related welfare access.

In order to assess the role potentially played by education in conjunction with other personal characteristics, we also run separate regressions for individuals with primary or lower education and for individuals with at least tertiary education. The results are displayed in the second and third columns of Table 2. They suggest that being unemployed affects negatively perceptions about migrants only among the unskilled. Concerns about unemployment related to migration and the crowding out of assistance to the poor are also felt more among the unskilled, while skilled individuals are relatively more concerned about the effects of migration on wages. Finally, concerns about crime are also more important in affecting overall perceptions within the group of individuals with primary or lower education. It is also noticeable that the fact of having immigrants as relatives or friends significantly improves perceptions, both among skilled and unskilled individuals.

Table 2
Perceptions of migrants and sources of concern

	Overall Economy Dependent variable: Migrants are bad/good (0-5) for the economy		
	All	primary edu	tertiary edu
Age	0.002***	0.002	0.003***
	(4.257)	(1.017)	(3.132)
Male	0.106***	0.069**	0.131***
	(9.889)	(2.130)	(6.226)
Primary edu	**-0.131*** **		
	(-6.910)		
Tertiary edu	**0.132*** **		
	(9.752)		
Unemployed	-0.020	-0.134*	0.018
	(-0.759)	(-1.652)	(0.277)
Inactive	0.003	-0.143	0.074
	(0.083)	(-1.560)	(0.752)
Retired	0.006	0.020	-0.012
	(0.333)	(0.431)	(-0.293)
Student	0.059**	0.065	-0.024
	(2.221)	(0.629)	(-0.473)
Self-employed	0.006	0.010	-0.043
	(0.376)	(0.247)	(-1.335)
Immigrant	0.133***	0.131*	0.114***
	(6.714)	(1.907)	(3.347)
Relative/friend immig	0.087***	0.081**	0.109***
	(7.348)	(2.182)	(4.643)
Living in city	0.055***	0.090**	0.051**
	(4.744)	(2.431)	(2.410)
High income	0.088***	-0.035	0.070
	(4.561)	(-0.486)	(1.591)
Middle income	0.045***	0.027	-0.001
	(2.861)	(0.702)	(-0.022)
Left-wing ideology	0.010***	0.007	0.011**
	(4.229)	(1.138)	(2.336)
Fiscal drain	**0.318*** **	**0.309*** **	**0.304*** **
	(47.888)	**(16.859)**	**(22.027)**
Poverty/unemployment	**0.182*** **	**0.206*** **	**0.190*** **
	(30.525)	**(11.605)**	**(16.172)**
Crime rates	**0.162*** **	**0.224*** **	**0.128*** **
	(23.700)	**(11.665)**	**(8.993)**
Wage effects	**0.083*** **	**0.099*** **	**0.064*** **
	(14.342)	**(6.020)**	**(5.487)**
Constant	1.227***	-0.564	0.907***
	(23.693)	(-0.971)	(8.437)
Country Dummies	Yes	Yes	Yes
Observations	20492	2564	4915
R squared	0.39	0.42	0.32

Notes: t statistics in brackets, * significant at 10 per cent, ** significant at 5 per cent, *** significant at 1per cent.
Source: ESS 2002.

Unfortunately the questions related to specific dimensions of concerns over immigration were not repeated over time. Thus, we cannot evaluate their role in the deterioration of perceptions. Yet, we could run panel regressions where the dependent variable is once again the overall concerns, controlling for the same set of individual characteristics listed in Table 2 as well as whether or not the respondents were receiving a social transfer (unemployment benefit, redundancy benefit or "any other social benefits or grants") from the state. This variable may capture concern about crowding out of welfare payments associated with migration. Results (available from the author upon request) suggests that the receipt of benefits is negatively associated with perceptions over migrants and this effect holds only for persons with secondary or lower levels of education.

The importance of welfare access in perceptions of Europeans concerning migration is confirmed by earlier waves of the Eurobarometer survey, covering the EU-15 countries. The fraction of respondents agreeing with the statement that "Minority groups exploit the system of social welfare" has been increasing from 45 to 51 per cent in the EU15 in the 1994-2000 period.[2].

3. Understanding perceptions: theory

A simple static model of migration is useful at this stage to characterise the main channels by which immigration can affect welfare of incumbents by affecting both the generosity and the desirability of redistributive policies. We neglect fiscal effects coming from the labour market, e.g., arising from unemployment related to migration or by wage effects, as these effects would be primarily captured by

[2] Probit regressions (available from the author upon request) of the probability of agreeing with this statement against personal economic characteristics -- such as age, education, income and labour market status -- as well as ideological factors – political location or idiosyncrasies with respect to specific minorities, e.g., Muslim people (the dummy religion captures individuals who would accept migrants, provided that they are not of Muslim religion) explain about 8 per cent of the total variance. The results suggest that economic factors are important in affecting perceptions of welfare abuse. These concerns are more widespread among older people, persons with lower levels of education, unemployed people and persons with lower incomes. Ideological features are also important: political affiliation and religion dummies are all highly significant and in line with a priori expectations.

perceptions about the labour market impact of migration, which are relatively second order in the minds of Europeans. Empirical research on the impact of migration on employment and wages in Europe also suggests that these effects are small (Boeri, Hanson and McCormick, 2002).

3.1. The model with no labour market effects of migration

There are two types of agents, skilled and unskilled workers, who are both risk-neutral and can be either employed or unemployed (there is no inactivity in this setting). Welfare of skilled workers and unskilled workers (denoted by superscripts *S* and *N* respectively) is given by:

$$W^S = w_S(1-t)(1-u_S) + u_S\, b \qquad (1)$$

and

$$W^N = w_N(1-t)(1-u_N) + u_N\, b \qquad (2)$$

where w_i denote wages, u_i is the skill-specific unemployment rate, and t is the proportional tax rate paying the unemployment benefits, assumed to be the only redistributive transfer in this economy.

The participation constraint requires that $w_N(1-t) > b$. Normalize both the skilled and unskilled native populations by one so that before migration takes place skilled and unskilled workers are equally numbered. Both the level and skill composition of migration are considered exogenous at this stage. Denote the number of migrants relative to the native population by m and by γ the share of unskilled workers among migrants. Appropriate assumptions about wage setting make sure that unemployment among skilled workers is always zero so that taxes are for skilled workers a pure transfer to unskilled workers. Assume further that there is no discrimination in the labour market so that the unemployment rate of unskilled natives and unskilled migrants is the same.

Benefit levels are set to clear the Government budget per any given tax rate:

$$b = t\frac{w_s(1+(1-\gamma)m)+w_N(1+\gamma m)}{u_N(1+\gamma m)+\phi m} \qquad (3)$$

where -1<ϕ<1 denotes migrants (not) receiving transfers independently of their formal entitlement. This "residual dependency" term captures low take up (when ϕ is negative) or abuse (a positive ϕ) of transfers by migrant population.

Under our assumptions:

$$\frac{dW}{db} = \frac{dW^N}{dm} = u_N\frac{db}{dm} \qquad (4)$$

so that the effects of migration on welfare of natives are determined solely by the responsiveness of transfers to migration. Now by (2) and (3) we have that

$$\frac{db}{dm} = \frac{t[w_s(1-\gamma)+w_N\gamma]-(\gamma u_N+\phi)b}{u_N(1+\gamma m)+\phi m} \qquad (5)$$

Equation (5) indicates that the effects of migration on welfare of natives depends on the net fiscal position of migrants, notably on whether their taxed incomes (first term in the numerator) exceed the amount paid to them in terms of social transfers (second term in the numerator).

Notice that two crucial variables affecting the net fiscal position of migrants are the share of unskilled workers among migrants, γ, and the residual dependency term, ϕ.

3.2. Altruism and Identity

An extension of this model is to allow for preferences for redistribution (Alesina and Giuliano, 2009) and altruism with respect to person belonging to the same community (Akerlof and Kranton, 2005). In particular, assume that welfare of skilled workers is decreasing in the amount transferred to the migrants who are not perceived as members of their community. To the extent that some fraction $0<\varphi<1$ of the transfers to the migrants go to persons perceived as belonging to a different identity, we have that:

$$W^S = w_S(1-t)(1-u_S) - \varphi\ b(\gamma u_N + \phi m) \qquad (6)$$

Hence, migration will now affect also welfare of skilled natives, as follows

$$\frac{dW^S}{dm} = \varphi\left[\ (\gamma u_S + \phi m)\frac{db}{dm} - b\phi\right] \qquad (7)$$

Notice that now, even if migration does not affect neither taxes nor the generosity of unemployment benefits, it will still negatively affect welfare of natives to the extent that the latter perceive some migrants as less deserving redistributive policies than natives.

3.3. Self-selection

So far we have considered both the level and the skill content of migration as exogenous. Perceptions of EU citizens are however likely to take into account also the opposite causal link, one in which it is the generosity of the welfare state affects the scale and skill composition of migration, via the self-selection of low-skilled migrants into the countries having a more generous welfare state. The implication of self-selection of migrants on opinions about migration (on preferences with respect to migration policies) have been characterised by Razin, Sadka and Swagel (2002) -- drawing on previous work by Metzler and Richard (1981) -- as well as by Hassler et

al. (2002). These models suggest that it is mainly the percentage of low-skill types among migrants to negatively affect views about the acceptability of migrants.

The decision rule of migrants in our static model can be simply modeled as a cost-benefit test comparing net earnings (and transfers) in the country of destination and net earnings in the country of origin. Denoting by w_0 earnings in the country of origin (the opportunity cost of migration) and by c mobility costs, and taking into account the budget constraint (3), we have that migration is convenient to skilled workers if:

$$w_S(1-t) > w_O + c$$

whilst the decision rule for unskilled workers is to migrate if:

$$w_N(1-t) + u_N\, b(t) > w_O + c$$

Consider a situation where potential migrants (either skilled or unskilled) differ in terms of mobility costs (e.g., because of the varying distance between the destination country and their countries of origin). The above two inequalities can be solved to define for both skilled and unskilled migrants cutoff mobility costs, (cs and cu respectively), below which migration takes place, i.e.

$$c_S(t) = w_O - w_S(1-t) \;\; and \;\; c_N(t) = w_O - w_N(1-t) - u_N\, b(t)$$

Differentiating the two cutoff costs with respect to the tax rate we have that

$$\frac{dc_S}{dt} = w_s > 0 \;\; and \;\; \frac{dc_N}{dt} = w_N - \frac{db}{dt}u_N = -w_s < 0$$

It follows that the skill content of migration is decreasing in the generosity of the welfare state, that is $\gamma(t)$ with $\gamma'>0$. Assuming that the distribution of mobility costs for skilled and unskilled potential migrants is the same, we also have that changes in

the tax rate will only affect the skill composition of migration, without affecting its level, m.

As discussed above, a decrease in the skill content of migration increases pressure on the welfare state, forcing Governments to provide a lower benefit level per any given tax rate. The self-selection of unskilled migrants is particularly important in evaluating the potential for a race-to-the bottom in welfare state provision as a result of migration, an issue which is taken up in Section 5 below.

4. Understanding perceptions: data

The previous two sections suggest that concerns of Europeans are likely to be driven by a negative fiscal position of migrants, which can be by itself a by-product of residual dependency on state transfers or of a predominance among migrants of persons with lower skills. Another interpretation is that, independently of the net fiscal position of migrants, natives dislike redistribution when perceived to be directed to individuals not belonging to the same community. In this Section we exploit all available data sources to evaluate the relevance of these explanations.

Our main data source in assessing the net fiscal position of migrants and welfare dependency is the EU Survey of Income and Living Conditions (SILC), a standardized annual survey carried out in the European Union since 2004. It provides detailed information on the tax and benefit position of the interviewees and of their families. Unlike the previous EU-wide survey, the European Community Household Panel (ECHP), it identifies all the different sources of incomes of the interviewee and her household and involves relatively large sample sizes allowing representation of the migrant population. For the time being only the cross-sectional dimension of the EU-Silc is available. Hopefully, in the near future, researchers will have access to the five year panel being developed in this survey.

Defining the immigrant status in the EU-Silc is not an easy task. There are two possibilities. The first is to define an immigrant as a non-citizen. The problem with this definition is that it may be biased by cross-country differences in naturalization laws. Moreover, the data files provided to researchers by Eurostat do not allow to identify the country of citizenship. We know only if the individual is a native, a citizen of another EU country or a non-EU citizen. The second option is to use information on the country of birth as a proxy for immigrant status. Here, the source of bias is misclassification of 'true nationals' born abroad for whatever reason as immigrants. Such a misclassification may be a serious source of bias for countries which have former colonies such as France, the U.K., Belgium and Portugal.

Weighing pros and cons of the two alternative definitions, we opted for the former classification. In the analysis below, migrants are therefore defined on the basis of their citizenship. Moreover, we concentrate on immigrants coming from non-EU countries, those contributing the most to immigration and relevant for the design of migration policies.

4.1. The net fiscal position of migrants

EU-Silc data allow to estimate the net fiscal position of migrants by deducting from all transfers declared by the interviewees the taxes and social security contributions paid by the workers and their employers. This is clearly a static notion of the net fiscal position as no consideration is made of the lifetime contributions and benefits paid/received by the different households. This a serious limitation especially when assessing the contributions of migrants to public pension systems. Migrants are also typically younger than natives as the net benefits of migration are increasing in the expected length of the working life. Although large flows of immigrants typically improve pension balances in pay-as-you go systems, contributing to paying the pensions of the current retirees, this can only be a short-term relief: migrants themselves, sooner or later, will draw pensions, being a burden on the future generations. In an actuarially fair pension system, inflows of migrants can only alter

the temporal profile of pension outlays and net balances. There are, however, two important qualifications. First a long vesting period to qualify for social insurance, may prevent short-term migrants to reap the benefits of their past contributions. Legal migration, in this context, can improve fiscal positions also in the long-run, in that contributions by short-term migrants do not originate any entitlement to social benefits: the host country is free-riding on social security contributions of migrants. In addition to "social free-riding", a second factor improving the sustainability of the pension system in the destination country is the increase in fertility generally associated with migration. However, the effect of migration on fertility is typically transitory. Within a couple of generations, migrants typically adapt to the fertility rates of natives.

As the EU-SILC did not report gross-wages and taxes for Greece, Italy, and Portugal, these countries had to be dropped from our analysis. Moreover, the EU-SILC does not provide information on employers' social security contributions[3]; thus, we imputed these contributions by applying the rules as detailed by the OECD publication "Taxing Wages" (editions 2003/2004 to 2005/2006). The latter provides a routine for each country belonging to the OECD that can be used to calculate the average employers' social security contributions, conditional on gross-wages.

Table 3 suggests that migrants to each European country for which data are available, except Spain, contribute less to tax revenues and social security contributions than implied by their share in the population. This result is hardly surprising as taxes are progressive in EU countries and social security contributions are proportional to earnings while migrant workers are generally concentrated at the low end of the earning distribution.

[3] The EU-SILC committee decided that this information must be provided from MS only from 2007 onwards.

Table 3
Contributions of migrants to taxes and social security contributions

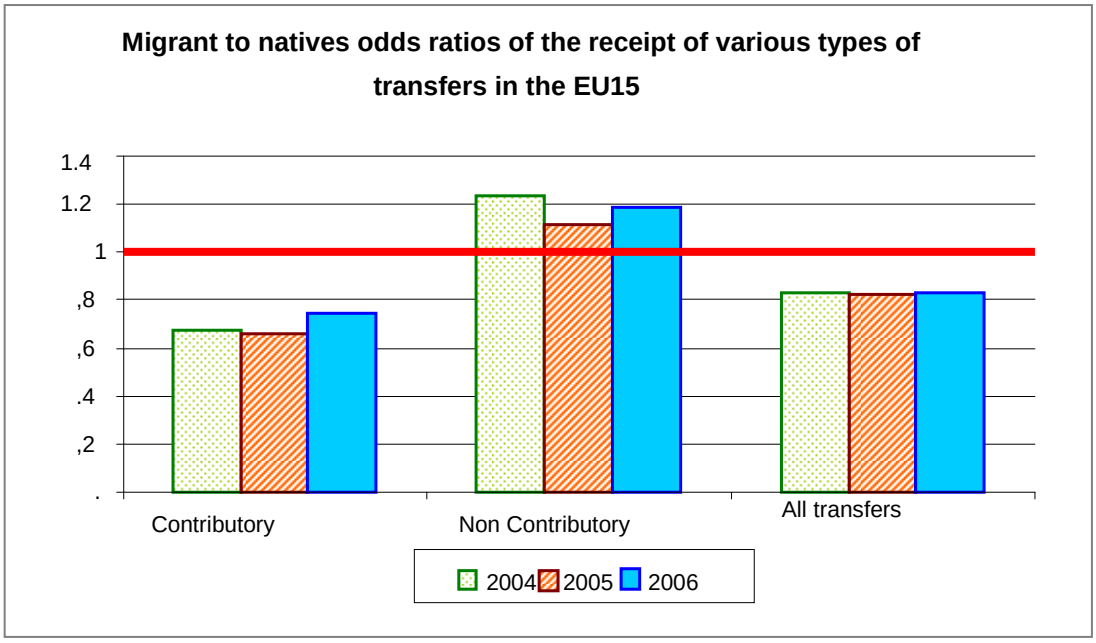
Country	(1) share of taxes paid by migrants	(2) share of migrants in the population	(3) (1)/(2)
Austria	3,06%	4,30%	0,71
Belgium	1,76%	1,87%	0,94
Denmark	1,01%	2,27%	0,45
Finland	0,20%	0,67%	0,30
France	1,19%	2,76%	0,43
Germany+	0,65%	1,08%	0,60
Ireland	0,97%	1,71%	0,57
Luxembourg	1,26%	2,25%	0,56
Netherlands	0,09%	0,16%	0,55
Norway	0,45%	1,44%	0,31
Spain	2,62%	2,46%	1,07
Sweden	0,42%	1,26%	0,33
United Kingdom	2,54%	3,00%	0,85

Source: (EU SILC 2004, 2005, 2006; yearly averages)
*For this country in the EU-SILC no distinction is made between EU and non-EU migrants

The fact that migrants pay proportionally less taxes and contributions than natives clearly does not imply that they are a fiscal burden. They may indeed also receive proportionally less transfers than natives. Thus, we turn our attention to intakes of social transfers.

Figure 1 displays migrant to natives odds ratios in the receipt of various types of contributory and non-contributory transfers. A number larger than one denotes a condition in which migrants are over-represented in the population of recipients of that particular category of transfers. As can be seen from Figure 1, migrants are systematically overrepresented among the recipients of non-contributory transfers (social assistance and housing benefits), whilst they are less represented than natives among pensioners, recipients of sickness benefits and beneficiaries of unemployment insurance. Similar results were obtained by drawing on ECHP data and are not reported herein for brevity.

Figure 1



Odds ratios in Figure 1 disentangle contributory from non-contributory schemes as the former do not typically require mobilizing General Government revenues. However, three caveats apply to contributory transfers, which may affect the way in which the generic taxpayer is affected by migration into contributory schemes. First, migrants may have a higher than average risk of joblessness, which creates gaps in their contribution records and make them net beneficiaries of social security (unemployment benefits and pension minima protecting against labor market risk interacted with longevity risk). Secondly, also the contributory part of social welfare systems often envisages explicit redistributions from the rich to the poor, in addition to those implied by the higher exposure to unemployment risk of the unskilled workers. A number of provisions – such as benefit minima and maxima, a lower degree of indexation of benefits above these floors and eligibility conditions involving some degree of means-testing – introduce even in social insurance programmes an explicit cross-skill redistribution. Replacement rates offered by unemployment benefit systems are, for instance, steeply decreasing with the previous earnings of individuals, notably at rather long unemployment durations (Boeri, Conde-Ruiz and Galasso, 2006). Also public pension systems often involve a fairly large degree of within-generation redistribution. The so-called "tax

component" (non-contributory component) of European pay-as-you-go systems (Disney, 2004) in some countries is even larger than the "contributory (or pure social insurance) component". Put it another way, a large fraction of pension contributions is completely unrelated to future pension rights of contributors. Thirdly, migrants may also have less incentives than natives to seek for jobs when they are receiving social transfers. This means that migrants, feeling less constrained by social values rewarding public spiritedness (Algan and Cahuc, 2006), may have access to contributory schemes over and beyond what implied by their personal characteristics or average risk profile. Under these circumstances, migrants become more "welfare dependent" than natives, draining resources also from contributory schemes. This condition is also likely to be more frequent for migrants with higher than average labour market risk, ending in receipt of some social insurance schemes.

Table 4 reports our estimates for the net fiscal position of migrants. The latter is obtained by adding up all taxes and contributions that the interviewee declares to have paid and subtracting from those all the transfers received according to the respondent. Among the latter the questionnaire includes contributory transfers such as unemployment, old-age, survivors, sickness and disability benefits as well as non contributory allowances like housing allowances, family-related transfers and sub-sides that target specific marginalised groups (social exclusion). As no record is made of in-kind transfers (such as schooling or free health care), our estimates for the net fiscal position are biased upwards. The overall average net fiscal position is indeed positive in all countries.

With the above caveats in mind, the first column of table 4 displays the share of migrants who appear to be net contributors to the state budget. The second column shows the odds ratio, that is, the share of net contributors among migrants as a fraction of the share of net contributors among the natives. The third column displays the average net position of migrants and (in brackets) the standard deviation of these estimated individual net fiscal positions. Finally, the fourth column reports the difference in the average net fiscal position of natives and migrants, expressed as a ratio of the average net fiscal position in that country.

Table 4
Net Fiscal Position of migrants

Country	*share of net contributors (SNC) among migrants*	*SNC: migrants over natives*	*Average net position (ANP) (euros)*		*Natives-Migrants ANP overall*
Austria	79,59%	1,27	10257	[3716,6]***	1,36
Belgium	87,21%	0,97	12289	[5280,2]**	0,51
Denmark	55,51%	0,72	-1026	[3566,3]	-0,11
Finland	49,62%	0,68	-3212	[5863,7]	-0,32
France	47,18%	0,85	-1706	[4653,6]	-0,27
Germany+	67,94%	0,84	2708	[3545,1]	0,48
Ireland	55,41%	1,20	-1202	[8273,0]	-0,49
Luxembourg	57,40%	1,25	-1761	[6632,8]	-0,48
Norway	56,44%	0,90	-2826	[11840,1]	-0,30
Spain	91,21%	1,45	7715	[557,89]***	2,17
Sweden	50,05%	0,81	928	[6800,3]	0,06
United Kingdom	69,66%	1,18	13570	[6638,0]**	1,73

Source: (EU SILC 2004, 2005, 2006; yearly averages)
*For this country in the EU-SILC no distinction is made between EU and non-EU migrants

The first column of table 4 suggests that generally more than 50 per cent of the migrants are net contributors, according to our estimates. In some countries, notably Austria, Ireland, Luxembourg, Spain and the UK migrants are also over-represented in the population of net contributors (second column). This may be due to the fact that we are dealing with countries having recently experienced large inflows of migrants. Recent immigrants are typically much younger than natives and hence do not receive pensions, while they benefit from in-kind transfers, such as schooling for their children. There is also a very large heterogeneity in the net fiscal position of migrants, as documented by the large standard deviations reported in the third column. In those countries where the average net fiscal position of migrants is significantly different from zero, the average migrant is a net fiscal contributor and more so than the average native (fourth column). Regressions (reported in Table A1 in Annex A) estimating the effect of various personal characteristics, including skills, and the migrant status on this net fiscal position suggest that the skill level is a key

factor in determining the net fiscal position of natives and migrants: the higher the educational attainment, the better the fiscal position of both natives and migrants.

4.2. Residual Dependency

As discussed above, estimated net fiscal positions cannot measure large in-kind transfers to the migrants related to childcare, schooling and medical services. The potential fiscal burden associated with migration can be assessed also by capturing entitlement rules and considering the take-up of state transfers by migrants or their residual dependency, a proxy for the parameter ϕ in the model of Section 3. When migrants receive more transfers than those they are entitled to, they may create pressures also on contributory schemes. Symmetrically, when they have a relatively low take-up of schemes they are formally entitled to, this creates a situation of "social free-riding", in which fiscal revenues in the recipient country are inflated by taxes and contributions which do not actually originate transfers even when the risks they are supposed to face materialize.

Table 5 reports results of probit regressions evaluating the presence of "residual dependency from social transfers" by non-EU citizens[4]. More precisely, we try to isolate whether the fact of being a migrant explains the take-up of a social transfer *in addition* to personal characteristics of the individual (e.g., the number of dependent children, educational attainments, family status, etc.) affecting the probability of receiving the transfer. Put it another way, we are asking the following question: would a non-EU citizen be more or less likely to be dependent on a given type of social transfers than a EU citizen with the same characteristics?

[4] The full regressions replicating the implicit allocation mechanism of cash transfers are reported in Tables A2 and A3 in Annex A. They explain up to 70 per cent of the total variance in take-up rates. Once more, the skill level of both natives and migrants is a key factor affecting the probability of receiving cash transfers.

Table 5
Residual Dependency on State Transfers of Migrants

		Extra EU25
Austria	Contributory	-0.01 [0.68]
	non contributory	-0.07 [3.33]***
Belgium	Contributory	-0.20 [12.39]***
	non contributory	0.10 [2.90]***
Denmark	Contributory	0.07 [3.81]***
	non contributory	0.07 [1.42]
Finland	Contributory	0.02 [0.76]
	non contributory	0.16 [2.62]***
France	Contributory	-0.11 [7.29]***
	non contributory	0.30 [10.13]***
Germany[+]	Contributory	0.05 [2.37]**
	non contributory	0.18 [3.73]***
Greece	Contributory	-0.08 [4.84]***
	non contributory	-0.06 [3.84]***
Ireland	Contributory	-0.18 [8.13]***
	non contributory	-0.04 [0.80]
Italy	Contributory	-0.01 [0.52]
	non contributory	-0.02 [1.19]
Luxembourg	Contributory	-0.10 [5.61]***
	non contributory	0.09 [1.49]
Netherlands	Contributory	-0.13 [1.83]*
	non contributory	0.42 [2.86]***
Portugal	Contributory	-0.12 [4.02]***
	non contributory	-0.21 [6.15]***
Spain	Contributory	-0.10 [5.60]***
	non contributory	-0.02 [2.17]**
Sweden	Contributory	-0.25 [11.65]***
	non contributory	0.03 [0.70]
United Kingdom	Contributory	-0.14 [7.98]***
	non contributory	-0.23 [9.64]***

Source: EU-SILC 2004-6
Note: z statistics in brackets, * significant at 10 per cent, ** significant at 5 per cent, *** significant at 1 per cent. The regression includes the following covariates: gender, age (linear and quadratic terms), dummies for the number of children, family size, educational attainments, house ownership, labour market status of the respondent and of the partner. See Table A2 and A3 in the Annex A.

Table 5 points to residual dependency of migrants on non-contributory transfers in Belgium, Finland, France, Germany and The Netherlands and low take-up rates for this kind of transfers in Greece, Portugal, Spain and the UK. Most countries denote a low take-up of contributory transfers of migrants, the exception being in this case Denmark and Germany.

4.3 Selection effects

The model in Section 3 also suggests that natives may be concerned about the self-selection of low-skilled migrants driven by "welfare magnets". This risk can be perceived especially by native low skilled workers who are particularly vulnerable to the downscaling of welfare programmes.

As long as the presence of a generous welfare system self-selects migrants who are more exposed to unemployment risk, notably low-skilled migrants, immigration can put pressures also on contributory systems. However, eligibility to contributory transfers typically requires a minimum contribution period, preventing immigrants to draw benefits before a vesting period, which can be relatively long (e.g., in the case of pensions can be up to five years).

Skilled migrants are certainly not randomly allocated across the EU. There are striking disparities among EU countries regarding the educational attainments of migrants vis-à-vis the natives. Table 6 displays the evolution of the relative share of skilled workers (persons with tertiary educational attainments) in the non-EU migrant population vis-à-vis the native population, a proxy for the parameter γ in the model of section 3. Data are drawn from the Docquier (2006) dataset on the stocks of migrants and natives by education and from the Barro-Lee(2000) dataset on educational attainments.

Table 6
Relative of share of skilled workers among migrant and natives

Ratio of the share of individuals with tertiary education in the migrant population and the same share in the native population

Country	*Relative Share '90*	*Relative Share '00*	*Δ 2000-1990*
Spain	2,19	1,15	-1,05
Portugal	1,85	1,03	-0,82
Greece	1,79	0,99	-0,80
Italy	1,60	0,91	-0,69
Germany	1,98	1,36	-0,61
Norway	1,48	1,05	-0,43
Ireland	2,83	2,50	-0,33
Netherlands	1,08	0,87	-0,21
France	1,32	1,12	-0,20
Belgium	1,05	0,87	-0,18
Austria	0,77	0,71	-0,06
Finland	1,03	1,01	-0,02
Denmark	0,78	0,81	0,03
United Kingdom	1,67	1,83	0,16
Sweden	1,11	1,29	0,18

Sources: Own extrapolations on data from Docquier (2006) and Barro-Lee (2000)

The table points to quite striking differences in the relative skill content of migration across EU countries, suggesting that skills of migrants are not randomly allocated in Europe. A rather common trend is a deterioration of the relative skill content of migration to Europe (third column).

How do the observed cross-country differences in the relative skill content of migration correlate with differences in the generosity of welfare system? Table 7 offers a panel regression of the relative shares displayed in Table 6 against several measures of the generosity of social policies in the OECD countries[5]. The first two regressions allow for regional dummies (Continental, Eastern, Northern and Southern Europe, North-America, Asia and Oceania) while the last two are in differences, hence control for fixed country effects.

[5] One may argue that differences in the educational attainments of migrants vs. natives across European countries reflect differences in the quality of the workforce in the source countries, which are history dependent. But the above pattern survives even after controlling for the origin of immigrants. For instance, Boeri et al. (2002) compared the two main recipients of African migrants, namely France and the U.K., finding that in France roughly 33 % of Africans had not completed secondary education, vs. only 18 % of Africans in the U.K.

Table 7
Relative skill composition of migrants and the generosity of social policies in the OECD

	Dependent variable: Relative skill ratio		Dependent variable: Difference in Relative skill ratio (2000-1990)	
	(1)	(2)	(3)	(4)
Active labor market programmes		0.386*		0.141
		(1.97)		(0.547)
Housing policies		0.113		-0.491
		(0.064)		(1.04)
Unemployment benefits		0.028		0.301**
		(0.31)		(2.37)
Total social expenditure	-0.085***	-0.091***	-0.065**	-0.113***
	(-5.23)	(-4.64)	(-2.69)	(-3.59)
Constant	2.092***	2.442***	-0.071	-0.044
	(6.73)	(5.85)	(-0.92)	(-0.49)
Regional dummies	yes	yes	no	no
Observations	57	45	27	21
R squared	0.48	0.46	0.22	0.54

Source: Oecd and own elaborations on data from Docquier (2006)
Notes: In columns (3) & (4) independent variables are given by differences between 2000 and 1990.

Consistently with the simple model outlined in section 3, Table 7 suggests that higher social expenditure is generally associated with a lower relative skill content of migration. However, not all social transfers affect skills in the same direction. Active labour market policies and unemployment benefits, in particular, my also affect positively the relative skill content of migration.

The presence of more unskilled immigrants in the countries and time-periods with higher social spending does not necessarily imply that self-selection is at work. As suggested by the political economic models by Benhabib (1996) and Dolmas and Huffman (2003), the causality may also go from the skill composition of migrants to welfare policies rather than the other way round. Cross sectional data can hardly shed light on the direction of causality.

A recent study by De Giorgi and Pellizzari (2008) drawing on ECHP data found that cross-country asymmetries in the generosity of social welfare systems can increase significantly the scale of migration flows, having also some impact on the skill composition of migration. In particular, De Giorgi and Pellizzari found that an increase by one standard deviation in the generosity of welfare benefits (involving an

increase of their amount by roughly 3,000 € per year in a country) increases the probability of receiving migrants by some 3%. This is a sizeable effect. All the interactions with personal characteristics are not significant except the skill and the gender interactions, pointing to some positive selection of the unskilled and negative self-selection of women in countries with a generous welfare system (perhaps because migrant women fill the gaps of social security in providing childcare and support to the elderly). Unfortunately, we could not have access to the panel of EU-Silc, hence we cannot carry out the same type of analysis with this data source that provides a much deeper description of social transfers received by individuals.

4.4. Identity and preferences for redistribution

As suggested by our findings above, non-contributory transfers involve in several countries significant residual dependency with migrants receiving more than implied by the implicit allocation rule of these transfers. Under these circumstances, preferences over redistribution are likely to play a major role in the perception of migration. Unfortunately there is limited information on preferences over redistribution (see Alesina and Giuliano, 2009, for a review) and even this scant evidence is available only for a few countries.

Table 8 below reports the fraction of natives who agree with the statement that "Governments should take more responsibility to ensure that everybody is provided for" together with two measures offering a proxy for the percentage of migrants perceived as belonging to the same community, that is the fraction of natives reporting to identify themselves as citizens of the world (second column) and the fraction of migrants reporting to identify themselves as citizens of the country of destination (third column). Finally the fourth column reports the "intersection" between the first two columns, that is natives who are both favorable to redistribution and citizens of the world. These measures offer proxies for the parameter $(1-\phi)$ of the model in Section 3.

Table 8
Identity and support to redistributive policies

	Support to redistributive policies	*Cosmopolitanism: I see myself as a world citizen*	*I see myself as a citizen of the country (migrants)*	*Cosmopolitanism and support to redistributive policies*
All	41,01%	65,42%	89,50%	24,98%
Italy	44,21%	61,85%	57,11%	26,98%
Spain	50,50%	78,39%	94,80%	40,35%
Sweden	17,61%	85,24%	84,27%	16,01%
Finland	26,98%	64,12%	57,15%	17,45%
Germany	52,88%	50,37%	58,03%	24,38%

Source: WVS 2005

The key message here is that preferences for redistribution are only partly associated with cosmopolitan attitudes of natives: the intersection among the two sets involves a relatively small component of the population in the host country (fourth column). Thus, it is possible that migrants are indeed perceived as non deserving the same redistribution which is desirable for the members of the same community. There is no reciprocity in this sentiment: a majority of migrants are indeed perceiving themselves as citizens of the host country (third column).

Overall, there is evidence that migrants are overrepresented among recipients of non-contributory systems, and in countries with a rather generous welfare state (the Nordics and Continental EU countries) this overrepresentation is not only explained by their personal characteristics, such as the presence of many dependent family members exposing them more than natives to unemployment and poverty risks. Lower skills are always associated with a higher fiscal burden of migration and the relative small content of migration has been diminished notably in those countries with a more generous social policy system. Identity considerations may also play a role in growing concerns of Europeans about the fiscal costs of migration: a relatively small fraction of EU citizens are at the same time cosmopolites and favourable to redistribution. Thus, all the various factors discussed in the simple model presented in Section 3 would seem to be at work in Europe.

5. Policy issues

European Governments are reacting to growing concerns of their citizens with respect to migration, by tightening migration policies. Table 9 displays the evolution of a summary indicator of the strictness of migration policies (see Annex B for details as to how the indicator is defined).

Table 9
Strictness of migration policies in Europe (1994-2005)

		Strictness Index	
		Total	Δ High skilled
Austria	1994	2,33	
	2005	2,79	
Denmark	1994	2,67	0
	2005	3,21	0
Finland	1994	2,17	
	2005	2,79	
France	1994	1,33	0
	2005	1,50	0
Germany	1994	2,50	0
	2005	2,57	-1
Greece	1994	2,83	
	2005	2,71	
Ireland	1994	2,75	
	2005	2,93	
Italy	1994	3,00	
	2005	3,14	
Netherlands	1994	2,75	0
	2005	3,00	-1
Portugal	1994	3,00	
	2005	3,07	
Spain	1994	3,08	
	2005	3,21	
United Kingdom	1994	2,25	0
	2005	2,91	-1

Notes: Total Strictness index comes from fRDB Reforms dataset (available at http://www.frdb.org/documentazione/scheda.php?id=55&doc_pk=9027). High skilled strictness index is calculated using Mayda (2004) and fRDB Reforms database. A full description is provided in Annex B.

Limited to some country we also have a variable displaying changes in the stance of migration policies limited to the highly skilled workers. This information is provided in the last column on the right-hand-side of Table 9.

Table 9 suggests that all EU15 countries except Greece have been tightening migration policies. Some liberalisation has taken place limited to highly skilled

migrants (persons with tertiary or postgraduate education). The mounting concerns about the economic and social impact of migration documented in Section 2 are now pressing Governments to make migration policies even more restrictive.

The issue is that migration restrictions are difficult to enforce, and hence may end-up substituting legal with illegal migration, which makes the fiscal position of migrants even worse. Illegal migrants are not in a position to pay taxes and social security contributions while are still entitled to free or subsidised health care and education for their children. More importantly, in integrated labour markets like the EU it is very difficult to enforce different migration policies. Migrants can transit in the countries with milder restrictions to finally settle in the country with a generous social welfare, notably moving across countries subscribing the Schengen agreements.

Ways out of these policy dilemmas can be possibly found by considering other policy instruments in combination with migration policies. We consider below the following three policy options:

1. closing the welfare door to migrants,

2. introducing a `points-based system' (PBS), rewarding skilled migration;

3. harmonising safety nets at the EU level

5.1. Closing the Welfare Door?

Restricting welfare access seems to address the core concern of public opinion in the EU about welfare abuse by migrants[6]. Closing access to welfare cuts across these concerns, preventing moral hazard problems to arise with respect to the immigrants. A policy explicitly preventing abuse of welfare by migrants is deemed to buy popular support to more realistic migration policies in individual EU countries. This

[6] See also Dustmann et al., 2003.

is the rationale for the Hans-Werner Sinn (2004a, 2004b) proposal to temporarily close the welfare door to migrants.

As suggested by the evidence reviewed in this paper, closing the welfare door would reduce the proportion of unskilled workers in migration inflows. A closing the welfare door policy, however, would postpone the assimilation of migrants who are already in the country or who would come in any event. Thus, it may paradoxically increase the negative externalities on the natives of immigration to rigid labour markets, by pushing many migrants into illegal activities.

Closing the welfare door may not be a credible policy option under the sizeable immigration flows taking place in Europe. The US experience is revealing in this respect. In 1996, the welfare system was partly decentralized to the states and limitations were introduced to access to welfare benefits for legal immigrants. For instance, legal non-asylum immigrants who arrived in the country after August 1996 were barred from receiving food stamps or using Medicaid for 5 years. The proponents of this reform were hoping that a more decentralised system would make the states more cautious in providing expensive welfare benefits to immigrants. The reform failed on both accounts (Boeri et al., 2002). Since 1996, the provision excluding immigrants from some welfare services has been challenged in the courts. By 1997, the Congress started repealing the tougher provisions. Finally, the states felt the political pressure to maintain the benefits at the previous levels under the federal system with this being particularly evident in high-migration states like California; immigrants account for more than 15 percent of the Californian electorate. A decentralized system that strongly discriminates against immigrants can face political resistance, is easily challengeable in courts and is thus likely to ultimately revert to the previous system.

5.2. Adopting a PBS?

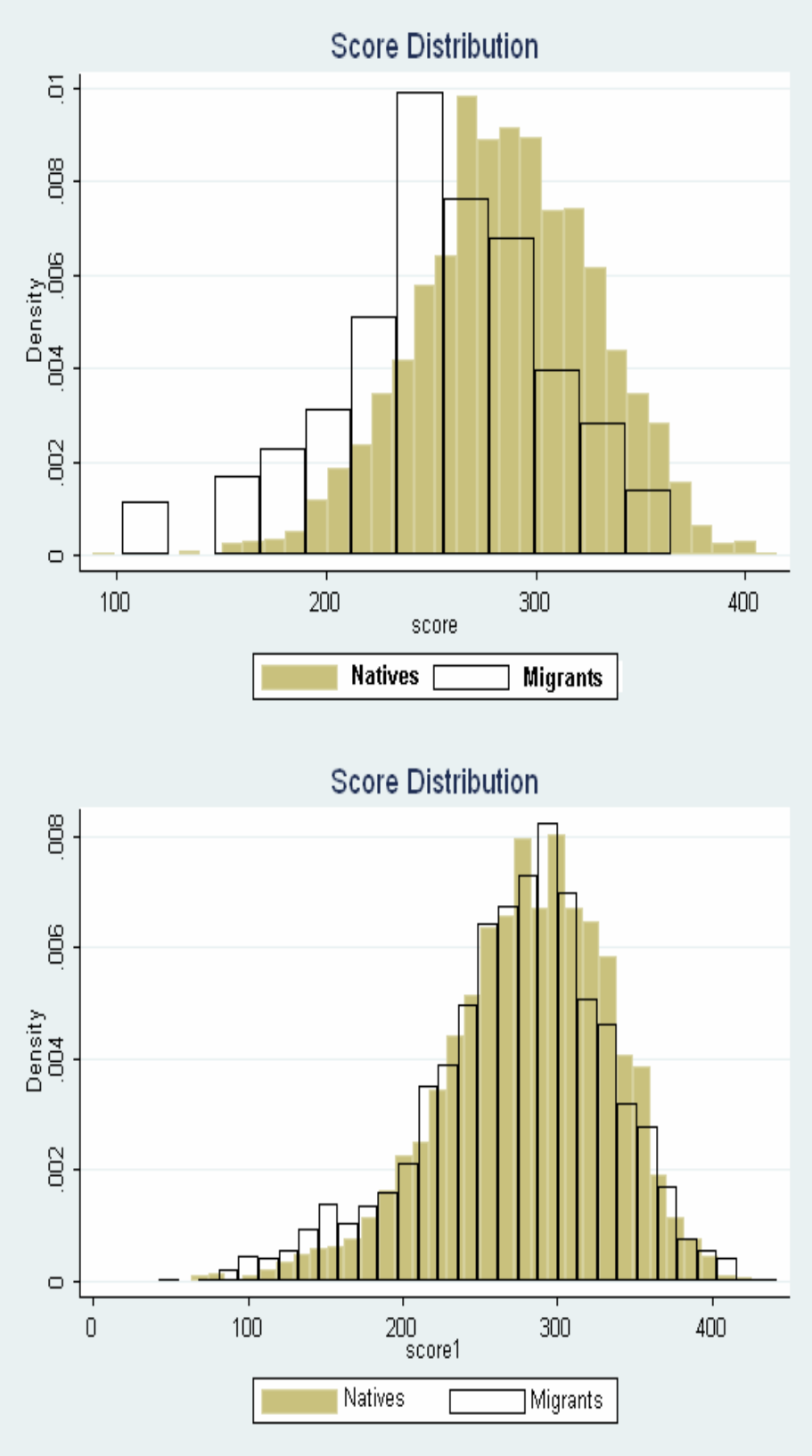
A points based system is a method to rank applications for residence and work permits. It has been adopted by Australia, Canada, New Zealand and, in Europe, by Switzerland. The UK is likewise introducing a PBS. In this system, each application is allocated a score based on explicit criteria which typically reward educational attainment, experience, and language abilities. "Bonus points" can also be given for employment in occupations and regions where there is a shortage of workers. A point-based-system adopted by Europe vis-à-vis third country nationals may encourage more skilled migration not only in relative, but also in absolute terms, enhancing the growth potential of migration and reducing negative externalities via unemployment. An additional advantage of a PBS is that it could simplify migration regulations, e.g. removing the need for ad-hoc policies for highly-skilled migrants and integrating asylum policies into a broader framework by, for example, granting "humanitarian" points. Finally, most EU countries are already introducing de facto selective migration policies, as also documented by Table 9: reforms are mostly reducing strictness for highly skilled workers. A PBS would make policies more transparent, providing better signals to migrants choosing the country of destination.

But how effective are points systems in selecting migrants? Some crude indications may come by comparing the distribution of 2004 IALS (International Adult Literacy Scores) scores of migrants vs. natives in a country without a points system (Germany) and in a country with a PBS in place, like Canada (Figure 2). The difference is quite striking in terms of skill levels, both absolute (the average IALS for migrants was roughly 300 in Canada compared with 250 in Germany) and relative to natives. In Germany the skill distribution of migrants is visibly tilted to the left, while in Canada it almost perfectly overlaps with the distribution among natives. However, there may be many other potential explanations for the observed differences in the composition by skill of migration to Canada and Germany, e.g., differences in mobility costs, and the generosity of welfare states.

Difference-in-differences analyses can take into account of these cross-sectional differences, insofar as they are time-invariant. Thus, we analysed changes in the skill composition of migration in Canada after the introduction of the point system and compared these variations with evolutions in the US, that did not adopt a PBS. This exercise confirms the effectiveness of the PBS in selecting migrants. In Canada the fraction of migrants with tertiary education increased by 5 percentage points from 1987 to 2002, while it decreased in the US over the same period of time. Also in Australia the share of workers with tertiary or higher level of education increased substantially after the adoption of a point system and there are indications of similar developments in New Zealand after introducing a PBS. Thus, a PBS is likely to counteract the self-selection of low-skilled migrants in countries with a generous welfare state.

An additional reason to introduce a PBS is that economic theory suggests that the skill content of migration affects the state budget via its effects on economic growth. Endogenous growth models (Aghion and Howitt, 1998) imply that immigration contributes to economic growth in the recipient country insofar as it increases the share of skilled workers in the population. By increasing its per capita human capital endowments, the immigration country can support stronger growth rates in GDP per *capita*, rather than simply experiencing a once-for-all increase in GDP. By the same token, migration having a lower skill content than the native labour force reduces the potential growth rate.

Figure 2
Distribution of average IALS scores in Germany (left) and Canada (right)



Source: Ials 2004

There is, however, an important drawback of a PBS -- its negative effects on growth, via the so-called brain drain, in the sending country -- which may in turn increase migration of unskilled workers in the future. However, selective immigration policies increase the individual incentives to invest in human capital in the sending countries, so that the impact of migration on human capital formation in the country of origin is ambiguous[7]. Moreover, since migration to Europe is mainly temporary, human capital acquired in the country of destination could be subsequently transferred to the country of origin promoting growth in the sending region.

5.3. Harmonising minimum welfare across jurisdictions

The above policy options have to do with migration policy or the treatment of migrants with respect to their access to social transfers rather than to the design of social policies. Another option involves the harmonization of minimum welfare standards (Bean et al., 1998, Bertola et al., 2001) or a EU-wide minimum welfare floor (see Atkinson, 1998). The rationale for this policy is that it would prevent welfare shopping and potential "races-to-the bottom" in social welfare provision fostered by fiscal spillovers across jurisdictions.

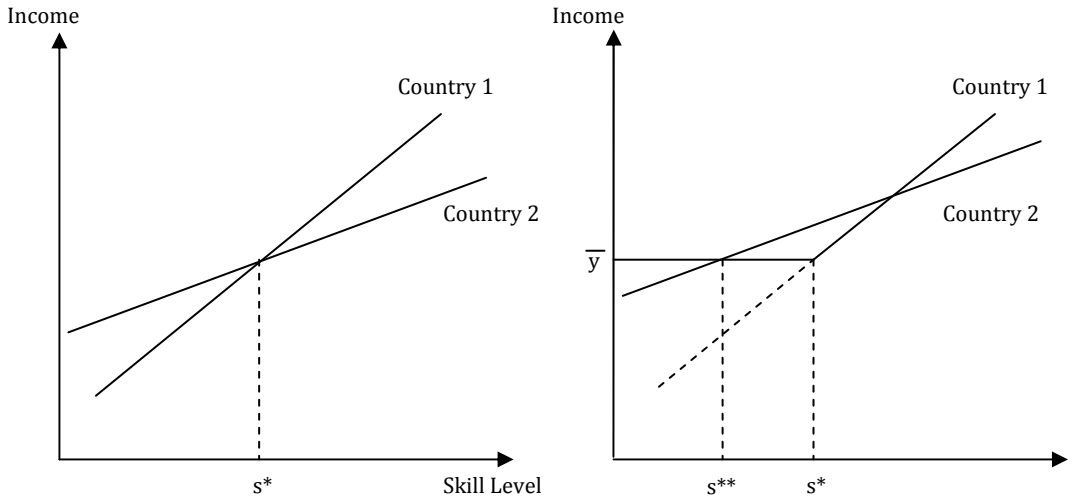
European countries differ quite substantially in terms of the generosity of their welfare systems, and, as shown in Section 4, these differences are correlated with the skill composition of migration.

The potential for a race to the bottom across jurisdictions can be better characterized by a variant of the 1951 Roy model. Suppose that a migrant is considering two alternative destinations, say country 1 or country 2, and that the only relevant dimension affecting the potential earnings of migrants is skill. The choice faced by the migrant is illustrated in Figure 3, displaying, on the horizontal axis, the skill level of a given individual, and, on the vertical axis, her earnings, net of migration costs.

[7] Evidence on the brain-drain effects of migration is, indeed, far from conclusive (Docquier – Rappoport, 2004).

As shown by the panel on the left-hand-side of Figure 3, the most skilled workers (those with skills higher than s^*) will go to country 1, where their skills are better rewarded, while the least skilled will go to country 2, as they are paid more therein.

Figure 3
The choice of the destination country and the welfare floor



Skilled migrants go to country 1
Unskilled migrants go to country 2

Safety net in country 1:
also the least skilled go to country 1

Suppose now that country 1 introduces a minimum guaranteed income scheme, preventing natives' and migrants' incomes to fall below a given poverty threshold, say $\overline{y}$. Now also some of the unskilled (those with skills lower than s^{**}) will migrate to country 1. Therefore, the presence of a welfare state affects the skill composition of migration, and may induce some workers not to go where their skills are mostly productive, exerting a *welfare magnet* effect.

Because of this *fiscal externality* across jurisdictions, countries with a rich welfare state are bound to attract more migrants than countries with a poor safety net or no safety net at all. Moreover, it will be mainly the unskilled migration to be diverted by asymmetries among potential destinations of migrants in the generosity of the welfare state. Larger inflows of unskilled migrants are also bound to increase earnings inequalities in the country attracting more migrants. This may further

increase, via second round effects, social expenditure in the recipient. Although, as shown in Section 4, there is limited evidence that "welfare magnets" are operating in Europe, these effects are perceived by public opinion, fearing a race to the bottom in welfare provision in order to prevent self-selection to penalize the most generous countries.

All EU countries, except Greece and Italy, have some safety net in place. Yet, coordinating these floors is not an easy task. The very different income levels of EU countries and regions imply that some inter-jurisdictional redistribution is hardly avoidable. Minimum-welfare transfers and services could be co-financed by a specific budget line item at the EU level. How large could this budget line be? De Giorgi and Pellizzari (2006) estimated that a Minimum Guaranteed Income (MGI) scheme harmonised at 430 net monthly Euros at purchasing-power-parity for a single without children (this is roughly the average of the MGIs offered in the EU-15 in 2000) would cost about 30 billion Euros, which is about ¾ of the current expenditure for social assistance and housing at the EU level. This sum is significantly smaller than the resources currently allotted to Structural, Cohesion, or Common Agricultural Policy funds (which currently amount to some 60 billion euro). Schmitter (1999) also noted that 50 billion Euros would more than suffice to lift all EU-15 citizens out of poverty.

An EU minimum welfare program could have negative effects on employment. Some design features of this harmonised MGI are very important in this respect. In order to prevent welfare-shopping, the minimum standard needs to be specified in absolute terms (rather than in relation to local incomes). At the same time, cost-of-living differentials and the character of social-service provision should be taken into account by the definition of country- and region-specific minimum levels of welfare provision. Uniform minimum absolute welfare levels would indeed have the most negative employment effects in relatively poor countries or regions. Minimum assistance levels may then be specified in purchasing power parity terms, and would be much lower in Poland than in Germany. This is a difficult exercise but, to the extent that prices of non-traded goods are lower in the same locations where labor

productivity and wages are low, would go some way towards reducing disincentive effects on local labor supply.

At the national level, this MGI could be possibly integrated with Employment Conditional-Incentives (ECIs), reducing marginal effective tax rates above the MGI. Thus, the integration of the MGI within the national tax-and-benefit system is very important to minimize adverse effects on employment.

The definition and specification of European welfare minima might instead be a suitable task for the European Commission, which could be tasked with monitoring local welfare programs to ensure that no European citizen, regardless of her or his residency, employment history, and nationality is allowed to fall through the cracks of an EU-wide safety net. The level of this EU-wide poverty prevention programs along the trade-off between poverty prevention and employment is an essentially political decision. As argued by Atkinson (1998), a clear commitment to an official policy in this respect would have beneficial politico-economic implications within each country. Inasmuch as unhindered mobility of persons is a basic building block of the EU, however, the issue must be discussed at the central level: to ensure that actual or potential problems are addressed clearly and to minimize political distortions, the relevant funds should be clearly isolated in the EU budget. Central co-financing of social assistance programs would also provide means for *enforcement* of EU-wide guidelines: as in the US TANF program, the availability of central matching funds should be conditional on satisfactory implementation of minimum welfare provisions, and activation schemes, and the enforcement power afforded by this financial lever should be exercised by central supervisory bodies.

It is also essential in this context to reach agreement on the definition of EU citizenship, especially as regards entitlements of non-EU immigrants and refugees. In the spirit of social cohesion, all EU legal residents could be fully integrated in the minimal, centrally co-funded welfare program envisioned here. To address the obvious co-ordination problems arising when EU-wide citizenship entitlements are granted by local constituencies, entry into the EU should be centrally regulated, as is envisaged (albeit after a long transition process) by the provisions added in

Amsterdam under Title IV of the EU Consolidated Treaties (European Commission, 1998a).

6. Final Remarks

There is a widespread and growing perception in Europe that migrants are a fiscal burden and abuse its generous welfare states. This view induces negative perceptions about migration to Europe which is almost unavoidably taking place. The poorest and the least educated individuals of the EU are those most concerned about the fiscal implications of migration. Negative perceptions are milder among skilled workers and natives having migrants as relatives or friends. This suggests that economics and psychology are more important than ideology in explaining this growing dissatisfaction of Europeans with respect to migrants.

In this paper we developed a simple model accounting for the various channels by which migration can affect the perceived fiscal impact of migration. Based on this framework we then analysed all the data sources available to evaluate the importance of each of these factors. We found that migrants are overrepresented among beneficiaries of non-contributory transfers, and some evidence of "residual dependency" of migrants, thereby they receive transfers more than natives when control is made of their educational attainments and family characteristics, notably in the countries with the richest welfare state. More social spending would seem also to be associated with a lower skill content of migration which, in turn, negatively affects the net fiscal position of migrants.

Growing negative perceptions about migrants are supporting stricter and stricter migration policies in the EU. However, there is no a one-size fits all policy in this context. The risk is that a potential vicious circle is set in motion in which tighter migration restrictions induce illegal migration, preventing migrants to contribute, as they could, to social security, and hence fulfilling perceptions of migration as a fiscal burden.

Three policy options could prevent this vicious circle from the start. The first policy

restricts welfare access by migrants, preventing both abuse and self-selection, but weakening the anti-poverty functions of social policies and postponing the assimilation of the migrants who are already in. The second policy addresses only self-selection as it adopts selective migration policies, rewarding educational attainments. A points-based system, in particular, would counteract an over-representation of unskilled workers in the countries with a generous safety net. The third policy also deals with self-selection only: it co-ordinates safety nets across countries to prevent potential races to the bottom in minimum standards. Based on the (admittedly scant) evidence on the enforceability and effectiveness of these three sets of policies, we conclude that the second and third options are to be preferred to the first one. More research on the enforcement of these policies is warranted that would guide more informed choices over highly controversial issues.

Whatever the choice of Governments will be along these domains, there is no doubt that social policies and migration policies need to be more closely integrated.

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ANNEX A

Figure A1
Normalized distributions of perceptions about migrants (ESS, various waves).

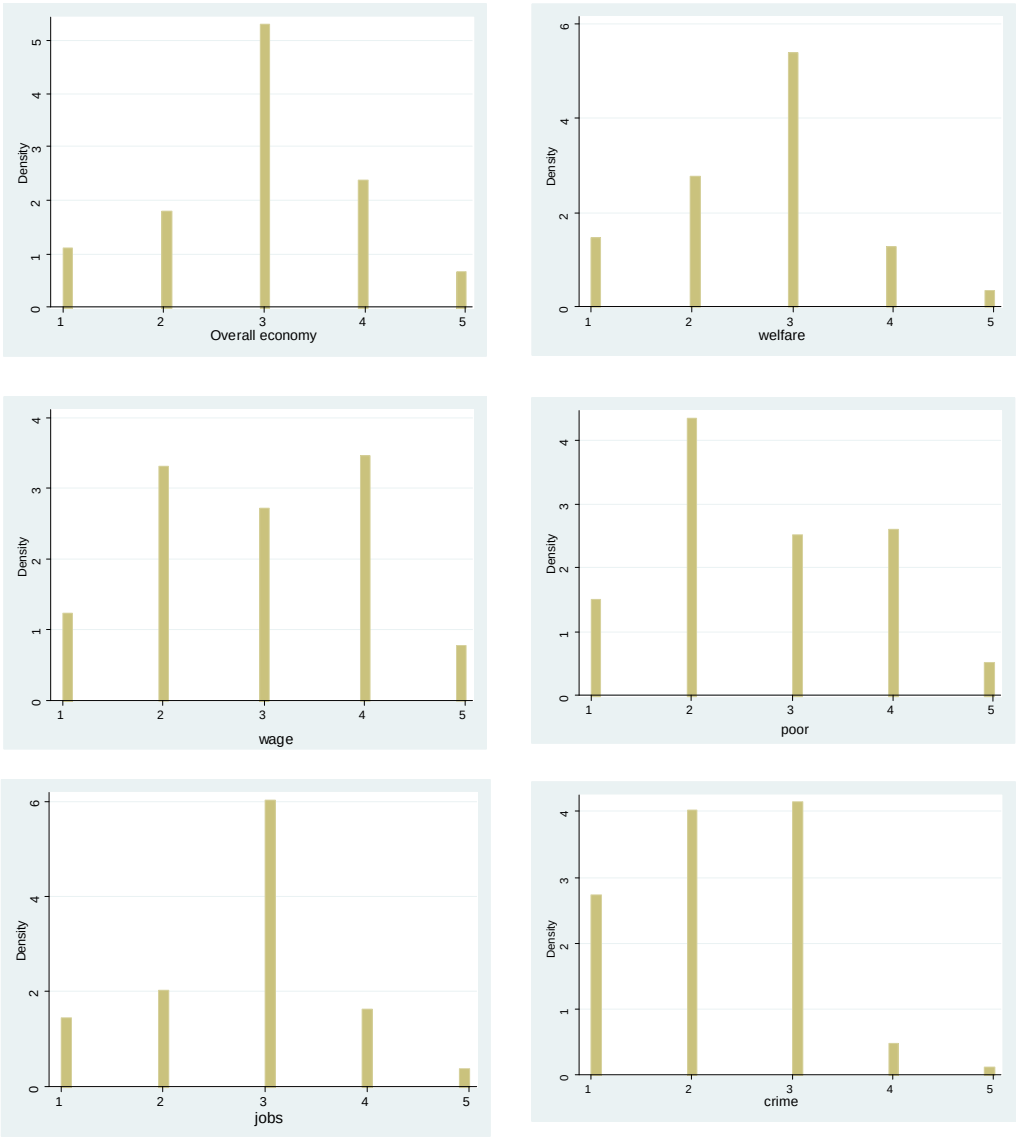

Table A1
Net fiscal position of Households: incidence of individual characteristics

	(1) AT	(2) BE	(3) DE+	(4) DK	(5) ES	(6) FI	(7) FR	(8) IE	(9) LU	(10) NO	(11) SE	(12) UK
EU25 Migrant House	1066,6	3809,16		-461,78	688,76	16821,53	419,56	1852,13	3353,49	2936,72	-837,71	921,52
	[0,80]	[2,49]**		[0,54]	[0,31]	[1,43]	[0,68]	[1,71]*	[4,80]***	[2,28]**	[0,93]	[0,63]
Extra EU25 Migrant House	1914,76	53182,25	746,16	-4312,91	2147,91	-4790,31	-242,97	-4162,06	3727,97	-1210,19	-1180,55	3942,71
	[3,97]***	[1,89]*	[0,89]	[6,30]***	[3,80]***	[5,86]***	[0,45]	[3,35]***	[2,42]**	[1,16]	[0,86]	[2,81]***
Mixed Household	3582,3	-756,34	546,81	794,38	1767,21	-959,6	2080,39	-1547,57	2798,16	1340,34	-1124,11	2850,88
	[4,77]***	[0,96]	[0,55]	[1,03]	[1,44]	[1,67]*	[3,04]***	[1,66]*	[2,30]**	[1,88]*	[1,36]	[2,53]**
Male	-745,13	3165,56	-427,15	1065,55	89,7	358,94	-615,7	-143,06	2448,04	770,03	372,32	35,1
	[2,17]**	[2,94]***	[1,48]	[4,55]***	[0,33]	[1,55]	[2,15]**	[0,32]	[2,49]**	[2,21]**	[1,42]	[0,09]
Age	426,53	1790,33	580,75	-68,6	359,06	462,74	613,59	484,19	1353,97	353,94	261,45	718,99
	[10,16]***	[6,02]***	[14,47]***	[2,10]**	[8,40]***	[14,14]***	[15,80]***	[9,84]***	[13,09]***	[7,52]***	[7,09]***	[12,16]***
Age^2	-6,19	-18,93	-8,61	-0,88	-4,74	-6,24	-7,8	-5,79	-16,42	-5,28	-3,4	-9,02
	[15,31]***	[6,04]***	[21,87]***	[2,68]***	[11,64]***	[19,36]***	[20,98]***	[13,40]***	[16,38]***	[11,02]***	[9,26]***	[15,16]***
Secondary Education	-1287,93	1088,56	-1562,7	119,01	-946,06	442,78	-1958,79	-305,16	-2445,96	299,13	1127,4	-2091,79
	[4,89]***	[0,87]	[5,65]***	[0,64]	[3,34]***	[2,10]**	[8,09]***	[0,84]	[3,92]***	[0,98]	[4,27]***	[5,83]***
Tertiary Education	777,64	8448,16	-764,67	3907,77	942,27	5310,38	3915,59	8070,79	4732,94	5463,95	7431,96	2734,85
	[1,97]**	[4,41]***	[2,47]**	[14,36]***	[2,75]***	[20,76]***	[9,79]***	[12,89]***	[4,73]***	[12,51]***	[18,58]***	[4,28]***
High income (before transfers)	21429,97	25663,52	18918,46	21819,8	12044,18	23459,03	24047,17	20620,69	28332,72	25895,01	26916,31	26001,06
	[70,55]***	[17,84]***	[72,49]***	[61,39]***	[43,39]***	[66,49]***	[84,91]***	[49,60]***	[38,60]***	[69,56]***	[75,47]***	[52,86]***
Low income (b,t)	-16871,7	-18974	-18478,1	-20490,1	-8108,95	-17454,4	-17868,5	-10427	-19421,6	-24443,4	-20819,5	-13990,3
	[59,70]***	[15,54]***	[65,90]***	[93,04]***	[25,96]***	[100,75]***	[63,15]***	[27,97]***	[27,97]***	[85,52]***	[89,82]***	[40,24]***
House Owner	1189,53	508,27	1222,47	2861,41	41,94	1894,42	1625,59	2107,57	-437,21	858,08	2272,22	3274,36
	[4,18]***	[0,86]	[6,02]***	[14,73]***	[0,12]	[6,55]***	[7,04]***	[5,36]***	[0,77]	[2,69]***	[8,95]***	[11,38]***
Single	-831,65	-4001,83	1668,59	1367,93	2643,87	-1004,11	901,2	931,19	3300,16	1105,02	-6772,4	-177,57
	[1,04]	[1,36]	[2,48]**	[1,77]*	[4,70]***	[0,87]	[1,50]	[0,93]	[1,98]**	[1,33]	[10,35]***	[0,11]
Single with child	-3492,02	-932,98	-2891,15	-1215,39	-162,38	-4741,12	-639,56	-3465,21	-384,51	-3324,35	-5098,06	-6815,4
	[3,94]***	[0,46]	[4,84]***	[1,62]	[0,28]	[5,68]***	[1,09]	[3,89]***	[0,21]	[3,87]***	[8,22]***	[4,57]***
1 child	1996,15	-1141,92	1101,04	4111,16	3504,05	7504,46	2905,47	4846,24	2986,75	5566,11	4997,44	1401,33
	[2,96]***	[1,09]	[1,80]*	[5,54]***	[7,79]***	[7,35]***	[5,71]***	[3,72]***	[2,15]**	[6,88]***	[9,56]***	[1,23]
2 children	1977,94	-2895,28	377,51	5196,56	2227,72	6306,18	3055,54	2350,07	4655,82	5986,65	5490,77	7119,42
	[2,45]**	[1,89]*	[0,63]	[5,60]***	[2,74]***	[9,10]***	[3,53]***	[2,63]***	[2,70]***	[6,07]***	[6,06]***	[3,89]***
3 children	865,78	2145,81	-9692,76	-21033,4	6649,06	-1546,21	-5062,4	2141,43	4809,72	3456,86	655,18	2023,64
	[0,25]	[0,30]	[2,69]***	[1,81]*	[4,59]***	[0,20]	[0,91]	[0,95]	[0,71]	[0,44]	[0,22]	[0,23]
4 children	3039,9	-9866,17	-1642,48	7031,31		4877,22	3642,18	-5751,79	1729,83	4493,14	10389,84	39301,51
	[1,25]	[2,60]***	[0,89]	[2,23]**		[3,06]***	[1,26]	[2,16]**	[0,67]	[1,73]*	[4,27]***	[1,53]
5+ children	-10383,2	-21365,7	12003,84	17077,49		7366,83	-10458,9	1657,09		4595,18	-19369,2	
	[8,96]***	[2,39]**	[3,76]***	[6,34]***		[2,25]**	[5,74]***	[0,38]		[2,11]**	[3,41]***	
2 household members	-1792,42	5363,29	-268,71	2684,52	2069,37	-1936,33	-1383,66	-3510,82	-557,34	402,57	-4937,78	-2567,78
	[2,17]**	[1,41]	[0,40]	[3,52]***	[3,88]***	[1,74]*	[2,35]**	[3,69]***	[0,36]	[0,48]	[7,63]***	[1,62]
3 hh members	-955,3	8441,37	179,79	8479,67	999,47	-668,95	505,45	-5340,54	-1934,53	5950,91	-1711,15	-860,5
	[0,94]	[2,14]**	[0,20]	[6,82]***	[1,71]*	[0,59]	[0,59]	[4,33]***	[0,93]	[4,78]***	[1,78]*	[0,42]
4 hh members	1240,19	13095,37	2680,28	6987,47	2589,35	2354,97	3255,88	-3643,98	2440,85	6082,13	-296,96	-228,75
	[0,85]	[3,68]***	[2,08]**	[4,69]***	[3,78]***	[1,03]	[3,07]***	[2,00]**	[0,89]	[3,90]***	[0,25]	[0,07]
5 hh members	3303,67	17458,01	7616,6	22409,49	2525,62	918,3	1911,02	-3061,91	4617,81	8036,88	972,28	-582,24
	[2,09]**	[3,58]***	[2,11]**	[2,49]**	[2,55]**	[0,54]	[1,25]	[1,41]	[1,46]	[3,24]***	[0,49]	[0,20]
6 hh members	4716,7	14582,57	7713,94	12487,33	177,44	7326,38	9225,74	-2528,67	2610,26	14817,11	8534,98	8,48
	[2,80]***	[3,94]***	[5,40]***	[6,98]***	[0,09]	[3,01]***	[6,55]***	[1,20]	[0,81]	[7,87]***	[5,21]***	[0,00]
7 hh members	11772,61	29546,97	14390,23	15402,6	1544,96	13307,66	11970,72	-881,89	9027,58	20627,51	13431,85	268,97
	[5,86]***	[7,00]***	[8,50]***	[4,65]***	[0,34]	[5,06]***	[6,83]***	[0,38]	[2,50]**	[8,84]***	[6,11]***	[0,08]
Densly populated area	47,15	-69,64	632,97	1463,59	165,91	1459,06	-189,37	93,19	-144,45	1869,85	384,01	-444,08
	[0,15]	[0,11]	[2,98]***	[6,21]***	[0,63]	[4,61]***	[0,74]	[0,16]	[0,23]	[5,81]***	[0,73]	[1,15]
Thinly populated area	-988,71	-762,42	-526,54	-1177,08	-155,36	-767,59	-329,98	-1598,93	-1112,45	31,44	-2751,59	2706,81
	[3,56]***	[0,86]	[2,01]**	[5,84]***	[0,57]	[3,71]***	[1,13]	[3,80]***	[1,48]	[0,10]	[7,46]***	[1,15]
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country dummies												
Regional dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	3128,14	-34368,2	4562,59	14414,69	-6086,82	1023,32	-4283,63	-11096	-26115,7	4811,71	12339,69	-9550,8
	[2,32]**	[5,34]***	[2,83]***	[13,84]***	[3,98]***	[0,69]	[2,71]***	[6,32]***	[9,07]***	[3,64]***	[12,16]***	[4,26]***
Observations	17475	10823	30173	21096	12146	37267	32687	18815	12663	20177	20360	20030
R-squared	0,66	0,15	0,65	0,67	0,6	0,59	0,6	0,45	0,62	0,63	0,65	0,41

Table A2
The probability of receiving contributory-benefits: individual probit regressions

	(1) AT	(2) BE	(3) DE	(4) DK	(5) ES	(6) FI	(7) FR	(8) GR	(9) IE	(10) IT	(11) LU	(12) NO	(13) PT	(14) SE	(15) UK
EU25 Migrant	-0,082	-0,052		0,010	-0,032	-0,110	-0,063	-0,046	-0,125	-0,107	-0,040	-0,038	-0,123	-0,180	0,003
	[3.21]***	[4.03]***		[0.31]	[1.81]*	[3.01]***	[3.72]***	[1.39]	[8.44]***	[3.53]***	[4.15]***	[1.45]	[2.63]***	[7.81]***	[0.08]
Extra EU25 Migrant	-0,011	-0,200	0,048	0,074	-0,096	0,020	-0,109	-0,081	-0,180	-0,007	-0,103	-0,201	-0,116	-0,245	-0,161
	[0.68]	[12.39]***	[2.37]**	[3.81]***	[5.60]***	[0.76]	[7.29]***	[4.84]***	[8.13]***	[0.52]	[5.61]***	[6.79]***	[4.02]***	[11.65]***	[8.21]***
Male	0,201	0,197	0,130	-0,002	0,174	0,014	0,110	0,159	0,122	0,159	0,188	0,033	0,100	-0,003	0,106
	[27.65]***	[28.32]***	[22.10]***	[0.26]	[42.13]***	[2.57]**	[20.49]***	[24.64]***	[18.14]***	[41.10]***	[19.18]***	[5.23]***	[14.80]***	[0.49]	[14.38]***
Age	-0,003	0,020	-0,018	0,010	-0,002	0,012	-0,002	-0,003	0,004	-0,024	-0,007	0,014	-0,006	0,019	-0,034
	[2.44]**	[19.27]***	[15.54]***	[7.38]***	[3.67]***	[10.64]***	[1.87]*	[3.22]***	[3.73]***	[31.60]***	[3.46]***	[12.32]***	[4.91]***	[19.21]***	[19.06]***
Age^2	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,001
	[14.95]***	[7.44]***	[33.25]***	[4.20]***	[23.44]***	[6.68]***	[17.47]***	[20.45]***	[8.42]***	[51.51]***	[11.30]***	[1.60]	[18.56]***	[5.79]***	[30.68]***
Secondary Education	0,018	0,004	0,036	-0,017	-0,018	0,027	0,045	0,020	-0,037	-0,048	-0,016	-0,027	-0,031	0,077	-0,010
	[2.28]**	[0.59]	[4.24]***	[1.99]**	[3.50]***	[3.86]***	[7.58]***	[2.85]***	[4.92]***	[11.41]***	[1.72]*	[3.10]***	[2.78]***	[10.17]***	[1.21]
Tertiary Education	-0,006	0,012	-0,009	-0,025	0,000	-0,017	0,056	0,061	-0,034	-0,061	-0,035	-0,097	0,065	0,030	-0,002
	[0.55]	[1.40]	[0.92]	[2.53]**	[0.01]	[2.12]**	[7.04]***	[6.32]***	[3.82]***	[9.01]***	[2.69]***	[9.75]***	[4.79]***	[3.37]***	[0.24]
High income (before transfers)	-0,261	-0,348	-0,249	-0,419	-0,234	-0,428	-0,354	-0,261	-0,218	-0,196	-0,191	-0,384	-0,148	-0,316	-0,127
	[26.37]***	[33.35]***	[21.61]***	[42.51]***	[36.23]***	[53.14]***	[48.99]***	[31.25]***	[21.55]***	[34.62]***	[14.10]***	[43.58]***	[13.79]***	[40.12]***	[12.80]***
Low income (b.t)	0,239	0,291	0,245	0,150	0,076	0,162	0,105	-0,012	0,107	0,024	0,228	0,146	0,247	0,201	0,306
	[26.61]***	[31.69]***	[25.68]***	[14.15]***	[13.45]***	[19.41]***	[15.11]***	[1.45]	[11.50]***	[4.46]***	[17.62]***	[16.22]***	[27.87]***	[25.16]***	[34.36]***
House Owner	-0,064	-0,108	-0,095	-0,045	-0,019	-0,028	-0,037	0,012	-0,104	-0,001	0,008	0,029	-0,025	0,021	-0,100
	[7.50]***	[13.64]***	[15.27]***	[5.19]***	[2.54]**	[3.75]***	[5.90]***	[1.46]	[10.68]***	[0.21]	[0.65]	[2.77]***	[2.91]***	[3.14]***	[11.27]***
Single	0,151	0,020	0,041	-0,192	0,082	0,075	-0,047	0,181	0,197	0,056	0,104	-0,011	0,147	-0,313	0,102
	[7.33]***	[1.10]	[2.34]**	[7.96]***	[7.91]***	[4.30]***	[3.09]***	[9.85]***	[10.15]***	[5.21]***	[3.71]***	[0.60]	[6.66]***	[16.99]***	[4.45]***
Single with child	0,142	0,080	0,114	-0,040	0,198	0,106	-0,081	0,334	-0,013	0,098	0,300	0,067	0,206	-0,022	0,043
	[6.68]***	[5.18]***	[8.17]***	[1.89]*	[11.73]***	[6.86]***	[5.78]***	[12.29]***	[0.71]	[8.02]***	[9.80]***	[3.84]***	[8.68]***	[1.44]	[1.95]*
1 child	-0,037	-0,048	-0,006	-0,078	-0,023	-0,128	-0,065	-0,043	-0,050	-0,102	-0,078	-0,104	-0,072	-0,076	-0,073
	[2.24]**	[3.01]***	[0.34]	[4.40]***	[2.50]**	[9.52]***	[5.40]***	[3.24]***	[3.68]***	[12.35]***	[4.67]***	[7.80]***	[5.19]***	[5.64]***	[3.54]***
2 children	-0,057	-0,074	-0,061	-0,094	-0,020	-0,083	-0,078	-0,024	-0,091	-0,089	-0,054	-0,096	-0,074	-0,046	-0,099
	[3.79]***	[4.36]***	[5.49]***	[6.05]***	[2.61]***	[6.88]***	[6.86]***	[1.94]*	[7.96]***	[10.29]***	[3.28]***	[7.96]***	[5.85]***	[3.92]***	[6.81]***
3 children		-0,106	0,141	0,051	-0,071	0,244	-0,176		-0,215	0,035	0,067	-0,118		0,045	0,065
		[1.09]	[0.72]	[0.40]	[0.83]	[2.11]**	[1.32]		[3.65]***	[0.20]	[0.43]	[1.09]		[0.62]	[0.39]
5 children		-0,065	0,433		0,065	-0,174	0,041		-0,147	-0,156		-0,300		-0,228	
		[0.90]	[3.78]***		[0.44]	[1.76]*	[0.33]		[2.44]**	[1.93]*		[2.58]***		[3.12]***	
2 household members	-0,072	-0,169	-0,110	-0,196	-0,104	-0,021	-0,158	-0,021	-0,012	-0,040	-0,051	-0,113	-0,037	-0,239	-0,008
	[3.52]***	[9.46]***	[5.94]***	[7.80]***	[11.51]***	[1.10]	[10.20]***	[1.23]	[0.63]	[3.46]***	[1.92]*	[5.66]***	[1.59]	[12.39]***	[0.34]
3 hh members	-0,102	-0,202	-0,195	-0,311	-0,135	-0,051	-0,226	-0,032	-0,054	-0,064	-0,049	-0,157	-0,070	-0,384	-0,065
	[4.38]***	[10.77]***	[8.66]***	[10.28]***	[15.03]***	[2.16]**	[13.38]***	[1.69]*	[2.35]**	[4.88]***	[1.63]	[6.54]***	[2.89]***	[16.44]***	[2.21]**
4 hh members	-0,137	-0,293	-0,239	-0,371	-0,175	-0,062	-0,296	-0,031	-0,021	-0,082	-0,110	-0,165	-0,085	-0,468	-0,031
	[4.40]***	[10.53]***	[7.91]***	[9.12]***	[15.67]***	[2.05]**	[12.64]***	[1.36]	[0.73]	[5.28]***	[3.07]***	[5.46]***	[3.03]***	[15.29]***	[0.77]
5 hh members	-0,138	-0,243	-0,218	-0,351	-0,126	-0,120	-0,243	-0,017	-0,014	-0,095	-0,084	-0,156	-0,080	-0,435	-0,077
	[4.54]***	[9.20]***	[4.71]***	[6.35]***	[10.25]***	[1.78]*	[9.46]***	[0.68]	[0.46]	[5.37]***	[2.19]**	[4.05]***	[2.68]***	[13.03]***	[1.47]
6 hh members	-0,135	-0,286	-0,276	-0,427	-0,182	-0,114	-0,311	-0,046	-0,058	-0,101	-0,119	-0,224	-0,123	-0,526	-0,051
	[4.16]***	[12.43]***	[9.55]***	[10.69]***	[17.23]***	[3.41]***	[14.51]***	[1.85]*	[1.83]*	[5.82]***	[3.53]***	[6.97]***	[4.29]***	[17.81]***	[1.22]
7 hh members	-0,177	-0,300	-0,301	-0,434	-0,198	-0,170	-0,318	-0,054	-0,051	-0,128	-0,124	-0,253	-0,145	-0,550	-0,074
	[5.38]***	[13.13]***	[10.68]***	[11.08]***	[18.41]***	[4.53]***	[14.97]***	[2.17]**	[1.58]	[7.25]***	[3.62]***	[7.79]***	[5.17]***	[21.17]***	[1.75]*
Densly populated area	-0,017	0,007	-0,044	-0,058	-0,023	-0,027	-0,014	-0,020	0,000	-0,038	0,034	-0,040	0,029	-0,021	0,026
	[1.86]*	[1.04]	[6.80]***	[6.69]***	[4.80]***	[2.89]***	[2.21]**	[1.21]	[0.00]	[9.42]***	[3.48]***	[4.68]***	[3.70]***	[2.15]**	[3.07]***
Thinly populated area	0,008	-0,045	0,031	0,044	0,017	0,014	-0,007	0,003	-0,030	0,022	-0,013	-0,010	0,008	0,003	-0,040
	[0.96]	[3.04]***	[3.73]***	[5.48]***	[3.42]***	[1.78]*	[0.97]	[0.19]	[3.85]***	[4.76]***	[1.18]	[1.18]	[1.08]	[0.38]	[2.46]**
Year dummies	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**
Country dummies															
Regional dummies	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**
Observations	41843	40460	75937	48740	119170	90745	76103	51344	46340	192440	30476	47259	43240	47573	48862
Pseudo R-squared	0,47	0,46	0,45	0,37	0,40	0,42	0,45	0,51	0,30	0,38	0,63	0,35	0,50	0,28	0,62

Notes: z statistics in brackets; * significant at 10percent; ** significant at 5percent; *** significant at 1percent;+ the EU-SILC does not distinguish between EU-25 and extra EU-25 migrants;++ migrants identified by country of birth; the EU-SILC does not distinguish between EU-25 and extra EU-25 migrants. Low income variable defined as equivalized income lower than 60 percent of median income; High income variable defined as equivailzed income greater than 4/3 of median income.

Table A3
The probability of receiving non-contributory allowances: household probit regressions

	(1) AT	(2) BE	(3) DE	(4) DK	(5) ES	(6) FI	(7) FR	(8) GR	(9) IE	(10) IT	(11) LU	(12) NO	(13) PT	(14) SE	(15) UK
EU25 Migrant House	-0,023	-0,046		0,005	-0,054	-0,141	0,034	-0,055	-0,168	-0,154	0,053	-0,150	-0,177	-0,184	-0,069
	[0.53]	[2.37]**		[0.06]	[3.76]***	[2.00]**	[1.35]	[1.66]*	[5.21]***	[1.68]*	[2.62]***	[3.84]***	[1.50]	[3.90]***	[0.75]
Extra EU25 Migrant House	-0,073	0,097	0,179	0,067	-0,018	0,162	0,295	-0,059	-0,038	-0,017	0,090	0,106	-0,205	0,035	-0,245
	[3.33]***	[2.90]***	[3.73]***	[1.42]	[2.17]**	[2.62]***	[10.13]***	[3.84]***	[0.80]	[1.19]	[1.49]	[1.81]*	[6.15]***	[0.70]	[9.61]***
Mixed Household	0,002	0,037	0,032	0,060	0,004	-0,005	0,130	0,009	0,069	0,058	0,025	0,101	0,123	0,059	-0,020
	[0.07]	[2.10]**	[1.29]	[2.61]***	[0.29]	[0.14]	[6.41]***	[0.42]	[2.96]***	[2.45]**	[0.96]	[3.93]***	[2.82]***	[2.38]**	[0.78]
Male	0,004	-0,018	-0,004	-0,100	-0,004	-0,035	-0,021	-0,052	-0,017	0,087	-0,048	-0,088	0,004	-0,138	-0,002
	[0.25]	[1.49]	[0.25]	[6.92]***	[0.87]	[2.96]***	[2.11]**	[6.04]***	[1.34]	[14.34]***	[1.78]*	[5.36]***	[0.24]	[10.25]***	[0.11]
Age	0,027	0,039	0,042	-0,021	0,002	-0,001	0,003	-0,010	-0,024	-0,007	0,048	0,007	0,022	-0,016	0,028
	[9.45]***	[9.66]***	[14.09]***	[7.96]***	[2.97]***	[0.30]	[1.86]*	[8.53]***	[12.88]***	[6.95]***	[8.96]***	[2.17]**	[7.72]***	[7.81]***	[14.49]***
Age^2	0,000	-0,001	-0,001	0,000	0,000	0,000	0,000	0,000	0,000	0,000	-0,001	0,000	0,000	0,000	0,000
	[13.15]***	[11.44]***	[18.90]***	[3.79]***	[7.11]***	[7.86]***	[10.86]***	[8.48]***	[13.73]***	[4.61]***	[10.61]***	[7.28]***	[12.86]***	[0.57]	[19.98]***
Secondary Education	0,037	0,016	-0,063	0,003	0,006	-0,023	-0,033	-0,043	0,017	-0,070	-0,038	-0,056	-0,012	-0,085	-0,067
	[2.60]***	[1.58]	[3.71]***	[0.22]	[1.60]	[2.13]**	[3.99]***	[6.10]***	[1.48]	[14.48]***	[2.08]**	[3.29]***	[0.72]	[6.30]***	[6.64]***
Tertiary Education	0,103	0,031	-0,031	0,065	0,017	0,017	-0,034	-0,022	-0,020	-0,096	-0,023	-0,002	-0,098	-0,022	-0,068
	[6.22]***	[2.89]***	[1.79]*	[4.58]***	[4.62]***	[1.46]	[3.29]***	[2.66]***	[1.71]*	[13.29]***	[1.07]	[0.09]	[6.24]***	[1.52]	[6.26]***
High income (before	-0,190	-0,048	-0,256	-0,178	-0,018	-0,190	-0,207	-0,027	-0,148	-0,128	-0,137	-0,195	-0,051	-0,203	-0,131
	[19.64]***	[5.52]***	[29.44]***	[16.03]***	[5.36]***	[20.03]***	[24.11]***	[3.71]***	[12.58]***	[24.62]***	[7.51]***	[20.42]***	[4.31]***	[19.94]***	[12.47]***
Low income (b.t)	0,000	0,009	0,036	0,157	0,018	0,239	0,115	0,052	0,156	-0,025	0,094	0,223	-0,043	0,171	0,190
	[0.02]	[0.72]	[2.88]***	[10.85]***	[4.43]***	[20.29]***	[10.98]***	[6.25]***	[11.48]***	[3.95]***	[3.31]***	[15.46]***	[3.02]***	[12.53]***	[14.18]***
House Owner	-0,024	0,025	-0,015	-0,265	0,001	-0,241	-0,222	-0,026	0,020	-0,052	0,034	-0,086	0,111	-0,064	-0,297
	[2.19]**	[2.44]**	[1.78]*	[22.35]***	[0.18]	[20.43]***	[27.17]***	[2.92]***	[1.47]	[8.23]***	[1.55]	[4.36]***	[8.45]***	[5.74]***	[26.61]***
Single	-0,335	-0,262	-0,047	0,041	-0,037	-0,066	-0,212	-0,082	-0,453	-0,370	-0,317	-0,269	-0,367	0,016	-0,417
	[11.50]***	[12.14]***	[1.37]	[0.30]	[6.04]***	[1.72]*	[9.27]***	[6.02]***	[14.13]***	[34.29]***	[6.09]***	[5.47]***	[13.99]***	[0.23]	[13.41]***
Single with child	0,402	0,367	0,593	0,430	0,030	0,440	0,186	-0,012	0,121	-0,007	0,522	0,381	0,041	0,277	0,218
	[7.44]***	[8.26]***	[9.52]***	[3.90]***	[2.87]***	[9.58]***	[6.81]***	[0.47]	[2.62]***	[0.38]	[8.19]***	[6.72]***	[0.96]	[4.26]***	[4.10]***
1 child	0,545	0,635	0,441	0,342	0,055	0,370	0,346	0,014	0,287	0,133	0,449	0,543	0,328	0,450	0,499
	[16.18]***	[15.50]***	[8.59]***	[4.00]***	[7.34]***	[14.11]***	[16.56]***	[0.99]	[17.98]***	[10.89]***	[7.52]***	[10.49]***	[12.31]***	[8.74]***	[15.26]***
2 children	0,649	0,542	0,404	0,353	0,058	0,316	0,394	0,022	0,283	0,193	0,456	0,463	0,282	0,420	0,463
	[14.72]***	[12.29]***	[8.07]***	[4.28]***	[7.23]***	[12.74]***	[16.08]***	[1.35]	[16.18]***	[13.42]***	[8.92]***	[10.90]***	[8.94]***	[9.19]***	[16.10]***
3 children					0,241										
					[1.27]										
5 children															
2 household members	-0,082	-0,014	0,238	0,268	0,013	0,166	-0,127	-0,051	-0,206	-0,135	0,037	0,108	-0,183	0,216	-0,274
	[2.33]**	[0.52]	[6.58]***	[1.97]**	[2.12]**	[4.24]***	[5.28]***	[3.13]***	[7.11]***	[9.04]***	[0.60]	[2.10]**	[4.55]***	[3.18]***	[7.67]***
3 hh members	-0,092	0,014	0,531	0,462	0,010	0,325	-0,137	-0,053	-0,406	-0,150	0,093	0,216	-0,222	0,488	-0,290
	[2.40]**	[0.43]	[12.57]***	[3.82]***	[1.36]	[7.25]***	[4.59]***	[3.10]***	[10.01]***	[9.86]***	[1.30]	[3.45]***	[5.88]***	[6.84]***	[7.65]***
4 hh members	-0,014	0,070	0,515	0,587	0,029	0,432	-0,127	-0,025	-0,345	-0,161	0,235	0,350	-0,228	0,557	-0,380
	[0.25]	[1.58]	[8.02]***	[2.69]***	[3.51]***	[6.46]***	[3.05]***	[1.05]	[6.50]***	[8.00]***	[2.33]**	[3.67]***	[4.99]***	[4.82]***	[6.21]***
5 hh members	0,046	0,226	0,575		0,011	0,491	-0,014	0,150	-0,374	-0,131	0,229	0,345	-0,197	0,503	-0,280
	[0.71]	[2.58]***	[5.67]***		[0.84]	[8.14]***	[0.22]	[4.09]***	[5.80]***	[5.66]***	[1.90]*	[2.92]***	[4.24]***	[4.89]***	[3.66]***
6 hh members	-0,072	0,122	0,677	0,537	0,036	0,525	-0,123	-0,058	-0,554	-0,199	0,253	0,500	-0,210	0,576	-0,336
	[1.26]	[2.36]**	[12.90]***	[3.80]***	[3.37]***	[9.42]***	[2.66]***	[2.42]**	[9.02]***	[10.54]***	[2.35]**	[5.82]***	[4.66]***	[7.06]***	[6.07]***
7 hh members	0,120	0,425	0,680	0,516	0,078	0,548	0,078	-0,003	-0,453	-0,180	0,479	0,564	-0,173	0,566	-0,304
	[1.79]*	[6.89]***	[14.88]***	[5.00]***	[6.05]***	[11.75]***	[1.45]	[0.12]	[7.07]***	[8.94]***	[4.77]***	[7.54]***	[3.58]***	[9.33]***	[5.22]***
Densly populated area	0,000	-0,005	-0,024	-0,026	0,001	-0,015	-0,019	-0,001	0,011	-0,043	-0,003	-0,011	0,036	-0,017	-0,003
	[0.04]	[0.59]	[2.66]***	[1.95]*	[0.33]	[1.03]	[2.31]**	[0.10]	[1.00]	[8.81]***	[0.17]	[0.81]	[3.11]***	[1.08]	[0.32]
Thinly populated area	0,02	-0,03	0,02	-0,04	0,00	0,02	-0,01	0,00	0,01	0,02	0,07	0,01	0,00	-0,02	-0,02
	[1.83]*	[1.43]	[1.39]	[3.44]***	[1.00]	[1.48]	[1.21]	[0.17]	[0.63]	[3.03]***	[3.40]***	[0.67]	[0.00]	[1.14]	[0.95]
Year dummies	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**
Country dummies															
Regional dummies	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**
Observations	17470	17744	30168	21054	44184	37252	32679	19620	18797	75098	12661	20164	15208	20326	20028
Pseudo R-square	0,34	0,40	0,40	0,24	0,09	0,31	0,25	0,05	0,21	0,14	0,34	0,37	0,31	0,30	0,24

Notes: z statistics in brackets; * significant at 10percent; ** significant at 5percent; *** significant at 1percent;+ the EU-SILC does not distinguish between EU-25 and extra EU-25 migrants;++ migrants identified by country of birth; the EU-SILC does not distinguish between EU-25 and extra EU-25 migrants. Low income variable defined as equivalized income lower than 60 percent of median income; High income variable defined as equivailzed income greater than 4/3 of median income.

ANNEX B: THE MIGRATION POLICY INDEX

The fRDB index on migration collects information on twelve EU15 countries, from 1994 to 2005, along seven different dimensions:

1. The number of certificates and procedures needed to be admitted as a foreigner, whatever the motivations may be.
2. The number of certification or procedures required to legally reside in the territory. This differs from the requirements for entering the country as holding a valid document is typically not sufficient.
3. The number of years required to obtain a permanent residence permit.
4. The number of administrations involved
5. The number of years of stay required to obtain a first residence permit.
6. The existence of a quota system
7. Regulations as to asylum policy (developed from Hatton, 2004).

The 7 dimensions were initially expressed either in different units or in an ordinal scale. To make those measures comparable, we converted them in cardinal scores and we normalized them to a range from 0 to 6, with higher score representing stricter regulation.

As a last step, we computed an overall summary indicator for each country, averaging the values of the seven sub-indexes.

The indicator of reform activity for highly skilled workers assumes three values: "-1" if the reform is permissive, "0" if neutral, and "1" if stringent.

We define a reform as ***permissive*** if:

- it lowers requirements for entry and to obtain residence or work permits
- it introduces temporary permits
- it reduces the number of years to obtain permanent residence permit
- it helps the integration of migrants into the community

On the other hand, a reform is considered as ***restrictive*** if:

- it introduces a quota system to entry
- it increases requirements for entry and to obtain residence or work permits
- it raises the number of years to obtain permanent residence permit and it introduces residence constraints

A reform is *neutral* if it doesn't affect the current legislation concerning immigration.

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