

**Go West?
Assessing the willingness
to move from Central
and Eastern European
Countries**

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FLOWENLA DISCUSSION PAPER








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Hamburgisches Welt-Wirtschafts-Archiv (HWWA)
Hamburg Institute of International Economics
Neuer Jungfernstieg 21 - 20347 Hamburg, Germany
Telefon: 040/428 34 355
Telefax: 040/428 34 451
e-mail: hwwa@hwwa.de
Internet: <http://www.hwwa.de>

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FLOWENLA Discussion Paper

Go West?

Assessing the willingness to move from Central and Eastern European Countries

Stephen Drinkwater *

FLOWENLA Discussion Paper 5
<http://www.eastwestmigration.org>

* Department of Economics, University of Surrey, UK

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ABSTRACT

This paper uses cross national survey data to examine the willingness to move of residents from several Central and Eastern European Countries (CEECs). This analysis is important given that some of these countries are expected to be part of the forthcoming enlargement of the EU, and hence individuals from these countries will subsequently be allowed to move freely between member states. Previous studies have used aggregate data to forecast flows from the East following enlargement but these are thought to suffer from methodological problems. However in this paper, the reasons why individuals may not want to move are emphasised, and it is argued that these factors may outweigh the possible high rewards in the West for many individuals. It is found that although individuals in some of the CEECs display a relatively high willingness to move, overall the willingness to move country is lower in the CEECs than it is in the EU. Furthermore, the availability of microdata enables us to establish the characteristics of those individuals who are most willing to move and the evidence suggests that the most qualified individuals have the highest willingness to move.

Keywords: Migration, EU enlargement, Labour immobility

JEL-Classification: F22, J61, P23

Stephen Drinkwater
Department of Economics
University of Surrey,
Guildford
Surrey GU2 7XH, UK
E-mail: s.drinkwater@surrey.ac.uk

1. Introduction

One of the fundamental principles of the European Union (EU) is the free movement of workers across the borders of its member states. The impending accession of up to ten countries is therefore expected to have significant implications for the movement of labour within the enlarged EU and hence on domestic labour markets. However, the process of enlargement has been by no means smooth, with some member states being reluctant to increase the size of the EU as well as some objections from the candidate countries themselves over the terms of accession. One of the most contentious issues has been the prospect of increased migration from the acceding Central and Eastern European Countries (CEECs).¹ Germany and Austria, the countries most likely to be affected by the potential influx of migrants from the CEECs, have requested a seven year delay before East European workers are allowed to work in the EU, a view that the European Commission appears to be sympathetic with. Such a 'transitional period' would be similar to the arrangements that Spain and Portugal faced when entering the EU in 1985.

Given that differences in *per capita* GDP are commonly thought to be a key determinant of the size and direction of migration flows, one would expect there to be significant movements from the relatively poor CEECs to current member states. Many of the studies that forecast potential migration flows following enlargement use GDP differences as an explanatory variable and typically use the previous enlargements as a benchmark with which to base their projections on. Layard *et al.* (1992) predicted that at least 3 per cent of the Eastern population would migrate in the

¹ Sinn (2002) discusses some of the possible adverse consequences of enlargement, focusing particularly on migration, on the welfare systems of current EU member states.

15 years following a possible enlargement. Bauer and Zimmermann (1999) forecast that migration flows would be slightly smaller. In general they expect that long-run emigration rates will be in the order of 2-3 per cent of the population of the sending country, depending on the assumptions that are made. Boeri and Brucker (2000) forecast the inflow of migrants from ten CEECs to Germany and the rest of the EU up to 2030. Their model predicts that the stock of residents from the CEEC-10 to the EU-15 will increase from under 1 million in 1998 to almost 4 million by 2030.

Fertig and Schmidt (2000) criticise the approach of predicting future migration flows by fitting *ad hoc* specifications to historical data and extrapolating from these estimates since it is assumed that the behavioural relationships are stable over time.² Fertig and Schmidt (2000) emphasise the role of demographics in the migration process since demographics can be predicted fairly accurately. They predict fairly small inflows into Germany and Austria from the CEECs if these countries were to share the same emigration behaviour as previous labour exporting countries in the post-war period. Borjas (1999) suggests that post-enlargement migration flows from the CEECs to the existing EU are also likely to be relatively small. The explanation he gives for this is that income differentials between the two blocs are relatively small when compared to the differences that exist between the countries from which migrants typically move to the US and the US itself. He also notes that migration may be restricted by the cultural differences that exist between European countries and because of the increased amounts of capital, goods and services that should flow to the acceding countries following enlargement, which should create a greater

² Sinn (2002) provides several explanations why migration flows following the accession of the CEECs are expected to be different to those that occurred when Spain and Portugal were admitted.

convergence of economies. In this paper, the reasons why individuals in general, and from the CEECs in particular, may be relatively immobile are explored.

Borjas (1999) further notes that it would be useful to establish which type of individuals are most likely to migrate from the candidate countries, particularly in terms of their skill composition. The reason for this is because the skill content of migrants can have important consequences for both the sending and receiving countries i.e. brain drain/gain considerations. Given that this information cannot be known until enlargement has actually taken place it is therefore important to ascertain the likely skill composition of migrants from the CEECs. This paper attempts to fill this void by estimating econometric models that identify the characteristics of individuals, with an emphasis on their skill levels, with the highest willingness to move (WTM).

2. Who is likely to move and why?

There is very little microeconomic evidence on the characteristics of international migrants, especially when compared to the number of studies that have been undertaken on internal migration.³ Most of the studies that do exist tend to focus on the movement from developing to developed countries.

As mentioned previously, the skill composition of immigrants is of prime importance. However, it is not always found that years of schooling or other measures of skills have a positive influence on the probability of international migration.⁴ Some of these

³ Lalonde and Topel (1997) even comment “we are not aware of any work that directly estimates the determinants of international migration decisions” (p. 807). See Greenwood (1997) for a recent review of internal migration in developed countries.

⁴ See Bauer and Zimmermann (1998) for a review of the characteristics of international migrants.

findings can be explained by various country specific factors e.g. apartheid in South Africa which reduced the returns to skilled black migrants and because the market for Mexican migrants is typically of a low skilled nature (in the US), which means that migration is not such an attractive option for highly skilled individuals.⁵ Funkhauser (1992) finds that individuals from El Salvador with 6 or less years of education were the least likely to migrate abroad but individuals with 7-9 or 10-12 years of education were significantly more likely to emigrate than those with 13 or more years of education. Given the lack of information on the characteristics of international migrants, it is useful to provide a more formal framework of analysis within which to examine the migration potential from the CEECs.

The decision to migrate is often represented within a human capital framework since mobility can be viewed as an investment decision, in which costs are borne in the initial period(s) and returns accrue over time. The costs of migration were explicitly incorporated into the potential migrant's decision in a model initially developed by Sjaastad (1962):

$$V_{EW}(t) = \int_{t_0}^T e^{-\rho t} (W_W(t) - W_E(t) - P_{EW}(t)) dt - C_{EW}(t_0) , \quad (1)$$

where V_{EW} is the present value of the net benefit of moving from East to West. The W 's are the expected levels of income in the two blocs and ρ the subjective rate of time preference or discount rate. The costs of migrating from East to West are split into pecuniary costs (C_{EW}) and non-pecuniary costs (P_{EW}). C_{EW} consist of the direct costs of migration, e.g. moving possessions to a new location, whilst P_{EW} are often

⁵ See Lucas (1985) for an analysis of the Batswana to South Africa and Stark and Taylor (1991) for a study of Mexicans to the US.

referred to as the indirect or psychic costs of migration since they involve the costs associated with moving away from friends, family and familiar surroundings. Time (t) runs from the current period (t_0) to the period that migrants stop working in the West (T) - this could be retirement or a shorter period of residence. It is assumed here that C_{EW} are only incurred in the initial period but P_{EW} can persist (but probably decay) over time. Evidence of this is provided by Vanderkamp (1971) who suggests that one of the main reasons for return migration is that the psychic costs were higher than initially expected. In this framework the individual will migrate if $V_{EW} > 0$ and if more than one possible destination offers a positive net benefit then they will choose the location that offers the highest net benefits.⁶

Following Herzog and Schlottmann (1983), the basic human capital specification shown in (1) can be amended to include search costs:

$$V_{EW}(t) = \int_{t_0}^T e^{-\rho t} (W_W(t) - W_E(t) - P_{EW}(t)) dt - C_{EW}(t_0) - S_W(t_0), \quad (2)$$

where S_W are the search costs of associated with finding a job match in the West and are assumed, for simplification, to be incurred only in period t_0 . S_W include the costs of establishing where job opportunities exist and then evaluating how good they are. Herzog and Schlottmann (1983) hypothesise that the costs of migration should fall for subsequent moves but their empirical estimates suggest that the ‘information effect’ is likely to have only a minimal influence on the extent of remigration in the US.

⁶ Lam (2002) incorporates political factors into an economic model that is used to analyse the migration decision of individuals living in Hong Kong.

The human capital model has been used to explain the selective nature of the migration process. Firstly, migrants tend to be young since they have the greatest potential returns from the human capital investment because they have a longer period over which they can accrue the benefits and pay back the pecuniary costs. One might also expect P_{EW} to be lower for young people since they are likely to have looser ties with their communities because more is invested in friends and family during the process of ageing (Schwartz, 1973).

Education (and skill level) is also an important determinant of migration. There are a number of reasons for this. Educated individuals should be faced with a greater range of job opportunities and the returns to education are expected to be higher if they currently reside in a low wage country. However, Borjas (1999) reports that there are only relatively small differences in the rates of return to skills between the EU and the CEECs, suggesting that the skill composition of migrants would mainly be determined by the costs of migration. Given that skilled workers are more likely to have the resources to finance such a move, this implies that migrants are likely to be of the higher skilled variety. Furthermore, since qualified individuals are likely to have studied away from home e.g. at a school or university outside their locality, they may have already severed some of their ties - thereby reducing P_{EW} and making them more prepared to migrate. S_w should also be lower for educated workers because they are typically more adept at whittling down the range of possible options and evaluating which ones are best.

All types of costs should increase with distance. C_{EW} will almost certainly be higher the further the move is and acquiring information is also more costly the further away

the employment opportunities are. Long distance migration also tends to increase P_{EW} because migrants are further away from their friends and family. Grant and Vanderkamp (1976) found that Canadian inter-regional migrants required additional income greatly in excess of the pecuniary marginal cost of migrating in order to induce them to migrate an additional mile. This also explains why individuals often engage in long distance commuting rather than bearing the full costs of migration. There is also evidence to suggest that the adverse effects of distance on migration are diminished for educated individuals (Schwartz, 1973).

In addition to the physical distance of a move, cultural and language differences between countries are also important but migration networks should help overcome these problems as well as reducing the costs of migration (Carrington *et al.*, 1996). For example, one would expect S_w to decrease with the number of compatriots in the West because existing migrants can send information on the labour and housing markets to potential migrants in the East. P_{EW} should also be lower if there is a large stock of migrants in the destination region as the costs of adapting to a new environment are likely to be reduced. Bauer *et al.* (2000) provide some empirical evidence in support of this idea. Carrington *et al.* (1996) also give some specific examples of how a migrant community in the destination region can lower the financial costs of a move for potential migrants.

There are other reasons to believe why individuals are likely to be relatively immobile. Gordon and Molho (1995) build on the psychic costs argument and focus on the duration dependence of staying in a particular location. Similarly, Fischer *et al.* (2000) stress that the accumulated work and leisure oriented insider advantages of a

particular location can make an individual immobile. Whereas the option theory of migration (Burda, 1995) is based on the idea that individuals may not migrate immediately in response to observed wage differentials because of uncertainty over future wage levels and this may inhibit migration. O'Connell (1997) extends this analysis to show how uncertainty surrounding the evolution of future conditions in both the origin and destination regions may deter migration and how it is optimal for the potential migrant to postpone migration until some or all of the uncertainty can be removed. These arguments may be particularly relevant to the EU following enlargement.

3. Data

The data used in this paper are taken from the International Social Survey Programme (ISSP) for 1995. This is an annual cross national survey that collects information on attitudes towards a particular issue. In 1995, a range of questions was asked on national identity, including some on attitudes towards migration and immigration.⁷ The dataset also contains some details of the personal characteristics of the respondents. As well as surveying the attitudes of individuals from Western countries, the ISSP is carried out in several of the CEECs. Of these, Hungary, Slovenia, Poland, the Czech Republic, Latvia and Slovakia are expected to be in the first round of enlargement in 2004. Bulgaria is also in the dataset but is unlikely to enter the EU during the first wave of enlargement. The ISSP is also conducted in Russia and East Germany.

⁷ The 1995 ISSP has been used by Bauer and Zimmermann (2000) and Bauer *et al.* (2001) to examine the attitudes of natives towards immigrants and immigration.

Of particular relevance to this paper are the questions which ask respondents how willing they are to move country to improve their working or living conditions, how close they feel to their country and how important they think it is to stay in their own country for all of their life.⁸ Table 1 summarises this information by country. Statistics are reported for all 23 countries which participated in the 1995 ISSP, for comparative purposes. The countries are ranked according to their average WTM and the data relates to the answers given by respondents aged between 16 and 55.⁹

It can be seen from Table 1 that there are some clear differences in the responses given by individuals from each of the CEECs. Hungary, Czech Republic, Latvia, Russia and Slovenia all have a relatively low average WTM, whereas only Sweden has a higher WTM than Bulgaria. The table also shows the percentage of respondents reporting that they were very willing to move country. This figure was less than 5 per cent in Hungary, Slovenia and Latvia, compared to an average of 8.81 per cent for the whole sample. Bulgaria had the second highest percentage of respondents reporting that they were very willing to move country and Poland and Slovakia were amongst ten countries where this percentage was in excess of 10 per cent. The findings for countries such as Hungary are in line with opinion poll results reported in Borjas (1999), in which only 3-4 per cent of Hungarians said that they would like to work abroad and 1-2 per cent to emigrate. However, these findings are somewhat in contrast to the results of surveys carried out by the International Organisation for

⁸ The exact wording of these questions can be found in the Data Appendix. As well as being asked their WTM country and closeness to their country, respondents were also asked the same questions with respect to the neighbourhood, town, region and continent in which they currently reside.

⁹ 55 was chosen as the upper age limit because it is expected that individuals older than this are far less likely to move for job related reasons. Boheim and Taylor (2002) also constrain their analysis of actual migration decisions to individuals aged between 16 and 55.

Migration in 1998, reported in Bauer and Zimmermann (1999), in which individuals from 11 CEECs were interviewed regarding their migration intentions. In common with the ISSP, the responses were found to vary by country, however, around 50 per cent of respondents in some of the CEECs expected to migrate for short term work but a far lower percentage planned to migrate for longer periods or permanently.

Respondents from all eight CEECs thought that it was relatively important to stay in their home country for all of their life since the CEECs were ranked between 4th and 13th out of the 23 countries in terms of how important staying was to them. Roughly 40 per cent of respondents in each CEEC reported that it was very important to spend their entire life in their country. Respondents from the CEECs also felt closer to their country than most of their international counterparts. This particularly applied to Hungarians and Bulgarians since over 65 per cent of respondents in these two countries felt very close to their country, the highest percentages of all countries in the sample.

Correlation coefficients confirm the expected relationships between these three variables. The correlation between WTM and closeness to country is -0.242, between WTM and the importance of living in their country it is -0.193 and a coefficient of 0.188 is obtained between the importance of living in their country and closeness to country. All coefficients are significant at the 1 per cent level. However, there appears to be some seemingly anomalous findings if the results are analysed at the country level. For example, Philipinos are relatively willing to move country and report a fairly low attachment to their country but believe that it is very important to stay in their own country for all of their life. In terms of the CEECs, a relatively high

percentage of Bulgarians reported that they were willing to move but a large proportion of respondents also thought that it was important to live in their country for all their life and felt that they were very close to their country. Given that the Philippines and Bulgaria have the lowest *per capita* GDP levels of all countries in the 1995 ISSP, these statistics suggest that the economic benefits of migration far outweigh the costs of moving for residents of these countries.

4. Modelling the willingness to move

From the questions analysed in the previous section, the WTM question is the most appropriate to gauge the migration potential from the CEECs. Ideally an even more direct question regarding the individual's migration intentions would be preferable but this question should provide a relatively good approximation of an individual's attitude towards migration. Several previous studies have modelled an individual's WTM or their migration intentions, including Hughes and McCormick (1985) and Gordon and Molho (1995) for the Great Britain, Burda (1993) and Burda *et al.* (1998) for Germany, Ahn *et al.* (1999) for Spain and Faini *et al.* (1997) for Italy. However, all of these studies focus on the willingness/intention of individuals to move within a particular country rather than across national boundaries.

The questions analysed in the previous studies are also slightly different to those analysed in here. Ahn *et al.* (1999) also examine the willingness to move but restrict their analysis to only unemployed respondents from the Spanish Labour Force Survey, who were asked to give 'yes/no' answer to whether they were willing to move for work. Quite a large proportion of their sample also gave a 'don't know' response to the question. Similarly, Faini *et al.* (1997) analyse responses to questions in the

Italian Labour Force Survey on whether the unemployed were willing to take a job only in their own town, in a neighbouring town or anywhere. These questions are therefore not unlike those in the ISSP but the data analysed in this study are obtained from a more general question in the sense that the individual is asked to express their WTM to improve working or living conditions rather than a direct question (eliciting a 'yes' or 'no' response) on whether they are willing to move to find work. Both Hughes and McCormick (1985) and Molho and Gordon (1995) use the General Household Survey to model migration intentions. In each of the studies, responses to a question which asked whether "any member of the household is seriously thinking of moving from (their) present address" were analysed, the former for 1973 and 1974 and the latter for 1983. Burda (1993) and Burda *et al.* (1998) use the 1991 German Socio-Economic Panel, which contains a question that asks respondents whether they could imagine themselves moving from East Germany to the western part of Germany or to West Berlin.

The translation of intentions into actual movements could be viewed as problematic, especially as the question used in this study specifies no time period over which the individual is willing to move or where they would like to move to. However, Gordon and Molho (1995) and Burda *et al.* (1998) provide justification for analysing migration intentions.¹⁰ Gordon and Molho (1995) report evidence from a 1980 British survey of actual and potential migrants that at least 90 per cent of the potential migrants actually moved within five years, of whom around a half moved within a year. They also note that Census data reveal that the number of actual movers is compatible with the number of potential migrants achieving their move. Burda *et al.*

¹⁰ The modelling strategy of each study involves estimating equations with a binary dependent variable.

(1998) note some of the problems associated with modelling intentions data (Manski, 1990) but argue that intentions should be viewed as a monotonic function of the underlying variables that drive the motivation to migrate.

Given that respondents are presented with a scale that requires them to state which of the categories best describes their WTM, the observed dependent variable is categorical and ordered. Therefore an ordered probit model is estimated. The observed categorical dependent variable is related to an individual's underlying WTM as follows:

$$y_i^* = x_i' \beta + \varepsilon_i, \quad \varepsilon_i \sim N(0, \sigma^2) \quad (3)$$

where y_i^* is an unobserved variable indicating an individual's WTM.¹¹ The explanatory variables consist of a set of individual characteristics and are represented by x_i' and its associated vector of coefficients by β . The latent dependent variable is related to individual's underlying WTM as follows:

$$y_i = 1 \text{ if } y_i^* \leq \mu_1$$

$$y_i = 2 \text{ if } \mu_1 < y_i^* \leq \mu_2$$

$$y_i = 3 \text{ if } \mu_2 < y_i^* \leq \mu_3$$

$$y_i = 4 \text{ if } \mu_3 < y_i^* \leq \mu_4$$

$$y_i = 5 \text{ if } \mu_4 < y_i^*$$

where the μ 's are unknown parameters that are to be estimated with β .

¹¹ See Verbeek (2000) pp. 192-4 for a discussion of the application of the ordered probit model to willingness to pay data.

In addition to the standard controls that are usually included in a migration equation, the empirical specifications estimated here include some variables particular to the ISSP.¹² These variables also enable us to gain an indication of some of the influences discussed in Section 2. To proxy the potential psychic costs of migrating, the closeness to the country variable is included. The number of years spent in the respondent's current town is added to capture duration dependence. The ISSP also contains information on whether the respondent lived in a different area during their childhood and the length of time they have lived abroad. As well as capturing the importance of social networks in their local areas, these variables may also give some indication of likely search costs since it is expected that those individuals who have previously migrated face lower search costs.

However, it may be argued that those individuals who stated that they were very willing to move will be ones who actually migrate. Another advantage of identifying individuals who reported themselves to be very willing to move is that marginal effects can be computed, which makes interpretation of the coefficients more straightforward. Therefore, in addition to the standard coefficients that are obtained from the ordered probit model, marginal effects for the very willing to move abroad category are also reported for each of the explanatory variables.

In a second specification, controls which capture macroeconomic differences between countries are added to the individuals characteristics, which implies that (3) becomes:

$$y_{ij}^* = x_{ij}'\beta + z_j'\delta + \varepsilon_{ij}, \quad \varepsilon_{ij} \sim N(0, \sigma^2) \quad (4)$$

¹² The means of the explanatory variables included in the various estimated models are reported in Table A1.

where z_j consists of aggregate level variables which are invariant for respondents from the same country (j), together with its associated vector of coefficients, δ . In order to capture the importance of relative income differences between countries, GDP *per capita* and unemployment rates are added for each country.¹³ This model also includes three regional dummy variables (EU, CEECs and Rest of World) rather than the full set of country dummies because of their collinearity with the macro economic variables, which are entered on a country basis. For the estimation of the WTM from the CEECs only, another aggregate level variable that intends to capture the effect of migration networks is added.¹⁴ Two separate specifications of (4) are estimated. In the first, the aggregate variables are entered in levels/percentages and in the second they are entered in logs.¹⁵ Since aggregate variables have been included, conventional standard errors are no longer appropriate because the residuals are not independent and the standard errors are likely to be biased downwards (Moulton, 1986, 1990). Therefore t-statistics that correct for the common component in the residuals are also reported.

5. Results

Table 2 reports the results of estimating (3) for the entire sample of respondents. The coefficients associated with the socio-economic characteristics generally have the expected signs and are reassuringly similar to estimates obtained from empirical

¹³ See the Data Appendix for details of these variables.

¹⁴ Bauer and Zimmermann (1999) report that Germany and Austria are the most likely destinations for migrants from the CEECs and Germany has by far the highest number of immigrants from the CEECs amongst current EU member states. Therefore the measure of networks used here relates to previous immigration to Germany.

¹⁵ In order to obtain coefficients that can be more easily interpreted from the levels/percentages model, the GDP *per capita* figures were divided by 1000, the unemployment rates were divided by 10 and the network variable expresses the number of immigrants from each of the CEECs residing in Germany as a percentage of the population in each of the CEECs.

studies of actual movers. For example, males, young and single persons are most willing to move. Well qualified individuals have the highest WTM and educational differences are highly significant.¹⁶

It is interesting to note the very large and well determined coefficient attached to the closeness to country variable, indicating that those with the closest self-reported attachment to their country have the lowest WTM.¹⁷ There is evidence of duration dependence since there is a negative and significant coefficient attached to the variable signifying the number of years spent in the area. It is also found that individuals who have spent any time living abroad have a significantly higher WTM but somewhat surprisingly, there are negative coefficients attached to the variables which indicate whether the respondent spent their childhood outside the area that they currently live.

Even after controlling for these characteristics, the rankings of the countries in terms of their WTM do not differ greatly from the raw figures reported in Table 1. It is noticeable that considerable variation remains amongst the CEECs with respect to their residents' WTM. Poles, Bulgarians and Slovaks are significantly more willing to move than their British counterparts (the default category), whereas the opposite applies to individuals from the Czech Republic, Hungary, Slovenia, Russia and Latvia.

¹⁶ For details of the derivation of the qualifications variable, see Table A2.

¹⁷ The coefficient remains negative and highly significant if the continuous closeness to country variable is replaced with controls for closeness to the respondent's neighbourhood, town or region or by a series of dummy variables. These results are available from the author on request.

Additional specifications were estimated in an attempt to shed more light on the WTM differences. However, not every question in the survey was asked in all countries so these results are not reported in Table 2. Additional dummy variables were included for whether the respondent was an immigrant or minority, the type of area the respondent lived in and the number of children in the household. The results suggest that immigrants/minorities are not significantly more willing to emigrate but rural dwellers and those from larger households are significantly less willing to move. Unfortunately, information on individual and household income could not be obtained for all countries. Furthermore, in those countries in which the income questions were asked the responses were coded into bands. This means that we cannot conduct an accurate test of whether liquidity constraints are likely to be important in determining an individual's WTM for the entire sample but we can test this hypothesis for each country which has income information. When the household income variable is included in an ordered probit model that is estimated separately for each country, it only has a significant effect at the 5 per cent level in three out of the 15 countries which have income information.¹⁸

Table 2 also reports the marginal effects for individuals who reported themselves to be very willing to move abroad.¹⁹ The signs attached to the explanatory variables are the same as those reported in Table 2 and the t-statistics are also very similar. For example, the marginal effect estimates suggest that Bulgarians are 11 percentage points more likely and Russians and Latvians 4 percentage points less likely to report themselves to be very willing to move compared to Britons.

¹⁸ In terms of the CEECs, there is only income information available for Poland, Russia and Bulgaria and the household income variable is not significant in any of these countries.

¹⁹ Estimates from a binary probit, in which the dependent variable takes the value of 1 if the individual is very willing to move abroad and 0 otherwise, are qualitatively similar to those reported in Table 2.

It can be seen from Table 3 that the coefficient attached to the *GDP per capita* variable is negative and significant, which suggests that individuals living in relatively poor countries are more willing to move country after holding personal characteristics constant. The table also indicates that the unemployment rate in the respondent's country of residence has a positive effect on their WTM, implying that individuals from high unemployment countries are more prepared to emigrate. The positive coefficients attached to the EU and Rest of the World dummies also suggest that residents of the CEECs are less willing to move country compared to their counterparts from other countries. As expected, adjusting the standard errors for clustering reduces the significance levels. For example, the unemployment rate no longer exerts a significant influence in the levels/percentages specification and *GDP per capita* and the EU dummy are not significant at the 5 per cent level in the log specification.²⁰

The marginal effects reported in the table imply that a \$1000 increase in a country's *per capita* GDP reduces the probability that an individual residing in that country is very willing to migrate by 0.002 and a one percentage point increase in the country's unemployment rate increases this probability by 0.002. Furthermore, living in the EU or the Rest of the World raises the probability that an individual reports themselves to be very willing to move to another country by between three and four percentage points.

²⁰ The coefficients attached to the individual characteristics and their significance levels are not affected greatly as a result of the inclusion of the aggregate level variables or the application of the Moulton correction for the standard errors.

In order to examine the WTM amongst the CEECs in more detail, ordered probit models are also estimated for the CEEC-6: the six countries in the 1995 ISSP that are expected to be part of the first round of enlargement. Two specifications of (3) are estimated, the first of which includes qualification dummies, as before, whilst in the second these are replaced by a continuous years of education variable.²¹

The ordered probit estimates displayed in Table 4 are very similar to those reported for the whole sample in Table 2, but there are some differences worth noting. The qualification dummies still have the expected signs but have much lower t-statistics, with the semi-higher dummy losing its significance in Model 1. The variables that indicate whether the individual spent their childhood outside their current town also lose their significance and change signs in some cases. In Model 2, the number of years of education variable is positive and highly significant.

The marginal effects for individuals from the CEEC-6 who reported that they were very willing to move country can also be found in the table. Again these results are similar to those presented in Table 2 but the significance levels are typically much lower, mainly because of the reduced sample size. Using the estimates from Model 2, it can be seen that although education has a positive and highly significant effect on an individual's WTM, an extra year of education increases the probability that the individual is very willing to move abroad by less than one percentage point.²²

Therefore the conclusions from the ordered probits regarding the skill content of

²¹ The years of education question was not asked in all countries so was not included in the models that were estimated for the entire sample.

²² In a binary probit to estimate whether an individual is very willing to move country, the coefficients attached to the years of education variable and the qualification dummies were insignificant.

potential migrants are not so convincing when analysed from the perspective of the individuals who reported that they were very willing to move from the CEECs.

Table 5 reports that GDP *per capita* again exerts a negative and significant influence when it is entered as a level, indicating that those individuals living in low income CEECs are more willing to move. However, when the standard errors are corrected for clustering, this effect is no longer significant and in the log specification, the coefficient on the GDP variable becomes negative and significant. The results suggest that there is a positive relationship between an individual's WTM and the unemployment rate in their country but this finding is not statistically significant in the levels/percentages specification. The coefficient attached to the network variable is positive and significant in both specifications, indicating that individuals with a higher percentage of compatriots resident in Germany are more willing to migrate. Furthermore, the presence of ethnic networks appears to be fairly important since the marginal effect estimates imply that a one percentage point increase in the percentage of compatriots in Germany raises the probability that an individual is very willing to move country by three percentage points.

6. Conclusion

It has been shown that significant diversity exists in the willingness to move amongst individuals from several countries in Central and Eastern Europe. Furthermore, the willingness of individuals from these countries to move abroad does not seem to be greater than that from Western countries. In fact, residents of the CEECs appear to be less willing to move country than individuals from current EU member states. Several reasons for labour immobility were suggested, some of which were tested empirically.

It is found that the psychic costs of migration, as measured by the attachment individuals feel to the area they currently live, are very important and there is also evidence in support of duration dependence.

In terms of addressing the request of Borjas (1999) to provide an indication of the characteristics of potential migrants from the CEECs, the results are generally in accordance with what the human capital model would predict, including that individuals with higher level qualifications are more willing to move. Therefore these findings suggest that the effects of EU enlargement on domestic labour markets should not be viewed with too much pessimism by policymakers, as suggested by Borjas (1999). Furthermore, since highly qualified individuals appear to be the most willing to move, this implies that migration flows from the East should be able to bring about positive growth effects for Western European economies.

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TABLE 1
Descriptive Statistics by Country

	WTM		Important to stay		Close to country	
	Average	% Very	Average	% Very	Average	% Very
Sweden	2.71	15.37	2.72	23.77	3.11	31.34
Bulgaria	2.70	14.22	3.16	43.25	3.54	65.94
Philippines	2.68	10.29	3.48	58.71	2.86	22.82
Canada	2.56	12.60	2.54	20.31	2.93	31.06
New Zealand	2.51	8.06	2.96	31.68	3.48	55.73
Netherlands	2.50	9.76	2.66	17.40	3.07	23.34
Great Britain	2.47	11.81	3.01	35.29	2.70	15.98
West Germany	2.41	9.72	2.68	21.66	2.87	17.50
Slovakia	2.38	10.79	3.03	36.46	3.24	38.77
Norway	2.36	7.07	2.92	28.22	3.41	48.60
Poland	2.35	10.74	3.11	34.08	3.42	51.03
Spain	2.34	11.31	3.05	29.47	3.22	38.41
Italy	2.16	11.33	3.18	38.76	3.24	41.09
United States	2.07	7.68	3.01	38.25	3.03	29.38
Ireland	2.03	10.23	3.21	44.73	3.38	48.30
Slovenia	1.99	4.62	3.09	39.42	3.38	47.73
Latvia	1.92	4.04	3.13	38.41	3.21	39.31
East Germany	1.89	5.25	2.84	28.11	2.95	22.53
Czech Republic	1.84	5.14	3.13	41.47	3.33	43.98
Russia	1.84	4.91	3.14	41.09	3.12	38.54
Austria	1.77	6.11	3.10	42.03	3.40	52.01
Hungary	1.75	3.84	3.11	43.14	3.69	74.85
Japan	1.72	2.27	2.80	26.18	3.48	54.85

Notes:

1. Average is the mean response given to the three questions in each country.
2. % Very is the percentage of individuals in each country who gave the response “Very” to the relevant question.

TABLE 2

Ordered Probit Estimates of the Willingness to Move: All Countries

	Coefficient	t-statistic	Marginal Effect	t-statistic
Female	-0.118	6.93	-0.015	6.83
Aged 16-25	0.364	9.99	0.053	8.48
Aged 26-35	0.195	6.83	0.026	6.36
Aged 36-45	0.081	3.19	0.010	3.10
Married	-0.165	8.35	-0.021	7.98
Unemployed	0.045	1.28	0.006	1.25
Inactive	0.020	0.93	0.003	0.92
Incomplete primary	-0.448	6.51	-0.040	9.62
Primary completed	-0.464	14.14	-0.045	17.46
Incomplete secondary	-0.349	11.85	-0.037	13.49
Secondary completed	-0.240	9.33	-0.028	9.71
Semi-higher	-0.073	2.37	-0.009	2.47
Close to country	-0.280	23.05	-0.035	21.61
Spent childhood in another town	-0.106	3.78	-0.013	3.93
Spent childhood in a different region	-0.048	1.58	-0.006	1.62
Spent childhood in another country	-0.159	2.51	-0.018	2.83
Number of years spent in current town	-0.008	7.54	-0.001	7.45
Lived abroad for less than 1 year	0.390	11.39	0.062	9.06
Lived abroad for 1-4 years	0.463	12.53	0.078	9.68
Lived abroad for 5 years or more	0.512	10.28	0.088	7.87
West Germany	0.150	2.46	0.021	2.26
East Germany	-0.312	3.96	-0.031	5.02
United States	-0.378	6.19	-0.036	7.87
Austria	-0.273	3.96	-0.028	4.79
Hungary	-0.210	3.12	-0.022	3.59
Italy	-0.001	0.01	-0.000	0.01
Ireland	-0.232	3.39	-0.024	3.98
Netherlands	0.200	3.75	0.028	3.40
Norway	0.045	0.79	0.006	0.77
Sweden	0.303	4.93	0.046	4.20
Czech Republic	-0.286	4.47	-0.029	5.41
Slovenia	-0.138	2.27	-0.015	2.48
Poland	0.280	4.67	0.042	4.02
Bulgaria	0.585	9.33	0.107	7.12
Russia	-0.427	6.93	-0.039	9.08
New Zealand	0.097	1.56	0.013	1.47
Canada	-0.008	0.13	-0.001	0.13

TABLE 2 (Continued)				
Philippines	0.235	3.92	-0.034	3.46
Japan	-0.389	6.20	-0.037	8.00
Spain	0.150	2.29	0.021	2.10
Latvia	-0.386	5.54	-0.036	7.30
Slovakia	0.176	2.98	0.024	2.71
N	18345			

Notes:

1. The reference individual is an unmarried working male, living in Britain who has completed university, spent their childhood in the town they currently reside and has never lived abroad.
2. For details of how the educational qualifications are defined for selected countries, see Table A2. The small number of respondents who had no education or were still at school were omitted from the regressions.
3. t-statistics are calculated using heteroscedastic consistent standard errors.

TABLE 3

Ordered Probit Estimates of Aggregate and Regional Variables: All countries

	Coefficient	Unadjusted t-statistic	Adjusted t-statistic	Marginal Effect	Unadjusted t-statistic	Adjusted t-statistic
<i>Aggregate variables entered in levels/percentages</i>						
GDP per capita/1000	-0.016	8.26	2.62	-0.002	8.19	2.52
Unemployment rate/10	0.124	5.13	1.02	0.016	5.09	1.00
EU	0.283	9.42	2.12	0.039	8.78	2.07
Rest of World	0.236	7.61	2.88	0.033	7.04	2.92
<i>Aggregate variables entered in logs</i>						
GDP per capita	-0.137	6.14	1.88	-0.018	6.11	1.81
Unemployment rate	0.193	8.01	2.05	0.025	7.90	1.99
EU	0.229	8.16	1.93	0.031	7.71	1.89
Rest of World	0.189	6.86	2.45	0.026	6.44	2.48

Notes:

1. See notes to Table 2.
2. Adjusted t-statistics have standard errors which have been corrected for clustering, whilst the standard errors used to calculate the unadjusted t-statistics are only heteroscedastic consistent.
3. The regional dummies are constructed as follows. The CEECs, which is the reference category, consists of Bulgaria, the Czech Republic, Hungary, Latvia, Poland, Russia, Slovenia and Slovakia. The European Union countries are Austria, Germany, Great Britain, Ireland, Italy, The Netherlands, Spain and Sweden. The Rest of the World contains Canada, Japan, New Zealand, Norway, the Philippines and the United States.

TABLE 4

Ordered Probit Estimates of the Willingness to Move: CEEC-6

	Model 1				Model 2			
	Coef.	t-stat.	M. E.	t-stat.	Coef.	t-stat.	M. E.	Coef.
Female	-0.200	5.80	-0.019	5.57	-0.212	6.01	-0.019	5.73
Aged 16-25	0.465	5.50	0.055	4.42	0.461	5.39	0.054	4.25
Aged 26-35	0.242	3.68	0.025	3.31	0.251	3.80	0.025	3.41
Aged 36-45	0.116	2.11	0.011	2.02	0.114	2.07	0.011	1.99
Married	-0.149	3.59	-0.015	3.41	-0.144	3.44	-0.014	3.25
Unemployed	0.098	1.61	0.010	1.50	0.096	1.57	0.009	1.47
Inactive	0.070	1.46	0.007	1.40	0.037	0.71	0.004	0.69
Incomplete primary	-0.515	2.87	-0.032	4.76	–	–	–	–
Primary completed	-0.344	4.96	-0.026	5.99	–	–	–	–
Incomplete secondary	-0.219	3.72	-0.019	3.96	–	–	–	–
Secondary completed	-0.170	3.11	-0.015	3.21	–	–	–	–
Semi-higher	-0.090	1.20	-0.008	1.28	–	–	–	–
Years of Education	–	–	–	–	0.038	5.76	0.003	5.63
Close to country	-0.454	16.94	-0.043	13.99	-0.462	16.81	-0.042	13.72
Spent childhood in another town	-0.081	1.24	-0.007	1.29	-0.059	0.89	-0.005	0.91
Spent childhood in a different region	-0.156	2.24	-0.014	2.45	-0.157	2.22	-0.013	2.42
Spent childhood in another country	0.049	0.37	0.005	0.35	0.054	0.39	0.005	0.38
No. of years spent in current town	-0.007	2.58	-0.001	2.57	-0.006	2.35	-0.001	2.34
Lived abroad for <1 year	0.334	4.38	0.041	3.51	0.314	3.93	0.036	3.17
Lived abroad for 1-4 years	0.159	1.55	0.017	1.38	0.186	1.80	0.020	1.57
Lived abroad for 5 years or more	0.222	2.00	0.025	1.71	0.220	1.95	0.024	1.68
Hungary	-0.449	7.35	-0.033	8.50	-0.478	7.84	-0.033	8.89
Czech Republic	-0.582	9.98	-0.040	11.12	-0.681	11.12	-0.043	11.94
Slovenia	-0.406	7.23	-0.031	8.09	-0.378	6.67	-0.027	7.46
Slovakia	-0.161	3.06	-0.014	3.24	-0.224	4.23	-0.018	4.53
Latvia	-0.634	9.08	-0.041	11.09	-0.626	9.33	-0.039	10.95
N			4583				4380	

Note:

The reference individual for Models 1 and 2 is the same as Note 1 in Table 2, apart from the individual lives in Poland.

TABLE 5

Ordered Probit Estimates of Aggregate Variables: CEEC-6

	Coefficient	Unadjusted t-statistic	Adjusted t-statistic	Marginal Effect	Unadjusted t-statistic	Adjusted t-statistic
<i>Aggregate variables entered in levels/percentages</i>						
GDP per capita/1000	-0.041	2.47	1.04	-0.004	2.43	1.00
Unemployment rate/10	0.040	0.37	0.14	0.004	0.37	0.14
Migration network	0.303	4.08	0.94	0.030	4.01	0.95
<i>Aggregate variables entered in logs</i>						
GDP per capita	0.585	4.98	1.95	0.057	4.93	1.80
Unemployment rate	0.617	7.87	3.60	0.060	7.56	2.94
Migration network	0.106	7.84	3.77	0.010	7.30	3.28

Notes:

1. See Notes to Table 4.
2. Adjusted t-statistics have standard errors which have been corrected for clustering, whilst the standard errors used to calculate the unadjusted t-statistics are only heteroscedastic consistent.
3. Estimates are only reported for Model 1. The results for Model 2 are very similar.

Data Appendix:

The three questions used in Table 1 are:

- If you could improve your work or living conditions, how willing or unwilling would you be to move outside your country?
 1. Very willing (recoded as 5)
 2. Fairly willing (recoded as 4)
 3. Neither willing nor unwilling (coded as 3)
 4. Fairly unwilling (recoded as 2)
 5. Very unwilling (recoded as 1)

- How important do you think it is to have lived in your own country for most of one's life?
 1. Very important (recoded as 4)
 2. Fairly important (recoded as 3)
 3. Not very important (recoded as 2)
 4. Not important at all (recoded as 1)

- How close do you feel to your country?
 1. Very close (recoded as 4)
 2. Close (recoded as 3)
 3. Not very close (recoded as 2)
 4. Not close at all (recoded as 1)

For each of the questions, respondents who reported that they didn't know or couldn't choose between the alternatives as well as those who didn't answer were excluded from the calculations.

Aggregate Variables

GDP *per capita* are Purchasing Power Parity figures in current international dollars. This variable, the unemployment rates and population estimates were obtained from the World Development Indicators database. The German GDP *per capita* and unemployment rate were applied to both East and West Germany and UK figures were used for Great Britain. Estimates for the number of immigrants from each of the CEECs in Germany were obtained from the Migration Information Source Global Data Center (<http://www.migrationinformation.org/GlobalData/>).

TABLE A1

Means of Explanatory Variables

	All countries		CEEC-6	
	Models 1 and 2	Models 1 and 3	Model 2	
Female	0.521	0.527	0.527	
Aged 16-25	0.200	0.217	0.185	
Aged 26-35	0.277	0.264	0.274	
Aged 36-45	0.291	0.288	0.301	
Married	0.623	0.651	0.677	
Unemployed	0.073	0.096	0.099	
Inactive	0.235	0.184	0.153	
Incomplete primary	0.021	0.012	–	
Primary completed	0.149	0.140	–	
Incomplete secondary	0.211	0.289	–	
Secondary completed	0.349	0.349	–	
Semi-higher	0.130	0.090	–	
Years of education	–	–	12.060	
Close to country	3.217	3.380	3.388	
Spent childhood in another town	0.247	0.223	0.230	
Spent childhood in a different region	0.171	0.156	0.162	
Spent childhood in another country	0.040	0.033	0.034	
Number of years spent in current town	22.021	25.467	25.782	
Lived abroad for less than 1 year	0.058	0.042	0.041	
Lived abroad for 1-4 years	0.054	0.030	0.030	
Lived abroad for 5 years or more	0.061	0.043	0.045	
West Germany	0.038	–	–	
East Germany	0.018	–	–	
United States	0.050	–	–	
Austria	0.035	–	–	
Hungary	0.035	0.141	0.148	
Italy	0.045	–	–	
Ireland	0.036	–	–	
Netherlands	0.078	–	–	
Norway	0.056	–	–	
Sweden	0.044	–	–	
Czech Republic	0.042	0.169	0.160	
Slovenia	0.040	0.160	0.149	
Poland	0.049	0.196	0.205	
Bulgaria	0.035	–	–	
Russia	0.054	–	–	
New Zealand	0.036	–	–	
Canada	0.058	–	–	
Philippines	0.051	–	–	
Japan	0.040	–	–	
Spain	0.043	–	–	
Latvia	0.030	0.120	0.125	
Slovakia	0.054	0.215	0.213	
GDP <i>per capita</i>	16463	9399	9287	
Unemployment rate	9.5	11.0	11.1	
Migration network	–	0.49	0.49	
N	18345	4583	4380	

TABLE A2**Educational qualifications definitions for selected countries**

ISSP category	Germany	Great Britain	United States	Poland	Hungary
Incomplete primary			Incomplete primary	Incomplete elementary	Incomplete primary
Primary completed	'Volks- Hauptschule'	No secondary qualification	Less than high school	Complete elementary	Primary (8 years) completed
Incomplete secondary	Middle school, Polytechnic (completed 10.class)	CSE	Incomplete secondary	Incomplete secondary + basic vocational	Vocational, incompl. sec.
Secondary completed	Abitur, 'Fachhochschulreife'	A-level, O-Level	High school	Secondary general + secondary vocational	Secondary completed
Semi-higher	'Fachhochschule' completed	Higher education below degree, foreign	Junior college, Bachelor	Incomplete higher	College
University completed	University	Degree	Graduate	Completed higher, university	University completed