This is an Accepted Manuscript of an article published by Taylor & Francis in *European Societies* on 25/07/2012, available online:
http://www.tandfonline.com/10.1080/14616696.2012.707669

INTRA-EU MIGRATION FROM SLOVAKIA: AN EVALUATION OF NEW ECONOMICS OF LABOUR MIGRATION AND MIGRANT NETWORKS THEORIES

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ABSTRACT: This paper focuses on migration from Slovakia in the context of migration from the 10 countries which became European Union members in May 2004. While on the aggregate level these migration flows confirm the basic assumptions of the neoclassic migration theory, this study tests if insights from the new economics of labour migration and migrant network theory are confirmed by those movements. Contrary to Mexico – US migration, such theory evaluation is rather rare in European migration research which is probably caused by the requirement of detailed and reliable datasets. We try to overcome this inconvenience by using Labour Force Survey data. Those data include the necessary information about the households of migrants that can be used to test for predicted interactions. We show on post 2004 labour migration from Slovakia that foreign employment of a household member creates remittance flows and, as expected by the new economics of labour migration theory, improves the income situation of the household. However, remittances are produced only if the migrating household members are in the position of parents. This finding has consequences for remittance estimations as most of the post accession migration are single young migrants. The existence of intra and trans-generational migrant networks is also confirmed by our multivariate analysis. While both types of network effects are gender specific, the gender factor seems to be stronger in the case of trans-generational networks. Besides the strong and significant influence of networks that increase the odds of migration to a destination where migrant

family members are present, we found preliminary evidence of a “culture of migration” in the households of migrants.

Key words: intra-EU migration; new economics of labour migration; migrant networks theory; migration from Slovakia; Labour Force Survey

1. Introduction

The 2004 European Union (EU) enlargement started a new era in intra-EU migration. The long awaited event in migration research (for an overview of predictions of migration from the new EU member states see Fassmann and Münz 2002) produced substantial labour migration from new member countries in Central and Eastern Europe. The accession of ten new countries also confirmed the still – important role of states in shaping migration flows. The opening of labour markets in some "old" EU countries, and the application of transitional restrictive measures in the rest, had a profound impact on the preferred destinations of the migrants from the new EU countries. Those political decisions made some of the pre-accession migration predictions which did not take into account the imposition of labour market restriction in the old EU 15 countries unusable (e.g. Dustmann et al. 2003). In a situation when countries like Germany and Austria, traditionally receiving most of the Central and Eastern Europe labour migration, remained closed much of the post 2004 migration flows from the EU 10 countries were diverted towards the United Kingdom and Ireland. Those two countries, together with Sweden[1] were the only exceptions in a situation when the rest of the EU 15 decided to apply restrictions on labour migration from the EU 10 at least till May 2006.[2]

As stated elsewhere (Bahna 2008, 2011), this migration setting provided good opportunity for an evaluation of the neoclassical migration theory as migration from ten countries with equal access to labour market in high wage countries could be studied. Aggregate level data analyses based on the post accession migration flows lead to a confirmation of the overall validity of neoclassic theory. New EU countries with low

wages like Latvia and Lithuania produced high migration flows while labour migration from countries with relatively high wages (e.g. Slovenia) increased only minimally (Bahna 2011). Having a basic understanding of the post 2004 migration from the new member countries on the aggregate level, we believe that now it is the right time to test for the validity of the individual level interactions as predicted by two more recent theories of international migration. As we believe in complementarity of the migration theories (Massey et al. 1998; Morawska 2001), we expect that despite the general validity of the neoclassical theory, newer approaches, like the new economics of labour migration or the migrant networks theory, can introduce important insights into the selectivity of the migration process and its internal dynamics. Both those theories shift the focus from aggregate migration flows to family factors in intra-EU migration.

In the first part of this paper we present the new economics of labour migration (NELM) and network theory approaches as reactions to the neoclassical paradigm and discuss their empirical evaluations. Later, we introduce Labour Force Survey (LFS) data of a sending country as a relatively neglected source of micro data on migration. After a short introduction to the post EU accession migration flows from Slovakia and a discussion on the LFS data limitations with regard to migration measurement we proceed to a series of multivariate evaluations of the network and NELM theories. For this purpose we use Slovak LFS data from the 2006 to 2010 period.

2. New economics of labour migration and migrant networks as challenges to the neoclassical paradigm

New economics of labour migration and migrant networks theories represent an important innovation migration research experienced over the 1980s and 1990s (see De Haas 2010). In this period NELM emerged as a critical response to neoclassical migration theory (Massey et al. 1998: 21). The important innovation of this approach "*is that migration decisions are not made by isolated individual actors, but by larger units of related people – typically families or households*" (Massey et al. 1998: 21). Families and households in this approach do not only maximize the expected income but also minimize and spread risk (De Haas 2010: 243). This approach introduced by Stark (1991; Stark and Bloom 1985) can be also seen as a relaxation of the individual utility maximization assumptions made by the neoclassical theory (Boswell 2008). The concept of migrant's savings either provided to relatives living in the homeland in the form of remittances or invested by the migrant in the country of origin is one of the distinctive concepts of this approach. The productive or non-productive use of remittances plays a special role in the discussion about migration impacts on development (De Haas 2010). Remitting and non remitting behaviour can also be used as a distinction between neoclassical and NELM migrants (see Constant and Massey 2002). The evidence for remitting behaviour will be used as an indicator of NELM also in our study.

The migrant networks theory can be seen in many regards as (not only) a contemporary companion of the NELM theory. Despite the fact, that from the very beginning of migration research sociologists recognized the importance of migration networks like the

1920s Thomas and Znaniecky research and later scholars referred to a "family and friends" effect (Levy and Wadacky 1973) it appears that Massey et al. (1987) were the first who made an explicit link between social capital and migrant networks (Massey et al. 1998). By stating that each act of migration creates social capital among people to whom the new migrant is related and raises the odds of migration of those others the approach enables to model the dynamics of the migration process (Massey et al. 1987). From our perspective of empirical theory evaluation it is important to note that within the migration networks theory *"migration decisions are not taken by an individual in isolation but are influenced by the actual or intentional migration choices in one's peer group"* (Radu 2008: 532). So if someone takes up employment in a foreign labour market, network theory would predict that his / her family members (and friends, acquaintances…) will have a higher probability of migration to this location. In our paper we will consider evidence of such behaviour as a confirmation of the existence of migration networks.

Both introduced approaches represent a more complex view on migration decisions than the model used by the neoclassic migration theory. The potentially more exact descriptions of migration patterns however introduce the need for reliable and representative micro data on migrants and their families or even a wider social surrounding. This is probably the main reason why, with regard to international migration to Europe, Massey et al. (1998: 130) have to conclude that there is a lack of *"quantitative analysis documenting the effects of network ties in promoting and sustaining international movement"*. A very similar statement is made by the same authors also with regard to the evaluation of the NELM in literature dealing with international migration in

Europe. In both cases this is put in contrast to the situation in north America, were substantially more large scale (im)migration datasets exist which correlates with the existence of a relative plenitude of quantitative evaluations of the NELM and network theories. Favell (2008) therefore suggests that European migration research should draw inspiration from the study of the Mexico - US migration which, in his view, has a comparative relevance for the new European (i.e. the post 2004 enlargement) context.

Our literature review has confirmed that much of the mentioned shortcomings in the European migration research persist. Therefore, besides rare quantitative approaches based on large reliable datasets (e.g. Constant and Massey, 2002), potential inspiration can mainly be found in publications based on small scale qualitative research. The situation with regard to the latest post enlargement intra EU migration is understandably even less satisfactory. The exception to the rule are publications based on qualitative research of migrating Poles (Ryan et al. 2009; Ryan 2010; Moskala 2011) and a quantitative approach by Epstein and Gang (2006) using older Hungarian data on migration intentions.

2.1 Pre and post EU accession migration from Slovakia

Migration or potential migration from Slovakia gained some attention of international migration scholars in the pre EU enlargement period as part of a wider interest in the migration potential of the EU candidates in Central and Eastern Europe (e.g. Wallace and Stola 2001; Wallace and Haerpfer 2001; Wallace 2002; Baláž and Williams 2004; Williams and Baláž 2005). However, after the EU enlargement, the focus of the migration research in the receiving countries (most notably the United Kingdom and

Ireland) experiences a shift from the general interest in the Central and Eastern European countries towards the most abundant migration flows from Poland. This is an unsurprising development given the fact that over two – thirds of the workers registered in the British Worker Registration Scheme (WRS) in 2008 were from Poland. The view from the perspective of a sending country is, however, different. Relatively to population size, there was even more migration from Slovakia to the UK in the 2004 – 2008 period than from Poland (Bahna 2011).

While the relative to population migration from Poland and Slovakia is similar and close to the EU 10 average, Slovakia is a more typical representative of the new member states with regard to population size. With a population of 5.4 millions it is far closer to the average population size of the EU 10 countries (7.4 millions) than Poland (38.2 millions) which is the largest of the EU 10 countries.

The United Kingdom is, however, not the top migration destination of Slovak migrants. Until the 2004 EU enlargement the Czech Republic was the unrivalled top destination of Slovak labour migration.[3] Based on Slovak LFS, in 2002 the Czech Republic was receiving almost two thirds of international migration from Slovakia. With the opening of western labour markets in 2004, the relative popularity of the destination Czech Republic fell gradually. However, even in 2009 the Czech Republic remained the country with most Slovak labour migrants, receiving a third of all international migration from Slovakia. After opening of labour markets in some countries of the EU 15, new destinations rapidly gained popularity. This was especially the case of the UK (and, to a lesser extent, of Ireland) which became the second most preferred destination in 2005 and

retained this position until 2008 when it was surpassed by Austria.[4] For our approach it is important to note that not only the Czech Republic and the United Kingdom represent the two most popular labour migration destinations, but they also represent two distinctive types with regard to the characteristics of migrants. The migrants in the Czech Republic are generally older, male, with a lower education and heads of households. Slovak migrants in the UK are on the average ten years younger and have a balanced gender composition (Bahna 2011). Therefore, where possible, we try to analyse migration to the UK and to the Czech Republic as two potentially distinctive cases.[5]

Our analysis of migration from Slovakia, in which we try to test the assumptions of the migrant networks and NELM theories, is based on Slovak LFS data. In the following part we will therefore concentrate on peculiarities of the LFS migration measurement and on the overall reliability of the LFS data with regard to our analyses.

2.2 Possibilities and limitations of LFS data in migration research

Until the calling of US migration scholars for *"surveys of sending communities that ask detailed questions about migration, remittances, income, spending and investment …"* (Massey et al. 1998: 126) is heard in Europe, we believe that Labour Force Surveys represent a potential substitute for specialized migration surveys. However, those data should be used with caution and potential shortcomings of LFS with regard to migration research should be considered.

Our literature review revealed some papers using LFS data in migration destinations to compare the labour market performance of new member states immigrants and natives

(e.g. Barrett and Duffy 2008; Drinkwater et al. 2009). Our approach however, appears to be the first attempt to empirically test migration theories using LSF data from a sending country. From our point of view, the crucial question is if the LFS can be regarded as a satisfactory survey of the emigrant population. More specifically we ask, how well are migrant household members reported. It is obvious, that the main way the LFS can include information on labour migrants (besides accidentally reporting a migrant visiting at home) is if information is provided by non-migrant household members.

The Slovak Labour Force Survey is since 2003 fully harmonized with the Eurostat LFS standards and uses a Eurostat compatible definition of who is a household member and who is not. It defines a household member as someone who "*had in the reference week in the selected housing unit … a permanent, temporary or unofficial residence and it is not expected that he / she will be surveyed also in another surveyed flat in the Slovak Republic*" (Statistical office of the Slovak Republic 2008: 4). Household members who are absent for more than a year are not included in the survey (Statistical office of the Slovak Republic 2008: 6). On the other hand, the interviewer instructions of the Slovak LFS explicitly state that persons engaging in temporary or seasonal work abroad or commuters are considered household members (so even those working abroad for more than a year are included in the survey). The interviewer instructions further suggest, that "*a son (or a daughter) who is working abroad usually represents a separate household that <u>is not surveyed</u> within the household of his / hers parents*" (Statistical office of the Slovak Republic 2008: 6).

Based on those definitions and on previous work with the LFS data, we can conclude that the LFS migration measurement is skewed in several ways: The survey does not include migrants who have migrated along with their families. This is important with regard to measuring network effects of migrating household members. E.g. if someone follows his partner who is working abroad than such a household vanishes from the data and no network effect is observed. Similarly, the LFS data tend to better measure "fresh" migration and to under represent "long-term" migrants. This distortion is stronger for younger household members (i.e. sons and daughters) than older household members (i.e. mothers and fathers) (Bahna 2011). The mentioned characteristics lead to an under-representation of younger migrants and an over-representation of migrant mothers and fathers. The LFS data generally better describe "new" migration and tend to "forget" long term migrants (with the exception of mothers and fathers, who act as household income providers). This "memory - effect" of the LFS data can be demonstrated on migration to the Czech Republic (Graph 1). We see that, in periods of expansion of Slovak labour migration to the Czech Republic, the LFS data report only a modest increase or even stagnation. Due to "forgetting" of the long term migrants, LFS usually reports a decline even in periods when no return migration occurs.

---------- *Graph 1 about here* ----------

Another problem, related to NELM evaluation, is the absence of information about personal or household income. Therefore we have to work with a question on subjective income situation of the household instead.

A specific difficulty are the relatively low counts of migrants in the survey. In this paper we therefore work with a cumulation that includes quarterly data from the first quarter of 2006 to the second quarter of 2010. The cumulated file includes only households which were surveyed for the first time.[6]

In spite of the mentioned problems, the LFS data include an important feature which is essential for our approach – they include information about all household members. This is crucial if we want to establish the influence of remittances on the household income or the influence of migration of family members on other family members. In applications like ours, the availability of a full family grid is of foremost importance.

Despite the described shortcomings, Slovak LFS data are considered a relatively solid data source for migration research (e.g. Divinský and Popjaková 2007). We believe that they are an adequate data source for our purposes within this paper - especially in a period of rapid growth of foreign employment which generates a lot of "fresh", well measured migration (as was the case of the post accession period).

3. Evaluating the NELM theory

Compared to its predecessor, the neoclassical migration theory, NELM offers two new insights on the migration process: a) the household or family based decision making on income maximization and risk reduction and b) the concept of remittances. The remittances concept is important, as remittances and their use play an important role in the discussions about the impact of migration on development (De Haas 2010) as well as

on return migration (Constant and Massey 2002). While the LFS data provide no direct information on how the decision on who will migrate is negotiated within the household, we are able to trace the impact of foreign employment of family members on the subjective income situation of the family. We are aware of the potentially complex relation between subjective and objective income situation. However, the as expected influence of the control variables in our model (see table 1) leads us to the conclusion that using subjective measurement of household income is satisfactory for our purposes within this paper.[7]

---------- *Table 1 about here* ----------

We assume that, if the assertion of NELM that migrant family members support their families by remitting money is correct, having a labour migrant in the household will have a positive impact on its income situation. This statement is our research hypothesis. The two models introduced in table 1 evaluate the impact of foreign employment of family members on the subjective income situation of households with at least one labour migrant. Both include a set of family and regional level control variables as well as four or eight theoretical variables measuring the impact of foreign employment of the respective family members on the income situation of the household. The results for the control variables are as expected. In both models higher education of parents has a positive and significant impact on the income situation. Similarly, families in regions with higher average wages perceive a better income situation. The fact that parents (or the household head and his partner in LFS terminology) are employed increases the family income significantly. The positive influence of the employment of sons and

daughters is weaker and statistically significant only for sons in model 2. The influence of the remaining control variables (age of parents, settlement size and regional unemployment) is not significant.

In model 1 two of the four theoretical variables measuring the association between foreign employment and subjective income situation of the household are significant. If the father works abroad, the subjective income of his family is higher. A similar effect is observed when the mother works abroad. In case of foreign employment of children this association is weaker and insignificant.[8]

In model 2 a pair of variables is introduced for every migrant family member. The distinction between fresh (i.e. less than a year) and long term migrants (i.e. a year or longer) leans on the familiar notion that migration is connected with certain costs and migrants are only able to send remittances after they were able to pay for the initial investments (i.e. travel costs, accommodation, various charges…) and have otherwise stabilized their income situation in the foreign country. As we can see in table 1, this distinction introduces an interesting pattern. In accordance with our expectations, families where father works abroad for less than a year report no income increase. On the other side, families, where father is in employment abroad for more than a year report a significantly better income situation. A similar, yet weaker, pattern seems to apply to foreign employment of mothers.

The comparison of the impact of children's employment on family income is interesting. If sons and daughters are employed in Slovakia, households report a mild and mostly

insignificant, improvement of the income situation. However, if children are labour migrants (no matter if short or long term), their influence on household income is clearly insignificant. This finding is particularly important with regard to the expected remittance flows. It seems that only foreign employment of parents produces remittances that improve the financial situation of the household. On the other hand, migrant sons and daughters, in most cases, do not represent a source of income for their families. Therefore, estimates of remittances based solely on numbers of migrants can be misleading (like the one done by the Slovak National Bank). Our conclusion would be that remittances are produced primarily by migrant parents. The results in table 1, however, do not prove that, younger family members do not produce remittances. Our only claim is, that foreign earnings of sons and daughters do not contribute to the household income of their families in the home country. The use of this income is unclear – it can be accumulated with the intention to invest after their return to Slovakia or used on daily consumption or investments in the destination country.

A general observation of the results reported in table 1 is that, compared to employment in Slovakia, foreign employment of fathers produces a higher income increase in the subjective household income than foreign employment of mothers. While there are more potentially plausible explanations, it could indicate that motivations for migration of fathers and mothers are different. However, as this finding is based on measurement of subjective income situation, this explanation can be regarded only as speculative.

In sum, our analysis suggests that foreign employment produces remittances and increases family income as expected by the NELM. This income increase is observed

when fathers and mothers find employment in a foreign country. No increase however, is observed when sons and daughters become labour migrants. This finding is meritorious with regard to the NELM theory as well as to remittance estimates. The different composition of Slovak migrants in the UK and the Czech Republic suggests that Slovakia is receiving more remittances from migrant fathers working in the Czech Republic than from young Slovaks employed in the UK.

4. Evaluating the networks theory

Generally, migrant networks are expected to reduce the costs of migratory movements. However, in the case of migration within the EU many of the migration costs are reduced by the formally equal treatment EU citizens enjoy across the Union (see Ackers 2004). If in the US – Mexican migratory system, networks provide vital information e.g. on border crossing and border smugglers (Dolfin and Genicot 2010) such information are obviously meaningless with regard to internal EU migration. A general expectation would be therefore that intra EU migration, unbound from visas and work permits, will exhibit a lower reliance on migrant networks.

Despite this, other functions of the networks - like providing information on jobs at the destination or aiding integration at the arrival (Dolfin and Genicot 2010: 343) – could help to maintain their importance even in the intra EU migration context. This seems to be confirmed by recent studies dealing with migration from the new member states (see Epstein and Gang 2006; Ryan 2010). Our approach, based on LFS data, unfortunately enables us to focus only on migrant networks within a household – i.e. on networks

consisting of strong ties.[9] Our focus will be on intragenerational as well as on transgenerational ties (see Chamberlein 1999). The research hypothesis is that foreign employment of a family member increases the odds of labour migration of the remaining family members.

---------- *Table 2 about here* ----------

First results of our search for the influence of migration networks on migration are provided by the logistic regression in table 2. In the model we calculate the influence of five control variables (age, education, settlement size, average regional wage and unemployment)[10] and six theoretical variables on the migration of fathers to the Czech Republic. As can be seen, higher age, education and regional wages reduce the odds of labour migration to the Czech Republic. Somewhat surprising, yet already observed (Bahna 2011) is the negative influence of high unemployment on migration. This can be best explained by the relative immobility of the unemployed in regions of Slovakia with high unemployment (for a discussion see Bahna 2011).

The Exp(B) coefficients of the theoretical variables present two tendencies: a) the intragenerational (e.g. husband – spouse) bounds seem to be stronger than the transgenerational (e.g. father - son), b) the transgenerational ties are gender specific. While having a spouse working in the Czech Republic increases the odds for fathers working in the same destination 14 times having a son in the Czech Republic increases the odds by a factor of 9. A daughter employed in the Czech Republic has no significant influence on the odds of migration of her father.

The strong connection between the migration of parents raises the question what happens to the "left behind children" (or the "Euro-orphans") of such couples. This topic gained some media attention in countries like Poland and Ukraine but has so far not been discussed in Slovakia. A closer look at the data reveals however, that there are probably not so many children in such situation as it may seem. Most of the families with both parents working in the Czech Republic are a) either multi-generational households where the parents who work abroad share a household with their adult children and grandchildren or b) employed close to the Slovak border which suggests commuting to work in the Czech Republic on a daily basis.

It seems from our results that, as expected, the influence of migrant networks can be clearly observed in the case when a family member is present in the same migration destination. However, the positive, yet not significant, Exp(B) coefficients of the "spouse works in the UK" and "son works in the UK" variables suggest the potential usefulness of a migrant experience in general and opens a discussion on the existence of "migration role models" or a migration culture within the family.[11] However, a larger sample would be needed to confirm such preliminary conclusion.

---------- *Table 3 about here* ----------

A similar model, including both top Slovak migration destinations, is calculated for the migration of sons (table 3) and daughters (table 4).[12] The presented multinomial logistic regression models confirm the findings from table 2. In this case, however, we are also

able to compare the characteristics of migrants in the Czech Republic and in the UK. A one year increase in age reduces the odds of migration more for the UK than for the Czech Republic. On the other hand, UK migration is less sensitive to regional wage levels. This seems to reflect the fact that the relative UK – Slovak wage difference is by far larger than the Czech – Slovak wage difference. While wages in wealthy regions of Slovakia surpass the Czech average wage they are still only a fraction of potential earnings in the UK. The UK also seems to be the preferred destination of the urban and more educated migrants, even though the effect of education is not significant for migrating daughters.

---------- *Table 4 about here* ----------

The coefficients of the four theoretical variables in both models strongly support the existence and influence of migrant networks. Having a sibling in a foreign country significantly increases the odds of migration to this destination. These intragenerational ties however, seem to be gender sensitive - a brother in the Czech Republic increases the odds of migration to the same destination more for his brother than for his sister. Similarly, a sister working in the UK raises the odds that her sister will be working in the same country about twice as much as a brother employed in the UK. However, as in the case of fathers, both models enable us to speculate about some indirect influence of the very fact that a sibling works abroad on the migration decisions of the other sibling. This means that having a sibling in the UK (or in the Czech Republic) also raises the odds for international migration of the other sibling(s) in general.

The discussed models clearly support the existence of intragenerational migration networks between siblings. Unfortunately, due to a relatively low sample size, we were not able to include variables modelling migration of parents into the models presented in tables 3 and 4. Another unresolved issue is the question of causality and sequence. Only a time event model could answer the "who follows whom" question. Do children follow their migrating fathers or vice versa? Do brothers follow their sisters, or do sisters rather follow their brothers? Our approach also can not answer some more specific questions about the nature of migrant networks like they are discussed in the US literature on migration from Mexico (e.g. Roberts and Morris 2003 or Krissman 2005). Despite these limitations we believe that our findings enable us to conclude that migration networks are an important mechanism also in migration within the EU.

5. Conclusion

Slovakia is one of the ten countries which become EU members in May 2004. Post accession migration patterns from those countries were largely shaped by temporary labour market restrictions imposed by most of the old EU members. In Slovakia, like in other EU 10 countries, this propelled the rise of popularity of the accessible, yet non traditional, destinations like the UK or the Irish Republic. Generally, the aggregate volume of the intra-EU post accession migration flows from the new EU members to countries with no labour market restrictions supports the expectations based on neoclassical migration theory.

Led by a belief, that migration theories are not mutually exclusive, we tried to test the propositions of the NELM and migrant networks approaches on the post accession intra-EU migration from Slovakia. For this purpose, we used multivariate data analysis based on the Slovak Labour Force Survey. As stated by Massey et al. (1998) and confirmed by our literature review, very few quantitative studies evaluating the general validity of the NELM or network approaches in the European migration system exist. This is even more the case with regard to the post EU enlargement migration flows, which are relatively new and still under-researched.

Both tested theories pose greater requirements on migration data than the neoclassical approach. In this regard, our work exemplifies the potential of LFS data of a source country for migration research. By having information on the whole family we are able to test migration theories from a household or family perspective, which is in these cases necessary. Our regression models found support for both tested theories. We were able to show that foreign employment of a household member increases the income of a family. However, this is not the case if children take up foreign employment. It seems therefore that, in the studied context, labour migration of children does not produce direct remittance flows. This finding can invalidate some of the remittance estimates made by national banks in the Central and Eastern Europe. Our approach also enabled us to test for the existence of intra family migration network effects. We found evidence of trans and intra generational migration networks. Both types of network links seem to be gender specific. A father - son network relation has been confirmed, while a reciprocal father - daughter relation was not. The gender aspect is less prominent among siblings, yet still, a migrant sibling of the same sex remains a stronger migration predictor. Besides the, as

expected, higher odds of migration to a destination where a migrant relative is resident also some tentative indices exist that the very fact of having a family member employed abroad increases the odds of a person's migration.

The limitations of the presented approach are also discussed. They are mainly caused by the fact that LFS is not a specialized migration survey - it therefore neither includes all migrants nor all the theoretically relevant variables for theory evaluation. Despite those problems, we believe that until specialized migration data sets exist our approach represents a useful alternative for migration research.

Acknowledgements

The research was supported by the APVV-0529-07 and the 2/0150/08 VEGA grants.

Notes

1. Sweden did not receive much of the post 2004 migration from the new member states. The need to master Swedish and a tightly regulated labour market are the two most probable reasons.
2. Labour market restrictions were lifted in Finland, Greece, Portugal, Spain and Italy in 2006. In Holland and Luxemburg in 2007. In France in 2008 and in Denemark and Belgium in 2009. However, compared to Britain and Ireland, the popularity of those countries remained rather limited. The two EU 15 countries which have a common border with several of the new member states and speak a

language that is relatively widely spoken in the EU 10 – Germany and Austria - opened the labour market in the latest possible term in May 2011.

3. Since the 1993 split, access to the Czech labour market for Slovaks (and vice versa) remained unrestricted and was very similar to the regime employed within the EU.
4. Due to LFS deficiencies in measuring the total volume of migration, which we will discuss later, it is highly probable (and supported by alternative migration estimates), that the UK has remained the top two destination of Slovak migration even after 2008.
5. According to the LSF survey data almost half of the migration to the Czech Republic consists of male heads of households which qualifies it as a potential NELM destination.
6. The LFS methodology uses a 20% quarterly panel rotation. Every quarter 20% new respondents are included in the panel and 20% of households are visited for the 5th and last time.
7. Recent findings about the relations between subjective status measures and objective indicators like income, education and occupational prestige indicate the primary importance of income in subjective status evaluation in Slovakia (Bahna and Džambazovič, 2010).
8. The terms “child” and “children” are used to describe family relationships and do not refer to age.
9. Even when working with a cumulation of LFS surveys from a 4 and a half year long period our analysis is also limited by the relatively low numbers of migrants in the sample.

10. The selection of control variables is based on the analysis of socio - demographic structure of the post 2004 migration from Slovakia as outlined in section 2.1. For more details see Bahna (2011).
11. Epstein and Gang (2006) found influence of previous migration experience of a friend or a family member on the migration intentions in Hungary.
12. Due to low numbers of migrant mothers in our sample, we do not present a model testing for network effects on migration of mothers. For the same reason variables controlling for migration of fathers and mothers had to be dropped from models in tables 3 and 4.

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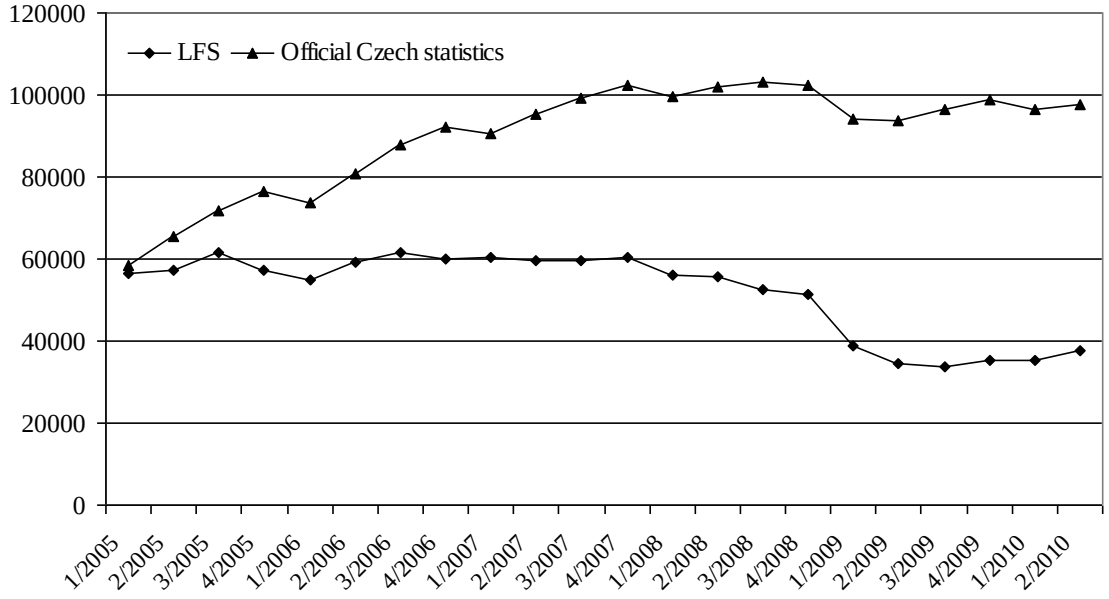
Graph 1 Slovaks employed in the Czech Republic, figures based on Slovak LFS and official Czech statistics



Source: Slovak Statistic Office, Ministry of Labour and Social Affairs of the Czech Republic

Table 1 Subjective income situation of households with migrants, standardized OLS regression coefficients

	Model 1		Model 2	
	Beta	**Sig.**	**Beta**	**Sig.**
Education (father)	0,136	0,000	0,137	0,000
Age (father)	0,023	0,726	0,007	0,912
Education (mother)	0,072	0,017	0,070	0,019
Age (mother)	0,020	0,755	0,033	0,603
Settlement size	0,001	0,972	-0,004	0,872
Regional wage (average)	0,087	0,002	0,088	0,002
Regional unemployment	-0,042	0,123	-0,036	0,190
Father works in Slovakia	0,142	0,000	0,142	0,000
Mother works in Slovakia	0,158	0,000	0,154	0,000
Son works in Slovakia	0,048	0,062	0,052	0,041
Daughter works in Slovakia	0,032	0,211	0,035	0,166
Father works abroad	0,214	0,000		
Mother works abroad	0,085	0,009		
Son works abroad	0,057	0,133		
Daughter works abroad	0,039	0,259		
Father works abroad less than a year			-0,008	0,822
Father works abroad a year or longer			0,219	0,000
Mother works abroad less than a year			0,007	0,788
Mother works abroad a year or longer			0,074	0,015
Son works abroad less than a year			-0,002	0,941
Son works abroad a year or longer			0,026	0,427
Daughter works abroad less than a year			0,034	0,236
Daughter works abroad a year or longer			0,002	0,940
N	1474		1474	
R^2 adj.	0,107		0,121	

Note: Included are households with a household head and his partner that have at least one household member employed abroad.

Source: LFS cumulation 2006 – 2 / 2010, Slovak Statistic Office

Table 2 Employment of fathers in the Czech Republic, compared to employment in Slovakia, logistic regression

	Exp(B)	Sig.
Age	0.974	0.000
Education	0.524	0.000
Settlement size	0.965	0.472
Regional wage (average)	0.715	0.000
Regional unemployment	0.972	0.003
Spouse works in the Czech Republic	13.682	0.000
Son works in the Czech Republic	8.630	0.000
Daughter works in the Czech Republic	1.123	0.792
Spouse works in the UK	5.240	0.180
Son works in the UK	1.343	0.579
Daughter works in the UK	0.609	0.506
R^2 (Nigelkerke)	0.162	
N	12747	

Source: LFS cumulation 2006 – 2 / 2010, Slovak Statistic Office

Table 3 Employment of sons in the Czech Republic and in the UK, multinomial logistic regression

	Exp(B)	Sig.
Works in the Czech Republic		
Age	0.979	0.014
Education	0.686	0.000
Settlement size	1.025	0.716
Regional wage (average)	0.785	0.000
Regional unemployment	1.013	0.325
Sister works in the Czech Republic	4.103	0.000
Sister works in the UK	2.440	0.112
Brother works in the Czech Republic	10.207	0.000
Brother works in the UK	0.606	0.626
Works in the UK		
Age	0.933	0.000
Education	1.343	0.037
Settlement size	1.382	0.001
Regional wage (average)	0.927	0.024
Regional unemployment	1.072	0.000
Sister works in the Czech Republic	1.815	0.423
Sister works in the UK	6.999	0.000
Brother works in the Czech Republic	0.549	0.558
Brother works in the UK	17.208	0.000
R^2 (Nigelkerke)	0.165	
N	5105	

Reference category: works in Slovakia, sons employed in other countries are not included

Source: LFS cumulation 2006 – 2 / 2010, Slovak Statistic Office

Table 4 Employment of daughters in the Czech Republic and in the UK, multinomial logistic regression

	Exp(B)	Sig.
Works in the Czech Republic		
Age	0.927	0.000
Education	0.808	0.151
Settlement size	1.093	0.383
Regional wage (average)	0.819	0.000
Regional unemployment	1.010	0.637
Brother works in the Czech Republic	8.840	0.000
Brother works in the UK	3.381	0.111
Sister works in the Czech Republic	10.498	0.000
Sister works in the UK	1.584	0.660
Works in the UK		
Age	0.872	0.000
Education	1.298	0.096
Settlement size	1.297	0.007
Regional wage (average)	0.893	0.002
Regional unemployment	1.034	0.087
Brother works in the Czech Republic	2.709	0.071
Brother works in the UK	5.965	0.001
Sister works in the Czech Republic	1.009	0.993
Sister works in the UK	10.015	0.000
R^2 (Nigelkerke)	0.174	
N	3174	

Reference category: works in Slovakia, daughters employed in other countries are not included

Source: LFS cumulation 2006 – 2 / 2010. Slovak Statistic Office