MIGRATION AS A SOLUTION TO REGIONAL DISPARITIES IN ESTONIA

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I. Introduction

During the years of independence Estonian economy has gone through major restructuring process. The process of economic development so far can in broad sense be divided into three stages. Market-oriented economic activities first started in the Northern part of Estonia (including Tallinn), expanded to the other big cities (Tartu and Pärnu) in the second stage and covered the other regions of Estonia in the third stage. Gradual economic development enabled some regions to gain an advantage over the other areas and resulted significant regional differences in unemployment and non-activity rates. Disparities between regions grow year-by-year and lay basis to possible social conflicts.

One possible way to decrease regional disparities is labor migration. In that case free labor force would move from the regions with low demand for labor to the areas where demand for labor is higher. Result of labor migration is decrease in wage levels and unemployment rates between regions. According to Hicks (1932) whose pioneering study gave birth to contemporary migration theory, main motivation for people to move is difference in wages between regions. That assumption was thoroughly revised by Sjaastad (1962) who presented human capital in the migration models. According to him all human beings have possibility to increase their human capital by specific investments into themselves. Important fact is that costs of investment have to be carried at the actual investment time hoping potential increases in income in the future. Current fixed costs and probability of increase in future income are important factors used to explain low migration among unemployed.

Recent developments observe migration as a part of labor market flexibility. Davis and Haltiwanger (1990) argue that most important factors to determine the need for migration are job creation and job destruction rates. Situation where job destruction rates in some region exceeds job creation rate causes decrease in job opportunities and gives people incentive for migration. When majority of free labor force decides not to move causes increase in unemployment rate in that region. Simonazzi and Villa (1999) emphasize in their study that in order to achieve high labor market flexibility and minor disparities between regions three conditions have to be met. Firstly unconstrained migration and flexible moving of labor between labor market

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sates; secondly, high elasticity of employment respect to business cycles and finally, reasonable degree of governmental interventions.

Brief overview of theory asserts that migration has an essential role in decreasing the regional disparities. The goal of this paper is to analyze migration in Estonia as a possible solution to decrease regional differences. To achieve the goal two conditions have to be met. First, it has to be shown that migration is related to the movements of labor between labor market states. Second, the migration should be more long-distance than short-distance oriented. The results of the analysis identify which personal characteristics have significant effect on overall migration and migration distance. To the author’s knowledge it is the first attempt to analyze migration, i.e. change in place of residence, together with change in labor market state. Therefore, the sub goal of the analysis is to formulate basis for further and more thorough research.

II. Regional labor market estimates: Brief overview

Average employment rate in Estonia in 1997 was 58.5%. Employment rate exceeded the average in Northern and Western Estonia (63.0% and 59.5% respectively) and was lower in Northeastern, Central and Southern Estonia. Clear pattern was observable where employment rate decreased as we move away from Northern Estonia. The same pattern, only in opposite emerged also in non-activity rates. Highest non-activity rates were in Southern and Central Estonia, lowest rates were in Northern and Western Estonia.

Figure 1. Unemployment rate in cities and rural areas in 1997.

In addition to inter-regional disparities there are substantial differences in employment and non-activity rates within the regions. Employment rates are significantly greater in cities compared to rural areas in all regions in Estonia. Similarly, the non-activity rates are higher in rural areas and lower in cities.

Most significant differences between regions exist in unemployment rates. The unemployment rate in Northeastern Estonia is almost twice of unemployment rate in Western Estonia. Also the unemployment rate in rural areas exceeds unemployment rate in cities in all Estonian counties, which shows lack of job possibilities outside of towns. Worst is the situation in rural areas of Southern Estonia and in overall Northeastern Estonia.

In the viewpoint of migration theories it is justified to assume that two tendencies should emerge in Estonia. Firstly, people from rural areas should migrate into cities. That tendency is actually operating in Estonia with exception that most of the people do not change their place of residence, but go to work into the neighboring cities near their place of residence. Secondly, unemployed people should move away from Southern and Northeastern Estonia and try to find work in Northern and in some cases also in Western Estonia. That tendency may be effective in the case of younger people.

III. Specification of the model

The empirical analysis of migration bases on logit model where probability that person migrates is expressed as:

\[
Pr(y_i = 1) = \frac{\exp(\beta x_i)}{1 + \exp(\beta x_i)},
\]

where \(x_i\) is vector of personal characteristics and \(\beta_i\) is vector of parameters (see Greene 2000).

Multinomial logit model is used for the analysis of migration distance. Probability of migration distance is expressed as:

\[
Pr(y_i = j) = \frac{\exp(\beta_j x_i)}{\sum_k \exp(\beta_k x_i)} \quad j, k = 1\ldots m,
\]

where \(x_i\) is vector of personal characteristics, \(\beta_i\) is vector of parameters and \(m\) is a number of different migration distances (see Amemiya 1985).
There are three migration distances used in current paper: migration within the county, migration into the neighboring counties and migration over the neighboring countries. In order to quantify the values of parameters, marginal effects have been calculated.

IV. Data

The analysis is based on data of 1998 Estonian Labor Survey (ETU) that covers the period from January 1997 till second quarter in 1998. Period used in this paper is one year: from January 1997 till January 1998. The overall sample size used is 12 744 persons, including 544 person who changed their place of residence during the observation period. In both models single sampling is used, i.e. although some people changed their place of residence more than once the analysis accounts only place of residence in January 1997 and January 1998.

There are some implications necessary to keep in mind when someone is interpreting the results of the models. First, during the period of analysis Estonia went through economic boom, which may have caused more extensive migration as in the periods of “normal” economic development. Second, it is much easier for people to move between the labor market states during the periods of rapid growth. This may have caused overestimation of the relationship between migration and movements in labor market states.

V. Results of estimation

Results of the migration model point out that age has a negative effect on migration decision and males have greater migration probability compared to females. Important factor in migrating is education level – people with secondary and higher education have greater migration probability than people with primary education.

Significant fact is that changes in family situation and in labor market states have an effect on people’s migration decision. Crucial is that movement from unemployment into employment has no relation with migration decision. In the one hand it shows that migration cannot solve the problem of unemployed people in Estonia. Every region has to cope with its unemployment problem. Such activity has often zero result and commonly leads to increase in pool of discouraged people. That assumption is also supported by the significance of UO variable. In the other hand, insignificance of movement from employment into unemployment reflects structural imbalances in labor market.

Analysis of migration among employed people revealed that white collars have greater migration probability compared to blue collars. In the one hand it shows that there is still shortage of professionals and specialists in Estonia. In the other hand higher migration of white collars may be caused by greater information available about job opportunities in different regions.
Table 1. Estimation results of the migration model

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Marginal effect</th>
<th>Standard deviation</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-0,0044</td>
<td>0,0008</td>
<td>0,000</td>
</tr>
<tr>
<td>Age (squared)</td>
<td>3,92E-05</td>
<td>9,22E-06</td>
<td>0,000</td>
</tr>
<tr>
<td>Male</td>
<td>0,0054</td>
<td>0,0026</td>
<td>0,037</td>
</tr>
<tr>
<td>II Education level</td>
<td>0,0117</td>
<td>0,0033</td>
<td>0,000</td>
</tr>
<tr>
<td>III Education level</td>
<td>0,0155</td>
<td>0,0044</td>
<td>0,000</td>
</tr>
<tr>
<td>Change in family situation</td>
<td>0,0570</td>
<td>0,0057</td>
<td>0,000</td>
</tr>
<tr>
<td>EE(^3)</td>
<td>0,0224</td>
<td>0,0051</td>
<td>0,000</td>
</tr>
<tr>
<td>EU</td>
<td>0,0214</td>
<td>0,0100</td>
<td>0,032</td>
</tr>
<tr>
<td>EO</td>
<td>0,0427</td>
<td>0,0090</td>
<td>0,000</td>
</tr>
<tr>
<td>UO</td>
<td>0,0552</td>
<td>0,0093</td>
<td>0,000</td>
</tr>
<tr>
<td>OE</td>
<td>0,0326</td>
<td>0,0090</td>
<td>0,000</td>
</tr>
</tbody>
</table>

Source: ETU 1998, author’s calculations.

Among the unemployed people the only reason for migration was change in family situation. Movement from unemployment into non-activity was also significant which supports the assumption that job search of unemployed people often ends fruitlessly and they become discouraged. Non-active people move with greater probability if they have at least one child less than seven years old, which is quite reasonable conclusion because child needs its personal space and stimulates parents to look for a bigger place of residence. It is also noteworthy that decision to migrate is linked with movement from non-activity to employment.

To decrease regional disparities in Estonia migration should be oriented towards long-distance movement. The analysis showed that most migration takes place within the county; migration over the neighboring counties was relatively small. Younger and middle age people (15-49 years old) had smaller probability for within county migration. Most of the within county movements was effected by change in family situation.

\(^3\) Here and hereafter: EE – movement from employment to employment, EU – movement from unemployment to employment, EO – movement from employment to non-activity, UO – movement from unemployment to non-activity, OE – movement from non-activity to employment.
Estonians and people with secondary and higher education have greater probability for long-distance migration. Age has a negative effect on migration into neighboring counties and also in the case of movement over the neighboring counties. Changes in labor market states except the movements into and out of unemployment are relevant with all migration distances.

Analysis of migration distance indicates that change in place of residence may decrease regional disparities to some extent, but it is not sufficient to eliminate differences. Movement from unemployment to employment is not significant which shows that migration does not help unemployed people to find a job. Also the movements from non-activity to employment cannot be directly associated with migration.

VI. Conclusion

Results of the migration analysis indicate that migration seems not to be sufficient factor to eliminate regional disparities in Estonia. The main reasons for migration are involved with change in the family situation. Movements among labor market states are also relevant in migration models, but not in the case of unemployed people. The latter group’s migration decision is only induced by change in family situation.

Migration might be helpful considering movement from non-activity to employment. This is mostly the case of younger people who plan to enter into the labor market and search suitable job all over Estonia. That fact is supported also with the results of migration distance analysis.

Most important issue emerged in this paper was the problem of unemployment. Results of migration models combined with the analysis of unemployment revealed that people who belong into the pool of unemployed have personal characteristics that are not relevant in migration. Older age, lower education level and non-Estonians are characteristics that can be used to describe unemployed people. Exactly those characteristics are irrelevant in migration analysis. Therefore we may conclude that people who already have a job migrate to get a better job. People who are currently unemployed in Estonia cannot benefit from migration.

To solve the problem of increasing regional disparities effective economic policy must be implemented. Active labor market policy, encouragement of people to start as entrepreneurs and effective regional policy are among the tools need to be used to stop the increasing regional differences and lay basis for stable growth in all regions in Estonia.
References


Kokkuvõte

MIGRATSIOON REGIONAALSETE ERINEVUSTE VÄHENDAJANA EESTIS

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Alates taasisesisvumisest on regionaalsed erinevused Eestis pidevalt kasvanud. Suurenenud on erinevused hõive, mitteaktiivsususe ja töötuse määrades erinevate regioonide ning maal ja linnas elavate inimeste vahel. Kujunenud olukorras on oluline leida vahendid, mis võimaldaksid regionaalsete erinevusi kui mitte ellimineerida, siis vähendada.

Üheks regionaalsete erinevuste vähendamise võimaluseks on riigisisene migratsioon. Sellisel juhul lahkuks tööjõud madala tööjõunõudlusega piirkondadest ja liiguks kõrgema tööjõunõudlusega regioonidesse. Migratsiooni tulemusena

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Migratsiooni analüüs misime tulemused näitavad, et rände ei ole piisav vahend regionaalsete erinevuste vähendamiseks. Elukohavahetus on küll seotud liikumistega tööturu ja liikumisega vahel, kuid töötusest hõivesse liikumine pole oluline. Pigem võib töötute puhul rääkida heitunud isikute kasvamise tendentsist, kuna töötusest liigutakse eelkõige mitteaktiivsusest.

Ka migratsioonikauguse analüüs ei kinnitanud regionaalsete erinevuste vähendamist elukohavahetuse läbi. Levinum on maakonnasisene rände, väljapoole maakonda liiguvad eelkõige nooremad ja kõrgema haridustasemega inimesed. Töötusest välja liikumine ei olnud migratsioonikauguse analüüsil ühegi distantsi puhul oluline.