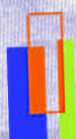


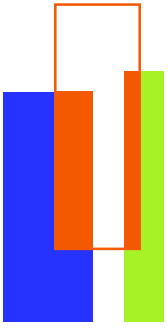
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Returns to return
migration: wage
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Estonian return
migrants from
Finland

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Returns to return migration: wage premium of Estonian return migrants from Finland*

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TIIVISTELMÄ

Tutkimuksessa selvitetään Suomesta Viroon palanneiden paluumuuttajien saamaa hyötyä Suomessa hankitusta kokemuksesta Viron työmarkkinoilla. Aineistona käytetään vuonna 2013 kerättyä aineistoa työikäisistä virolaisista paluumuuttajista ja samanikäisistä virolaisista, jotka eivät koskaan ole asuneet ulkomailla. Tulosten mukaan virolaiset paluumuuttajat keskimäärin hyötyvät Suomessa hankitusta kokemuksesta palkkapreemion muodossa. Tuotoissa on kuitenkin suuria eroja sen mukaan, kuinka hyvin virolaiset paluumuuttajat pärjäsivät Suomen työmarkkinoilla.

ABSTRACT

This paper extends the earlier literature by providing new information on returns to return migration in three ways. First, we provide new information on the common return to returning in the East-West migration context, by focusing on the wage premium of the Estonian return migrants from Finland in comparison with the Estonians who have never lived abroad. Second, we also investigate the heterogeneity in the returns to returning by how well the return migrants performed in Finland. Third, we append our analysis by using qualitative questions about the benefits of stay in Finland for career progression after return. The data from a survey conducted in 2013 among a sample of working age (18-64-year-old) Estonian return migrants from Finland and a comparison group of working age Estonians who have never lived abroad were used in the analyses.

The main findings of this study suggest that the Estonian return migrants earn on average 14 per cent more than the stayers. By exploring the heterogeneity of the migration experience, we find evidence of differential returns to experience in Finland by how well the return migrants performed in the Finnish labour market. Those return migrants that had no earnings or belonged to the lower wage categories in Finland do not enjoy a statistically significant wage premium compared with the non-migrant Estonians, whereas those return migrants who belonged to the higher wage categories in Finland seem to enjoy a wage premium. Returners with the highest wage premium from their experience in Finland also perceive more frequently to have experienced a stronger career progression than they would have done if they had not lived in Finland.

Keywords: returns to return migration, wage premium, double selection, heterogeneity in returns, east-west migration

JEL Classification: J24, J81

1. INTRODUCTION

Return migration is a significant phenomenon of the migration behaviour. According to OECD (2008) 20-50 percent of immigrants return to their home countries within five years after migration. Previous research has predominantly dealt with return migration from the host country perspective, studying, among other things, the determinants of outmigration, who migrate and the optimal duration of migration and host country policies towards immigrants (e.g. Borjas and Bratsberg 1996, Dustmann and Kirchkamp 2002) and much less attention has been paid to the source country perspective where the focus is on those who return and their economic outcomes. Labour market performance of return migrants is an important topic in this respect. From the source country perspective brain drain might turn to brain gain (Mayr and Peri 2009) if many immigrant workers return to their home countries and bring both skills and capital with them. If emigrants upgrade their skills while working abroad, the temporary migration abroad may help to expand a source country's human capital and increase its economic growth (Domingues Des Santos and Postel-Vinay 2003). According to Reinhold and Thom (2013) migrants working in a developed host country may come into contact with more advanced production technologies or may work with more highly skilled workers and such interactions may allow workers to upgrade their skills. Migrants may return to their home countries with extra skills acquired through contact with the workers, capital and technology of a host country.

The purpose of this paper is to study labour market performance of Estonian return migrants from Finland. As a labour market outcome indicator we use monthly earnings. We first investigate the common return to returning, i.e. whether the Estonian migrants' experience in Finland provides an earnings premium for wage earners after return to Estonia in comparison with the Estonians who have never lived abroad. Second, we are also interested in the heterogeneity of this return premium and not just the common return to returning. For this purpose we also investigate whether there are differences among the return migrants in the wage premium by how well the return migrants performed in the Finnish labour market as measured by their labour market

performance. Data from a survey among the working age return migrants from Finland and a comparison group of working age Estonians who have never lived abroad are used to analyse these research questions.

This paper contributes to the earlier literature by providing new information on this rather neglected topic in the literature, returns to return migration in three ways. First, we provide new information on the common return to returning in the East-West migration context, by focusing on the wage premium of the Estonian return migrants from Finland in comparison with the working-age Estonians taking into account both selection to labour force participation and selection to return migration. According to Martin and Radu (2012) return migrants from the old EU countries are an important and fast-growing group in the labour markets in Central and Eastern Europe (CEE). The case of Estonia is a good example of this. According to a new survey by the Statistics Estonia approximately 30-40 percent of Estonians abroad return to Estonia. Second, as our data contains information on the return migrants' time in Finland and time before moving to Finland, we are also able to investigate the heterogeneity in the returns to returning by the labour market performance and time spent in Finland. The heterogeneity aspect of the returns to return migration has so far been paid very little attention to in the earlier research. As far as we know this kind of heterogeneity in the return to returning has been studied only in one previous study by Rooth and Saarela (2012). Third, in addition to quantitative results, we are able to append our analysis by using qualitative questions about the benefits of stay in Finland for career progression after return due to the rich data content of our survey data.

The main findings of this study suggest that the Estonian migrants' experience in Finland seems to provide an earnings premium for the wage earners after return in comparison with the non-migrant Estonians. The Estonian return migrants earn on average 14 per cent more than the comparable stayers. By exploring the heterogeneity of the migration experience, we find evidence of differential returns to experience in Finland by how well the return migrants performed in the Finnish labour market. Those return migrants that had no earnings or belonged to the lower wage categories in Finland do not enjoy a statistically significant wage premium compared with the non-migrant Estonians, whereas those return migrants who belonged to the higher wage categories in Finland seem to enjoy a wage premium. Returners with the highest wage premium from their experience in Finland also perceive more frequently to have experienced a stronger career progression than they would have done if they had not lived in Finland.

The rest of the paper is organized as follows. Section 2 reviews the economic literature on the main motives for return migration and on why there should be a wage premium for return migrants, and presents earlier empirical evidence on the wage premium from the foreign experience. Section 3 presents data and a statistical descriptive analysis. Section 4 introduces the methods and presents the results. Finally, section 5 summarises and discusses the main findings of the paper.

2. WHY SHOULD THERE BE A WAGE PREMIUM FOR RETURN MIGRANTS?

In the economic literature following main motives for return migration have been postulated (e.g. Dustmann 1994, Dustmann and Kirchkamp 2002): (i) the migrant prefers consumption in the home country; (ii) if prices are lower in the home country than in the host country this makes it possible for the migrant to gain advantage of high wages abroad and low prices at home; (iii) human capital acquired in the host country is better rewarded in the home country. Under all these three motives a lifetime utility maximisation might be achieved through a temporary migration. In addition, motives such as achievement of savings objectives or completing education, and family and other networks at home have also been presented in the economic literature (OECD 2008, Zaizeva and Zimmermann 2012).

Several theoretical explanations have been proposed for why there should be a wage premium for return migrants. First, if emigration and return migration are part of a process of human capital accumulation this should lead to higher wages for returners in comparison with the natives in the source country who have not emigrated (e.g. Dustmann 1997; Dustmann and Weiss 2007). Second, if there is a signalling effect: employers might perceive working abroad as a signal of either higher productivity or presence of initially unobservable desirable characteristics. Third, due to savings from higher earnings abroad, return migrants can afford to search for a job longer, i.e. have higher reservation wages. In addition, by revealed preference, return migrants are more likely to place more value on wages compared to other job attributes than stayers, which also leads to higher reservation wages and, therefore, also higher earnings. (Hazans 2008). But the reason why the migrants emigrated may also influence results.

The existing empirical studies of returns to return migration focus predominantly on the European experience. Majority of this evidence points to a positive wage premium for return migrants in comparison with persons who have never migrated. However, there is a considerable variation in the size of the wage premium in different source countries. There is also variation by the host country and by gender. For example, Co et al. (2000) find a positive wage premium for Hungarian female returners but not for males using 1994 Hungarian Household Panel Survey. Analysing Albanian data De Coulon and Piracha (2005) likewise detect a positive wage premium from temporary migration abroad. With Latvian data from 2006-2007 Hazans (2008) find evidence of a wage premium of 20 per cent for Latvian male returners and of 6 per cent for Latvian female returners. Martin and Radu (2010) analyse European labour force survey data from the period 2002-2007 and find evidence of an earnings premium from experience abroad for male and female return migrants in Central and Eastern European countries (Hungary, Latvia, Lithuania, Poland and Romania). The size of this premium varied from 11 per cent in Poland to 56 per cent in Hungary. Barrett and O'Connell (2001) using data on Irish graduates found a wage premium of 10-15 percent for male returners but not for women, whereas with Irish National Employment Survey data from year 2006 Barrett and Goggin (2010) find that Irish returners, both men and women, earn 7 percent more than comparable stayers. The lower returns from the experience abroad for women or even wage penalties have been explained by the fact that women are more likely to be tied movers. Barrett and O'Connell (2001) also studied the premium from experience abroad by making distinction by the labour-related reason and other reason for emigration and find that there is a wage premium of 15 percent for those male returners who emigrated due to labour-related reasons, but no wage premium for those who emigrated for other reasons.

Outside Europe the focus has been on the returns to migration experience by Mexicans in the US labour market. E.g. Reinhold and Thom (2013) study the impact of migration experience in the US labour market for 18-64-year-old men on earnings in the Mexican labour market and find an average return to migration experience of 2.2 percent per year, but as high as 8.7 percent return to a year of occupation-specific migration experience for some occupations.

An exception to the majority of the earlier literature studying the common return to returning is Rooth and Saarela (2012) who analyse the differential returns to foreign experience for returners by making distinction between the return migrants by how well they performed in the host country labour market. They use data on Finnish male returners¹ from Sweden in their analyses and find

¹ These return migrants were between 25 and 55 years and employed prior to emigration to Sweden.

that the earnings premium depends heavily on outcomes in the host country. Return migrant men with weak labour market attachment in Sweden do not enjoy any wage premium from their experience abroad, whereas those who were more successful have a wage premium of 10-15 percent per year in Sweden.

3. DATA AND DESCRIPTIVE STATISTICS

According to the Statistics Estonia and Finland, Finland is the most popular destination country for Estonians and Estonians are nowadays the largest immigrant group living in Finland. A significant share of Estonian emigrants abroad, 30-40 percent (according to a recent survey), return to Estonia. According to 2011 Population and Housing Census in Estonia, at the end of the year 2011, there were 28,000 people in Estonia who had moved to Estonia from a foreign country within the previous 11 years and 14,400 (51%) of them had been born in Estonia, meaning that they were return migrants (Tammur and Meres 2013). Of these return migrants 2,874 persons had returned from Finland.

In this study we use data from our survey conducted in 2013 among a representative random sample of working age (18-64-year-old) return migrants from Finland and a representative random sample of a comparison group of working age Estonians who have never lived abroad which we call stayers or non-migrants. An identification of return migrants is based on the information from the Estonian population register.

In the survey two separate questionnaires – one for the return migrants and one for the comparison group – were designed in order to get both quantitative and qualitative information on the research topic. Both questionnaires include questions related to the background characteristics, labour market status, social transfers and wellbeing. The questionnaire targeted at the return migrants includes questions related to the time before migration to Finland, time in Finland and the time after return to Estonia, which makes it possible to control for the labour market performance in Finland when considering economic outcomes after return to Estonia. In addition, the questionnaire for return migrants also includes qualitative questions related to the benefits of the stay in Finland for the labour market career in Estonia after the return and questions related to consequences of migration for wellbeing. Altogether 2000 questionnaires were sent, one 1000 for the return migrants and 1000 for the comparison group. We got altogether 559 responses and the

response rate was around 28 percent which is of the average level for this type of surveys in Finland and Estonia.

In the survey we asked about the primary motives for moving to Finland as well as the primary reasons for returning to Estonia. The results show that the most important reasons for moving to Finland are work-related and, therefore, one might expect that the migrants accumulate human capital during their stay in Finland. Among the three most popular reasons were an opportunity to earn money for future use, an opportunity to get a better job than in Estonia, and an opportunity to gain skills through work or study (see Table 1). The primary motives revealed in our survey are similar to the ones that have been detected in earlier surveys as well (e.g. Krusell 2009).

As far as the primary motives for returning to Estonia are concerned, they are predominantly related to family ties and individuals' preferences for their home country (feels more at home in Estonia). An indication of the strong family ties back home is also the high share of the return migrants (51.4 %) who sent remittances to Estonia while they were living in Finland. As for other type of motives, also the termination of a job in Finland was among the most important motives for returning.

(Table 2 around here)

Table 3 describes means for basic characteristics of these two groups denoting also t-test for equality of means. Table 3 shows that the majority of return migrants from Finland are men and they are on average younger than stayers. On average, the return migrants are 3,7 years younger than the stayers. They are also more often married. There are no statistically significant differences with regard to the education level, marital status or house ownership between these two groups. The average migration experience the return migrants have accumulated is 2.9 years.²

(Table 3 around here)

When we compare the current labour market status of the return migrants and the stayers (figure 1) we can notice that the share of wage and salary earners is statistically significantly lower for the return migrants, whereas the share of the self-employed is statistically significantly higher. In addition, return migrant wage and salary earners work more often in temporary jobs. There does

not exist any statistically significant difference in the share of unemployed between the returners and the stayers. Of the groups outside labour market at the time of the survey, the share of those doing housework is statistically significantly higher for the return migrants than for the non-migrants. One explanation for this might be that the return migrants may plan to work abroad again and, therefore, take no job at home (see Hazans and Phillips 2010). This explanation also gains support from our survey where we also asked about intentions to return to live in Finland. This share (agreeing or strongly agreeing with the statement ‘I expect to return to live in Finland’) was around 39 percent among the return migrants doing housework, whereas this share was around 19 percent for the whole group of return migrants. Some of the return migrant respondents had already moved back to Finland which suggests that a circular migration takes place among the return migrants.

(Figure 1 around here)

In this paper our focus is on whether the Estonian migrant’s experience in Finland provides a wage premium for the return migrants. Our outcome variable is the log monthly earnings from the current job in Estonia. We do not have precise values for the monthly earnings but only the data on monthly income ranges. Figure 2 shows the current (at the time of the survey) earnings distribution for the return migrants and, correspondingly, for the stayers. We also produce midpoints for all wage categories by applying the Midpoint-Pareto method (explained in the next section).

(Figure 2 around here)

4. METHOD AND RESULTS

4.1 Method

First we study the earnings premium of the return migrants from Finland compared with the Estonians who have never lived abroad. For this purpose we estimate Mincerian type wage regressions, where the outcome variable is log monthly wage.

² The duration of the last spell if several spells.

$$\log W = \beta X_i + \delta RET_i + \varepsilon_i, \varepsilon_i \sim N(0,1).$$

where X_i is the vector of covariates which include individual-specific characteristics, such as e.g. gender, age, age squared, education, occupation group and socioeconomic status, and the individual's job-specific characteristics such as the type of employment relationship, the size of the firm, industry and sector. β is the vector of coefficients associated with X . RET_i is the variable denoting the return migrant status. ε_i is the random error term $\sim N(0,1)$.

As we do not have precise values for the monthly earnings but only the data on monthly income ranges (10 different categories) we employ three different analysis methods to estimate the above baseline wage regression where selection issues are not yet taken into consideration. First, we use the interval regression technique, which is an appropriate method, when one knows into what interval each observation of the outcome variable falls, but one does not know the exact value of the observation. Second, we employ an ordered probit regression with 10 ordered categories of monthly wages. Third, we use an OLS regression on the midpoints of the monthly wage intervals. Midpoint-Pareto method (see a more detailed description of the method in e.g. von Fintel 2006) is applied in order to get the midpoints for all wage categories in the following way: midpoint is used for all other categories except the right-censored, open category, and the Pareto method is applied to derive the Pareto mean for the open category. The mean of the midpoint of the monthly wage is around 168 euros higher for the return migrants compared with the non-migrants and the difference between the means is statistically significant.

In the analyses we also have to take into account the possible endogeneity problem, i.e. the group of return migrants being a selected group/a non-random group. In this case there will be sample selection bias in the OLS estimator if the residual in the earnings equation is correlated with the residual in the selection equation of return migration. In addition, we have to take into account another selection, i.e. that wages can only be observed for those individuals who participate in employment, which may also be a non-random group.

In order to address these selection issues we introduce reduced equations for return migration and labour force participation:

$$RET_i^* = \gamma Z_i + u_i,$$

$$LFP_i^* = \mu B_i + v_i,$$

where RET and LFP are latent variables, Z and B are vector of covariates, γ and μ are vectors of coefficients associated with Z and B and u_i and v_i are the respective error terms.

These latent variables RET* and LFP* are unobservable and we only observe

$$RET_i = 1 \text{ if } RET_i^* > 0$$

$$RET_i = 0 \text{ if } RET_i^* \leq 0$$

$$LFP_i = 1 \text{ if } LFP_i^* > 0$$

$$LFP_i = 0 \text{ if } LFP_i^* \leq 0$$

Typically in the literature, with only a one selection equation, a commonly used way to correct for the sample selection bias is to use a two-step Heckman model (Heckman 1979), where a probit model of e.g. participating in employment is estimated first and then a correction term is added to the wage regression to account for possible selection bias. The two-step Heckman procedure gives an estimate of the parameter which measures the covariance between the two residuals u_1 and v_2 . Under the null hypothesis that there is no selectivity bias, this parameter is zero.

In order to deal with the double selection in our data we jointly correct for selection to return migration and labour force participation adopting the Heckman procedure with extended correction terms (e.g. Tunali 1986, Heitmueller 2004). We first estimate both selection equations by using a bivariate probit model and construct sample selection correction terms on the basis of these estimation results. In the second step, we estimate wage regressions using OLS including the selection correction terms as additional regressors in the wage regressions. Here we employ an endogenous switching model, i.e. we estimate separate wage regressions for the return migrants and the stayers

If the selection equations are not be independent, i.e. $\rho_{uv} \neq 0$, the correction terms for the return migrants' wage regression are:

$$\lambda_{iL,1} = \phi(Z_i\gamma) \Phi[\alpha(B_i\mu - \rho Z_i\gamma)] / \Phi_2(B_i\mu, Z_i\gamma, \rho)$$

$$\lambda_{iRET,1} = \phi(B_i\mu) \Phi[-\alpha(Z_i\gamma - \rho B_i\mu)] / \Phi_2(-B_i\mu, Z_i\gamma, -\rho)$$

where $\alpha = (1-\rho^2)^{-0.5}$, ϕ and Φ are the univariate standard normal density function and distribution function and Φ_2 is the bivariate standard normal distribution function.

Correspondingly, the correction terms for the stayers' wage regressions are:

$$\lambda_{iL,1,0} = \phi(Z_i\gamma) \Phi[-\alpha(B_i\mu - \rho Z_i\gamma)] / \Phi_2(-B_i\mu, Z_i\gamma, -\rho)$$

$$\lambda_{iRETO,1} = -\phi(B_i\mu) \Phi[\alpha(Z_i\gamma - \rho B_i\mu)] / \Phi_2(-B_i\mu, Z_i\gamma, -\rho)$$

In order to study the heterogeneity of the migration experience by how well the migrants performed in the Finnish labour market we also carried out the 'heterogeneity' regressions for the return migrants alone where we compare the wage premium from the experience in Finland within this group and also control for the time spent in Finland.

4.2 Results

Common return to returning

The estimation results related to the common return to returning are reported in columns 4A-4H in table 4. Column 4A of the table gives the results of the interval regression with only return migrant dummy as an explanatory variable (4A) and column 4B including all other covariates (4B), columns 4C-4D the corresponding results of the ordered probit model, and columns 4E-4F of the OLS model. These are specifications without controlling for the selection into return migration. The corresponding results taking into account the selection into return migration are given in columns 4G-4H.

The results from all different regressions suggest a positive and significant wage premium for return migrants from Finland. The estimate of 0.137 for return migrants from interval regression (column 4B) implies that the employed Estonian return migrants earn, on average, 13.7 percent more compared with the stayers, when the impact of other observable characteristics is controlled for. The positive coefficient for the return migrant from the ordered probit model (column 4D) suggests that the return migrants have a greater probability to belong to the higher wage categories compared with the stayers. The corresponding estimate from the OLS regression using the midpoints of wage intervals as the dependent variable (column 4E) is of quite similar magnitude, implying a 14.6 percent larger monthly wage for the return migrants.

Table 5 reports the results from the wage equations estimated separately for the return migrants and the stayers where the selection terms calculated from the bivariate probit model are used as additional covariates (as the correlation coefficient ρ_{uv} is significantly different from zero). Further, given the results from these wage equations predicted log wages can be estimated. Table 6 presents these predicted wages for the return migrants and the stayers and the difference in the predicted log wages where our interest lies. Our wage equations predict higher monthly wages for the return migrants in comparison with the nonmigrants. According to these predictions, return migrants earn 25.8 percent more than the nonmigrants. But the selection correction terms added to the regressions were not significant in the wage equations which suggests that the selection biases are not quantitatively important.

Heterogeneity in the returns to returning

We also carried out the ‘heterogeneity’ regressions for the return migrants alone where we compared the wage premium from the experience in Finland within this group. The baseline results of these regressions without controlling for selection issues are presented in columns 7A-7C in table 7. Column 7A of the table gives the results of the interval regression, column 7B the corresponding results of the ordered probit model, and column 7C of the OLS model. Column 7D of the table gives results of the OLS model where the selection correction terms are included.

The returners who had no earnings in Finland are used as the comparison group. As covariates we used the wage category in Finland, the duration of the stay in Finland, an interaction term of the birth year and age at migration, education, whether the return migrant has qualifications obtained in Finland. In addition, we also control for the experience in Estonia before migration by including covariates denoting whether his/her main activity was employed before the migration to Finland and to which wage category she/he belonged before migration.

We find evidence of differential returns to experience in Finland by how well the return migrants performed in the Finnish labour market. Those return migrants that belonged to the lower wage categories in Finland do not enjoy a statistically significant wage premium compared with the migrants who had no earnings in Finland, whereas those return migrants who belonged to the higher wage categories in Finland seem to enjoy a wage premium. The size of this premium for the return migrants belonging to the higher wage categories varies between around 30 to 81 percent (the interval regression model) and between around 30-64 percent (the OLS model). The highest premium (56-66 percent) is experienced by those return migrants who belonged to the

highest income category in Finland. In our survey these return migrants also agreed more often with the statement ‘I have experienced stronger career progression than I would have done if I had not lived in Finland’ than those belonging to the lower wage categories. So the heterogeneity in the quality of human capital attained abroad seems to be attributed to the heterogeneity in the return premium which is in accordance with the human capital accumulation story. The results suggest that those who performed well in the Finnish labour market benefit from their human capital accumulation compared with those return migrants who had no earnings.

When we take into account selection issues only the highest wage categories (categories 9 &10) enjoy a statistically significant wage premium compared with the return migrants who had no earnings in Finland and the size of the premium also decreases.

5. CONCLUSIONS

Return migration is a significant phenomenon of the migration behaviour. Return migrants from the old EU countries are an important and fast-growing group in the labour markets in Central and Eastern Europe (Martin and Radu, 2010). The case of Estonia is a good example of this. According to a new survey by the Statistics Estonia approximately 30-40 percent of Estonians abroad return to Estonia.

Previous research has predominantly dealt with return migration from the host country perspective and much less attention has been paid to the source country perspective where the focus on those who return and their economic outcomes such as labour market performance. This paper extends the earlier literature by providing new information on this rather neglected topic in the literature, returns to return migration in three ways. First, we provide new information on the common return to returning in the East-West migration context, by focusing on the wage premium of the Estonian return migrants from Finland in comparison with the working-age Estonians. Second, we also investigate the heterogeneity in the returns to returning by the labour market performance and time spent in Finland. Third, in addition to quantitative results, we append our analysis by using qualitative questions about the benefits of stay in Finland for career progression after return. The data from our survey conducted in 2013 among a representative random sample of working age (18-64-year-old) Estonian return migrants from Finland and a representative random sample of a comparison group of working age Estonians who have never lived abroad were used in the analyses.

The main findings of this study suggest that the Estonian migrants' experience in Finland seems to provide an earnings premium for the wage earners after return in comparison to otherwise similar Estonians who have stayed in Estonia. The Estonian return migrants earn on average 14 per cent more than the comparable stayers.

By exploring the heterogeneity of the migration experience, we find evidence of differential returns to experience in Finland by how well the return migrants performed in the Finnish labour market. Those return migrants that belonged to the lower wage categories in Finland do not enjoy a statistically significant wage premium compared with the migrants who had no earnings in Finland, whereas those return migrants who belonged to the higher wage categories in Finland seem to enjoy a wage premium. Returners with the highest wage premium from their experience in Finland also perceive more frequently to have experienced a stronger career progression than they would have done if they had not lived in Finland. Our results therefore emphasise the importance of taking into account also the quality of human capital attained abroad for the returns to return migration.

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APPENDIX

Table 1. Return migrants: primary reason for migrating to Finland (last spell if several spells).

| Primary reason | Share |
|---|-------|
| Opportunity to earn more money for future use | 48.7 |
| Opportunity to get a better job than in Estonia | 44.1 |
| Opportunity to gain skills (through work or study) | 36.0 |
| Better economic security in Finland | 34.5 |
| Family ties/social networks in Finland | 21.8 |
| Opportunity to experience life in a different country | 21.8 |
| Better social security in Finland | 19.8 |
| Other reason (e.g. spouse's job) | 15.2 |

Note: These shares do not sum up to 100 percent.

Table 2. Return migrants: primary reason for returning to Estonia (last move if several).

| Primary reason | Share |
|--|-------|
| Family ties in Estonia | 46.7 |
| Feels more at home in Estonia | 38.1 |
| Other | 30.9 |
| Termination of a job in Finland | 24.9 |
| Desire to raise children in Estonia | 19.8 |
| Opportunity to get an interesting job in Estonia | 14.7 |
| Family breakdown in Finland | 9.1 |
| Job prospects were not good in Finland | 6.6 |
| Had nothing more to gain from living in Finland | 6.1 |
| Bad attitudes in Finland | 4.5 |
| Opportunity to start a business in Estonia | 4.1 |

Note: These shares do not sum up to 100 percent.

Table 3. Means for the Estonian return migrants from Finland and the stayers.

| | Return migrants | Stayers |
|-----------------------------|-----------------|---------|
| Female | 0.411*** | 0.622 |
| Male | 0.584*** | 0.368 |
| Age (average) | 0.385*** | 0.422 |
| Age 18-24 | -.*** | 0.078 |
| Age 25-54 | 0.907*** | 0.684 |
| Age 55-64 | 0.093*** | 0.237 |
| Primary education | 0.112 | 0.081 |
| Secondary education | 0.541 | 0.518 |
| Tertiary education | 0.347 | 0.400 |
| Mother tongue Estonian | 0.995 | 0.985 |
| Spouse | 0.731 | 0.689 |
| Has children under 18 years | 0.624*** | 0.420 |
| Own flat/house | 0.700 | 0.740 |
| Time in Finland in years | 2.9 | - |
| N | 197 | 323 |

Note: ***, ** and *: the null hypothesis of equality of means rejected at 1, 5 and 10 percent level.

Table 4. Common returns to return migration in comparison to working-age Estonians who have never lived abroad (baseline case, where selection to return migration and selection to participation not taken into account).

| VARIABLES | (4A) interval regression | (4B) interval regression | (4C) ordered probit | (4D) ordered probit |
|---------------------|-----------------------------|-----------------------------|------------------------|------------------------|
| Return migrant | 0.220*** (0.073) | 0.137** (0.063) | 0.356** (0.117) | 0.324** (0.146) |
| + other covariates* | NO | YES | NO | YES |
| | (4E) OLS | (4F) OLS | | |
| Return migrant | 0.219*** (0.071) | 0.146** (0.064) | | |
| + other covariates* | NO | YES | | |

Note: * Gender, age, age squared, education, occupation group, the type of employment relationship, industry and sector used as other covariates. ***, ** and * indicate significance at 1, 5 and 10 percent level.

Table 5. Wage regression results for return migrants and stayers separately where sample selection correction terms based on a bivariate probit are included.

| VARIABLES | Bivariate probit correction | |
|-----------|-----------------------------|---------------------|
| | Return migrants | Stayers |
| Constant | 2.996 (3.720) | 6.355*** (0.688) |
| Female | -0.506* (0.263) | -0.307** (0.130) |
| Age | 0.182 (0.158) | 0.021 (0.031) |
| Age2 | -0.002 (0.002) | -0.0002 (0.0004) |
| Secondary | 0.320 (0.161) | -0.039 (0.180) |
| Tertiary | 0.925*** (0.225) | 0.280 (0.204) |
| Occ_cat2 | -0.0168 (0.193) | -0.020 (0.122) |
| Occ_cat3 | -0.347* (0.176) | -0.207* (0.122) |
| Occ_cat4 | -0.076 (0.354) | -0.234 (0.171) |
| Occ_cat5 | -0.610** (0.192) | -0.424 (0.154) |
| Occ_cat6 | -0.223 (0.535) | 0.082 (0.528) |
| Occ_cat7 | -0.278* (0.172) | -0.485** (0.197) |
| Occ_cat8 | -0.540** (0.189) | -0.488** (0.183) |
| Occ_cat9 | -0.627** (0.240) | -0.634** (0.198) |
| Industry2 | -0.122 (0.292) | 0.203 (0.178) |
| Industry3 | -0.140 (0.290) | 0.267 (0.229) |

| | | |
|-----------------------------|--------------------|----------------------|
| Industry4 | -0.091 (0.265) | 0.188 (0.174) |
| Industry5 | -0.375 (0.295) | 0.071 (0.187) |
| Self-employed | -0.114 (0.137) | -0.077 (0.126) |
| Temporary contract | -0.262* (0.143) | -0.025 (0.134) |
| Part-timer | -0.278* (0.165) | -0.746*** (0.107) |
| λ_r (participation) | 0.954 (1.234) | -0.082 (0.415) |
| λ_p (returnee) | -0.206 (0.216) | -0.031 (0.026) |
| N | 99 | 204 |
| R-squared | 0.556 | 0.488 |

Table 6. Predicted log wages and the wage difference between the return migrants and the stayers.

| | Return migrants | Stayers |
|---|---------------------|----------------------|
| Predicted log wages | $\ln W_{ret}=6.837$ | $\ln W_{stay}=6.579$ |
| Wage difference between the return migrants and the stayers | | 0.258*** |

*** Denotes significance at 1%.

Table 7. Returns to return migration by how well the return migrants performed in the Finnish labour market – only returns migrants.

| VARIABLES | (7A) interval regression | (7B) ordered probit | (7C) OLS | (7D) OLS B |
|--------------------------------|--------------------------------|------------------------|--------------------|--------------------|
| No earnings in Finland (ref.) | | | | |
| Wage in Finland- category 1&2 | -0.058 (0.174) | -0.134 (0.423) | -0.070 (0.186) | -0.191 (0.180) |
| Wage in Finland- category 3&4 | -0.087 (0.167) | -0.212 (0.405) | -0.075 (0.177) | -0.136 (0.167) |
| Wage in Finland- category 5&6 | 0.292* (0.175) | 0.070* (0.428) | 0.308* (0.186) | 0.147 (0.181) |
| Wage in Finland- category 7&8 | 0.337 (0.263) | 0.827 (0.643) | 0.328 (0.275) | 0.161 (0.263) |
| Wage in Finland- category 9&10 | 0.813*** (0.239) | 2.015*** (0.595) | 0.639** (0.228) | 0.466** (0.218) |
| + other covariates* | YES | YES | YES | YES |

Note: * The duration of the stay in Finland, an interaction term of the birth year and age at migration, education, whether the return migrant has qualifications obtained in Finland, whether main activity was employed before the migration to Finland and to which wage category the return migrant belonged before migration to Finland used as other covariates. ***, ** and * indicate significance at 1, 5 and 10 percent level. OLS B - OLS with selection correction terms included

Figure 1. Current labour market status of the return migrants and the stayers (at the time of the survey).

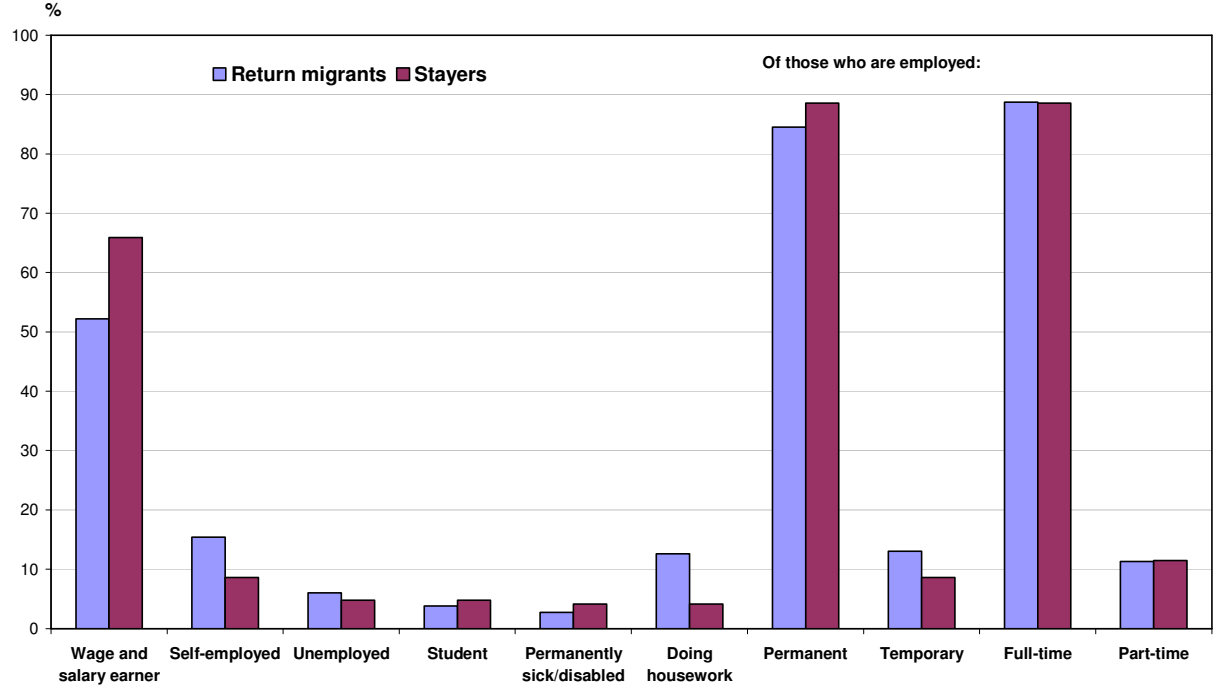


Figure 2. Total monthly gross income from current main job by wage category (1=under 200 euros, 2=200-401 euros, ..., 10=over 1,800 euros) for the return migrants and the stayers.

