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Labour Strategies of Women: The Value of Household Unpaid Work and Temporary Labour Migration Abroad

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Abstract

Our paper sets forth two possible explanations for the fall in female labour force participation in Romania. The first explanation focuses on the increase in temporary labour migration rates, while the second relies on the existence of gender norms. We consider the existence of a social norm that sets the participation of women into household production. We test these assumptions on a 10 percent sample of the Romanian 2002 census. The results show the existence of important differences between women who do not work at all, those who do not move in the labour market and those who move for work, be it within the country or abroad. They also prove the importance of social norms for women who work in their residential locality and for those who temporarily migrate abroad for work.

Keywords: Labour market • Household production • Social norms • Temporary international migration • Internal labour mobility

JEL classification: D13, J16, J22, J61, R23

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1. Introduction

Most studies on developing countries acknowledge an upward trend for women's labour market participation. The explanations put forward rely on an increase in wages, on the engines of liberation or changing social norms. However, Romania has seen an opposite trend over the last fifty years. Women's participation rate in Romania has registered a constant fall even during the communist period. The rate fell from 78 percent in 1956 down to 68 percent in 1989 and continued to decrease reaching 36.2 percent in 2011. Figure 1 presents the evolution of women's activity rate between 1996 and 2011.

Insert Figure 1 here

This problem seems even more acute in the light of the demographic trend in Romania characterized by an important decrease in population during the last decades. This decrease has reached important figures and cannot be overlooked. It is estimated that between the two censuses in 1992 and 2002, Romania lost 1.1 million inhabitants. This loss represents almost 5 percent of the overall Romanian population. The officially recorded migration accounted for a mere 12 percent of this decrease, whereas the rest was due to the natural decrease (27 percent) and especially to unrecorded migration (78 percent). This decline in population as well as the unbalanced structure of the country's population due to aging especially in rural areas raises serious concerns about the future of the labour market and the sustainability of the pension system. One possible solution considered by the authorities would be to encourage women's participation in the labour market. According to a study conducted by the Romanian National Institute of Demography for the United Nations in 2007, only 25 percent of the women living in rural areas participate in the labour market. Moreover, between the last two censuses in 2002 and 2011, Romania lost another 420,000 inhabitants. Figure 2 below illustrates the evolution of the Romanian population between 1990 and 2012.

Insert Figure 2 here

This article sets forth two possible explanations for the severe decrease in women's labour force participation. The first one relies on the existence of social norms at the regional level. These norms set the participation of women in household production. Considering the importance of social norms in shaping labour market participation, our approach is similar to that of Lindberg, Nyberg and Weibull (1999) who focus on the influence that social norms play on labour market patterns in the welfare state. They assume that living off one's own work is the social norm and that individuals suffer a utility loss when they deviate from this

norm. The utility loss increases in the number of people that adhere to the norm. At the same time, Alesina and Giuliani (2010) explain differences in work and household production among countries by a social norm on the strength of family ties. Stronger family ties imply more home production and less participation in labour market activities especially for women. Other papers using similar techniques are Burda et al. (2012), Algan and Cahuc (2005 and 2006) and Fernandez et al. (2004).

Alternatively, another explanation relies on increasing out migration rates from Romania, especially temporary migration rates. In the case of temporary migration the women who choose this strategy are considered to be still part of the Romanian labour force, while they are actually working on the foreign labour market.

It was estimated that in 2007 Romania was the source country for about two and a half million migrants out of whom more than half were females (NID 2007). The share taken by women in permanent migration flows from Romania has been steadily increasing since 1990. In 1992, women accounted for 52 percent of the flows, by 2007 their share had reached 65 percent before dropping again to 51 percent in 2011 (NIS 2012). However, in the case of temporary labour migration, the available data show that the flows are likely to be dominated by men.

Some recent studies show that an important share of the Romanian migrants has entered the labour market for the first time at destination. These persons had not worked in Romania before. It is the case of 36 percent of the migrants in the survey run by Friedrich Ebert Foundation in Romania in 2010 on a sample of 810 Romanian labour migrants (Stanculescu 2012). Other surveys conducted in Italy and Spain also find evidence of Romanian migrants entering the labour market for the first time at destination, especially in the case of women. Two studies run by CESPI in Italy, the first one on women working in the care services (Castagnone 2007) and the second one on migrant mothers (Torre 2008) find evidence in this respect. According to the data from the Spanish Immigrant Survey run in 2007 about 40 percent of the over 2000 Romanian women included in the sample entered for the first time the labour market once at destination (INE 2007).

In spite of the differences between men and women, most of the studies on the Romanian labour market do not take into account gender differences. Gender is used only as a control variable. However, it is most unlikely that men and women take the decision to work or to move in the same way as the roles assigned by the sending society are different. While traditionally, women have to work in the household, men have to earn money in order to provide for the household.

One of the main assumptions of this paper is that women assess in the same way unpaid and paid work. Therefore they choose between unpaid work and paid work in different locations. Women may consider so both because they derive utility from household production and because there is a social norm imposing them to work in the household. A recent paper that tackles this issue is that of Burda et al. (2012) who consider the importance of social norms for men and women's total work: paid work and household production.

Our paper is organized as follows: In section two we present the social norms. Section three sets forth the methodology and the econometric specification. In section four we describe the data and the variables employed. Section five analyses the main results. Then we conclude.

2. Social Norms: Subjective and Objective Measures

We employ two different specifications for social norms that determine the contribution made by women to household production. First, we set forward a measure of social norms by using data from the 2000 Romanian Gender Barometer. We consider two questions from the gender barometer. The first question is "Is it women's duty more than men's to undertake the housework?". The possible answers to this question are either yes or no. The second question is "Who should raise children in a family?". The given answers are women or both parents. These questions are subjective measures based on beliefs and traditionally assigned roles. We compute a regional average. A similar approach was followed by Burda et al. (2012), by Alesina and Giuliani (2010) and also by Algan and Cahuc (2006 and 2009) and by Nicole Fortin (2005).

Our data source, the 2000 Romanian Gender Barometer shows the main roles assigned by society to men and women. Over 63 percent of the people interviewed considered that it is women's duty more than men's to undertake the housework and 70 percent said that it is men's duty more than women's to provide for their household.

Figure 3 presents the spatial distribution of the answers to the question if it is women's duty more than men's to do the housework.

Insert Figure 3 here

Interestingly, 51 percent of the people think that domestic work should be paid as any other kind of work and only 29 percent are against. Furthermore, 81 percent admit that domestic work is not the easiest type of work. The people who agree that domestic work should be paid as any other kind of work seem to assign the same value to household production as to labour market activities.

Moreover, 78 percent of the people think that a woman must follow her spouse. The majority (53 percent) also believe that men are not as able as women to raise children. In 83 percent of the cases the man is the head of the family. However, in the majority of cases (61 percent) the woman is seen as the mistress of the house and in almost half of the cases (45 percent) the woman decides how the income of the household should be spent.

Figure 4 presents the spatial distribution for answer "the mother" to the question "Who should raise children in a family?".

Insert Figure 4 here

At the level of domestic activities, in almost 90 percent of the households interviewed women are the ones to do the cooking, the cleaning, to wash clothes and dishes and to do the ironing. In what child rearing is concerned, according to 70 percent of the respondents, women are those who look after the child daily, supervise the child's homework, take him to the doctor and collect him from school. Most of the men (76 percent) think that their wives are more skilled when it comes to these activities, though 71 percent of the interviewees consider that both parents should be involved in child rearing. At the same time, in 80 percent of the households, men wash the family car and do the plumbing.

Then, by using data from the 2000 Romanian Time Use Survey, we consider another specification for norms. This time the norms are proxied by the average time spent on housework at regional level. We consider this measure to be objective.

Insert Figure 5 here

The figure above presents regional differences in average time spent on housework.

Considering the time spent daily for work on the labour market or in household production, it becomes obvious that in all regions women work more than men. On average a woman works 1.1 hours more than a man, but there are regions where this difference is more important. In the South-West region women spend 1.6 hours more than men on labour activities, while in the North-East region the difference is only of 0.8 hours. This difference is generated mostly by the time women spend on childcare and on housework. Although women work more than men, men spend more time on paid work. In the South and South-East regions these differences are more important (94 percent), whereas the smallest difference is encountered in Bucharest where men spend on paid work 50 percent more time than women. In the North-East region people spend more time on paid work than in all the other regions (3.3 hours by men and 2.6 hours by women). As opposed to paid time, the time spent on childcare and

housework presents a completely different pattern: women spend more than twice more time on housework than men. The differences vary between 196 percent in the North-East region and 241 percent in the Bucharest-Ilfov region. In the Bucharest-Ilfov region women spend the least time on housework, 4.1 hours daily whereas in the South-West region they spend 5.6 hours daily**,** while men in Bucharest spend the least time on family and housework and men from the North-East and the South-West regions spent 2.5 hours daily on family and housework. The average time spent on family and housework at the country level is 4.8 hours daily.

3. Methodology and Econometric Specification

We assume that the utility derived by a woman depends not only on her private consumption (C) but also public consumption (G) and on the existence of social norms at the regional level (S). The public good G is considered to be produced by the woman as household production. The breaking of social norms generates a stigma cost that penalises her if she does not work in the household.

$$U(C, G, S) \quad (1)$$

Women who do not work in the labour market but only in household production do not have to bear the stigma cost S and will also have a higher level G of public good. On the other hand, they will not have their own income, but will be financially dependent on other people in the household. Women who assign a higher value to household production and social norms than to private consumption are unlikely to work in paid activities in the labour market. Therefore if $u(c)-u(g)-u(s)<0$ the woman will not work in the labour market, but in household production.

First of all, we consider that women may choose not to participate at all on the labour market and involve in domestic production. Then we consider that even if they participate, women stay in their home area and do not move. The other options that we take into account are that women do participate in the labour market and also move to work out of their home area. According to the location of the work place women may choose to move on short distances and in this case they work in their home region or on long distances and in this case they work in another region. Finally, we consider that women may move to work abroad as temporary labour migrants.

We estimate a multinomial logit model for the labour and mobility decision. We consider these decisions to be simultaneous and exclusive. The woman chooses between unpaid work

at home, paid work in her location of residence or paid work in the same region, in another region or abroad.

Our dependant variable on labour and mobility status can thus take a value from 1 to 5, where 0 is the option not to work in the labour market but only in household production.

The woman has to choose between q=1-5 alternatives. However, preferences and opportunity sets are random. At best what one can derive is the probability for the observed and assumed optimal choice of the individual, for example not to work or to work but not move or to work and move. To obtain an expression for that probability one has to assume how the random element enters the utility function and how this random variable is distributed across alternatives for a given individual, and across individuals, given the alternative. Moreover we also have to deal with how opportunities should be specified and how the random elements are distributed. We consider that the indirect utility that the woman can derive from each alternative is given by:

$V_{iq}= \tilde{V}(w_{i,}, Z^i; N^j) + \mu_{iq}$, where w_i is the woman's wage (2)

Z^i is a vector of socio-demographic characteristics

N^j is a vector of social norms in the region j (J=1-8)

We also consider fixed costs associated with work and mobility (F_q). Since we assume non stochastic fixed costs, they do not modify the likelihood function. The functional form of the utility function, instead, becomes:

$$V_{iq}= \tilde{V}(w_{i,}-F_q, Z^i, N^j) + \mu_{iq} \quad (3)$$

The random component includes unobserved individual preferences and opportunities. It equally includes mobility costs which are likely to be the same for all women but different according to the mobility pattern chosen. The error term is assumed to be identically and independently distributed across alternatives and across households according to a type I-extreme value distribution. Error terms represent unobserved alternatives' specific utility components or errors in the perception of the utility of each alternative. In this case, the probability that alternative q is chosen by individual i is given by:

$$\Pr_{ni} = \Pr(U_{ni} > U_{qi}, \forall q \in Q) = \frac{\exp V(w_n, Z^i, N^j)}{\sum_{q=1}^{Q} \exp V(w_q, Z^i, N^j)} \quad (4)$$

The model is equivalent to a multinomial logit model (McFadden 1974). We choose to implement a multinomial logit, considering that the entry and the location decision on the labour market are simultaneous rather than sequential. As documented by several sociological

surveys led both in Romania and in the main destination countries of Romanian migrants - Italy and Spain -, some of the women migrants had not been employed before they moved abroad. These women entered for the first time on the labour market once they moved abroad (Castagnone et al. 2007; Torre 2008; Stanculescu et al. 2012). This is mostly the case of women coming from rural regions that work in subsistence agriculture as shown by a 2006 World Bank Report. Furthermore, the Hausman Mc Fadden test for the independence of irrelevant alternatives, confirms that the alternatives considered are independent. The results of the Hausman Mc Fadden test are reported in Appendix I.

Following Alesina and Giuliani (2010) and Fortin (2005) we decide to include the different specification of norms into different regressions. We ran in all four regressions. The first three with the different specification of norms and a last one as robustness check in which we included regional fixed effects.

The dynamics among the possible choices in the estimation results of the multinomial logit model are illustrated by computing the marginal effects:

$$\frac{\partial P_{iq}}{\partial x_{in}} = P_{iq} * (\beta_{qn} - \sum_{m=1}^{Q-1} P_{im}\beta_{mq}), q = 1,..., Q-1 \quad (5)$$

4. Descriptive Statistics and Variables

We employ a dataset of 2,137,967 individuals and 732,016 households which represents a 10 percent randomly selected sample of the Romanian 2002 census developed by the Romanian National Institute of Statistics[1]. The census was conducted in March 2002 at a time when Romanians had just obtained the right to freely circulate in the Schengen area without needing a visa. The database contains information about 1,099,963 women out of which 550,541 make up the potential female labour force. We consider the potential female labour force to be made up of women between fifteen and sixty-five years of age. However, only around 367,000 women actually work on the labour market. The mobility strategies adopted by women on the labour market were filtered by the location of the workplace and the duration of absence. Most of these women (over 320,000) work in their locality of residence whereas around 38,000 adopt a short distance (SD) mobility strategy working in the same region where they reside. Another 5,000 migrate on long distance (LD) within the country in order to work and almost 4,000 turn to temporary labour migration abroad.

[1] Data were provided by the Minnesota Population Center. Integrated Public Use Microdata Series - International: Version 3.0. Minneapolis: University of Minnesota, 2007.

Unfortunately, as we do not have panel data, our study is in cross-section. Therefore, we have to admit several limitations at the level of our database as the census is not conceived to study labour mobility. Our database contains household and individual level data, however we do not have indications about the precise destinations, nor about the initial income level of the households. The choice of our dataset was due mainly to the importance of the sample. Gender-based research has been hampered by the lack of available data. The size of our sample provides us with the opportunity of an in-depth look at women's labour choices strategies enabling us to account also for temporary labour migration abroad. No other available sample would have provided us with such an important number of migrants. Samples on migration which are representative when used to study overall mobility become too small when divided by gender. Considering the size of the sample, our study is likely to be significant at the regional and national level.

Insert Table 1 here

The descriptive statistics presented in table one above shows that among working age women those who work abroad are the youngest with an average age of 30 years. In general, women who turn to mobility strategies are younger on average than women who work in their home area or those who do not work at all on the labour market. Women who turn to temporary labour migration abroad are on average the youngest category. In contrast, women who adopt internal mobility strategies have the highest level of education with an average education level of over ten years, whereas those who turn to temporary migration abroad have a similar level of education to those who work in their home area with an average slightly below ten years. Those who do not work at all are, as expected, the least educated with an average education level of about 7.5 years.

In addition, women who work in their home area and those who do not work at all have the highest marriage rates whereas marriage rates are the lowest in the ranks of those who turn to long distance internal mobility and those who migrate temporarily abroad for work. In the ranks of this last category around 50 percent are married.

Among the women who turn to temporary labour migration abroad 42 percent are daughters of the household head and 30 percent are the spouse of the household head. For internal long distance mobility the opposite is true with 30 percent of the women being the daughters of the household head and 40 percent of them spouses of the household head. Furthermore, over 55 percent of the women who do not work at all and almost 60 percent of those working in their home area are the wives of the household head.

At the level of the household variables, we notice that women who do not work at all come from the largest households with an average of over four members and interestingly so do those who became temporary labour migrants abroad. In their case however the share of women in the household is the most important. The reverse is observed in the case of women who do not work at all, the share of women in the household being in their case the lowest. Thus the main difference seems to reside in the fact that these women come from large households where women are more numerous, whereas women who do not work at all come from large households in which the number of women is less important. This seems to point to the fact that women and men do not substitute each other in terms of the task performed in the household.

As expected, women who do not work at all have the largest number of children with an average of around two children. At the same time, women who migrate temporarily for work abroad have on average less than one child. This evidence seems to prove that mobility strategies do influence fertility. However, one has to keep in mind that women who temporarily migrate abroad for work are the youngest age group so they may still give birth at a later age.

Moreover, the number of dependants other than children in the household is the most important in the case of women who do not work at all and the least important for those who work but do not turn to mobility strategies.

Following Katz (1998) and Taylor and Mora (2005), since we do not have any indication on the income of the households, we build a wealth index. The index includes: the building material of the dwelling, the existence of sewage, water supply, kitchen, toilet and bathroom, central heating, hot water, air conditioning, gas and electricity. The goods are given the same weight in the index. Therefore, the index can take values ranging from 0 to 11. Women who work in their home area come from the wealthiest households with an average wealth index of around 6.5.

Insert Figure 6 here

They are followed by those who temporarily migrate abroad for work. However, in this case by plotting the density of their distribution we realize that women who migrate temporarily abroad for work might be split into two categories: those coming from very poor households and those coming from relatively rich households. The figure 6 above presents the distribution of women who migrate temporarily abroad by their level of wealth. The differences may be due to destinations and possible additional costs for some women. On the other hand, women

who do not work at all and those who turn to short distance mobility come from the poorest households. Interestingly, the lowest average value of the wealth index registered in the case of women who do not work at all is almost two points behind the average value of wealth registered for the households with women working in their home area.

Furthermore, as expected over 60 percent of women who adopt internal mobility strategies either on short or long distances come from rural areas compared to only 45 percent of those who temporarily migrate abroad for work and 36 percent of women who work in their home area.

Insert Table 2 here

At the regional level, the main sending regions seem to be the same for women who turn to temporary labour migration as for overall temporary labour migrants. As shown in Table 2, about 28 percent of women who temporarily migrate for work abroad come from the North-East region and 24 percent come from the North-West region whereas less than 3 percent come from the South-West region. Over 30 percent of internal long-distance labour migrants and 20 percent of those moving on short-distance come from the South region. The map in Appendix II provides a description of Romanian NUTS II level regions.

5. Estimation Results

The results of the multinomial logit regression[2] clustered at the household level reveal the different factors that impact women's choice of labour market strategies. We ran several regression models in order to check for the robustness of our results. In the first model we consider the question whether it is women's duty to do the housework. In the second model we consider the social norm to be proxied by the answer to the question "Who should raise children in a family?". Finally, we consider the social norm as set by the average number of hours that women spend on housework. We equally ran a last model with regional fixed effects in order to check for the robustness of the results. The results in terms of marginal effects computed at mean of the first two models are presented in table three whereas the results of the third model and that of the regression including regional fixed effects are presented in table four.

Comments on the regression results refer to results from model one in case of all variables except for the norm variables and for regional level variables.

Insert Table 3 here

5.1. Individual level variables

In human capital studies, as wages are endogenous, the proxies for expected economic gains from work are typically measured as an individual's total years of schooling and work experience. Work experience, usually either proxied by age or computed as the difference between age and years spent in education is a key determinant of earnings in human capital models (Sjaastad, 1962, Mincer, 1974, Vijverberg 1993). Age captures the biological age as well as the experience. According to our results, age has a negative effect for all work and mobility strategies and a positive one on the alternative to work on the labour market without moving as compared to not to work at all on the labour market. Younger people are more prone to migrate as they would have a longer period over which to recover the migration cost (Harris and Todaro 1970). Younger people are also less risk-averse and therefore are more inclined to take the risk of migrating. Furthermore, they are less rooted in the society of origin and the psychological cost of migration is reduced. But as age might have a more complex effect we also control for age 2 and age 3. Age has actually a quadratic effect for women who

[2] All regresions were run on a reduced sample. The sample was reduced by applying the month of birth criterion. First regressions were run for the population born in March. Then in order to check the robustness of the results and a possible selection bias, regressions were run again for the population born in August.

work and move on short distances, i.e. age decreases the probability not to work and respectively not to work and move; then it increases this probability and reduces it again after a certain age. Quite interestingly in the case of international migration age first increases the probability of migration then decreases it and then increases it again as shown by the age 3 coefficient. In the case of Mexican migration, Kanaiaupuni (2000) also found that rural Mexican men are more likely to migrate than women except after fifty. She explained this finding by arguing that women often migrate to reunite with family members or to join their husbands abroad once their children are older. This is however unlikely to be the case for Romanian women. Rather, as documented by some sociological studies, women who have grown-up children are more likely to leave the country and work in the care sector.

As expected, one additional year of education has a positive effect for all internal labour market strategies as compared to working only in the household, but in the case of temporary labour migration its effect is not significant. When we control for a quadratic effect of education, we find that this effect is significant only for the women who work and move on a short distance within the country. In their case, education first increases and then decreases the probability of working and moving on short distance. Education increases mostly the likelihood of working without moving as compared to not working at all on the labour market. Each additional year of education increases by 2.38 percentage points the likelihood of women to work on the labour market without moving out of their home area as compared to working only in household production. At the same time, one additional year of education increases only by 0.1 percentage points the likelihood of working and moving on long distance within the country. However, one must keep in mind that the influence of education on mobility depends on the economic returns to schooling in both the sending and the receiving areas (Markle and Zimmermann 1992). Educated women might have an advantage on the labour market that allows them to find a job easier in their home region or on the internal labour market than those who are less educated. At the same time, Romanian international migration is very likely shaped by specific demands for certain occupations at destinations. As several studies have shown the returns to education are low in most of the professions in which Romanian women work at destination (Bradatan and Sandu 2012, WIIW 2012). This explains why the effect of education is not significant in the case of temporary labour migration abroad.

Another variable of interest, the fact of being married has a negative effect on all types of mobility on the labour market and is not significant in the case of women who work without moving out of the home region as compared to working only in domestic production.

Analysing the marginal effects we find that actually the fact of being married reduces the most the likelihood for a woman to work and move on short distances within the country temporary labour migrant with respect to not working at all on the labour market. Marriage reduces the likelihood of women to become temporary labour migrants but less than it reduces the likelihood of resorting to a labour mobility strategy within the country as compared to not working at all on the labour market. This result is consistent with the standard Mincerian findings (1978) showing that marriage decreases mobility probabilities and also with the findings of more recent papers that show a stronger negative result in the case of women's mobility (Kanaiaupuni 2000; Richter and Taylor 2007). At the same time migration for family reunion or the need to provide for their family may be a reason that pushes women to migrate temporarily abroad rather than turn to an internal labour market strategy.

5.2. Household level variable

Furthermore, we look into the effects of the structure of the household on the labour strategies of women.

The first household level variable considered, the number of children decreases all working likelihoods compared to working only in household production. Each additional child decreases the likelihood of working without moving by 3.2 percentage points and that of working and moving on short distance by 1.3 percentage points. It also reduces the probabilities of moving within the country on long distance and that of temporarily moving abroad by 0.15 percentage points each as compared to not working in the labour market.

The share of women increases the probability to work in the locality of residence and that of temporary migration abroad as opposed to working only in household production and decreases those of turning to an internal mobility strategy on the labour market.

For example, the share of women increases the likelihood of working on the labour market without moving by 8.8 percentage points and that of women working abroad by 0.5 percentage points while it decreases that of working and moving on short distance by 2 and respectively 4 percentage points. This result can be explained in our opinion by the fact that among the other women in the household there are also elderly dependants. Whereas one has to provide for these elderly dependants, the fact of moving might leave these persons without the needed care. At the same time, the other women in the household might substitute the one to recur to temporary migration abroad.

Moreover, the rural origin of the household increases the likelihood for work and internal mobility strategies, whereas decreases the likelihood of working and not moving against that

of not working at all on the labour market. It increases mostly the likelihood of working and moving on short distance within the country by 14.4 percentage points as compared to not working at all. On the other hand, the rural origin decreases by 10 percentage points the likelihood of working without moving as compared to not working at all on the labour market. Its effect on temporary labour migration abroad is not significant.

Our last variable of interest at the household level, the wealth index has a significant positive effect in the case of working without moving and in that of working and moving on short distance increasing the likelihood of these alternatives as opposed to working at home. Its effect is not significant in the two other cases.

5.3. Community level variables

As the dependant variable and the two specifications of norms considered are contemporaneous we also make a robustness check by employing a lagged variable on women's labour force participation. Using data from the Romanian Institute of Statistics we consider 1990 values of labour force participation at NUTS III level. We choose to take 1990 values because former values would be biased as during communism paid labour was compulsory and women did not actually have an option. Our choice relies on evidence provided by Donato and Kanaiupuni (2000). They consider that greater female labour force participation may lead in time to a higher degree of tolerance for international migration, establishing a link between international migration and labour market participation in the home community. The same approach was adopted by Hazan and Maoz (2002) and by Fernandez and Fogli (2009) who explain current labour participation rates by their lagged values. They argue that former participation rates affect the development of beliefs and norms.

The result on the labour market participation lagged variable is positive for all labour market strategies as opposed to working in home production. However, it increases most the likelihood of working without moving and that of becoming a temporary labour migrant.

5.4. Institutional level variables

At the level of the social norms, the belief that it is women's duty to do the housework has a significant negative effect on the choice to work on the labour market without moving and on that of temporarily moving abroad while its effect on the two internal mobility strategies: working and moving on a short distance and working and moving on a long distance within the country is negative.

The norm reduces the likelihood of working on the labour market without moving as compared to not working at all by 40.72 percentage points and that of temporary migration abroad for work by 1.38 percentage points.

On the other hand, the belief that mothers should raise children in a household has unexpectedly a positive significant effect for all labour strategies except for the strategy of working and not moving as compared with not working at all in the labour market. It reduces the likelihood of working without moving by 37.49 percentage points. At the same time, it increases the likelihood of working and moving on a short distance by 5.9 percentage points and that of temporarily migrating abroad for work by 3.28 percentage points as compared to working at home. The result may seem surprising at first, but several studies have shown that women's preferences are more likely to be linked to their children's well-being than men's (Lundberg, Pollack and Wales 1997, Philips and Burton 1998). Moreover, women remit more than men and do so for the education of children (Lee et al. 1994, de la Brière 2002, Vanwey 2004). This pattern is also confirmed by the World Bank study on Romanian returnees (2007). This study shows that Romanian women remit a larger part of their monthly income and on a more frequent basis. Furthermore, the income remitted is invested mostly in the education of children. In the case of men this investment pattern is more common for married men from the households where wives receive the remittances and take the investment decisions.

Insert table 4 here

Our third proxy for social norms, the average time spent on housework has a significant negative effect for working in the labour market without moving and temporarily migrating abroad for work and a positive effect in the case of internal mobility on a short and a long distance. Its effect is most important in the case of working only in household production as it reduces the likelihood of this alternative by 5 percentage points.

It seems that while the norms affect in the same manner though at different degrees the alternatives of working without moving and that of working abroad on a temporary basis they have quite the opposite effect in the case of internal labour mobility. While women who turn to internal mobility do not seem to be affected by the norm on housework and by the average time spent on housework at regional level, they are more sensitive when it comes to the norm on raising children. On the contrary, women working without moving and those working and migrating temporarily abroad are more sensitive to the two other norms. The fact that a mother should raise children seems to encourage them with regard to those not working at all in the labour market.

One of the main factors likely to determine the degree to which this social norm is binding is the level of education. As shown by Hondagneu-Sotelo (1994) the better educated a woman is, the more likely she is to feel constrained by social norms. We consider that in the case of better educated women the norms are less binding. In other words, the belief in the norm erodes with the level of education. In order to test this hypothesis we build an interactive variable between norms and the women's education level. The interaction term between the norm and the level of education is positive and significant only in the case when women work and move on a short distance within the country. The better educated a woman is, the more likely she is to migrate on short distances in her region of residence in spite of the existence of social norms. In the case of temporary labour migration abroad the absence of an effect is not surprising as education is not significant when it comes to this alternative.

5.5. Regional level variables

Finally, in order to check the robustness of our results we consider regional fixed effects. We employ dummy variables for each of the NUTS II regions in Romania. These variables should also capture unobserved regional characteristics.

The results show that, women from the North-West, North-East and South-East regions of Romania are more likely to become temporary labour migrants abroad than those coming from the Centre. Women from the North-West and North-East regions are also more likely to work in their locality of residence as compared to women from the Centre. Also, those from the North-East region are less likely to turn to internal short-distance migration and those from the South-East are less likely to work in their locality of residence than those from the Centre. At the same time, women from the South-West region are more likely to work in their locality of residence and less likely to work and move on short distance within the country and to migrate temporarily abroad, while those from the South are more likely to turn to long-distance internal migration and likewise less likely to migrate temporarily abroad for work than women from the Centre. Women from the West are also less likely to turn to labour migration abroad than those from the Centre. This may be due to the structure of the labour market as in the West region the job market is more developed and it presents more job opportunities for women. Finally, women from the Bucharest-Ilfov region are more likely to work in their locality of residence or to turn to short-distance internal migration and less likely to migrate temporarily abroad for work. This can be explained by the capital effect of Bucharest which attracts labour force from the surrounding Ilfov region and offers more job opportunities than other regions.

6. Conclusion

This paper sets forth an analysis of women's labour decisions considering the entry and the mobility decisions as simultaneous. The main assumption is that unpaid domestic work is an alternative to paid work in the labour market. Its aim is to shed light on how women take the decision to work and to move. The main contribution of this paper is that it sets forward two possible explanations for low employment rates of women in Romania: social norms and international migration. Therefore, the paper acknowledges that women's decisions are very likely to be influenced by factors beyond their own condition as the prestige that they enjoy in their home community.

One of the key issues of the paper lies in the value that women assign to household production as due to the utility they derive from household production and to the existence of social norms women may consider unpaid labour in household production as an alternative to paid labour. Furthermore, this paper treats the labour market as integrated and takes into account the fact that when choosing their labour strategy women may ignore language and distance barriers. In this respect, they may consider the labour market in a broader context in which the opportunity to work on the international labour market turns to be a possible option along the ones of working in their home country in household production or in the labour market and moving or not within the country for work. In this context, women may choose to enter directly the foreign labour market and not work at all in the home labour market.

Our empirical results prove that norms on household production are particularly important for women who temporarily migrate abroad for work and for those who work without moving out of their residential location reducing the likelihood of both options as compared to those who turn to household production. In the case of the norm stipulating that mothers should raise children in a family the result is quite surprising as this social norm seems to encourage women to work in the labour market without leaving their locality of residence or to temporarily migrate abroad for work as compared to those who work only in household production. This result may be explained by the fact that mothers also have to financially provide for their children. This result is consistent with the reports issued in Romania and Italy on children left behind by migrant mothers (OSF 2007; UNICEF 2007; Castagnone et al. 2007). These reports prove that women leave in order to provide for their children and that their migration is linked to their children's well-being.

Our findings are important as in the context of an ever aging population one of the recommendations made by the Romanian Population Commission was to boost the engagement of women in the labour market and to postpone the retirement age.

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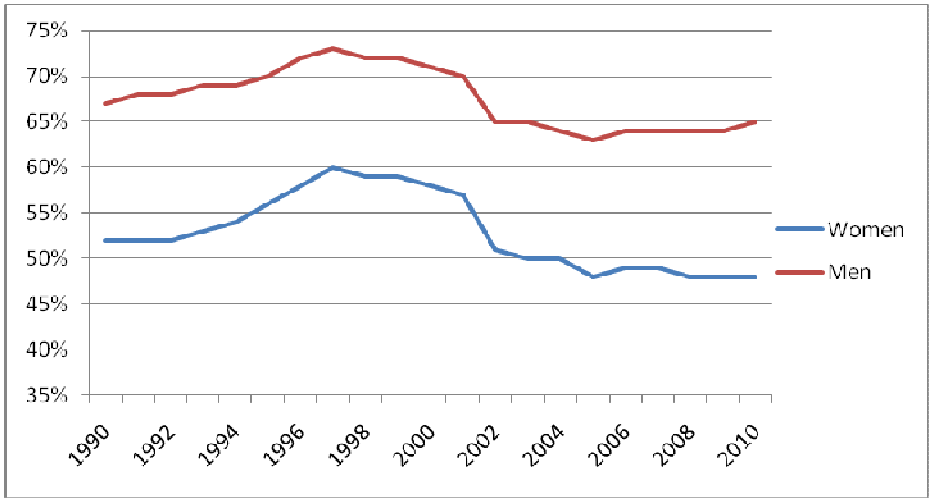
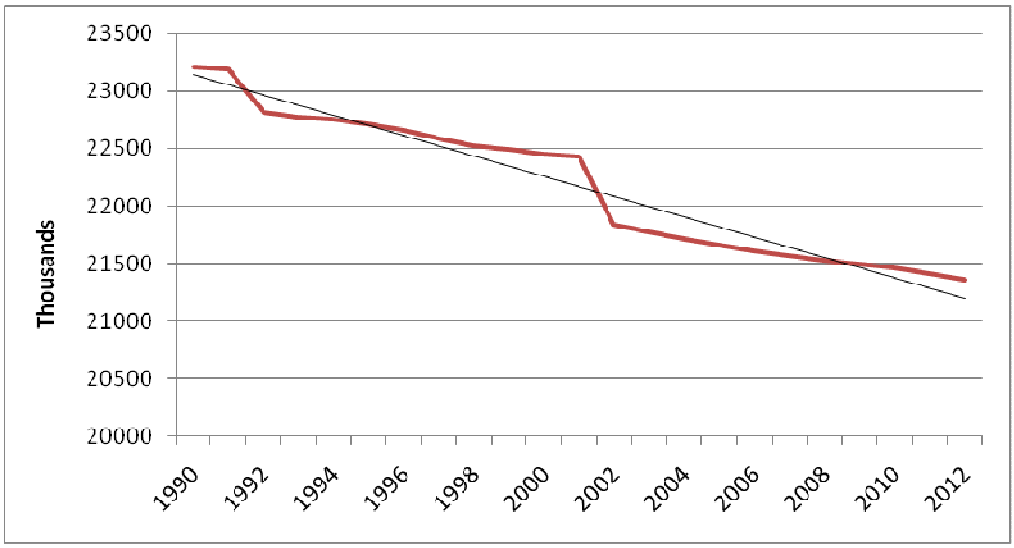


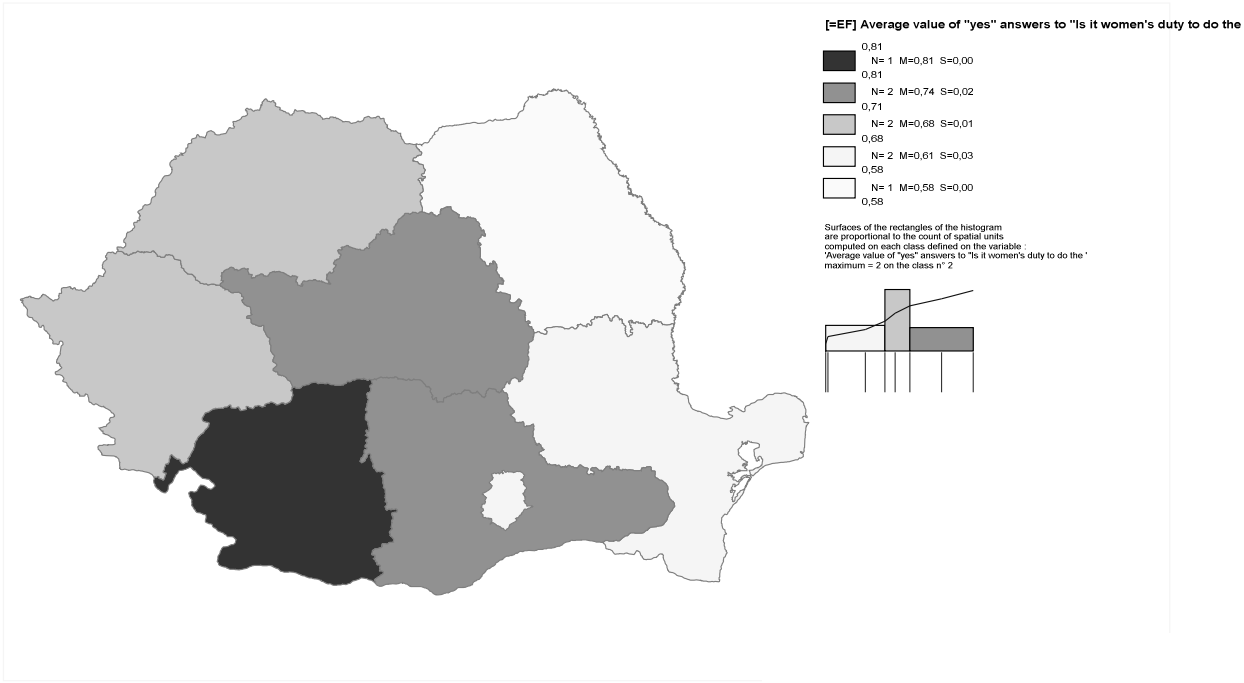
Source: World Development Indicators, World Bank 2013

Fig. 1 The Evolution of activity rates in Romania between 1996 and 2011



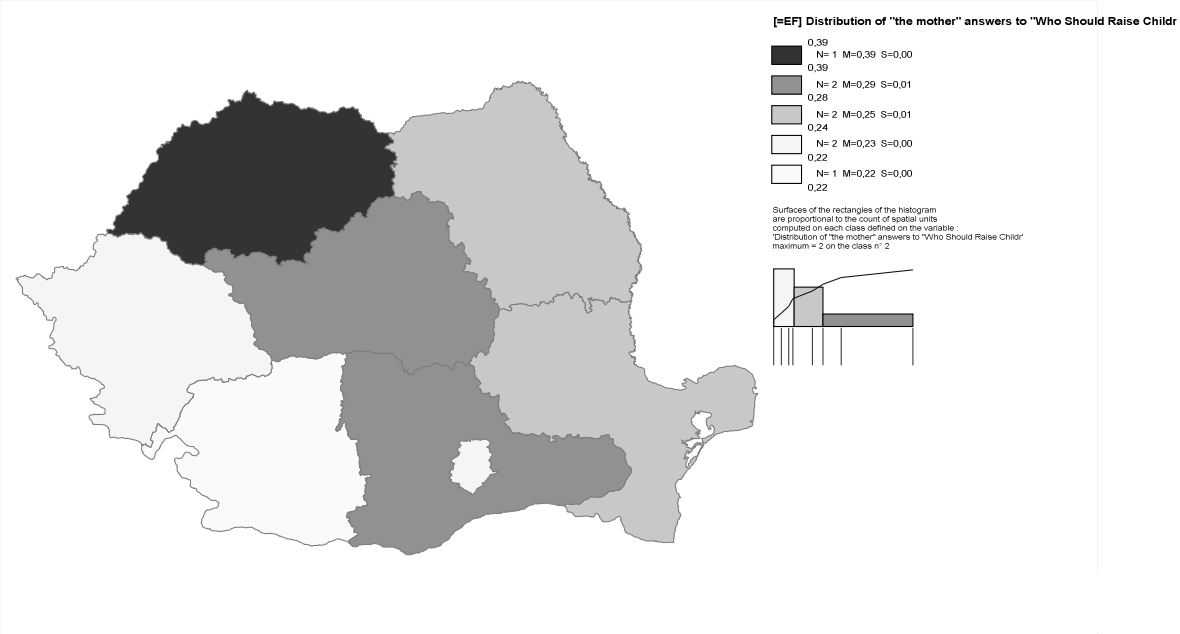
Source : NIS 2012

Fig. 2 The Evolution of the Romanian population between 1990 and 2012



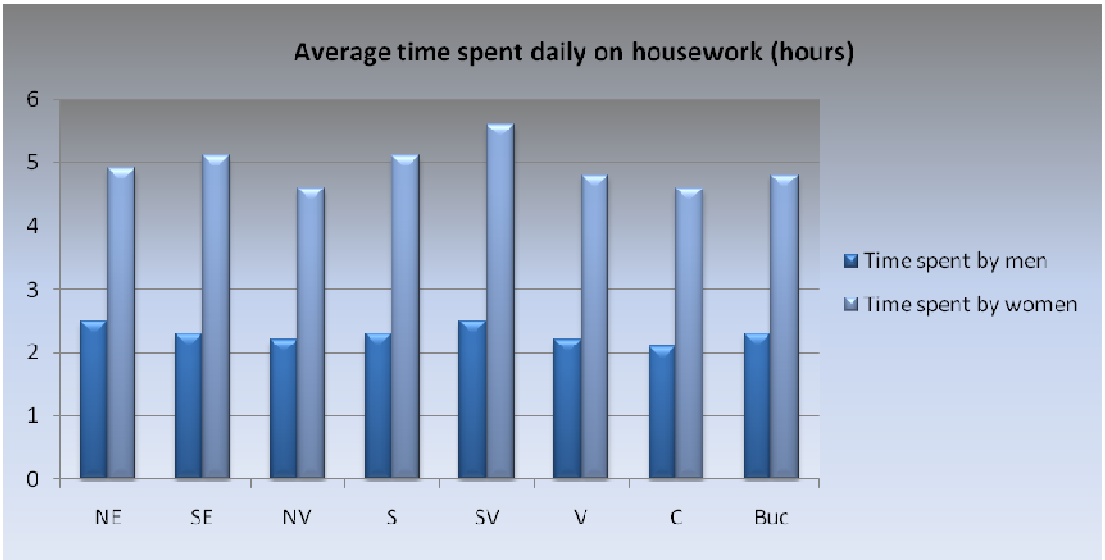
Source: own computations on data from the Romanian Gender Barometer 2000

Fig. 3 Territorial distribution of answers “yes” to “Is it women’s duty to do the housework ?”



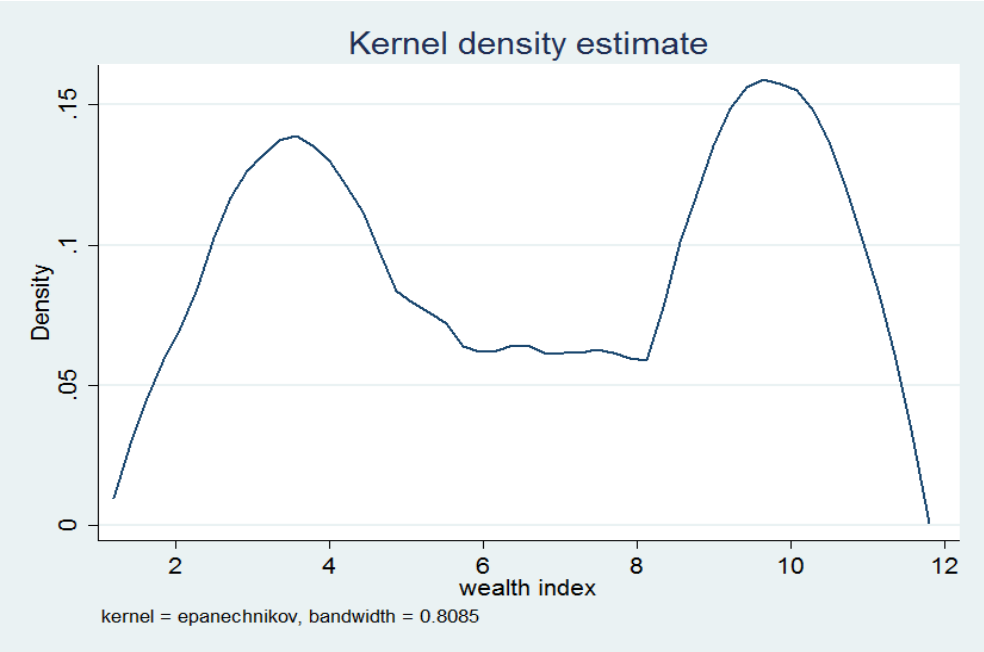
Source: own computations on data from the Romanian Gender Barometer 2000

Fig. 4 The territorial distribution of answers “the mother” to “Who should raise children in a family?”



Source: Romanian Time Use Survey 2000

Fig. 5 Average time spent daily on housework (in hours)



Source: own computations based on data from 10% random sample of the 2002 Romanian Census

Fig. 6 Wealth Index Variation in case of Temporary Labour Migrant Women

Table 1 Descriptive Statistics by Labour Strategy

Variables	Do not work	Work but do not move	Work and move internally on short distance	Work and move internally on long distance	Work and move abroad
	Mean *Std. Dev.*	Mean *Std. Dev.*	Mean *Std. Dev.*	Mean *Std. Dev.*	Mean *Std. Dev.*
Age	37.764 *15.152*	39.026 *12.21*	33.770 *9.445*	33.807 *10.104*	30.098 *8.756*
Education	7.419 *3.490*	9.850 *3.912*	10.728 *3.308*	10.804 *3.807*	9.762 *3.372*
Married	0.689 *0.463*	0. 700 *0.458*	0.659 *0.474*	0.571 *0.495*	0.501 *0.500*
Child of head	0.164 *0.370*	0.143 *0.350*	0.258 *0.438*	0.300 *0.459*	0.420 *0.494*
Spouse	0.555 *0.497*	0.586 *0.493*	0.486 *0.500*	0.403 *0.491*	0.300 *0.458*
Household size	4.189 *1.920*	3.574 *1.541*	3.892 *1.502*	3.859 *1.617*	4.002 *1.807*
Share of women	0.530 *0.177*	0. 560 *0.201*	0.556 *0.187*	0.580 *0.194*	0.597 *0.197*
Number of children	1.912 *1.762*	1.561 *1.436*	1.222 *1.163*	1.152 *1.253*	0.871 *1.180*
Other dependants	1.435 *0.876*	0.372 *0.646*	0.424 *0.683*	0.405 *0.683*	0.419 *0.701*
Rural	0.570 *0.495*	0.363 *0.481*	0.671 *0.467*	0.617 *0.486*	0.458 *0.498*
Wealth index	4.524 *3.277*	6.494 *3.517*	5.175 *3.157*	5.367 *3.303*	5.864 *3.503*

Source: own computations based on data from 10% random sample of the 2002 Romanian Census

Table 2 Descriptive Statistics by Labour Strategy: regional variables

Variables	Do not work	Work but do not move	Work and move internally on short distance	Work and move internally on long distance	Work and move abroad
	Mean *Std. Dev.*	Mean *Std. Dev.*	Mean *Std. Dev.*	Mean *Std. Dev.*	Mean *Std. Dev.*
North-East	0.155 *0.362*	0.183 *0.387*	0.130 *0.336*	0.110 *0.313*	0.278 *0.448*
Bucharest-Ilfov	0.072 *0.258*	0.123 *0.329*	0.058 *0.234*	0.086 *0.281*	0.030 *0.172*
South-East	0.174 *0.380*	0.121 *0.326*	0.092 *0.289*	0.110 *0.313*	0.186 *0.389*
South	0.182 *0.386*	0.130 *0.337*	0.216 *0.412*	0.347 *0.477*	0.067 *0.249*
South-West	0.109 *0.312*	0.106 *0.307*	0.084 *0.277*	0.089 *0.285*	0.025 *0.158*
West	0.087 *0.282*	0.096 *0.294*	0.125 *0.330*	0.045 *0.207*	0.031 *0.173*
North-West	0.110 *0.313*	0.131 *0.337*	0.143 *0.350*	0.113 *0.317*	0.239 *0.427*
Centre	0.111 *0.314*	0.111 *0.315*	0.158 *0.365*	0.101 *0.302*	0.144 *0.351*

Source: own computations based on data from 10% random sample of the 2002 Romanian Census

Table 3 Multinomial Logit estimation of choice among labour market strategies

	Work but do not move		Work and move on SD		Work and move on LD		Work and move abroad	
	Marginal effects (Std. Dev.)		Marginal effects (Std. Dev.)		Marginal effects (Std. Dev.)		Marginal effects (Std. Dev.)	
Age	0.0055***	0.0054***	-0.0013***	-0.0013***	-0.0001***	-0.0013***	-0.0003***	-0.0031***
	(0.0003)	(0.0003)	(0.0001)	(0.0001)	(0.0000)	(0.0001)	(0.000)	(0.0000)
Education	0.0238***	0.0241***	0.0095***	0.0094***	0.0011***	-0.0011***	-0.0000	-0.0000
	(0.0001)	(0.0001)	(0.0004)	(0.0004)	(0.0003)	(0.0002)	(0.0001)	(0.0001)
Civil status*	-0.0104	-0.0114*	-0.0149***	-0.0143***	-0.0045***	-0.0045***	-0.0048***	-0.0049***
	(0.0066)	(0.0066)	(0.0030)	(0.0030)	(0.0013)	(0.0012)	(0.0011)	(0.0011)
Number of children	-0.0322***	-0.0322***	-0.0061***	-0.0062***	-0.0015***	-0.0016***	-0.0015***	-0.0014***
	(0.0030)	(0.0031)	(0.0014)	(0.0014)	(0.0005)	(0.0005)	(0.0005)	(0.0005)
Share of women	0.0881***	0.0940***	-0.0403***	-0.0426***	-0.0021	-0.0027	0.0055**	0.0049**
	(0.0181)	(0.0015)	(0.0081)	(0.0082)	(0.0022)	(0.0023)	(0.0024)	(0.0024)
Rural♣	-0.1003***	-0.1104***	0.1440***	0.1514***	0.0052***	0.0060***	0.0002	0.0004
	(0.0092)	(0.0092)	(0.0073)	(0.0074)	(0.0017)	(0.0019)	(0.0002)	(0.0012)
Wealth Index	0.0252***	0.0244***	0.0045***		0.0001	0.0001	-0.0000	0.0000
	(0.0015)	(0.0015)	(0.0007)		(0.0002)	(0.0003)	(0.0002)	(0.0002)
Norm (Women's duty to do the housework)	-0.4072***		0.1195***		0.0243***		-0.0138***	
	(0.0364)		(0.0144)		(0.0051)		(0.0038)	
Norm (mother raise children)		-0.3749***		0.0591**		0.0215***		0.0328***
		(0.0551)		(0.0228)		(0.0075)		(0.0063)
Women's labour activity rate lagged	0.0057***	0.0048***	0.0001***	0.0002***	0.0000***	0.0000***	0.0003***	0.0004***
	(0.0005)	(0.0005)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Observations	*33406*	*33406*	*33406*	*33406*	*33406*	*33406*	*33406*	*33406*
R2	*0.130*	*0.128*	*0.130*	*0.128*	*0.130*	*0.128*	*0.130*	*0.128*

*=1 if married; ♣=1 if rural

The choice not to work as base outcome. Standard errors in brackets; standard errors adjusted for clustering at the household level and robust to heteroscedasticity. Significance at: * 10 percent; ** 5 percent; *** 1 percent. Other control variables not reported: age2, age3, daughter of household head, education2, number of children2 and other dependants2.

Table 4 Multinomial Logit estimation of choice among labour market strategies (regional fixed effects)

	Work but do not move		Work and move on SD		Work and move on LD		Work and move abroad	
	Marginal effects (Std. Dev.)		Marginal effects (Std. Dev.)		Marginal effects (Std. Dev.)		Marginal effects (Std. Dev.)	
Age	0.0055***	0.0054***	-0.0013***	-0.0012***	-0.0001***	-0.0001***	-0.0003***	-0.0003***
	(0.0003)	(0.0002)	(0.0001)	(0.0001)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Education	0.0241***	0.0242***	0.0094***	0.0095***	0.0011***	0.0009***	-0.0000	-0.0000
	(0.0010)	(0.0009)	(0.0004)	(0.0004)	(0.0002)	(0.0002)	(0.0001)	(0.0001)
Civil status*	-0.0100	-0.0131**	-0.0148***	-0.0136***	-0.0046***	-0.0043***	-0.0050***	-0.0047***
	(0.0066)	(0.0066)	(0.0030)	(0.0029)	(0.0013)	(0.0011)	(0.0012)	(0.0011)
Number of children	-0.0320***	-0.0338***	-0.0063***	-0.0059***	-0.0016***	-0.0014***	-0.0015***	-0.0014***
	(0.0030)	(0.0031)	(0.0014)	(0.0013)	(0.0005)	(0.0005)	(0.0005)	(0.0005)
Share of women	0.0931***	0.0895***	-0.0420***	-0.0362***	-0.0023	-0.0046**	-0.0054**	-0.0049**
	(0.0182)	(0.0182)	(0.0082)	(0.0078)	(0.0022)	(0.0022)	(0.0024)	(0.0023)
Rural♣	-0.1083***	-0.0981***	0.1505***	0.1271***	0.0058***	0.0142***	-0.0002	0.0008
	(0.0092)	(0.0090)	(0.0073)	(0.0066)	(0.0019)	(0.0024)	(0.0012)	(0.0012)
Wealth Index	0.0233***	0.0254***	0.0052***	0.0038	0.0002	0.0005	-0.0000	0.0000
	(0.0015)	(0.0016)	(0.0007)	(0.0007)	(0.0002)	(0.0003)	(0.0002)	(0.0002)
Norm (Average number of hours spent for housework)	-0.0519***		0.0132***		0.0034***		-0.0005***	
	(0.0074)		(0.0028)		(0.0010)		(0.0007)	
Activity rate of women lagged	0.0058***		0.0001		-0.0000		0.0003***	
	(0.0004)		(0.0002)		(0.0000)		(0.0000)	
North-West		0.0453***		-0.0059		0.0029		0.0030**
		(0.0100)		(0.0037)		(0.0025)		(0.0016)
North-East		0.0865***		-0.0204***		0.0002		0.0013*
		(0.0096)		(0.0032)		(0.0020)		(0.0013)
South-East		-0.0475***		-0.0180***		0.0045		0.0024*
		(0.0112)		(0.0035)		(0.0029)		(0.0015)
South-West		0.0220**		-0.0206***		0.0031		-0.0033***

		(0.0112)		(0.0033)		(0.0027)		(0.0009)
South		-0.0377***		0.0038		0.0139***		-0.0025***
		(0.0107)		(0.0040)		(0.0042)		(0.0009)
West		0.0079		0.0038		0.0000		-0.0032***
		(0.0115)		(0.0045)		(0.0023)		(0.0009)
Bucharest-Ilfov		0.0365***		0.0484***		0.0242		-0.0028***
		(0.0117)		(0.0025)		(0.0365)		(0.0009)
Observations	*33406*	*33406*	*33406*	*33406*	*33406*	*33406*	*33406*	*33406*
R2	*0.130*	*0.135*	*0.130*	*0.135*	*0.130*	*0.135*	*0.130*	*0.135*

APPENDIX

The results of the Hausman Mc Fadden test for the independence of irrelevant alternatives confirms the independence of the considered alternatives. The results are as follows:

Table 1 Results of the Hausman Mc Fadden test

Ho: Odds (Outcome-J vs Outcome-K) are independent of other alternatives.

Omitted	Chi2	Df	P>chi2	evidence
0	-386.72	45	1.000	for Ho
1	96.132	45	0.100	for Ho
2	54.792	45	0.150	for Ho
3	18.581	45	1.000	for Ho
4	-0.278	45	1.000	for Ho