Article history: Received 2 Nov. 2013; last revision 24 Dec. 2013; accepted 12 Jan. 2014

Migration and subjective poverty in sending countries: An analysis of the Egyptian case

YEHUDITH KAHN[♠]
AUDREY DUMAS[♣]
YOVAV ESHET[♥]
NIR BILLFELD[♦]

Abstract
Migration has traditionally been used as a survival strategy in times of financial crisis; however, a debate exists as to whether migration influences poverty on the individual level. The current study analyses the influence of past subjective poverty on migration choice and to determine the impact of migration on current subjective poverty perception. Using a simultaneous bivariate ordered probit model, we found that poorer individuals in Egypt tend to migrate more than others. Migration was found to be a significant determinant of current poverty in Egypt. Finally, migration improved migrant's financial situation.

Keywords: Migration; subjective poverty; Egypt; selection bias.

Introduction

According to the World Bank 215 million people were living outside their country of birth until 2010, being 3% of the world population (World Bank, 2011). Migration has traditionally been used as a survival strategy in times of high unemployment and financial crisis, to improve livelihoods (Bebbington, 1999). Migration can be a means of reducing poverty by increasing capital assets and acquiring a variety of income sources and overcoming economic and development barriers. It can be seen as a livelihood strategy for improving life conditions of the household (De Haas, 2010; Broadman, Pouget, and Gatti, 2010).

Migration can benefit not only the migrant but also encourage other individuals to migrate and creating a migration network (Stark and Jakubek, 2013). Migration network is defined as a connection of interpersonal ties of migrants,

♠ Yehudith Kahn, Economics and Management Department, Tel Hai College, Israel.
E-mail: yehuditk@telhai.ac.il.
♣ Audrey Dumas, CAEPEM, University of Perpignan Via Domitia, France.
E-mail: audrey.dumas@univ-perp.fr.
♥ Yovav Eshet, Faculty of Management, University of Haifa, Israel.
E-mail: yeshet@poli.haifa.ac.il.
♦ Nir Billfeld, Economics Department, Western Galilee College, Israel.
E-mail: spacer@bezeqint.com.

non-migrants and former migrants at destination areas (Massey et al., 1993). According to the review of Stark and Jakubek (2013) this network can be drawn as a beneficial tool for individual who seek for financial support in order to be able to migrate. Networks created by migrants have the power to lower the risks in migration and lower the costs it requires (Massey, 1990).

International migrants from Middle East and North Africa - MENA countries are often temporary migrants, especially in Egypt where majority of migrants are returning home after a period of working abroad (Nassar, 2008). According to McCormick and Wahba (2003), return migration can affect the origin countries' economies through two main channels. First, emigrants may accumulate savings while overseas. Secondly, overseas work may enable migrants to acquire new skills. This emphasizes the potential for migration to affect poverty not only through the direct effect on income but also by impacting on occupational choices. Indeed, when access to self-employment is liquidity-constrained, agents may opt for temporary migration to overcome credit market imperfections at home (Shen et al., 2010). Several studies have shown that return migrants acquire better skills of entrepreneurship in home countries than none migrants (Gubert and Nordman, 2011; Wahba and Zenou, 2012; Giulietti, Wahba and Zimmermann, 2013). Return migrants' entrepreneurship has more chances to survive than other entrepreneurial activities (Marchetta, 2012).

Garip (2012) showed that repeated migration and remittances can be the reason for wealth accumulation for migrants compared to none-migrants and amplify the wealth gap between them. Remittances sent back to home countries promote financial development as they function as an important external financing for developing countries (Gupta, Pattillo and Wagh, 2007; Banga and Sahu, 2010), alleviating poverty and improving livelihoods (Adams, Cuecuecha and Page, 2008; Shimada, 2010). Remittances comprise a higher percentage of GDP in lower income countries (Ratha, 2005) compared to more affluent countries, indicating that migration is a strategy used by the poor. Consequently, while chronic poverty, defined as a situation that occurs when experiencing "significant capability deprivations for a period of five years or more" (Hulme and Shepherd, 2003: 405), is transferred from one generation to the next, migration may provide a way out of the poverty cycle (Kothari, 2002).

An important consideration in migration and poverty research is the selection of poverty measurement. Poverty is multi-dimensional and can be subjective, objective, relative or absolute. It can be measured according to income, assets, consumption, expenditure or possessions. According to a review of subjective poverty by Van Praag and Ferrer-i-Carbonell (2005), poverty is an individual feeling and not an objective status and should, therefore, be measured by level of satisfaction. Subjective poverty questionnaires, consisting of questions about satisfaction or sufficiency, have been validated with individuals in similar circumstances providing similar responses (Van Praag and Ferrer-i-Carbonell, 2005). To summarize, all definitions of poverty fit into one of

the following categories: I. having less than an objectively defined amount; II. having less than others in society; and III. feeling you do not have enough to get along (Hagenaars and de Vos, 1988).

Some research suggests that broad measures of poverty may be more useful than measures of income, and subjective poverty measurements have become widely used, incorporating financial, social and cultural aspects of poverty. Goedhart, Halberstadt, Kapteyn and van Praag (1977) were among the first to employ a subjective poverty measure, asking individuals to define the minimum income sufficient for their family. They discovered that this value varied greatly, depending on numerous variables, making an objectively defined poverty line irrelevant. Ravallion and Lokshin (1999) found that a subjective economic measure correlated well with objective measures in a Russian sample. According to these researchers, subjective economic status provides more information and may also be related to health, education and unemployment. Recent cross-country comparative analysis in European countries made by Guagnano, Santarelli and Santini (2013) found that subjective poverty is associated with household socioeconomic characteristics and social capital.

The present study will investigate the link between migration and poverty, using household survey data from Egypt.

Country background

Egypt has been a major labor exporter since the 1970's, and is still at the top 10 emigration countries (World Bank, 2011). During the oil boom in the 1970's, Egyptians migrated in large numbers to the Gulf States, however in the 1980's and 1990's Asian workers started to replace Arab workers in the Gulf. This change, together with the Gulf war, put the brakes on Egyptian migration to the Gulf, and led to a new trend of migration to Europe.

In 2009, Egypt had a population of 83 million with 6.5 million emigrants by 2008 (World Bank, 2011; Nassar, 2011), making up 3.2% of the population and around 10% of the labor force (Ratha and Xu, 2008). Arab countries are the main receivers (4.8 million), followed by North America and the European countries (about 800,000 each) (Nassar, 2011). Remittances of workers abroad, totaling 14.3 billion USD in 2011 and constituting 6.2% of GDP, were among Egypt's larger sources of foreign currency, and made Egypt one of 10 top remittances world recipients in the MENA region (Zohry, 2013).

Egyptians are often temporary migrants, with the majority returning home after a period of working abroad (Nassar, 2008). Saudi Arabia is the largest host country for Egyptian migrants (Schramm, 2005; Zohry, 2013), and the minority of Egyptian migrants reside mostly in Italy (Nassar, 2009; World Bank, 2008b). Push factors for Egyptian migrants are mostly economic. High unemployment leads many young men abroad. A field survey carried out in Egypt found that most potential migrants were currently unemployed, with 37% citing lack of job opportunities as motivation for migration (Zohry,

2007). In a recent research done by Bérenger, Deutsch and Silber (2013) it has been found that in Egypt poor household that suffers from deprivation don't even have house and an access to modern facilities. An assessment conducted by the World Bank found that 16.7% of the Egyptian population had insufficient financial resources to meet their basic needs (El-Saharty et al., 2005), and that 2.9% were defined as 'ultra-poor' or living under the food poverty line.

The current study fist investigates the determinants of migration choice and testes if it is related to the subjective judgment of individuals in regard to their financial situation, and then aims to determine whether migration affects current subjective poverty when compared to other factors, such as marital status, education, living in urban area and different levels of pre-migration poverty. No evidence has been reached on poverty - migration linkages because it is extremely difficult to separate cause and effect empirically. Does migration determine one's living standards or do one's living standards determine the choice to migrate? Migration could also be a mechanism affecting the reproduction of poverty over time: If the extreme poor lack access to migration as a strategy and wealthier households migrates and through migration improve their income, then migration enlarges income gaps in sending countries. We are interested in estimating the impacts of migration on current living standards thus we need to take into consideration the impact of past living standards on migration. Therefore sequencing migration and poverty is crucial. Consequently, the following research goals are considered: first, to analyze the impact of past subjective poverty among other factors on migration choice; second, to evaluate the migration effect on current poverty.

Methods

Data were collected from the Netherlands Interdisciplinary Demographic Institute (NIDI, 2000) database, which was commissioned by the EU Commission's Statistical Bureau, Eurostat. The focus of the NIDI survey was to study the push and pull factors determining international migration flows in an attempt to understand direct and indirect causes of international migration to the European Union. Household surveys were conducted in Egypt, and four other countries between May-October 1997 to capture individual, household, and contextual factors that influence people's decisions to move or stay. NIDI data is unique as it refers to two points in time and measures the poverty level before and after migration. Although this data is historic it is the only data available for interpreting the effect of migration on poverty. According to Taylor et al. (2003), migration is a household decision with ramifications extending beyond the individual migrant, therefore, household surveys are ideally suited to data gathering in this field.

At the time of data collection in 1997, there were approximately two million Egyptians living abroad, according to the United Nations (1997) and remittances received from abroad amounted to 3 billion USD (DiBartolomeo et al., 2010).

Measures

Since income data were not available, a proxy for poverty was necessary as the outcome variable. Analysis was based on a measure of subjective financial poverty: 'Overall, is the financial situation of the household more than sufficient, sufficient, barely sufficient or insufficient to buy all the basic needs?'

We used a simultaneous bivariate ordered probit model to evaluate the impact of past poverty and individual characteristics (pre-migration or 5 years ago for non-migrants) on migration status. A similar trivariate probit methodology measuring subjective poverty in the context of low income transition has been used by Fusco (2013).

Migration status is a dummy variable equal to 1 if the individual is a migrant and 0 for non-migrant (Migrant). For individual characteristics affecting the decision to migrate we considered the following demographic and psychological variables: marital status, educational level, number of children in the household, weekly working hours as a measure of diligence, number of rooms in residence (objective poverty), family members living at the destination country (existence of a network abroad) and the belief that migration can indeed improve household's financial situation.

Several methodological problems have been taken into consideration. Selection bias may exist when estimating the effects of migration on current poverty, since the migration strategy is not a random phenomenon among individuals. The particularity of our model is the use of four levels of current poverty. The direction of causation is from past poverty to migration and from both migration and past poverty to current poverty. Since migration a dichotomous dependent variable and current poverty is an ordinal dependent variable, it is reasonable to use all four levels of current poverty in estimation. In order to do so, we applied simultaneous bivariate ordered-probit. This is an extension to Sabates-Wheeler, Sabates, and Castillo's earlier work (2008) in which, current poverty variable re-categorized into two categories for estimation purpose, and the model was estimated by simultaneous bivariate probit.

Model

In ordered dependent variable models, the observed variable denotes outcomes representing ordered or ranked categories. As in a binary dependent variable model, we can model the observed response by considering a latent variable y_i^* that linearly depends on the explanatory variables x, where ε is a random variable.

$$(1).M^*_{t-m,i} = x'_{1i}\beta_1 + \varepsilon_{1i}$$

$$(2).P^*_{t,i} = x'_{2i}\beta_2 + \gamma_1 M^*_{t-m,i}P_{1t-m,i} + \gamma_2 M^*_{t-m,i}P_{2t-m,i} + \gamma_3 M^*_{t-m,i}P_{3t-m,i} + \gamma_4 M^*_{t-m,i}P_{4t-m,i} + \varepsilon_{2i}$$

The dependent variable M^*_{t-m} is a latent variable of migration propensity. The dependent variable, P^*_t, in our model represents the current feeling of the agent in regard to his financial situation and get a value of 1 for more than sufficient, 2 for sufficient, 3 for barely sufficient and 4 for insufficient. X1 are control variables in equations 1, and X2 are control variables in equation 2. In our basic model we assume $\gamma_1 = \gamma_2 = \gamma_3 = \gamma_4$, meaning all initial poverty levels share the same immigration impact on current poverty level.

Since we do not observe our two latent dependent variables, we use simultaneous bivariate ordered probit model framework. So we actually use ordered observed version of these two latent variables. Econometric issue is that M^*_{t-m} is a random variable since it includes an error term. And more importantly, in case ε_1 is correlated with ε_2 it is an endogenous variable. We assume without losing generality that error terms are correlated between those two equations, because the same agent decides on immigration and has impact of current poverty. One of the advantages of bivariate-ordered probit model is enabling direct and indirect effects. Clearly initial poverty impacts directly on current poverty, and indirectly by immigration. To deal with endogenous of migration explanatory variable, we suggest a set of instruments: belief about effectiveness of immigration on improving financial situation, family relatives in preferred destination country (for non-migrants) or family relatives in last destination country (for migrants). We assume those two impacts only indirectly on current poverty level via their impacts on migration.

We included also the following explanatory variables: past poverty, number of rooms, marital status, number of children, education, weekly working hours, remittances, residence.

Results

Descriptive statistics:

The sample consisted of 1,122 individuals, with 73.5% non-migrants and 26.5% migrants. Considering current poverty and poverty evolution, the financial situation of migrants in both countries is higher and improves more for migrants than for non-migrants.

Migration increased monotonically with subjective poverty before migration. Among respondents which reported financial situation is more than sufficient only 20.3% immigrated, this percentage is much higher almost fifty percent for respondents reported financial situation is insufficient. Moreover, improvement of financial situation is extremely dependent on initial poverty level. Among respondents that reported their financial situation to be barely sufficient 42.7% of migrants improved their situation due to migration, compared to only 25% of non-migrants that improved their financial situation.

Table 1. Repartition of non-migrants and migrants according to individual characteristics

	Non-migrants	Migrants	Total
Number of observations	826	296	1122
Married (%)	0.855	0.986	0.890
City (%)	0.328	0.195	0.293
Improves (%)	0.680	0.881	0.733
Fampref (%)	0.003	0.543	0.146
Age (average)	43.664	38.956	42.422
Was-hours (average)	16.179	46.631	24.213
Nb rooms (average)	4.265	4.543	4.338
Education (average)	0.248	0.452	0.302
Child Nb (average)	3.917	3.121	3.707
Remittances (average)	0.052	0.097	0.064

Note: dataset retrieved from the European Communities and NIDI," Push and Pull factors determining international migration flows".

Table 2. Repartition of non-migrants and migrants according to past poverty, current poverty and the evolution of poverty

Past poverty	**Non migrant**	**Migrants**	**Total**
More than sufficient	5.2%	3.4%	4.7%
Sufficient	68.6%	54.7%	65.0%
Barely sufficient	20.2%	26.4%	21.8%
Insufficient	5.9%	15.5%	8.5%
Number of observations	826	296	1122
Current poverty	**Non migrants**	**Migrants**	**Total**
More than sufficient	3.0%	5.4%	3.7%
Sufficient	59.9%	55.7%	58.8%
Barely sufficient	27.1%	27.0%	27.1%
Insufficient	9.9%	11.8%	10.4%
Number of observations	826	296	1122
Poverty evolution	**Non migrants**	**Migrants**	**Total**
Improvement	9.1%	22.0%	12.5%
No change	69.2%	64.5%	68.0%
Deterioration	21.7%	13.5%	19.5%
Number of observations	826	296	1122

Note: dataset retrieved from the European Communities and NIDI," Push and Pull factors determining international migration flows".

Compared to non-migrants, migrants are more often married with a lower number of children. Migrants are more educated, live more in non-urban areas in bigger houses. They are more diligent since they work on average 46 hours weekly compared to only 16 hours for non-migrants. Moreover 88% of migrants were convinced that migration can be a strategy to improve standards of living and above 50% of migrants had family members already living

in potential destination country. This information highlights the importance of perceptions and the existence of a family network in the decision to migrate.

Simultaneous bivariate ordered probit model:

Considering the migration equation we found that all explicative variables introduced in the model are significant except the number of rooms in the household house in country of residence. Diligence, education, being married and receiving remittances have a positive influence on the decision to migrate. Indeed, remittances received by the household can act as a positive signal concerning the actual economic conditions in receiving countries, as mentioned by Naiditch, Tomini and Ben Lakhdar (2011). However household' number of children reduce the probability to migrate, suggesting that family commitment may limit geographical mobility. Living in a city was also found as having a negative impact on the probability to migrate, urban areas offering more employment opportunities.

Our finding highlights the strong influence of family relatives living in the preferred destination country (for non-migrants) or family relatives in last destination country (for migrants) on the decision to migrate. Indeed, a long tradition of migration enhances strong networks at receiving countries and gives more access to migration of the poor. Motivation has also some impact on migration decision: Individuals who believe that migration is an effective mean to improve financial situation migrate more than others.

As expected, past poverty has a positive and significant impact on the decision to migrate. However using an ordered probit model with four levels of poverty enables us to conclude that the more poverty is severe the more it encourages migration. It is mostly the very poor individuals that migrate.

Considering the current poverty equation, we found that education and living in a city reduce the probability of being poor. However the major determinant of current poverty is the past level of poverty, while migration has some influence on subjective poverty, past poverty has a strong positive effect on current poverty, confirming the existence of the poverty cycle.

Measuring the benefits of migration we found that there was a significant effect of migration on poverty when we controlled for individual characteristics and past poverty. Moreover, the effects of migration on current poverty depend on initial poverty status: The decomposition of the interaction term (Gamma) in four variables according to the level of poverty allows us to conclude that poorer individuals have a better chance to upgrade their standards of living.

Table 3. Simultaneous bivariate ordered probit regression

	Coef	SE	Z	P >|z|
Equation 1 : Is_Mig				
City	-0.310	0.139	-2.232	0.025
Children number	-0.087	0.033	-2.588	0.01
Hours of work	0.023	0.002	10.547	0.01
Rooms	0.032	0.033	0.985	0.324
Married	0.691	0.326	2.117	0.034
FamPref (Poverty 1,2)	3.113	0.343	9.065	0.01
FamPref (Poverty 3,4)	2.634	0.412	6.394	0.01
Can improve (Poverty 1,2)	0.531	0.188	2.816	0.01
Can improve (Poverty 3,4)	0.467	0.258	1.805	0.071
Remittances	0.640	0.243	2.626	0.01
Poor_past2	0.659	0.326	2.022	0.043
Poor_past3	0.955	0.428	2.229	0.025
Poor_past4	1.555	0.454	3.422	0.01
Educ	0.306	0.132	2.306	0.021
Equation 2 : Poor Now				
City	-0.138	0.082	-1.684	0.092
Poor_past2	0.500	0.311	1.608	0.107
Poor_past3	1.481	0.333	4.445	0.01
Poor_past4	2.443	0.417	5.851	0.01
Married	0.097	0.122	0.791	0.428
Educ	-0.389	0.087	-4.437	0.01
Gamma				
Gamma1	-0.166	0.124	-1.345	0.178
Gamma2	-0.063	0.033	-1.872	0.061
Gamma3	-0.0708	0.043	-1.643	0.100
Gamma4	-0.040	0.069	-0.577	0.563

SE: Standard Errors

Gamma interpretation

Considering how a change in probability to migrate (from 0 to 1) impacts current poverty level for each initial poverty level, we found different results according to poverty levels.

For lowest poverty level (More than sufficient) there is no way to improve wealth by definition. For second level of poverty (Sufficient) the chances to make an improvement in current poverty are increased by 0.06 percentage points, for third level of initial poverty (Barely sufficient) the chances to improve situation are about 1.97 percentage points, and for highest level of initial poverty the chances to improve situation are about 0.42 percentage points. So chances for improving financial situation due to migration are not a monotonic function of initial poverty, although the last two groups (Less than sufficient and Barely sufficient) make the most remarkable change in their financial situation.

Table 4a. Mean conditional probability for migrants to reach current poverty level

	Initial Poverty Level			
Current Poverty Level	**More than sufficient**	**Sufficient**	**Barely Sufficient**	**Insufficient**
More than sufficient	13.95%	0.19%	0.01%	6.98%
Sufficient	76.48%	30.57%	8.51%	75.54%
Barely Sufficient	8.89%	43.73%	32.97%	15.72%
Insufficient	0.68%	25.52%	58.50%	1.76%
Total	100 %	100 %	100 %	100 %

Mean conditional probability to be in current poverty level j, given that individual is a migrant with initial poverty level h: $\text{Prob}\left(P_{t,i}^{*} = j / M_{t-m,i}^{*} = 1, P_{t-m,i}^{*} = h\right)$

Table 4b. Mean conditional probability for non-migrants to reach current poverty level

	Initial Poverty Level			
Current Poverty Level	**More than sufficient**	**Sufficient**	**Barely Sufficient**	**Insufficient**
More than sufficient	7.54%	0.12%	0.00%	5.92%
Sufficient	74.91%	26.56%	6.55%	74.28%
Barely Sufficient	15.68%	43.89%	29.83%	17.62%
Insufficient	1.86%	29.43%	63.62%	2.18%
Total	100 %	100 %	100 %	100 %

Mean conditional probability to be in current poverty level j, given that individual is not a migrant with initial poverty level h: $\text{Prob}\left(P_{t,i}^{*} = j / M_{t-m,i}^{*} = 0, P_{t-m,i}^{*} = h\right)$

We found evidence that past poverty variable has persistence. However, for migrants this effect is weaker. Poor and very poor are more likely to migrate than non-poor. We can notice that gamma coefficient is the biggest for almost very poor (barely sufficient), and gamma coefficient for poor (sufficient) is bigger than for very poor (insufficient). In other words, the poorest can barely improve their poverty situation, but the almost poorest can make the most remarkable improvement.

Table 4c. Gamma estimations- Interactions with the endogenous variable M^*_{t-m}

$$\text{Prob}\left(P^*_{t,i} = j / M^*_{t-m,i} = 1, P^*_{t-m,i} = h\right) - \text{Prob}\left(P^*_{t,i} = j / M^*_{t-m,i} = 0, P^*_{t-m,i} = h\right)$$

	Initial Poverty Level			
Current Poverty Level	**More than sufficient**	**Sufficient**	**Barely Sufficient**	**Insufficient**
More than sufficient	6.41%	0.06%	0.00%	1.06%
Sufficient	1.57%	4.01%	1.97%	1.25%
Barely Sufficient	-6.79%	-0.16%	3.15%	-1.90%
Insufficient	-1.19%	-3.91%	-5.12%	-0.42%
Total	0.00%	0.00%	0.00%	0.00%

Discussion

The present research allows us to understand the role played by various parameters on the migration motivation and decision. The first one is remittances received by households. Previous studies showed that remittances sent back to migrant-sending regions are playing a vital role in alleviating poverty and improving livelihoods (Adams, Cuecuecha and Page, 2008; Shimada, 2010). Nevertheless the findings confirm the positive influence of remittances on the migration decision, acting as a positive signal concerning the actual economic conditions in receiving countries, as formally proved in Naiditch, Tomini and Ben Lakhdar 's (2011) study.

The second important variable influencing migration motivation was family members living at the potential destination country. Indeed, a large literature has established that family network of previous migrants can encourage migration since it provides information on destination and employment and assist integration after arrival (Massey and Espinosa, 1997; Jaeger, 2000; Bartel, 1989).

Our research shows that poverty is a significant factor of migration and that migration can be an effective way to reduce subjective poverty for Egyptians migrants. Poorer individuals had increased probability of migration compared to wealthier individuals and had upgraded standards of living thanks to migration. Therefore, this finding concords with the macro-level data published by Adams and Page (2005), according to which an increase in the number of migrants is associated with a decline in the number of people living below the poverty line. It is also similar to Shen et al (2010) conclusion that migration and remittances always reduce wealth inequality, through a proportionally larger increase in wealth for the poor which is not necessarily true for income inequality. Nevertheless, according to our findings, while migration has some influence on subjective poverty, another factor, past poverty, was the strongest determinant of current poverty.

In a previous study using the same dataset and comparing Egypt with Ghana, Sabates and Castaldo (2008) showed that migration was not a signifi-

cant determinant of current poverty status. The current study considers four ordered level of past and current poverty and therefore can measure the impact of migration on subjective poverty at four levels. Our findings contrast with some research that suggests that migration may not be an available choice for the poorest due to prohibitive financial costs as well as limited access to networks and disadvantage in term of skills but is enabled as income or wealth increases above a certain level (Adam 1983).

NIDI database include other MENA and African countries as Morocco, Turkey, Senegal and Ghana. As a proposal for further exploration, we propose to analyze the differences between those countries by origin communities' characteristics. Research findings confirm that migration is a positive mean to address poverty and development in migration sending countries.

References

Adams, R.H.Jr, Cuecuecha, A., and Page, J. (2008). *The Impact of Remittances on Poverty and Inequality in Ghana* (Working Paper No. 4732). World Bank Policy Research.

Adams, R.H., and Page, J. (2003). "Poverty, inequality and growth in selected Middle East and North Africa countries, 1980–2000". *World Development,* 31 (12): 2027-2048.

Adams, R.H., and Page, J. (2005). "The impact of international migration and remittances on poverty". In S. M. Maimbo and D. Ratha (Eds.), *Remittances: Development Impact and Future Prospects*. World Bank: Washington.

Adams, R and J. Page (2005), "Do International Migration and Remittances Reduce Poverty in Developing Countries?", *World Development*, 33 (10): 1645-69.

Banga, R. and Sahu, P.K. (2010). *Impact of remittances on poverty in developing countries*. eSocialSciences Working Paper id 3100

Bartel, A.P (1989), 'Where do the New US Immigrant Live?'.*Journal of Labor Economics* 7(4): 371-391.

Bebbington, A. (1999). "Capitals and capabilities: A framework for analysing peasant viability, rural livelihoods and poverty". *World Development, 27*(12): 2021-2044.

DiBartolomeo, A., et al. (2010). CARIM Migration Profile: Egypt European University Institute.

Bérenger, V., Deutsch, J., and Silber, J. (2013). " Durable goods, access to services and the derivation of an asset index: Comparing two methodologies and three countries". *Economic Modelling,* 35: 881-891.

Broadman, S., Pouget, Y., and Gatti, R. (2010). "Labor Mobility in the Middle East and North Africa: Challenges and Opportunities." World Bank Middle East and North Africa Knowledge and Learning Quick Notes Series, No. 30 (September). Marseille Center for Mediterranean Integration, Marseille, France.

De Haas, H. (2010), *Migration transitions: a theoretical and empirical inquiry into the developmental drivers of international migration*, IMI Working Paper 24, DEMIG project paper 1: 1-46.

El-Saharty, S., Richardson, G., and Chase, S. (2005). *Egypt and the Millenium Development Goals: Challenges and Opportunities*. World Bank:Washington.

Fusco, A. (2013). *The dynamics of perceived financial difficulties*. Working Paper 13/24. CEPS/INSTEAD AD

Garip, F. (2012). "Repeat Migration and Remittances as Mechanisms for Wealth Inequality in 119 Communities from the Mexican Migration Project Data". *Demography, 49*: 1335-1360.

Goedhart, T., Halberstadt, V., Kapteyn, A., and van Praag, B. (1977). "The poverty line: Concept and measurement". *Journal of Human Resources 12*(4): 503-520.

Guagnano, G., Santarelli, E., and Santarelli, I. (2013). *Subjective poverty in Europe: the role of household socioeconomic characteristics and social capital* (Working Paper No. 113). Università degli Studi di Roma "La Sapienza" .

Gubert, F., and Nordman, C. J. (2011). "Return migration and small enterprise development in the Maghreb". In S. Plaza, and D. Ratha (Eds.), Diaspora for development in Africa (pp. 103–126). Washington: The World Bank.

Gupta, S., Pattillo, C.,and Wagh, S. (2007). *Impact of Remittances on Poverty and Financial Development in Sub-Saharan Africa*. Working Paper 07/38. International Monetary Fund, Washington, DC.

Hagenaars, A., and de Vos, K. (1988). "The definition and measurement of poverty". *Journal of Human Resources,* 23: 211-212.

Hulme, D., and A. Shepherd (2003). "Conceptualizing Chronic Poverty". *World Development*, 31(3): 403-423.

Jaeger, D.A. (2000). *Local labor Markets, Admission categories, and Immigrant Location Choice*. Hunter college and graduate School CUNY Working Paper.

Kothari, U. (2002). *Migration and Chronic Poverty*. Chronic Poverty Research Centre, Institute for Development, Policy and Management, University of Manchester.

Massey, D.S. (1990). "Social structure, household strategies, and the cumulativecausation of migration". *Population Index* ,56 (1): 3–26.

Massey, D.S, Arango, J. Hugo, G., Kouaouci, A. and Taylor, J.E. (1993), "What's driving Mexico US Migration? A Theoretical, Empirical, and Policy Analysis". in de Haas, H. (2010) "The internal dynamics of migration processes: a theoretical inquiry", *Journal of Ethnic and Migration Studies*, *36*(10)

Massey, D.S. and Espinoza, K. (1997). "What's driving Mexico US Migration? A Theoretical, Empirical, and Policy Analysis". *American Journal of Sociology*, 102(4): 939-999.

McCormick, B. and Wahba, J. (2003). "Return International Migration and Geographical Inequality: The Case of Egypt". *Journal of African Economics, 12 (4):* 550-532.

Marchetta, F. (2012). "Return Migration and the Survival of Entrepreneurial Activities in Egypt". *World Development, 40 (10):* 1999-2013.

Naiditch,C.,Tomini,A. and Ben Lakhdar,C., (2011). *Remittances and incentive to migrate: An epidemic approach of Migration*, EQUIPPE, Lille.

Nassar, H. (2008). *Temporary and Circular Migration*. European Universty Institute/ CARIM (Euro-Mediterranean Consortium for Applied Research on International Migration): San Domenico de Fiesole.

Nassar, H. (2009). *Migration and Financial Flows: Egypt in the MENA Region*. European Universty Institute/ CARIM (Euro-Mediterranean Consortium for Applied Research on International Migration): San Domenico de Fiesole.

Nassar, H. (2011). Recent trends of Egyptian migration. European Universty Institute/ CARIM (Euro-Mediterranean Consortium for Applied Research on International Migration): San Domenico de Fiesole.

Netherlands International Demographic Institute. (2000). Push and pull factors of international migration: A comparative report. The Hague: NIDI/Eurostat.

Ratha, D. (2005). "Workers' remittances: An important and stable source of external development finance". In S. M. Maimbo and D. Ratha (Eds.), *Remittances: Development Impact and Future Prospects*. World Bank: Washington.

Ratha, D., and Xu, Z. (2008). *Migration and Remittances Factbook 2008*. World Bank: Washington.

Ravallion, M., and Lokshin, M. (1999). *Subjective Economic Welfare* (No. 2106). World Bank Policy Research.

Sabates-Wheeler, R., Sabates, R., and Castaldo, A. (2008). "Tackling poverty-migration linkages: Evidence from Ghana and Egypt". *Social Indicators Research, 87*: 307-328.

Shen I., Docquier F. and Rapoport H. (2010). "Remittances and inequality: a dynamic migration model". *The Journal of economic inequality*, 8(2):197 -220.

Schramm, C. (2005). *Migration from Egypt, Morocco, and Tunisia: Synthesis of Three Case Studies*. World Bank:Washington.

Stark, O., and Jakubek, M. (2013). "Migration networks as a response to financial constraints: Onset, and endogenous dynamics". *Journal of Development Economics*. 101: 1–7.

Taylor, E.J., Rozelle, S., and de Brauw, A. (2003). "Migration and incomes in source communities: A new economics of migration perspective from China". *Economic Development and Cultural Change, 52*(1): 75-101.

United Nations**,** (2008). *Trends in the International Migrant Stock: The 2008 Revision.* New York: UN Population Division. in Yang, D. (2011). Migrant Remittances. *Journal of Economic Perspectives. 25(3): 129–152.*

Van Praag, B., and Ferrer-i-Carbonell, A. (2005). *A Multi-Dimensional Approach to Subjective Poverty*. Paper presented at the Conference on Measurement of Multidimensional Poverty, Theory and Evidence, International Poverty Centre, Brasilia.

Wahba, J. and Zenou, Y. (2012). *Out of Sight, Out of Mind: Migration, Entrepreneurship and Social Capital*. Regional Science and Urban Economics, forthcoming.

World Bank. (2008a). *Middle East and North Africa: Migration and Remittance*. Retrieved on March 10, 2010 from: http://web.worldbank.org/WBSITE/ EXTERNAL/COUNTRIES/MENAEXT/0,,contentMDK:21860906~menuPK:2246554~pagePK:2865106~piPK:2865128~theSitePK:256299,00.html

World Bank. (2008b). *Migration and Remittances Factbook 2008*. World Bank: Washington.

World Bank. (2011). *Migration and Remittances Factbook*. Retrieved on December 5, 2013 from: http://www.google.co.il/books?hl=enandlr=andid=xlaAt_bEF0cCandoi=fndandpg=PR5anddq=Migration+and+Remittances+Factbook+andots=xAJYJJUiTJandsig=qpHWpUiFdhFVeihI66J-H-0cKycandredir_esc=y#v=onepageandq=Migration%20and%20Remittances%20Factbookandf=false

Zohry, A. (2007). "Egyptian irregular migration to Europe". *Migration Letters, 4:* 53-63.

Zohry, A. (2013). *Assessment of international migration in the Arab region*. Paper presented at the Conference on Regional Conference on Population and Development in the Arab States, Cairo.

Appendix:

Migrants were defined as those who had lived in another country for at least a year, as defined by the UN Statistics Division (Ratha and Xu, 2008). Only one migrant, aged 18 to 65 years old, in each household was selected for a long interview. Migrants were both individuals living abroad at the time of the interview and those who had migrated for at least a year in the past. Data for current migrants were obtained by a family member on their behalf.

Migrant household was any household with at least one member who had lived abroad for at least a year or was currently living abroad. Non-migrant households were those in which no member had ever migrated.

The measure of *subjective financial poverty* was based on the following question: 'Overall, is the financial situation of the household more than sufficient, sufficient, barely sufficient or insufficient to buy all the basic needs?'. This question was answered twice: Migrants evaluated their poverty level before migration and at the time of the survey; Non- migrants evaluated their poverty level 5 years before the survey and at the time of the survey. We could define then four levels of poverty.

As demographic variables, we used marital status, educational level (Highest diploma acquired, at least high school), and the number of children living in the household. We used the declared weekly working hours before migration as a measure of diligence and measured family network relationships (having family members living at the destination country).