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ABSTRACT

Migration Aspirations among NEETs in Selected MENA Countries*

The Middle East and North Africa (MENA) region shows high levels of unemployment rates among youth and the rate of youth not in education, employment or training (NEET) is also among the highest in the world. In this context, one of the more obvious reactions of youth facing unmet aspirations in the labour market is migration. The objective of the paper is to analyse the determinants of intentions to migrate of youth NEETs during their school-to-work transitions in selected MENA countries. With this aim, I use microdata from School-to-Work Transition Surveys (SWTS) conducted by the International Labour Organization (ILO) in 2013-2015 in Egypt, Jordan, Lebanon, Palestine and Tunisia. These surveys targeted a nationally representative sample of young people between 15 and 29 and collected data on intentions to migrate (internal and international) and different factors related to their social and educational background. Microeconomic models are used to achieve a better understanding of factors influencing youth's decision to migrate.

JEL Classification: F22, J61, J65, R23

Keywords: intentions to migrate, youth, NEETs, unemployment, inactivity, school-to-work transition

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1. Introduction

Unemployment rates in the Middle East and North Africa (MENA) region are among the highest in the world, particularly for youth. Youth unemployment rates are usually higher than the overall unemployment rate, but in the MENA region it is more than double as it can be seen in figure 1. The main features of the labour market in the analysed countries in 2015 are also shown in table 1. We can see that the participation rate is relatively low (below 50% in all cases) while unemployment rate is relatively high, particularly for youth with values around 20% for Lebanon but close to 40% in Palestine.

FIGURE 1

TABLE 1

Demographic pressures have been a leading cause of the high youth unemployment rates in the region as the labour market has been unable to provide a sufficient amount of job opportunities to absorb the new entrants. A striking feature specific to the region that can also be observed in table 1 is that education is not a guarantee against unemployment or inactivity. Data suggest that youth unemployment rate in the region increases consistently with the level of education attained. In countries such as Egypt or Tunisia, youngsters having completed their tertiary education have been found more than two times more likely to be unemployed than those with primary education or less. This contrasts the situation in most developed and developing regions where unemployment decreases as the level of education rises (ILO, 2015). High unemployment rates for high skilled youth are a signal of the existence of skill mismatches in labour markets across the region. The main reason underpinning these mismatches, according to the UfM ad hoc work group on job creation (2016), is that skills demands are changing rapidly “due to the globalisation of the economy and technological innovation, which in turn speeds up organisational changes in businesses and creates the need for continuous training, also for adults”. Issues related to skill mismatches drew particular attention on the inability of education systems in the region to provide graduates with the skills required on the labour market on the supply side and the insufficient creation of high skilled jobs in the economy on the demand side. These mismatches are partially explained by the attractiveness of

public sector jobs, which provide a series of advantages to a relatively limited pool of workers, but has a substantial influence on educational choices, not tailored on the requirements of the private sector. Moreover, as highlighted by (ETF, 2015a), despite the declining role of the state in the area, young people's attitudes continue to be driven by the hope of getting a good job in the public sector, leading to a voluntary situation of inactivity while waiting for such an opportunity.

In fact, these high unemployment rates are discouraging youth to participate in the labour market (ETF, 2015b) and, in fact, NEET (Not in Employment, Education or Training) rates are also very high in the region and increasing since the beginning of the crisis (Carcillo et al., 2015). For instance, as it can be seen in table 1, the NEET rate for youth is between 25% and 30% in the considered countries according to the latest estimates by the International Labour Organization (ILO). In sum, young individuals face more difficulties to access jobs during their transition from school to work in the MENA countries than in most developed countries (Quintini and Martin, 2014; ETF, 2015b). This situation explains why migration is considered as an important option for youth in the region: Labour market conditions is one of the most relevant pull factors to explain migration flows from certain countries to others with better labour prospects or from poorer regions within a country to more dynamic ones (UNESCO, 2016; OECD, 2016). As far as an important share of potential migrants are high qualified, brain drain is one of the main concerns in the region. But even if the decision to move is from rural to urban areas in the same country, an excess of labour supply in local urban labour markets would push youth migrants into informal employment in a context where they have lost the protection of their families (O'Higgins, 2017).

Taking all this into account, it is important to analyse not only what macroeconomic conditions drive migration, but also those factors at the individual, family and community level that are also relevant to explain migration decisions. In this context, there is a growing literature on adult's motivations for migration (de Haas, 2011), but very few empirical analysis have devoted attention to the specific case of youth and, to the best of my knowledge, no previous research has considered the specific situation of NEETs and its relationship with the brain drain phenomenon. Moreover, much of the empirical research is still *destination-country biased* as it is based on interviews to actual migrants about the reasons why they migrated, but it does not consider those who wanted to migrate

but could not do it for several reasons such as financial constraints, legal barriers or family ties. Taking all this into account, in this paper I add to the scarce literature that has examined the individual determinants of migration aspirations among youth NEETs by using microdata from School-to-Work Transition Surveys (SWTS) conducted by the International Labour Organization (ILO) in 2013-2015 in selected MENA countries. These surveys targeted a nationally representative sample of young people between 15 and 29 years old. Microeconomic models are used to achieve a better understanding of the determinants of intentions to migrate of youth NEETs during their school-to-work transitions in Egypt, Jordan, Lebanon, Palestine and Tunisia. The analysis is focused on the particular situation of qualified youth who are inactive or unemployed and consider the possibility of moving to find a job abroad or to another part of the country. The topic is particularly interesting from a policy perspective as geographical mobility is one of the potential mechanisms of adjustment to labour market shocks in developing countries (Lall et al, 2006), but can also generate pressures on urban labour markets if internal migrants do not find appropriate jobs. Regarding international migrants, a part of considering the potential impacts of the brain drain on host countries, knowing the profile of potential migrants can also help destination countries to identify the actions required in order to obtain a better integration in the labour market and in society (Esipova et al, 2011).

The rest of the paper is structured as follows: first, section 2 summarises the related literature on the individual determinants of migration; next, the data, the methodology and the obtained empirical evidence is described in section 3; last, section 4 presents the concluding remarks.

2. Literature review

There are many theoretical hypotheses and models concerning the determinants of migration. Gravity models were initially based on Newton's gravity law, but recent contributions have also provided microfoundations in the context of migration analysis (Grogger and Hanson, 2011). In particular, migration stocks (or flows) between two countries are supposed to increase with their size and decay with the distance between the two countries. Usually, the most representative variable of the size of countries is population. Therefore, it is expected that migration is a positive function of population size of the host and home country and a negative function of distance (which controls for

migration costs). Although, the simplest versions of gravity models relate bilateral migration to the relative size of the origin and destination countries and the distance between them, there are additional factors that can affect migration flows. For this reason, gravity models are enlarged with variables related to different migration pull and push factors, for instance: better economic opportunities in the destination country (i.e., prospects for higher wages or lower unemployment rates), safer conditions or higher political freedom, among others. These models have been widely used in the empirical analysis of migration due to their relatively good forecasting performance (Ramos and Suriñach, 2017).

However, apart from macroeconomic conditions, it is likely that individual characteristics can also play a role. In fact, the literature on the topic proposes that migration choices are driven by individual expectations about the labour market in the destination country compared to the origin, but also to some extent by the personal characteristics that make individuals more prone to migrate. From an individual perspective, the main economic explanation for the greater incidence of migration among the youth is that it is an investment. Costs include the financial costs of moving, finding a job, and the forgone earnings, a part of the psychological costs associated to live in a new environment and leaving the family behind. Regarding expected returns, these are be higher for youth because they have not invested yet in human capital associated to the specific skills required in the origin labour market (McKenzie, 2007). The forgone earnings from migrating are also likely to be less for youth, as they experience much more difficulties in the labour market than older works. Regarding other components of human capital, as shown by Docquier et al. (2007), the educational level of an individual is also expected to influence the migration decision (even in the presence of an imperfect transferability of the knowledge acquired in the home country – Sanromá et al, 2015). In fact, workers with higher levels of human capital are more likely to migrate as their potential gains are usually higher than for less qualified workers. Moreover, they do not only value pecuniary factors but other variables such as a better match between their education and their job. Some other individual characteristics could also exert an influence on the migration decisions as they reduce the associated costs or the opportunity cost of staying. For instance, one factor that reduces the cost of migration is the command of the language of the destination country (Adserà and Pytliková, 2015). In this sense, employment status is

also expected to play a role as well. It can be expected that unemployed youth are more likely to seek work abroad when opportunities in the home country are limited.

The contributions from the new economics of migration (Stark and Bloom, 1985) have highlighted that the decision to migrate is often a decision of the family, and not just an individual one. From this perspective, migration aspirations can also vary depending on the gender division of tasks within the family. Although Docquier et al. (2012) concluded that there are no significant differences between skilled men and women regarding the incidence of migration, they found that women tend to follow men in a more intensive way than the other way around because of social norms in many developing countries. Being married or having children can also have an effect on migration aspirations. Individuals who have parents with high income (or high levels of education) will be more likely to emigrate as they do not face the liquidity constraint of poorer families to pay for the costs of migration. However, low-income families can also put more pressure on youth as they have higher incentives to send abroad members of the family abroad in order to receive remittances. It has been well documented that once moved, migrants are likely to move again. Therefore, it can be expected that previous experiences of mobility of the family facilitate migration as repeated migration seem to imply less difficulties to adjust to the new environments (Constant et al., 2013). The urbanisation level of the place of residence of the family can also influence migration decisions. In particular, youth from rural areas are very likely to move, but at the same time, an individual living in a family settled in an urban area might find easier to adjust in a foreign developed country than someone brought up in a rural area (Lall et al., 2006). Last, the literature has also documented the role of social networks: having contacts with migrants abroad facilitate the decision to move. For those individuals with family or friends abroad, migration costs are much lower than for those with no contacts abroad (Bauer et al., 2000).

Moving to the empirical literature for the developing countries¹, Gibson and McKenzie (2011) were among the first to carry out a specific analysis of the determinants of migration at the individual level by compiling data for Tonga, Papua New Guinea, and

¹ The literature on the determinants of migration decisions among youth is also considering flows between developed countries, particularly within the European Union in the context of the Great Recession. See, for instance, Hadler (2006), Grip et al. (2010), Kahanec and Fabo (2013), Bazillier and Boboc (2016), Van Mol (2016) or Ramos and Royuela (2017), among others.

New Zealand, three countries in the Pacific area, which was the region with the highest brain drain rate in the world. Their results revealed that although economic variables seem to play a role to explain migration decisions, other variables related to individual preferences were strong predictors.

Similar results have also been found for the scarce studies for the MENA region. In particular, Elbadaby (2011) and David and Jarreau (2016) have analysed migration intentions in Egypt using different databases. Their results also support the relevance of individual characteristics in order to explain migration decisions. In particular, they find that that being unemployed is a significant determinant of migration and that secondary and tertiary education are positively correlated with the emigration decision. They also find a positive impact of family income and social network on migration aspirations.

Dibeh et al. (2017) analyse the situation in Lebanon. They find that being male and unemployed has a positive incidence on migration intentions. University education also increases the willingness to emigrate. They also find that youth from poor households have a higher propensity to emigrate than those from richer ones.

In sum, both the theoretical and empirical literature on the determinants of migration have highlighted the relevance of individual characteristics and, particularly, the fact that more qualified individuals are more open to move in order to find better work conditions, particularly if their employment status is not satisfactory. In the next section, I will test empirically whether these predictions also hold for the specific case of youth NEETs in selected MENA countries.

3. Empirical evidence

The analysis in this paper uses microdata from School-to-Work Transition Surveys (SWTS) conducted by the International Labour Organization (ILO). The objective of the STWS was to collect in-depth information concerning the labour market situation of

young men and women and identify the factors that can facilitate their school-to-work transition.²

These surveys targeted a nationally representative sample of young people between 15 and 29 years old and were carried out in more than 30 countries between 2012 and 2016, but our analysis is limited to the MENA countries where the survey was carried out: Egypt, Jordan, Lebanon, Palestine and Jordan.

The SWTS's questionnaire provides detailed information on individual characteristics such as gender, age, the marital status, having children or not, the educational status, the employment status and for unemployed or inactive youth, it also provides information on the barriers to entry into the labour market and the willingness to move in order to find a job. It also provides information on the place of residence (urban/rural) and on parents' educational background and the financial conditions of the household. Appendix 1 provides a statistical description of the variables considered used in the analysis while Appendix 2 refers to variable definition in the SWTS original microdata files, which can be useful for replication purposes.

Before moving to the results from the econometric analysis, the NEET rates among youth and among youth graduates is shown in table 2. The NEET rate shows the proportion of young people who are neither working nor investing in a future labour market career by either studying or training. As it can be seen from this table, the proportion of NEETs among qualified youth is much higher than the average rate. This high proportion of qualified youth in a situation of unemployment or inactivity can intensify the brain drain phenomenon in the considered countries.

TABLE 2

Table 3 shows that the willingness to move to find work among NEETs according to the ILO-SWTS survey varies from 22.7% in Lebanon to 34.0% in Tunisia. As expected, in all the considered countries, except Palestine, the percentage of youth that would move to other parts of their country to find a job is substantially higher than those who would

² More details regarding SWTS can be found at http://www.ilo.org/employment/areas/youth-employment/work-for-youth/WCMS_191853/lang--en/index.htm [accessed August 31st 2017]

move to a foreign country. The share of youth who would consider moving abroad varies from 4.6% in Jordan to 19.2% in Palestine. When considering the willingness to move among NEETs with tertiary studies these figures are similar than the ones already described for all NEETs with the only exception of Lebanon, where this percentage is substantially lower. Their preferences regarding internal versus international mobility are also similar.

TABLE 3

To identify the determinants of youth NEET's migration intentions, I use probit models in order to predict the probability of expectations to move to find a work. Among the key explanatory variables, and taking into account the results from previous literature, I start by including a dummy variable for living or not in a rural area, gender, age, marital status, having children or not, if the father was high qualified or not, a dummy for previous mobility, two dummies related to the family financial conditions (good and bad compared to average), a dummy for tertiary studies, a dummy that indicates whether the individual worked while studying or not and, last, a dummy capturing those individuals who did not finish the last level of formal education that they started. Due to the reduced sample size for some countries, I pool the different data sets and include country fixed effects as additional explanatory variables. The inclusion of country fixed effects controls for cross-sectional variation associated to each country, including country-specific push factors. Standard errors are also clustered by country and individual sampling weights are used in all the models described below.

The first column of table 4 shows the marginal effects calculated at means after estimating the probit model by maximum likelihood. Living in a rural urban reduces the probability of moving to find a work in -0.015 probability points. Age does not have any significant effect on the probability of migration aspirations. At this point, it is important to remember that we are considering a sample of youth between 15 and 29 years old. Regarding gender, being a female strongly decreases the probability of moving to find a work, a similar result to the one found by Dibeh et al. (2017) for Lebanon or by Elbadawy (2011) for Egypt. The marital status, having children or previous experiences of mobility does not seem to affect the probability of migration. Having a father with high qualifications has a positive effect on migration aspirations, although living in a

household with good financial conditions has the opposite effect. As expected, having completed tertiary studies increases the probability of having migration aspirations in 0.0675 probability points, a result that is in line with the literature. Working while studying has a positive effect on migration probability, while those who have dropout from studying have significantly lower migration aspirations. Last, the country dummy variables show that migration aspirations are higher in all the considered countries than in the Lebanon (base category), although the willingness to move is much higher in Jordan, Tunisia and Egypt than in Palestine.

TABLE 4

Model (2) in table 4 adds to the previous specification a dummy variable associated to being unemployed instead of being inactive. While the results for the other explanatory variable do not show relevant variations from what has been previously described, being unemployed increases the probability of migration aspirations in 0.0418 probability points, a result in line with the evidence by David and Jarreau (2016) for Egypt and Dibeh et al (2017) for Lebanon. Model (3) replaces this variable with a new set of dummies where the unemployment status is disaggregated into four different status according to the duration of unemployment. Only the dummy associated to a length of unemployment between three and six months is statistically significant. It seems that the willingness to move seems to increase after some months of unemployment, but then it decreases, probably due to a discouragement effect. Model (4) in table 4 adds three additional variables related to the main obstacles in finding employment as perceived by individuals (the base category is no obstacle or other obstacle with minority answers such as too young, or not enough experience). The only obstacle that seems to reduce migration aspirations is the lack of appropriate skills.

Table 5 presents the results of estimating a probit model similar to the last one in table 4 but allowing for the possibility of heterogeneous effects of having tertiary studies across the considered countries. With the only exception of Lebanon, where having tertiary studies does not affect migration aspirations, in the rest of the considered countries it has a positive and significant effect. In particular, having tertiary studies increases the probability of migration intentions in 0.134 probability points in Jordan and 0.126 in Palestine. In Tunisia and Egypt, the marginal effects are lower: 0.0585 and 0.0482,

respectively. It is worth mentioning that the country dummy variables still show similar results to the ones described in table 4.

TABLE 5

In order to check if the determinants of the willingness to move abroad are different to those of youth who would move to other parts of the country, table 6 presents the results of estimating a probit model for the probability of moving abroad using information on individuals who have stated that they would be willing to move. The factors explaining the willingness to move seems to be quite different when considering the possibility of international instead of internal migration. Youth NEETs living in rural areas have nearly a 30% more probability to move abroad than those living in urban areas. Age has a positive and significant effect, while being a female discourages international migration for work reasons. Marital status, having children, the educational level of the father or previous mobility are not statistically significant. However, living in a household with bad financial conditions clearly encourages the decision to move abroad instead of moving to other parts of the country. More qualified youth have more aspirations to migrate abroad in Jordan and Palestine than those in Egypt. In Tunisia, qualified youth prefer to move to other parts of the country instead of abroad and the same happens in Lebanon, as all the qualified youth in the sample would prefer internal to international migration. Longer periods of unemployment also encourage youth NEET's to consider the possibility of moving abroad. Regarding the main obstacles in finding employment, it is interesting to see that those who perceived that the main problem was the lack of jobs are those who are more willing to move to another country to find a work. Last, and regarding country fixed effects, after having controlled for the rest of individual characteristics, youth living in Palestine and Tunisia are those with higher aspirations to migrate abroad while the opposite happens in Egypt and Jordan when compared to Lebanon.

TABLE 6

4. Concluding remarks

This article has identified a number of different socio-economic characteristics that negatively impacts youth employability in selected MENA countries and increase their willingness to emigrate.

The obtained empirical evidence has shown that, on the one hand, young NEETs are a very heterogenous group regarding their level of qualification. In fact, the proportion of NEETs across qualified young individuals is much higher than for the rest. Taking this evidence together with the very high unemployment rates experienced by qualified workers in the considered countries, this might be a sign of mismatch between the demand and supply side of the labour market, and these countries seem to be producing too many university graduates, or too many with degrees in areas that are not sufficiently demanded by the labour market. On the other hand, the results have shown that a significant proportion of qualified and not qualified NEETs have the willingness to move to find a job. More qualified youth have more aspirations to migrate abroad in Jordan and Palestine than those in Egypt. In Tunisia, qualified youth prefer to move to other parts of the country instead of abroad and the same happens in Lebanon. Living in rural areas or in a household with bad financial conditions encourage the decision to migrate abroad instead of moving to other parts of the country. Longer unemployment spells and the perception of lack of jobs are also relevant drivers to consider international migration.

It is worth mentioning that this research has several limitations: first, the analysis relies in cross-sectional datasets while migration decisions are mainly dynamic and would require the use of longitudinal datasets that are not available for the considered countries. Second, the SWTS do not contain any information on the youth social networks nor on the desired destination countries in case of international migration. Third, although it is a common situation in the literature, the models are only able to explain around 17% of the total variance of the endogenous variable. This means that there is still room to improve our knowledge on the individual determinants of migration decisions (for instance, those related to personality as suggested by Gibson and McKenzie, 2011).

However, and even taking into account the previous caveats, some policy recommendations can also be derived from the obtained empirical evidence. First, the

high NEET rates among qualified youth clearly point to the need to improve education and training systems to better match the requirements of the labour market, while at the same time, continuous vocational and educational training is also required for unskilled workers who also face unemployment or inactivity. The fact that a high proportion of NEETs are willing to move to other parts of the country to find a work can alleviate the pressure in some areas but, at the same time, an excess of labour supply in more dynamic labour markets could push youth migrants into informal jobs and depress wages in formal jobs. As far as qualified youth have stronger preferences to move abroad, a part of the potential negative effects associated to brain drain in the origin country, it is important to consider those factors than can facilitate their integration in the host countries' labour market. The (nearly) lack of experience of youth immigrants in their home countries and the possibility of skill mismatches in their new jobs imply a risk that they will remain permanently trapped in bad jobs. For this reason, the design of a system of assessment and recognition of foreign-acquired educational degrees would help to give an appropriate signal to the labour market and facilitate a better match between education and jobs. In this sense, providing informal training to recently arrived immigrants would also improve the transferability of their skills to the new labour market (Nieto et al, 2015).

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Figure 1. Unemployment rate (UR) and Youth unemployment rate (YUR) in world regions.

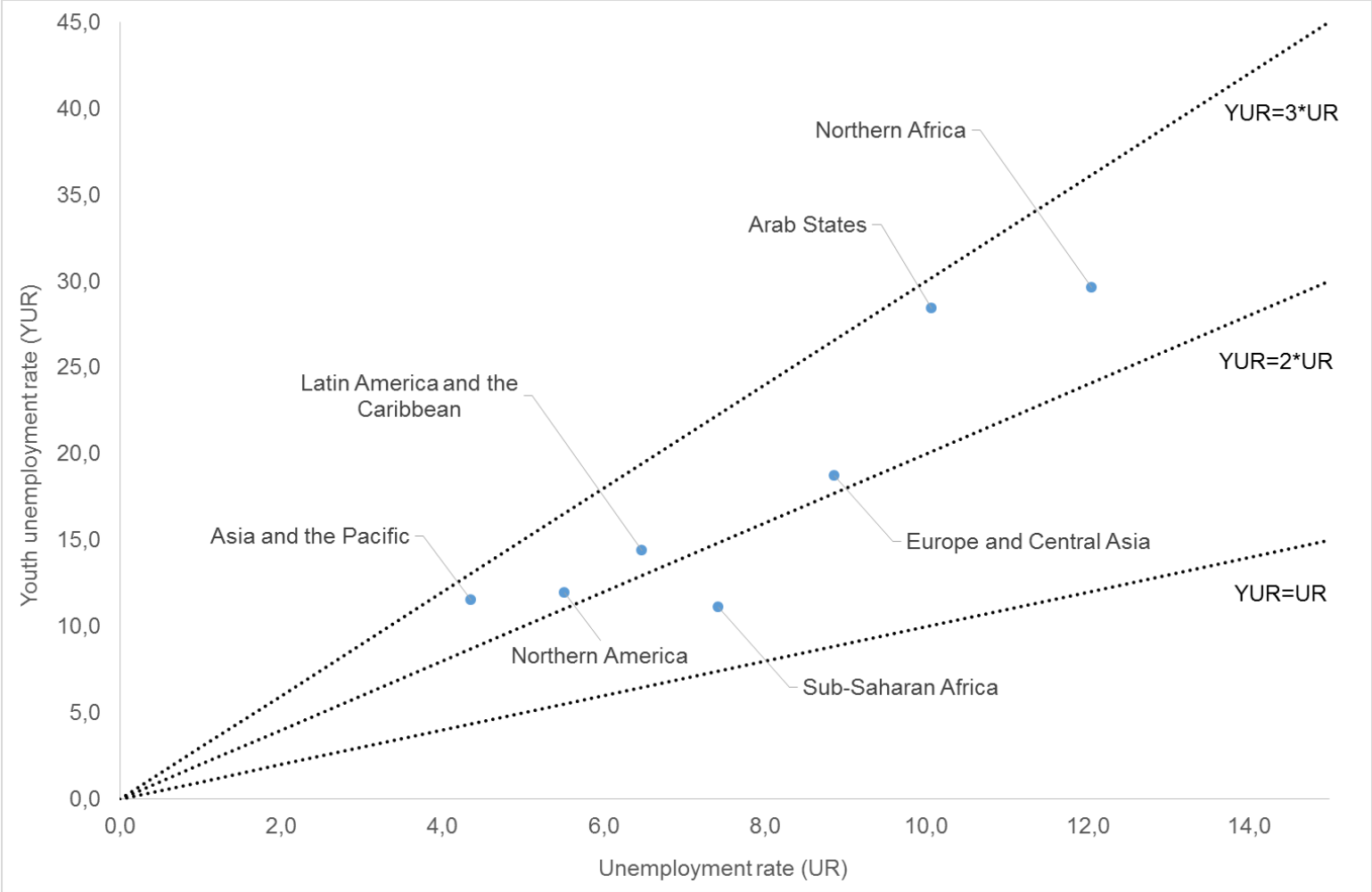


Table 1. Main features of the labour market in selected MENA countries in 2015

| | Egypt | Jordan | Lebanon | Palestine | Tunisia |
|---|--------|--------|---------|-----------|---------|
| Participation rate (%) | 49.4 | 40.0 | 47.0 | 43.7 | 47.7 |
| Unemployment rate (%) | 12.1 | 12.8 | 7.1 | 25.9 | 14.8 |
| Unemployment rate - primary level or less education (%) | 11.1 | 11.1 | 7.9 | 21.1 | 11.4 |
| Unemployment rate - secondary level education (%) | 16.6 | 9.7 | 9.7 | 20.5 | 20.6 |
| Unemployment rate - tertiary level education (%) | 22.0 | 15.8 | 11.0 | 29.7 | 29.2 |
| Youth participation rate (%) | 33.1 | 23.2 | 29.7 | 29.7 | 34.8 |
| Youth unemployment rate (%) | 35.5 | 33.4 | 21.6 | 39.8 | 34.5 |
| Ratio youth unemployment rate / unemployment rate | 2.9 | 2.6 | 3.0 | 1.5 | 2.3 |
| Youth NEET rate (%) | 27.9 | 24.6 | n.a. | 31.0 | 25.4 |
| Population (thousand) | 91,508 | 7,595 | 5,851 | 4,668 | 11,254 |
| Population 15-24 (thousands) | 15,844 | 1,442 | 1,140 | 1,014 | 1,756 |
| Unemployed 15-24 (thousands) | 1,866 | 112 | 73 | 120 | 211 |

Source: ILO-KILM

Table 2. NEET rate in selected MENA countries

| | Egypt | Jordan | Lebanon | Palestine | Tunisia |
|---|-------|--------|---------|-----------|---------|
| NEET rate (%) | 33.5 | 30.8 | 14.4 | 32.0 | 31.1 |
| NEET rate for those with tertiary education (%) | 52.0 | 45.6 | 27.5 | 66.0 | 56.7 |

Source: Own elaboration from ILO-SWTS 2013-2015

Table 3. Willingness to move to find work among NEETs

| | Egypt | Jordan | Lebanon | Palestine | Tunisia |
|--|-------|--------|---------|-----------|---------|
| Mobility (%) | 32.3 | 31.2 | 22.7 | 28.3 | 34.0 |
| Internal mobility (%) | 21.9 | 26.5 | 14.8 | 9.1 | 22.4 |
| International mobility (%) | 10.3 | 4.6 | 7.8 | 19.2 | 11.6 |
| Mobility among those with tertiary studies (%) | 35.1 | 35.4 | 12.6 | 25.5 | 37.8 |
| Internal mobility among those with tertiary studies (%) | 25.8 | 28.4 | 12.6 | 7.5 | 32.2 |
| International mobility among those with tertiary studies (%) | 9.2 | 7.0 | 0.0 | 18.0 | 5.7 |

Source: Own elaboration from ILO-SWTS 2013-2015

Table 4. Probit marginal effects of the intentions to migrate of youth NEETs

| | (1) | (2) | (3) | (4) |
|--|-------------------------|------------------------|------------------------|-------------------------|
| Live in rural area | -0.0147* (0.00844) | -0.0170* (0.00982) | -0.0195** (0.00954) | -0.0194* (0.0101) |
| Age | 0.00200 (0.00281) | 0.00202 (0.00268) | 0.00257 (0.00289) | 0.00194 (0.00281) |
| Female | -0.404*** (0.0847) | -0.398*** (0.0845) | -0.401*** (0.0891) | -0.399*** (0.0876) |
| Married | -0.0669 (0.0583) | -0.0635 (0.0590) | -0.0765 (0.0553) | -0.0666 (0.0547) |
| Have children | 0.00150 (0.0275) | 0.00472 (0.0305) | 0.0132 (0.0322) | 0.00775 (0.0290) |
| Father qualified | 0.0238* (0.0138) | 0.0221 (0.0145) | 0.0210 (0.0167) | 0.0218 (0.0164) |
| Previous mobility | -0.0143 (0.0432) | -0.0124 (0.0425) | -0.0151 (0.0448) | -0.0186 (0.0423) |
| Good financial conditions | -0.0714*** (0.0107) | -0.0724*** (0.0111) | -0.0755*** (0.0105) | -0.0752*** (0.0107) |
| Bad financial conditions | -0.00354 (0.0436) | -0.00454 (0.0444) | -0.00267 (0.0457) | -0.00194 (0.0471) |
| Tertiary studies | 0.0675*** (0.0173) | 0.0615*** (0.0183) | 0.0604*** (0.0168) | 0.0574*** (0.0164) |
| Work while studying | 0.0318* (0.0176) | 0.0283 (0.0173) | 0.0248 (0.0166) | 0.0245 (0.0162) |
| Dropout | -0.0882*** (0.00977) | -0.0875*** (0.0105) | -0.0891*** (0.0116) | -0.0877*** (0.00997) |
| Unemployed | | 0.0418* (0.0219) | | |
| Unemployed for 3 months or less | | | -0.0251 (0.0257) | -0.0236 (0.0299) |
| Unemployed between 3 and 6 months | | | 0.103*** (0.0386) | 0.107*** (0.0350) |
| Unemployed between 6 and 12 months | | | 0.0262 (0.0495) | 0.0326 (0.0524) |
| Unemployed for more than 12 months | | | 0.0242 (0.0207) | 0.0300 (0.0184) |
| Main obstacle in finding employment - Lack of skills | | | | -0.0758*** (0.0262) |
| Main obstacle in finding employment – Low wages | | | | 0.00755 (0.0334) |
| Main obstacle in finding employment – Lack of jobs | | | | -0.0322 (0.0277) |
| Egypt | 0.140*** (0.0110) | 0.144*** (0.0131) | 0.154*** (0.0145) | 0.172*** (0.0124) |
| Jordan | 0.201*** (0.0191) | 0.209*** (0.0237) | 0.230*** (0.0302) | 0.253*** (0.0226) |
| Palestine | 0.0761*** (0.0125) | 0.0850*** (0.0172) | 0.106*** (0.0220) | 0.134*** (0.0174) |
| Tunisia | 0.175*** (0.0105) | 0.178*** (0.0107) | 0.196*** (0.0169) | 0.204*** (0.0147) |
| Observations | 2,582 | 2,582 | 2,582 | 2,582 |

Standard errors clustered by country in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Table 5. Probit marginal effects of the intentions to migrate of youth NEETs

| | (1) |
|--|-------------------------|
| Live in rural area | -0.0196* (0.0102) |
| Age | 0.00201 (0.00277) |
| Female | -0.400*** (0.0879) |
| Married | -0.0701 (0.0532) |
| Have children | 0.00911 (0.0288) |
| Father qualified | 0.0234 (0.0162) |
| Previous mobility | -0.0200 (0.0425) |
| Good financial conditions | -0.0756*** (0.0104) |
| Bad financial conditions | -0.00262 (0.0477) |
| Tertiary studies x Egypt | 0.0482*** (0.0124) |
| Tertiary studies x Jordan | 0.134*** (0.0413) |
| Tertiary studies x Lebanon | -0.0219 (0.0277) |
| Tertiary studies x Palestine | 0.126*** (0.0476) |
| Tertiary studies x Tunisia | 0.0585** (0.0289) |
| Work while studying | 0.0236 (0.0156) |
| Dropout | -0.0815*** (0.00804) |
| Unemployed for 3 months or less | -0.0244 (0.0310) |
| Unemployed between 3 and 6 months | 0.108*** (0.0343) |
| Unemployed between 6 and 12 months | 0.0318 (0.0535) |
| Unemployed for more than 12 months | 0.0310* (0.0178) |
| Main obstacle in finding employment - Lack of skills | -0.0737*** (0.0261) |
| Main obstacle in finding employment – Low wages | 0.00698 (0.0329) |
| Main obstacle in finding employment – Lack of jobs | -0.0319 (0.0281) |
| Egypt | 0.172*** (0.00921) |
| Jordan | 0.212*** (0.0198) |
| Palestine | 0.105*** (0.0200) |
| Tunisia | 0.196*** (0.0119) |
| Observations | 2,582 |

Standard errors clustered by country in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Table 6. Probit marginal effects of the intentions to migrate abroad of youth NEETs

| | (1) |
|--|------------------------|
| Live in rural area | 0.299*** (0.0198) |
| Age | 0.0129*** (0.00327) |
| Female | -0.291*** (0.0717) |
| Married | -0.0174 (0.0917) |
| Have children | -0.0366 (0.0501) |
| Father qualified | -0.00936 (0.0147) |
| Previous mobility | 0.00494 (0.0682) |
| Good financial conditions | 0.0491 (0.0472) |
| Bad financial conditions | 0.101*** (0.0281) |
| Tertiary studies x Egypt | -0.0388 (0.0397) |
| Tertiary studies x Jordan | 0.164** (0.0834) |
| Tertiary studies x Palestine | 0.231* (0.128) |
| Tertiary studies x Tunisia | -0.118** (0.0539) |
| Work while studying | 0.300* (0.158) |
| Dropout | 0.100* (0.0573) |
| Unemployed for 3 months or less | 0.000818 (0.0945) |
| Unemployed between 3 and 6 months | 0.110*** (0.0290) |
| Unemployed between 6 and 12 months | 0.249*** (0.0488) |
| Unemployed for more than 12 months | 0.103*** (0.0168) |
| Main obstacle in finding employment - Lack of skills | 0.0413 (0.0459) |
| Main obstacle in finding employment – Low wages | -0.00962 (0.0162) |
| Main obstacle in finding employment – Lack of jobs | 0.182*** (0.0565) |
| Egypt | -0.153*** (0.0221) |
| Jordan | -0.249*** (0.00931) |
| Palestine | 0.119*** (0.0364) |
| Tunisia | 0.0917*** (0.0280) |
| Observations | 795 |

Tertiary studies x Lebanon not included as all graduates would prefer to move internally.
Standard errors clustered by country in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Appendix I. Descriptive statistics

| | Mean | Std. Dev. | Min. | Max. |
|--|--------|-----------|------|------|
| Would you consider moving to find work? (Yes=1) | 0.308 | 0.462 | 0 | 1 |
| Would you consider moving to another country to find work? (Yes=1) | 0.117 | 0.321 | 0 | 1 |
| Gender (Female=1) | 0.516 | 0.500 | 0 | 1 |
| Age (in years) | 23.242 | 3.518 | 15 | 29 |
| Marital status (Married =1) | 0.217 | 0.412 | 0 | 1 |
| Do you have children? (Yes=1) | 0.179 | 0.383 | 0 | 1 |
| Number of children | 0.392 | 0.957 | 0 | 8 |
| Rural area (Yes=1) | 0.485 | 0.500 | 0 | 1 |
| Did you live your entire life in the same place? (No=1) | 0.145 | 0.352 | 0 | 1 |
| Financial situation of the family - Good or very good =1 | 0.193 | 0.395 | 0 | 1 |
| Financial situation of the family - Bad or very bad =1) | 0.249 | 0.432 | 0 | 1 |
| Father successfully completed tertiary level of education | 0.235 | 0.424 | 0 | 1 |
| Mother successfully completed tertiary level of education | 0.162 | 0.368 | 0 | 1 |
| Primary level of formal education or less | 0.312 | 0.463 | 0 | 1 |
| Secondary level of formal education | 0.363 | 0.481 | 0 | 1 |
| Tertiary level of formal education | 0.325 | 0.468 | 0 | 1 |
| Did you work during your studies? (Yes=1) | 0.103 | 0.305 | 0 | 1 |
| Interrupted studies before having completed them | 0.419 | 0.494 | 0 | 1 |
| Have you ever worked? (Yes=1) | 0.553 | 0.497 | 0 | 1 |
| Have you looked for a job in the last 30 days? (Yes=1) | 0.727 | 0.446 | 0 | 1 |
| Unemployed and actively looking for work for 3 months or less | 0.112 | 0.316 | 0 | 1 |
| Unemployed and actively looking for work between 3 and 6 months | 0.065 | 0.247 | 0 | 1 |
| Unemployed and actively looking for work between 6 and 12 months | 0.111 | 0.314 | 0 | 1 |
| Unemployed and actively looking for work for 12 months or more | 0.456 | 0.498 | 0 | 1 |
| Have you ever turned down a job offered to you? (Yes=1) | 0.111 | 0.314 | 0 | 1 |
| What is the main obstacle in finding employment? Lack of skills | 0.100 | 0.300 | 0 | 1 |
| What is the main obstacle in finding employment? Low wages | 0.070 | 0.256 | 0 | 1 |
| What is the main obstacle in finding employment? Lack of jobs | 0.376 | 0.484 | 0 | 1 |
| Egypt | 0.244 | 0.429 | 0 | 1 |
| Jordan | 0.219 | 0.414 | 0 | 1 |
| Lebanon | 0.049 | 0.217 | 0 | 0 |
| Palestine | 0.280 | 0.449 | 0 | 1 |
| Tunisia | 0.208 | 0.406 | 0 | 1 |
| Number of observations | 2,582 | | | |

Source: Own elaboration from ILO-SWTS 2013-2015

Appendix II. Variable definition in the SWTS original microdata files

| | EGYPT | JORDAN | LEBANON | PALESTINE | TUNISIA |
|--|-------------------|---------------|----------------|------------------|-------------------|
| | 2015 | 2015 | 2015 | 2015 | 2013 |
| weight | wgt | wgt | w | wgt | weight |
| rural/urban | rururb | rururb | q5 | rururb | region |
| Sex | sex | sex | b4 | sex | sex |
| Gender | age | age | b2 | age | age |
| Did you live your entire life in the same place? | a104 | q210 | b5 | b01 | move_previously |
| What is your marital status? | a108 | q207 | b9 | b04 | marital |
| Do you have children? | a110 | q209 | b11 | b07 | children |
| How would you describe the financial situation of your family? | a201 | q213 | b12 | b08 | hh_situ_financial |
| What is the highest level of formal education successfully completed by your father? | a401 | q222 | b21 | b13 | father_edu |
| Are you currently enrolled in formal education or in any training program? | C03 | c1 | c3 | c01 | currently_attend |
| What is the highest level of education or training that you have successfully completed? | highestlevel_comp | c11 | c11 | c10 | highestlevel_comp |
| Did you work during your studies? | a514 | q313 | c14 | c13 | work_studying |
| Have you looked for a job / started a project or business in the last 30 days? | seekingjob | q601 | f1 | f01 | seekingjob |
| How long have you been unemployed and actively looking for work? | length_search_job | q609 | f8 | f11 | length_search_job |
| Would you have been available to start a job last week if you were offered to? | availability | q610 | f9 | f12 | disponw |
| Have you ever turned down a job offered to you? | a918 | q617 | f17 | f20 | refusnw |
| Would you consider moving to find work? | a923 | q622a | f23 | f26 | movingnw |
| What is the main obstacle in finding employment? | a924 | q623 | f24 | f27 | obstaclenw |