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Driouchi, Ahmed and Harkat, Tahar

IEAPS, Al Akhawayn University, Ifrane, Morocco

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Youth Inclusion Policies and NEETs' Targeting Requirements in Arab Countries

By: Ahmed Driouchi & Tahar Harkat IEAPS, Al Akhawayn University, Ifrane, Morocco

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Abstract:

The current research analyzes the trend of the NEETs, or young individuals that are not in education, employment, or training, in the Arab economies, based on the estimated NEET data in the contribution of Driouchi and Harkat (2017). Evidence shows that the trends of the NEETs are increasing in 9 Arab economies, decreasing in Algeria and statistically not significant for the remaining countries. This is assumed to be related to the absence of policies, programs, and strategies that directly target this category of youth. The present contribution assesses also, the determinants of the NEETs using Granger Causality test. The link between this category of youth and variables such as education, macroeconomic, and governance is assessed. The empirical findings indicate that each of the Arab economies exhibits a unique model with specific factors leading to the changes of this segment of population. This provides supporting evidence of the surrounding environment of the NEETs, and gives incentives to policy makers for monitoring through targeted policies, the significant factors that enable this category of youth.

JEL: I25; I32; J62; J68.

Keywords: NEETs, Arab countries, Causality, Policies, Targeting

Introduction:

The higher the unemployment rate, the more countries, mostly developing ones, are likely to have economic and political instability, (Harkat, Driouchi, Achehboune, 2016). But, existing policies for youth inclusion in Arab economies are mainly targeting employment and education, separately. ETF (2015a) indicates that the unemployment indicator does not capture the overall situation of youth, as it does not apprehend the human capital that is represented by education.

The absence of targeted policies of the NEETs in Arab countries can be explained by data limitation, as there are only few times series observations for some countries such as Algeria, Palestine, Saudi Arabia, and Egypt. For most of the remaining economies, they either have single or no observations. For that, the current contribution uses data generated from the unemployment of the group aged 15-24 as in the contribution of Driouchi and Harkat (2017).

This research describes policies related to youth inclusion or development and focuses on the analysis of the trends of the NEET population in Arab countries. In addition, the current paper provides evidence on the causalities for each specific Arab country to give incentive to policy makers to capture the determinants that lead to the creation of this category of youth, as well as to support the change of policies that relate to education and employability.

The questions that could be raised at this stage of the research are:

- What are the existing policies of youth inclusion in Arab countries?
- At which extent the NEETs exist in these economies and what are their trends?
- What are the likely determinants of the NEETs when considering education, employment besides health, social, macroeconomic, and governance variables?
- Among these latter variables, what are the most important determinants of this category of young individuals?

The current paper introduces a literature review about the NEETs followed by a description of the youth inclusion policies in Arab countries. The third part analyzes

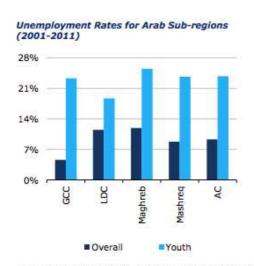
the trends of the NEET population followed by the likely determinants of this category. The last part focuses on providing guidance to policy makers in the conclusion and discussion section.

Literature Review:

Challenges that Arab countries are facing nowadays are exacerbated by the increasing rates of unemployment among the youngest segments. This is mainly due to the low levels of supply of job opportunities besides the growing share of the youngest population. The youngest population in Algeria increased from 23% in 1990 to approximately 30% in 2011. This is also the case for Jordan, Libya, Qatar, Saudi Arabia, Syria, and the United Arab Emirates (Chaoul, 2013; Angel-Urdinola et al., 2010; 2012; 2014).

Youth of the group age between 15 and 24 in Arab countries are subject to higher rates of unemployment compared to other age groups. Graph 1 indicates a cross comparison between unemployment rate of youth and total unemployment rate for all the sub-regions of the Arab economies, including Gulf Cooperation Council (GCC) countries and Euro-med countries. Findings show that unemployment among youth is twice the unemployment of older generations (Chaoul, 2013). This is due to labor importing, poor educational system and school-to-work transition (ETF, 2014a).

Graph 1: Youth unemployment across the Arab region



Note: Arab countries(AC) included are GCC (Bahrain, Kuwait, Saudi Arabia, UAE) Least Developed Countries (Yemen), Maghreb (Algeria, Morocco, Tunisia) and Mashreq (Egypt, Lebanon, Syria) Source: UNDP Arab Development Challenges Background Paper 2011/05 Even if the Arab economies invested aggressively in education in these recent years, the employment opportunities emerged in the form of low-level activities besides those from the informal sector. In Tunisia, the unemployment rate accounted for 14.2% in 2010, with a higher rate for young graduates that accounted for 47%. Other persisting issues relate to the drop out from school. This latter has noticed an average of 10% in Arab countries in 2014 (ETF, 2014a). Furthermore, student participation in vocational education and training is low in Morocco, Tunisia, Algeria, and Palestine. This accounts for 6% participation for this latter country (ETF, 2013a; 2013b). But concerning enrolment in universities, some countries scored high rates such as Lebanon with 53% while other countries still have lower rates such as Morocco with 13% (ETF, 2014a).

All Arab countries are putting strategies to increase employability as well as education reach for youth. These strategies relate to youth inclusion. In the case of Morocco, Jordan, Egypt, and Lebanon, focus is on highly skilled young individuals that are not employed (Angel-Urdinola et al, 2012). Other focus is on urban areas, and young women. With regard to active labor programs, most of Arab governments divided these strategies to have public intermediation services to enhance job matching quality and efficiency (World Bank, 2013; 2012; Murata, 2014), to create training programs to increase skills and productivity of job seekers (Kluve, 2014; Angel-Urdinola et al, 2010), to have employment incentive programs to facilitate the hiring process (Kluve, 2014; World Bank, 2012), to have public work programs (Del Ninno et al, 2009), and to support entrepreneurship (ETF, 2013c, 2014b).

Algeria initiated many programs that are "Vocational Integration Assistance Mechanism for Young People" that consists of 4 programs, "Social Inclusion Programs to fight Youth Unemployment", "Advice, Training, Project Funding, Monitoring of Microbusinesses created by Young People", "Micro Enterprise Support Programs", where providers of funds are National Employment Agency, Ministry of National Solidarity, Social Development Agency, National Youth Employment Support Agency, National Unemployment Insurance Fund, and National Agency for Management of Microcredit besides many others.

For Egypt, the programs are "Youth for Employment project – pilot youth units, building career counseling capacity", "National Program for Training for

Employment", "Job placement training program, school-to-market program, merchandiser training program", "Egypt@Work program", "The Community Development Program (training, microcredit activities)", "Small Enterprise Development Organization", "Shoroukh program", "Emergency Labor Intensive Investment Program (ELIP), costing USD 200 million", and "Emergency Employment Investment Program (EEIP), costing EUR 70 million". Providers of these programs are World Bank, European Union, SFD through the Organization for Reconstruction and Development of the Egyptian Village, Social Fund for Development (SFD), Industrial Training Council (ITC), Education for Employment (EFE), "Nahdel El Mahroussa", Ministry of Manpower and Migration: 300 job service centers, Ministry of Manpower and Migration/ International Labor Organization, "Masr Works" employability portal, and Licensed recruitment agencies (ETF, 2015b). The following table summarizes the programs and strategies for the remaining Arab countries.

Table 1: Active Labor Market Programs in Arab Mediterranean Countries:

Country	Type	Programs	Providers
Jordan	Intermediation	- National Electronic Employment System online platform (www.nees.jo)	Ministry of Labor: 21 public employment officesLicensed recruitment agencies
	Training and employment incentives	 Programs that include training and retraining, on-the-job training and dual system: internships: employment subsidies paid to employers for wages and social contributions Satellite Units Program National Campaign for Employment - Employment subsidy programs 	 National Employment and Training Company Vocational Training Corporation Ministry of Labor
	Entrepreneurship	- Programs to support micro- enterprises (lending and training services)	- Development and Employment Fund
Lebanon	Intermediation	- Electronic Labor Exchange: free online job matching service	- National Employment Office (NEO): 3 offices. By law, NEO is the only labor intermediation service provider. However, several private recruitment agencies are illegally working in this field.

	Training Entrepreneurship	 An accelerated vocational training program Subsidized vocational training for people with disabilities Short-term vocational training. Integrated SME Support Program (ISSP) 	 Funded by NEO, provided by NGOs and private institutions Vocational Training Centre Social Development Centers of Ministry of Social Affairs Ministry of Economy and Trade Kafalat (a Lebanese financial company)
Libya	Intermediation		- Ministry of Labor and Rehabilitation: 72 labor offices - Small professional employment services have started to develop - Web-based employment services
	Training	- Programs for demilitarized fighters: "IFAD", "KADER"	- Warriors Affairs Commission (WAC)
	Entrepreneurship	 Program for demilitarized fighters (thuwar): "Tamouh" SME program	Warriors AffairsCommission (WAC)National Small and MediumEnterprise Program
Morocco	Intermediation		 National Agency for Employment and Skills Promotion (ANAPEC): 74 offices Private recruitment agencies Temporary employment agencies
	Training and employment incentives	- "Idmaj" - first-time recruitment contract - "Taehil" - training contract - Support for training in emerging sectors	- ANAPEC
	Entrepreneurship	- "Moukawalati" - support scheme for small business creation	- ANAPEC
	Public works	- Intensive public work program	- "Promotion nationale"
Palestine	Intermediation	1 1 C	- Ministry of Labor: 16 employment offices in the West Bank and 5 offices in the Gaza Strip - Online portal: Jobs.ps.Ltd
	Training	- Various donor-sponsored professional training and career development programs	- NGOs: more than 2000 organizations active in the labor market, such as "Sharek" Youth Forum, Education for Employment

	Entrepreneurship	- Donor-sponsored entrepreneurship promotion programs	Foundation, Welfare Association - Palestinian Fund for Employment and Social Protection
			- NGOs
Tunisia	Intermediation		- National Agency for Employment and Independent Work (ANETI): 91 employment offices. By law, this is the only institution allowed to provide labor intermediation services.
	Training and employment incentives	- Employability improvement"cheque"- Employment support "cheque"- Program to foster employment- Donor-sponsored programs	- ANETI - NGOs
	Entrepreneurship	Support for small business entrepreneursDonor-sponsored programs	- ANETI - NGOs
	Public works	- Local community partnerships to foster employment	- ANETI

Source: ETF, 2015b

Arab countries do not have policies directly linked to the NEET, as they lack organizations to support this latter category. In addition, the lack of statistical databases limits the understanding of the NEETs in the Arab region. Still, the most recent contribution of Kovacheva, Popivanov, Kabaivanov (2017) indicates that even the new policies in the Arab Mediterranean Countries target only general inclusion of youth without specifying the NEETs.

Policies of youth inclusion in Arab countries define the age groups of the young population differently. For instance, it is between 15 and 29 in Morocco and between 18 and 35 in Egypt. For other countries, there is no clear definition of the age group of the youth. This is the case of Algeria, Lebanon and Tunisia (Strategy Morocco, 2014; Rhanem, 2015; Lebanon Youth Policy, 2012; Rossis, 2014; Churchill, 2013; Floris, 2010; Rarrbo, 2010; Algeria, 2016).

Youth policies in Arab economies suffer from the lack of coordination. In the case of Morocco, there is a gap between the skills provided in the educational system and those required in the job market. This is also the case of Algeria and Tunisia (Ministry Algeria, 2015). In addition to this, other issues that relate to the youth policies are the imperfections of the existing ones. The imperfections in education

policies and programs in Morocco, Egypt, and Tunisia are illustrated with higher rates of dropout from school at early stages, as the rate of leaving school is between 33% and 50% within these economies (ETF, 2015a).

Youth policies need to include the NEETs. The contribution of the World Bank (2013) indicates that the exclusion of this category within economies leads to higher rates of poverty, more political instability, as well as higher economic losses.

Methods and Data:

The following contribution is the analysis of the estimated NEET data of the Arab countries based on the contribution of Driouchi and Harkat (2017). The results are divided into describing youth inclusion policies, analyzing the trends of the NEETs population, and defining the likely determinants of the NEETs in Arab economies.

The analysis of the youngest segment of the population within each of the Arab countries indicates both the trends of the total young population and the NEETs separately. An increasing young population with a negative trend of the NEETs indicates that youth inclusion policies capture this category of individuals. But an increasing trend of the NEETs population indicates that policies related to youth exclude this segment.

The empirical method used for describing the NEETs trends and population in Arab countries is a regression analysis given by the following model:

$$Y_t = \alpha + \beta_1 Y P_t + \beta_2 N P_t$$

Where:

 Y_t : is time period (independent variable);

 YP_t : is the youth population of the age group between 15 and 24;

 NP_t : is the NEETs population of the age group between 15 and 24;

 β_1 and β_2 : are the coefficients corresponding to the YP and NP, respectively.

The third part of the analysis is a follow up of the contribution of Driouchi and Harkat (2017b) based on the Granger Causality test. This test predicts the unidirectional and bidirectional causalities between two time series variables in a sense that a variable x helps predicting the accurateness of a value y and vise versa.

In addition to the NEETs variable, the other variables are enrolment in education, enrolment in vocational and general education separately, expenditure on education as a percentage of GNI, expenditure on health as a percentage of GDP, and

world governance variables. These variables are extracted from the World Bank for the time period 1992 and 2016.

The governance indicators are divided into 6 variables that are: voice and accountability, political stability, rule of law, government effectiveness, regulatory quality, and control of corruption.

The political stability measures the chances of the destabilization of a government taking into account terrorism and violent means. Concerning the government effectiveness, it measures the stimulus of the relationship between the public and private sector while the regulatory quality measures the government support to the private sector. The rule of the law measures the extent the law governs the economy and the control of corruption measures the power exerted by the public sector on the private one. These variables are an index with values between -2 and 2.

The hypotheses to be tested are those of the contribution of Driouchi and Harkat (2017b) and are summarized in the following tables:

Table 2: hypotheses of the Granger Causality test between the NEETs and the educational variables

H_A: Education does not Granger cause NEET

H₀: NEET does not Granger cause General Education

H_A: General Education does not Granger cause NEET

 H_0 : NEET does not Granger cause Vocational

Education

H_A: Vocational Education does not Granger cause

NEET

Table 3: hypotheses of the Granger Causality test between the NEETs, macroeconomic and governance variables

H_A: Expenditure on Education does not Granger cause NEET

H₀: NEET does not Granger cause Expenditure on Health

H_A: Expenditure on Health does not Granger cause NEET

H₀: NEET does not Granger cause Labor Force

H_A: Labor Force does not Granger cause NEET

H₀: NEET does not Granger cause Voice and Accountability

H_A: Voice and Accountability does not Granger cause NEET

H₀: NEET does not Granger cause Political Stability

H_A: Political Stability does not Granger cause NEET

H₀: NEET does not Granger cause Government Effectiveness

H _A : Governr	nent Effectivene	ess does not Grai	nger cause NEET
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H₀: NEET does not Granger cause Regulatory Quality

H_A: Regulatory quality does not Granger cause NEET

H₀: NEET does not Granger cause Rule of Law

H_A: Rule of Law does not Granger cause NEET

H₀: NEET does not Granger cause Control of Corruption

H_A: Control of Corruption does not Granger cause NEET

Education causing the NEETs implies that the educational system cannot support or reach the entire young segment. This is the case for the general or vocational system. For the macroeconomic variable, the causal relationship captures the determinants that lead to the creation of the NEETs such as health issues and demand on the labor force. Finally, the governance indicator indicates whether if the NEETs affect politically the economies or vise versa. For instance and in some economies, the NEETs lead to the political instability.

Results and Discussion

Three sets of results are attained based on the empirical frameworks discussed above.

1. Unemployment and Education Programs and Policies in Arab Countries:

In Arab countries, policies related to the inclusion of the young segment under 25 years old target education and employment separately, which does not capture the link between these two indicators. In addition to that, there are no policies targeting directly the NEETs in Arab economies, and this can be explained by the lack of understanding of this phenomenon.

According to the ILO (2010a) report related to the labor market policies, Algeria, Jordan, Morocco, and Syria made many modifications in terms of employment and education policies. In Morocco, there are many government agencies that were recently implemented within the country to target youth. There is the "Ministry of Youth and Sports" that was restructured in 2013. In addition to that, there are ministries of health, employment, education that encourage youth activities. Within Morocco, a human development initiative was launched in 2005 targeting the youngest segment for employment initiatives. With regard to education, Morocco has adopted an emergency plan between the years of 2009 and 2019 aiming to increase

access to education as well as education quality. The last strategy that relates to youth is called "National Youth Strategy 2015-2030" that was launched by the Ministry of Youth and Sports. This strategy envisages enhancing equality among the young segment within the country by focusing on 5 main core elements that are the increase of economic opportunities that will lead to the increase of employability, the enhancing of access to public services for youth, the inclusion of youth in decision making processes, the promotion of human rights, and the reinforcement of institutional arrangements. It is the responsibility of the Ministry of Youth and Sports to coordinate with other organization and execute the Action Plan (Euromed, 2014).

For Algeria, the government agencies targeting youth development are the "Ministry of Youth and Sports" that was created in 1964. This latter organization attempts to create in the near future a Council for youth (Rarrbo, 2010; Ministry Algeria, 2015; Algeria, 2016). Algeria has adopted the Action Plan of the Algerian Government that targets the creation of 3 million jobs before 2014, with at least 400 000 jobs yearly starting 2009. These policies besides policies related to the educational system contribute to the significant decrease of the NEETs population, as they target the young segment of the country.

The population of youth in Jordan is increasing significantly. This economy has made reform programs including reshaping the skills of the labor force, upgrading the industrial base within the economy and developing value added sectors in the knowledge economy.

For Syria, the increase of the NEETs and the decrease of the young population are mainly due to political reasons (OECD, 2010). In addition to that, the school dropout rates within this economy for the years 2014 and 2015 are 40% and 32% respectively. For this, the ministry of education in Syria implemented new techniques in its educational system that enabled the coordination between education authorities and stabilization actors to enhance the delivery of formal education. The ministry of education also reformed the education policies and increased both the quality and access to schools. This was done by the training of more than 15000 teachers and reaching more than 480 000 students including areas that are hard to reach (Brussels Conference Education Report, 2017).

Bahrain (ILO, 2010 b) is undergoing many reforms for the liberalization of the economy. This latter country has made many initiative related to the increase of job opportunities. These reforms were initiated in 2004 and 2007 through the "Labor Market National Plan". In addition, the government aims at providing technical and financial support to job seekers.

In an ILO (2015) report, the NEETs are targeted in Tunisia. This contribution split between the males and the females, as females have marriage as an alternative for employment. Despites all the policies made on education and employment, the NEETs population is still increasing within this economy, which leads questioning the current strategies and the previous strategies for youth inclusion.

Concerning the main objective of the government of Yemen is to decrease poverty (ILO, 2008). For this many actions were taking. These actions were motivated by the "Poverty Reduction Strategy Paper" for the years between 2002 and 2005, and the government has developed the third Development Plan for Poverty Reduction and Reform for the years between 2006 and 2010. This program has as main goals the inclusion of citizens for the development progress with emphasis on the youngest segment.

In the case of Egypt, the ILO (2014) indicates that despites the increasing educational attainment, the NEETs population is still high while the unemployment affects one-sixth the young segment. This is due to the lack of entrepreneurs in this economy besides the low-quality jobs and informal employment.

Lebanon implemented many programs to decrease the school dropout and enhance the education quality and accessibility within the country. For this, the ministry of education and higher education implemented a "RACE plan 2017-2021" that improved the capacity of the ministry for better administration of public schools. In addition to that, there are strategies such as "Accelerated Learning Program" and "Early Childhood Education Programs" that reached more youth and decreased so far the school dropout by nearly 6% in a period of 1 year. This programs target also youth that are refugees (Brussels Conference Education Report, 2017).

2. Trends of young population and NEETs population aged 15-24 in Arab countries:

A regression analysis between the time as an independent variable and the young population and NEET of the group age between 15 and 24 is made in order to analyze the significance of their trend according the estimated data of the Arab economies. Table 4 presents the results.

Concerning Algeria, the young population within the country has a corresponding coefficient of 0.008 while the NEET population has a coefficient of - 0.018, which the significant t-statistic values of 5.417 and -6.031, respectively. This can be seen as good indicator as the youngest segment is increasing while the NEETs among them are decreasing. For Iraq, Jordan, Mauritania, Morocco, Saudi Arabia, Sudan, and Palestine, the coefficient of their NEETs population is not significant as the p-values are greater than the significant level $\alpha = 0.05$, but these countries have significant increasing trends with regard to the youth population with the coefficients 0.007, 0.048, 0.061, 0.017, 0.012, 0.007, and 0.043, respectively.

Libya and Oman are the only Arab countries that indicate significant decreasing trend of the youth population with a significant increase in the NEETs. These two latter countries have decreasing coefficient for the youth population -0.204, -0.047, with the corresponding t-statistic value of -7.579, and -2.465, respectively, and an increase of the NEETs population with the coefficients of 0.823, and 0.327, with the corresponding t-statistic value of 7.759 and 5.184, respectively.

Bahrain does not indicate any significant of both the young population and the NEETs, and this is also the case for the Arab United Emirates. Some countries do not indicate a significant relationship with the young segment, but shows a relationship with the NEETs population. For Egypt, Kuwait, Lebanon, Qatar, Syria, and Tunisia, the NEETs are increasing with significant coefficients that are: 0.009, 0.321, 0.458, 0.773, 0.039, and 0.135, respectively.

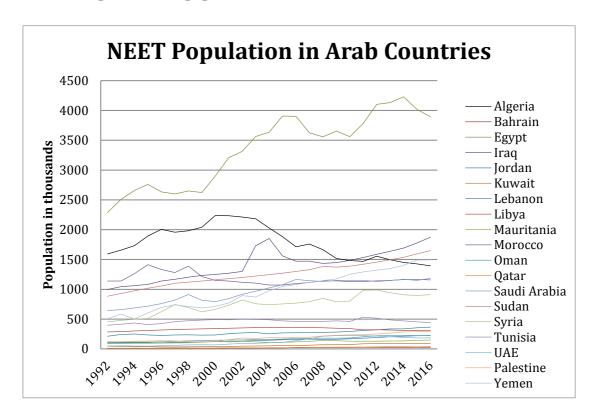
Table 4: Regression analysis of the youth population coefficient and NEET between 15 and 24 on the time variable for Arab countries

Country	R- squared	Intercept	Youth population coefficient	NEET population coefficient
Algeria	0.719	-7.966 (-0.776)	0.008 (5.417)	-0.018 (-6.031)

Bahrain	0.957	-10.689 (-9.872)	-0.016 (-0.042)	1.301 (0.446)
Egypt	0.875	-28.404 (-7.278)	0.001 (1.112)	0.009 (4.279)
Iraq	Iraq 0.987		0.007 (19.677)	0.001 (0.719)
Jordan	0.979	-34.455 (-23.412)	0.048 (11.310)	-0.029 (-1.651)
Kuwait	0.871	-6.824 (-1.779)	0.001 (0.027)	0.321 (2.385)
Lebanon	0.939	-16.643 (-10.414)	-0.052 (-1.393)	0.458 (2.388)
Libya	0.734	-24.344 (-2.084)	-0.204 (-7.579)	0.823 (7.759)
Mauritania	0.999	-26.529 (-61.721)	0.061 (50.533)	0.011 (1.393)
Morocco	0.618	-87.109 (-2.628)	0.017 (5.012)	-0.002 (-0.181)
Oman	0.981	-15.860 (-18.700)	-0.047 (-2.465)	0.327 (5.184)
Qatar	0.948	-1.769 (-2.066)	-0.013 (-0.852)	0.773 (5.092)
Saudi Arabia	0.942	-30.208 (-12.166)	0.012 (4.395)	-0.009 (-0.909)
Sudan	0.994	-29.279 (-30.022)	0.007 (5.214)	-0.001 (-0.151)
Syria	0.851	-24.973 (-5.053)	0.002 (1.027)	0.039 (6.674)
Tunisia	0.264	-32.604 (-1.499)	-0.009 (-0.741)	0.135 (2.601)
UAE	0.839	-1.428 (-0.675)	0.012 (0.535)	0.026 (0.188)
Palestine	0.992	-17.517 (-25.389)	0.043 (13.659)	-0.008 (-0.803)
Yemen	0.995	-12.935 (-27.335)	0.005 (7.948)	0.005 (2.457)

Graph 2 shows the population of the NEET between 15 and 24 in Arab economies and the variations of the NEETs population are explained by the variances in the unemployment rate. The graph indicates that in recent years the highest amount of the NEETs is in Egypt, followed by Iraq, Sudan, Yemen, and then Algeria. Lower

number of NEETs is found in Qatar and the United Arab Emirates. Still, the NEET population is relative to the overall population of these countries.



Graph 2: NEET population between 15 and 24 in Arab countries:

3. Determinants of the NEETs in Arab countries

The following section introduces the results of the Granger causality test. The used method gives the causality between economic, social, educational, and political reasons and the NEET category. This method gives an indication to policy makers in the Arab region to understand the root problem of the NEET category while considering a specific model for each country. Analysis is indicated in terms of a confidence level of 5% while also those that are significant under a 10% confidence interval are indicated.

Empirical findings of Driouchi and Harkat (2017b) indicate that in the case of Algeria, the NEETs cause vocational education, regulatory quality, and are caused by expenditure on health. For Egypt, it is the general education that causes the NEETs. In this latter economy, the NEETs cause the expenditure on education. In Saudi Arabia,

the NEETs have a double causality with education and labor force while in Palestine, no causalities are found.

Table 5 indicates that there are no causalities between the NEETs and educational variables in Iraq, Kuwait, and Lebanon. In the case of Bahrain, and under a significance level of 10%, the general education causes the NEETs.

Table 5: Granger Causality of NEETs and educational variables (set1)

	Bahrain		Iraq		Kuwait		Lebanon	
	F-	P-	F-	P-	F-	P-	F-	P-
	statistic	value	statistic	value	statistic	value	statistic	value
NEET does not causes Education	0.715	0.522	2.862	0.124	2.697	0.135	0.895	0.451
Education does not causes NEET	1.767	0.242	2.396	0.161	1.224	0.350	2.508	0.151
NEET does not causes General Education	2.307	0.136	N/A	N/A	1.869	0.191	1.593	0.236
General Education does not causes NEET	2.738	0.099	N/A	N/A	1.848	0.194	0.526	0.602
NEET does not causes Vocational Education	0.631	0.546	N/A	N/A	1.204	0.324	1.184	0.333
Vocational Education does not causes NEET	0.931	0.417	N/A	N/A	2.204	0.141	1.068	0.368

Regarding the causalities between the NEETs and macroeconomic and governance variables, the NEET causes the labor force under a significance level of 10%. In the case of Iraq, both political stability and the rule of law causes the NEETs while the NEETs causes NEETs causes the regulatory quality with a significance level of 5%. In Kuwait, the NEETs cause the political stability and government effectiveness while the rule of law causes the NEETs. For Lebanon, the NEETs cause the expenditure on health, the labor force with a significance level of 5%, and the voice and accountability with a significance level of 10%. In this latter economy, only the government effectiveness and the control of corruption cause the NEETs (Table 6).

Table 6: Granger Causality of NEETs, macroeconomic, and governance variables (set1)

	Bahrain		Iraq		Kuwait		Lebanon	
	F-	P-	F-	P-	F-	P-	F-	P-
NAME I	statistic	value	statistic	value	statistic	value	statistic	value
NEET does not causes Expenditure on Education	0.601	0.559	N/A	N/A	1.184	0.335	0.014	0.986
Expenditure on Education does not causes NEET	0.136	0.874	N/A	N/A	2.354	0.131	1.633	0.230
NEET does not causes Expenditure on Health	0.555	0.587	0.951	0.447	0.758	0.488	4.199	0.039
Expenditure on Health does not causes NEET	1.642	0.231	0.570	0.598	0.163	0.851	1.671	0.226
NEET does not causes Labor Force	3.633	0.054	N/A	N/A	2.672	0.113	5.595	0.015
Labor Force does not causes NEET	0.109	0.897	N/A	N/A	0.857	0.451	0.189	0.830
NEET does not causes Voice & Accountability	0.899	0.431	0.935	0.452	0.691	0.519	3.508	0.061
Voice & Accountability does not causes NEET	1.839	0.198	1.429	0.323	0.241	0.789	1.648	0.230
NEET does not causes Political Stability	0.688	0.534	1.433	0.301	4.781	0.049	1.794	0.235
Political Stability does not causes NEET	0.343	0.721	13.415	0.004	1.164	0.366	1.306	0.329
NEET does not causes Government Effectiveness	0.705	0.526	1.418	0.304	8.733	0.013	0.957	0.429
Government Effectiveness does not causes NEET	0.385	0.694	0.249	0.786	1.487	0.289	4.952	0.046
NEET does not causes Regulatory Quality	0.757	0.504	5.438	0.038	2.744	0.132	0.273	0.769
Regulatory Quality does not causes NEET	1.967	0.209	1.026	0.407	0.521	0.615	0.796	0.488
NEET does not causes Rule of Law	0.357	0.712	2.002	0.205	2.318	0.169	1.325	0.325
Rule of Law does not causes NEET	2.861	0.124	11.892	0.006	6.119	0.029	0.207	0.818
NEET does not causes Control of Corruption	0.462	0.648	0.412	0.668	1.547	0.278	0.505	0.624
Control of Corruption does not causes NEET	0.408	0.679	0.437	0.662	0.027	0.974	8.780	0.012

Table 7 shows that the general education causes the NEETs in Libya while in Qatar, the vocational education causes the NEETs.

Table 7: Granger Causality of NEETs and educational variables (set2)

	Libya		Qatar		Sudan		Syria	
	F-	P-	F-	P-	F-	P-	F-	P-
	statistic	value	statistic	value	statistic	value	statistic	value
NEET does not causes Education	1.307	0.329	0.159	0.855	2.018	0.203	0.868	0.440
Education does not causes NEET	2.918	0.119	0.904	0.428	0.226	0.803	0.971	0.401
NEET does not causes General Education	1.731	0.245	0.137	0.873	0.689	0.538	0.807	0.465
General Education does not causes NEET	5.499	0.037	0.836	0.454	2.657	0.149	0.953	0.408
NEET does not causes Vocational Education	0.010	0.989	1.209	0.328	0.799	0.492	0.882	0.434
Vocational Education does not causes NEET	1.926	0.216	5.291	0.019	2.819	0.137	0.932	0.415

Table 8 summarizes the findings of the granger causality tests between the NEETs, macroeconomic, and governance variables. Empirical results indicate that expenditure on health and the rule of law causes the NEETs while there is a double causality between the NEETs and regulatory quality in Libya. For Qatar, the NEETs cause expenditure on health, regulatory quality and rule of law, while they have a double causality with voice and accountability. For Sudan, it is the expenditure on health and voice and accountability that causes the NEETs. In Syria, the NEETs cause government effectiveness and regulatory quality. Further details indicate that under a significance level of 10%, the control of corruption causes the NEETs in Libya while it is caused by the NEETs in Qatar; also, the political stability causes the NEETs while these latters cause the rule of law in Syria.

Table 8: Granger Causality of NEETs, macroeconomic, and governance variables (set2)

	Libya		Qatar		Sudan		Syria	
	F-	P-	F-	P-	F-	P-	F-	P-
	statistic	value	statistic	value	statistic	value	statistic	value
NEET does not causes Expenditure on Education	N/A	N/A	1.232	0.316	1.225	0.319	0.998	0.389
Expenditure on Education does not causes NEET	N/A	N/A	0.267	0.769	2.304	0.130	0.165	0.849
NEET does not causes Expenditure on Health	0.558	0.585	4.488	0.033	1.488	0.261	1.818	0.201

Expenditure on Health does not causes NEET	4.754	0.028	0.322	0.730	5.016	0.024	1.657	0.229
NEET does not causes Labor Force	N/A	N/A	N/A	N/A	0.299	0.752	N/A	N/A
Labor Force does not causes NEET	N/A	N/A	N/A	N/A	0.292	0.757	N/A	N/A
NEET does not causes Voice & Accountability	N/A	N/A	27.304	0.001	1.513	0.257	1.088	0.388
Voice & Accountability does not causes NEET	N/A	N/A	6.101	0.029	4.562	0.032	0.099	0.907
NEET does not causes Political Stability	N/A	N/A	2.863	0.123	1.954	0.212	0.557	0.596
Political Stability does not causes NEET	N/A	N/A	3.013	0.114	0.933	0.437	3.423	0.092
NEET does not causes Government Effectiveness	0.501	0.617	2.763	0.131	0.412	0.678	8.644	0.013
Government Effectiveness does not causes NEET	4.847	0.027	0.032	0.968	2.869	0.123	0.267	0.773
NEET does not causes Regulatory Quality	5.687	0.034	7.650	0.017	2.026	0.202	4.838	0.048
Regulatory Quality does not causes NEET	21.259	0.001	0.504	0.624	0.623	0.564	0.229	0.801
NEET does not causes Rule of Law	2.577	0.145	12.175	0.005	3.049	0.112	3.336	0.096
Rule of Law does not causes NEET	11.222	0.007	0.263	0.776	0.737	0.512	0.058	0.944
NEET does not causes Control of Corruption	0.092	0.913	3.574	0.085	0.246	0.779	2.159	0.186
Control of Corruption does not causes NEET	3.830	0.075	0.225	0.804	0.250	0.785	0.529	0.611

Table 9 indicates that the vocational education causes the NEETs in the United Arab Emirates while education causes the NEETs in Yemen. No additional causalities are found between the NEETs and the educational variables in Tunisia United Arab Emirates, Yemen and Morocco.

Table 9: Granger Causality of NEETs and educational variables (set3)

	Tunisia		UAE		Yemen		Moro	cco
	F-	P-	F-	P-	F-	P-	F-	P-
	statistic	value	statistic	value	statistic	value	statistic	value
NEET does not causes Education	0.269	0.767	0.875	0.458	1.944	0.213	0.061	0.942
Education does not causes NEET	0.872	0.439	1.142	0.372	8.171	0.015	0.107	0.899
NEET does not causes General Education	0.004	0.996	3.081	0.109	N/A	N/A	0.473	0.631
General Education does not causes NEET	0.448	0.648	0.597	0.576	N/A	N/A	0.442	0.649

NEET does not causes Vocational Education	0.984	0.415	0.348	0.714	N/A	N/A	0.213	0.810
Vocational Education does not causes NEET	1.623	0.256	4.553	0.036	N/A	N/A	0.031	0.969

Results of table 10 shows that the only significant causality under a significant level of 5% between the NEETs, macroeconomic and governance variables in the third set of countries is found in Tunisia, that is the NEETs cause the rule of law. But for a significance level of 10%, the NEETs cause political stability in Tunisia, the NEETs causes expenditure on health, political stability, control of corruption in the United Arab Emirates while they are only caused by regulatory quality. For Yemen, expenditure on health, political stability, and regulatory quality cause the NEETs. In Morocco, the NEETs have a double causality with government effectiveness while they cause political stability, regulatory quality and rule of law.

Table 10: Granger Causality of NEETs, macroeconomic, and governance variables (set3)

	Tunisia		UAE		Yemen		Moro	cco
	F-	P-	F-	P-	F-	P-	F-	P-
	statistic	value	statistic	value	statistic	value	statistic	value
NEET does not causes Expenditure on Education	0.311	0.739	N/A	N/A	N/A	N/A	1.954	0.172
Expenditure on Education does not causes NEET	0.702	0.517	N/A	N/A	N/A	N/A	0.043	0.958
NEET does not causes Expenditure on Health	1.064	0.373	2.867	0.093	2.287	0.141	0.987	0.399
Expenditure on Health does not causes NEET	1.192	0.335	0.351	0.711	3.019	0.084	0.237	0.792
NEET does not causes Labor Force	N/A	N/A	N/A	N/A	N/A	N/A	0.208	0.840
Labor Force does not causes NEET	N/A	N/A	N/A	N/A	N/A	N/A	5.557	0.287
NEET does not causes Voice & Accountability	1.460	0.295	N/A	N/A	2.224	0.148	2.864	0.123
Voice & Accountability does not causes NEET	0.642	0.555	N/A	N/A	1.464	0.267	2.219	0.179
NEET does not causes Political Stability	3.383	0.094	3.008	0.084	1.214	0.353	4.507	0.055
Political Stability does not causes NEET	0.542	0.604	0.393	0.683	3.346	0.096	1.273	0.338
NEET does not causes Government Effectiveness	0.379	0.698	1.153	0.369	3.129	0.106	3.824	0.075
Government Effectiveness does not causes NEET	2.229	0.178	0.824	0.477	1.023	0.408	3.669	0.081

NEET does not causes Regulatory Quality	2.358	0.165	0.284	0.761	0.462	0.648	3.396	0.093
Regulatory Quality does not causes NEET	0.043	0.958	3.994	0.069	4.274	0.061	0.706	0.526
NEET does not causes Rule of Law	7.771	0.017	0.087	0.917	0.158	0.857	3.631	0.083
Rule of Law does not causes NEET	1.608	0.266	1.232	0.348	0.443	0.659	0.007	0.993
NEET does not causes Control of Corruption	0.521	0.615	3.454	0.091	0.505	0.624	0.366	0.706
Control of Corruption does not causes NEET	0.702	0.527	0.206	0.819	1.051	0.399	0.058	0.944

Table 11 shows that there are no significant causalities between the NEETs and educational variables in Oman, Mauritania and Jordan.

Table 11: Granger Causality of NEETs and educational variables (set4)

	Oman		Mauri	tania	Jordan	
	F-	P-	F-	P-	F-	P-
	statistic	value	statistic	value	statistic	value
NEET does not causes Education	2.510	0.136	0.482	0.627	0.706	0.531
Education does not causes NEET	1.500	0.274	1.473	0.261	0.198	0.825
NEET does not causes General Education	1.462	0.282	2.039	0.814	2.803	0.206
General Education does not causes NEET	1.906	0.204	2.039	0.159	0.139	0.876
NEET does not causes Vocational Education	N/A	N/A	2.650	0.131	0.698	0.534
Vocational Education does not causes NEET	N/A	N/A	0.492	0.629	2.500	0.162

But table 12 indicates that the NEETs cause expenditure on education, expenditure on health while they are caused by political stability. In Jordan, the NEETs cause the expenditure on education and voice and accountability while they are caused by government effectiveness. The following results are those of a significance level of 10%. The NEETs have a double causality with the government effectiveness, cause the rule of law, and are caused by regulatory quality in Oman. In Mauritania, the NEETs cause the control of corruption and are caused by political stability. For Jordan, the NEETs cause political stability and are caused by both regulatory quality and control of corruption.

Table 12: Granger Causality of NEETs, macroeconomic, and governance variables (set4)

	Om	an	Mauri	tania	Jordan	
	F-	P-	F-	P-	F-	P-
	statistic	value	statistic	value	statistic	value
NEET does not causes Expenditure on Education	46.321	8.E- 08	1.058	0.368	5.268	0.017
Expenditure on Education does not causes NEET	0.647	0.536	0.387	0.684	0.918	0.418
NEET does not causes Expenditure on Health	4.404	0.031	0.899	0.428	1.035	0.381
Expenditure on Health does not causes NEET	1.066	0.369	0.239	0.789	0.037	0.964
NEET does not causes Labor Force	N/A	N/A	N/A	N/A	N/A	N/A
Labor Force does not causes NEET	N/A	N/A	N/A	N/A	N/A	N/A
NEET does not causes Voice & Accountability	0.036	0.965	3.152	0.106	5.038	0.044
Voice & Accountability does not causes NEET	2.358	0.165	0.572	0.589	1.038	0.403
NEET does not causes Political Stability	3.213	0.102	1.984	0.208	3.404	0.093
Political Stability does not causes NEET	5.704	0.034	3.293	0.098	0.402	0.683
NEET does not causes Government Effectiveness	4.423	0.057	1.937	0.214	0.285	0.761
Government Effectiveness does not causes NEET	3.930	0.072	0.895	0.451	6.783	0.023
NEET does not causes Regulatory Quality	0.260	0.778	0.034	0.967	1.252	0.343
Regulatory Quality does not causes NEET	4.251	0.062	0.625	0.563	4.131	0.065
NEET does not causes Rule of Law	4.131	0.065	0.280	0.764	0.632	0.559
Rule of Law does not causes NEET	3.199	0.103	1.396	0.309	0.029	0.972
NEET does not causes Control of Corruption	0.223	0.806	3.822	0.076	1.469	0.293
Control of Corruption does not causes NEET	0.629	0.561	0.094	0.911	4.511	0.055

Conclusion and Discussion:

The current research describes the NEETs policies, trends, and determinants in Arab economies. Empirical results indicate that the trend of the young population in the group aged 15-24 in Arab countries is increasing in most of countries except for Libya and Oman. With regard to the NEET population, Egypt, Kuwait, Lebanon,

Libya, Oman, Qatar, Tunisia, United Arab Emirates, and Yemen have increasing trends. Only Algeria has a significant decreasing trend of the NEETs while the remaining countries have non-statistically significant trends.

This is explained by the lack of targeted policies, programs, and strategies that relate directly to the NEETs category.

With regard to the determinants of the NEETs, the empirical results suggest that there is a specific model, in which different factors cause the NEETs in each of the Arab economies. For Iraq, the NEETs cause the regulatory quality while they are caused by political stability and rule of law. For Kuwait, the NEETs cause both the political stability and the government effectiveness, and are caused by the rule of law. For Lebanon, the NEETs cause the expenditure on health and the labor force and are caused by the government effectiveness and the control of corruption. For Libya, the NEETs are caused by the general education, expenditure on health, government effectiveness, rule of law, and have a double causality with the regulatory quality. In Qatar, the NEETs are caused by the vocational education and have a double causality with the voice and accountability. In this latter country, the NEETs cause the expenditure on health, the regulatory quality, and the rule of law. For Sudan, the expenditure on health and the voice and accountability cause the NEETs. In Syria, the NEETs cause the government effectiveness and regulatory quality. For Tunisia, the rule of law causes the NEETs while in the United Arab Emirates the vocational education causes the NEETs. Education causes the NEETs in Yemen. In Oman, the NEETs cause expenditure on education and expenditure on health and are caused by political stability. In Jordan, the NEETs cause the expenditure on education and the voice and accountability while they are caused by the government effectiveness.

The above causalities are significant under a significance level of 5%. For the remaining countries that are Bahrain, Mauritania, and Morocco, no causalities are found under this latter significance level, but are found only under a 10% significance level. For Bahrain, NEETs cause the labor force and are caused by the government effectiveness. In Morocco, the NEETs cause the political stability, the regulatory quality, the rule of law, and have a double causality with the government effectiveness. In Mauritania, the NEETs cause the control of corruption and are caused by the political stability.

Policy makers in Arab economies need to put emphasis on implementing new policies and programs that targets mainly the NEETs. For countries in which the education, either general or vocational, causes the NEETs, it indicates that the capacity of schools and universities cannot undertake all the young population. This is also indicated by the expenditure on education. But when the NEETs are causing education, it might indicate that there are higher rates of dropouts. This can be interpreted such as schools and universities create discouraged students.

In the case where labor force being the factor that causes the NEETs, it shows that there is a lack in the job supply within the economy. For this, governments need to create more job opportunities.

Expenditure on health also causes the NEETs in some economies such as Libya. This means that there should be health access, insurance and, coverage for young individuals.

For the world governance indicators causing the NEETs, policy makers need to put strategies for educating, training, and employing this category of young individuals, as to reduce to likelihood of the occurrence of political instability. Governments should also use different public offices, authorities, and NGOs to fight against corruption, as well as to increase the efficiency of public administration and the rule of low to minimize the NEETs population.

This contribution provides supporting evidence about the corresponding environment specific to each of the Arab countries that lead to the increase of the NEETs. Thus, policy makers should put targeted strategies for NEETs inclusion and monitor the NEETs by monitoring education, macroeconomic, and political variables.

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