

# İŞGÜCÜ PİYASALARININ ARAP BAHARINDAKİ ROLÜ

## ÖZ

Bir ekonominin işleyişinin anlaşılabilmesi için işgücü piyasalarının nasıl işlediğinin doğru anlaşılması bir zorunluluktur. Ayrıca, işgücü piyasasının ve kurumlarının yapısı politik ekonomide değişimi açıklamamızda da bize yardımcı olur. Literatürde MENA ülkelerinde ortaya çıkan kalkışmalara yönelik analizlerin çoğunun yanlış varsayımlar üzerine kurgulandığı ve Arap Baharının sonuçlarına ilişkin yanıltıcı önermeler yapıldığı görülmektedir. Bu nedenle bu bölgede ortaya çıkan olayların daha dikkatli bir analizi hem bu varsayımların hem de Baharın beklenen sonuçlarının neden gerçekleşmediğini açıklaması gerekmektedir. Bu sorulara verilecek yanıtların da doğal olarak Baharın temel nedenlerinin neler olduğunu ortaya koymakla başlaması gerekmektedir. Bu çerçevedeki bir analiz ise işgücü piyasalarını dikkate almak zorundadır. Bu nedenle bu çalışma, Arap Baharında işgücü piyasalarının oynadığı rolü ortaya koymayı amaçlamaktadır.

*Anahtar Kelimeler: Arap Baharı, İşgücü Piyasaları, İşsizlik, Yoksulluk, Ekonomik Yapı, Ekonomik Dönüşüm*

## دور سوق العمل في الربيع العربي هارون اوزتوركler خلاصة

مما لا شك فيه ان فهم الاداء الاقتصادي و اداء سوق العمل ضروري لفهم كيفية تشغيل سوق العمل بصورة صحيحة. اضافة الى ان بنية المؤسسات وسوق العمل ستساعدنا على فهم وتوضيح التغير الطارئ على الاقتصاد السياسي. كما ان معظم التحليلات التي اجريت بصدد الانتفاضات التي ظهرت في الدول النامية بنيت على افتراضات زائفة ومضللة. ومن الواضح ايضا ان المقترحات المتعلقة بنتائج الربيع العربي كانت مضللة هي الاخرى. ولهذا السبب فان علينا توضيح سبب عدم اجراء تحليل دقيق للاحداث التي ظهرت في المنطقة بالاضافة الي سبب عدم تحقيق هذه التوقعات والنتائج المتوقعة للربيع. وبطبيعة الحال من اجل الاجابة على كل هذه التساؤلات، علينا البدء اولا بتوضيح الاسباب التي ادت الي حدوث الربيع. وفي هذا النطاق علينا ان نأخذ في عين الاعتبار سوق العمل وذلك من اجل تحقيق تحليل اكثر مصداقية. ولهذا السبب فان هذه المقالة تهدف الي توضيح الدور الذي يلعبه سوق العمل في الربيع العربي.

*الكلمات الدالة: الربيع العربي، سوق العمل، البطالة، الفقر، البنية الاقتصادية، التحول الاقتصادي.*

# THE ROLE OF LABOR MARKETS IN THE ARAB SPRING\*

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## ABSTRACT

Understanding the working of labor markets is crucial to understand the functioning of an economy. In addition, the structural nature of labor market and its institutions allows us to explain how changes occur in the political economy. Most of the analysis in the literature on the uprising in MENA countries has been on failed assumptions and the promises of the Arab Spring have been hugely hyped. Therefore, more careful studies of the events taking place in the region must explain both why the basic assumptions have failed and why the promises of the Spring have not been realized. Any answer to these two questions must start with finding what the root causes of the Spring were. A complete explanation of the Arab Spring must take the role of the labor markets into account, and therefore this paper attempts to weigh up the role of labor markets in the Spring.

*Keywords: Arab Spring, Labor Markets, Unemployment, Poverty, Economic Structure, Economic Transformation*

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## Introduction

After more than three years passed, now one can look at socio-economic and political conditions prevailing before the Arab Spring and evaluate the causes, the progresses, and directions of events since the beginning. We must emphasize that Arab Spring is not an isolated event on a point in time for the Middle East and North African (MENA) countries, but it is a rather long process involving economic, social, cultural, and political restructuring of those countries. However, we must also stress that a complete explanation of the Arab Spring must take the role of the labor markets into account, and therefore the main motivation for this paper is to assess the role of labor markets in this long restructuring process.

This article addresses two questions: What had been the labor market outcomes' effects on provoking the events leading to the Arab Spring? Does the Arab Spring have the mechanisms to transform the labor markets so as to contribute the development process in the region? These questions are addressed mainly from the perspective of politic, social, and economic transformations in those countries. However, it must be kept in mind that in these countries the politic, social, and economic organizations of the societies give a different role to the labor market than we observe in developed world with efficient labor markets. In addition, the ability to enforce labor market policies in these countries is limited, and efforts to enforce such policies often do not reach all segments of the market. This fact weakens the link between labor markets and the rest of the economy.

On the other hand, as underlined by Calderon and Chong<sup>1</sup>, labor market regulations are at the cornerstone of the economic policy and political economy debate in many countries. Because labor markets are segmented, and therefore there are protected and unprotected groups, changes in labor market policies and outcomes have, at the very least, different consequences for particular social groups. Furthermore, the direct link between labor market institutions and income distribution, and income distribution and social tensions necessitate a comprehensive inquiry into the role of labor markets in the Arab Spring.

In capitalist economies, labor, goods and services, and financial markets constitute the three major pillars of the economic system. In these countries markets are the channels through which resources and incomes are distributed to the alternative uses and different segments of the society. In economics this mode of distribution is assumed to be based on a manner of decision making by "Homo Economicus". However, as pointed out by Plaut<sup>2</sup>, "Homo

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<sup>1</sup> C. Calderon and A. Chong, "Labor Market Institutions and Income Inequality: An Empirical Exploration", *Public Choice*, Vol. 138, No.1/2, 2009, pp. 65-81.

<sup>2</sup> S. Plaut, "Misplaced Applications of Economic Theory to the Middle East", *Public Choice*, Vol.

Economicus lives in the West. He may also live in Japan and some other places". But he does not live in the MENA countries. It does not mean that markets fail to work in these countries; it means that, at the national level and at the "public" level of decision making, pursuit of prosperity and welfare of the lower segments of the society are not taken into account very much. As mentioned by Kuran<sup>3</sup>, it also means that transplanting western institutional structures shall not appropriate the entire social system that produced it. Furthermore, market mode of social and economic organization of a society requires the existence of a political system guaranteeing property rights. However, as expressed by Rosen<sup>4</sup>, by contrast to the West, where property is primarily seen as the relation of a person to things, in the Arab world the emphasis is more clearly on ownership as a focus of the relations between persons as they concern things.

It must be remembered that there is no single labor market neither in MENA taken as whole nor each country in MENA. For instance, Fine<sup>5</sup> demonstrates that there is no single labor market but rather a multiplicity of sub-markets, each with their own unique characteristics. Complex institutional constructions are the sources of differences in labor markets. As we will discuss further in the following section, labor segmentation/ dualism is the main characteristic of the labor markets in MENA. As explained in detail by Dickens and Lang<sup>6</sup>, according to segmented labor market theory, the labor market can be usefully described as consisting of two sectors: a high-wage (primary) sector with good working conditions, stable employment, and substantial returns to human capital variables such as education and experience, and a low-wage (secondary) sector with the opposite characteristics. Furthermore, primary jobs are rationed, that is, not all workers who are qualified for primary sector jobs and desire one can obtain one. Under this theoretical setting, segmented labor market model is simultaneously a description of the income distribution, a claim about the absence of market clearing, and a radical departure from the assumptions of mainstream economics, which postulate fully rational actors and exogenously determined preferences.

On the basis of this background, this paper is organized as follows. In the next section, we describe the main characteristics of the labor markets in MENA taken as a geographical region. Following this part, we explore the role of labor markets in Arab Spring. In this section we focus on the Arab

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118, No.1/2, 2004, pp. 11-24.

<sup>3</sup> T. Kuran, "Why the Middle East is Economically Underdeveloped: Historical Mechanisms of Institutional Stagnation", *Journal of Economic Perspectives*, Vol.18, No.3, 2004, pp. 71-90.

<sup>4</sup> L. Rosen, "Expecting the Unexpected: Cultural Components of Arab Governance", *Annals of the American Academy of Political and Social Science*, Vol. 603, No.1, 2006, pp. 163-178.

<sup>5</sup> B. Fine, *Labour Market Theory: A Constructive Reassessment*, (NY: Taylor and Francis, 1998).

<sup>6</sup> W. Dickens and K. Lang, "The Reemergence of Segmented Labor Market Theory", *The American Economic Review*, Vol. 78, No.2, 1988, pp. 129-134.

Spring countries; Tunisia, Egypt, Libya, Yemen and Syria. Then, the following part concludes the study.

### **Labor Markets in MENA Countries**

The institutional setting under which labor services and compensations are exchanged between employees and employers is called labor market. Ehrenberg and Smith define labor economics as the study of the workings and outcomes of the market for labor.<sup>7</sup> The most important outcome of the functioning of labor market is the wage rate. Wage rate in turn determines the incomes of employees. The labor income determines employees and their families' welfare. However, the interaction among wages, income, and welfare also determine the decision to work. More generally, this interactions affect occupational choice, and therefore, investment on education and training. Investment on education and training determine the labor force characteristics, and most importantly, the productivity of the labor force, which is one of the most important factors for economic growth and development in each country. In this section we shall examine, labor force characteristics, labor force participation, employment, productivity, unemployment, and other aspects of labor markets in MENA countries. In the following section we shall discuss these aspects of labor markets in the Arab Spring countries in comparison with each other and with MENA countries.

The causes of the recent uprisings in the MENA countries are numerous and complex, and certainly cannot be attributed to one factor. However, one can argue that a complete explanation of the Arab Spring must take the role of the labor markets into account. To a significant extent, labor market structures are shaped by the demographic features of the countries. The main characteristics of the MENA countries' demographic trends are high population growth, youth based age structure, rapid urbanization, unprecedented levels of international migration, and significant forced displacement. These demographic characteristics also point to the importance of adopting a long view of where the Arab Spring can lead.

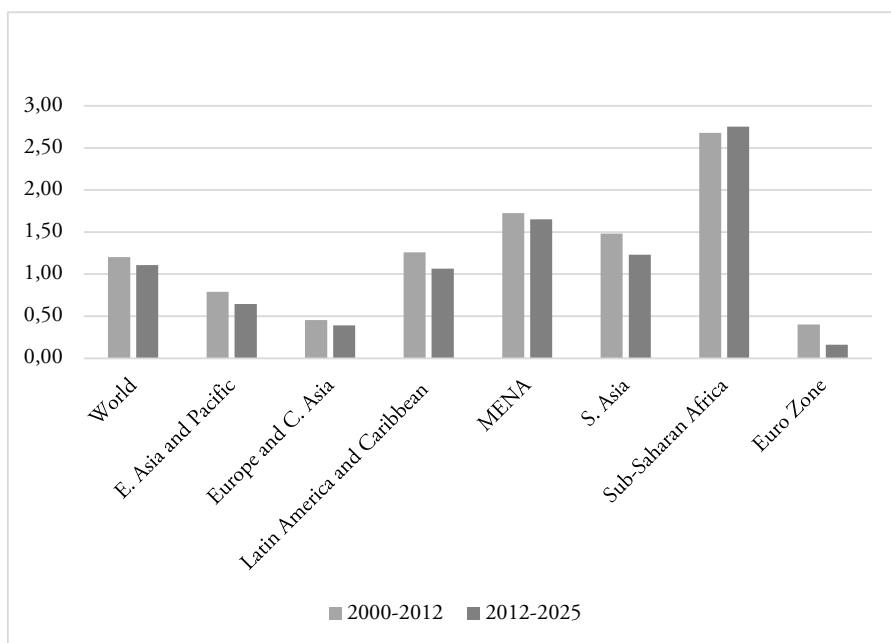
Graph 1 shows the average annual population growth rates for the world and sub-regions for 2000-2012 period and predictions for 2012-2025 period. As it can be seen from the graph, MENA countries stand second after Sub-Saharan Africa for both periods. Although the population growth rate is expected to decline slightly for 2012-2025 period for MENA countries, it is going to be 1.5 times of the world average and more than 10 times faster than Euro Zone. The population growth rate together with labor force participation determine the supply side of the labor market, and the higher the population growth rate is the higher the labor supply. According to World Bank (WB)

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<sup>7</sup> R. G. Ehrenberg and R. S. Smith, *Modern Labor Economics: Theory and Policy*, (NY: Prentice Hall, 2011).

World Development Indicators 2014 (WDI 2014)<sup>8</sup>, MENA's population is 339.6 million and expected to be 413.3 million in 2025. Such a development in population size is assessed differently by different theoretical approaches of political economy of population: while neo-Malthusian approach holds that rapid population growth dooms any attempt at development to failure, Marxist approach reverses this causality and maintains that poverty and underdevelopment cause rapid population growth.<sup>9</sup> In any case, such a high population growth rate imposes a huge burden on labor markets in terms of creating jobs for the new comers.

**Graph 1:** Average Annual Population Growth Rate (%)



**Source:** World Bank, 2014 World Development Indicators: Population Dynamics, <http://wdi.worldbank.org/table/2.1>.

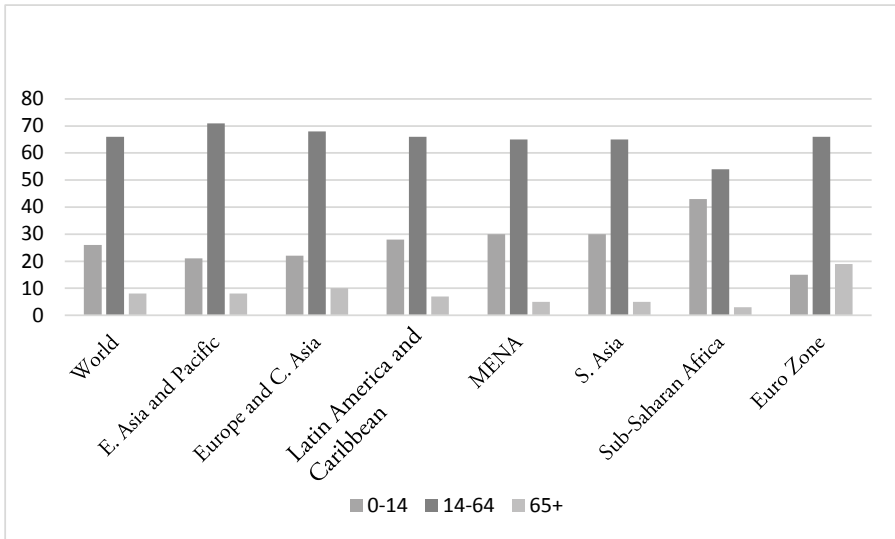
Another demographic aspect that shapes labor market's features is the age structure for it not only determines today's labor supply structure but also future birth rate and labor supply. Graph 2 reflects age structure for the world and sub-regions for 2012. As it can be seen from the graph, together with South Asia, the MENA countries have the highest youth population. The

<sup>8</sup> World Bank, *World Development Indicators*, <http://wdi.worldbank.org/> Access Date: 16 Nisan 2014.

<sup>9</sup> A. Richards and J. Waterbury, *A Political Economy of the Middle East*, (Colorado: Westview Press, 2008).

higher the share of youth in the population is, the higher the population growth rate is. Furthermore, the higher the share of youth in the population is, the higher the labor supply in the near future is. These specifics serve to underline the fact that economic policy in these countries needs to focus all the attention on job creation.

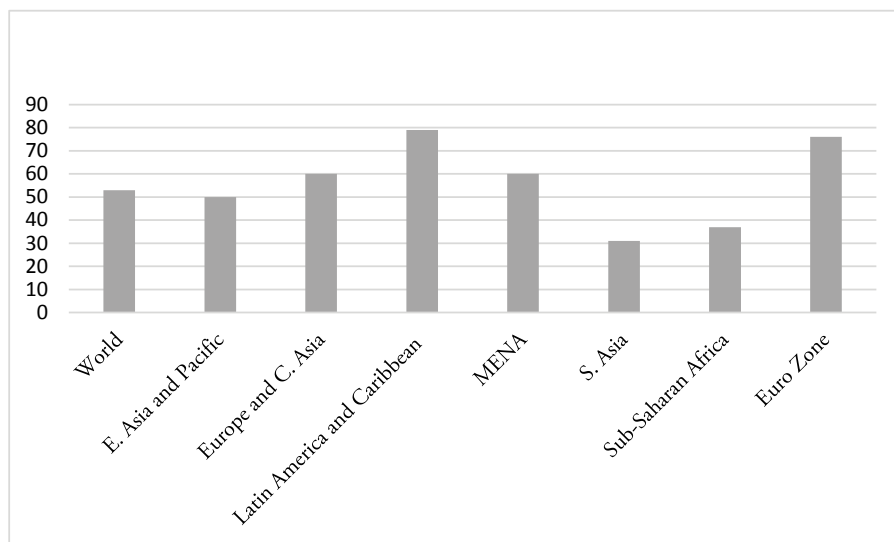
**Graph 2:** Age Structure of the Population (%), 2012



**Source:** World Bank, 2014 World Development Indicators: Population Dynamics, <http://wdi.worldbank.org/table/2.1>.

The urbanization rate is one other important demographic feature that affects labor market greatly. Urbanization has many implications for it reflects internal migration, and as a result, it leads to social, economic, and political instabilities. Graph 3 illustrates the urbanization rate for the world and sub-regions for 2012. Because most of the MENA countries have limited agricultural land, it is natural that these countries have high urbanization rate. From the perspective of the labor market, fast and high urbanization leads to increase in unskilled labor force in urban centers. In this case, the challenge for the labor policy is not only to create new jobs for the new comers, but also it must be able to provide those new comers with appropriate skills.

**Graph 3:** Urbanization Rate (%), 2012



**Source:** World Bank, 2014 World Development Indicators: Population Dynamics, <http://wdi.worldbank.org/table/2.1>.

Taking this demographic background into account, we can now provide a deeper analyses of the labor market in MENA countries. Assad argues that a deep and persistent dualism characterizes Arab labor markets throughout the post-independence period<sup>10</sup>. The dualism constitutes public sector with lion share of employment in most of the substantial sectors and private sector with employment in mostly informal sectors. This dualism is primarily due to the use of public sector employment by authoritarian regimes as a tool to pacify the groups predisposed to insubordination and to provide privileged groups with well-compensated jobs in the bureaucracy and the security forces. Assad also points out the fact that this labor market dualism continues to motivate labor market expectations and choices regarding what type of human capital investments to make that lead to excessive unemployment among youth population.<sup>11</sup> On the other hand, the youth unemployment problem is not unique to MENA countries; in fact, world faces a soaring youth unemployment predicament with young people three times more likely to be unemployed than adults. However, as stressed by Mirkin, the Arab region stands out in terms of its overall unemployment problem. Furthermore, youth unemployment has been at very high levels for decades in this region.<sup>12</sup>

<sup>10</sup> R. Assad, "Making Sense of Arab Labor Markets: The Enduring Legacy of Dualism", *IZA Discussion Paper*, No.7553, 2013.

<sup>11</sup> Ibid.

<sup>12</sup> B. Mirkin, "Arab Spring: Demographics in a Region in Transition" *United Nations Development*

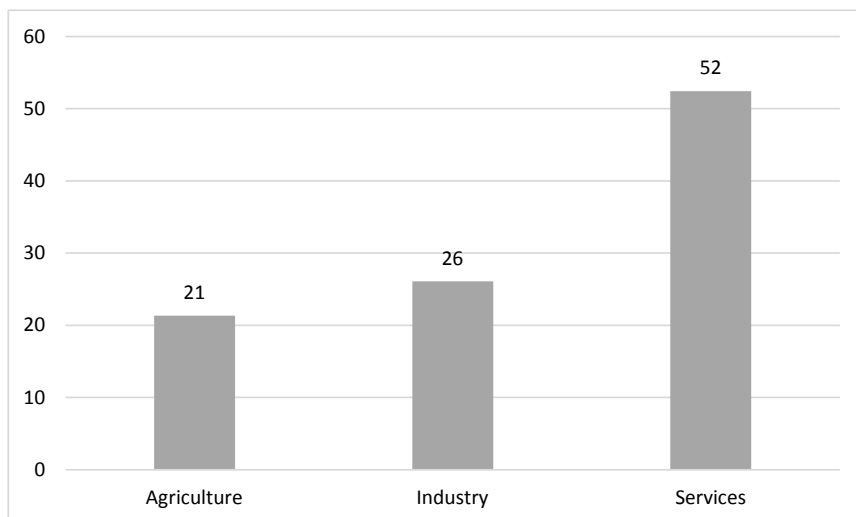


There are two sides of a market; demand side and supply side. The demand for labor stems from economic activity. At a macroeconomic level, economic activity can be classified into three sub sectors; agriculture, industry, and services. The shares of subsectors in employment in 2008 are depicted in Graph 4 below. As it can be seen from the graph, the service sector provides slightly over 50 percent of all employment. About 1 in 5 of the employment is created by the agricultural sector. According to WB DataBank figures for the same year, the share of agriculture in European Union (EU) is mere 5 percent. On the other hand, the shares of industry and services are 27 percent and 68 percent, respectively. These figures have four major implications: Firstly, on average in MENA countries agriculture is still an important activity. Secondly, service sector will continue expanding as these countries develop, requiring a structural change in the skills of labor force. Thirdly, there is still room for urbanization in these countries, which will mean further transfer of agricultural labor to industry and services. Since the skill levels required in these three sectors differ considerably, this transformation will necessitate appropriate training, education, and job creation programs. Finally, this sectoral structure of employment together with transformation and urbanization processes provides hints for the explanation of the upheavals that led to the Arab Spring. Because long run growth rate in agriculture is below that of industry and service sectors, the demand for labor has been growing at a slower rate than it would have been with larger shares of industry and service sectors in employment. Furthermore, education systems in these countries do not provide labor force with skills required for sectoral transformation in employment. Moreover, agricultural activity depends on natural conditions, and therefore, it fluctuates prominently with changes in climate conditions. As a result, employment changes significantly in agricultural sector from one year to another. In addition, most of the agricultural activity does not continue yearlong. Therefore, most of the agricultural employment is temporary employment. This means that employees in agriculture do not have stable jobs with social security benefits, and therefore, stable incomes. If we take into account the fact that rural population growth rate is more than urban population growth rate, this sectoral distribution of employment will continue to exist in the near to medium run. One other problem this distribution of employment poses is that high population growth and low income in agricultural sector also affect the investment in human capital, specifically in education, and therefore, the skill level in agricultural labor force.

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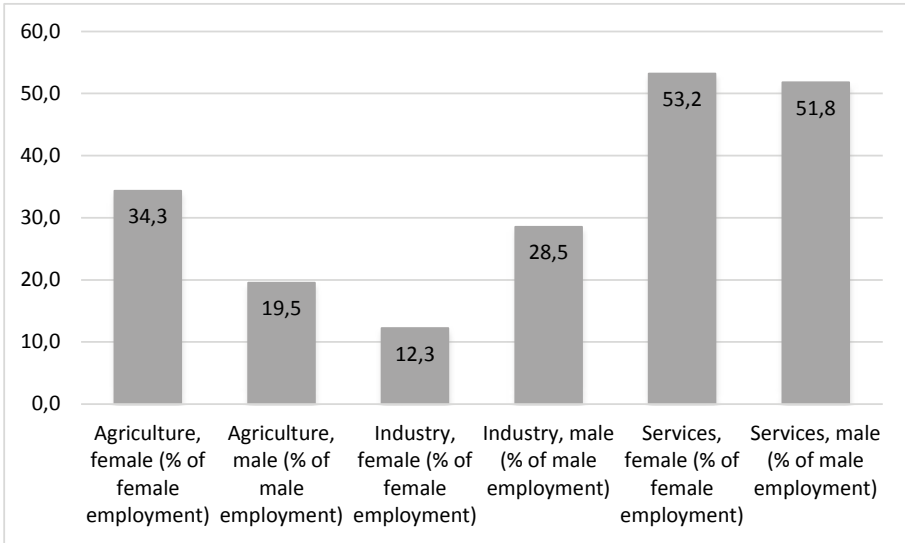
*Program, Regional Bureau for Arab States, Arab Human Development Report Research Paper Series, 2013.*

**Graph 4:** Employment Shares of Sub-sectors (%), 2008



**Source:** World Bank, World DataBank, <http://databank.worldbank.org/data/home.aspx>, 2014.

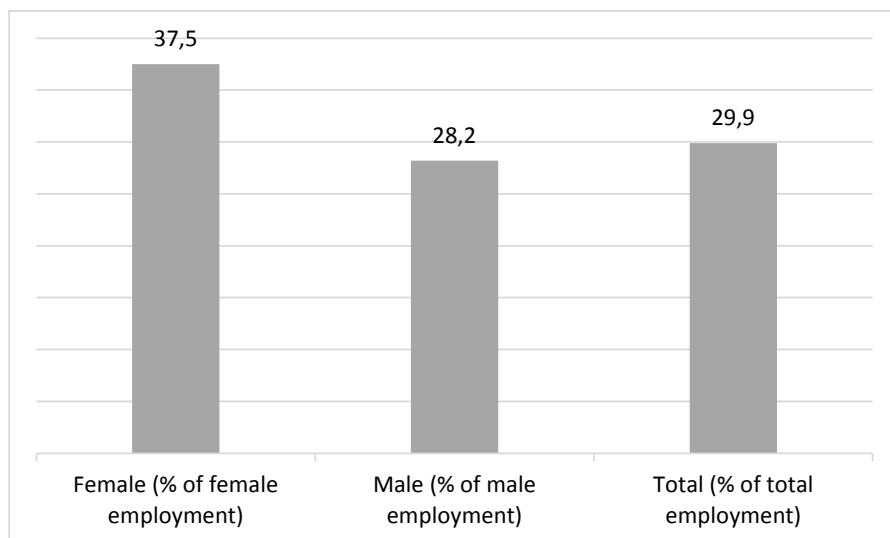
Another important feature of labor market from the perspective of labor demand is the gender division in employment. Graph 5 below provides gender division of labor in major subsectors in MENA countries. Gender shares of sectoral employment reveal that agriculture and service sectors provide relatively more jobs for the female population when compared to industry. However, in both sectors, jobs held by female employees are at the low segment of job spectrum, that is, they are mostly the jobs that require little or no specific education and training.

**Graph 5: Gender Division of Employment in Sub-sectors (%), 2008**

**Source:** World Bank, World DataBank, <http://databank.worldbank.org/data/home.aspx>, 2014.

On the other hand, the share of women employed in the nonagricultural sector as a percent of total nonagricultural employment in MENA countries increased slightly from 18.5 in 2001 to 19.3 to in 2009. However, as mentioned above, not all employment is made up of secure formal sector jobs. Vulnerable employment is an important labor market characteristics of MENA countries and it is a good measure of labor market segmentation. Vulnerable employment is unpaid family workers and own-account workers as a percentage of total employment. Graph 6 depicts total and gender division of vulnerable employment for MENA countries for 2012. As it can be seen from the graph, almost one third of the total employment is vulnerable. The vulnerable employment share for female employees is 9.3 percentage point higher than that for male employees. This employment structure by itself can be considered as a source of socio-economic instability.

**Graph 6:** Total and Gender Division of Vulnerable Employment (%), 2012.



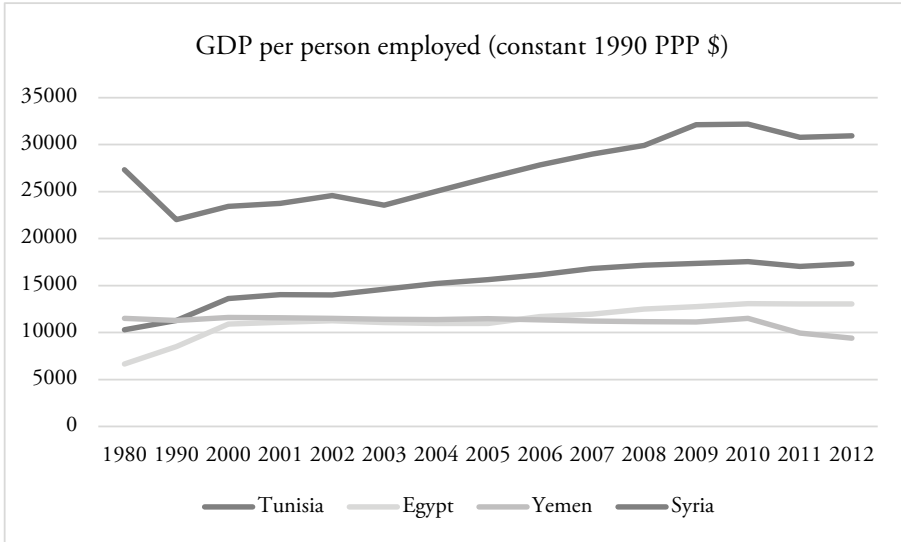
**Source:** World Bank, World DataBank, <http://databank.worldbank.org/data/home.aspx>, 2014.

Productivity of employment is crucial for economic growth, and capital accumulation. Changes in the productivity of employment is also an important source of output fluctuations. Hirata, Kim, and Köse find that domestic productivity shocks explain close to 40 percent of cyclical variation in aggregate output in the MENA region.<sup>13</sup> In addition, while economic growth determines immediate welfare level of the society, capital accumulation determines future welfare level by enhancing productive capacity and job creation capability of the economy. Graph 7 shows how employment productivity evolved between 2000 and 2012. The dotted line represents the productivity trend for 2000-2012 period. As it can be seen from the graph, the productivity of employment is below the trend between 2001 and 2006. Productivity is above the trend only for 2007 and 2008. For the MENA countries to have high growth rates, high per capita income, and high job creation capacity, productivity of employment must be increased. An increase in productivity necessitates investment in physical capital, human capital, and technology. At a practical level, it necessitates the matching of labor skill with job requirement. Such a matching requires macro level education and training policies designed to provide labor with skill needed in the labor markets. MENA

<sup>13</sup> H. Hirata, S. H. Henry, and M. A. Köse, "Sources of Fluctuations: The Case of MENA", *Emerging Markets Finance and Trade*, Vol. 43, No. 1, 2007, pp. 5-34.

countries need an education and training strategy that designs labor requirements not for today but also for future.

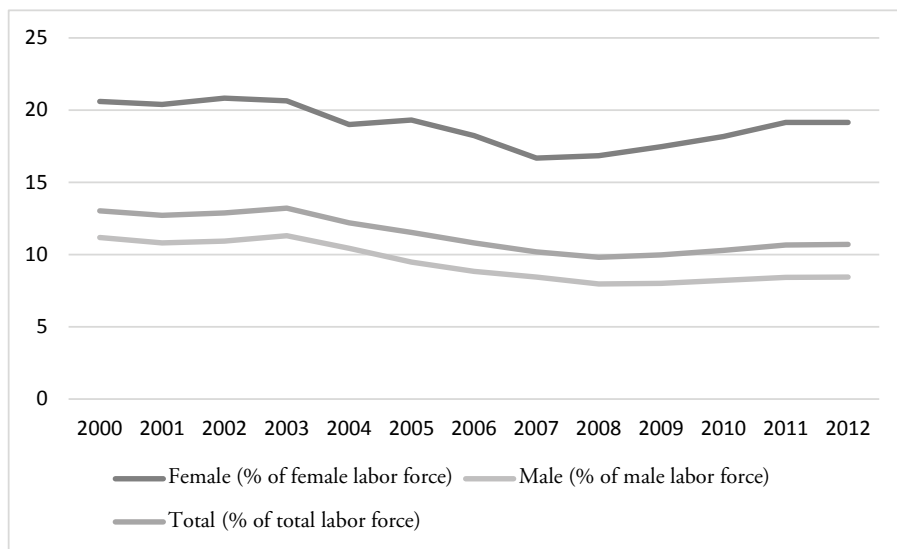
**Graph 7:** Productivity of Employment



**Source:** World Bank, World DataBank, <http://databank.worldbank.org/data/home.aspx>, 2014.

When labor supply is not met with equal size of labor demand, the result is unemployment. The development of unemployment for 2000-2012 period is depicted in Graph 8 below. This graph reveals an important sign of upheavals in the region. Overall unemployment rate for the first four years of the period under investigation is approximately 13 percent. It then starts declining and drops below 10 percent in 2008. However, it starts increasing again and reaches approximately 11 percent in 2011. For the males, overall unemployment for 2000-2004 period is above 10 percent. It drops below 8 percent in year 2008, but increases to 11 percent in year 2011. For the females, on the other hand, situation is worse. Overall unemployment for females is above 20 percent for 200-2003 period. It drops to 16.8 percent in 2008, but reaches to 19.1 percent in 2011.

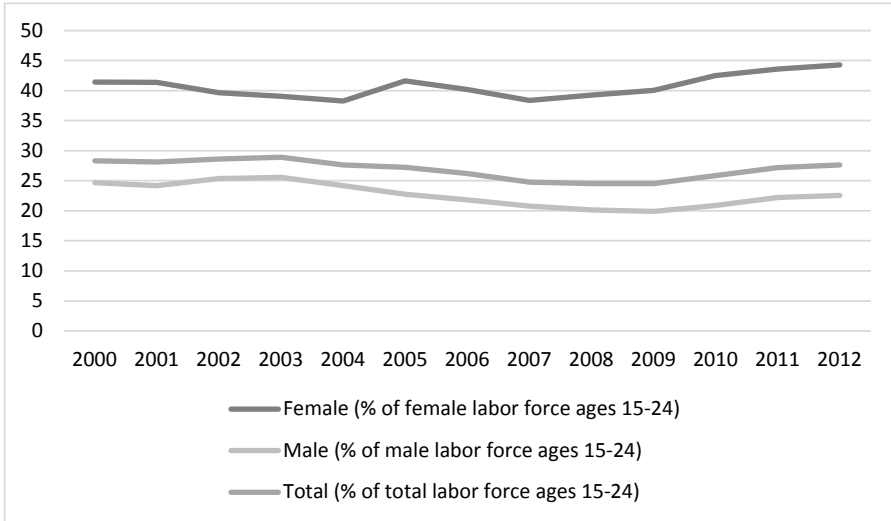
**Graph 8:** Unemployment, %, 2000-2012.



**Source:** World Bank, World DataBank, <http://databank.worldbank.org/data/home.aspx>, 2014.

Nevertheless, the real issue in terms of unemployment in MENA countries is youth unemployment. Ansani and Daniele emphasize that the combination of youth demographics, high unemployment rates, and high educational levels, coupled with an unrepresentative political system increases the likelihood of social unrest.<sup>14</sup> Graph 9 depicts the youth unemployment in MENA countries for 2000-2012 period. As it can be seen from the graph, the already very high youth unemployment in MENA region rose sharply in the wake of the Arab Spring and was hovering at 27 per cent in 2011, the highest in the world and twice the global rate for youth. Furthermore, the youth unemployment is almost three times higher than unemployment rate for the working age population in the region. Additionally, for the period under investigation, the youth female unemployment rate (40.7 percent) is 1.8 times the youth male unemployment rate (22.7). We now turn our focus on the Arab Spring countries; Tunisia, Egypt, Libya, Yemen, and Syria.

<sup>14</sup> A. Ansani and V. Daniele, "About a revolution. The economic motivations of the Arab Spring", *International Journal of Development and Conflict*, Vol. 3. No. 3, 2012.

**Graph 9:** Youth Unemployment, %, 2000-2012.

**Source:** World Bank, World DataBank, <http://databank.worldbank.org/data/home.aspx>, 2014.

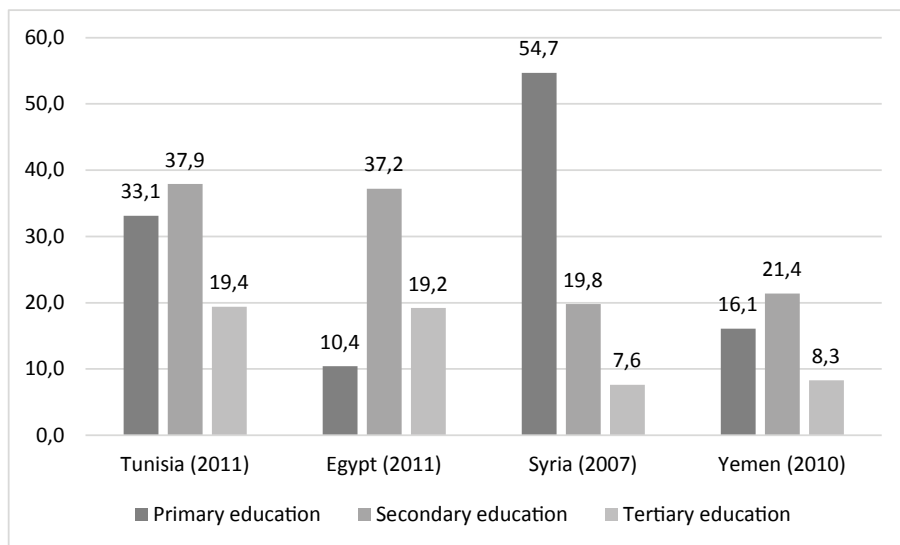
### Labor Markets in Arab Spring Countries

We start this section by discussing labor force characteristics in Arab Spring countries, namely Tunisia, Egypt, Libya, Yemen, and Syria. We focus on the period after 2000. This period corresponds to the deepening of globalization. As Rama emphasize, different aspects of globalization have different consequences for the labor market; in the short run wages fall with openness to trade and rise with foreign direct investment.<sup>15</sup> In addition, foreign direct investment increases the returns to education. The first labor force characteristic we attempt to analyze is the education level. Graph 10 depicts education level of labor force for Arab Spring countries. We do not have data for Libya. On the other hand, as it can be seen from the graph, one third of labor force in Tunisia has only primary level of education. Since workers with primary education work at the lowest level of work spectrum, they earn the least wage level. About 38 percent of Tunisian labor force has secondary education. The latest data available for Syria is for 2007. In 2007, more than half of Syrian labor force had only primary education. While the share of labor force with tertiary education is the highest, the share of labor force with primary education is the lowest in Egypt. More than one third of labor force in Yemen has either primary or secondary education. The share of labor force with tertiary

<sup>15</sup> M. Rama, "Globalization and the Labor Market", *The World Bank Research Observer*, Vol. 18, No. 2, 2003, pp. 159-186.

education is 8.3 percent. It is natural not to expect a productive employment with this labor force education structure.

**Graph 10:** Education Level of Labor Force, %, Latest Data Available



**Source:** World Bank, World DataBank, <http://databank.worldbank.org/data/home.aspx>, 2014.

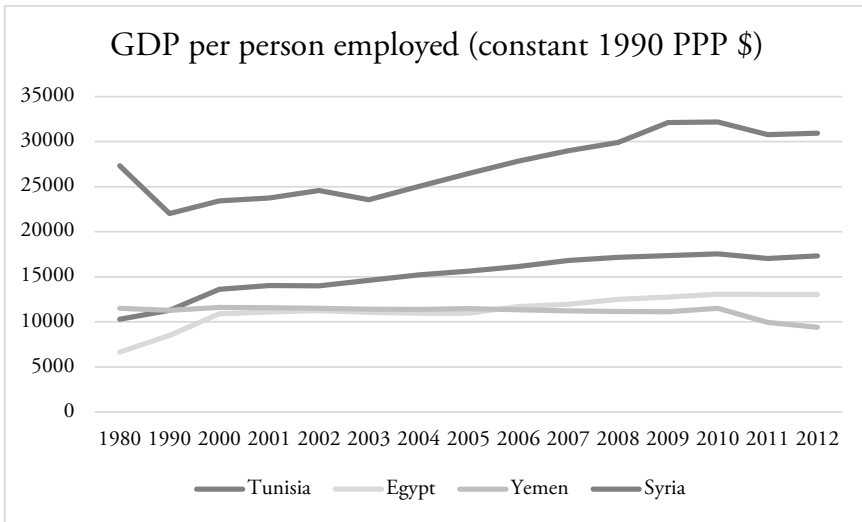
It is true that productivity of employment depends not only on the education level of labor force but also on other factors such as capital per labor, volume and quality of natural resources, and technology. As mentioned above, we take GDP per person (constant price) as a proxy for the productivity of labor force, which is to a great extent determined by the resources the country has. In fact, Pamuk argues that in the twentieth century, the most important single factor contributing to increases in per capita incomes in the Middle East was oil.<sup>16</sup> Nevertheless, if we take the progress of GDP per person, not the level, education level can be used as a pointer for the productivity level. Graph 11 below illustrates the developments of productivity levels in Tunisia, Egypt, Yemen, and Syria. As it can be seen from the graph, the productivity in Yemen had been stagnant for three decades between 1980 and 2010, and in fact it declined in 2011 and 2012. The Syrian case is even more striking. Productivity in Syria declined 19 percent between 1980 and 1990. It increases about 7 percent between 1990 and 2000. Between 2000 and 2003 it appears to be stagnant, but after 2003 it picks up again. However, compared to 2010,

<sup>16</sup> S. Pamuk, "Estimating Economic Growth in the Middle East since 1820", *The Journal of Economic History*, Vol. 66, No. 3, 2006, pp. 809-828.



productivity declines about 4% in 2011. For the case of Egypt, there are sharp increases from 1980 to 1990 and from 1990 to 2000; 27 percent and 29 percent, respectively. In the first half of 2000 it was mostly stagnant and started increasing slightly only in the second half of the decade. In Tunisia, productivity increased 10 percent from 1980 to 1990 and 21 percent from 1990 to 2000. Increase in productivity was even shinier between 2000 and 2010; it rose 29 percent. However, it declined in 2011 by about 3 percent.

**Graph 11:** Productivity of Employment



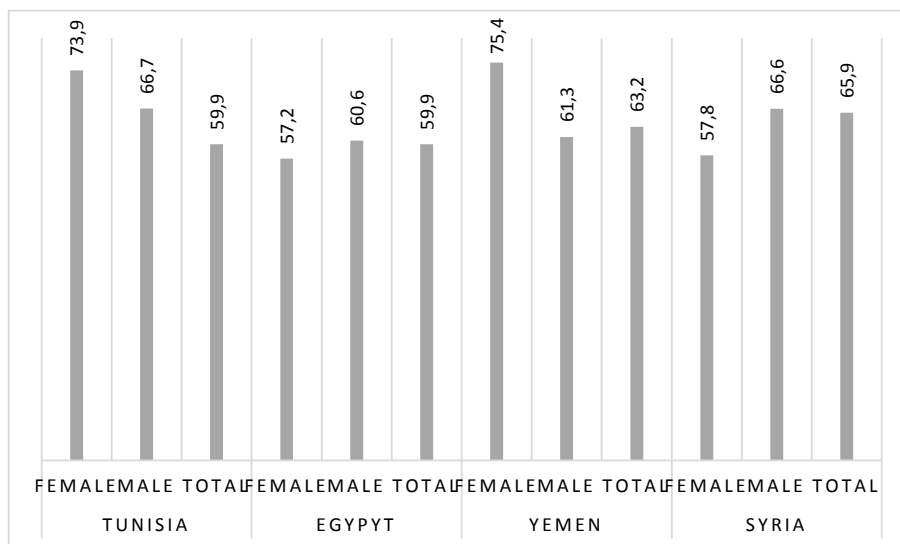
**Source:** World Bank, World DataBank, <http://databank.worldbank.org/data/home.aspx>, 2014.

Kremer argues that globalization has had different implications for the domestic labor markets.<sup>17</sup> One of the mostly agreed upon implications is the rise in labor market segmentation. As mentioned above, labor segmentation is the most important issue for most of the developing world today. A good indicator of the labor segmentation is the share of wage and salaried workers. Graph 12 depicts the shares of wage and salaried workers for the Arab Spring countries for 2010. For the same year the wage and salaried workers for the EU as a percent of females employed, males employed, and total employed are 87.4, 79.6, and 83.1, respectively. When we compare these figures with Arab Spring countries' figures, we can clearly see how segmented labor markets are in these countries. When we specifically take total employment into

<sup>17</sup> M. Kremer, "Globalization of Labor Markets and Inequality", *Brookings Trade Forum: Global Labor Markets*, 2006, pp. 211-228.

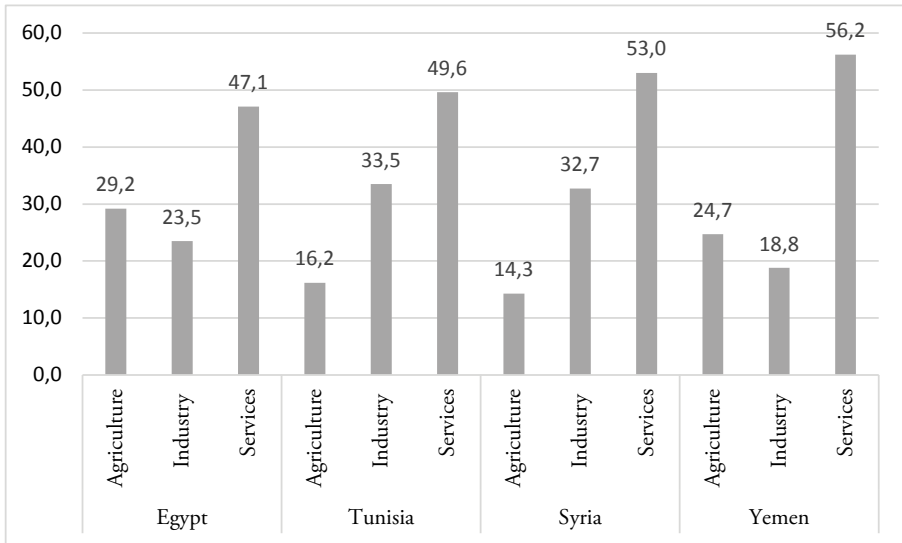
account, the share of wage and salaried workers in Arab Spring countries are on average 25 percentage point below than it is in the EU.

**Graph 12:** Wage and Salaried Workers: % of Females Employed; % of Males Employed; and % of Total Employed, 2010.



**Source:** World Bank, World DataBank, <http://databank.worldbank.org/data/home.aspx>, 2014.

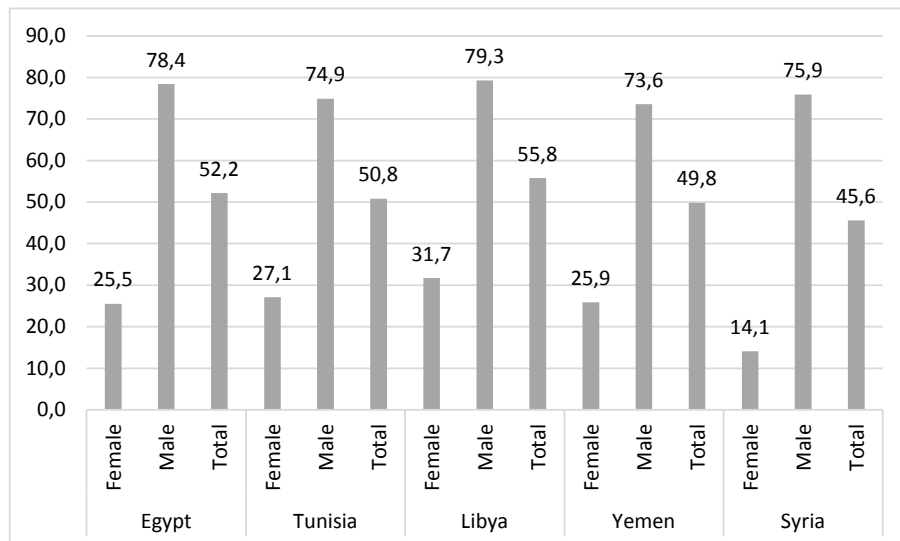
As highlighted above, the sub-sectoral distribution of employment is also an important labor market feature. Graph 13 illustrates sectoral division of labor for the Arab Spring countries. The shares of sub-sectors; agriculture, industry, and services, for the EU in 2011 were 5.5 percent, 25.2 percent, and 69.1 percent, respectively. When we compare these figures with the figures in the graph, we see how large the share of agriculture in Arab Spring countries is when compared to the EU. Since agricultural jobs are mostly informal jobs, it explains the vulnerability of employment in these countries. Industrial employment is the lowest in Yemen, however, classification of economic activity in sub-sectors are not uniform across countries. In terms of sectoral distribution of employment an important issue is child employment. For example, in Egypt approximately 53 percent of economically active children ages 7-14 work in agriculture, while this figure for Yemen is above 70 percent.

**Graph 13:** The Shares of Sub Sectors, %, 2011.

**Source:** World Bank, World DataBank, <http://databank.worldbank.org/data/home.aspx>, 2014.

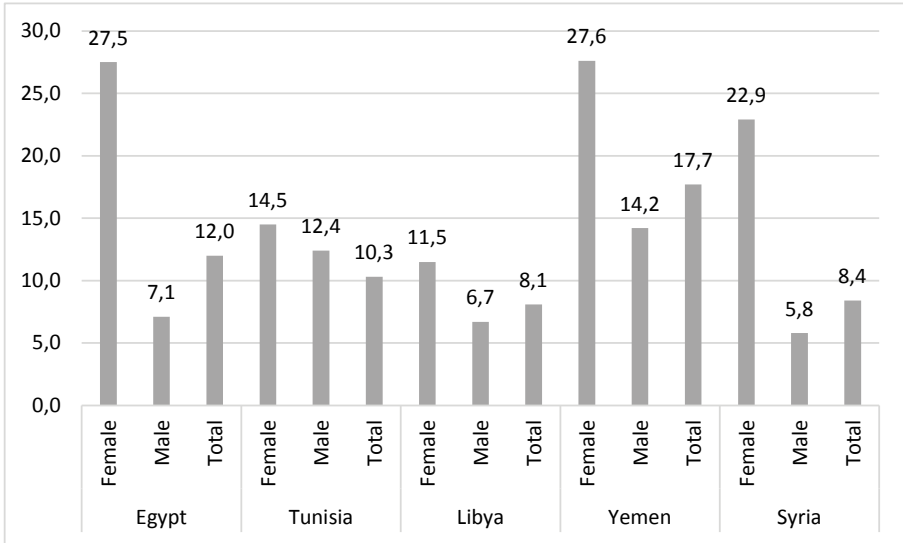
The supply side of the labor market is shaped by the size and growth rate of population and labor force participation rate. Graph 14 reflects labor force participation rates in 2011 for the Arab Spring countries. As it can be seen from the graph, for the males the participation rates are close to the EU average of 78 percent for the same year. On the other hand, while the average female participation rate in 2011 for the EU is 65 percent, the highest female participation rate observed in Arab Spring countries is in Libya with approximately 32 percent. This very low level of female labor force participation rate pulls overall rate to around 50 percent, which is approximately 20 percentage point below the EU rate. This picture implies that labor supply in Arab Spring countries is below the potential level. While this fact is good news for the unemployment prospects, it also means that these countries underutilize their human factors.

**Graph 14:** Labor Force Participation, 15-64, %, 2011.



**Source:** World Bank, World DataBank, <http://databank.worldbank.org/data/home.aspx>, 2014.

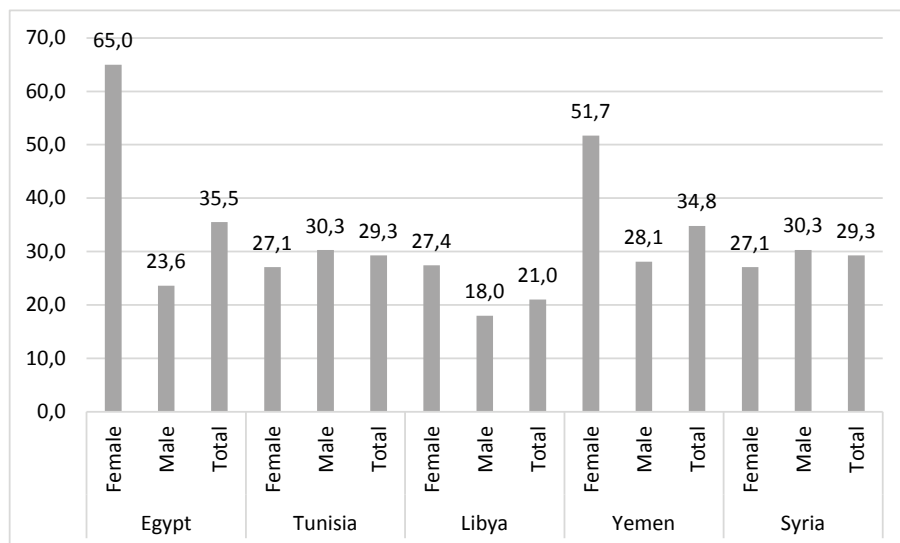
Labor demand and labor supply together determine the unemployment rate. Graph 15 and Graph 16 reflect unemployment rates of adults and youths together with gender divisions for both groups. The first observation is high unemployment rates in all Arab Spring countries. However, the case for female is even worse: as it can be seen from Graph 15, female unemployment rates in Egypt and Yemen are over 25 percent. This rate for Syria is 23 percent. The lowest female unemployment rate is observed in Tunisia with 15 percent.

**Graph 15:** Unemployment, 15-64, %, 2011.

**Source:** World Bank, World DataBank, <http://databank.worldbank.org/data/home.aspx>, 2014.

As aforementioned, the youth unemployment in MENA countries is higher than it is in any other region of the world. Specifically for female youth the problem is excruciating: female youth unemployment rate in Egypt is 65 percent and it is above 50 percent for Yemen. In Tunisia, Libya, and Syria, one out of every three female youth is unemployed.

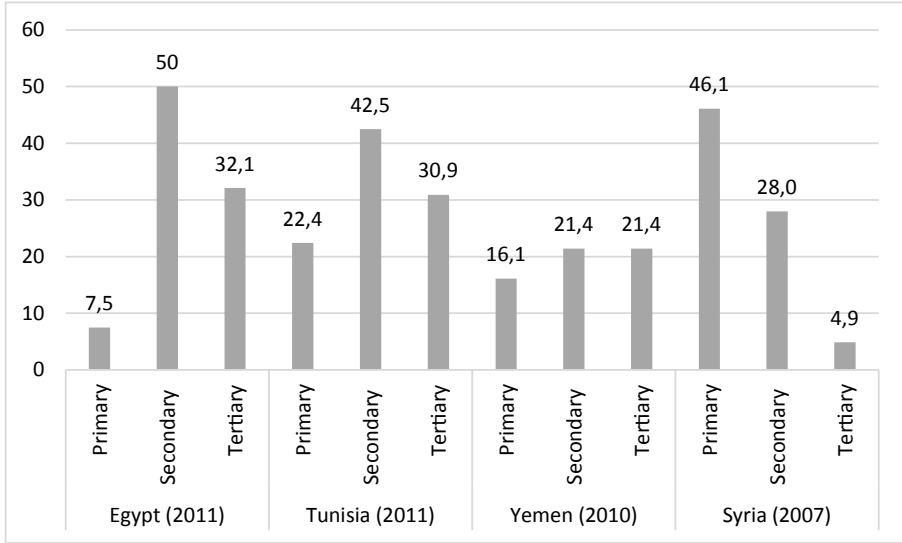
**Graph 16:** Unemployment, 15-24, %, 2011.



**Source:** World Bank, World DataBank, <http://databank.worldbank.org/data/home.aspx>, 2014.

The decomposition of unemployment into education level is also a measure of the degree of the problem. Graph 17 portrays the decomposition of unemployment in Arab Spring countries into education levels. As it can be seen from the graph, in Egypt and Tunisia, every one out of three with a tertiary education level is out of work. On average over half of the labor force with secondary education is out of work. These figure imply that labor markets in Arab Spring countries create jobs basically for the low education end of the labor force.

**Graph 17:** Unemployment, Education Level, % of Total, Latest Data Available.



**Source:** World Bank, World DataBank, <http://databank.worldbank.org/data/home.aspx>, 2014.

## Conclusion

Arab Spring has resulted in dramatic political, social, and economic changes in the MENA region, specifically in Tunisia, Egypt, Libya, Yemen, and Syria. One of the root causes of the Arab Spring is economic failure with a strong link to the labor market structures in MENA countries. The output of labor market is employment, and employment is the only way to secure economic future, specifically for the youth. A country can generate enough employment for its labor force through sustained economic growth rates. There is pressing economic and social need for higher economic growth rates in every each of MENA countries regardless of their level of economic development. Establishing appropriate institutions and infrastructure for secure, high wage and productive jobs also require financial resources raised through economic growth. It is certain that policies aiming at short term employment creation do not solve employment problems in these countries. The main issues in MENA countries' labor markets are low labor force participation rate. Although male labor force participation rate is high, a very low female labor force participation results in a low overall participation rate. Demographic structure also reflects itself in the labor market structure. Dominantly young population creates a lopsided balance between labor supply and labor demand for the youth segment of the labor market. In addition, preference for public

sector jobs deter youth from pursuing employment in private sector, which determines also their choice of education. Since education required for public jobs are significantly different than that in private sector, it creates a skill mismatch problem in these countries. Governments in these countries must focus on long term policies to create labor markets that will provide enough jobs. To this end, governments must increase investment in education necessary for skills required in the labor market, raise investment in infrastructure, provide self-employment projects and job search assistance, create employment offices and institutions for the dissemination of information for an efficient functioning of the labor markets, and establish an appropriate legal framework. Political and social transformations are inseparable from economic transformations, and in fact, economic overhauls will determine the directions and fate of political and social reforms. However, in spite of cultural, political, social, and economic similarities, countries of the region also differ significantly in their substructures and institutions. Therefore we should be cautious in both reaching general conclusions and offering solutions regarding current problems of the region.

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