

On the Interaction between Trade Reforms and Labor Market Regulation: Evidence from the MENA Countries' Labor Markets

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Abstract

Using a panel of MENA countries, this paper tries to examine the interaction between trade reforms and labor market regulations on the outcome of the labor market. The theoretical predictions on this literature show that the effects of trade liberalization in any given country are conditional on the nature of labor market regulations since trade liberalization is more likely to have a positive impact on employment and wages in countries with flexible labor markets and vice versa. Moreover, more regulated labor markets tend to have higher wages at the expense of sector wide employment. Our main findings show that labor market rigidity reduces the positive impact of trade reform on employment. While this result is stronger for females, it is not for males. To consolidate these macro findings, we are planning to use two labor market surveys from the MENA region (the Egyptian Labor Market Panel Survey and the Jordanian Labor Market Panel Survey) in order to examine the interaction between labor market rigidity and trade openness on the labor market outcome at the individual level.

JEL:F14, F16, J08, J88.

Keywords: Labor Market Rigidity, Trade, MENA.

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1. Introduction

While labor market regulations are conceived as measures aiming to protect and raise the workers' welfare, it is usually brought up to be one of the reasons behind labor markets poor performance. Employment laws are the main component of labor regulation that mostly pop-up when trying to explain high unemployment, growing informality, low employment ratios, wage inequality, etc.

More specifically, recent studies in MENA countries highlight that restrictive or inappropriate labor regulations is one of the labor market key-issues in these countries (Cho et al. 2012; Angel-Urdinalo and Kuddo 2010). Moreover, and from a business perspective, the World Economic Forum report (2011) identifies the restrictive labor regulations as on top of the most problematic factors for competitiveness and doing business in the Arab world. Furthermore, labor market institutions are also thought to play a prominent role in propagating the impact of external shocks or policies, such as trade liberalization, on labor market outcome. In fact, Rodrik (1997) argued that trade makes the demand for labor more elastic and therefore less rigid. Lower rigidity leads consequently to larger employment and wage shocks resulting from productivity or output demand shocks and hence increases the volatility of employment. Moreover, this increase in elasticity leads to the erosion of the bargaining power of labor in comparison with capital in the sharing of profits and lessen the bargaining power of unions. Finally, it results in shifting non-wage labor costs toward labor and worsens income distribution. Thus, workers are placed under greater pressure because of trade liberalization. Therefore, the theoretical predictions on the nexus between trade, labor market rigidity and labor market outcome show that the effects of trade liberalization in any given country are conditional on the nature of labor market regulations since trade liberalization is more likely to have a positive impact on employment and wages in countries with flexible labor markets and vice versa. Moreover, more regulated labor markets tend to have higher wages at the expense of sector wide employment.

While the labor market problems were the main fuel that instigated the uprisings and turmoil in the Arab countries in 2011, therefore it is worth analyzing to which extent these regulations exerts an impact on the performance of the labor market, as a first step towards understanding the problem – if there is any – and towards providing the adequate solutions. Furthermore, the interaction of the trade openness policy and the labor market regulation is worth studying to have a complete picture of the mechanisms leading to the observed labor market outcomes.

This paper relies on the labor market rigidity (LAMRIG) index developed by Campos and Nugent (2009). It is available for several countries in the MENA countries from 1960 to 2004, thus forming a panel dataset. Combining such index with trade variables and employment

outcomes allows estimating the impact of labor market rigidity and trade on the labor market performance, resumed in the employment-to-population ratio and the labor force participation.

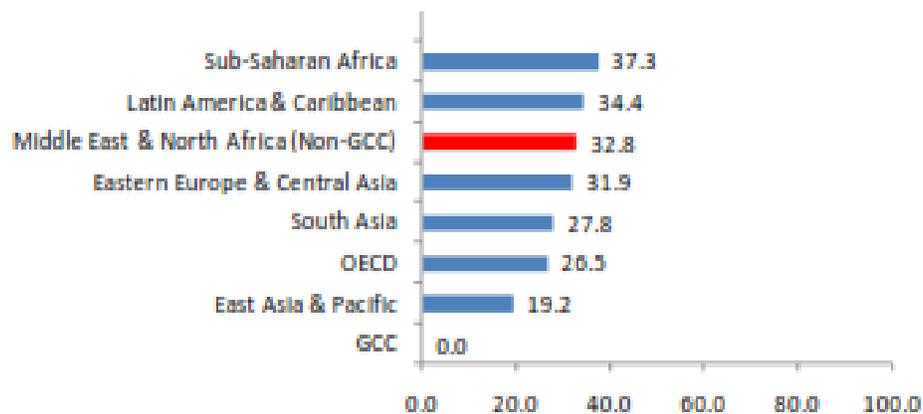
This article is organized as follows. Section II presents some stylized facts on service trade in the MENA region. Section III reviews both the theoretical and empirical literature. Section IV describes the methodology adopted. Section V is dedicated to data analysis. Section VI exhibits the econometric results. Section VI concludes

2. Stylized Facts

2.1. Labor Regulations in MENA

Recent studies have argued that one of the main reasons behind of the MENA labor market problems, e.g. the high informality, difficult youth absorption to the labor market, high unemployment, is rigid labor markets (Kabbani and Kothari 2005, Elbadawi and Loayza, 2007, Angel-Urdinola and Kuddo 2011). While many indices were developed to measure the labor market restrictiveness or rigidity, they all point to an important variability across countries in the region. However, on average, MENA labor markets appear to be less restrictive than Latin America and Caribbean (LAC) and Sub-Saharan Africa, but more rigid than Eastern Europe and the most flexible labor markets (Figure 1). Looking more closely, there are certain aspects in the labour legislation that might be more restrictive than others. For instance, while hiring regulations appear to be not too rigid, firing and dismissal procedures are perceived too restrictive to allow workforce adjustment in times of recession or expansion (Andel-Urdinola and Kuddo 2011). The average cost of dismissal, computed in weeks of salary is estimated to be 50 weeks of salary, compared to 28 weeks in ECA, and 27 among OECD (Gatti 2011).

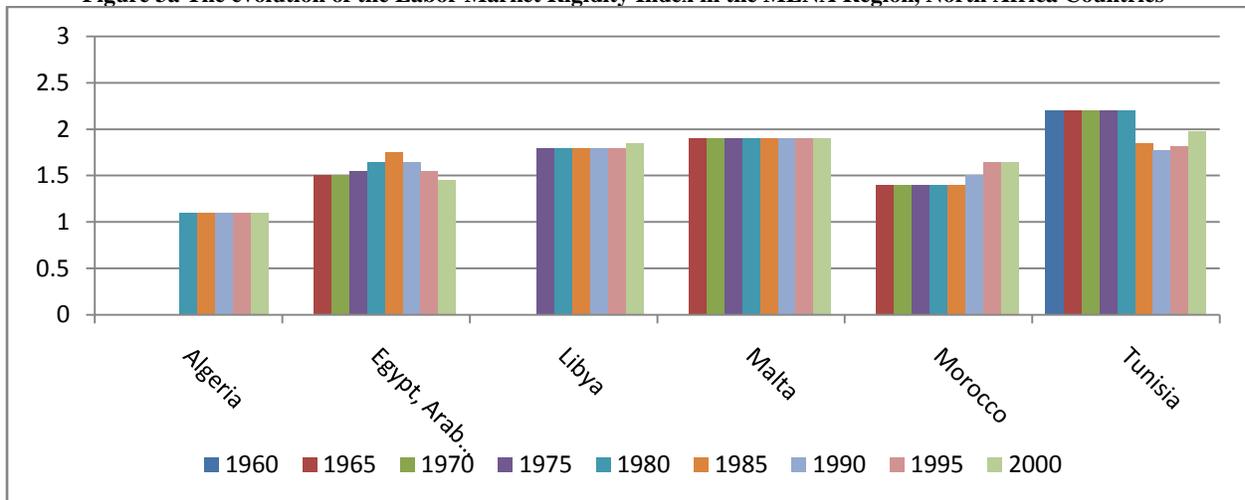
Figure 1 Doing Business Employing Workers Index (0-100)



Source: Angel-Urdinola and Kuddo (2011)

According to the Doing Business Employing Workers Index,^{*} Morocco is on top of the most restrictive labour markets in the region (Angel-Urdinola and Kuddo2011). Stylized facts from LAMRIG index show interesting pattern. LAMRIG is a five-average year index from 1950-1954 to 2000-2004. It constitutes a 0-3 scaled index that codifies all employment laws.[†] Figure 3b shows that Bahrain, Syria and West Bank and Gaza come on top of the most restrictive labor markets (LAMRIG score near 2.5). Tunisia, Iran, and Libya follows the first category, having a score that is slightly lower than 2 (Figures 3a and 3b). Egypt, Oman, and Morocco represent a third similar group with around 1.5 as score level. Looking at the evolution of the labor market rigidity over time, it is noticed that Egypt had known a peak in her market rigidity throughout the 1985-1989 period. Israel and Lebanon have shown increasing scores since the 1960s till 2004. Tunisia has experienced a decline in its rigidity score from 1985 to 2004.

Figure 3a The evolution of the Labor Market Rigidity Index in the MENA Region, North Africa Countries

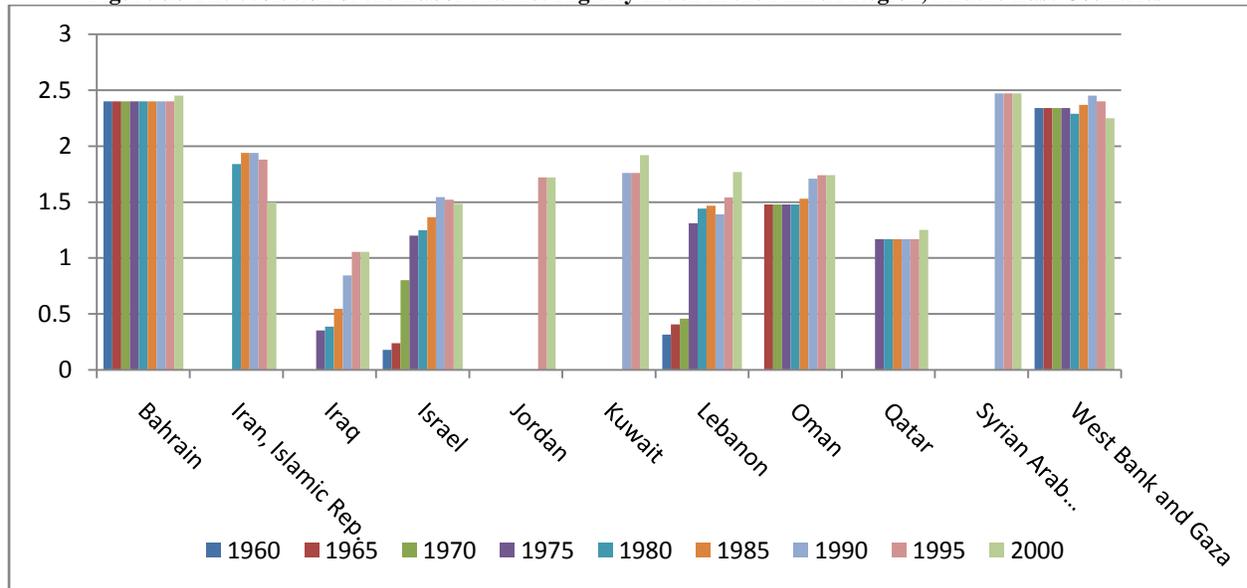


Source: Constructed by the authors using the LAMRIG dataset.

^{*}For further details on the Employing Workers Index construction, see Doing Business: <http://www.doingbusiness.org/methodology/employing-workers>. Last accessed September 2nd 2013.

[†]Detailed description of LAMRIG is provided in section 4. For further details on LAMRIG construction, refer to Campos and Nugent (2012)

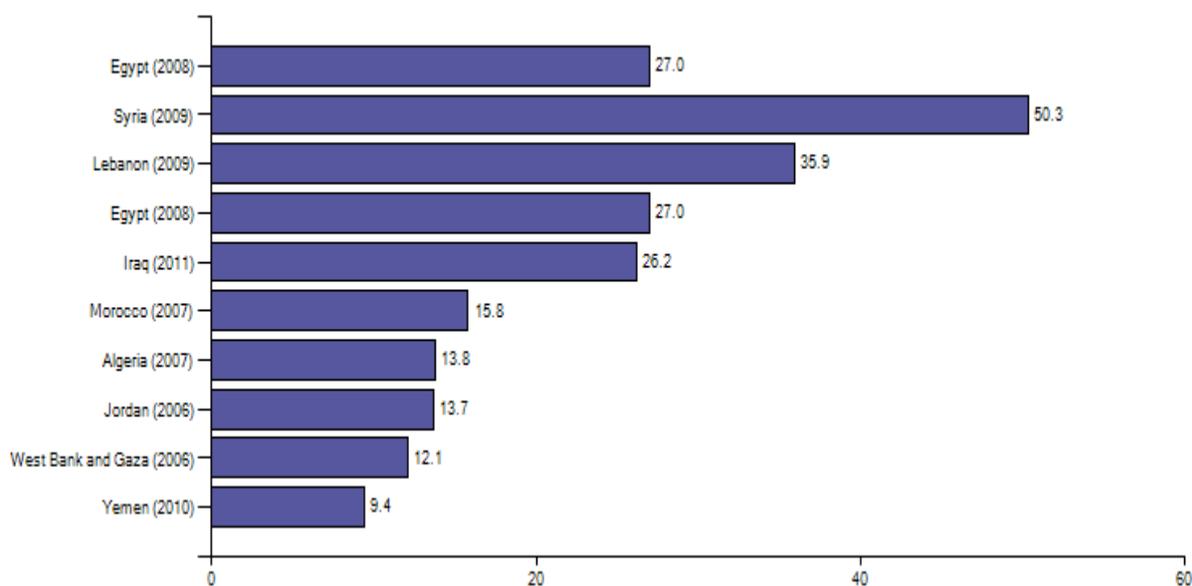
Figure 3b The evolution of the Labor Market Rigidity Index in the MENA Region, Middle East Countries



Source: Constructed by the authors using the LAMRIG dataset.

Interestingly, the perception of labor regulations forming a barrier to business development and employment creation is not always aligned with the score of labor market rigidity. Countries like Egypt, Syria, Lebanon and Oman where labor market rigidity index is almost aligned with international benchmark are more likely to perceive labor laws as an important constraint for employment creation and entrepreneurship development, relative to countries like Jordan, Algeria, Morocco, West Bank and Ghaza who have higher scores of rigidity (Angel-Urdinola and Kuddo 2011).

Figure 2 The percent of firms identifying the labour regulations as a major constraint



Source: Enterprise Surveys (<http://www.enterprisesurveys.org>), The World Bank.

It is worth mentioning that despite the discussion on protective and restrictive labor regulations, weak law enforcement and laws evasion leaves the labor market unregulated in certain areas, namely the intended informality of some of the workers or the sectors, the fiscal fraud, etc. (Angel-Urdinola and Kuddo 2011). This might explain why the perception of how regulations hinder business development may not match the rigidity score.

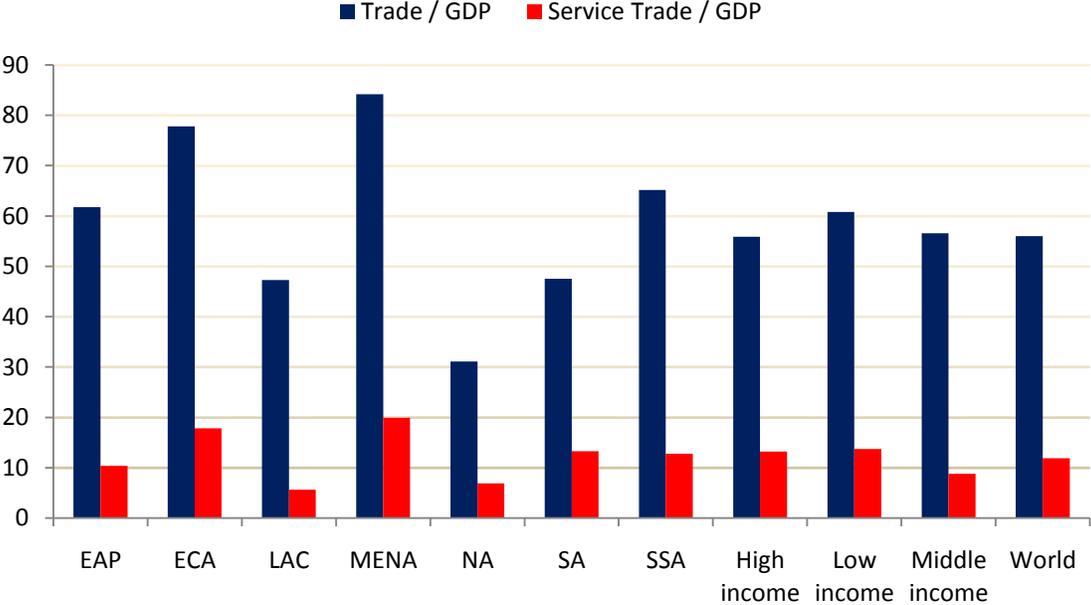
2.2. Trade Performance in MENA

Data from the World Development Indicators, 2012 show that the share of trade in MENA GDP increased substantially between 2004 (79%) and 2008 (96%), then was driven down by the financial crisis to 72% in 2009, before going up again to 84% in 2010. Figure 1 shows that in 2010, the share of trade in MENA GDP was higher than the other regions, developed ones like North America (31%) as well as developing ones like Sub-Saharan Africa (65%), but this is in large part due to petroleum exports. Notably, MENA trade excluding oil is at about the world average but exports alone are below the world average. Behar and Freund (2011) show that, conditioning on GDP, distance and a number of other factors, a typical MENA country under-trades with other countries: exports to the outside world are at only a third of their potential. However, intra-MENA trade is conditionally higher than extra-MENA trade. These results hold for aggregate exports, non-natural exports and non-petroleum exports.

The share of service trade in MENA GDP is low with nearly 20%, although this percentage is higher than the other developed and developing regions (Figure 1). The share of

exports in GDP is much lower, around 7.6%, although higher than most of the other regions and the world average (Figure 2). Sectors like tourism, transportation, remittance, and to a lower extent, financial, transportation and telecommunication services are the driving forces behind this stylized fact (authors' calculations from trademap.org).

Figure 4: Trade as a Percentage of GDP, 2010

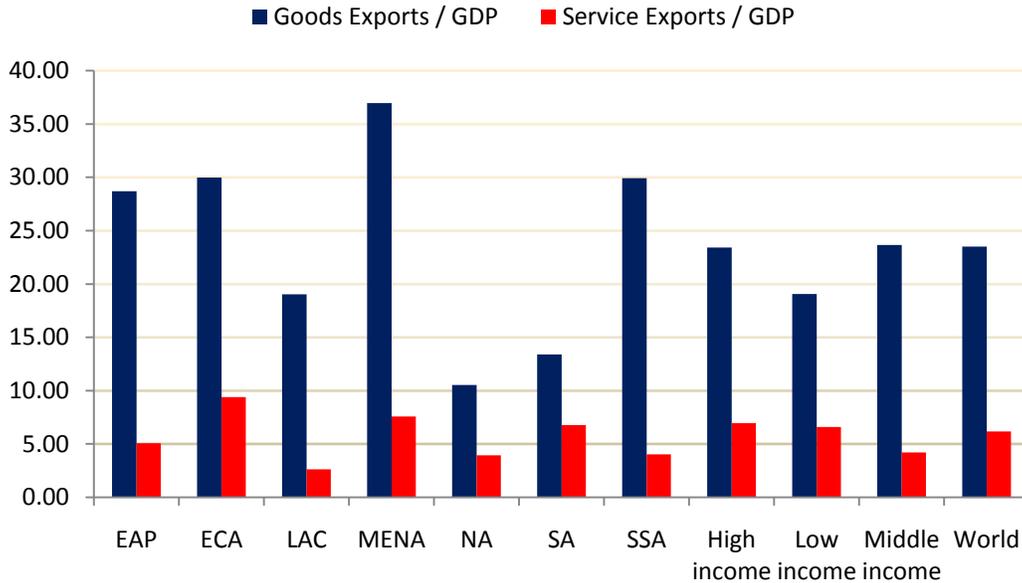


Source : World Bank, World Development Indicators database online, 2012.

Note: (i) Trade the sum of exports and imports divided by the value of GDP, all in current U.S. dollars.

(ii) LAC: Latin America & Caribbean; NA: North America; EAP: East Asia & Pacific; SA: South Asia; SSA: Sub-Saharan Africa; ECA: Europe & Central Asia; MENA: Middle East & North Africa.

Figure 5: Exports as a Percentage of GDP, 2010



Source : World Bank, World Development Indicators database online, 2012.

Note: (i) Trade the sum of exports and imports divided by the value of GDP, all in current U.S. dollars.

(ii) LAC: Latin America & Caribbean; NA: North America; EAP: East Asia & Pacific; SA: South Asia; SSA: Sub-Saharan Africa; ECA: Europe & Central Asia; MENA: Middle East & North-Africa.

3. From the Trade Theory to the Empirics of Trade and Labor Rigidity

The international trade theory tried to explain the impact of trade openness on employment. The Heckscher-Ohlin-Samuelson followed by the sector specific model (Viner 1931) were the main attempts to determine the effect of trade on labor markets outcomes, namely employment. However, these theories do not explicitly take into account the state of labor market flexibility and whether labor markets would allow the realization of such theoretical potential impacts or not. Almost all the models assume that workers are mobile between sectors. Therefore, we will first describe the literature review of the impact of international trade on employment, then tackle the question of the nexus between the labor market regulation and trade openness on the labor market.

3.1. The Theoretical Effect of Trade on Employment

To remind, there are four main theoretical frameworks that could be evoked when studying the impact of trade on employment. A first attempt was the Ricardian model, introducing the concept of the comparative advantage. Each country exports the good in which it has comparative advantage, as defined by having a lower relative price (or higher productivity) than the other country. Consequently, each country has the incentive of increasing the production of the good it exports, leading to labor re-allocation from the import-competing industry to this

export-industry. This implies a reshuffle of factors of production towards the sectors that have a comparative advantage leading to job creation in these sectors and job destruction in other sectors. The net effect may be positive or negative in the short run depending on the characteristics of the labor market. Yet, in the long run, the efficiency gains caused by trade liberalization are expected to lead to positive employment effects given that the country produces more efficiently (Krugman et al, 2011).

Second, the Heckscher-Ohlin-Samuelson model (1933 and 1941) has more elaborated the comparative advantage concept. It argues that, under free trade, countries tend to export the good that uses intensively their relatively-abundant factor of production. According to the Stolper-Samuelson effect, an increase in the relative price of a good (where the country has a comparative advantage) will lead to a more than proportional increase in the real returns of the factor which is intensively used in the production of that good, and conversely, to a fall in the real returns of the other factors. Such effects are valid when factors are assumed to be mobile between different sectors. Yet, inter-sectoral mobility of the factors of production is relatively low in the short run. This is why the third framework is the sector specific model that can be perceived as the short term version of the HOS model.

The sector specific model (Viner, 1931) assumes that one factor of production is specific to a particular industry. A movement towards free trade increases the price of the exportable goods and reduces that of importable ones. Hence, the return of the factors used in the exporting sectors will increase while factors used in the importing sectors will witness a decline of their revenues. In other words, when a factor of production, like capital, is immobile between industries, a movement to free trade will cause a redistribution of income. Some individuals, such as the owners of capital in the export industry, will benefit from free trade. Other individuals, owners of capital in the import-competing industries, will lose from free trade. In addition, according to this model, workers, who are freely mobile between industries may gain or may lose since the real wage in terms of exports rises while the real wage in terms of imports falls. Therefore, the clear winners and losers in this model are distinguishable by industry. As in the immobile factor model, the factor specific to the export industry benefits while the factor specific to the import-competing industry loses. The net effect on labor depends on the magnitude of gains from exports or losses from imports.

The final strand of international trade theory argues that instead of having a reallocation of the factors of production between sectors, this reallocation will take place within each sector. Unproductive firms will exit the market, productive firms will serve the domestic market and most productive ones will be able to face the competition and export to foreign markets (Krugman, 2011). As a result, these models predict that in all sectors, jobs are created by producers who are able to compete at the international level and destroyed by those who are unable to compete.

It is quite clear that while both the Ricardian and HOS models assume a perfect inter-sectoral mobility, Viner's model seems to be more appropriate to the case of developing countries since it assumes a low inter-sectoral mobility of the factors of production. Yet, all these potential impacts need to be tested taking into consideration the countries-specific labor market flexibility. The latter was found as is keystone in shaping the impact of trade on employment.

3.2. The Empirics of Labor Market Rigidity and Trade Openness:

To study the interaction between trade and labor market rigidity, Hasan (2001) examined the effects of openness and labor market rigidity on labor outcomes using panel data from developing countries. She found that trade liberalization is more likely to have a positive impact on employment and wages in countries with flexible labor markets and vice versa. In the same line, Stone et al (2013), using harmonized labor force surveys for six OECD economies, found that high skilled workers are the most likely to benefit from an expanding export sector and that some workers may find it more difficult to switch occupations than to switch industries. These results are consistent with sticky sector-specific human capital and information asymmetries, especially with respect to opportunities in different regions within the same country. Alexandre et al (2010) showed that the inclusion of labor adjustment costs in a trade model affects the impact of exchange rate movements on employment. Using panel data for 23 OECD countries, they suggest that employment in low-technology sectors that have a very high degree of openness to trade and are located in countries with more flexible labor markets are more sensitive to exchange rate changes. Our model and estimates therefore provide additional evidence on the importance of interacting external shocks and labor market institutions. Parcon (2008) proved that labor market flexibility, measured by labor market standards and regulations, has two opposing effects on FDI inflows. Labor market regulations and standards decrease FDI inflows through the cost channel, but they increase FDI inflows through the productivity channel. Allowing for a non-linear relationship between different indicators of labor market flexibility and FDI inflows revealed that some degree of labor market standards and regulations may be attractive for foreign investors

Helpman and Redding (2011) presented a new framework for analyzing the interrelationship between inequality, unemployment, labor market frictions, and foreign trade. They introduced labor market frictions into a general equilibrium model of trade to study of interdependence in labor market institutions across countries and the analysis of interactions between labor market institutions and trade liberalization. While labor market reforms that reduce search and matching frictions in the differentiated sector increase a country's own welfare, they reduce welfare in its trade partners. Furthermore, Egger et al (2011) develop a multi-country model with imperfect labor markets to study the effect of labor market frictions on bilateral trade flows. In the short run, a higher degree of labor market rigidity decreases the value

of total trade, but increases the share of intra-industry trade for a country that is larger than its trading partner. The reverse effects are observed when capital is allowed to cross country borders.

In this regards, this paper aims to shed light on the impact of the impact of labor market regulation and the trade policy on employment in MENA countries.

4. Methodology and Data

We will adopt a basic specification to link the labor market outcomes to the labor market policies and to compare the effects of these policies across countries. Relying on the reduced form approach as in Heckman and Pages (2000) and Rovelli and Bruno (2007), we will investigate whether countries in the MENA and periods with more strict labor regulations combined with their trade openness are associated with lower employment or higher unemployment rates.

$$Outcome_{jt} = \alpha_0 + \alpha_1 LAMRIG_{jt} + \alpha_2 Trade_{jt} + \alpha_3 LAMRIG_{jt} * Trade_{jt} + \alpha_4 X_{jt} + g_t + \varepsilon_{it}$$

Where the subscript “j” designates the MENA countries. Time is denotes by the subscript “t”. The model will be estimated for two main outcomes: (1) the employment-to-population ratio for persons aged 15 to 64; (2) the labor force participation rate.

We include the labor market rigidity index ($LAMRIG_{jt}$) which measures the rigidity of employment conditions for each country at various points in time (from 1950 to 2000-04). Developed by Campos and Nugent (2009), LAMRIG is a time-update and country-extension of the employment law restrictiveness (ELR) developed by Botero et al (2004). LAMRIG index, as the ELR, captures a number of important labor market institutional dimensions (1)the rigidity of alternative employment contracts (part-time, fixed-term), (2) rigidity of hours, (3) cost of firing workers (known as job security), and (4) dismissal procedures. Each of these four dimensions constitutes a sub-index and is composed of the sum of several individual components taking the value of 0 or 1 (each sub-index includes as much as dummies or individual components as legal provisions for each of these dimensions). For example, the first sub-index which is the strictness of protection against alternative employment contracts would include components such as whether fixed-term contracts are prohibited for permanent tasks (scored 1) or not (scored 0); whether terminating part-time workers is at least as costly as terminating full time (scored 1) or not (scored 0), etc. This means that regulated or protective individual components in each sub-index would take 1 as a value. LAMRIG is an average of these four sub-indices averaged and summed-up to 100, then transformed to 0-3 scale index. While the ELR was computed for 85 countries at 1997, LAMRIG is constructed on the basis of ELR and extended for 145 countries. It was computed as a five-year average from 1950-54 throughout 2000-2004. Campos and

Nugent (2009) have succeeded in extending the index time and countries for the ELR by using ILO laws portal, known as NATLEX. Therefore, to resume, LAMRIG is a codified characterization of the employment laws and constitute a measure of *de jure* labor market rigidity.

According to Campos and Nugent (2009), high scores of LAMRIG imply that the labor market is more regulated, protective and, to a certain extent, restrictive. One cannot be easily determine more regulation as “good” or “bad”. In a matter of fact, the impact of rigid employment protection legislation has been debatable over time. Many studies have found an association with restrictive labor regulations and high informality or unemployment (Lazear 1990, Di Tella and McCulloch, 1998, Botero et al 2004) while others find ambiguous results through either an insignificant relationship between labor regulations and employment outcomes or an association with rigidity with better employment outcomes (Bertolla 1990, Boeri 1999). LAMRIG authors stick to the evidence showing that higher scores are associated with higher informality and lower labor force participation, and hence.

Moreover, we use different types of variables to control for country-specific factors (X_{jt}) that may affect the labor outcome. First, we use demographic controls such as the rate of enrollement in the secondary education and the share of investment in GDP. Country-specific unobservables that may remain constant over time and may affect the dependant and independent variables are controlled for in the fixed effects captured the “ g ”. The trade ($Trade_{jt}$) effect is be measured by the share of exports and imports to GDP. These variables come from the World Development Indicators available on the World Bank website. Finally, we include an interaction term that shows the effect of trade on labor outcome when rigidity increases. ε_{it} is the discrepancy term.

According to the economic theory, we expect to find a positive effect of the education variable on employment, a positive effect of investment and openness. By contrast, as it was mentioned before, labor market rigidity is likely to have a negative impact on the labor market outcome. For this reason, the marginal effect of labor market rigidity on employment may be negative even if trade openness is likely to have a positive effect on employment.

5. Empirical Results

Our preliminary findings are presented in Tables 1 and 2. First, we found a significantly positive effect of investment on labor market outcome as measured by both the employment to population ratio and the labor force participation. This shows to what extent economic policies in general and investment policies in particular can achieve high and labor-intensive growth rates. These policies may lead to high investment levels, which boost the economy's ability to create jobs, and resulted in investment patterns biased for labor-intensive growth.

Surprisingly, we found a significant and negative effect of the education variable on the labor market outcome. This may point out the mismatch between the education system and the labor market outcome or the known fact in MENA that the more educated youth are those who face higher rates of unemployment and even discouragement. More precisely, youth unemployment rates are predicted to be much higher with about 77 percent of the unemployed between the ages of 15 and 29. In addition, more than 80 percent of those unemployed have at least a high school diploma, and a third have a university degree. This means that unemployment rates are typically higher among the educated individuals. Thus, being educated or young increases the likelihood of being unemployed in the MENA region. This may be explained by two reasons: first, young well-educated people queue for good jobs; second, there is a serious mismatch between the skills young people bring with them when they leave the education system and those that are sought after in labor markets.

Our main variable of interest, namely the trade variable, shows that higher trade openness is likely to increase the employment to population ratio and the labor force participation rate. The last two decades have witnessed significant growth in global trade. Many developing countries have undergone an economic liberalization process through tariff reduction and removal of non-tariff barriers. This is why exports have become an engine of growth for these economies. In the meantime, if we reason in a general equilibrium framework, more exports mean more production, and thus more employment. For this reason, in all the regressions, openness has a positive effect on employment.

Our second variable of interest which is labor market rigidity shows that the latter has a significant and negative impact on employment. Yet particular attention has been attributed to the gender impact of rigidity and whether trade and labor market rigidity have been less favorable to women or not. Tables 1 and 2 show that while labor market rigidity is insignificant for males, it is significant for females. This shows to what extent labor market rigidities can represent an impediment to females' participation which is already low in the MENA region. The latter has the highest unemployment rates for youth and women, and the lowest employment-to-population ratio for women. The World Bank (2011) reports that around 50% of women in developing countries are either employed or actively looking for jobs compared to

25.2% in the MENA region. This may be attributed, among other reasons, to high rigidities that are significantly restrictive for females. Last but not least, when we introduce the interaction term between trade openness and labor market rigidity, we found a significant and negative marginal effect of rigidities on both the employment to population ratio and the labor force participation rate. This proves why trade liberalization is more likely to have a positive impact on employment in countries with flexible labor markets. Figures 6 to 7 show the significant and negative effect of this interaction term, and in particular for females.

Table 1. The Effect of trade and labor market rigidity on the employment to population ratio

	Employment to Population Ratio					
	Total		Male		Female	
Trade Openness	0.0119** (0.00459)	0.0511*** (0.0152)	0.0148*** (0.00523)	-0.00772 (0.0176)	0.00800 (0.00611)	0.107*** (0.0190)
Invest.	0.0825** (0.0350)	0.0816** (0.0343)	0.156*** (0.0399)	0.157*** (0.0398)	0.0226 (0.0466)	0.0204 (0.0428)
School	-0.0286** (0.0123)	-0.0435*** (0.0133)	-0.104*** (0.0140)	-0.0952*** (0.0154)	0.0422** (0.0164)	0.00456 (0.0165)
Rigidity	-3.098* (1.729)	1.862 (2.501)	0.275 (1.969)	-2.568 (2.898)	-4.832** (2.300)	7.719** (3.116)
Open*Rig.		-0.0212*** (0.00786)		0.0122 (0.00911)		-0.0536*** (0.00979)
Constant	46.85*** (3.001)	39.21*** (4.086)	67.58*** (3.418)	71.96*** (4.734)	23.63*** (3.993)	4.284 (5.091)
Observations	170	170	170	170	170	170
R-squared	0.102	0.142	0.341	0.349	0.061	0.213
Number of code	10	10	10	10	10	10

Standard errors in parentheses

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

Table 2. The Effect of trade and labor market rigidity on the labor force participation

	Labor Force Participation					
	Female		Male		Total	
Openness	0.00378 (0.00704)	0.145*** (0.0213)	0.0172*** (0.00355)	0.00665 (0.0121)	0.0111*** (0.00410)	0.0791*** (0.0129)
Invest.	0.0214 (0.0473)	0.00216 (0.0421)	0.0323 (0.0238)	0.0337 (0.0239)	0.0253 (0.0275)	0.0160 (0.0256)
School	0.0544*** (0.0186)	-0.00249 (0.0185)	-0.149*** (0.00939)	-0.145*** (0.0105)	-0.0422*** (0.0108)	-0.0696*** (0.0112)
Rigidity	-3.080 (2.499)	13.73*** (3.295)	-1.219 (1.261)	-2.474 (1.869)	-2.952** (1.455)	5.161** (1.998)
Open*Rig.		-0.0753*** (0.0109)		0.00563 (0.00618)		-0.0364*** (0.00661)
Constant	26.53*** (4.169)	1.393 (5.195)	86.51*** (2.104)	88.39*** (2.947)	57.49*** (2.427)	45.36*** (3.149)
Observations	193	193	193	193	193	193
R-squared	0.050	0.252	0.609	0.610	0.121	0.249
Number of code	11	11	11	11	11	11

Standard errors in parentheses

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

Figure 6. Marginal Effect of Labor Market Rigidity (LAMRIG) on Employment to Population Ratio (Total)

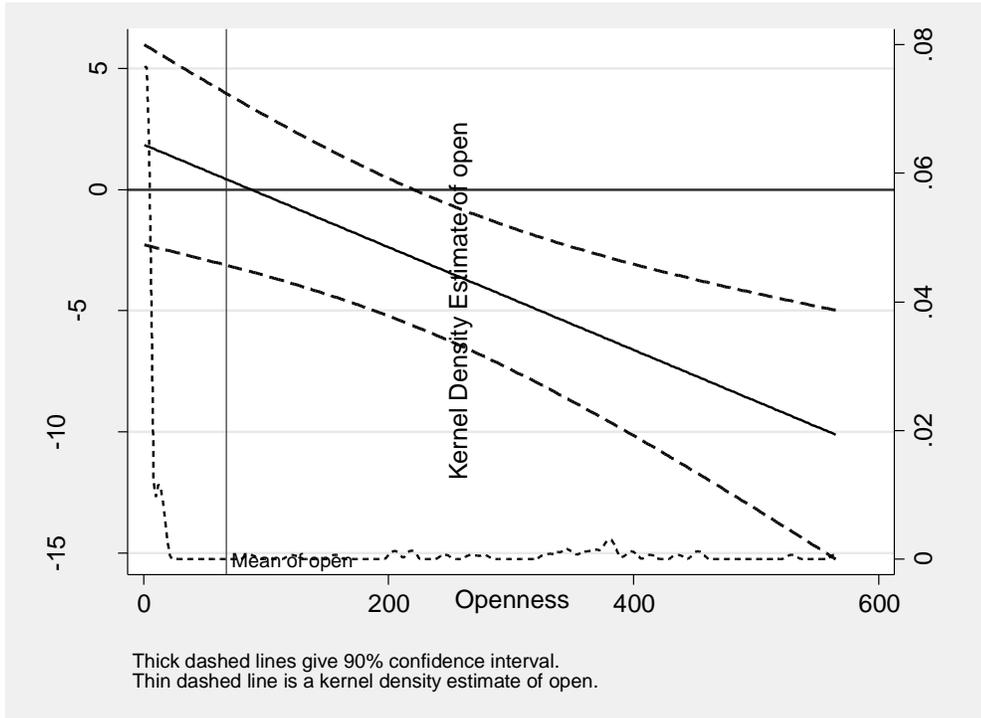


Figure 7. Marginal Effect of Labor Market Rigidity on Employment to Population Ratio (Males)

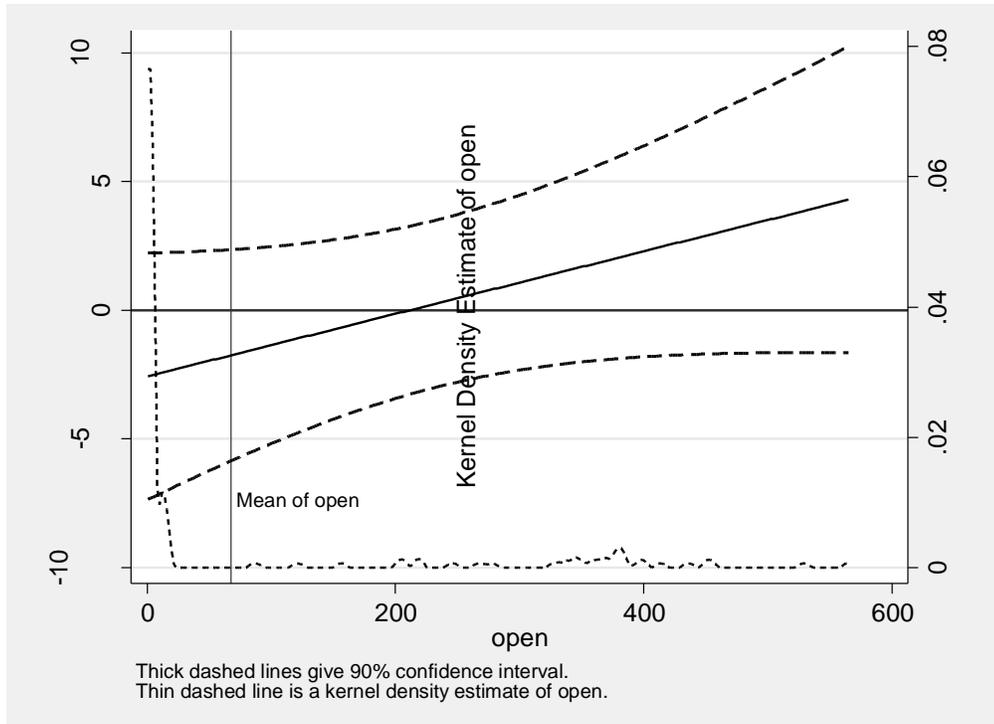
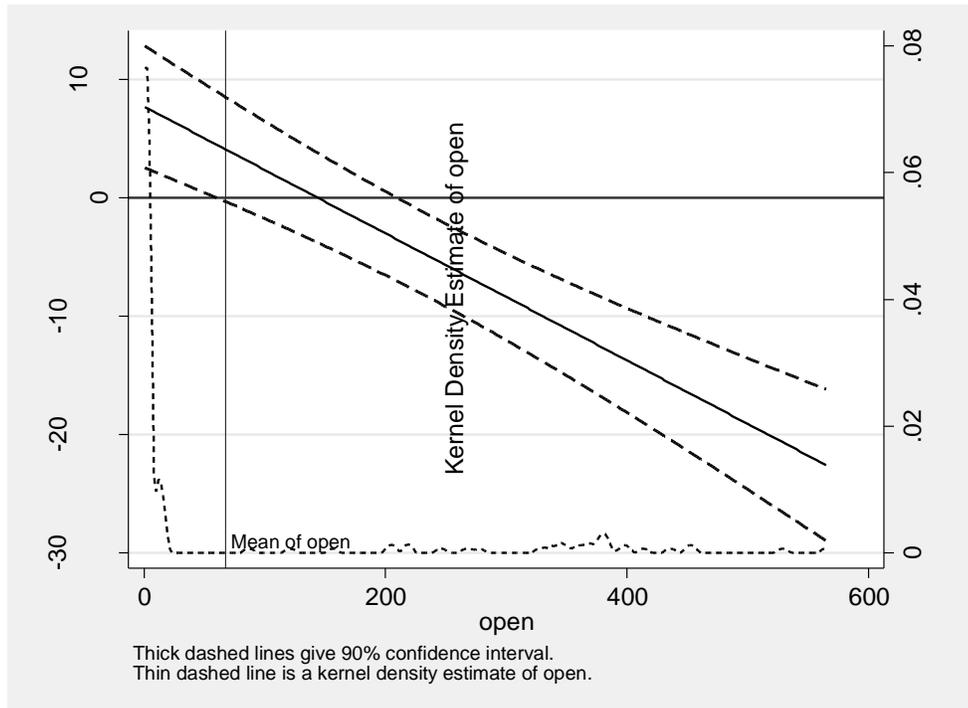


Figure 8. Marginal Effect of Labor Market Rigidity on Employment to Population Ratio (Females)



6. Conclusion

Using a panel of MENA countries, this paper tries to examine the interaction between trade reforms and labor market regulations on the outcome of the labor market. The theoretical predictions on this literature show that the effects of trade liberalization in any given country are conditional on the nature of labor market regulations since trade liberalization is more likely to have a positive impact on employment and wages in countries with flexible labor markets and vice versa. Moreover, more regulated labor markets tend to have higher wages at the expense of sector wide employment. Our main findings show that labor market rigidity reduces the positive impact of trade reform on employment. These results are stronger for females than for males.

This is an important topic as countries of the MENA region have gone through a series of reforms at both the labor market and the trade policy levels. For policy makers the results of this study provide added incentive to move the debate about trade to a different level. Trade effects on employment do not matter *per se* unless the country is characterized by a flexible labor market. The focus should not be placed on tariffs and other types of trade distorting measures but rather on improving labor market regulations and institutions at home in order to take advantage of globalization. Thus, a wide range of policies can be employed to address these labor market frictions to improve worker mobility and reduce adjustment costs.

Our research agenda includes two potential areas to improve our empirical work. First, a rigidity index will be constructed using the Doing Business dataset as a robustness check for our results. Second, we are planning to consolidate these macro findings using micro data. In fact, we are planning to use two labor market surveys (The Egyptian Labor Market Panel Survey and the Jordanian Labor Market Panel Survey) which are available at the Economic Research Forum (Cairo, Egypt) in order to examine the interaction between labor market rigidity and trade openness on the labor market outcome at the individual level (Helpman et al, 2011).

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