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Effects of gender inequality in employment and pay in Jordan, Lebanon and the Occupied Palestinian Territory: Three Questions Answered

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Contents

Introduction ____ 6

1. Employment Segregation:
How many female workers should swap jobs with male workers to achieve equality in the employment distributions of women and men? ____ 8

Summary ____ 12

2. What happens to wages, employment and output if sectoral gender differences in pay were eliminated? ____ 13

Results ____ 14

3. What can happen if the gender gap in labour force participation rate increased? ____ 17

4. Discussion and Qualifications ____ 21

5. Summary and Conclusions ____ 23

References ____ 24

Statistical Appendix ____ 25

Annex 1: Differences between the West Bank and the Gaza Strip ____ 28

Annex 2: The Simulation Model ____ 29

Annex 3: Legal differences between married and unmarried women compared to men in terms of business and employment opportunities ____ 30

Introduction

The labour markets in the Arab region have some gender characteristics that are similar to those in practically all other world regions. For example, fewer women work than men, many work in different jobs than men, and when they work in broadly similar jobs as men, they tend to be in lower positions and are paid less. On the other hand, while in most cases women have on average less education than men, women workers tend to have more education than male workers and, if they are employed predominantly in the public sector, the gender wage gap tends to be narrower.

Where the Arab region stands out is in the extent of some characteristics. For example, female labour force participation is very low overall: the female force participation rate is only 27 per cent in the Arab countries compared to the global average of 51 per cent . When women are employed, they tend to be predominantly employed in "feminized" industries and occupations in relative isolation from men: the extent of segregation measured by the Duncan index (see below) is more than 20 per cent higher in the Arab countries than in the rest of the world (0.38 compared to 0.31: Tzannatos 2010).

The effective utilization of womanpower in any country stands to reason. This is more so in the three countries examined in this paper, namely Jordan, Lebanon and the Occupied Palestinian Territory (OPT) that are rather extreme representatives of the Arab countries in terms of the female labour force participation rate. The rate is 17 per cent in OPT and 15 per cent in Jordan, and 23 per cent in Lebanon thus surpassing only Syria (13 per cent before the crisis) and Iraq and Algeria (each at 14 per cent) . In Jordan educated men migrate in large numbers, Lebanese women are highly educated and in OPT the male labour force participation rate is also extremely low . This makes the female human capital in these three countries even more precious: its underutilization implies the economy is smaller than it could be and grows slower than its potential with concomitant effects on family incomes and women's prosperity. The challenge facing the three countries is to achieve the highest rate of growth under inclusive conditions void of discrimination among its citizens, in our case against women.

In this context, three questions arise:

1. If women and men were to achieve the same employment distribution across different sectors in the economy (e.g. industries, occupations, specific jobs etc.), How many women (and correspondingly, the same number of men) should be reallocated across these sectors?
2. If women and men were employed in same jobs and paid the same How much will the change be on (a) female wages, (b) male wages and (c) economic output (GDP)?
3. If there were an increase in the female labour force participation rate, What would be the impact on the national economy?

The paper is organized as follows the next section outlines the extent of gender differentials in employment ("segregation") in Jordan, Lebanon and OPT and compares them to other countries in an attempt to answer the first question, that is, how many women (and correspondingly, the same number of men) should be reallocated across different jobs to achieve gender equality in the employment distribution of workers.

Section 2 acknowledges that the answer to the previous question is given in a rather mechanical way as it rests solely on "quantities" (number of workers in certain sectors) and ignores "prices" that are a prime signal in an economy and its labour market. To address this, it brings into the analysis wages and examines the long-term effects of eliminating employment and pay gender differentials through the use of an economic simulation model. The effects are expected to be, first, an increase in female wages as under conditions of equality women will no longer be discriminated against; second, a likely decrease in the wages of men as those men who had secured better jobs by virtue of being men will face competition from more productive women; and third, an increase in output (GDP) as the economy is making better use of the productive capacity of women and is becoming more competitive

by reducing gender barriers. The important issue here is the magnitude of these effects.

Section 3 addresses a hypothetical case whereby the female labour force participation rate is increased to the level of the male rate and what would this imply for the level of output. It also estimates the gains from greater access of women to entrepreneurship. Women have generally fewer opportunities for engaging in entrepreneurial activities due to their lower participation in the labour force (lack of experience), lower education, legal restrictions for borrowing, weak political representation, and bargaining power inside the household and so on.

Section 4 summarizes and discusses the findings before the final section concludes.

Two qualifications that apply to the approach and findings are, first, the labour market data in all three countries restrict significantly the scope and nature of analysis attempted in this paper. This is more so in the case of wages. For Jordan information on wages is given in the form of wage brackets. This allows only for an approximation of what the average wage might be. For OPT, wage information exists only on the case of wage workers (employees) notwithstanding the fact that other forms of employment are significant and informality is sizeable. For Lebanon the economy is divided in only 5 sectors, that is, the level of aggregation is quite broad.

Second, all three questions are hypothetical as complete gender equality in the formal indicators of the labour market has not yet been achieved in any country, even the most advanced ones. In fact, it is unlikely that women and men will enjoy the same outcomes in the labour market ("production") unless there is equality at home (broadly call it "reproduction"). Our results rest on the assumption that men and women are identical in their preferences, face exactly the same constraints and options, and there are no economic or institutional factors treating women and men differently. These differences can arise from gender discrimination at the market place or within the family, laws, regulations, cultural and historical factors and so on. In effect the results are "upper bound" estimates from the elimination of all gender differences both in the labour market and also in the public and private spheres. They are suggestive of what can happen in the long run that may take one or more generations to be achieved.

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1 KILM.

2 ILO/UNDP ibid. However, two of our three countries are also statistical outliers within the region also with respect to the male labour force participation rate: OPT and Lebanon have the lowest male rate among the non-GCC countries (with the exception of Somalia) while Jordan is at the midpoint (Assaf and Tzannatos, 2013).

3 For example, according to the Ministry of Labour in Jordan, there are more nearly 425,000 Jordanians working in the GCC alone: 265,000 in KSA, 100,000 in the UAE, 33,000 in Kuwait, 17,000 in Qatar, 3,120 in Bahrain and 4,912 in Oman (ILO 2015).

1. Employment Segregation: How many female workers should swap jobs with male workers to achieve equality in the employment distributions of women and men?

If all things were equal between women and men both on the labour demand side and the labour supply side and there were no institutional differences in the treatment of women and men in the family, economy and society, one would expect women and men to be similarly distributed across different sectors. For example, from an industrial sector perspective, if 20 per cent of men were working in agriculture, 30 per cent in manufacturing and 50 per cent in services, then the percentage of women in these three sectors should be respectively 20- 30- 50. From an occupational perspective, women should not be overrepresented in low pay jobs and underrepresented in managerial jobs, and men should not be overrepresented in senior jobs.

Differences in the employment distributions of women and men in the labour market can be summarized in many different ways, one of them and the most popular one being the Duncan index[4]. The index is a relative measure of employment dissimilarity between any two groups of workers. In the case of women and men the Duncan index, D, takes the form

$$D = \frac{1}{2} \sum_{i=1}^{N} | f_i - m_i |$$

where $i = 1,2,...,N$ is the total number of sectors of interest (for example, industries or occupations), f_i and m_i are the sectoral employment ratios of women and men to their respective labour force, and the summation refers to the absolute differences between women's and men's ratios within each sector.

Absolute differences are used as the number of women who should move into male jobs is exactly equal to the number of men who should move into female jobs. This also explains why the sum on the right hand side of the equation should be divided by two. The minimum value of the index is zero; it occurs when women and men have identical employment distributions across sectors, i.e., when the percentage of women in each sector is the same as the percentage of men in these sectors. The maximum value, unity, occurs when there is complete dissimilarity (no women and men work in the same sector)[5].

Though the Duncan index is similar to the correlation coefficient suggesting a degree of association void of an absolute meaning, a common interpretation of the Duncan index is that it refers to the proportion of either women or men who would have to be transferred from one sector to another to obtain equal proportions across sectors. This is clearly not the case since the proportion of women who would have to change sectors is always less than the proportion of men since there are fewer women working than men. The index does not even refer to the total number of workers who would have to change sectors. The index is simply the standardized ratio of required reallocations, i.e., the actual to potential reallocations – the latter being the required number of reallocations if no woman and man worked in the same sector at the current size and sex composition of the labour force (Tzannatos, 1990). Consequently, the index is independent of the size and sex mix of the total labour force[6]. The number of workers that would have to be reallocated is related to the index in the following way:

$$R = 2 \times D \times M \times f = 2 \times D \times F \times m,$$

where R is the total number of (male and female) workers who should be reallocated to achieve equality across sectors, D is the Duncan index, M (F) is the total number of

male (female) workers, and f (m) is the share of female (male) workers in the total labour force (F or M/(F+M)). The product of these terms is multiplied by two because the number of women who should leave "female over-represented" sectors is equal to the number of men who should move in; this applies to movements in male-dominated occupations as well. The percentage of the labour force that should be reallocated is therefore R/(F+M). The percentage of women (men) that should reallocate is 0.5xR divided by the size of female (male) workers.

Table 1 summarizes the longer term trends in industrial employment dissimilarity in Jordan along with some comparator countries. With the exception of two countries of our countries (and Egypt – the only other Arab country for which useful data are available) the value of the Duncan index declined for the comparator countries over time. The increase in the value of the Duncan index for Jordan was more than six time higher than that for Egypt, and that for OPT more than twice. And while in the comparator countries fewer workers would have been required to change sector to achieve equality in the employment distributions of women and men, in Jordan and OPT (and to a lesser degree in Egypt) the reverse is true and by a wide margin.

Table 1: Values of the Duncan Index in Jordan, Lebanon and OPTand Comparators

Country	2000s			Changes since ... (number of years)			
	Value of Duncan Index	% of all Women to Change Industry	% of total labour force to change industry	Number of years	Duncan Index	% of all Women to Change Industry	% of total LF to change industry
Jordan	**0.353**	**0.272**	**0.124**	**1973 (20)**	**6.1%**	**5.6%**	**7.7%**
Lebanon	**0.291**	**0.323**	**0.196**	Not available			
OPT	**0.490**	**0.401**	**0.145**	**1996 (8)**	**2.2%**	**1.6%**	**4.4%**
Egypt	0.358	0.295	0.105	1976 (6)	1.0%	0.8%	2.0%
Cyprus	0.391	0.265	0.171	1976 (15)	-0.5%	-0.9%	0.0%
Greece	0.358	0.275	0.128	1981 (11)	-1.2%	-1.6%	-0.1%
Macedonia	0.294	0.174	0.142	1982 (19)	-0.2%	-0.9%	0.3%
Portugal	0.323	0.217	0.143	1974 (19)	-0.6%	-0.9%	-0.1%
Norway	0.162	0.123	0.059	1977 (18)	-0.9%	-1.2%	-0.2%

Note: Employees based on ISIC Rev2 (1990) except OPTthat is based on all workers and ISCO88.
Source: for Lebanon Table 3 below; for all others see Tzannatos, Z. (2008)

4 *Duncan and Duncan (1955).*

5 *Naturally, the value of the Duncan index is sensitive to the number of categories ("digits") adopted and the classifications used. Therefore, choices about how many digits to consider and which classification to adopt affects the estimates of the value of the index: the sectoral categories one uses, the higher the value of the index.*

6 *See Tzannatos, Z (1990). "Employment Segregation: Can We Measure it and what does the Measure Mean?" British Journal of Industrial Relations, Vol. 28.*

Looking at Jordan in the more recent period, Table 2A presents the Duncan Index for occupational data whose value stands at 0.551. The table also shows that at a broad level of aggregation of occupations, women are overrepresented in jobs as legislators, senior officials, managers, specialists, technicians, specialist assistants, support clerical staff and workers in elementary occupations. Men are overrepresented in sales and service occupations, as skilled workers in agriculture, forestry and fishing, crafts and related occupations, plant and machinery operators and assembly workers. However, the occupational sectors that make most difference are, on the one hand, women in non-manual occupations as specialists and technicians that contribute by 50 per cent to employment dissimilarity (43 per cent and 7 per cent respectively – Table 2A, last column), and on the other hand, men in the non-manual sales and service occupations and in the manual occupations as craftsmen and related workers, plant and machinery operators and assembly workers.

Table 2B presents the calculation of the Duncan Index for OPT, though this time by industry (activity). The value of the index is 0.438. In the case of OPT, women are overrepresented at the two ends of the employment distribution, that is, agriculture and services (education and health). However, two other sectors are important from the perspective of male workers, that is, construction and commerce, and hotels and restaurants. In the former case physical strength is important while the latter requires significant exposure to -- probably mostly male -- clients.

Table 2C captures the case of Lebanon. At the rather broad level of data aggregation in Lebanon, there is only one sector where women are overrepresented, that is, in services.

As explained, one can use the value of the Duncan index to estimate the percentage of the labour force that would have to be reallocated to achieve equality in the employment distribution of the sexes. This information is shown in Table 3.

In the case of Jordan, the value of the Duncan index comes to 0.551 in 2014 compared to 0.454 in 2001. Employment in 2001 totalled nearly 920,000 of whom 790,000 were male workers and 130,000 were female workers. Correspondingly, total employment in 2014 had increased to nearly 1.3 million of whom 1.1 million were male workers and 200,000 were female workers. Taking these values into account together with the value of the Duncan index implies that the total number of female and male workers that would need to swap occupations to achieve equality was approximately 100,000 in 2001 but had increased to 185,000 by 2014. These two numbers correspond to the percentages of workers who would need to change occupations to achieve equality respectively equal to 10.9 per cent in 2001 and 14.3 per cent in 2014. As employment increased by only 38 per cent for men and 54 per cent form women between 2001 and 2014, the 85 per cent increase in reallocation implies that the share of men who would have to change sectors increased from 6.3 per cent to 8.5 per cent during these two dates while the corresponding share for women increased from 39.1 per cent to 46.6 per cent.

In OPT the value of the Duncan index comes to 0.438 in 2014 compared to 0.477 in 2002. Employment in 2002 totalled nearly 480,000 of whom 400,000 were male workers and 80,000 were female workers. Correspondingly, total employment in 2014 was nearly 920,000 of whom 760,000 were male workers and 160,000 were female workers. Taking these values into account together with the value of the Duncan index implies that the total number of female and male workers that would need to swap occupations to achieve equality was approximately 62,000 in 2002 but nearly double that amount in 2014, that is, 117,000. As total employment almost doubled (plus 93 per cent) between these two dates, the percentage of workers that would need to change jobs to achieve equality remained practically the same at 12.7 per cent in 2014 compared to 13.1 per cent in 2002. During that period male employment increased by 90 per cent compared to an increase in female employment by nearly 110 per cent. This implies that in both years only around 8 per cent of men would need to change jobs. However, the share of women who should

change sector was reduced from nearly 40 per cent in 2002 to 36 per cent in 2014.

Table 2: Differences in the employment distribution of female workers and male workers in percentage points

\+ *positive = female overrepresentation in the sector;*

– *negative = male overrepresentation*

a. Jordan 2014

	Sectoral difference in percentage points
Legislators and senior officials and managers	1%
Specialists	43%
Technicians and specialists assistants	7%
Support clerical Staff	2%
Sales and service workers	-27%
Skilled workers in agriculture, forestry and fishing	-2%
crafts and related occupations	-14%
Plant and machinery operators and assembly workers	-14%
Workers in elementary occupations	1%
Duncan index	0.551

Source: See Appendix Table A-1

b. OPT 2014

	Sectoral difference in percentage points
Agriculture, Hunting & Fishing	13%
Mining, Quarrying & Manufacturing	-3%
Construction	-18%
Commerce, Hotels & Restaurants	-12%
Transportation, Storage & Communication	-5%
Education	25%
Health	6%
Services & Other Branches	-6%
Duncan index	0.438

Source: See Appendix Table A-2a

c. Lebanon 2012

	Sectoral difference in percentage points
Agriculture	-1%
Industry	-8%
Trade	-8%
Transportation, Post and T telecommunication	-7%
Services	29%
Financial intermediation, Insurance and Construction	-5%
Duncan index	0.291

Source: Appendix A-3

For Lebanon we have information only for one period. Lebanon has the highest ratio of female employment to male employment (relative employment) and, partly because of this, it would require more reallocations as a percentage of the labour force compared to Jordan and OPT.

Table 3: Employment Size, Value of the Duncan Index and Required Reallocations for Achieving Eliminating the Gender Gap in the Employment Distributions of Women and Men

Indicator	Jordan 2001	Jordan 2014	Lebanon 2012	OPT 2002	OPT 2014
Duncan	0.454	0.551	0.291	0.477	0.438
Employment (all in ,000)	920	1,287	1,326	476	917
Employment (male in ,000)	792	1,089	924	398	755
Employment (female in ,000)	129	198	402	78	162
Relative (f/m) employment	16.3	18.2%	43.5%	19.6%	21.5%
Reallocations no. (all in ,000)	100	184	260	62	117
Reallocations % (all)	10.9%	14.3%	20%	13.1%	12.7%
Reallocations % (m)	6.3%	8.5%	14%	7.8%	7.7%
Reallocations % (f)	39.1%	46.6%	32%	39.9%	36.1%

Source Appendix Tables A-1, A-2a, A3

Summary

If Jordanian women and Jordanian men were to achieve the same employment distribution across different occupations, 184,000 would need to change occupations in 2014. This corresponds to about 100,000 from each sex. The corresponding estimate for OPT in the same year is 117,000 in total, that is, around 60,000 for each sex. For Lebanon, the change would involve 260,000 workers, 130,000 from each sex.

While this number is a small percentage of male employment, in terms of female employment it is almost half (47 per cent) in Jordan and roughly one-third for Lebanon (32 per cent) and OPT (36 per cent). Looking at the employment distributions of women and men (Table 2, panels A, B and C), women seem to be "crowded" in a few occupations and industries.

This "crowding" amounts to an increase of women's labour supply in certain industries and occupations that can depress female wages[7]. This wage effect is omitted in the above analysis of segregation that has been rather mechanical focusing only on employment (quantities). The next section incorporates wages (prices) in order to add more realism into the simulations. In other words, as the sex mix of the labour force is changed in different sectors, there are consequential adjustments in female wages and male wages.

7 *Notice that an increase in segregation is not necessarily synonymous with poorer opportunities or inferior labour market outcomes for women. For example, women may be offered more opportunities for upward mobility when production is organized around strictly segregated occupations than when women and men work together. Under such an arrangement, women will be required to supervise other women and get better jobs than they would otherwise have, while in male occupations some men simply have to accept lower status/pay jobs. On similar grounds, horizontal segregation does not unambiguously lower the position of women in labour market. For example, most women may be employed on the public sector compared to men who are more commonly found in the private sector.*

2. What happens to wages, employment and output if sectoral gender differences in pay were eliminated?

How quantities are distributed in an economy depends on prices. And the level of employment as well as its distribution across different sectors are determined respectively by the aggregate level of wages and their sectoral structure. The previous estimates of employment dissimilarity and how many women and more broadly workers would need to be reallocated to achieve equality in the male and female employment distributions are rather crude. A more substantial analysis should bring in the role of wages.

A not uncommon statistical regularity is that women's relative to men's pay is highest when the sex employment gap is greatest. This is usually the result of "selectivity": The few women who work are the most educated who tend also to be employed in the public sector. Moreover, observed wages are primarily observed for women workers in the formal sector and miss the wages of women in the informal sector that tend to be lower. All in all, the female pay is observed mainly for those women who face high rewards in the labour market while male wages are calculated over all male workers, that is, they include men paid low wages. These considerations tend to apply more in developing countries where few women work in the formal sector and those who do work are in government jobs. This is manifested by the fact that some developing countries reported average female earnings in paid employment exceed those of men or are close to parity with men's wages .

All this implies that female wages in the three countries under consideration may be affected by selectivity phenomena with only high pay/highly educated women being in the labour force. We examine below what would happen to national output (GDP) and male wages if women workers ceased to be concentrated in a few female dominated jobs and were paid the same wages as men. This is equivalent to (a) the elimination of employment differences examined in the previous section but within the same sectors and not between them and (b) ensuring that there is no wage gap within each sector. To answer this paper deploys an economic model that produces upper bound estimates of the effects that would arise from the elimination of gender gaps in wages. These effects include changes in female wages, male wages, employment and output and are examined below.

More formally, the conceptualization of the model is on economic theory and in particular on the principle of diminishing marginal productivity. Its premise is that women's overrepresentation ("crowding") in certain jobs reduces their productivity therein and therefore their wages. Men's productivity is also lower than what it would have been under non-crowding conditions and their wages are relative higher to women. Under these conditions total output would be lower than under conditions of gender equality: there is a welfare loss (reduction in total output – GDP) arising from the misallocation of the labour force. In plain terms, competent female workers are excluded from some of the most productive activities they can do, which are then undertaken by less able (compared to women) men. Whether the loss of output affects the absolute level of men's pay is undetermined a priori. So what is required for this in an empirical estimation as explained below.

For the empirical estimation of the effects of achieving equality in the labour market, the mechanics of the model require to estimate output under current conditions, compare it to the new level of output under equality and then examine the distributional consequences on employment and wages separately for women and men (for more explanations see Annex 2). The difference between these two estimates of output provides an indication of the potential (maximum) welfare gains that could be achieved .

Results

In the case of Jordan, each occupation is assumed to have two levels as a result of vertical segregation: a low pay one as proxied by the female employment and wages, and a high pay one, as proxied by male employment wages. In the case of Lebanon and OPT, each industry is assumed to have two occupations, a high paying one and a low paying one. According to the data in the appendix, the relative wage is 81.2 per cent in Jordan, 74.7 per cent in Lebanon, and 85.2 per cent in OPT.

What stands out in the results is that, under the assumptions of the model, female wages can increase significantly. For the conventional case of medium substitutability between women and men, female wages in Jordan will increase by 61 per cent, 30 per cent in Lebanon and 22 per cent in OPT (Table 4, column 1). There will be a decrease in male wages as successively more women enter higher paying sectors (occupations and industries). The increased supply in these sectors will cause male wages to decline. However, the decrease is small – on average for our three countries only two per cent.

Table 4: Effects of Eliminating Gender Differences in Pay and Employment

Region	1 Increase in Female Wages	2 Decrease in Male Wages	3 Output (GDP) gains	4 % of LF to be reallocated
Jordan	61	−1	6	14
Lebanon	30	−3	5	20
OPT	22	−2	2	12
Nordic	9	−4	2	18
North EU /Australia /New Zealand	18	−6	3	26
South Europe	28	−5	5	29
East Asia, High Income	38	−6	6	32
East Europe	19	−5	4	26
Latin America	18	−3	3	15
Country average (unweighted excl. Jordan and OPT)	22	−5	4	25

Notes: Nordic = Denmark, Finland, Norway, Sweden; North EU/AUS/NZ: Australia, Belgium France, the Netherlands, New Zealand, Switzerland, UK; South Europe = Cyprus, Ireland, Portugal, Gibraltar; East Asia High Income: Japan, Singapore, South Korea and Taiwan; East Europe = Lithuania, Croatia, Latvia, Bulgaria, Kazakhstan, Ukraine, Georgia; LAC = Brazil, Costa Rica, Mexico.
Sources: Author's estimates for Jordan, Lebanon and OPT based on the data in included in the Appendix; for the rest see Tzannatos (2008).

8 *For example, the average relative (female/male) pay for the MENA region has been reported to be in excess for 90 per cent compared to only 7580- per cent even in high income countries. Other countries that report female relative earnings in excess of 90 percent include Costa Rica, Hong Kong, Kenya, Panama, the Philippines, Tanzania, Swaziland and Mongolia. See Tzannatos (2008).*

9 *A method to evaluate the wage and output effects under conditions of discrimination has been proposed in the context of racial segregation. See Bergmann, B. (1971) "The Effect on White Incomes of Discrimination in Employment." Journal of Political Economy, Vol. 79, no. 2: 294 313. This method can be extended to apply in a gender context. See Tzannatos, Z. (1988).The Long Run Effects of the Sex Integration of the British Labour Market. Journal of Economic Studies. 15(1): 118-.*

10 *See Annex for a formal derivation of the model as well as its underlying assumptions and qualifications.*

11 *We consider an elasticity of substitution equal to 6 to be of median value (in the range from zero to infinity).*

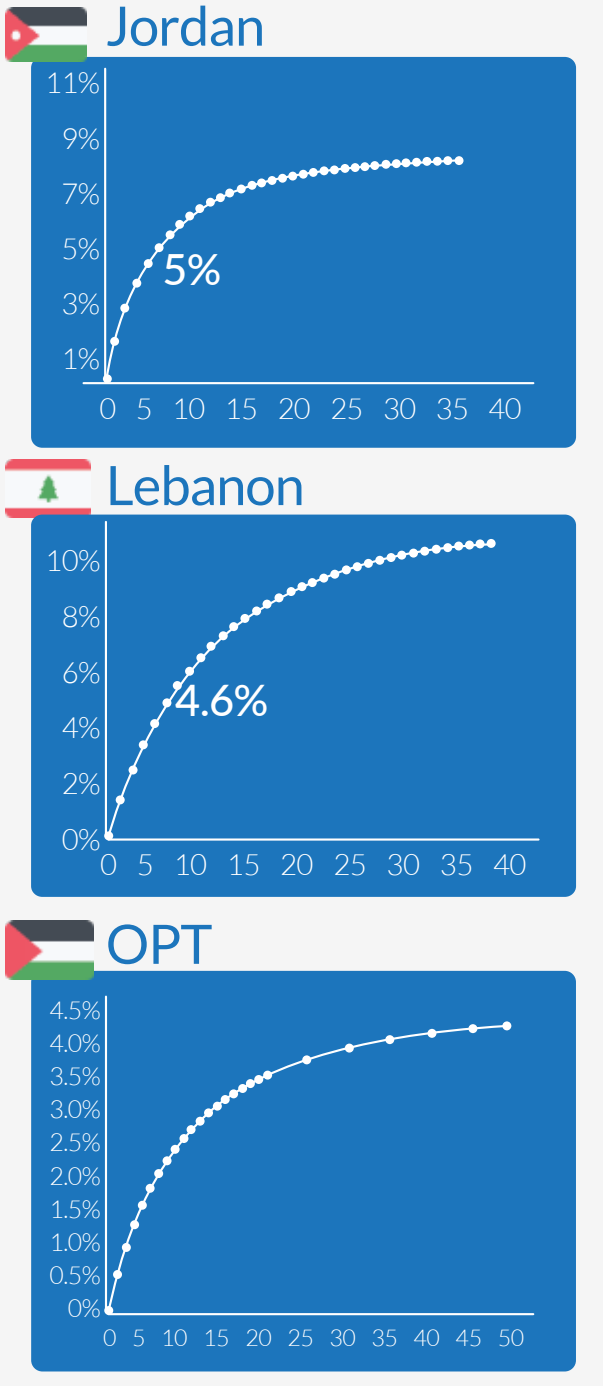
The more important result of the simulation is the increase in GDP. The results are presented in Figure 1, separately for the three countries. The results are based on the data presented in Appendix Tables A-1, A-2b and A-3. The increase is 5 per cent in Jordan, 4.6 per cent in Lebanon and 2 per cent in OPT.

The gain in GDP explains in part why the male wages do not decline substantially. This is because "the size of the pie increases" due to efficiency gains arising from better utilization and higher productivity of women workers. The potential increase in GDP increases as the ease that women workers and men workers can swap jobs increases. In the case of our medium estimate of substitutability, the increase for Jordan can be of the order of almost US$ 1.9 billion, for Lebanon US$ 2.3 billion and for OPT US$ 260 million .

For comparison, Table 4 compares the estimates for our three countries with averages from different regions derived from the same methodology. Though the gains are small for OPT, for Jordan and Lebanon the female wage gains are generally higher and the decrease in male wages lower than in the comparators. Output gains are also among the highest for these two countries.

Importantly, these gains can be achieved with little reshuffling in employment of women and men given the low female labour force participation rate of Arab women: As Column 4 in Table 4 indicates, 25 per cent of the global labour force would need to change sectors to achieve gender equality in pay within each sector of the economy. In the case of our three countries, this percentage is nearly half that in OPT (12 per cent) and Jordan (14 per cent) reaching only 20 per cent in the case of Lebanon.

Figure 1: Increase in GDP from the sex integration in the labour market as the ease of substitution between female workers and male workers increases (horizontal axis: value of the elasticity of substitution)



Source: Author's estimates

12 *The nominal GDP of the three countries around 2015 was US$ 38 billion in Jordan, US$ 50 billion in Lebanon and US$ 13 billion in OPT.*

Still, the size of the reshuffling is high enough to suggest that moving towards full equality is not an instantaneous process – as our model implicitly assumes. It may take considerable time before equality is achieved, probably one and more likely two generations. All in all, the mere size of labour reallocations (the shift of women to men's jobs and vice versa) is not something that can be achieved in the short run given that the main avenue for changes of existing labour market patterns are through annual flows to the labour force, and these are usually only a fraction of the labour force stock.

Given that the process of reaching gender equality takes long time, this implies that the pay of men may not need to decline given that both productivity and output increase during the ordinary course of development. For example, our results (Table 4, column 2) indicate that when women fully substitute men in high pay jobs, male wages may decrease at most by 5 per cent (and less in the case of our three Arab countries). However, wages increase over time – typically by 23- per cent annually. This means that the 5 per cent gradual decrease in male pay, say, over a generation (30 years) it will be fully absorbed by the nearly 100 per cent increase in the general level of wages during this long period. Part of the explanation why male wages will not be adversely affected by much rests on the fact that there will be significant output gains (Table 4, column 3). In other words, a reduction in segregation is not a purely redistributive issue; the "size of the pie" increases with women claiming a bigger share.

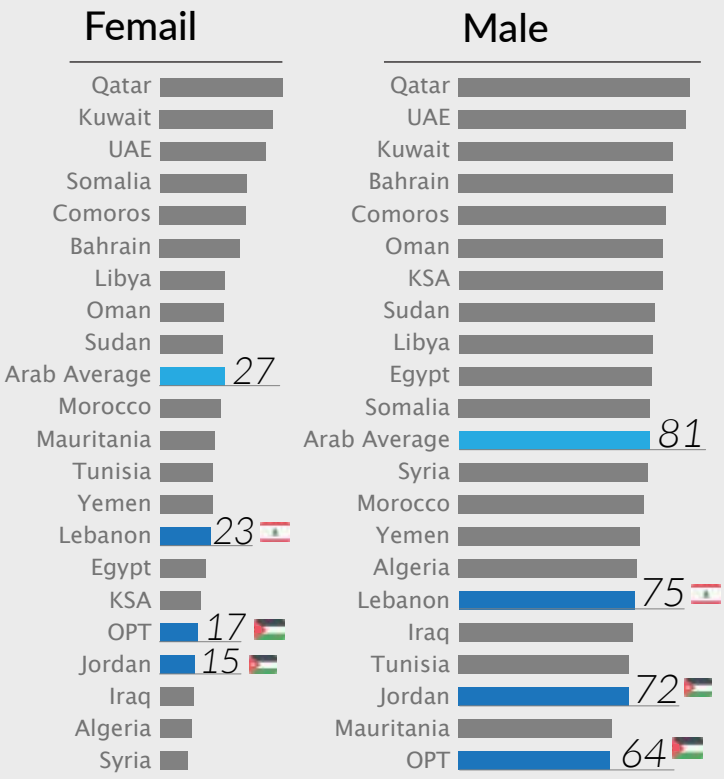
This is a point worth noting because with zero-sum gains the losers (in this case men) may devise strategies for forestalling equality. This phenomenon has been emphasized in the political economy literature and is known as "the reversal rest": Those losing from economic change can bribe the winners and forestall the move toward a more beneficial outcome for the whole society ("Pareto-efficient outcome"). Our results suggest that this does not seem to be the case and that gender equality can be a win-win case.

3. What can happen if the gender gap in labour force participation rate increased?

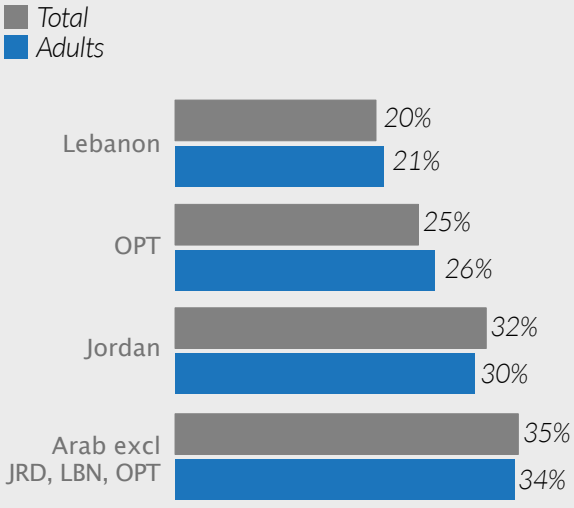
The employment rates in our three countries are among the lowest in the Arab region (Figure 2, top panels). This is true for both women and men.

Moreover, even within Jordan, Lebanon and OPT, women's employment rate is much lower than men compared to other Arab countries. The relative (female/male) employment rate is only one-fifth in Jordan, one-quarter in OPT and one-third in Lebanon (Figure 2: bottom panels).

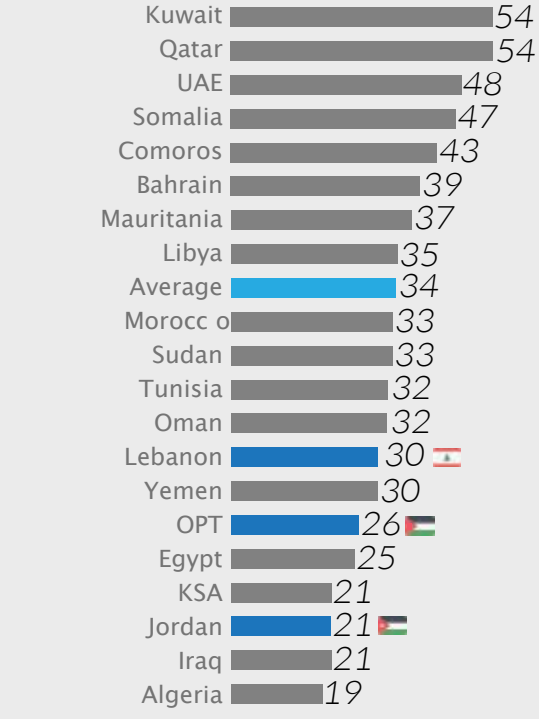
Figure 2: Employment Rates in Arab Countries, Jordan, Lebanon and OPT (2015 or latest)



Relative (f/m) employment rate (adult, total)



Relative (f/m) employment rate (by country)l)



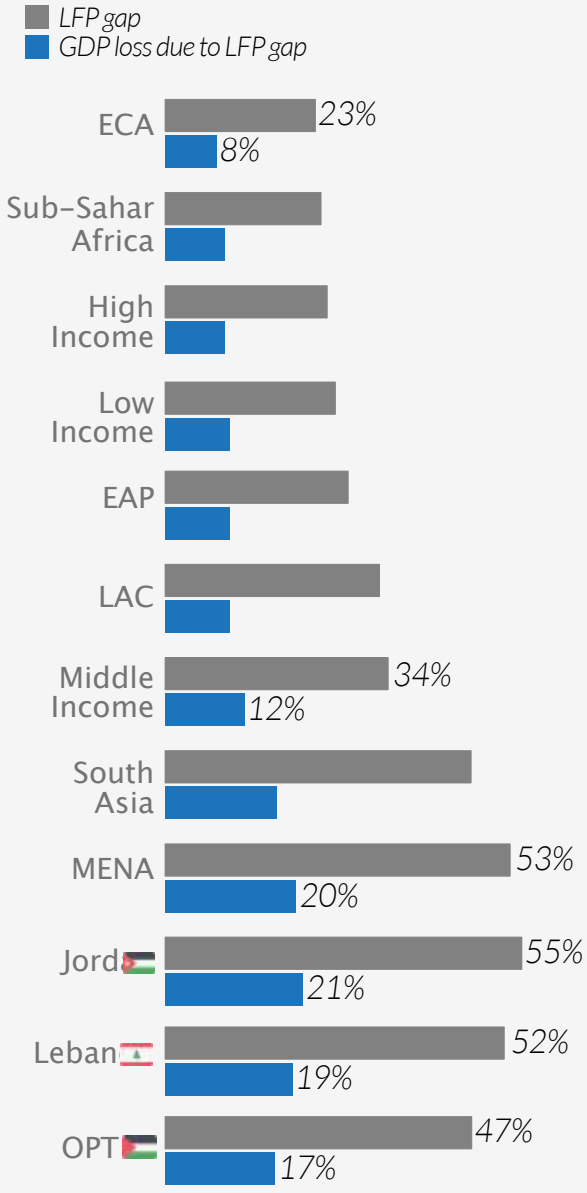
Source: ILO KILM database

The low female participation rate of women in our three countries, and more generally among Arab women, can have significant adverse economic effects to the extent that it arises from discrimination and exclusion. Figure 3 presents again upper bound estimates of the potential loss due to gender gaps in the labour force participation in an international context. The gender gap is always the higher of the two bars indicated for each country. For example, in the case of Jordan the figure 55 represent the difference in percentage points between the male and female participation rates, while for Lebanon the difference is 52 percentage points and for OPT 47 percentage points.

The lower bar for each country indicates the amount of output (GDP) lost because fewer women than men work. Alternatively, it means that, if the labour force participation rate for women was equal to that of men, incomes would increase by that amount. This translates to 21 per cent loss (potential gain) in the case of Jordan, 19 per cent for Lebanon and 17 per cent for OPT . In terms of dollar amounts of GDP (see footnote 12), the potential gain for Jordan comes to US$ 8 billion; for Lebanon US$ 9.5 billion and for OPT US$ 2.2 billion. These gains would require increases in the female labour force participation rates by 55 percentage points in Jordan, 52 percentage points in Lebanon and 47 per cent in OPT.

Note that the above estimates of output loss are purely the result of low female labour force participation. They do not take into account shortfalls in access to entrepreneurship that comes with the lower participation of women in the labour force. Entrepreneurship can be restricted because of lacks of access to education, occupations, industrial sectors, formal employment, productive inputs, political representation, and bargaining power inside the household and so on. There are no useful data to undertake this exercise for Jordan, Lebanon and OPT but Cuberes and Teignier (2012) estimated the loss arising from the entrepreneurship gap in the MENA region averages 7 per cent. This figure may not be far off what might be applicable to our three countries. If this is the case, then totally eliminating the dual gap in entrepreneurship and labour force participation may boost GDP by around 28 per cent in Jordan, 26 per cent in Lebanon and 24 per cent in OPT. In this case, the combined losses increase to US$ 10.6 billion for Jordan, US$ 13 billion for Lebanon and US$ 3.1 billion for OPT.

Figure 3: Income loss due to labour force participation gap by world region (2010s) and Jordan, Lebanon and OPT (2014)



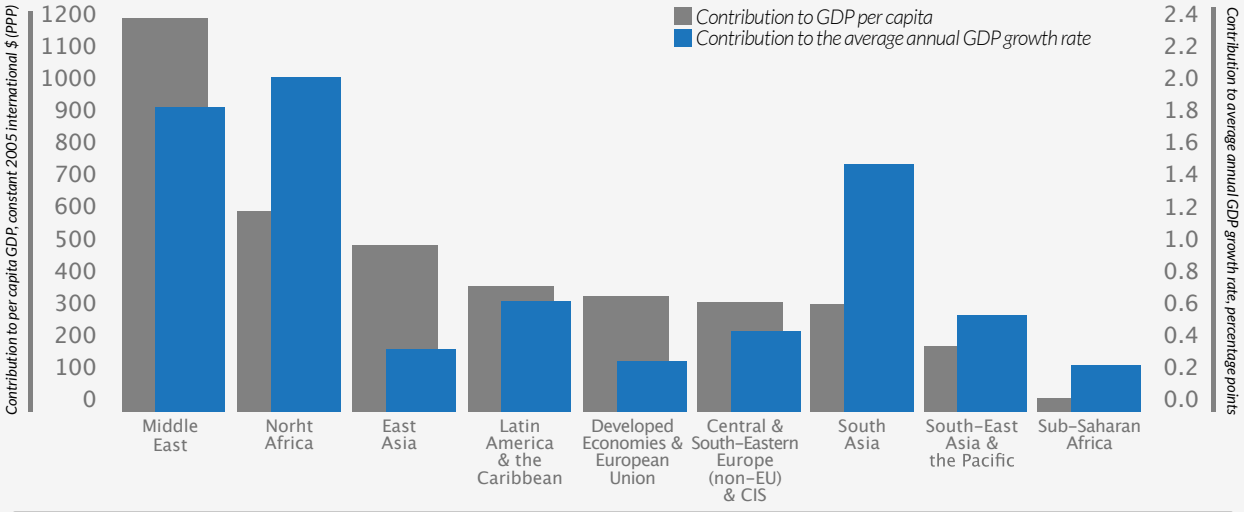
Source: Author's estimates for Jordan and OPT; for the others see David Cuberes and Marc Teignier (2012). Gender Gaps in the Labour Market and Aggregate Productivity. Department of Economics, University of Sheffield Economic Research Paper Series Number: 2012017-.

How do the estimates for out three countries compare to those elsewhere? The ILO has estimated the output gains (GDP) and impact on economic growth rates from reducing the gender participation gap by 2030 . It did so by assuming an ideal gender gap in employment-to-population ratios equal to the median gap in 2012 across all countries in the European Union and North America that came to be nearly 12 per cent and was equivalent to the observed gap in the Netherlands. Countries with a wider gap were assumed that would drop half way towards the aforementioned median over the next five years. It was also assumed that the labour productivity for the additional women workers would be lower than the average productivity in the economy. This was premised on the law of diminishing returns and also on the presence of gender segregation in employment. That is, many women work in lower-productivity sectors and/or part-time and also face institutional constraints of all which result in lower than average productivity. Accordingly, each country's average productivity was multiplied by three factors all less than one that produced an adjustment of 0.512. This was derived by assuming multipliers of 0.8 each due to diminishing returns, segregation and part-time employment.

Globally, the result of this simulation produced a global gain of US$1.6 trillion in output (measured in PPPs) from closing the gender gap in labour force participation rates. The regional estimates are presented in Figure 4.

In South Asia, GDP would increase by US$516 billion if the gap dropped from 48.1 to 29.4 percentage points between 2012 and 2017. If the gender gap dropped in Latin America and the Caribbean from 26 to 17.2 percentage points, there would be US$223 billion in additional GDP in the same 5-year period. If the gap dropped in the European Union and Developed Economies from 13.2 to 12.1 points over the same period, there would an increase in GDP of US$159 billion. However, if the gap in the Middle East and North Africa dropped from 50.6 to 30.6 percentage points, the output gain would have been US$415 billion that amount to no less than one-quarter of the total global losses despite the fact that region accounts for only 5 per cent of the world population (and an even lower share of employment due to the youthful population and low labour force participation rate of Arab women).

Figure 4: Potential contribution to per capita GDP and to GDP growth



Source: ILO (2012) based on ILO Trends Econometric Models and International Monetary Fund, World Economic Outlook Database, July 2012; World Bank, World Development Indicators 2012

13 Estimates for output loss for our three countries are extrapolations based on the international results included in Appendix Table A-4. Thus the figures for Jordan, Lebanon and OPT were estimated by applying the gender gap in participation rate of working age Jordanians, Lebanese and Palestinians excluding students to the polynomial $y = 0.6764x^3 - 0.1072x^2 + 0.157x + 0.0472$ *that was empirically found to fit best the international estimates* ($R^2 = 0.98$)

14 See ILO (2012).

Our estimates for the three countries suggest that effect on output arising from the gender gap in labour force participation rates would be around 20 per cent. The aforementioned ILO estimate for the region (US$415 billion) can be compared to the reported total regional output of US$2.3 trillion at the time . The ratio of the former over the latter comes to 18 per cent which is close to ours with one difference. Our results assume total elimination of the gender gap that may take one or two generation to be achieved, if not longer. The ILO estimates are based on achieving an ideal gender gap in employment-to-population ratios over a five year period, which would be equal to the median gap across high income countries.

Incidentally, in terms of impact on the economic growth rate, again the Middle East and North Arica lead the world table followed by South Asia where the female labour force participation rate is the second lowest in the world by still higher by around 50 per cent than in the Middle East and North Arica region. All in all, under the ILO assumptions and estimates, the contribution of more working women to economic growth would be 1.8 per centage points in the Middle East and 2 per cent in North Africa .

15 In 2010 global output in PPP was estimated at US$69.3 trillion while that in MENA was US$2.3 trillion (World Bank, 2010).

16 Our model does not estimate the impact of the gender gap on the economic growth rate as the predicted results fully take place only in the long run (effectively: infinity).

4. Discussion and Qualifications

The quantitative answers to the three questions posed in this paper assume that women are as capable as men in the labour market, are interested in "being and working" as men in the labour market and are not subjected to discrimination and exclusion either within the family and the private sphere or the labour market and more generally the society. Thus a prerequisite for achieving complete gender equality as visualized in the present paper is not just the removal of what is commonly the focus of the gender discrimination literature, that is, "labour demand" discrimination. This would also require the removal of all other barriers for women in private life and public life, before and after women join the labour market.

In other words, the results of the current exercise are indicative of what can happen in the long run if (1) women and men are equally endowed with human capital, (2) there is no employer discrimination, (3) family constraints are no more binding upon women than men, and (4) the gender specific effects of social norms and other institutional factors have withered away.

The quantitative answers that were presented in the paper are simulated upper bounds. In fact, at least historically so far no country has labour market indicators that are equally shared between the sexes, even in the most gender-advanced countries. So, even if institutionalized and societal discrimination in Jordan, Lebanon and OPT were completely eliminated, full equality is not likely to emerge in the foreseeable future. For example, though there are no innate differences of substance that make women less productive than men, if family activities are chosen by women more often than men and this results in a reduction in the accumulated work experience over the lifecycle, then women may have different career paths and pay.

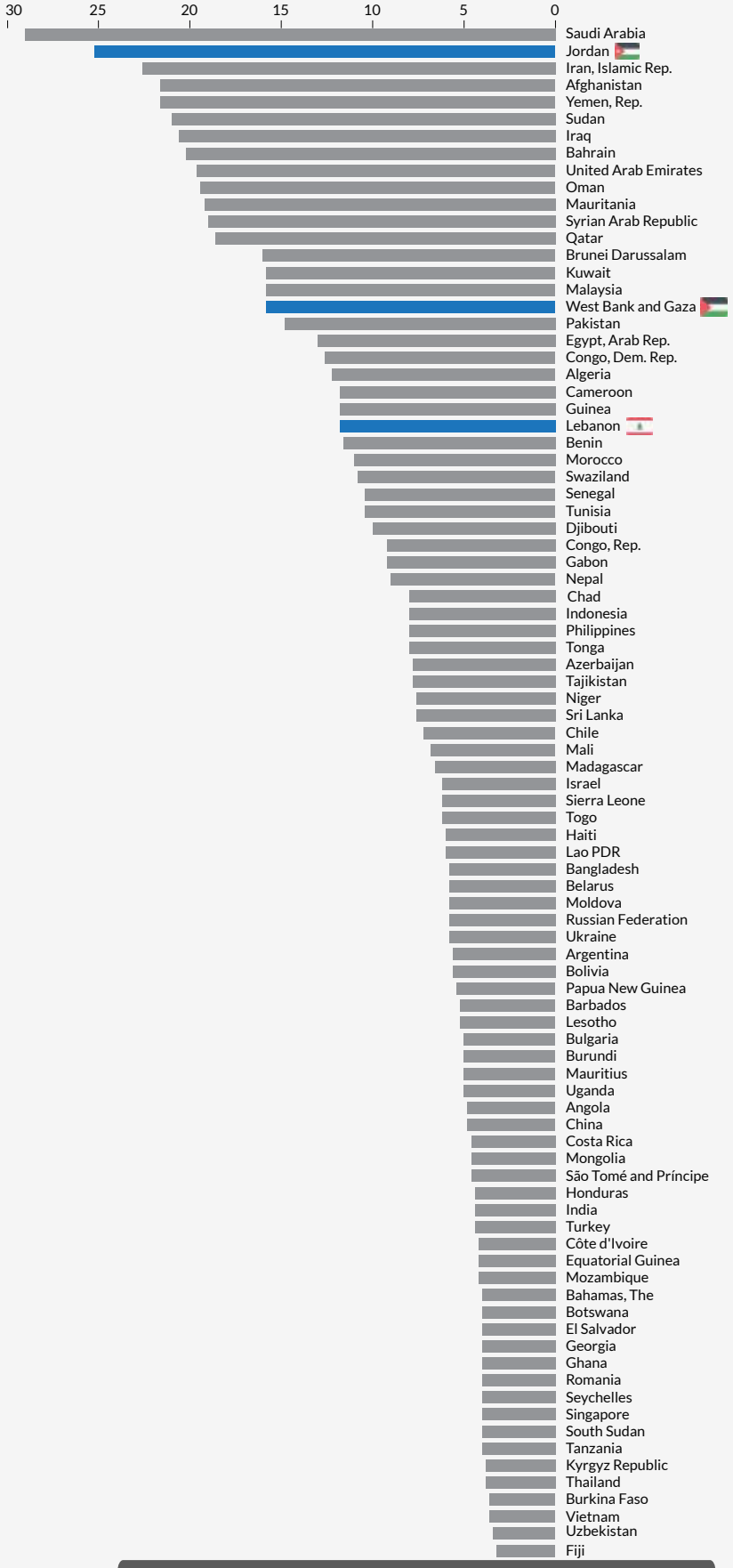
Finally, changes in the labour market are notoriously slow as they tend to change mainly through new entrants that are only a fraction of a large stock consisting of many previous generations. The international experience suggests that institutional improvements alone are not able to improve the position of women in the labour market. Economic forces are very powerful not only in the direct way they operate in the labour market but also in their indirect effects within families. Increasing incomes over the ordinary course of development implies less pressure on additional household members to work. This was the case even in industrialised countries till well after World War II when the representative household was visualized to be made of a breadwinner husband and his housewife.

A key determinant for increasing the female labour force participation is increasing levels of female wages: the positive price effect arising from higher wages dominates the negative income effect arising from economic growth. In Jordan wages are low even for men – hence the high emigration rates. In plain terms, the economy is not generating enough jobs, especially decent ones, which would meet the aspirations of the increasingly educated Jordanian women. Work fetches few benefits for the citizens in our three countries at present. Except for the highly educated, work is not that attractive unless they are in great need for small amounts of additional income. To the extent that Arab countries remain a low productivity/ low wage economies, they are unlikely to attract many women in the labour market and therefore benefit from a more extensive and deeper utilization of women's human capital that would accelerate the pace of economic growth.

There are obvious areas that can be addressed so that gender gaps are reduced in Jordan, Lebanon and OPT and more broadly in the Arab region. For example, notwithstanding recent and notable developments in Jordan, a recent report lists Jordan as the country with the highest number of legal provisions that have sex

specific references (except Saudi Arabia: Figure 5). The situation is relatively better for OPT and Lebanon but not by much. Examples of these differences include the right to apply for passport, ability to be head of household, choice of where to live, conferring citizenship to children, getting a job without permission and travel. In fact, all 16 Arab countries included in the report by the World Bank (2016) were in the 30 economies with ten or more legal differences[17].

Number of Legal Differences by Country, 2014



Source: World Bank (2015) Women, Business and the Law 2016. Washington DC: World Bank.

17 The 16 countries were Algeria, Bahrain, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia, UAE, OPT, and Yemen.

5. Summary and Conclusions

There has been an increase in the gender dissimilarity of employment in Jordan over time as evidenced from the Duncan Index for industries from 2001 to 2014. Based on the index, if Jordanian women and Jordanian men were to achieve the same broad industrial distribution of employment, around 90,000 from one sex should swap occupations with the same number of workers of the other sex. This number also applies to Lebanon. In the case of OPT, there has been a reduction in the value of the Duncan index over time but, still, 60,000 of women would need to swap occupations with the same number of men. While these numbers are small compared to male employment in these two countries (around 8 per cent in each one), it represents almost half of female employment in Jordan and one-third in OPT.

Second, our simulation model suggests that women will benefit a lot from the sex integration of the labour market while men's wages need not be reduced. The required of reshuffling that would be required for complete gender equality in the labour market is so large that it may take a generation, if not more, to be achieved.

Third, a big deficiency in the labour markets of the three Arab countries examined in this paper arises certainly from the low employment rates of women but also from the low employment rates of men. An implication of this finding is that the economy does not generate enough jobs, not just for women but also for men. This result is generally applicable to other Arab countries that have more or less the same labour market characteristics as those in the three countries examined in this paper. Adding to the low employment rates of Arab women and Arab men the previous two findings (that is, employment segregation and wage differences) implies that the income and output losses estimated in this paper are bound to increase further in the future as Arab women's participation in the labour force increases. In the dire times the Arab region currently faces, more and better use of female workers may prove to be one of the strongest drivers for economic growth and social development.

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Statistical Appendix

Wage data in Jordan are published in the form of wage brackets by sector. This was addressed by taking the midpoint of each wage bracket with the exception of the top one (above JD 500/month) that was assumed to be JD 750 for women and JD 1,500 for men. The classification of occupations and economic activities changed in 2004 and the 2001 were adjusted accordingly to match the 2014 classification. The employment data by industry for OPT include all workers. The wage data are daily and apply to employees only.

Appendix Table A-1: Jordan, Occupational Employment Distribution and Wages, 2001 and 2014

2001	Women		Men	
	Employment	Wages	Employment	Wages
Legislators and senior officials and managers	196	277	5,570	906
Specialists	43,152	236	103,977	508
Technicians and specialists assistants	38,425	169	70,855	259
Support clerical Staff	14,671	172	58,489	230
Sales and service workers	9,621	130	133,069	211
Skilled workers in agriculture, forestry and fishing	1,349	95	21,699	182
Crafts and related occupations	9,892	93	149,082	160
Plant and machinery operators and assembly workers	1,358	86	122,039	171
Workers in elementary occupations	9,846	107	126,766	144
Total	**128,510**	**177**	**791,545**	**233**
Relative (female to male)	Employment 16.2 %		Wages 76.0%	

2014	Women		Men	
	Employment	Wages	Employment	Wages
Legislators and senior officials and managers	3,482	535	4,665	1109
Specialists	118,760	405	187,813	739
Technicians and specialists assistants	26,617	364	65,619	528
Support clerical Staff	13,285	315	48,499	471
Sales and service workers	15,630	282	374,568	389
Skilled workers in agriculture, forestry and fishing	446	164	18,304	376
Crafts and related occupations	6,404	224	183,470	362
Plant and machinery operators and assembly workers	57	340	147,503	373
Workers in elementary occupations	13,144	235	58,423	300
Total	**197,823**	**368**	**1,088,865**	**453**
Relative (female to male)	Employment 18.2 %		Wages 81.2%	

Source: Provided by Ministry of Labour, July 2015

Appendix Table A-2a: OPT Industrial Employment Distribution by Sex, 2002 and 2014

Industry	2002 Males	2002 Females	2002 Males	2002 Females
Agriculture, Hunting & Fishing	12.4	30.3	8.2	20.9
Mining, Quarrying & Manufacturing	13.7	8.1	13.2	9.8
Construction	12.8	0.2	18.4	0.7
Commerce, Hotels & Restaurants	22.3	7.2	22.3	10.3
Transportation, Storage & Communication	6.5	0.4	6.3	1.3
Education	7.0	30.5	5.9	30.9
Health	3.1	9.4	2.4	8.5
Services & Other Branches	22.3	14.0	23.3	17.6
Total (%)	**100.0**	**100.0**	**100.0**	**100.0**
Total (no.)	**397,966**	**77,827**	**756,347**	**161,793**
Relative (female to male) employment	19.6%		21.4%	

Appendix Table A-2b: Industrial Employment and Hourly Wages by Sex, 2014

Sector	Women Employment	Women Wages	Men Employment	Men Wages
Agriculture, Hunting & Fishing	34,944	63	63,189	74
Mining, Quarrying & Manufacturing	12,533	46	89,458	89
Commerce, Hotels & Restaurants	12,385	48	155,487	77
Transportation, Storage & Communication	1,622	77	53,959	88
Education	47,919	89	41,179	112
Health	13,122	85	20,590	118
Services & Other Branches	24,181	86	163,296	94
Total / average	***146,706***	**75**	**587,157**	**88**
Relative (female to male)	Employment 25.0%		Wages 85.2%	

Note: Excludes construction where employment is almost exclusively male.
Source: Palestinian Central Bureau of Statistics

Appendix Table A-3, Lebanon Employment and Wages, 2012

	Women		Men	
	Employment	Wages	Employment	Wages
Agriculture	14	370	45	1,012
Industry	25	711	131	1,130
Trade	66	704	222	1,085
Transport, post and telecommunications	4	652	75	983
Services	263	833	336	1,152
Others*	30	1432	115	1,139
Total	**402**	**831**	**924**	**1,112**
Relative (female to male)	Employment 43.5%		Wages 74.7%	

** Financial intermediation, insurance and construction. There were 99,000 men in construction and another 16,000 in finance and insurance in 2012; the combined number of women was too small to be reported separately*
*** The figures for the transport, post and telecommunication sector have been extrapolated from the 2009 data assuming relative (female/male) pay remained the same and the share of women in the sector to total female employment also remained the same.*

Source: Data provided by Central Administration of Statistics based on the Household and Budget Survey 2011- 12

Appendix Table A-4: Income loss due to gender gaps in entrepreneurship and labour force participation rates, by income group and region

Income	N	Ent. gap 1	Ent. loss 2	Ratio 14/2	LFP gap 3	LFP loss 4	Ratio 3/
Low income	10	0.53	0.05	9.4%	0.26	0.10	38.5%
Lower Middle	25	0.58	0.05	8.6%	0.34	0.12	35.3%
Upper Middle	23	0.56	0.05	8.9%	0.34	0.12	35.3%
High income	30	0.64	0.06	9.4%	0.25	0.09	36.0%
Total / Average	**88**	**0.58**	**0.05**	**9.1%**	**0.30**	**0.11**	**36.3%**
Region	N	Ent. gap 1	Ent. loss 2	Ratio 14/2	LFP gap 3	LFP loss 4	Ratio 3/
EAP	12	0.53	0.05	9.4%	0.28	0.10	35.7%
ECA	33	0.63	0.06	9.5%	0.23	0.08	34.8%
LAC	20	0.54	0.05	9.3%	0.33	0.10	30.3%
MENA	8	0.77	0.07	9.1%	0.53	0.20	37.7%
South Asia	5	0.60	0.05	8.3%	0.47	0.17	36.2%
Sub–Sahara Africa	9	0.44	0.04	9.1%	0.24	0.09	37.5%
Total / Average	**87**	**0.59**	**0.05**	**8.9%**	**0.39**	**0.14**	**35.4%**

Notes:
1/ Data are from ILO and World Bank
2/ The gaps are expressed as differences in the respective ratios of women and men; the per centage losses are expressed in terms of per capita incomes
3/ The average for MENA includes six Arab countries (Algeria, Morocco, Oman, Qatar, Syria and UAE)

Source: David Cuberes and Marc Teignier (2012). Gender Gaps in the Labour Market and Aggregate Productivity. Department of Economics, University of Sheffield Economic Research Paper Series Number: 2012- 017.

Annex 1:
Differences between the West Bank and the Gaza Strip

The aggregate statistics for OPT mask significant difference in the gender characteristics and trends in the labour market between the two regions, the West Bank and the Gaza Strip. These differences are summarized below as shown in Appendix Table A-5.

The total employment growth between the two areas was almost the same, by 95 per cent in the West Bank and 87 per cent in the Gaza Strip. However, female employment increased much faster in the Gaza Strip than on the West Bank. In 2002 relative (female to male) employment in the Gaza Strip was almost half that in West Bank (12 per cent compared to 23 per cent). But 2014 this indicator was practically the same in the two areas with that in the West Bank having declined (by 4 per cent) while that in the Gaza Strip increased significantly by 71 per cent.

The extent of dissimilarity as measured by the Duncan Index has been higher in the Gaza Strip than in the West Bank in both periods. The difference increased over time as the index increased in the former from 0.530 to 0.559 while it declined from 0.472 to 0.418 in the West Bank.

Appendix Table A-5
Gender Differences in Employment between West Bank and Gaza Strip

	West Bank		Gaza Strip		(%) Changes	
	2002	2014	2002	2014	Gaza Strip	West BANK
Duncan	0.472	0.417	0.530	0.559	%12-	%5
Employment (all)	342,828	668,259	132,964	249,065	%95	%87
Employment (male)	279,361	549,073	118,605	206,353	%97	%74
Employment (female)	63,467	119,186	14,359	42,712	%88	%197
Relative (f/m) employment	%23	%22	%12	%21	%4-	%71
Reallocations no. (all)	48,770	81,673	13,577	39,563	%67	%191
Reallocations % (all)	%14	%12	%10	%16	%14-	%56
Reallocations % (m)	%9	%7	%6	%10	%15-	%67
Reallocations % (f)	%38	%34	%47	%46	%11-	%2-

Source: Author's calculations based on Appendix Table A-2a.

The changes in the value of the Duncan index and employment have had a direct effect on the required reallocations. In the West Bank the number of reallocations (women and men) increased from nearly 49,000 to 82,000 but this had little effect on reallocations as share of the total labour force (from 14 per cent to 12 per cent) or of male and female employment. By contrast, the reallocations tripled in the Gaza Strip from 13,500 to just under 40,000. Given that female employment increased very fast, this had little effect on the share of misallocated women workers. However, the effect on men has been significant as reallocation as share of the male labour force increased by 67 per cent.

All in all, gender differences seem to be more sizeable in the Gaza Strip and have increased over time. In other words, gender differences seem to inflict potentially greater losses in the labour market of the Gaza Strip.

Annex 2: *The Simulation Model*

The model that was used in section 2 assumes that in each sector, say industry i (omitted for notational simplicity) output is given by a function[17]:

$$Y = f(L_m^m, L_m^f)$$

Where Y = output in industry i; L = labour in industry i; and superscripts m, f refer to male and female labour respectively that are employed initially in completely segregated occupations.

On the assumption that all factors of production other than male and female are fixed, these other factors are not introduced explicitly into the production function.

Secondly, it is assumed that in each industry each occupation is paid its marginal product:

$$w^s = Y / L^s$$

where $s = m$ or f

The problem now is to find the optimal amount of labour, levels of wages and output if reallocation of female labour is allowed from the female occupations to the male occupations, such that:

$$Y^* = f(L^{m*}, L^{f*})$$

$$w^{m*} = w^{f*}$$

$$L^{m*} + L^{f*} = L^m + L^f$$

where the asterisk indicates the new (optimal) value of the appropriate variable.

To solve the system of equations (3) to (5) we assume that within each industry the different occupations can be aggregated into a constant elasticity of substitution production function of the form:

$$Y = A[L^m + L^f]^{1/}$$

Where is a parameter which depends on the elasticity of substitution of female for male labour (see below), and are parameters which depend on the nature of the occupation to which women are restricted (the smaller the value of the more rigorous the restriction) and A is a constant which takes into account the contribution to output of factors of production other than labour.

Taking into account condition (2) and the explicit formulation of the production function (equation 6), the system can be solved for the optimal values of labour, wages and output.

The solution is:

$$L^{m*} = [/(+)][L^m + L^f]$$

$$L^{f*} = L^m + L^f \; L^{m*}$$

$$Y^* = w^m[(L^m / L^{m*})/Y]^{+1} L^m + w^f[(L^f / L^{f*})/Y]^{+1} L^{f*}$$

$$w^{m*} = w[L^m / L^{m*}]^{+1}[Y^* / Y]^{+1}$$

$$w^{f*} = w^{m*}$$

where sigma is the elasticity of substitution between female and male labour,

$$= 1/(1+)$$

and and can be estimated from the formulae:

$$= w^m[L^f / Y]^{+1}$$

$$= w^f[L^f / Y]^{+1}$$

18 *For a more detailed presentation see Bergmann (1971) and Tzannatos (1988).*

Annex 3:
Legal differences between married and unmarried women compared to men in terms of business and employment opportunities

	♂	♀
Can a woman apply for a passport in the same way as a man?	NO	NO
	YES	YES
	YES	YES
Can a woman travel outside her home in the same way as a man?	NO	YES
	NO	YES
	YES	YES
Can a woman travel outside the country in the same way as a man?	YES	YES
	YES	YES
	YES	YES
Can a woman get a job in the same way as a man?	NO	YES
	NO	YES
	YES	YES
Can a woman sign a contract in the same way as a man?	YES	YES
	YES	YES
	YES	YES
Can a woman register a business in the same way as a man?	YES	YES
	YES	YES
	YES	YES
Can a woman be "head of household" in the same way as a man?	NO	YES
	N/A	N/A
	N/A	N/A
Can a woman open a bank account in the same way as a man?	YES	YES
	YES	YES
	YES	YES
Can a woman choose where to live in the same way as a man?	NO	YES
	NO	YES
	YES	YES
Can a woman apply for a national ID card in the same way as a man?	YES	YES
	YES	YES
	YES	YES
Do men and women have equal ownership rights to property?	YES	YES
	YES	YES
	YES	YES
Do sons and daughters have equal inheritance rights?		NO
		NO
		NO
Can women and men work the same night hours?		NO
		NO
		YES
Can women and men do the same jobs?		NO
		NO
		NO

	♂	♀
When can one retire and get full pension?	55	60
	60	60
	64	64
Are there tax deductions of credits specific to men/women?	NO	NO
	NO	NO
	NO	NO
Is a woman's testimony afforded equal weight to that of a man in court?	NO	
	NO	
	YES	
Are customary law courts recognized?	NO	
	NO	
	NO	
Are personal law courts recognized?	YES	
	YES	
	NO	
Are wives required to obey their husbands?	YES	
	YES	
	NO	
Do spouses have equal rights to convey citizenship?	NO	
	NO	
	NO	
Does the law provide for valuation of nonmonetary contributions to marital property?	NO	
	NO	
	NO	
Do female and male surviving spouses have equal inheritance rights?	NO	
	NO	
	NO	

:Jordan
:OPT
:Lebanon
:Woman/Unmarried
:Man
:Married Woman

Adapted from:
http://wbl.worldbank.org/~/media/WBG/WBL/Documents/Reports/2016/Women-Business-and-the-Law-2016.pdf