

Trade and women's wage employment: Is North Africa different?

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Main goal of
this paper

How does trade affect women's wage employment in the non-agricultural sector and is the effect different in North Africa?

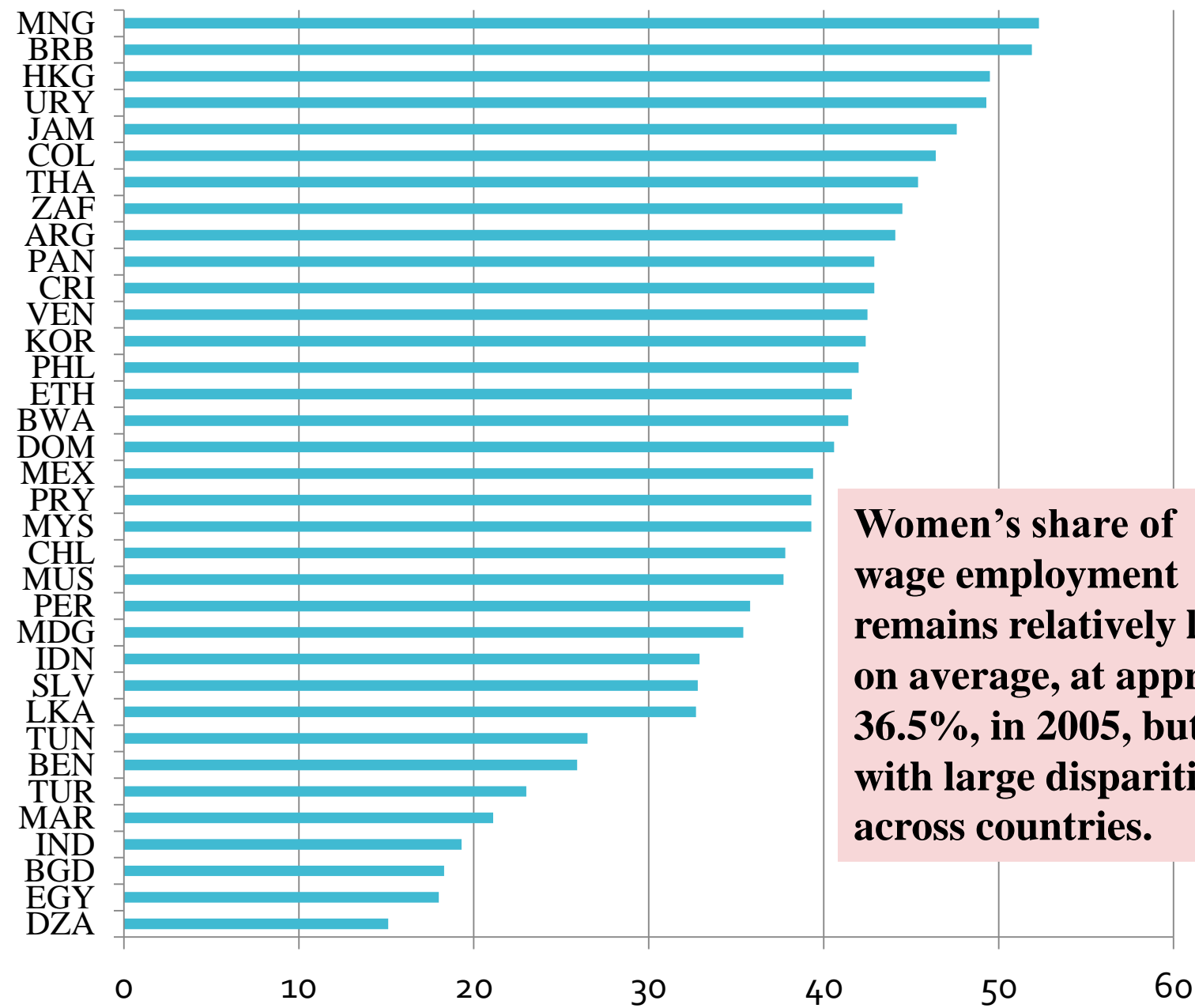
Question arises from the interaction between increased participation in international trade, labor markets, and gender inequality.

Gender equality is critical for achieving SDGs

- SDG5 ['achieve gender equality and empower all women and girls']: Key to attaining most of the other SDGs.
- Worldwide (2017) the **proportion of Women in the labor force is 53.9% versus 80.6% for men.**
- World average female-to-male labor participation ratios (age 15 and older) have remain low and have not changed much for decades (67.4% in 1990 and 67.5% in 2017).
- **MENA:** Female labor force participation is **22%** (in 2017).

Share of women in wage employment (% of total nonagricultural employment), 2010

(Data source: WB-WDI)



Women's share of wage employment remains relatively low on average, at approx. 36.5%, in 2005, but with large disparities across countries.

Note: For Tunisia (TUN), the wage employment share is from 2011.

Trade is expected to have differentiated gender effects

- Pre-existing conditions in labor markets: Beneria and Lind (1995: 1) note that “[g]iven the predominance of labor market segmentation and segregation in production by gender, it makes sense to assume that trade will have a differential impact by gender.”
- Labor markets “are gendered institutions operating at the intersection of the productive and reproductive economies” (Elson , 1999: 611) .

Theoretical Models

Impact of international trade on women's employment and wages

1. Trade-induced competition and wage-discrimination models (Becker, 1971)
2. Human capital models (Galor and Mountford, RESTUD 2008)
3. Technical-change based theoretical explanations (e.g., Acemoglu, RESTUD 2003)
4. Sectoral reallocation of labor models, based on the Stolper-Samuelson theorem (factor-price equalization).

Empirical Literature

Mixed results: Different effects for

- developed and developing countries
- countries at similar levels of development

Kucera (2001) uses data from Germany and Japan in 1970-1996 and finds that expanding trade had a negative impact on women's manufacturing employment in Japan but not in Germany. The author explains the difference by the fact that Germany traded more, relative to Japan, with non-OECD countries.

- same country in different studies

Mexico

- Aguayo-Tellez et al. (2010): trade liberalization policies **increase the relative demand for female workers** within industries and skilled groups.
- Ghiara (1999): **no effect** from the adoption of export-led strategies on women wages in 1987-93.
- Fleck (2001): **negative effect**, using 1997-98 data.
- Juhn et al. (2014) : tariff reductions associated with NAFTA caused new firms to modernize their technologies to be able to enter export markets and **replace male blue-collar workers with female blue-collar workers**.
- Dominguez-Villalobos and Brown-Grossman (2010): **negative impact of trade liberalization on both women's and men's wages but women lose "in both absolute and relative terms"**.

SSA

Wamboye and Seguino (2015) find:

- gendered employment effects of trade liberalization depend on the structure of the economy
- but a country's infrastructure has a key role in gendered labor market outcomes in SSA (since the early 1990s.)

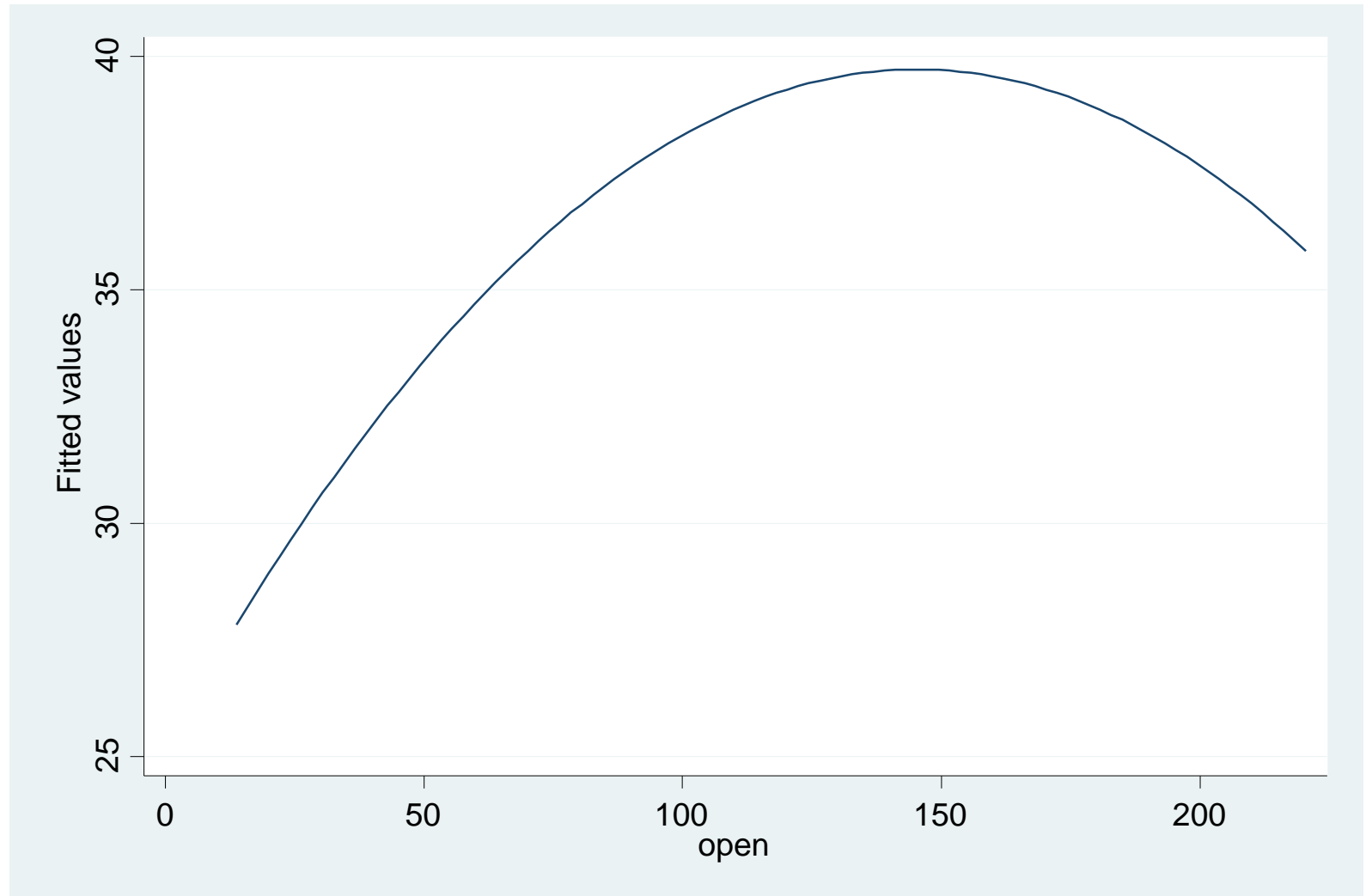
Empirical analysis

- Use panel data (1990-2013) from a large group of developing and emerging economies and fixed-effects and GMM A-B estimator
- Investigate the impact of trade on women's share in wage employment with focus on North Africa

Results:

- Positive impact of the independent effect of trade
- Effects are non-linear
- Effects are not the same for all regions.
 - Results are consistent with the 'MENA gender-equality paradox' (negative impact in North Africa)

Openness and share of women in wage employment



Source: Author's estimation

Openness to trade and women's share in wage employment: Fixed-effects estimates

	(5)	(6)	(7)	(8)
lagged dep. Var.	0.369***	0.368***	0.368***	0.370***
fdi	0.028	0.085	0.072**	0.097***
open	0.107***	0.078**	0.079***	0.095***
NA x open	-0.101***	-0.061***	-0.062***	-0.095***
SSA x open	0.103***	0.086**	0.087**	0.036***
LAC x open	-0.014	-0.0088	-0.009	
fertility		-1.526**	-1.501**	
secfem	0.048***	0.021	0.021	0.049***
open_squared	-0.0005***	-0.0004**	-0.0004***	-0.0005***
open x fdi	0.001	-0.0004		
open x fdi_squared	-0.00002	-0.00001		
obs	470	470	470	470
R-sq: Within	0.56	0.59	0.59	0.56
Between	0.68	0.78	0.77	0.72
Overall	0.63	0.72	0.71	0.66

Openness to trade and women's sharein wage employment: GMM A-B estimates

	(1)	(2)	(3)	(4)	(5)
lagged dep var	0.635***	0.682***	0.506***	0.478***	0.419***
Fdi	0.105***	-0.079	0.121*	0.248***	0.251***
Open	0.011***	0.054***	0.070***	0.052***	0.053***
Fertility	-1.095	-0.632**	-0.908***	-2.042***	-1.002
open x fdi	-0.001***	-0.0007*	-0.0006	-0.003***	-0.003***
Open x fdi_sq	0.0002***			0.0001***	0.0001***
income (log)	0.696***	0.821***	1.673***	4.153***	1.199
NA x open	-0.066***	-0.104***	-0.214***	-0.129**	-0.107***
SSA x open	0.039***	0.013	-0.002	0.013	
LAC x open		-0.039***	-0.046***	-0.047**	-0.022***
open_squared		-0.0001***	-0.0002**		
fdi_sq		0.003			
Secfem				-0.012	-0.008
Time					0.108***
Open*fertility					0.009
Obs	490	490	490	330	330

Summarized
results
(fixed-effects +
GMM A-B
estimates)

Openness to trade and women's share of wage employment

1. Openness to trade has a positive impact on women's share of wage employment but there are diminishing returns.
Critical value at a level of **openness of about 92.5% or 98.75%** of GDP (values are higher than the median and the mean in 2013 which were 65.76% and 75.34%, respectively).
2. Evidence is consistent with the 'MENA gender equality paradox'. **women in North Africa benefit the least. The overall effects seem to be negative.**
3. SSA women seem to benefit more relative to and to women in other regions.

Policy implications

1. MENA/North Africa: Trade liberalization and labor market policies both should take into consideration that adjustment to trade liberalization may force women to move out of paid labor and address this through **interventions that enhance women's skills and eliminate discriminatory practices on the part of firms in the private sector.**
 - Need to identify and address main (incl. cultural) causes
 - Policies that would strengthen women's participation in paid work
 - Some governments may be able to provide trade adjustment assistance **but women are often working at low wages in industries that are competitive, not likely eligible**

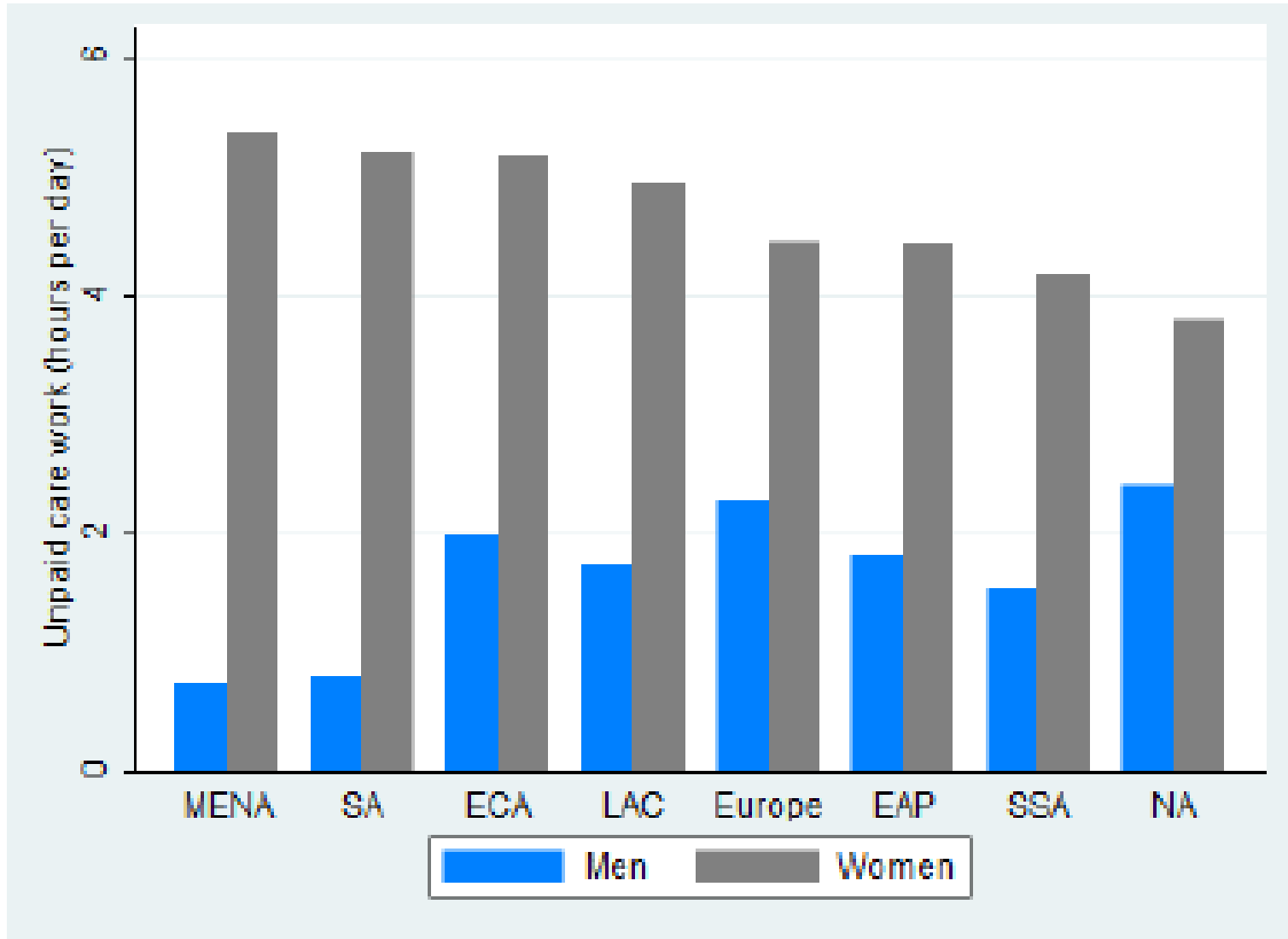
Policy implications

2. Countries with low levels of openness to trade need to have trade reforms that would expand exports and imports **but at the same time ensure that labor markets are not biased** against women.
3. Mainstream gender dimensions into trade policies and trade (and FDI) agreements
 - **quotas** for employment of women in export industries?
 - fully or partially **subsidized training** of female employees to facilitate their promotion to higher-level administrative and production positions
 - clauses in fair trade agreements: include instruments that promote more gender equality, e.g., provisions to have access to **women-friendly infrastructure and transportation**, child care, health care, maternity and paternity leave, and social protection for women and men

Policy implications:

4. Women may be pushed out of the labor force and move into the informal sector or may be forced to allocate more time to unpaid work.
 - Countries where women work predominantly in the informal sector, possibly due to more flexibility in this sector, and in unpaid work, tend to exhibit high fertility rates.
 - Results also show that there is a robust negative effect from fertility to women's share of paid work. This may suggest that lower share of female paid employment is correlated with greater share of unpaid work for women.

Time spent on unpaid care work varies by gender and region



Note: This chart presents the average hours per day spent on unpaid care work by women and men by regions of the world: Middle East and North Africa (MENA), South Asia (SA), Eastern Europe and Central Asia (ECA), Latin America and the Caribbean (LAC), East Asia and Pacific (EAP), Sub-Saharan Africa (SSA) and North America (NA).

Source: OECD (2014), Gender, Institutions and Development Database.

Source of the graph: Ferrant et al. (2014)