GLOBALIZED FIRMS: THE GENDER EMPLOYMENT GAP AND THE TRANSMISSION OF ATTITUDES TOWARDS FEMALE WORK ACROSS COUNTRIES

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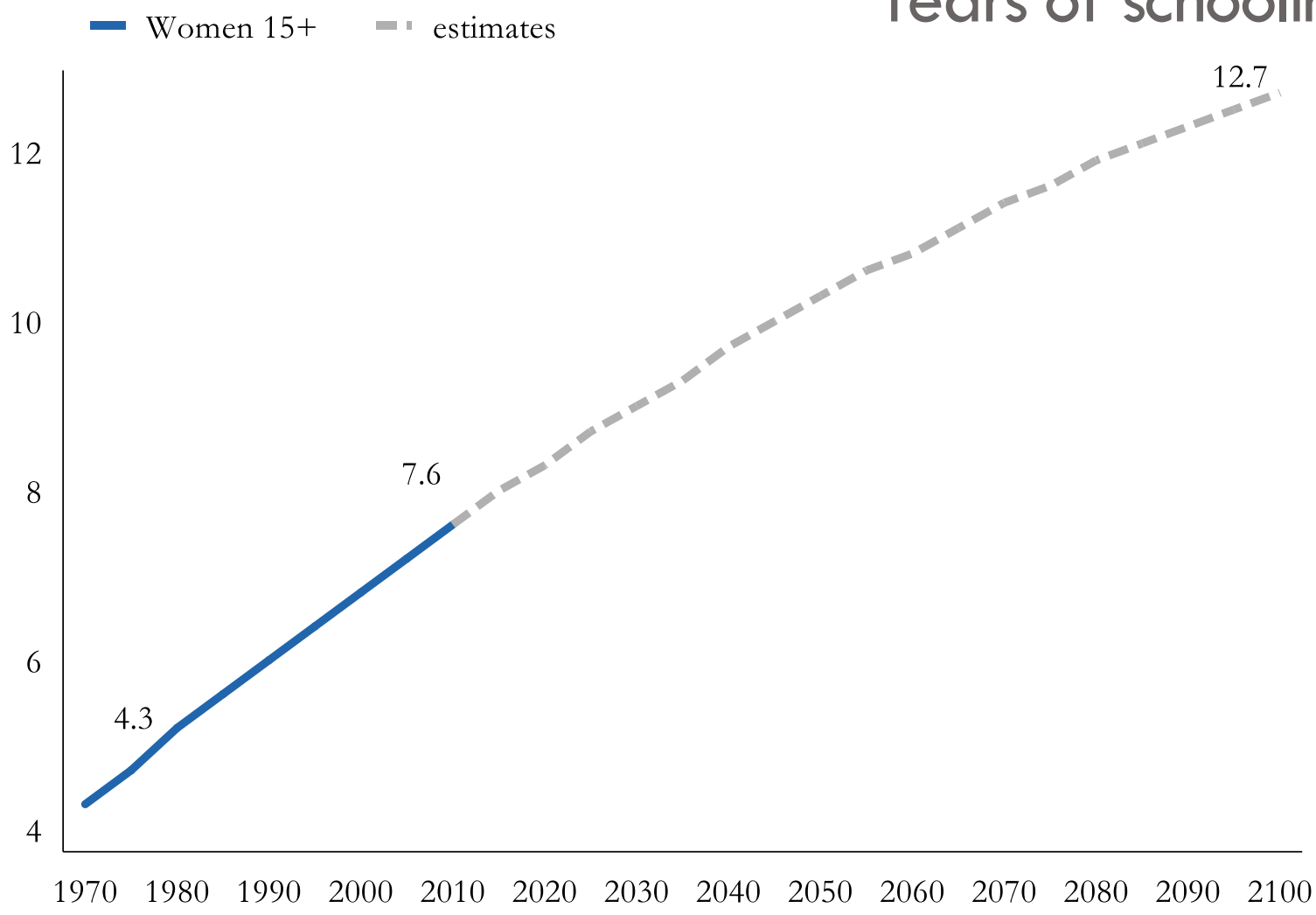
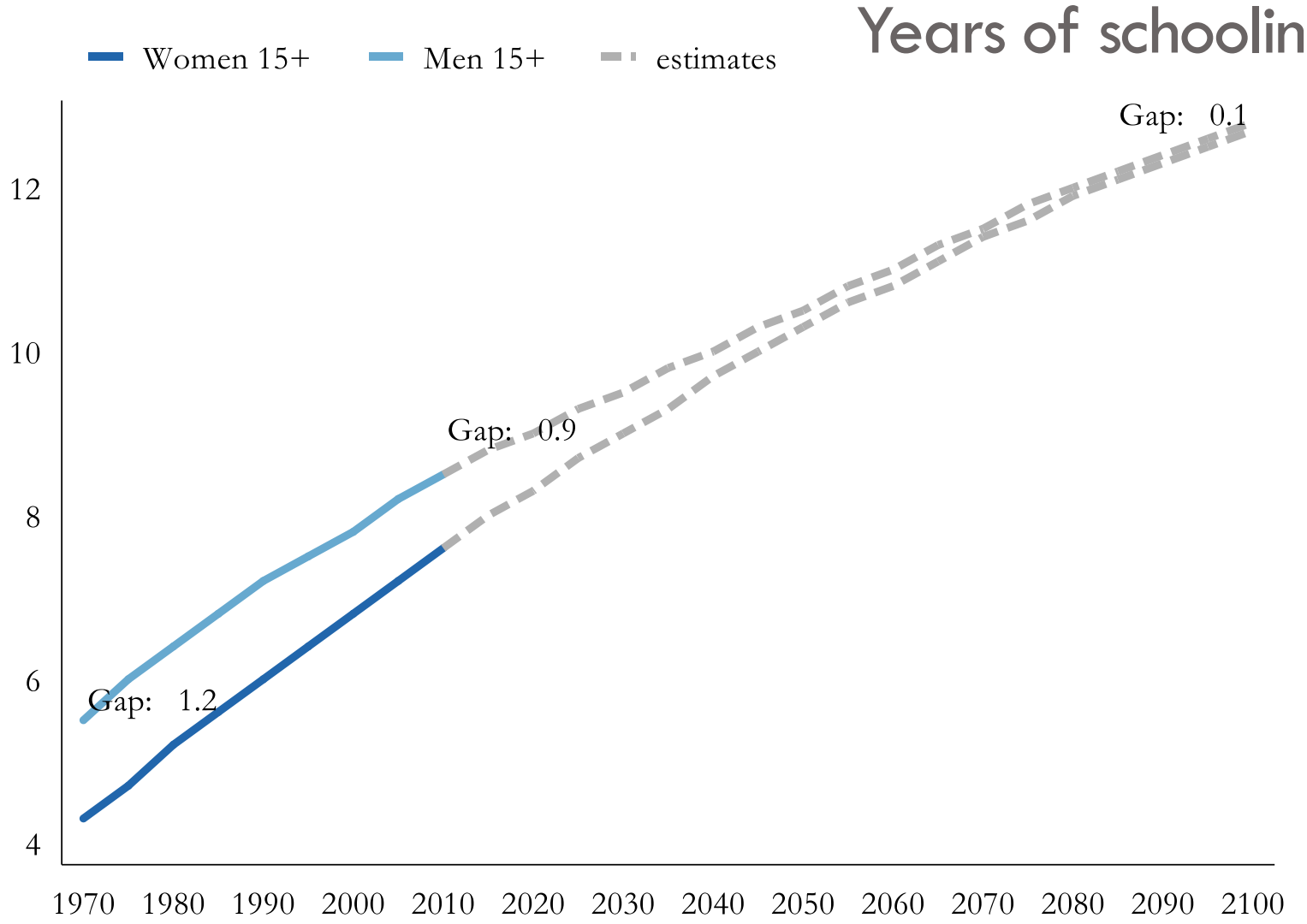
Years of schooling



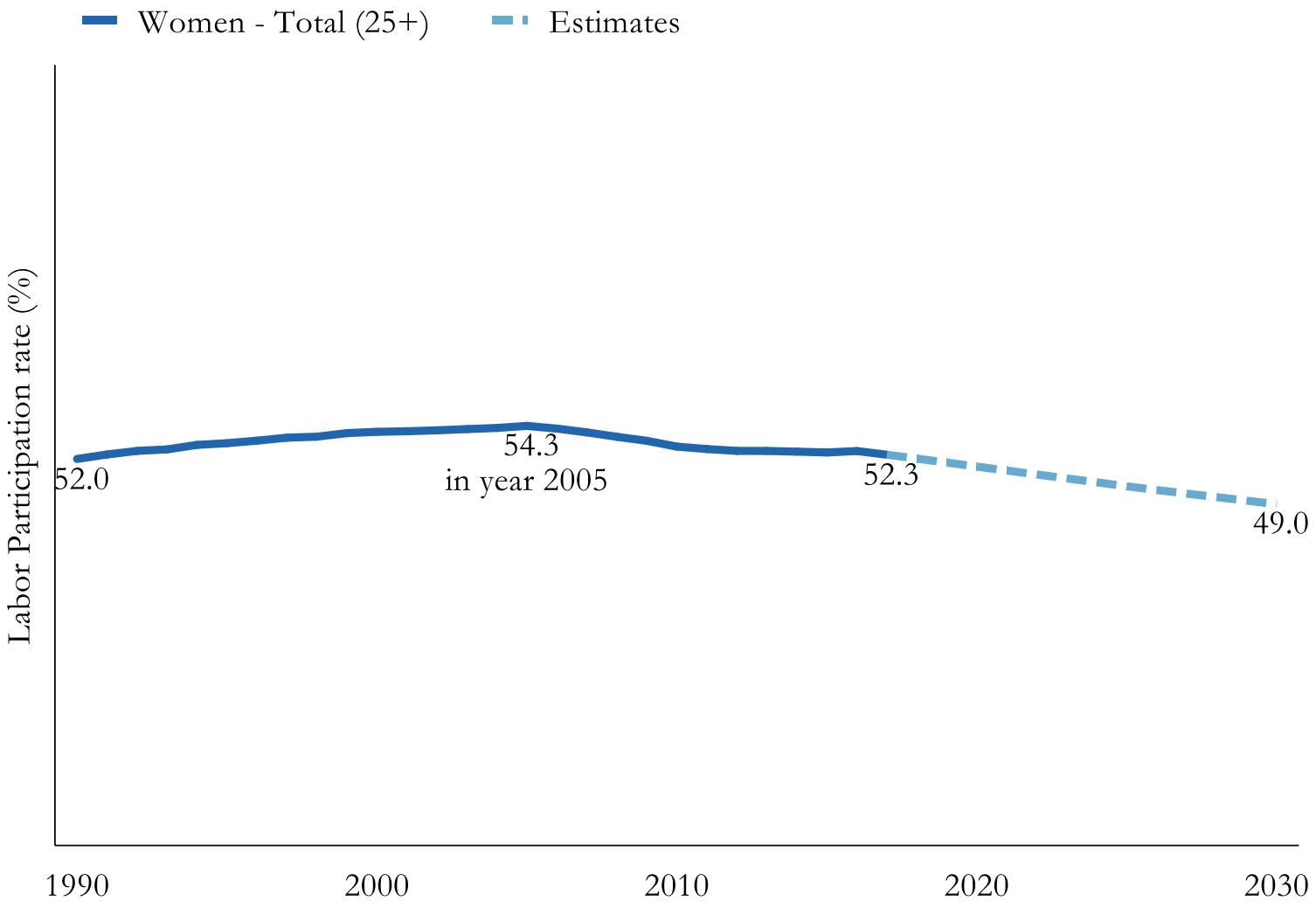
Source: Wittgenstein Centre

Years of schooling



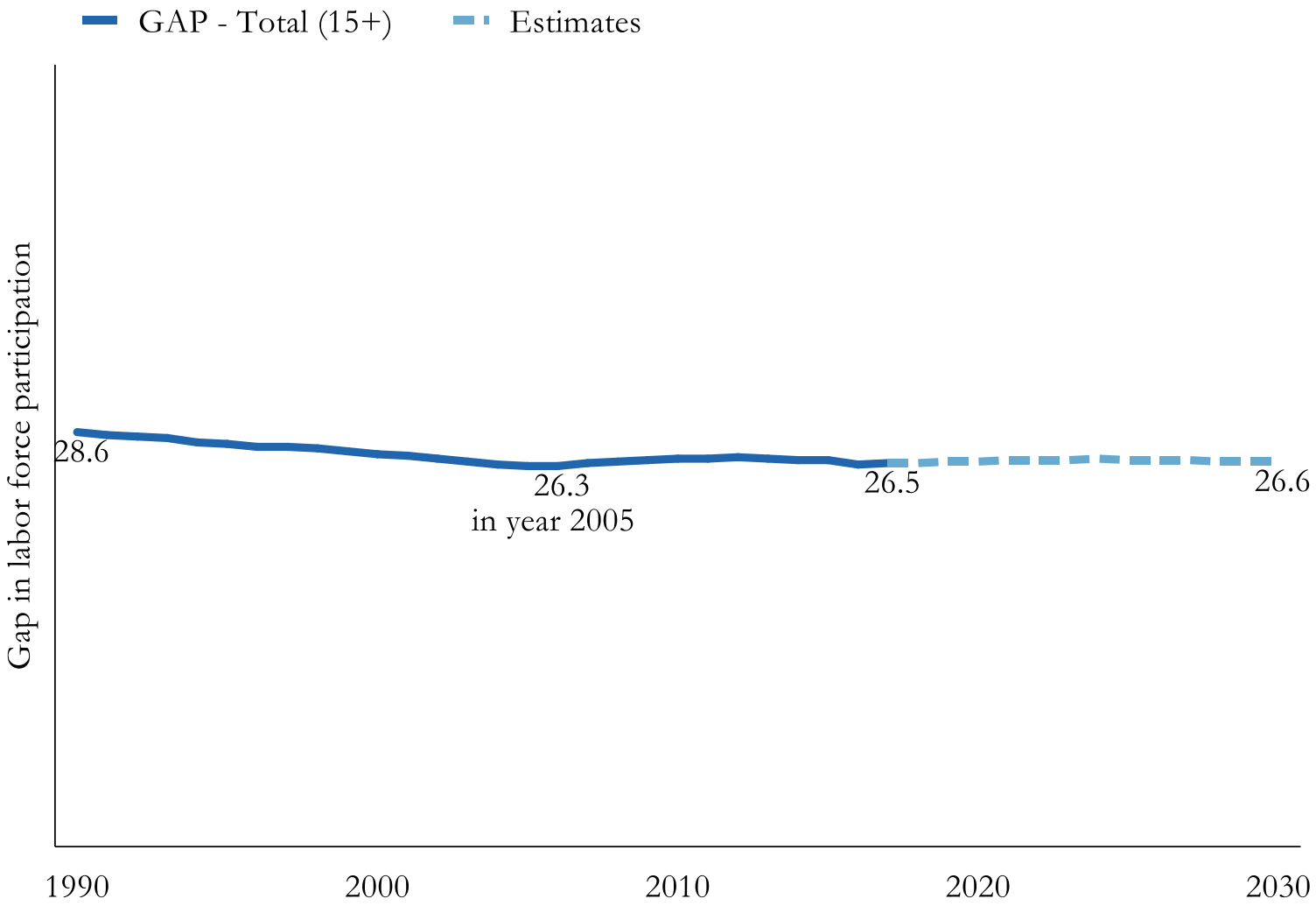
Source: Wittgenstein Centre

Labor force participation



Source: ILO, Key Indicators of the Labour Market (KILM)

GAP-Labor force participation



Source: ILO, Key Indicators of the Labour Market (KILM)

Main questions

- Can globalization serve as a catalyst for more gender equality in the work force?

1. Do multinationals and exporting firms hire relatively more women?
2. Does it depend on
   - who are your clients?
     - gender norms in export markets
     - Need to appeal to consumers (competition; emulation); fear of backlash (Harrison & Scorse, 2010)
   - who are your investors?
     - gender norms in source countries of FDI
     - Investors can directly influence firm practice (adaptation)

Data

- Firm-level data
  - World Bank's Enterprise Surveys
  - 30,000+ enterprises

Variation across countries and over time

  - 100+ developing and emerging economies
  - 2007-2016
- Manufacturing

Data

Gender

- female share in full-time employees
  - production workers
  - non-production workers
  - if the top manager is a woman

Global firms

- Exporters

  export share in firm's total sales

- Foreign-owned firms

  share of foreign ownership

Literature: 3 mechanisms

1. Competition, Becker's (1957) taste for discrimination
   - Globalization → increased competition → reduction of firm mark-up → less discrimination against women
     - Competition: Working Capital financed by Credit/Advances
2. Comparative advantage, Heckscher-Ohlin trade models
   - Trade openness → expansion of sectors with comparative advantage
   - Unskilled labor is abundant in developing economies and women make up a large share → gender gaps fall in developing countries
     - Industry fixed-effects (2-digit ISIC) and the skill intensity
3. Technology and Heterogeneous firms
   - Technology reduces women's comparative disadvantage of preforming physically demanding tasks. Heterogeneous firms (Juhn, Ujhelyi, & Villegas-Sanchez, 2012) and (Juhn, Ujhelyi, & Villegas-Sanchez, 2013)
     - size (employment in lag), productivity (Sales per worker in lag), and technology (investment in new equipment)

Literature: firm-level data

Global firms & female labor outcomes

Germany

(Klein, Moser, & Urban, 2010)

Norway

(Javorcik, Boler, & Ulltveit-Moe, 2015)

Japan

(Kodama, Javorcik, & Yukiko, 2016)

China

(Chen, Ge, Lai, & Wan, 2013) and (Dong & Zhang, 2009)

Mexico

(Aguayo-Tellez, Airola, & Juhn, 2010), (Juhn, Ujhelyi, & Villegas-Sanchez, 2013) and (Juhn, Ujhelyi, & Villegas-Sanchez, 2012)

Results

- More controls:
  - temporal employment, female ownership, age of the firm, and location in a country's main business/large city
  - country*year, city/region and broad size fixed-effects

Do multinationals and exporting firms hire relatively more women?

	Female share (%)
Domestic, non-exporter	29
Foreign owned (100 %)	30
Exporter (>=10%)	31
Foreign-owned and exporter	35

Female share

	1	2	3
Exporter (>=10%)	2.791***	2.497***	
	[0.565]	[0.587]	
Foreign (100%)	3.331***	1.447*	
	[0.945]	[0.866]	
Exporter (>=10%)*Foreign (100%)		4.033***	
		[1.509]	
Exporter (>=10%, <50%)			0.324
			[0.471]
Exporter (>=50%, <100%)			2.901***
			[0.869]
Exporter (100%)			10.75***
			[1.447]
Foreign (>=10%, <50%)			-0.139
			[0.908]
Foreign (>=50%, <100%)			0.218
			[0.779]
Foreign (100%)			2.534***
			[0.867]
Observations	30,474	30,474	30,474
R-squared	0.471	0.472	0.475
City/Region FE	YES	YES	YES
ISIC 2digit FE	YES	YES	YES
Firm's Size FE	YES	YES	YES
Country*Year FE	YES	YES	YES

Literature: a fourth mechanism

Trade and FDI & the transmission of gender norms and women's rights

- Neumayer & de Soysa, 2011:
  - Country-level analysis of transmission of women's social and economic rights via trade and FDI
  - Transmission is found but not for low income economies
  - We use spatial lags

- Tang & Zhang 2017:
  - Firm-level analysis for China
  - Multinationals
  - We use GII

Transmission of gender norms

UNDP's Gender Inequality Index GII

maternal mortality ratio, adolescent birth rate, parliamentary representation, secondary educational attainment and labor market participation

High GII – gender inequality

- Niger, Mali, Chad, and Yemen

Low GII – gender equality

- Netherlands, Denmark, Switzerland, Sweden

We also use fertility rate, with very similar results…

Transmission of gender norms

Countries' exposure to gender norms elsewhere

Through trade

- Who are your export markets
- Export market share in a country's exports
- bilateral exports (Comtrade/Feenstra)

Through FDI

- Who are your investors
- Source country share in a country's inward FDI
- bilateral inward FDI stocks (UNCTAD)

$$Exposure - GII_{jt} = \sum_{i=1}^{N} share_{ji} * GII_i \text{ , with } i \neq j$$

	Female share					
	1	2	3	4	5	6
	all obs.	all obs.	Gender equality in **export** markets		Gender equality in source countries of **FDI**	
			equal	unequal	equal	unequal
Exporter (>=10%)	2.791***	2.637***	4.134***	0.888	3.063***	2.653***
	[0.565]	[0.502]	[0.768]	[0.539]	[0.654]	[0.946]
Foreign (100%)	3.331***	3.093***	5.085***	-0.0719	5.579***	0.245
	[0.945]	[0.859]	[1.059]	[1.079]	[1.112]	[1.048]
Exporter (>=10%) * GII (Trade)		-33.39***				
		[12.15]				
Foreign (100%) * GII (FDI)		-29.39*				
		[16.19]				
Observations	30,474	30,474	14,805	15,669	14,749	15,725
R-squared	0.471	0.472	0.446	0.461	0.462	0.462
City/Region FE	YES	YES	YES	YES	YES	YES
ISIC 2digit FE	YES	YES	YES	YES	YES	YES
Firm's Size FE	YES	YES	YES	YES	YES	YES
Country*Year FE	YES	YES	YES	YES	YES	YES

21 % larger than non-global firms

32 % larger than non-global firms

30 % larger than non-global firms

IV regression

Instruments:

explain the selection into exporters and multinationals

not direct impact on firm's own hiring decisions

Attractiveness in narrowly defined cell (city, industry and year) for global firms (exporters/multinationals)

For exporters and foreign-owned, separately

Share of global firms in total employment (lag)

Share of global firms in total investment in new equipment

…using surveys weights

Since we are controlling for firm's own values on these variables, the instruments capture the attractiveness of that location for global firms- in a narrowly defined cell- that is uncorrelated with firm's own performance

	Female share				
	1	2	3	4	5
	all obs.	Gender equality in **export** markets		Gender equality in source countries of **FDI**	
		equal	unequal	equal	unequal
Exporter (>=10%)	2.185	5.131**	-5.350	6.377*	0.474
	[2.183]	[2.400]	[3.316]	[3.351]	[3.299]
Foreign (100%)	12.88***	17.64***	3.970	17.38***	3.772
	[4.142]	[4.345]	[6.690]	[6.002]	[5.282]
Observations	27,433	13,334	14,099	13,156	14,277
City/Region FE	YES	YES	YES	YES	YES
ISIC 2digit FE	YES	YES	YES	YES	YES
Firm's Size FE	YES	YES	YES	YES	YES
Country*Year FE	YES	YES	YES	YES	YES
Underind. LM test	120.03	74.10	64.89	65.61	57.42
p-value LM statistic	0.00	0.00	0.00	0.00	0.00
Weak ident. Cragg-Donald	481.19	230.95	231.67	218.18	246.27
Weak ident. Kleibergen-Paap rk	110.77	60.98	78.07	73.60	38.43
Hansen J statistic	4.14	2.58	3.63	2.89	1.24
p-value of Hansen J statistic	0.13	0.28	0.16	0.24	0.54

Concluding remarks

Hiring decisions of globalized firms are influenced by gender norms elsewhere

- Race to the top
  - global firms adopt more equal hiring practices compared to non-global firms if they are trading and receiving investment from more gender equal economies

    … female share in employment is 30 % higher compared to domestic and non-exporting firms
- No clear evidence of a race to the bottom
  - hiring practices of global firms do not significantly differ from non-global enterprises if commercial links are held with relatively gender unequal countries

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Comments/Questions/Discussion