Ratio Working Paper No. 360

Do gender norms travel within corporations? The impact of foreign subsidiaries on the home country gender wage gap

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ABSTRACT
In this note, we provide evidence that gender norms can be transferred within firms and across borders by means of foreign direct investment. Using microdata from both Sweden and Estonia, two countries with vastly different levels of gender inequality, we find that firms in Sweden with strong intra-firm linkages to Estonia display a relatively large gender wage gap at home.

Key words: Gender wage gap; FDI; Subsidiary firms; Internationalization; Wages
JEL Codes: C23; F21; F23; F66; J16; J31

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1. Introduction

Recent studies have documented that the internationalization of firms has contributed to widening of the gender wage gap. One mechanism suggested to explain the phenomenon is that serving foreign markets requires high flexibility in working hours. If men have greater temporal flexibility, or at least are perceived to be more flexible than women, the gender wage gap will increase when firms become more exposed to internationalization (Bøler et al., 2018, Vahter and Masso, 2019). Apart from time flexibility, operating in an international environment requires some aptitude in handling different business cultures. Hence, interpersonal skills may be important, especially for white-collar tasks. If women have an advantage in such skills, the gender wage gap among white-collar workers would instead decrease with internationalization. Results supporting this line of reasoning are provided by Bonfiglioli and De Pace (2021).

In this note, we make a novel contribution to the literature by analyzing the possibility of gender norms to be transferred within firms and across borders by means of foreign direct investments (FDI). Specifically, we focus on Swedish multinational enterprises (MNEs) with subsidiaries in Estonia and analyze how the relative share of workers located in Estonia is related to the gender wage gap in their Swedish home country operations. That is, do firms, which are highly integrated into a foreign high wage-gap market, also exhibit a high wage gap in their home country?

In addition, access to both Swedish and Estonian employer-employee data allows us also to position Swedish investors in a gender wage gap ladder in the Estonian context. We ask in this respect whether investors, originating from a low gender inequality country (Sweden), exhibit a relatively low gender wage gap in their subsidiaries located in a highly gender-unequal country (Estonia). The comparison between Sweden and Estonia is relevant for at least two reasons. First, Sweden displays a relatively low gender wage gap of 11.8 percent, while Estonia records the highest gender wage gap in the EU of 21.7 percent (European Commission, 2021). Secondly, during the period of study, we observe 132 Swedish corporate groups having subsidiaries in Estonia, which makes Sweden the largest foreign investor in Estonia.

There exists an emerging literature documenting that the exposure to different gender norms as a result of globalization impacts gender-specific employment outcomes (Neumayer and de Soysa, 2011, Lennon and Schneebaum, 2020, Halvarsson et al., 2022). A theoretical motivation to our analysis originates from Tang and Zhang (2021), who build a task-based model in the style of Acemoglu (2011) predicting that gender norms can be transferred across countries by means of FDI. Departing from this framework, we address the question of whether the gender norms in the FDI host country might have a feedback effect on the gender wage gap in the home country.

Our findings support the hypothesis that Swedish firms with strong intra-firm linkages to Estonia display a relatively large gender wage gap at home. That is, the results indicate a feedback effect of gender norms from the host to the home country. Our results do not, however, provide conclusive evidence on the extent to which the gender wage gap in Swedish MNEs in Estonia is larger compared to other foreign-owned firms.

3. Data

At our disposal we have rich matched employer-employee data from Sweden and Estonia, covering the period 2007-2015 for Sweden and 2006-2019 for Estonia. Taking stance from the empirical strategy outlined in Bøler et al. (2018), we estimate separate but in essence identical wage regressions on the Swedish and Estonian samples.

3. Results

Column (1) in Table 1 shows the effect of internalization on the gender wage gap in Swedish MNEs divided into two groups: MNEs with and without subsidiaries in Estonia. MNEs with no subsidiaries in Estonia display a lower gender wage gap than local firms, with an estimated female wage premium of around 0.3 percent. The opposite is however true for Swedish MNEs owning subsidiaries in Estonia, which display a larger gender wage gap than domestic firms, with a female wage penalty of -0.3 percent. Hence, changing the focus from MNEs without to those with subsidiaries in Estonia switches the sign of the MNE effect on the observed gender wage gap.

In columns (2) and (3), we proceed by focusing on Swedish corporate groups with subsidiaries in Estonia. For each company group, we calculate the relative share of its employees in Estonia to its employees in Sweden and use it as a continuous measure of interrelatedness with the Estonian market.[3] The measure allows us to examine whether Swedish companies with large exposure to Estonian business culture exhibit a large gender wage gap in their home market operations.

In column (2), we first analyze how the share of employees in Estonia impacts the gender wage gap in Sweden by looking at the sample of both the Swedish parent firms and their Swedish subsidiaries, provided that the parent company owns subsidiaries in Estonia. As a next step, we narrow down the Swedish sample to the parent companies only (neglecting the Swedish subsidiaries) in column (3). The hypothesis is that the connection between a (Swedish) parent firm and its Estonian subsidiaries is stronger than the connection between a Swedish and an Estonian subsidiary firms, both belonging to the same parent company. The results are clear: the larger the share of employees in Estonia, the larger is the gender wage differential at home. Moreover, by comparing column (2) to column (3), we note that the effect of Estonian exposure on the gender wage gap is almost six times stronger in the sample of Swedish parent firms only. This lends support to the idea that the link between parent companies and their subsidiaries is stronger than the link between two subsidiaries belonging to the same corporation. The results from columns (2) and (3) are visualized in Figure 1, which displays the marginal effect of internalization on the home country gender wage gap and its dependence on the share of employees located is Estonia.

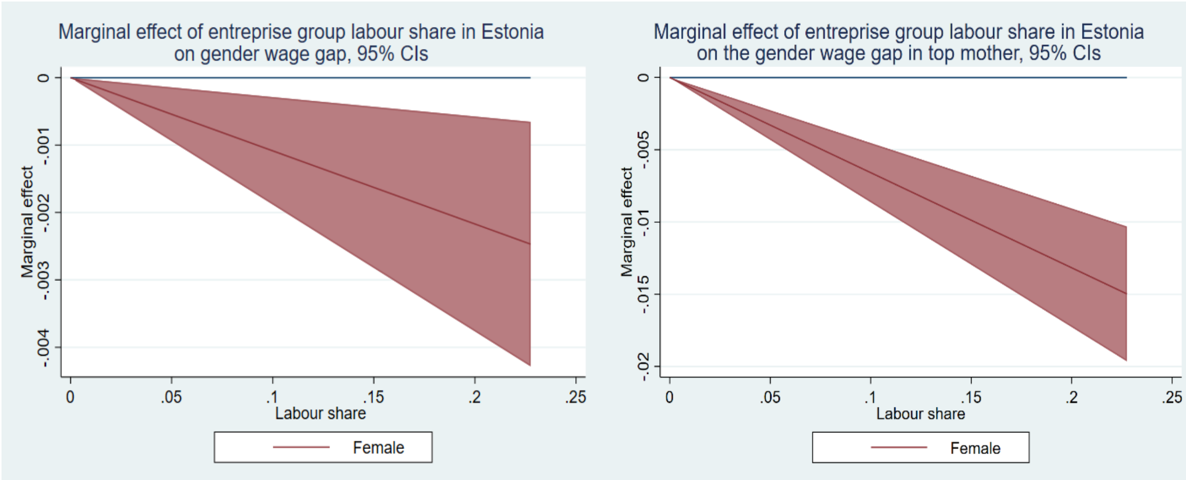
To scrutinize the stability of the results, a series of robustness tests have been conducted. To control for potential self-selection into having Estonian subsidiaries, a Helpman-Melitz-Rubenstein (2008) selection model has been estimated. Adjusting for self-selection of having Estonian subsidiaries does not alter the results. Neither does the exclusion of employment share outliers nor a non-linear formulation of the foreign employment share function change our main conclusion.

The last two columns shift focus from Sweden to Estonia. Specifically, we aim to position Swedish-owned firms in the Estonian gender wage gap ladder. In line with Vahter and Masso (2019), we note in column (4) that foreign ownership is associated with the larger gender wage gap relative to local firms in Estonia. In column (5), we divide foreign-owned firms into three subgroups: Swedish-owned, Finnish-owned, and foreign-owned by other investor countries. Our findings suggest that Finnish-owned firms impose the largest female wage penalty in Estonia. In comparison, we find a lower, although insignificant, gender wage gap in Swedish-owned firms. Notably, according to the European Commission (2021), the Finnish gender wage gap is higher than that of Sweden (16.8 vs. 11.8 percent). Hence, despite that we do not find any significant difference between Finish and Swedish ownership, the relative ranking of the two countries aligns with their position in the gender inequality ladder. However, the results for Swedish, Finnish, and other foreign-owned firms cannot be statistically separated from each other. In short, in the context of wage gap effect in Estonia, our results do not allow to distinguish between MNEs originating from different home countries.

Table 1. Gender wage gap and internalization.

	(1)	(2)	(3)	(4)	(5)
	Sweden			Estonia	
Variables:	MNEs	Corp labor share in Estonia	Parent labor share in Estonia	MNEs vs locals	Investor nationality ranking
Female×non-EST MNE	0.00296***				
	(0.000572)				
Female×Est MNE	-0.0031***				
	(0.00101)				
Female×Est-share		-0.0109***	-0.0658***		
		(0.00407)	(0.0105)		
Female×MNE				-0.01095*	
				(0.0051)	
Female×Fin-MNE					-0.03817*
					(0.02077)
Female×Swe-MNE					-0.02567
					(0.02098)
Female×Other-MNE					-0.0267
					(0.01042)
Experience	0.00707***	0.00709***	0.00815***	0.03050***	0.03007***
	(7.32e-05)	(0.000151)	(0.000627)	(0.00297)	(0.00315)
Experience^2	-0.0309***	-0.0318***	-0.0363***	-0.06394***	-0.06404***
	(9.67e-05)	(0.000204)	(0.000802)	(0.001)	(0.00092)
Sec Edu	0.00232	-0.00147	-0.0266	0.00272	-0.00270
	(0.00207)	(0.00689)	(0.0176)	(0.008)	(0.0084)
Tert Edu	0.00744***	-0.00107	-0.0485**		
	(0.00255)	(0.00764)	(0.0218)		
White-collar	0.0262***	0.0155***	0.0345***	0.00422*	0.00421
	(0.000392)	(0.000891)	(0.00354)	(0.00234)	(0.0023)
Obs.	5,464,806	1,015,285	100,168	3,142,040	3,142,040
R^2	0.96	0.96	0.96	0.72	0.72

Notes: *,**,***, indicates significance at the 10, 5, 1 percent level, respectively. Robust standard errors in parentheses (.). All regressions are fitted with fixed effects at the level of worker-firm (spell) and firm-year.



Note: Based on Table 1, column (2) (left panel) and column (3) (right panel).

Figure 1. Marginal effect of firms' labor share in Estonia on the gender wage gap in Sweden.

Conclusions

With Sweden being the largest foreign investor in Estonia, the two countries display strong cross-border FDI connections. At the same time, the gender wage gap in Estonia remains substantially larger than in Sweden (21.7 vs. 11.8 percent). The main question asked in this paper is whether Swedish firms with large exposure to Estonia display a high gender wage gap in their home country subsidiaries. Our results show that Swedish MNEs with a large fraction of their employees in Estonia do exhibit a relatively large gender wage gap at home. This finding suggests that FDI may serve as a vehicle for transferring gender norms across international borders. It is though less clear how Swedish subsidiaries compare to investors from other countries in the Estonian labor market.

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