

Husbands' migration and wives' occupational choices

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(1) Abstract

Exploiting the documented effect of migration on occupational choice upon return to their origin country with data from Egypt, we establish a link between **return migration of men** and their **wives' time use** through **within-couple occupational interdependence**.

Seemingly Unrelated Regression model estimates suggest that being married to a migrant who opted for self-employment upon return **decreases** a woman's likelihood to engage in **paid work**, and **increases** her likelihood to engage in **family work and subsistence farming**, at both the extensive and intensive margins. This is pronounced for **rural** families, and when husbands work in **agriculture**. Results differ by **education level**, illiterate wives engaging significantly more in paid as well as unpaid work compared to more educated women.

Findings are consistent with theoretical models of **occupational interdependence between spouses** and **assortative mating**; they highlight the need to buffer potentially depriving migration-induced effects on women's time use, even once migration is complete.

(2) Motivation

- This paper considers a **non-unitary model of household bargaining with non-cooperation within marriage** as the relevant threat option, as in Sadania (2017).
- Four non-mutually exclusive categories** of women's time use are identified: paid, unpaid, subsistence and domestic work (binary and continuous variables).
- In an environment of traditional gender roles, women may be limited in deciding on how to allocate their time, by some level of inflexibility attached to their gender – a **gender differentiated** availability of labour constraining women's time use to less remunerative activities (Serra, 2009).
- Husbands' occupations could simultaneously affect the need for, and the offer of, paid, unpaid, subsistence or domestic work, because of some degree of dependence between spouses' occupations (Parker, 2008) – **within-couple occupational interdependence**.
- Households might allocate labour and time between members in a will to **diversify income sources** to maximise household earnings, and to minimise risk (Reardon et al., 2006).

Predictions

- In a context of **occupational interdependence between spouses, income diversification, gender-differentiated time allocation** and **assortative mating**, and since (male) returnees have been shown to opt for self-employment significantly more than non-migrants (Marchetta, 2012; Wahba and Zenou, 2012), that migrants become self-employed upon return might
- Affect wives' time spent in **paid (+/-), unpaid (+), subsistence (+) and domestic work (+/-/0)**
 - Dynamics might differ by (i) **location**; (ii) **husbands' sector of occupation**; or (iii) **women's skill level**

(4) Methodology

Endogeneity

- Temporary migration and occupational choice of husbands
- Husbands and wives' occupation and time use

Seemingly Unrelated Regression (SUR) linear probability model

$$\begin{aligned} Returnee_h &= \delta_0 + \delta_1 X_{Rh} + \delta_2 Z_{Rh} + \epsilon_{1h} \\ SelfEmployed_h &= \alpha_0 + \alpha_1 X_{SEh} + \alpha_2 Z_{SEh} + \alpha_3 Returnee_h + \epsilon_{2h} \\ Occupation_w &= \gamma_0 + \gamma_1 X_{Ow} + \gamma_2 SelfEmployed_h + \epsilon_{3w} \end{aligned}$$

Reduced form estimated via Generalised Simultaneous Equations Model (GSEM) Estimator

$$\begin{aligned} Returnee &= f(\cdot; Z_R, \delta) \\ SelfEmployed &= f(\cdot; Z_{SE}, \alpha; Z_R, \delta) \\ Occupation &= f(\cdot; Z_{SE}, \gamma) \end{aligned}$$

System of equations estimated separately for $j=1$ (paid), 2 (unpaid), 3 (subsistence), 4 (domestic), as binary or continuous variables, with standard errors robust to heteroskedasticity

From which we obtain marginal effects of women's time allocation over husbands' migration through self-employment

$$\frac{\partial Occupation}{\partial Returnee} = \frac{\partial Occupation}{\partial SelfEmployed} \times \frac{\partial SelfEmployed}{\partial Returnee} = \frac{\gamma}{\alpha} \times \frac{\beta}{\delta}$$

Exclusion restrictions

- Temporary migration: **Historical exchange rate** matched at some potential age of emigration (optimality criterion)
- Self-employment: Having worked in a **micro-enterprise** in previous job spells

(3) Context and data

Migration from and occupation upon return to Egypt

- Temporary** migration to Arab countries and **permanent** migration to Western countries, both dominated by men
- Significantly increases the propensity to be **self-employed upon return** (Wahba and Zenou, 2012; Marchetta, 2012)

Women's labour participation in Egypt

- One of the **lowest, segregation** along gender lines, **segmentation** between private and public sectors
- Male out-migration decreases women's participation in wage-work, increases unpaid work and subsistence work (Binzel and Assaad, 2011)
- Men's return alters resource allocation, and transfers destination country gender norms (Antman, 2014; Bertoli and Marchetta, 2015; Tuccio and Wahba, 2015)

Data source

- 2012 Egypt Labor Market Panel Survey (ELMPS)**
- Working-age individuals born before 1990, excluding those who changed job after the January 2011 Uprising, and their respective wives in reproductive age (15-49)
 - 6,902 husband-wife pairs**
- Return migrants limited to those whose first destination country was an Arab country
 - 902 returnees (13.07%), out of which 298 are self-employed upon return (4.32%)**

(5) Results

Benchmark estimates

Variables	Paid market	Unpaid market	Subsistence	Domestic	Self-employed	Returnee
	(1)	(2)	(3)	(4)	(5)	(6)
Micro-enterprise (H)	-.0351*** (.0080)	.0412*** (.0043)	.0530*** (.0089)	.0047** (.0022)	.2090*** (.0097)	
Exchange rate (19)					-.0140*** (.0028)	-.0390*** (.0024)
$\frac{\gamma}{\alpha} \times \frac{\beta}{\delta}$	-.0602*** (.0190)	.0707*** (.01703)	.0910*** (.0249)	.0081* (.0042)		
Observations	6,902	6,902	6,902	6,902	6,902	6,902
F-stat (IV)						254.73
P-value (IV)						.0000

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	(1)	(2)	(3)	(4)	(5)	(6)
Micro-enterprise (H)	-1.3829*** (0.2991)	1.2361*** (0.1409)	0.3883*** (0.1103)	0.6494* (0.3326)	0.2090*** (0.0097)	
Exchange rate (19)					-0.0140*** (0.0028)	-0.0390*** (0.0024)
$\frac{\gamma}{\alpha} \times \frac{\beta}{\delta}$	-2.3751*** (.7297)	2.1230*** (.5227)	.6668*** (.2379)	1.1153* (.6192)		
Observations	6,902	6,902	6,902	6,902	6,902	6,902
F-stat (IV)						254.73
P-value (IV)						.0000

Heterogeneous effects

- Pronounced for **rural families**, when husbands work in **agriculture**, differ by **wives' education level**
 - Illiterate wives engage in more paid as well as unpaid work
- Reduced wives' **time specialisation**
 - Particularly for rural families, husbands in agriculture, and illiterate women

