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 degree 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 (Parkes, 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:

1. Affect wives’ time spent in paid (+/-), unpaid (+), subsistence (+) and domestic work (+/-10)  
2. Dynamics might differ by (i) location; (ii) husbands’ sector of occupation; or (iii) women’s skill level

(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 whose 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 returns (13.07%), out of which 298 are self-employed upon return (4.32%)

(4) Methodology

Endogeneity

• Temporary migration and occupational choice of husbands
• Husbands and wives’ occupation and time use

Seemingly Unrelated Regression (SUR) linear probability model

\[ \begin{align*}
R_{\text{Return}} &= \beta_0 + \beta_1 X_{\text{Return}} + \epsilon_{\text{Return}} \\
S_{\text{SelfEmployed}} &= \alpha_0 + \alpha_1 X_{\text{SelfEmployed}} + \alpha_2 X_{\text{Return}} + \epsilon_{\text{SelfEmployed}} \\
O_{\text{Occupation}} &= \gamma_0 + \gamma_1 X_{\text{Occupation}} + \gamma_2 X_{\text{SelfEmployed}} + \epsilon_{\text{Occupation}}
\end{align*} \]

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

\[ \begin{align*}
R &= f(X) \\
S_{\text{SelfEmployed}} &= f(X) \\
O &= f(X)
\end{align*} \]

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:

\[ \begin{align*}
\frac{\partial \text{Occupation}}{\partial \text{Return}} &= \beta_1 \\
\frac{\partial \text{Occupation}}{\partial \text{SelfEmployed}} &= \alpha_1 \\
\frac{\partial \text{Occupation}}{\partial \text{Return}} &= \gamma_1 \\
\frac{\partial \text{Occupation}}{\partial \epsilon} &= \beta_0 + \beta_1 X_{\text{Return}} + \alpha_1 X_{\text{SelfEmployed}} + \gamma_1 X_{\text{Occupation}} + \epsilon_{\text{Occupation}}
\end{align*} \]

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

(5) Results

Benchmark estimates

<table>
<thead>
<tr>
<th>Variable</th>
<th>Paid market</th>
<th>Unpaid market</th>
<th>Subsistence</th>
<th>Domestic</th>
<th>Self-employed</th>
<th>Returnee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro-enterprise (H)</td>
<td>(.0060)</td>
<td>(.0190)</td>
<td>(.0089)</td>
<td>(.0032)</td>
<td>(.0089)</td>
<td>(.0028)</td>
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<td>Exchange rate (IV)</td>
<td>(.1070)</td>
<td>(.0249)</td>
<td>(.0442)</td>
<td></td>
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<td></td>
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<td>Observations</td>
<td>6,902</td>
<td>6,902</td>
<td>6,902</td>
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<td>6,902</td>
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<tr>
<td>F-value (IV)</td>
<td>254.73</td>
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</tr>
</tbody>
</table>

Heterogeneous effects

• Pronounced for rural families, when husbands work in agriculture, defer 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