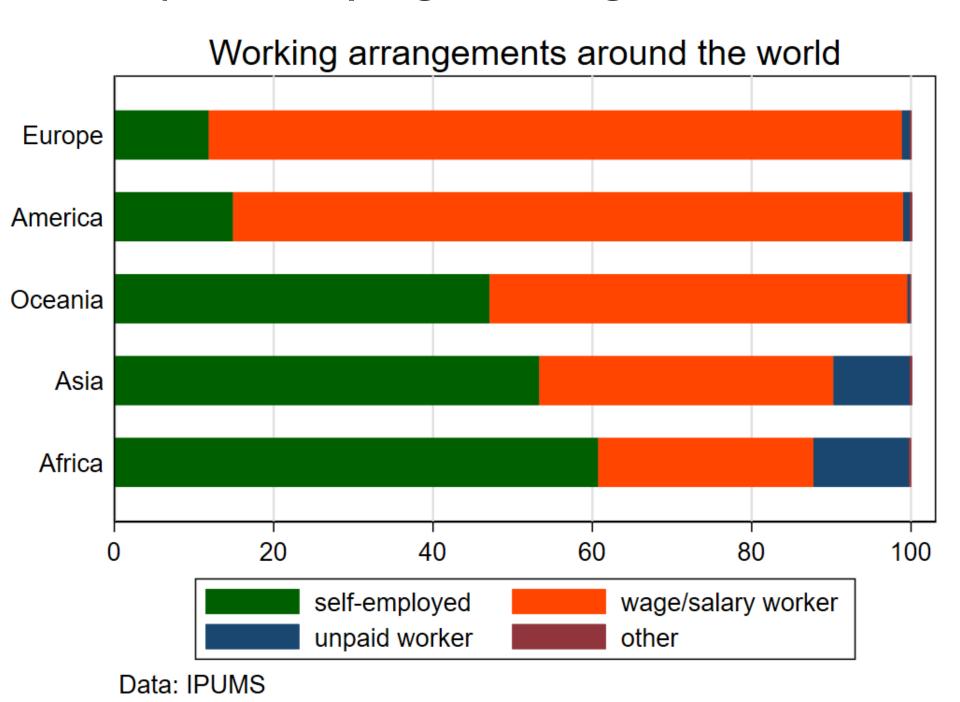
Trade-Displaced or Trade-Stuck?

Self-employment and Trade Shocks in Low-Income Countries

Are the self-employed trade-displaced?

► We know that trade shocks induce unemployment (developed) and/or informality (developing) for wage-earners



We don't know how self-employed workers react, as they do not have to lose their jobs

What can they the self-employed do when a shock decreases their earnings?

Setting

- ► In 2016, tariffs on **used clothing** imports /
 tenfold in Rwanda
- ~ 30% cost/kg increase
 transmitted to used
 clothing retailers
- These retailers are 90% self-employed

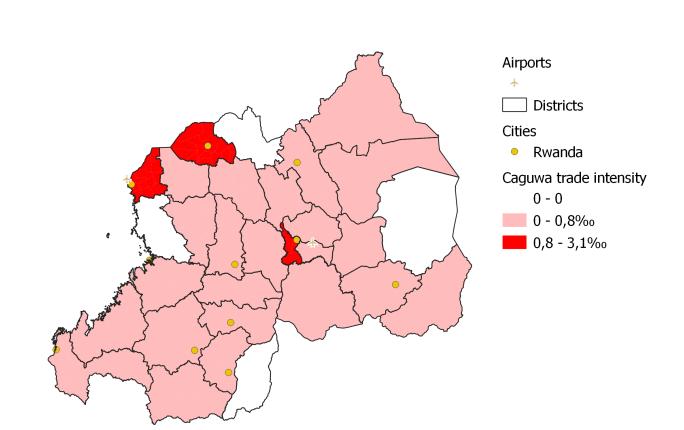
Data

- Establishment Census of all formal and informal plants
- Survey (IHLCS) data (2013 - 2016), **job-level**

Methodology

Triple-difference:

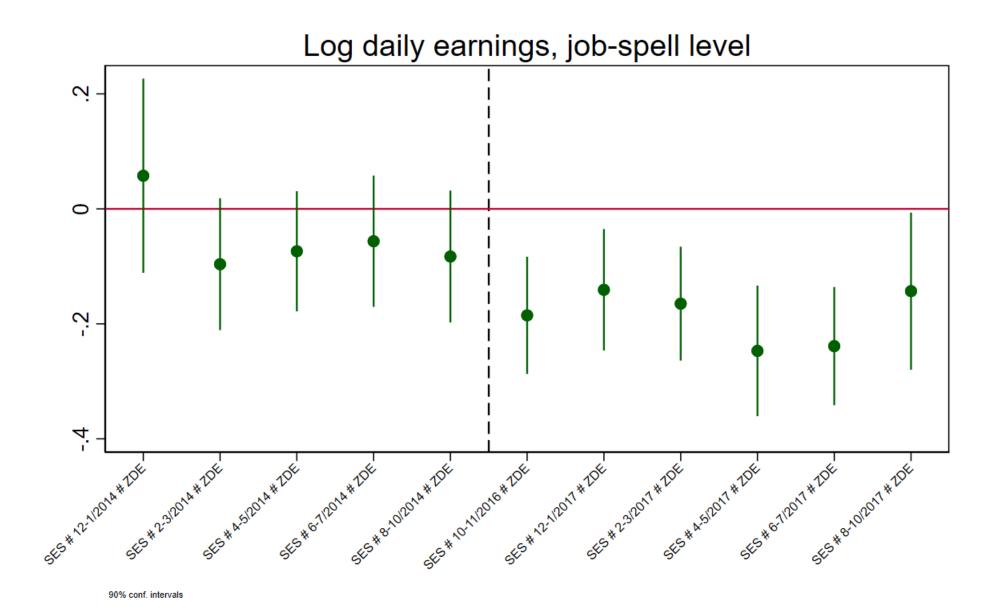
1. District pre-shock exposure to used clothing trade (ZDE)



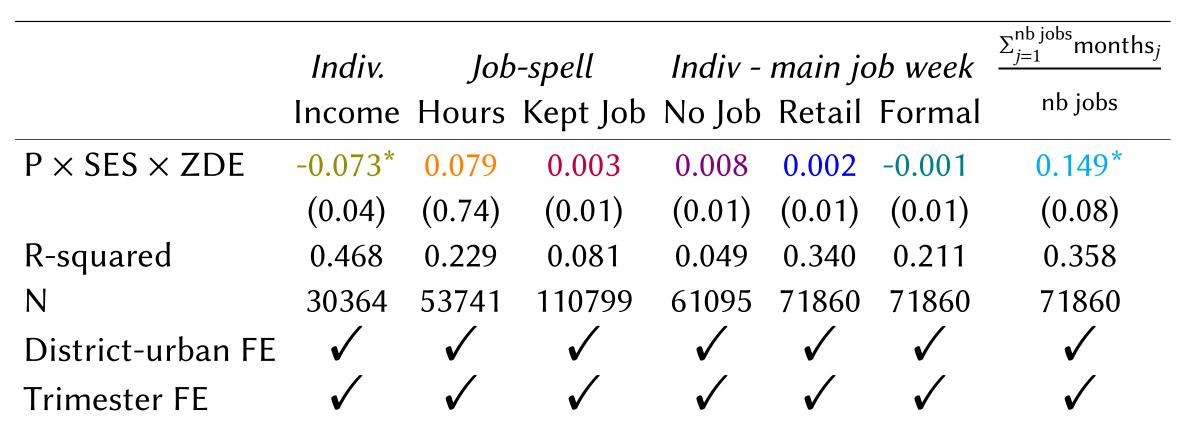
- Individual or job spell in retail pre-shock (SES)
- 3. Pre vs. post shock (P) $Y_{idt} = \mathbf{P_t} \times \mathbf{SES_i} \times \mathbf{ZDE_{d(i,t-1)}} + ... + \varepsilon_{idt}$
- ► + Gender heterogeneity : (F):

$$Y_{idt} = \mathbf{P_t} \times \mathbf{SES_i} \times \mathbf{F_i} \times \mathbf{ZDE_{d(i,t-1)}} + ... + \varepsilon_{idt}$$

Do self-employed retailers respond to shocks like wage earners?



- Shock decrased exposed retailers' income premia growth
- But they don't decrease hours at these jobs, quit them, go into unemployment, abandon retail, nor do they go into informality
- ► Instead, they overlap other jobs to a bigger extent



* p<0.10, ** p<0.05, *** p<0.01 ZDE: Z-score district exposure to caguwa at t-1. P: post (2016-2017 round). F: female. SES: ISIC2=retail × self-emp. × start date < 06/2016. SE clustered at the IHLCS cluster level.

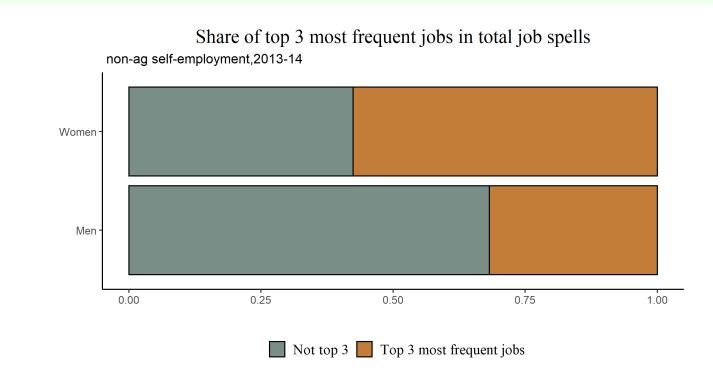
Table: Self-employed sellers' trends across spatial exposure

Theory and implications: constrained time allocation

Two types of jobs, retail (r) and other (o) $max\ U(c, l)$, s.t. c,l,j $c < w_i(\bar{T} - l)$, $0 < c < \bar{v}$, l > 0 if $w_r > 0$

 $c \le w_j(\bar{T} - l), \ 0 \le c \le \bar{y}, \ l \ge 0 \text{ if } w_r > w_o$ $0 \le \bar{T} - l \le \bar{L}, \ l \ge 0 \text{ if } w_o > w_r$

- Adaptation trajectories to a wage-decreasing shock depend on **outside options** $\frac{w_o}{w_r}$
- Which women have fewer of:



Outside options and adaptation strategies: Men vs. women

- ► Women suffer from bigger \searrow on earnings and income retail premia growth, compared to men $(P \times SES \times F \times ZDE)$ and to other women retailers in more protected zones $(P \times SES \times F \times ZDE P \times SES \times ZDE)$
- ▶ While men \ hours worked at affected jobs, women \ them
- Even abandoning other jobs in the process

	Job-level earnings		Indivlevel income		Hours worked, job level		
	All jobs	Main job week	Weekly	Hourly	All jobs	Main job week	Unpaid work
$P \times SES \times ZDE$	-0.040	0.021	-0.023	-0.010	-0.958	-1.967*	0.000
	(0.06)	(0.06)	(0.05)	(0.05)	(1.08)	(1.04)	(0.00)
$P \times SES \times F \times ZDE$	-0.156**	-0.198***	-0.075	-0.159**	2.942**	3.670***	-0.027***
	(0.07)	(0.07)	(0.06)	(0.07)	(1.29)	(1.36)	(0.01)
R-squared	0.37	0.39	0.47	0.38	0.19	0.23	0.17
N	32697	23913	30364	30353	74251	53741	71759
District-urban FE	\checkmark		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Trimester FE	\checkmark		\checkmark	\checkmark	\checkmark		\checkmark

<0.05, *** p<0.01 ZDE: Z-score district exposure to caguwa at t-1. P: post (2016-2017 round). F: female. SES: ISIC2=retail × self-emp. × start date < 06/2016. SE clustered at the IHLCS cluster level.

Table: Gender heterogeneity in SES trends across spatial exposure

WP

Implications for trade/dev lit.



- ► Self-employed workers do not experience unemployment, informality as much as wage earners
- ightharpoonup Adaptation strategies are through multiple job-holding \rightarrow job-level data
- ▶ Differences in outside options make most vulnerable SE likely to get stuck in declining jobs

