Discussion of

Liberalized Trade and Worker-Firm Matching

Carl Davidson, Fredrik Heyman, Steven Matusz, Fredrik Sjöholm and Susan Zhu

Oleg Itskhoki
Princeton University

AEA Meetings
Chicago 2012

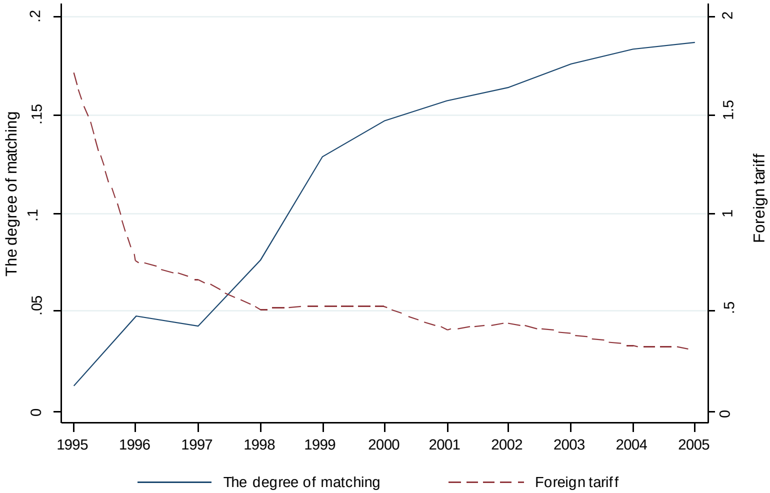
Summary

		1995		2005	
		Firms			
		H	L	H	L
Workers	H	0.26	0.24	0.29	0.21
	L	0.24	0.26	0.22	0.28
Matching		0.04		0.14	

1. assortative matching increases over time, along with globalization
2. the pattern is stronger in comparative advantage sectors that liberalize trade
3. H workers are more likely to be reemployed in H firms
   - stronger in export-oriented sectors
   - stronger for workers from previous HH matches

Continuous measure of worker and firm effects

From longer paper (Globalization and Labor Market Sorting)



What additionally I would like to know

1. Is it a lot or a little of assortative matching?
2. How important is between-industry trade for Sweden?
3. Is assortative matching driven by observables or unobservables?
   — covariance structure for all four components
4. Is assortative matching a within or between sector phenomenon?
   — does the answer depend on component of wages (worker vs firm effects, observables vs unobservables)
   — HIMR: observables matter more across sectors
5. What happens to the match component?
6. Link to wage inequality?

Theory

- Why do we care about matching?
  1. inequality
  2. efficiency of allocation
- A large number of theories consistent with the findings on assortative matching:
  - can we distinguish between them? *or rather*
  - take this as unconditional facts on matching patterns?
- What is the evidence in favor of frictional versus competitive matching?

Theory

- Why do we care about matching?
  1. inequality
  2. efficiency of allocation

- A large number of theories consistent with the findings on assortative matching:
  - can we distinguish between them? *or rather*
  - take this as unconditional facts on matching patterns?

- What is the evidence in favor of frictional versus competitive matching?

- Transition probabilities reject random matching?

H-worker transition probabilities:

	Comp. advantage	disadvantage
$H \rightarrow H$-job	61%	54%
$L \rightarrow H$-job	40%	28%

  - consistent with on-the-job search or multidimensional matching

Identification

- Two-way fixed effects wage regression:

$$w_{ijt} = \alpha_i + \theta_j + \epsilon_{ijt}$$

  — i for worker, j for firm

Identification

- Two-way fixed effects wage regression:

$$w_{ijt} = \alpha_i + \theta_j + \epsilon_{ijt}$$

  — i for worker, j for firm

- Identification issues:
  1. non-consistency/small sample bias
  2. not enough worker mobility (66% never change jobs)
  3. functional form (e.g., non-monotonicity)
  4. non-random transitions of workers

- Assume a stylized example:
  - $a_L = a - \delta, \;\; a_H = a + \delta$
  - $\theta_L = \theta - \lambda, \;\; \theta_H = \theta + \lambda, \quad \theta = 0$
  - $\pi_{LL} = \pi_{HH} = \frac{1}{4}(1 + \omega), \;\; \pi_{LH} = \pi_{HL} = \frac{1}{4}(1 - \omega), \quad \omega \in [0, 1]$
- Wages: $w_{ij} = a_{\tau(i)} + \theta_{\sigma(j)} + \epsilon_{ijt}, \quad \tau, \sigma \in \{L, H\}, \quad \epsilon_{ijt} = 0$

Non-random Transitions

Example

- Assume a stylized example:
  - $a_L = a - \delta, \;\; a_H = a + \delta$
  - $\theta_L = \theta - \lambda, \;\; \theta_H = \theta + \lambda, \quad \theta = 0$
  - $\pi_{LL} = \pi_{HH} = \frac{1}{4}(1+\omega), \;\; \pi_{LH} = \pi_{HL} = \frac{1}{4}(1-\omega), \quad \omega \in [0,1]$
- Wages: $w_{ij} = a_{\tau(i)} + \theta_{\sigma(j)} + \epsilon_{ijt}, \quad \tau, \sigma \in \{L, H\}, \quad \epsilon_{ijt} = 0$
- Then we estimate using within transformation for workers:

$$\hat{a}_L = a - (\delta + \lambda\omega) < a_L, \qquad \hat{a}_H = a + (\delta + \lambda\omega) > a_H,$$

$$\hat{\theta}_L = -\lambda(1-\omega^2) > \theta_L, \qquad \hat{\theta}_H = \lambda(1-\omega^2) < \theta_H.$$

- Assume a stylized example:
  - $a_L = a - \delta, \;\; a_H = a + \delta$
  - $\theta_L = \theta - \lambda, \;\; \theta_H = \theta + \lambda, \quad \theta = 0$
  - $\pi_{LL} = \pi_{HH} = \frac{1}{4}(1+\omega), \;\; \pi_{LH} = \pi_{HL} = \frac{1}{4}(1-\omega), \quad \omega \in [0,1]$
- Wages: $w_{ij} = a_{\tau(i)} + \theta_{\sigma(j)} + \epsilon_{ijt}, \quad \tau, \sigma \in \{L, H\}, \quad \epsilon_{ijt} = 0$
- Then we estimate using within transformation for workers:

$$\hat{a}_L = a - (\delta + \lambda\omega) < a_L, \qquad \hat{a}_H = a + (\delta + \lambda\omega) > a_H,$$
$$\hat{\theta}_L = -\lambda(1-\omega^2) > \theta_L, \qquad \hat{\theta}_H = \lambda(1-\omega^2) < \theta_H.$$

- Good news: $\hat{\theta}_H > \hat{\theta}_L$ in this simple example
- Bad news: bias gets worse as ω increases
- One can test $\mathbb{H}_0 : \;\omega = 0$

Resolution

- What is the way out of this vicious circle?

Resolution

- What is the way out of this vicious circle?
- Structural estimation!