

The Diffusion of Knowledge via Managers' Mobility

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"...technology is only one part of the story, and a substantial unexplained productivity differential still remains, which panel data econometricians often label as the fixed effects of "**managerial quality**" (Bloom & Van Reenen 2007 QJE)

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Once established that better managers and managerial practices lead to better firm performance the next questions are:

- What happens when managers move from one firm to another?
- Does the firm hiring the good manager improve its performance?
- If yes is it due to the manager always having been a good manager or is there some valuable knowledge the manager has acquired and successfully transferred to the new firm?

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But, it is complex:

- challenging to separate a manager's intrinsic capabilities from the knowledge and abilities he/she has learned in previous firms
- challenging to show that such acquired knowledge and abilities impact current firm performance

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 - ▶ We exploit a **natural experiment** and two “quasi” experiments to make strong causal claims.

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 - ★ Firms sell products that are more differentiated and/or financially vulnerable
 - ★ The product is exported to a country-sector with stronger penetration from Chinese firms

Outline

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- ① Data & definitions
- ② Mincerian wage analysis
- ③ Trade performance analysis
- ④ Conclusions

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Information is reliable and (quasi) **exhaustive** which is **key** to our research question.

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→ 6.7 % of the workers are managers (in 2005)

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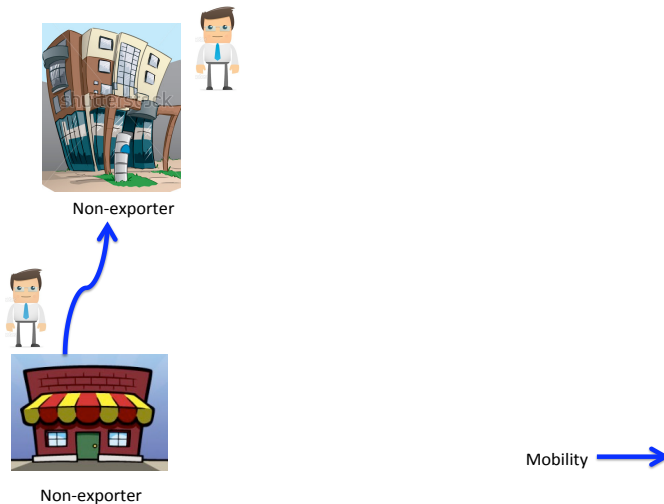
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- ▶ **Product p -specific export experience:** export experience + product p was a product exported by one of the worker's previous employers.

Wage analysis: Difference-in-Difference

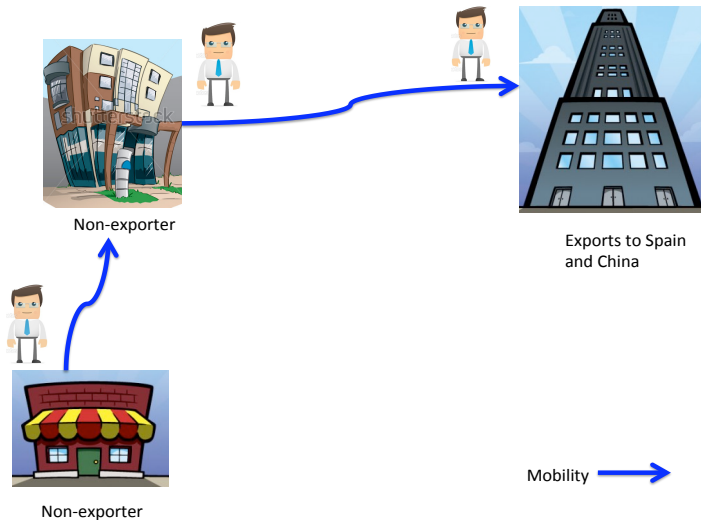


Non-exporter

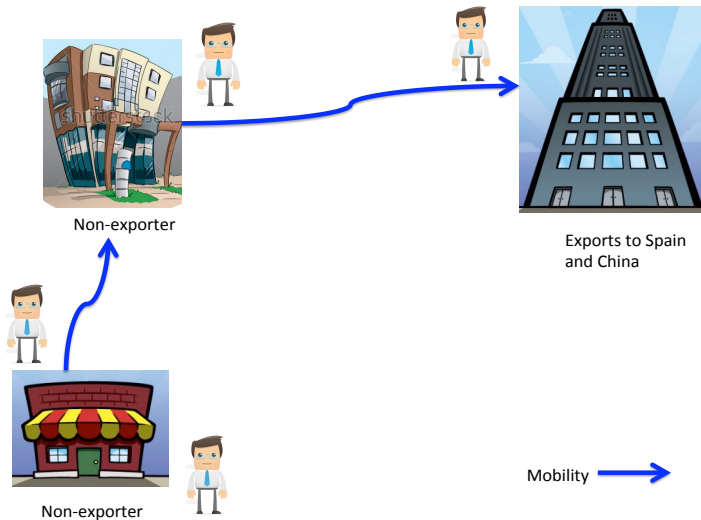
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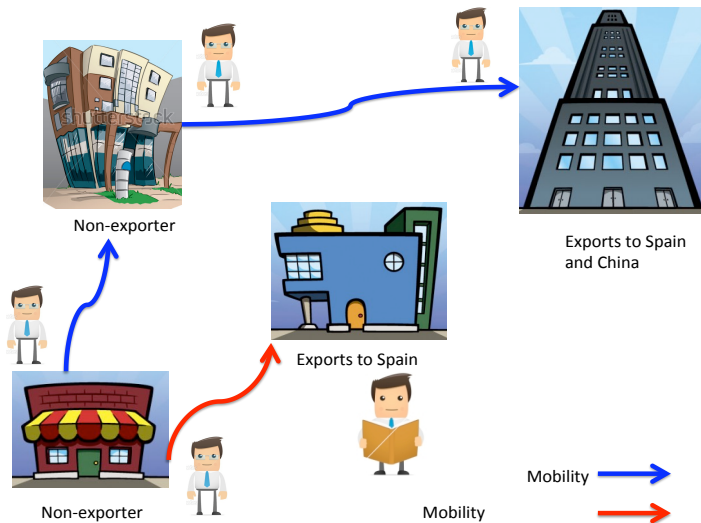
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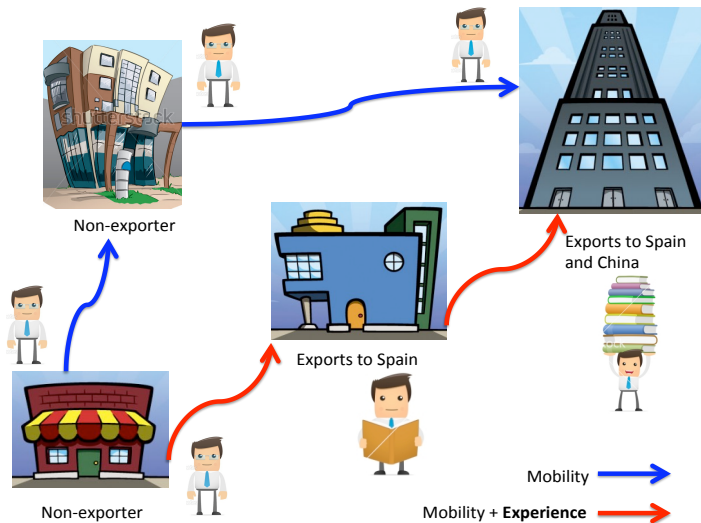
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$$\begin{aligned}
 w_{it} = & \beta_0 + \beta_1 Manager_{it} + \underbrace{Mobility'_{it} \Gamma_M + (Mobility_{it} \times Manager_{it})' \Gamma_{Mm}}_{\text{Control}} + \\
 & + \underbrace{\beta_2 Experience_{it} + \beta_3 (Experience_{it} \times Manager(type)_{it})}_{\text{Treatment 1}} + \\
 & + \underbrace{\beta_4 Matched_Experience_{it} + \beta_5 (Matched_Experience_{it} \times Manager(type)_{it})}_{\text{Treatment 2}} + \\
 & + I'_{it} \Gamma_I + P'_{pt} \Gamma_P + C'_{ft} \Gamma_C + \eta_i + \eta_f + \eta_t + \varepsilon_{it},
 \end{aligned}$$

Note: Γ_M (Γ_{Mm}) \rightarrow wage variations due to (managers') mobility

$\beta_2 + \beta_3 \rightarrow$ export experience wage premium for a manager (type)

$\beta_4 + \beta_5 \rightarrow$ **matched** export experience wage premium for a manager (type)

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- η_i (η_f , η_t) are individual (current firm, time) fixed effects.

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- Sales managers benefit from a destination-specific experience premium

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- v_{1fmt} and v_{2fmt} are uncorrelated with each other and with covariates.

Linear probability model - destination

	Prob. Start Exporting				Prob. Continue Exporting			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Unconditional Prob.	0.051	0.051	0.050	0.061	0.870	0.870	0.877	0.871
Manag. w/ Export Exp.	0.001 (0.001)				-0.000 (0.002)			
Manag. w/ Specific Export Exp.		0.013 ^a (0.001)	0.018 ^a (0.001)	0.040 ^a (0.005)		0.005 ^a (0.002)	0.014 ^a (0.003)	0.046 ^a (0.013)
Firm-Year Controls	X	X			X	X		
Destination-Year Dummies	X	X	X	X	X	X	X	X
Firm FE	X	X			X	X		
Firm-Year FE			X	X			X	X
IV				X				X
Observations	166,860	166,860	166,860	62,392	52,124	52,124	52,124	24,859
R ²	0.175	0.176	0.338	—	0.256	0.257	0.420	—

Standard errors clustered at the firm-level in parentheses: ^a $p < 0.01$, ^b $p < 0.05$, ^c $p < 0.1$

- The presence of basic export experience does not increase trade performance (columns 1 and 5)
- Specific export experience does increase trade performance (columns (2) to (4) and (6) to (8))

Linear probability model - product group

	Prob. Start Exporting				Prob. Continue Exporting			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Unconditional Prob.	0.017	0.017	0.017	0.021	0.732	0.732	0.702	0.727
Manag. w/ Export Exp.	0.000 (0.000)				-0.002 (0.004)			
Manag. w/ Specific Export Exp.		0.008 ^a (0.000)	0.009 ^a (0.000)	0.018 ^a (0.001)		0.031 ^a (0.002)	0.048 ^a (0.003)	0.120 ^a (0.011)
Firm-Year Controls	X	X			X	X		
Product-Year Dummies	X	X	X	X	X	X	X	X
Firm FE	X	X			X	X		
Firm-Year FE			X	X			X	X
IV				X				X
Observations	775,675	775,675	775,675	313,369	40,125	40,125	40,125	17,647
R ²	0.070	0.073	0.128	—	0.205	0.214	0.364	—

Standard errors clustered at the firm-level in parentheses: ^a $p < 0.01$, ^b $p < 0.05$, ^c $p < 0.1$

- Same results when considering experience in a product group

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Selection

- Control for a firm selection into a market with firm-year FE and destination-year (or product-year) dummies

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- Unexpected event that shakes the market.
- All firms have now better opportunities to trade but only some firms have managers with export experience in Angola and did not have time to hire beforehand

VARIABLES	(1) 1 pse	(2) 2 pse	(3) 3 pse	(4) 4 pse
Manag. w/ Spec. Exp. (0/1)	0.014 ^a (0.002)	0.005 (0.003)	-0.004 (0.005)	-0.004 (0.006)
Year \geq 2000 * Manag. w/ Spec. Exp. (0/1)				-0.001 (0.007)
Year \geq 2002 * Manag. w/ Spec. Exp. (0/1)			0.013 ^b (0.005)	0.021 ^b (0.009)
Year \geq 2003 * Manag. w/ Spec. Exp. (0/1)				-0.010 (0.007)
Year \geq 2004 * Manag. w/ Spec. Exp. (0/1)				-0.001 (0.006)
Year \geq 2005 * Manag. w/ Spec. Exp. (0/1)				0.004 (0.005)
Observations	28,420	24,805	24,805	24,805
R ²	0.024	0.383	0.384	0.384
Firm controls	X			
Year FE	X	X	X	X
N	28420	24805	24805	24805
Firm FE & Firm controls		X	X	X

Standard errors clustered at the firm-level in parentheses: ^a $p < 0.01$, ^b $p < 0.05$, ^c $p < 0.1$

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 - ▶ The interaction between the presence of specific export experience with a measure of product differentiation
 - ▶ The interaction between the presence of specific export experience with a measure of external financial dependence

Probability to Start Exporting a Specific Product; Interactions with External Financial Dependence and Product Differentiation

	Prob. Start Exporting			
	(1)	(2)	(3)	(4)
Manag. w/ Spec. Export Exp.	0.007 ^a (0.000)	0.008 ^a (0.001)	0.014 ^a (0.001)	0.013 ^a (0.002)
Manag. w/ Spec. Export Exp. * Ext. Fin. Dep.	0.029 ^a (0.004)		0.041 ^a (0.011)	
Manag. w/ Spec. Export Exp. * Prod. Diff.		0.008 ^b (0.003)		0.029 ^a (0.008)
Product-Year Dummies	X	X	X	X
Firm-Year FE	X	X	X	X
IV			X	X
Observations	775,675	775,675	313,369	313,369
R ²	0.128	0.127	—	—

Standard errors clustered at the firm-level in parentheses: ^a $p < 0.01$, ^b $p < 0.05$, ^c $p < 0.1$

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- Focus on firms already established.

Import penetration from China

	Prob. Continue Exporting		
	(1)	(2)	(3)
Manag. w/ Spec. Export Exp.	0.003 (0.002)	0.012 ^a (0.004)	0.046 ^a (0.014)
Manag. w/ Spec. Export Exp. * Imp. Penetr. China	0.004 ^a (0.001)	0.005 ^a (0.001)	0.005 (0.003)
Imp. Penetr. China	0.105 (0.998)	-0.017 ^a (0.006)	-0.023 ^a (0.006)
Product-Year Dummies	X	X	X
Destination-Year Dummies	X	X	X
Firm FE and Firm controls	X		
Firm-Year FE		X	X
IV			X
Observations	1,514,409	1,514,409	757,654
R ²	0.302	0.518	—

Standard errors clustered at the firm-level in parentheses: ^a $p < 0.01$, ^b $p < 0.05$, ^c $p < 0.1$

Extra bonus: Managers arriving and leaving

	Prob. Start Exporting		Prob. Continue Exporting	
	(1)	(2)	(3)	(4)
Experience	Dest.	Prod.	Dest.	Prod.
Arrival or Departure of Manag. w/ Specific Export Exp.	0.048 ^a (0.007)	0.034 ^a (0.003)	0.032 (0.025)	-0.109 ^a (0.029)
Market-Year Dummies	X	X	X	X
Firm-Year FE	X	X	X	X
Observations	12,231	54,179	14,190	6,772
R ²	0.331	0.145	0.454	0.365

Standard errors clustered at the firm-level in parentheses ^a $p < 0.01$, ^b $p < 0.05$, ^c $p < 0.1$

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- 5 Market-specific experience valuable to firms selling differentiated and/or financially vulnerable products
- 6 Destination-specific experience particularly useful when exporting to country-sector pairs with stronger penetration from Chinese firms.