Recruiting for Small Business Growth

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- Matching between donor and host firms matter (e.g., workplace similarity (Boschma et al 2008/2014); MNE-experience (Balsvik 2011); spillovers (Parrotta and Pozzoli 2012))

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- Analyse what role the level of knowledge of the hiring SME has – can the worst SMEs benefit from hiring 'superstars'?
- Exploit very detailed and matched employer-employee panel data 2001-2010
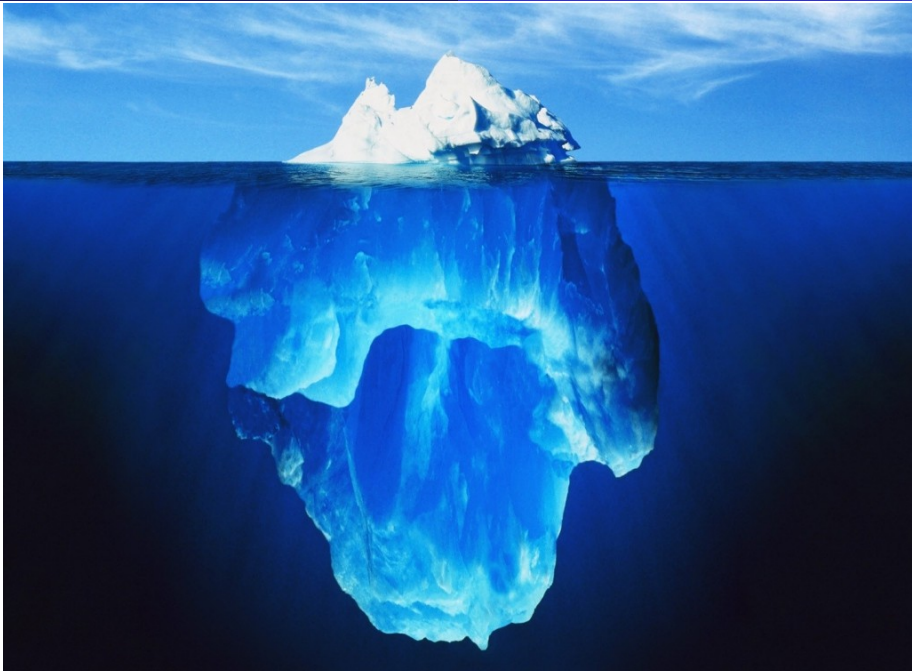
Chisco - CNB 100 - Photo Nicolas Claris

- Managers and professionals akin to 'informed' staff (vs. 'uninformed' other staff) (Glass and Saggi 2002)
    - learnt from responsible position in donor firm
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- Firms' organisational capacities and knowledge affect the gains from hiring top workers (Cohen and Levinthal 1989, 1990)

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- Then, we estimate the productivity changes, following recruitment of managers and professionals (within-firm estimation and quasi-experimental approach)

Expected conditional value of TFP is a function of newly recruited managers and professionals, other recruits, time-variant firm-level factors, and time-invariant firm and industry factors, that is:

$$E[a_{it}|MaP_{it-n}, O_{it-n}, \mathbf{Z}_{it-n}, v_i] = \zeta_{MaP}MaP_{it-n} + \zeta_O O_{it-n} \\ + \zeta_Z \mathbf{Z}_{it-n} + \zeta_I \mathbf{I}_{it-n} + v_i$$

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- Main registers we utilise
    - Structural Business Statistics (FEK) - financial info for private non-financial firms with >0 employees
    - Firm and Plant Dynamics Register (FAD) - firm dynamics faciliating isolating organic growth patterns
    - Enterprise Group Register (KCR) - enterprise group affiliation and more
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- Limiting the analysis to SMEs, we arrive at a paneldataset 2001-2010, with 167,000 firms in 2010

Snapshot of data in 2010

	Mean	Median	Std Dev	Min	Max
No. of employees	8.15	3	18.56	1	249
MaP	1.62	1	5.85	0	227
Others	6.05	2	15.02	0	240
Newly hired					
Managers	0.06	0	0.34	0	21
Professionals	0.15	0	1.05	0	81
Other workers	1.07	0	3.43	0	158
Firm age	10.21	12	5.67	0	37
Enterprise group status	0.25	0	0.43	0	1
Multinational status	0.05	0	0.21	0	1

Benchmark results

	(1) OLS	(2)	(3) Within-firm estimation	(4)
Managers and professionals$_{t-1}$	0.0265***	0.00221***	0.00217***	0.00216***
	(0.00135)	(0.000764)	(0.000764)	(0.000758)
Others$_{t-1}$	-0.0129***	0.00145***	0.00147***	0.00123***
	(0.000367)	(0.000323)	(0.000323)	(0.000323)
Firm size (ln)$_{t-2}$	0.212***	0.0623***	0.0624***	0.0668***
	(0.00199)	(0.00585)	(0.00585)	(0.00584)
Firm age	0.00194***	0.0110***	0.0110***	0.0257
	(0.000337)	(0.000698)	(0.000699)	(0.0166)
Multinational enterprise (0,1)	0.211***	-0.0411***	-0.0412***	-0.0409***
	(0.00719)	(0.0108)	(0.0108)	(0.0108)
Obs.	360,415	360,415	360,415	360,415
Adjusted R^2	0.12	0.68	0.68	0.68
Firm FE		y	y	y
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- MaP-results driven by professionals

MaPs with different backgrounds

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	E to S	Within E	E to other E	From MNE	From large firm	T to non-T	non-T to non-T
Managers$_{t-1}$	0.0039	0.0112*	-0.0090**	-0.0143*	0.00118	-0.00434	0.0104
	(0.0085)	(0.0058)	(0.0044)	(0.00732)	(0.00515)	(0.0121)	(0.00937)
Professionals$_{t-1}$	0.0253*	0.0011	0.0042**	0.00963***	0.00340*	0.0113***	0.00508*
	(0.0149)	(0.0013)	(0.0018)	(0.00249)	(0.00175)	(0.00297)	(0.00361)
Obs.	206,833	153,582	153,582	360,415	360,415	253,313	253,313
Adjusted R^2	0.60	0.73	0.73	0.68	0.68	0.66	0.66

Do hiring firms' absorptive capacity matter?

Classify firms according to their:

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- PLUS consider how the technological distance of a firm to the frontier firm of its industry influences hiring effects

Table 1: Hiring top workers, absorptive capacity and firm productivity - within-firm estimation results.

Absorptive capacity	Levels	Managers$_{t-1}$	Professionals$_{t-1}$	Others$_{t-1}$	Obs.	Adj.R^2
Education	High educ.	-0.00636	0.00438***	0.000458	174,136	0.656
		(0.00388)	(0.00128)	(0.000480)		
	Others	0.00753	0.00142	0.00560***	225,147	0.705
		(0.00751)	(0.00246)	(0.000956)		
Knowledge-intensity	Intensive	0.00434	0.00381**	0.00128	134,571	0.662
		(0.00510)	(0.00122)	(0.000812)		
	Less-intensive	-0.00278	-0.00162	0.000363	150,143	0.695
		(0.00457)	(0.00356)	(0.000618)		
R&D	With expenditure	-0.00176	0.00679**	0.00169**	33,156	0.638
		(0.00730)	(0.00254)	(0.000641)		
	Without expenditure	-0.00218	0.00286*	0.00127**	332,713	0.712
		(0.00290)	(0.00122)	(0.00395)		

Notes: TFP (log) is regressed on the hiring variables and confounding factors, while controlling for industry, year and firm heterogeneity. High education $(1, 0)$ corresponds to educational category 4; see Section 2. Robust and firm-clustered standard errors in parentheses. * p<0.1, ** p<0.05, *** p<0.01.

Robustness issues, i.a.:

- More experimental setting - comparing like firms that are treated with controls
- Time-invariant confounding factors locally (e.g., access to a university)
- Time-variant confounding factors in the industry
- Non-linear relation between MaP_{it-1} and a_{it}
- Partial adjustment (dynamic specification)

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    - Stronger impacts for more 'able' firms - the 'worst' firms may not gain from hiring 'superstars'
    - Technological laggards within an industry benefit more, the higher their absorptive capacity

Policy implications

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- Catch 22 - solution? Relaxing firing regulations? Make employee stock options more favourably taxed?

Thanks for your attention!