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## Assessing the labour reallocation process in Europe: productivity-enhancing or not?

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### This paper

- Explores the labour reallocation process across a set of European countries
  - Distinguishing between within-sector and between-sector reallocation
  - Paying particular attention to the role of the crisis in the reallocation process...

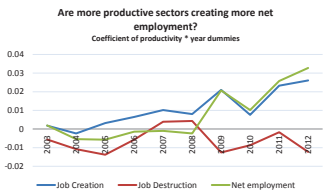
...in different European countries
- Assesses whether the presence of product, labour and credit market distortions hampers resource reallocation
  - The strategy is to construct sector-specific measures of product, labour and credit market distortions...

...and evaluate whether sectors with more distortions, relative to the country average, in a given year, are also characterised by less cleansing

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### Between-sector reallocation



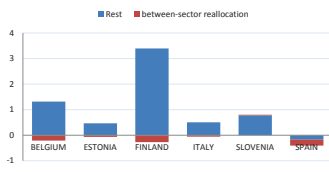
Pooling all countries together:

- Net employment creation at the sector level was not significantly correlated to the sector's relative productivity during the pre-crisis period
- From 2008 onwards, only more productive sectors were able to create jobs
- Sector job destruction not correlated to sector productivity over the entire period

Contribution of between-sector reallocation to aggregate productivity growth:

- There are large differences across countries
- In the pre-crisis period between-sector reallocation contributed negatively in ES, BE and FI
- However, within-firm productivity growth and within-sector reallocation more than compensated in BE and FI

Contribution to aggregate productivity growth: 2000-2007



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### Why is cleansing different across sectors?

- We take from the mark-up module average price-cost margins at the country, sector and year level
  - Compute the sector deviations to the country average, every year

VARIABLES	All firms	Medium-large firms
	Net employment growth	Net employment growth
Sector demand	0.2486*** (0.0869)	0.1805*** (0.0408)
Relative initial productivity	<b>0.5245***</b> (0.1023)	<b>0.2809***</b> (0.0536)
Relative initial productivity x sector mark-up	-0.1416 (1.0642)	<b>-0.9142*</b> (0.4854)
sector mark-up	-0.3496 (0.3563)	-0.0229 (0.1684)
Constant	0.1087* (0.0591)	0.0000 (0.0002)
Observations	7,629	6,569
R-squared	0.0377	0.0531
F(2, 3)	0.0343	0.0490

Robust standard errors in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Do sectors with higher mark-ups feature less cleansing?

- In sectors with relatively high mark-ups there is less cleansing
  - The coefficient of productivity actually turns negative
- It is significant for the set of medium and large firms, not for the smallest firms
- This is confirmed using alternative indicators of sector regulation
  - OECD regulatory impact indicator, although available for less years and sectors

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### Resource reallocation: what and why?

- Reallocation of resources is the result of job destruction by exiting and shrinking firms and job creation by entries and expanding firms
  - We know that the extent of resource reallocation across firms, even within narrowly defined sectors, is very large
  - Resources can reallocate across firms operating in a given sector, or in a different sector – within vs. between sector reallocation
- Reallocation is productivity enhancing when resources are shifted from low productive to high productive firms
- Although recessions might increase productivity-enhancing reallocation, market distortions might alter the costs/benefits of reallocation

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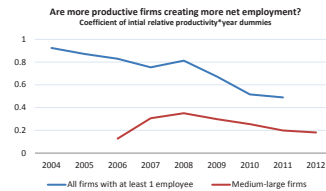
### Data: Sources and definitions

- Data come from CompNet's labour and mark-up module
  - No info on firm-level growth and characteristics
  - But rather on firms moving from one quintile of the size distribution to another in a 3 year window
  - These transition matrices are available for each country, macro-sector and year
  - Firms have to be in the sample in t-3 and t, so we only have info on survivors
- With this information we construct average employment growth, between t-3 and t, of firms in a given cell of the transition matrix – each cell is like a “representative firm”
  - We have information on the initial characteristics (at t-3), including median labour productivity and TFP, of firms in each of the cells
- We construct sector JCR and JDR à la Haltiwanger
- 10 countries (AT, BE, HR, EE, FI, DE, IT, LT, SI, ES); 9 macro-sectors, 13 years (2000-2012)

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### Within-sector reallocation: time and sector variation

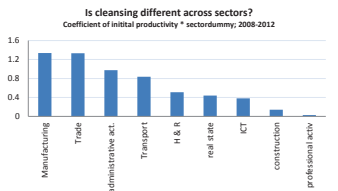


Pooling all countries together:

- There is a significant and positive relation between firms' initial productivity and net employment creation
- However, that correlation is declining over time (significant negative trend)
- The correlation is smaller among medium-large firms, and it does not change over time

Cleansing across sectors (pooled countries):

- Cleansing is highest in manufacturing
- And lowest (significantly) in ICT, construction and professional and technical activities
- Why?



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### The way forward

#### Labour and credit market distortions

- We have used estimated collective bargaining parameter from the mark-up module
  - But lack of time variation does not permit to identify effects
  - 2 other possibilities:
    - Use the WDN share of firms in each country, sector and year with centralised collective bargaining – to be done
    - Construct a sector EPL using sector job churning from the US and OECD EPL-tbd
- We have also explored the impact of sector access to finance on cleansing
  - Preliminary evidence shows that sectors where the share of credit constrained firms is relatively larger than the country average feature less cleansing
  - But results are not entirely robust. Looking for alternative proxies to access to finance at the sector level

#### Construct counterfactuals

- What is the contribution of reallocation to aggregate productivity growth?
- What would it be if European countries adopt best practices?

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