Banks, Credit, and Productivity Growth

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The Classical View

Political economists say that capital set towards the most profitable trades, and that it rapidly leaves the less profitable non-paying trades.
But in ordinary countries this is a slow process [...] In England, however, [...], capital runs as surely and instantly where it is most wanted, and where there is most to be made of it, as water runs to find its level.

Bagehot (1873)

The allocative role of banks and finance

- A fundamental role of the banking and financial sectors is to allocate capital to its **most productive use**.
- This implies that banks and financial markets should invest capital in the sectors and firms that are expected to have higher returns and withdraw it from those with poor prospects.
- Does this happen? What do we know about these type of issues?

Step 1: identifying key patterns in the data

- Firm level regressions in reduced form. Baseline specification:

$$Credit\ Growth_{ist} = \beta_0 + \beta_1 Productivity\ Growth_{ist} + \beta_2 Demand_{ist} + \beta_3 Leverage_{ist-1} + \delta_t + \gamma_s + \epsilon_{ist}$$

- Parameter of interest: β_1
- It is the elasiticiy of capital on productivity and captures how quickly capital relocates to most productive firms

Variables

Credit sources:
- Loans
- Bonds

Productivity measures:
- Marginal product of capital
- TFP
- Labor productivity
- Real value added

Controls:
- Proxy of credit demand: Maximum rate of internally financed growth [ROA / (1- ROA)]
- Proxy of financial health: Leverage

Additional specifications

- Looking at differences pre- and post-crisis
- Estimating elasticity by sector (NACE 2 digits)
- Specification also with sector-year dummies
- Regression with firm fixed effects to capture the effectivennes of credit allocation across the growth pattern of a firm (within firm credit allocation)

Baseline results on loans

Italy (2001-2012)

Elasticity of loans respect to:	t	t + 1	t + 2
MPK	-0.3***	0.1%***	-0.005%***
TFP	0.8%***	2.4%***	0.1%
Labor productivity	4.4%***	3.4%***	0%
Real value added	11.9%***	1.2%	0%

Spain (2008-2012)

Elasticity of loans respect to:	t	t + 1	t + 2
MPK	-4.5%***	0%	-1%***
TFP	-3.5***	2.7%***	0.3%
Labor productivity	-3.3%***	2.1%***	-0.6%
Real value added	3.7%***	3.2%***	0.3%

Finland (1999-2012)

Elasticity of loans respect to:	t	t + 1	t + 2
MPK	-15%***	5.8%***	1.3%***
TFP	-10%***	11%***	1.7%***
Labor productivity	-5%***	6.7%***	1.2%***
Real value added	3.5%***	8.9%***	1.1%***

Additional results

- Post-crisis elasticities (at time t) are higher in Italy but stable in Finland
- Elasticities for small firms (at time t) are higher in Italy, but do not change for Spain and Finland
- Elasticity of bonds' allocation is not higher (markets vs. banks)

Next steps

- Extend these estimations to other countries
- Exploit the cross-country variation to identify the determinants of the elasticity
- Quantify how much the allocation of capital by banks and markets influence cross-country TFP differences