

**Local Banking And Local Economic Growth In Italy:
Some Panel Evidence**

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1. Introduction

This paper examines the linkage between local banking activities and local economic growth. It considers issues such as the importance of local banks providing loans to creditworthy borrowers, as well as the quality of local infrastructures and the local production structure. Local banks are typically more focused on strengthening the social capital of the local community where they operate and are characterised by a better knowledge of local economic agents.

The present study is related to two distinct branches of the literature. The first analyses the relationship between financial structure and economic development (see Goldsmith, 1969, and several papers on endogenous economic growth surveyed by Pagano, 1993, and Levine, 1997, 2003). The second investigates the lending behaviour of banks depending on their size, ownership (La Porta et. al., 2002) and organisational structure (Berger and Udell, 2002). We analyse the Italian case at the county level (the Italian “province”) applying panel data methods to a comprehensive data set (with a sub-sample of Cooperative Credit Banks, small local banks that are used as a proxy for local banking) spanning the period from 1998 to 2009. The main findings can be summarised as follows. Italy is still characterised by significant geographical heterogeneity, with convergence still taking place. The quality of human capital (education) and of social capital (volunteering, separate collection of rubbish and recycling) has a positive and statistically significant impact on the local economy; public expenditure has countercyclical effects. Local banking has a positive effect on local growth, especially in Northern Italy, whilst the production structure plays a less important role, although the presence of handicraft firms is usually associated with stronger growth.

The layout of the paper is as follows. Section 2 reviews briefly the relevant literature. Section 3 provides details of the data. Section 4 describes the econometric framework and the main empirical results. Section 5 and 6 focus on the role of local infrastructure and local banking respectively. Section 7 offers some concluding remarks.

2. Banking Activity and Growth

The relationship between the financial sector and, in particular, the banking sector and economic growth has been extensively investigated in the empirical literature in the last twenty years. Initially, the role of financial intermediation, of financial markets and of the competition within the banking sector was analysed; subsequently, the role of the institutional and legislative framework, as well as bank governance, was considered. Overall, the empirical findings have confirmed that finance and banking activities play a significant role for economic growth, and

study reasons during the previous year at the regional level), the attractiveness of the regional hospital services (the percentage of people coming to local hospitals from another region in the total number of people hospitalised at the regional level).

Human capital is measured as the level of education at county level, and social capital as follows: bloodletting (the number of bloodlettings per capita at the regional level), volunteering (

However, Rousseau and Wachtel (2000) argued that both cross-sections with the initial value of the regressors and cross-section or panel data with instrumental variables do not fully solve the simultaneity problem, because the determinants of economic growth

The basic version of equation (1) was then extended by adding

Equation (3) includes some variables for the local production environment, such as the local entrepreneurship behaviour, the relative weight of the three main sectors (agriculture, industry, services) and of handicraft firms:

$$y_{i,t} = \beta_1 y_{i,t-1} + \beta_2 w_{i,t-1} + \beta_3 e_{i,t} + \beta_4 b_{i,t} + \beta_5 h_{i,t} + \beta_6 r_{i,t} + P_{i,t} \quad (3)$$

where $P_{i,t}$

where $LB_{i,t}$ is a vector of loan market shares for local banks in Italy. $LB_{i,t}$ is also interacted with geographical dummy variables for Northern, Central and Southern Italy (equal to 1 in the counties belonging to each geographical area and 0 otherwise). In addition, a nonlinear specification is chosen to test if local bank activity is associated to growth only for a given market share, i.e. if size matters (in the sense that too small local banks cannot affect economic growth).

Table 7 reports the estimation results, which confirm that the presence of local banks has a positive nonlinear effect on local economic growth, since the squared coefficient on the local bank market shares is positive and statistically significant and has the biggest size. This is particularly true of North-East Italy, whilst in the South and in the Centre the estimated coefficients are not significant at the 5% level.

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Tables

Table 1. *Variables' definition*

| Variable | Definition | Source | Level | Unit of measur. |
|------------------------|---------------------------------------|---------------|--------------|------------------------|
| <i>Economic growth</i> | Annual change of total value added pc | Istat | County | % |
| <i>Initial income</i> | | | | |

| | | | | |
|-------------------------------|--|-------|--------|-------|
| <i>Railway transports</i> | Inbound and outbound goods moved on the railways in terms of tons per capita | Istat | Region | Index |
| <i>Transports on the road</i> | Inbound and outbound goods moved on the roads in terms of tons per capita | | | |

Table 4. *Equation (1) – with social capital*

Table 5. *Equation (2) – Quality of local infrastructures*

Regressors

Table 6.a Equation (3) – Local productive environment (I)

| <i>Regressors</i> | <i>Dependent variable: local economic growth</i> | | | | | | | |
|-------------------------------------|--|-----|---------|-----|---------|-----|---------|-----|
| <i>constant</i> | 0.0691 | ** | 0.0749 | ** | 0.0696 | ** | 0.0765 | *** |
| <i>y_{i,t-1}</i> | 0.1656 | *** | 0.1650 | *** | 0.1545 | *** | 0.1617 | *** |
| <i>Initial income_t</i> | -0.0846 | ** | -0.0877 | ** | -0.0785 | ** | -0.0894 | ** |
| <i>Employment_t</i> | 0.0860 | ** | 0.0899 | ** | 0.0842 | ** | 0.0826 | ** |
| <i>Banking loans_{t-1}</i> | 0.0211 | ** | 0.0221 | ** | 0.0209 | * | 0.0207 | ** |
| <i>Human capital_t</i> | 0.0619 | *** | 0.0574 | *** | 0.0545 | ** | 0.0649 | *** |
| <i>Separate rubbish_t</i> | 0.0255 | * | 0.0268 | * | 0.0269 | * | 0.0246 | * |
| <i>Firm registry_t</i> | 0.0579 | | - | | - | | - | |
| <i>HighP MCID 3Lang (</i> | | | | | | | | |

Table 7. Equation (4) – Cooperative Credit Banks (BCCs)

| <i>Regressors</i> | Dependent variable: local economic growth | | | | | | | | | |
|--|--|-----|---------|-----|---------|-----|---------|-----|-------------------|-----|
| <i>constant</i> | 0.0605 | ** | 0.0570 | ** | 0.0680 | *** | 0.0856 | ** | 0.0883 | ** |
| <i>y_{i,t-1}</i> | 0.1634 | *** | 0.1611 | *** | 0.1620 | *** | 0.1658 | *** | 0.1614 | *** |
| <i>Initial income_t</i> | -0.0884 | ** | -0.0889 | ** | -0.0929 | ** | -0.0896 | ** | -0.0948 | ** |
| <i>Employment_t</i> | 0.0912 | ** | 0.0884 | ** | 0.0857 | ** | 0.0846 | ** | 0.0851 | ** |
| <i>Banking loans_{t-1}</i> | 0.0201 | * | 0.0205 | * | 0.0216 | ** | 0.0216 | * | 0.0187 | * |
| <i>Human capital_t</i> | 0.0807 | *** | 0.0827 | *** | 0.0759 | ** | 0.0513 | *** | 0.0619 | *** |
| <i>Separate rubbish_t</i> | 0.0270 | ** | 0.0300 | ** | 0.0259 | ** | 0.0276 | ** | 0.0248 | * |
| <i>LB</i> | -0.0647 | | - | | - | | - | | - | |
| <i>LB²_t</i> | 0.2986 | * | - | | - | | - | | - | |
| <i>LB*North-East_t</i> | - | | -0.0707 | * | - | | - | | - | |
| <i>LB*North-East²_t</i> | - | | 0.3294 | ** | - | | - | | - | |
| <i>LB*North-West_t</i> | - | | - | | 0.1370 | | - | | - | |
| <i>LB*North-West²_t</i> | - | | - | | -0.5806 | | - | | - | |
| <i>LB*Centre_t</i> | - | | - | | - | | 0.1198 | | - | |
| <i>LB*Centre²_t</i> | - | | - | | - | | -0.7220 | | - | |