

Risk, Regulation and Performance in Banking: Theory and Estimates for Italian Banks

Abstract

“The financial system ... may be simultaneously growth-induced and growth-inducing, but what really matter are the character of its services and the efficiency with which it provides them (Cameron et al. (1967), p. 2)”.

In the literature, many studies have analyzed the impact of the financial sector on growth and economic development. This literature often lacks, however, an accurate assessment of the feed-back of growth on the financial sector. Indeed, empirical evidence suggests that environment is important in determining the efficiency of banks. Potential differences in the environmental, risk and regulation conditions of financial institutions have led many researchers to examine the impact of environment on financial development. Seldom this has been reflected upon the studies considering the finance-growth nexus

The present work is addressed to this void of literature, investigating the impact of variables related to local growth and riskiness upon the development of financial sector, as captured by the qualitative proxy of bank efficiency. The latter concept, and its measurement, provides the thread of this thesis.

In Chapter 1 we provide a survey of the main models used in literature to estimate productive efficiency, with some emphasis on the analysis of banking. We analyze the parametric and non-parametric frontier models, their estimation problems and main differences, also considering some recent contributions in this context. Devoting particular care to the analysis of productive processes within banking, we highlight the importance in this field of the multi-input multi-output nature of this production, the relevance of risk aversion, credit risk, and of environmental factors.

In Chapter 2, we test the nexus between financial development and economic growth relying upon territorially disaggregated data (NUTS3 and SLL) from Italy. We use cost and profit efficiency measures,

computed through a parametric approach (SFA), as qualitative measures of financial development, and credit volume divided by gross domestic product as its quantitative measure. A key element of novelty of this chapter's analysis is the interaction between banking and national accounting at a territorially very disaggregated level. The banking data, taken from the BilBank 2000 database distributed by ABI (Associazione Bancaria Italiana) over the 1998-2005 and 1998-2008 period, include many cooperative banks that operate at a purely local level. A growth model, similar to Hasan et al (2009), is specified and tested in a panel data context. Our estimates suggest that financial development has a positive significant impact on GDP per capita.

In Chapter 3 we analyze the determination of cost efficiency in a sample of Italian small banks located in different geographical areas and including two great institutional categories: cooperative banks (CB's) and other banks. We highlight the effect of environmental factors (asset quality, local GDP per capita) on banks' performance, and provide novel evidence in favour of the "bad luck" hypothesis suggested by Berger and De Young (1997). Local GDP per capita strongly affects the territorial differentials for technical efficiency, especially for CB's. This can be easily rationalized, as current regulations hamper CB's vis-à-vis other banks in their capability to diversify territorially. Our estimates provide us with a tentative quantitative measure of the costs of missing diversification, ranging between 2 and 7 percentage points. Correspondingly, our evidence suggests that there is potentially strong endogeneity in some currently available bank performance indicators.