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Banks, stability and competition

(Abstract - EN)

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Abstract

The importance of financial institutions as pivotal for the economy is largely acknowledged. Since they provide specific services, such as issuing loans and collecting deposits, and perform a number of peculiar functions, including maturity transformation and risk diversification, banks and financial intermediaries are often referred to as “special”. However, the risks they face are special as well. Being extremely leveraged institutions, banks walk on a very thin thread and, considering that they are nowadays world-wide connected, instability can rapidly spread over the system, even affecting the real economy. Therefore, traditional economic rules are not entirely suitable for banks, which require a particular attention from regulatory authorities and academics.

This thesis focuses on two areas of remarkable importance, namely financial stability and banking competition, and develops within three chapters, as explained below. The aim of Chapter 1 is to highlight the relevance of financial stability and competition, also asking why regulators are extremely concerned about the two topics. The second and third chapters, then, start from the above premises with a specific focus on the Italian system. This is the backbone of the thesis: Italy is full of specificities, sometimes difficult to understand completely. Nonetheless, it is desirable that these specificities are protected and encouraged, since, very often, they have proven to be a strength.

More in depth, in Chapter 1 we review the main literature, both theoretical and empirical, regarding banking stability and competition.

Ensuring financial stability is nowadays a fundamental in central banks schedule. Indeed, last decades have underlined that banking crises can be extremely costly and disruptive. Besides, financial turmoil is more and more frequent and has a systemic relevance. Therefore, noteworthy efforts have to be undertaken in order to avoid such adverse episodes.

The negative influence of financial instability on the real economy is well established in literature since the “Great Depression”. However, the understanding of stability has evolved over time, switching from a purely micro-funded definition

to a more complex macro-prudential approach. This conceptual change has influenced the regulatory frameworks too, which now conceive the system in a more organic way, albeit not neglecting to control the risk at the single institution level. As a consequence, the methodologies for evaluating and measuring stability and risk have evolved as well, mainly following two lines. Particularly, the academic literature has developed, on the one hand, indices grounding on the measurement of risk at the bank level; on the other hand, frameworks for the assessment of systemic risk. The topic is now at his very peak.

In the second part of the chapter we focus on banking competition. We have noticed that, while stability is clearly recognized as a goal to achieve, conclusions about competition are not so definite. As a matter of fact, despite a competitive environment is traditionally considered as desirable for the market, because it involves positive outcomes for the economy, this is not entirely true for banking industries, which are characterized by a number of imperfections.

In trying to disentangle the effects of banking competition on the economy, we have focused on two transmission channels, namely market power and efficiency. In this way we have also been able to evaluate the most widespread competition indices, which usually conjecture the existence of one of the aforementioned conduits. Then, we have moved on the direct evaluation of the aftermaths of competition in banking on some specific features, such as economic growth and monetary policy transmission. In both cases a certain level of market power sounds desirable, albeit with few exceptions.

The chapter concludes with a section about the relation between bank competition and financial stability, in which the main theories have been reviewed: the “competition-fragility” theory, according to which competition drains banks’ market power and franchise value, hence harming stability; the “competition-stability” hypothesis, which maintains that competition is likely to promote banking stability. Nevertheless, a more recent literature has evidenced that a third way is possible. Indeed, the two theories are not necessarily colliding, rather the two effects depend on the characteristics of the specific market.

In Chapter 2 we propose and test a new index for assessing banks' insolvency risk. Alternative measures of bank stability and risk appear useful when market-based indicators are not available, or traditional indexes derived from balance sheets variables are not suitable because of collinearity, endogeneity or not comparable data. This is the case of the Italian banking sector, mainly composed by local small non-listed banks, i.e. cooperative banks or BCCs, which operate in accordance with the principle of mutuality. Since BCCs' activity focuses principally on their own members, it is likely that they act to maximize their value rather than profits. Consequently, market-based measures are not fully suitable for the Italian sector, as they would concern only a (small) part of the market. On the other hand, also common accounting measures constructed on profitability appear not appropriate.

Our index, which we call *BVDD*, i.e. 'book-value distance to default', is based on the classic distance to default derived within the Contingent Claim Analysis but entirely constructed on book-value data. In a nutshell, we employ the book-value of assets and its volatility instead of the same values derived from market data.

To test *BVDD*'s reliability, we employ two econometric approaches: a standard logit model, and a survival analysis through a semiparametric Cox model. Working on a sample of 863 Italian banks over the period 1996 to 2013, we find confirmation of its predicting power. In fact, banks with higher *BVDD* are less likely to default, and the evidence seems to be robust to alternative model specifications. Moreover, some insights about the Italian banking system may be inferred: big profitable banks with an adequate level of capitalization and a lower level of non-performing loans show a lower probability of default.

Lastly, in Chapter 3 we turn to competition, assessing the degree of Italian banks' competitiveness between 1989 and 2013.

The Italian banking industry has evolved considerably over time. Since the '80s, many boundaries have been removed (among them, branch limitations, credit quotas and the widespread public ownership), mainly in accordance with the European harmonization. Similarly to other countries, the process has led to a progressive consolidation of the market. At the same time, Italy has experienced a

progressive disintermediation towards a more service-oriented business-model and, in addition, the recent financial crises have deeply affected the system, hitting the most the biggest banks. As a result, banks have started looking for efficiency gains in order to compete in the new globalized market and, above all, to survive.

However, the Italian banking industry has its own peculiarities, especially in terms of dimension and legal form of its intermediaries. As already mentioned, BCCs play an important role and, due to their specificities, enjoy a peculiar kind of market power, i.e. relationship lending. For these reasons, an analysis of the competition grade of the system seems of primary importance given the intense modifications that have taken place in Italy over the last decades, especially to understand if such transformations have played a role.

In this chapter, we apply the Bresnahan (1982), Lau (1982) and Shaffer (1989, 1993) methodology to Italian data in order to estimate an index of competition, called λ, for the banking sector. Typically employed on time series, the methodology is here implemented on a panel. Specifically, we focus on dimensional groups, discriminating between big, medium, small and minor banks, as classified by Bank of Italy. In this way, we are able to observe both the evolution of the coefficient over time and the difference in competitive behaviours among different classes of banks.

According to our results, between 1989 and 2013 the Italian banking sector has been characterized by a substantial degree of competitiveness. Moreover, the level of competition has shown an increasing trend. In detail, our estimates evidence a notable increase occurred in the first Nineties, which can be due to the introduction of the Second Banking Directive (Directive 89/646/EEC), and a contraction over the period 2007-2008, perhaps linked with the upcoming financial crisis. Furthermore, the results seem to confirm the existence of some market power enjoyed by smaller banks, since their level of competition is found lower compared with bigger ones.