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The Murky Side of Local Banks:
Relationship versus Informal Banking

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The Murky Side of Local Banks: Relationship versus Informal Banking[1]

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Abstract

Like most industrialised countries, Italy experienced a wave of mergers throughout the banking industry over the last decade and it seems that many customers have been dissatisfied with the disappearance of their local banks. This view is supported by the observation that several new banks have been launched to fill the gap left by the small local banks that were purchased. What is the explanation for this Arabian phoenix phenomenon? We consider two explanations which both hinge on the demand from firms for informal relationships with their banks, something which local banks are better equipped to provide. Firstly, received wisdom in the literature would suggest that this demand originates from the needs of traditionally more opaque small businesses to have a special relationship with their banks to overcome problems of information asymmetry in gaining access to bank loans. We label this as the "need for relationship banking" motivation. Secondly, we consider an alternative explanation, the hypothesis that businesses operating in the black economy require specific banking services, which they find it easier to obtain from local banks, under the umbrella of informal relationships. We term this as the "need for informal banking" motivation. While we leave to future work testing for the "need for relationship banking" motivation, this paper presents evidence supportive of the importance of the need of *informal banking*.

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[1] The arguments made and the conclusions reached in this paper are our own personal arguments and conclusions and not necessarily those of the institutions to which we belong and work for.

1. Introduction

Like most industrialised countries, Italy has experienced a wave of mergers throughout the banking industry over the last decade. But it seems that many customers have been dissatisfied with the disappearance of their local banks. This view is supported by the observation that several new banks have been launched to fill the gap left by the small local banks that were purchased. What is the explanation for this Arabian phoenix phenomenon?

We consider two explanations which both hinge on the demand from firms for informal relationships with their banks, something which local banks are better equipped to provide. Firstly, received wisdom in the literature would suggest that this demand originates from the needs of traditionally more opaque small businesses to have a special relationship with their banks to overcome problems of information asymmetry in gaining access to bank loans. We label this as the "need for relationship banking" motivation. Secondly, we consider an alternative explanation, the hypothesis that businesses operating in the black economy require specific banking services, which they find it easier to obtain from local banks, under the umbrella of informal relationships. We term this as the "need for informal banking" motivation.

To test which of the two explanations is supported by the evidence, we designed the following empirical method. First of all, we focus on the many instances of provinces where some or all the local banks either disappeared or became part of large banking groups. This phenomenon would supposedly have weakened relationships with banks. Secondly, we identified several cases in these provinces where new banks have been opened. Thirdly, we empirically study the factors affecting the probability that new banks will be opened in provinces that have lost some or all of their local banks. It is at this juncture that we control for other background features and compare our two alternative explanations. We hypothesise that the "need for informal banking" motivation should correlate with the share of the black economy in provinces. If we find that the birth of new local banks is triggered by the "need for informal banking" motivation, this could have a negative impact on the growth potential of local economies.

This paper is the first part of a more ambitious research project on the net benefits accruing to the economy from the drastic changes which have occurred in the structure of our banking industry.

It is conventional wisdom that in Italy as in other countries a more up-to-date organisational structure requires just a few very large "global banks" which are not only capable of delivering the benefits of economies of scale and scope, but are also needed to satisfy the new demand from firms for more sophisticated (Corigliano, 2007) and international (Dell'Atti *et al*., 2007) financial services.

On the other hand, we know that many small firms in Italy do not really depend on bank loans for growth (Salotti, 2007). Or when they do it is performed in the very peculiar way that is typical of our "family capitalism". The *relationship-based* financial system found in Italy with many local banks and many small firms (Giordano, 2007, pp. 221-6) is based on personal guarantees given by the owners of firms (thereby mixing the assets of the family owners with those of their firms) and credit risk is often shared between a number of banks as generally occurs when small firms borrow from more than one bank (termed "*multiaffidamento*").

The same features which give rise to the need for "relationship banking" (i.e. the local banker knows what its client is really worth and is not distracted by the appearance of the firm's accounts) are partly shared by firms belonging to the *black economy* (which is dominated by tax evasion and not by any criminal activity, such as drugs and prostitution). What in the first case could be considered a positive feature, i.e. banks which are providing a solution to problems of information asymmetry, would be judged very differently in the second case. The need for "informal banking" implies that firms remain opaque *vis-à-vis* their bank(s) and that the benefits they receive, in the form of tax evasion, are not to be confused with the efficiency gains normally deemed to be the outcome of an efficient, local, banking system.

In the rest of the paper, Section 2 surveys the background literature and outlines our research strategy. In Section 3 we present the data used in the analysis. Section 4 presents the main result of our econometric estimates. Finally, Section 5 summarises the chief findings and sketches possible avenues for future research.

2. Literature review and research strategy

Over the recent decades, liberalisation measures have caused a wave of consolidation in banking industries in all industrialised countries. While the USA probably experienced this phenomenon earlier than other countries (Berger et al., 1995), the process of consolidation later became widespread elsewhere especially in European countries (Group of Ten Report, 2001). Although local banks – operating within a geographically restricted market – were quite resilient, their market share dropped almost everywhere.

Yet, there seems to be something special about local banks which still makes them desirable even nowadays. On the one hand, it is perhaps significant that one of the largest global banks, the HSBC (Hong Kong Shanghai Banking Corporation), likes to advertise itself as "the world's local bank" and that many *de novo* banks often appear where local banks have disappeared. On the other hand, some of the literature holds that there may be a good theoretical justification for the existence of local banks, even if their very size prevents them from exploiting possible economies of scale. For instance, various studies conclude on either theoretical or empirical grounds that bank holding companies often show clear organizational inefficiencies (e.g., Berger and Mester, 1997; Stein, 2002). In particular, Stein (2002) remarks that given the hierarchical organisation of large banks, local credit managers would be led to underinvest in costly operations such as gathering soft information, which typically governs relations between banks and SMEs, in order to prevent headquarters from cutting its budget allocation to their branches. As such, by conducting business more informally, local banks might be more efficient than large banks at overcoming information asymmetries and, therefore, at servicing SMEs. Scott (2004) corroborates this hypothesis by showing that local banks rely to a much larger extent on soft information than large banks do.

It might be natural, against this background, to try to explain the birth of many *de novo* (local) banks in markets where local banks had disappeared due to consolidation on the basis of the needs of SMEs.

While we feel it would be interesting to test this hypothesis, here we take a different angle. Namely, we consider an alternative explanation, the hypothesis that businesses operating in the black economy require specific banking services which they

find it easier to obtain from local banks, under the umbrella of informal relationships. We term this the "need for informal banking" motivation behind *de novo* banks.

Certainly, the impact of the extent of the black economy on banking seems to be an under researched area.[2] This is particularly surprising in Italy, where the the black, or shadow, economy is the largest of the G-7 countries. According to the estimate provided by Schneider (2005), the black economy represented 25.7 per cent of GDP in Italy in the period 2002-03, well above the OECD average (Figure 1).

Accordingly, the remainder of this paper is devoted to trying to ascertain whether the probability of a *de novo* bank being formed is higher in areas where local banks have disappeared and where the black economy is relatively large. Our analysis differs in some respects from the pioneering paper by Cocozza and Lozzi (2006).[3] First of all, they performed their analysis with on the basis of local markets identified in terms of "Local Labour Systems" (Sistemi Locali del Lavoro) as defined by Istat (Italian National Statistics Office), while we consider credit markets at province level. Secondly, while they consider all *de novo* banks, we omit Credit Cooperative Banks from our analysis, because the operational scale of these may be too small to be relevant to our hypothesis. Thirdly, they focus on the relationship between bank M&A activity at local level and the probability of a *de novo* bank being created, while we look at the interaction between the loss of local bank variable with the propensity to evade taxes, both measured at the province level.

3. Some descriptive analysis

The focus of this paper is on the period 1995-2006, following a decade which witnessed the gradual liberalization of the banking sector. The implementation, in 1993, of the Second Banking Coordination Directive (with the introduction of the consolidated banking act (*testo unico bancario*) in Italy completed the process of banking deregulation, which had started in the mid 1980s. Our analysis is built on data on new and closed local banks after 1994, obtained from the Bank of Italy.[4] Following the existing literature, we assume that the local credit market coincides with the province. In table 1, we report some descriptive statistics of all the data used.

The endogenous variable in our empirical analysis is a dummy variable which takes the value of 1 if a new local bank was created in the province after 1994 (0 otherwise).[5] While the key explanatory variable of interest is the propensity to evade

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[2] One exception is Gobbi and Zizza (2005) who find that credit markets tend to be underdeveloped in regions where the extent of the black economy is larger.

[3] Their main findings are that: i) the size and the degree of concentration of the local credit market are positively related to the formation of new banks; ii) *de novo* banks are more likely to emerge in local markets with larger market shares affected by M&A activity; iii) M&As affect the likelihood of a *de novo* bank been born only when they are in-market M&As.

[4] We thank Riccardo De Bonis for providing us with the data and for the very useful suggestions received.

[5] As opposed to Cocozza and Lozzi (2006), we discard *de novo* credit cooperative banks (CCBs) from our analysis and focus only on independent *de novo* banks in the form of joint stock banks or 'popular' co-operative joint stock banks. The grounds for our choice are based on two considerations. Firstly, CCBs, and new CCBs especially, have a rather limited geographical market, often covering only part of a province. As such, they would have built in a potential distorsion in our province-level indicators. Secondly, the other types of *de novo* banks require much larger initial capital than CCBs and provide a stronger signal that the business community in a province is taking effective steps to reshape its banking

tax taken at the province level, here we have considered the measures provided by Pisani and Polito (2006) based on the IRAP (local tax on production) tax on firms for the period 1998-2002 (http://www1.agenziaentrate.it/ufficiostudi/).[6] In order to take into account the changes that occurred in local credit markets after the liberalization, we look at the interaction between this explanatory variable and a dummy variable which takes the value of 1 if one or more local banks were closed in the province after 1994 (0 otherwise).[7]

In figure 2 we report basic statistics for the new banks created after 1992. As can be seen, after reaching a maximum (co-operative banks only) in 1995 the number of new banks gradually decreased. We also started to see some new independent joint-stock banks after 1995. Figure 3 shows the geography of new banks after 1992. Here it can be seen that the largest number of new co-operative banks is in the South, while the largest number of new independent joint-stock banks is in the North. In figure 4 we present the geography of closed banks after 1992. It can be seen from this data that the largest number of closed cooperative banks was in the South. Finally, in figure 5 we report the provincial distribution of the propensity to evade tax. As may be appreciated, the distribution is skewed to the right: generally, apart from just a few exceptions, the Southern provinces have the highest propensity to evade tax.

In our estimation we have considered several control variables. In particular, we control for the presence of banks in local markets during the 1991-1998 period: number of branches per 1,000 inhabitants in the province; Herfindahl-Hirschman Index (HHI) on bank loans in the province. All these data are based on Bank of Italy statistics and we have used the values computed in Herrera and Minetti (2007). Moreover, we have used some variables taken from Guiso *et al.* (2004b,a): social capital, which is measured by average voter turnout at the province level for all referenda in the period between 1946 and 1987; judicial inefficiency, which is measured by the log of the number of years it takes to have a first-degree judgment in the province. Finally, we consider the average growth of per capita value added in the province over the years 1991-1998 and a South dummy that takes the value 1 if the province is located in a region South of Rome, with Lazio excluded (0 otherwise).

4. Main results

Our empirical test is based on a regression in which new local banks (NLB) are a function of the local propensity to evade tax (LET) and of its interaction with closed local banks (CLB), with a set of variables describing the structure of local credit

landscape. It is quite instructive in this respect to visit the websites of non-CCB *de novo* banks: most of them explicitly declare that their specialty is that they do business informally.

[6] The data on other types of tax gives the legally registered offices of a company as the location, while by its nature this local tax on production provides data on taxation as distributed in production plants in different regions. This unique feature made it possible for Pisani and Polito (2006) to develop a method which gives a relatively accurate measure of the provincial propensity to evade tax. We also considered the measure of the provincial propensity to evade tax provided by Cannari and D'Alessio (2007), but it did not appear to be significant in any of our regressions. They estimated the propensity to evade tax by using an opinion poll on tax evasion from the Bank of Italy's Survey on Household Income and Wealth (SHIW). Nevertheless we gratefully acknowledge their cooperation in providing us with their data.

[7] The deregulation process was followed by an intensive process of consolidation during the period 1993-1999.

markets (LCM), with a set of variables describing the local economy (LE) and with a regional dummy. The resulting equation is as follows:

$$NLB_i = \alpha + \beta LET_i + \chi \left(LET_i \times CLB_i \right) + \sum_k \delta_k LCM_i + \sum_j \phi_j LE_i + \lambda SOUTH + u_i. \qquad (1)$$

where u_i is the error term and the subscript i indicates the province. The set of variables describing the structure of local credit markets consists of the HHI on bank loans and the number of branches, while the set of variables describing the local economy lists the growth of value added, social capital and judicial inefficiency. The regional dummy is the South dummy.

We estimated equation (1) using a Probit estimation with robust standard errors. Due to the difficulty of finding appropriate instruments, instrumental variables (IV) are not used to account for endogeneity problems in estimating the relation between the creation of new local banks and the local propensity to evade tax. We leave this extension of the analysis to future research. Our findings should therefore be considered as merely suggestive and preliminary.

Table 2 reports the Probit estimates of the impact of the local propensity to evade tax on the probability of the creation of new local banks. As can be seen the impact is not statistically significant, but, interestingly, it becomes significant when the interaction with closed local banks is considered, although this interaction is only significant at the 10 percent level of confidence.

As for the control variables, the significant (and with expected signs) ones are the growth of value added (at the 1 percent level), the South dummy (at the 5 percent level) and social capital (at the 10 percent level).

Moreover, the goodness of fit is relatively satisfactory, with a pseudo R-squared of .2, and the estimated marginal effect of the interaction of the local propensity to evade tax with closed local banks is economically significant.

In conclusion, our findings do not reject the hypothesis that the local propensity to evade tax influences the probability of the creation of new local banks.

5. Conclusions and suggestions for future research

Our first tests on the importance of *informal banking* are encouraging. And it would have been surprising to find the opposite: if the black economy reaches one fourth, or more, of the entire economy it cannot simply be ignored in studies of the relationship between firms and banks, nor when the net benefits of an entirely different banking structure are to be assessed.

However our results should be considered with some caution, precisely because *relationship* and *informal* banking can coexist in the same local markets (if not in the same banks), we should take into account further variables which can help to distinguish between the two banking models. Italian capitalism based on "family-controlled" SMEs, which are traditionally opaque with considerable overlap between family and firm accounts, requires a lot of *relationship banking* to work effectively. And this sets a limit on the process of consolidation of credit markets in progress in Italy.

Further research will extend the comparison of the two banking models to take into account other features of the credit relationship. First of all, whether it is unique, with

the bank as the sole lender to a firm, or not. Only the first case is considered in line with the *relationship* model. Another variable which may be of interest and needs to be incorporated in our model has to do with the use of currency: a means of payment which is appropriate precisely to avoid the sharing of information that is at the core of the *relationship* model. With the further research we hope to prove not only that the problem exists but also that it can be measured with some precision, and that appropriate reactions can be designed.

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Table 1 – Summary statistics

	MEDIAN	MEAN	1st PERCENTILE	99th PERCENTILE	STANDARD DEVIATION
New local banks	0	0.1650	0	1	0.3730
Closed local banks	1	0.5922	0	1	0.4938
Local propensity to evade tax	0.4297	0.5393	0.0620	1.7283	0.3647
Herfindahl-Hirschman index	0.0792	0.0916	0.0363	0.2160	0.0419
Branches	0.4510	0.4212	0.1875	0.7926	0.1468
Growth of value added	0.0483	0.0476	-0.1239	0.2109	0.0574
Social capital	0.8300	0.8029	0.6302	0.9100	0.0829
Judicial inefficiency	1.2448	1.2652	0.6337	2.0100	0.3566
South	0	0.3495	0	1	0.4791

**Table 2 – Determinants of new local banks**

	Probit estimation		
	Coefficient	S.E.	Marginal effect
Local propensity to evade tax	-1.645	1.223	-0.263
Interaction of local propensity to evade tax with closed local banks	1.738*	0.950	0.278
Herfindahl-Hirschman index	-4.726	5.351	-0.755
Branches	1.954	1.940	0.312
Growth of value added	6.725***	2.540	1.075
Social capital	8.938*	5.138	1.428
Judicial inefficiency	0.216	0.645	0.035
South	1.855**	0.846	0.419
Observations	103		
Pseudo R-squared	0.200		

Notes: The left-hand variable is a dummy variable equal to 1 if a new local bank has been created in the province after 1994, and 0 otherwise. The regression includes the constant term. The marginal effect for South is for discrete change of dummy variable from 0 to 1. The remaining marginal effects are computed at the mean of the independent variables. Robust standard errors are reported. (*): coefficient significant at 10 percent; (**): coefficient significant at 5 percent; (***): coefficient significant at less than 1 percent.
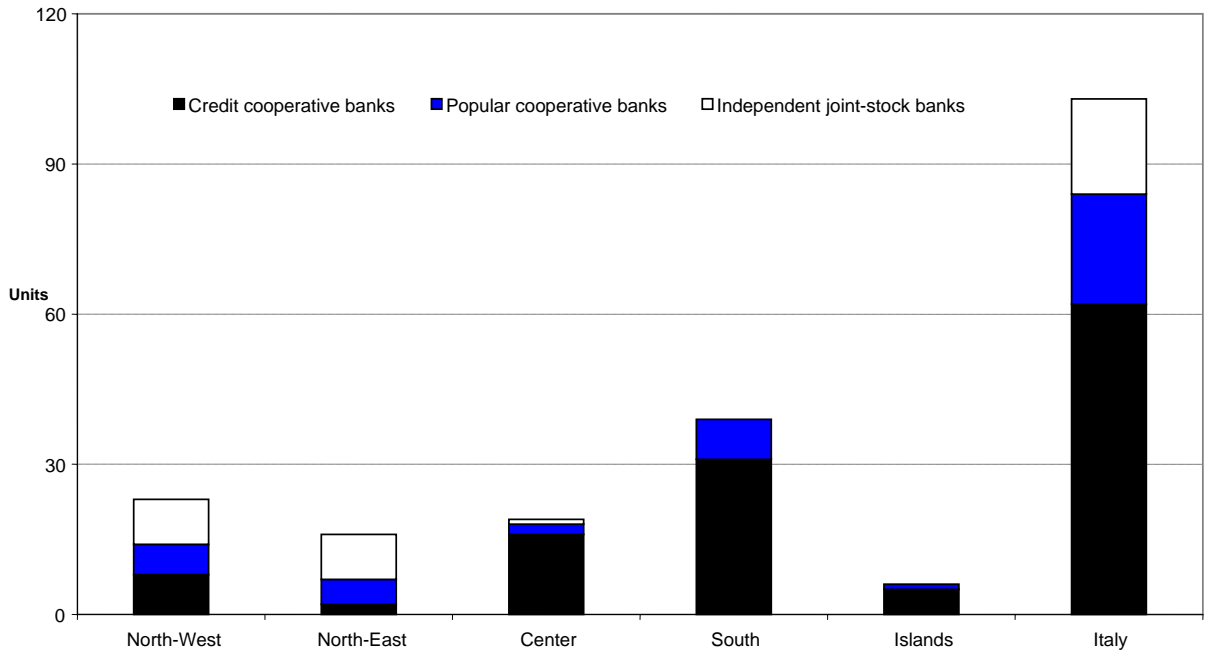
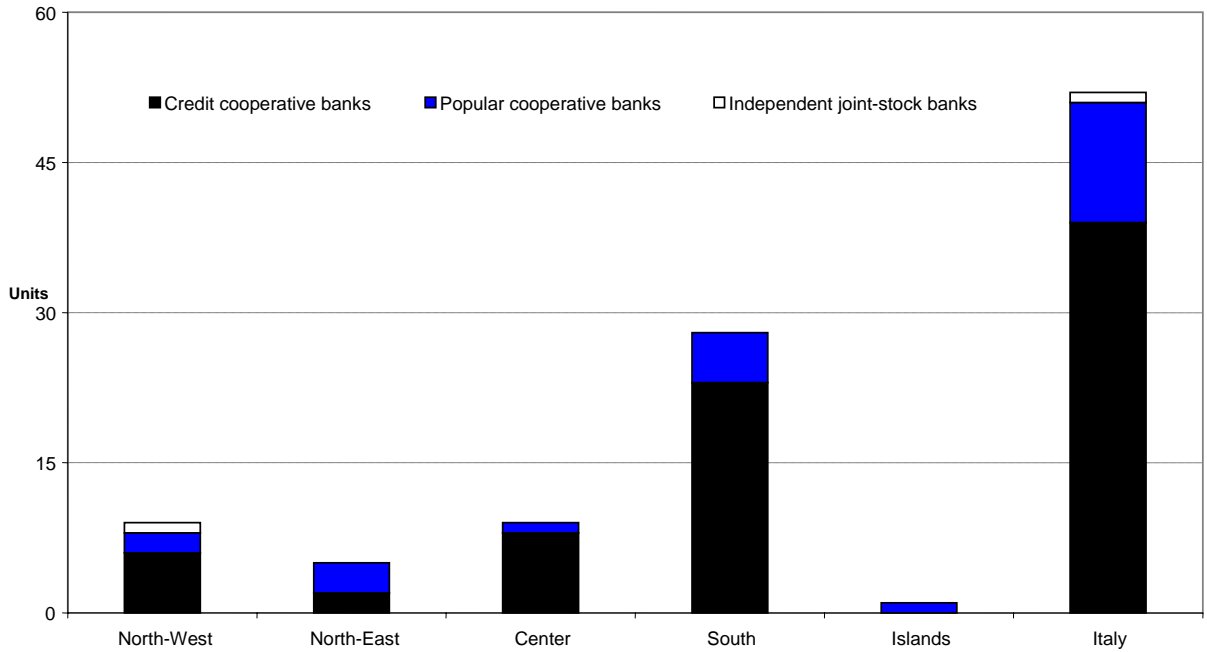**Figure 1 – Share of the shadow economy in GDP (2002-03)**
Source: Schneider (2005)
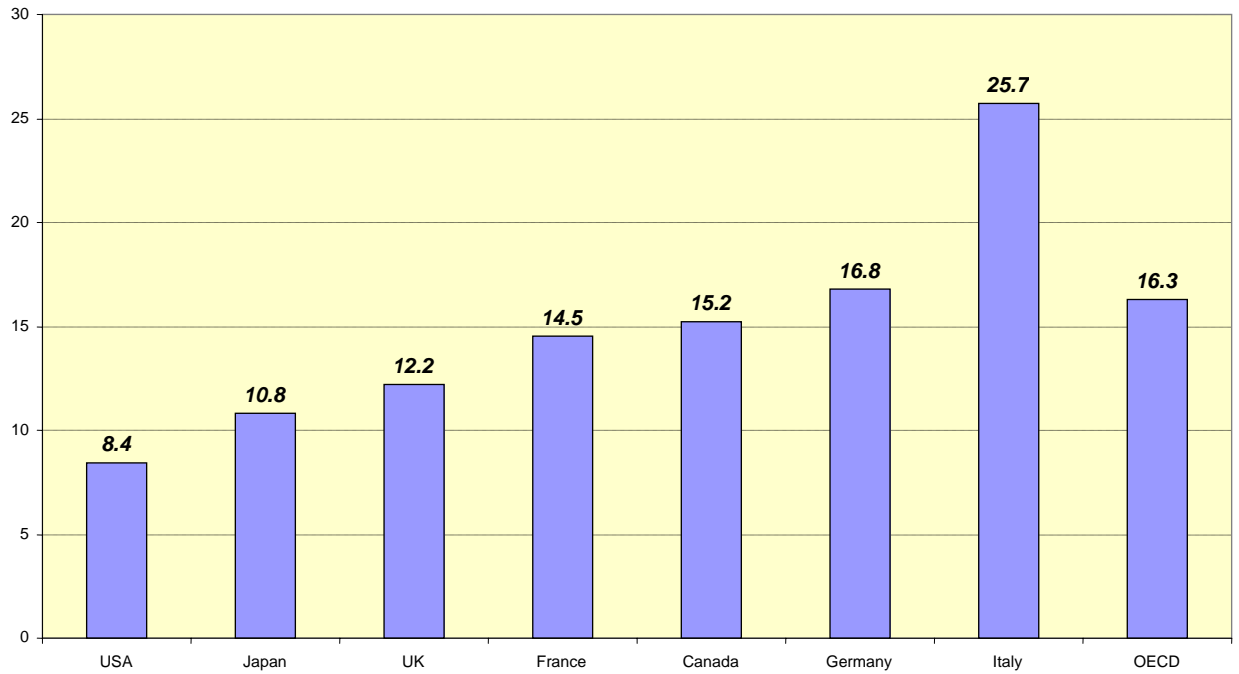
Figure 2 - New banks after 1992
Source: Cocozza and Lozzi (2006)
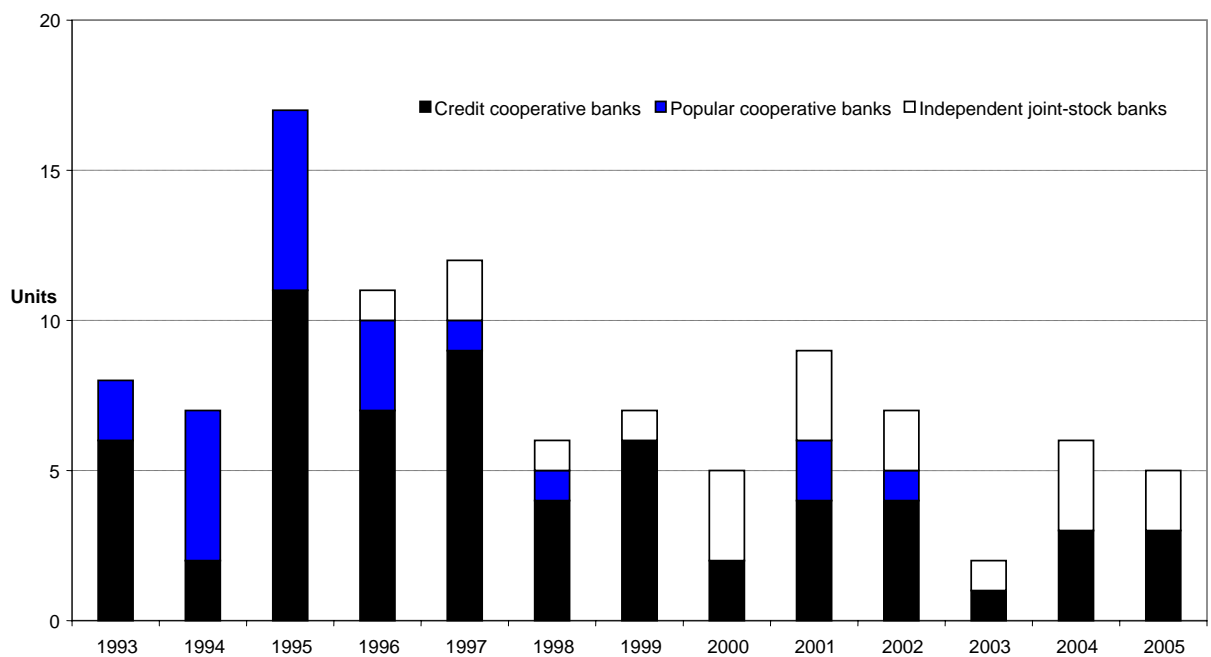
Figure 3 - New banks after 1992: geography
Source: Cocozza and Lozzi (2006)

Figure 4 - Closed banks after 1992: geography
Source: Cocozza and Lozzi (2006)

11

Figure 5 - Local propensity to tax evasion
Source: Pisani and Polito (2006)