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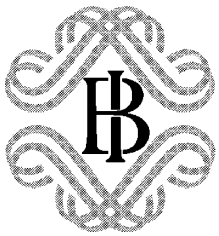

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INDUSTRIAL DISTRICTS AND LOCAL BANKS: DO THE TWINS EVER MEET?

di Alberto Baffigi[*], Marcello Pagnini[**] and Fabio Quintiliani[**]

Abstract

The paper offers theoretical and empirical insights into the links between banks and firms in industrial districts and to the way investment is financed.

Theoretically, it is assumed that district-banking localism is embedded in the industrial districts' social context. District banks should thus be distinguished by such features as greater concentration of lending, greater concentration of market shares and the cooperative legal form. Counteracting forces (e.g. excessive risk taking, higher monitoring costs and the cooperative's typical dilution of power among members) may nonetheless prevent district-banking localism from arising.

The empirical analysis crosses an Istat dataset on local labour systems and industrial districts with banking supervisory data as of the end of 1991. Cooperative banks are found to concentrate their lending and to acquire larger market shares in industrial districts, though the evidence is not clear-cut. Mutual banks, on the other hand, generally concentrate their lending to small local labour systems, thereby indicating that their role as local banks is played not only in industrial districts but in non-district areas as well. Finally, in a regression analysis we find that investment by firms operating in industrial districts is more closely correlated with their cash-flow than those of non-district firms, although the pattern varies across regions and economic sectors.

The conclusion is that the rise of district banking localism cannot be taken for granted and that IDs do not seem to be homogeneous entities even as far as bank-firm relationships are concerned.

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Contents

1. **Introduction**[1]

Localism is a widespread phenomenon in the Italian economic system. In some parts of Italy, especially in the northern and central regions, firms and workers tend to agglomerate in self-contained and restricted areas. Links to those areas frequently have important effects on the allocation of resources and on the well-being of the resident population. The literature on this topic has taken two distinct routes: one referring to *industrial districts* and the other to *local banks*.

Industrial districts (IDs henceforth) are networks of small firms operating in a limited area. Each firm specialises in one phase in the production process of a district-specific final good. Thanks to district level co-ordination mechanisms, these firms can benefit from intensive division of labor yet avoid the costs associated with small size.

Local banks have recently been the subject of renewed interest on the part of Italian economists, and a burgeoning literature has emerged.[2] Far from considering local banks as inefficient economic units, these authors argue that they can play an essential role in financing small firms and in fostering industrial take-off in relatively backward areas.

The aim of this paper is to offer some theoretical and empirical insights into the links between IDs' real and credit markets and the way investment is financed. In particular, we carry out - for the first time to our knowledge - an empirical comparison of district versus non-district areas, exploiting a mass of financial and real statistics, namely:

– 1991 dataset on industrial districts (Istat, the Italian central statistical office);

– municipal data from the 1991 population and industry censuses (Istat);

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[1] This is a revised version of the paper presented at the XXXVII ERSA conference in Rome on 28 August 1997. The views expressed are those of the authors only and in no way involve the responsibility of the Bank of Italy. We would like to thank Istat and in particular Franco Lorenzini for kindly providing us with the industrial district dataset, without which this paper could have never been written. We would also like to thank Luigi Buzzacchi, Luigi Cannari, Davide Conti, Giuseppe Garofalo, Marcello Messori, Guido Pellegrini, Achille Puggioni, Massimo Roccas, Irene Valsecchi and an anonymous referee for their helpful comments and advice. The responsibility for any errors is of authors' alone. E-mail: faquinti@tin.it.

[2] See Angelini, Di Salvo and Ferri (1997), Cannari and Signorini (1996, 1997), Cesarini, Ferri and Giardino (1997), Cesari (1996), Conti and Ferri (1997) and Ferri and Di Salvo (1994), to name a few.

- banking supervisory returns on loans and on bank branches by individual banks and municipalities, as of the end of 1991;
- balance sheet data as reported by the Italian Company Accounts Data Service (Centrale dei bilanci);
- data on real per capita provincial income (1952-1992) as estimated by Fabiani and Pellegrini (1997).

From a theoretical point of view, we emphasise the attributes of social interaction inside IDs and their possible consequences for credit markets. Industrial-district scholars have stressed that economic behaviour is *embedded* in the districts' social context (Harrison, 1992). Thus, in dealing with the role of banks in IDs a question immediately arises: are the banks that operate in IDs fully integrated into the socio-economic network? Is their behaviour *embedded* in the social context?

We define a bank *b* as embedded in an ID *d* socio-economic context if two conditions are met (*double concentration condition,* DCC*)*: 1) *b* concentrates its loans in *d* (*concentration of lending)*; 2) *b* holds a large market share in *d*'s credit market (*concentration of credit market*). More loosely, *b* is said to be embedded in *d*'s socio-economic context if *b* is important to *d* and *d* is important to *b*. We argue also that embeddedness will be strengthened if *b* has a *cooperative legal form.* Concentration of lending (condition 1) signals the district-local banks' commitment to the local economy, allowing them to benefit from the district's cooperative behaviour. Holding large credit market shares (condition 2) enables such banks to obtain useful information on the web of relationships among firms. Cooperative legal form increases the ability to check the behaviour of local borrowers, due to reciprocal monitoring by members.

However, there are forces that can constrain the advantages of double concentration and of cooperative legal form. There is a trade-off between the advantages of having a large stake in the district and the disadvantages of excessive risk-taking and monitoring costs, which would arise if banks concentrated their loans in ID areas and if they acquired a great share of the IDs' credit markets. There is also a trade-off between the advantages and disadvantages of the cooperative form: excessive membership dilution and the "one head-one vote" rule can reduce the incentives for reciprocal monitoring among members. Thus,

the existence of differences between district-local banking and local banking as such may not be theoretically generalised. Whether district banking localism arises or not is in part an empirical question.

From an empirical point of view, we try to check whether district banking localism, as defined above, actually emerges in IDs. First, we carry out a comparative static analysis of the banking structure in district and in non-district areas at national and at "macro-regional" level. We find that there is some evidence indicating that cooperative banks (known as "popular" banks in Italy: henceforth POP) show greater aggregate specialisation of lending to ID areas, especially in the North-East. They also tend to have larger market shares in district than in non-district areas. Data also show that the role of the other banks that operate mainly at local level (savings banks and mutual banks) is not limited to IDs but is also particularly important in small *non-district* areas with no provincial capital.

Second, we check whether DCC obtains in IDs. We assume that double concentration exists if: i) the fraction of a bank's loan portfolio is greater than the quadratic mean of all portfolio shares and ii) a bank's credit market share is greater than the quadratic mean of all credit market shares. We discover that only 58 out of the 199 IDs designated by Istat satisfy the DCC. These IDs include the best known and oldest district areas (Carpi, Biella, Prato, etc.). This suggests that district banking localism tends to be stronger in more mature IDs. As to the banks that operate there, we find that mutual banks (in Italian Banche di credito cooperativo, BCC) match the DCC condition more frequently than the other categories.

Finally, we try to assess the magnitude of financing constraints on ID firms as compared to firms that do not operate in district areas. In a regression analysis based on a panel of firms, we find that ID firms' investment tends to be *more* sensitive to cash flow than non-ID firms'. This finding could suggest that the lack of close ties with the banking system is particularly costly for firms *belonging* to IDs. Running the same regression by region and sector of economic activity, however, the results are different, at least in part. In particular, the cash flow sensitivity of investment is lower for ID firms located in Marche, Tuscany and Emilia-Romagna and for the food and beverage and above all textile, clothing and leather industries. Again, these findings underscore the different ways IDs' finance their economies.

Our conclusion is that the rise of district banking localism cannot be taken for granted and that IDs do not seem to be homogeneous entities even as far as bank-firm relationships are concerned.

The paper is organised as follows. Section 2 sketches the relevant theoretical and empirical aspects of IDs and describes the importance of districts to Italy's industrial system, their geographical and sectoral distribution, and their long-run growth profiles. In Section 3 we discuss the theoretical underpinnings of the supposedly stronger bank-firm relationship at ID level and the factors that may prevent the emergence of district banking localism. In Section 4 we present an empirical analysis of credit markets in district and non-district areas. In Section 5 we address the issue of whether some bank categories may typically qualify as *district* banks. Finally, Section 6 compares the financing of investment in district versus non-district areas.

2. Industrial districts in Italy

2.1 Definition

A salient feature of Italian industry is the very widespread presence of small firms. Until recently, many economists saw this as a weakness, since small firms could not exploit economies of scale, and their survival could only be guaranteed by protecting them from market competition. However, the relatively good performance of the Italian economy in a long-term perspective and the crisis of the Fordist type of production in the late sixties and seventies induced some economists to examine Italian small firms more closely. Becattini (1987, 1991, 1996), among others, changed the perspective of the debate on the efficient scale of production. He argued that, owing to long-term historical processes, small firms tended to aggregate in marshallian-type IDs in some regions of Italy. In order to assess the efficiency of these firms, however, the traditional conceptual tool of the single representative firm is of little help. The focus should be shifted to the *network* of firms making up the IDs and on the peculiar allocative mechanisms that are at work within district areas.

From this new perspective, economic relationships cannot be considered apart from the social context within district areas, and IDs are treated as complex entities involving interrelated sociological, historical and economic aspects, whose main characteristics can be summed up in three points:

a) *A socio-territorial aspect*. IDs are communities of people and firms acting in spatially concentrated areas (see Sforzi, 1987). Geographical proximity favours socio-economic interaction. The members of these communities have common values and attitudes resulting from long historical processes in which many institutions (the family, political parties, etc.) contributed to their spread and perpetuation within the local community. Loyalty towards the community and its values is also an important element affecting the economic behaviour of agents.[3]

b) *Productive efficiency*. Looking at the production process, IDs can be seen as groups of small firms, each specialised in a single phase of the productive process of a district-specific final good.[4] IDs are thus partially spontaneous mechanisms that help co-ordinate all the phases of the process, thereby fostering the development of economies of scale that are external to firms but internal to the districts. Individual firms benefit from very high degrees of specialisation and overcome the disadvantages of being small. To use the terminology of transaction cost economics, IDs reduce transaction costs both compared to the usual market relationships and compared to cases in which all production takes place in a single vertically-integrated firm.

c) *Strategic interaction*. Exchanges in production share some aspects of market transactions, since firms are legally independent, but repeated exchanges favour the accumulation of "reputational capital", thereby increasing the incentives of the parties to transact. Personal acquaintance and mutual trust, moreover, encourage cooperation, which becomes necessary when the activities of different economic agents must be co-ordinated to a common productive aim. Long-run cooperative equilibria can be also achieved and sustained through the threat of punishment for deviant behaviour. The role of the community in making this threat credible is crucial: free riding by some firms can be sanctioned through social ostracism. Long-lasting interactions among firms will favour

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[3] Another feature of IDs is a relatively high degree of *social mobility* in the district, due to the spread of information and of technical competence through social and economic interaction. Workers often start their own business, after learning the job as employees with other entrepreneurs.

[4] The single phases of the process may either consist in the production of an intermediate good or in the construction of machinery that will subsequently be used to manufacture the final product or another intermediate good.

specific investment in the transactions, thereby making them highly relational (Williamson, 1979).

These characteristics of district areas show that economic interaction is an integral part of the complex social context existing in IDs: we can say that economic behaviour is *embedded* in social relations within district areas (Harrison, 1992).[5]

2.2 Empirical and structural aspects of the definition of industrial districts

This complex theoretical definition of IDs makes their empirical identification rather difficult. In particular, the interaction between the socio-territorial features of IDs and the economic and industrial variables cannot be easily assessed. One approach to the problem is the *spatial identification method* employed by Sforzi (1987, 1997) and Istat (1994, 1995), based on a complex multi-step algorithm. A brief account of the procedure is as follows.[6] First, the national territory is divided into *local labour systems* (LLS), i.e. territorial groupings of municipalities marked by a certain degree of commuting to work. Next, an LLS is defined as an ID if it has: i) a proportion of employment in manufacturing greater than the national average; ii) a higher-than-average proportion of employment in small local productive units (i.e. industrial plants with no more than the EU threshold of 250 employees; see Brusco and Paba, 1997) in at least one manufacturing subsector in which the LLS is specialised; iii) a proportion of employment in a subsector satisfying condition ii) above 50 per cent of total LLS' manufacturing employment.

This procedure has its drawbacks, however. First of all, it accounts only marginally for the social aspects that the industrial district literature cites as typical. Secondly, the concentration thresholds may be too rigid: units with 250 employees, for instance, may still be larger than the average for Italian manufacturing. Despite these problems, we think that Istat dataset usefully captures many of the main features of IDs and can be used as a basis for our discussion.

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[5] Harrison borrows the concept of *embeddedness* from Granovetter (1985).

[6] See Appendix I for a more detailed description of this procedure. The spatial identification method, which is at the basis of the procedure followed by Istat (1994, 1995), is described in Sforzi (1987, 1997, ch. 9).

Using the 1991 census data, Istat divided Italy's territory into 784 local labour systems and, by Sforzi-Istat methodology, identified 199 IDs. Henceforth, the unit of our analyses will be the LLS and we will also refer to 199 IDs found by Istat as *district areas*, and to the remaining 585 LLSs as *non-district areas*.

The geographical distribution of IDs in 1991 is extremely uneven (see Chart 1). Lombardy is the Italian region with the highest number of IDs.[7] Over 80 per cent of the districts are in Lombardy, Piedmont, Veneto, Emilia-Romagna, Marche and Tuscany. By contrast, Molise, Basilicata, Sicily and Sardinia have none, and IDs are only marginally present in Lazio, Calabria and Puglia. In short, IDs are mainly concentrated in Northern and Central Italy (see also Tables A1 and A2 in Appendix 3). In particular, they are found either in regions whose high degree of development originated in the earlier years of Italian industrialisation (such as Lombardy), or in areas of late industrialisation which have only recently achieved high levels of per capita income (such Veneto, Marche and, to a lesser degree, Abruzzo).[8]

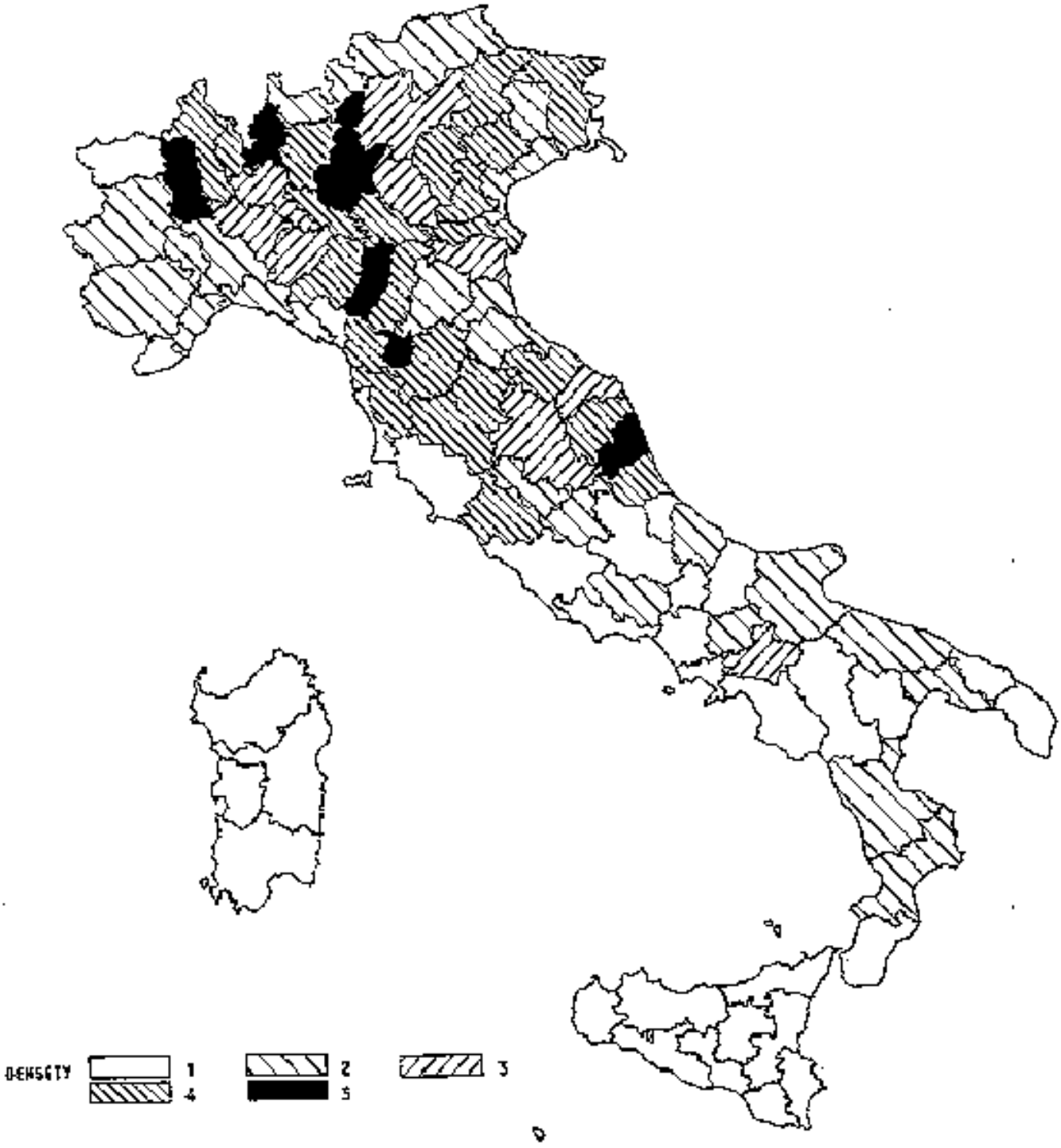
[7] The Italian territory is administratively divided into 20 *regions*. Each region is formed by *provinces* which are then divided into *municipalities* (*comuni*). Generally speaking, the largest municipality tend to give its name to the province. We refer to this city as the *provincial capital*. In 1991, there were 95 provinces and 8,100 municipalities in Italy. This implies that in our dataset there are 95 LLSs including a provincial capital (19 of these are district areas: see Table A1 in the Appendix).

[8] With regard to the scarcity of IDs in southern Italy, Brusco and Paba (1997) show that in 1951 IDs were mainly present in southern regions and that these districts disappeared in the following decades, as a result of the competition of other IDs in the northern and central regions and of the loss of human capital in the south, following massive migration. Rates of ID formation were high between 1951 and 1991 in Lombardy and in Central and North-Eastern Italy.

Chart 1

RELATIVE WEIGHT OF IDs IN THE ITALIAN PROVINCES

(percentage values)



Source: Based on Istat (1984) data. The Italian provinces' map digitation was supplied by CNUCE - a CNR Institute - Pisa, Italy.

DENSITY = ratio of total provincial employment in the manufacturing activity to which each ID is specialised to overall provincial employment in manufacturing activities.

Legend:

1 = provinces with no industrial districts

2 = provinces with industrial districts and $0 < DENSITY \leq 10$

3 = provinces with industrial districts and $10 < DENSITY \leq 20$

4 = provinces with industrial districts and $20 < DENSITY \leq 30$

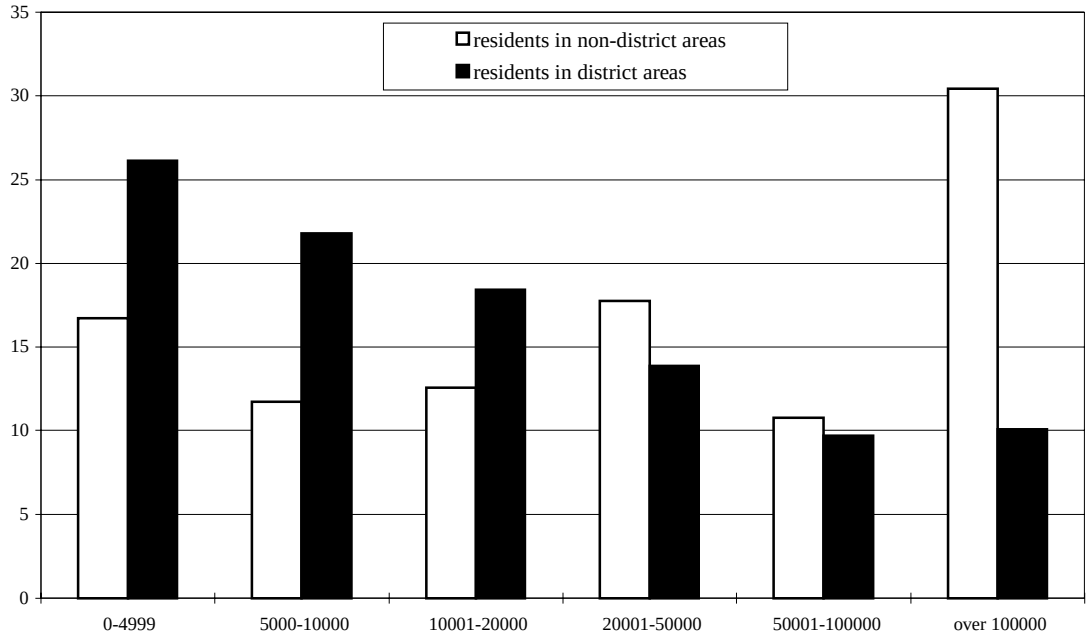
5 = provinces with industrial districts and $DENSITY > 30$

The population of ID municipalities amounts to over 24 per cent of Italy's population. IDs are present mainly in relatively small communities (Figure 1). The largest city located in ID is Padua (215,000 inhabitants in 1991). Only nine ID municipalities have as many as 100,000 inhabitants. The average population is about 5,550 in ID municipalities, as opposed to over 7,500 in non-district ones.

Looking at the structure of employment (Table 1), we see that district manufacturing employment in the sub-sectors in which districts are specialised is about 18 per cent of national manufacturing employment and 41 per cent of total manufacturing employment in district areas.[9]

Figure 1

POPULATION DISTRIBUTION IN NON-DISTRICT AND IN DISTRICT AREAS BY SIZE OF MUNICIPAL POPULATION (1)
(percentage values)



Source: Based on Istat population census data.

(1) Municipalities have been grouped into six population classes, as shown on the horizontal axis. White histograms represent the percentage shares of total population in non-ID municipalities; black histograms represent the corresponding shares in ID.

[9] Notice that, as a consequence of the considerations developed in Section 2.1 point b), employees not working in each ID's sector of specialisation have not been included in IDs' total employment.

Table 1

INDUSTRIAL DISTRICTS
AND MANUFACTURING INDUSTRY IN ITALY BY SECTOR (1)
(absolute figures and percentages)

Sectors	Number of districts per sector	EMP_{dj}/EMP_{d}	EMP_{mj}/EMP_{m}	Specialisation index (2)	EMP_{dj}/EMP_{mj}
Food, beverage and tobacco industry products	17	2.9	9.2	0.3	5.5
Textile products and clothing	69	34.5	15.9	2.2	38.1
Leather, leather and hide articles, footwear	27	10.6	4.7	2.3	39.4
Wood and wooden furniture, construction materials, baked clay products, glass, non-metal mineral based products	39	15.6	13.2	1.2	20.8
Metal products excluding machinery	1	0.0	2.5	0.0	0.3
Agricultural and industrial machinery, office equipment, computers, precision instruments, motor vehicles and related engines	32	32.5	39.7	0.8	14.4
Petroleum and plastic products, chemical products, artificial and synthetic fibres, rubber products	4	1.5	8.7	0.2	3.1
Paper and publishing	6	0.5	5.5	0.1	1.6
Other products of manufacturing industries	4	1.9	0.6	3.2	52.2
TOTAL	199	100.0	100.0	-	17.6

Source: Based on Irpet-Istat data.

(1) EMP_{dj} represents the sum of employees in sector *j* in all IDs specialised in that sector. EMP_{d} is total employment in all IDs in their respective sector of specialisation. EMP_{mj} is overall national employment in the *j*-th manufacturing sector, while EMP_{m} represents the overall national manufacturing employment. – (2) The specialisation index is given by the ratio $(EMP_{dj}/EMP_{d})/(EMP_{mj}/EMP_{m})$.

Table 1 shows the sectoral distribution of Italian IDs. Over 90 per cent of manufacturing employment in district areas is concentrated in 4 sectors: textiles and clothing, machinery, wood and minerals, leather (see column, EMP_{dj}/EMP_{d} in Table 1). If we look at the specialisation index (fifth column in Table 1),[10] we see that Italian IDs are specialised,

[10] The fifth column of Table 1 shows an ID specialisation index we have constructed referring to employment: $(EMP_{dj}/EMP_{d}) / (EMP_{mj}/EMP_{m})$. It compares two fractions. The numerator represents the fraction of employment, at *district level*, in the manufacturing sub-sector in which each ID is specialised out of total manufacturing employment in the district (EMP_{dj}/EMP_{d}). The denominator shows the analogous fraction at *national level* between national manufacturing employment in the sectors in which districts are specialised and overall national manufacturing employment (EMP_{mj}/EMP_{m}).

relative to the Italian manufacturing employment, in "traditional", less capital-intensive industries (leather, textiles and wood products) whose productive processes can be fragmented over many small units and co-ordination can be achieved through informal agreements and cooperative strategies, rather than through hierarchical decision-making structures. On the contrary, single large firms can be expected to perform more efficiently in those sectors (such as chemicals or paper and publishing) in which indivisibilities and economies of scale prevail at the firm level.

Nonetheless, "traditional" industries are not necessarily backward. The organisation of productive factors in ID markets frequently involves a high degree of know-how and skill.

As far as long-run performance is concerned, we compared post-war growth rates in ID and non-ID provinces. By *district province* we mean a province including at least one district municipality in 1991. If a district encompasses more than one province, we split the group of municipalities by province.

Table 2 reports real *per-capita* income levels and their percentage growth rates, in ID and *non*-ID provinces located in the North, Centre and South of Italy.[11] In the early fifties, ID provinces in northern and central regions were behind non-district ones in those regions. In the four decades from 1952 to 1992, however, ID provinces experienced an industrial take-off and grew faster than the others. By the end of the period, the gap had been closed in the North, while in the Centre and especially in the South, ID provinces exhibited higher capita incomes. However, provinces including district areas did not grow faster than the others from 1982 to 1992, suggesting that IDs' economies may have reached a certain degree of maturity.

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[11] The aim of the exercise reported in Table 2 is merely indicative. We simply compare the pattern of growth of 1991 IDs vis-à-vis other Italian areas regardless of the fact that some groups of municipalities made up an ID in 1952 but not in 1991, and viceversa. Our results are consistent with recent findings by Brusco and Paba (1997) on the evolution of employment in ID areas. These authors use a different methodology to define IDs. First of all, they use a Sforzi-Istat algorithm on the 1981 census data and, on the basis of certain assumptions, they reconstruct the features that the LLSs they obtain had in the census years 1951-1991. They also define small plants as up to 100 employees. Finally, they adopt wider classes of economic activity, in order to cope with differences of classification in the census data spanning from 1951 to 1991. On the basis of this methodology, the authors show that the share of total employment in the manufacturing sector in district areas always increased in the period 1951-1991, including the 1981-1991 decade.

The origins of IDs have been traced back to the practice of sharecropping in some rural areas, and to the disintegration of previously large firms in more industrialised parts of the country. IDs and their industrial structures have been seen as two factors responsible for the good performance of small firms in the seventies, and for the industrial take-off of the so-called "Third Italy", an area including the North-East and parts of the Centre.[12]

Table 2

GROWTH RATES AND PER CAPITA INCOME IN ITALIAN PROVINCES
(percentages and index numbers- Italy=100)

Areas		Average growth rates			Per capita income	
		1952-1992	1972-1992	1982-1992	1952	1992
North	non-district	2.9	2.5	2.5	155.2	119.8
	district	3.5	2.7	2.1	124.3	119.6
Centre	non-district	3.4	2.1	1.8	109.8	102.2
	district	3.9	2.6	1.7	86.5	103.4
South	non-district	4.2	2.2	1.9	51.4	67.8
	district	4.4	2.5	2.0	50.5	74.2
ITALY		3.5	2.4	2.0	100.0	100.0

Source: Based on Fabiani and Pellegrini (1997).

To sum up, we can say that IDs sprang from well-integrated, often small communities and became highly concentrated in less capital-intensive sectors showing a strong propensity to export. In addition, at least during the 1952-1982 period, district provinces had better average performance in per capita income growth.

A relatively unexplored subject in the industrial district literature is the role of banking in financing the ID firms' economic success. Interest in this field has been stimulated by

[12] The study of Italian IDs was first undertaken in sociology. Bagnasco (1977, 1988) spoke of the existence of "three Italies": North-West (the "first" Italy, featuring large scale industrialisation); the South (the "second", mostly rural and with backward industrialisation); and North-East-Centre (or NEC, the "third" Italy, displaying industrialisation based on aggregation economies and relatively small firms, i.e industrial districts).

recent theoretical work that emphasises the importance of small local banks for small local firms. Nakamura (1994), among others, posits that small local banks enjoy an *informational advantage* over big banks in financing small local businesses. Direct handling of local firms' checking accounts and of local depositors' savings accounts generates information on the local economy's well-being that cannot be easily obtained by big banks.[13] As a consequence, small banks should have a comparative advantage over larger ones in financing small firms operating in spatially concentrated areas.

In the case of IDs, we might expect the nexus between small local banks operating in district areas and small local businesses to be stronger than in areas that do not display the typical features of IDs. Intuitively, the advantage of being part of an ID community and the benefits accruing from positive externalities in district areas should add to the advantages that small local banks obtain from long-term customer relationships with small district-located firms. For these reasons, banking localism in IDs may be expected to display a high concentration of local banks' loans to ID firms as well as large credit-market shares held by local banks in the district.

However, the rise of close customer relationships between small local banks (or indeed any bank) and small local firms in district areas cannot be taken for granted. As will become clear in the ensuing discussion, there may be counteracting forces that limit the concentration of lending and the market power of local banks. Banks may not be interested in concentrating their loans on local district firms, if counterbalancing forces outweigh the benefits of long-run customer relationships in ID areas. Therefore, whether banking localism in IDs arises or not is in part an empirical matter.

In the following sections we address these issues in a more systematic way. First of all, we will concentrate on the theoretical features of IDs as credit markets (Section 3), examining the factors that favour and those that impede banking localism in IDs. Then, we will look at some empirical traits of the bank-firm interaction at ID level, to check whether there is evidence of banking localism in district areas (Section 4). Finally, we carry out a

[13] The reasoning behind Nakamura's argument is quite straightforward. Since small local firms seldom branch far from their head quarters and since local depositors transact regularly, checking and savings accounts are immediate sources of information about purchase payments and sales receipts. As a result, a small bank that manages to collect deposits in large amounts from local savers and to concentrate its lending to local

regression to assess whether ID firms' investment is less dependent on self-financing due to possible tighter links with local banks (Section 5).

3. Industrial districts as credit markets

Despite the large body of literature on IDs, only a few recent papers study the interaction between finance and the real economy at district level. Becattini (1991) pointed out that locally established banks are important members of the ID community because their managers have direct knowledge of the banks' customers. Informational asymmetries and agency problems are consequently reduced. Conti and Ferri (1997) strengthen Becattini's remark, observing that separation of banking and industry, which until recently was one of the pillars of the Italian banking regime (see Appendix II), is partially overcome at the local level: managers of local banks often sit on the boards of local firms and viceversa.

Dei Ottati (1992) further extends the analysis of the financial mechanisms in IDs emphasising the importance of subcontracting and *credit interlinkages* that develop within IDs: these are seen as the pillars of the peculiar financial structures in those areas. A firm offering credit to one of its subcontractors ends up with a stake in the latter. Financial relationships and repeated dealings between the two parties will create a *lock-in* process, through which both the firm and its subcontractor tend to carry out specific investment.[14]

In Dei Ottati's financial model of IDs, the entrepreneurs who supply credit to other firms are usually the owners of medium-sized older firms for which financial resources are more readily available. They are generally firms at the end of the IDs' vertically integrated process, specialising in marketing the final products. In this framework, local banks play a crucial role. They are the first link in the ID-specific chain of financial relationships, since they supply funds to the relatively larger terminal firms, thereby allowing the IDs' internal capital market to work.

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entrepreneurs can obtain information that is unavailable to large banks (see Nakamura, 1994).

[14] In this sort of strategic interaction, the firm offering credit will not change its partner, even if better opportunities may arise outside the relationship, because this would impair the subcontractor's probability to repay his/her debt. On the other hand, the subcontractor will not decide to weaken the partnership because of its financial dependence on the other party. This *lock-in* process will be another source of accumulation of *trust capital*, upon which the whole ID architecture is based (Marshall, 1875).

In these authors' contributions, however, economic forces that explain why close financial and banking relationships develop or fail to develop in IDs are left partially unanalysed. In the remaining parts of this section, we present a theoretical discussion of the factors leading towards or away from *double concentration* and *cooperative legal form* in district-local banking.

3.1 Double concentration condition: an overview

Traditionally, theorists have identified "local banks" with small banks acting in narrow geographical areas (Drèze, 1997). However, since economic activity in district areas is embedded in the districts' social context (as illustrated in Section 2.1), *district banking localism* may be expected to display additional features as well. In particular, due to the strong ties among firms, banking localism in districts should imply greater concentration than in non-district areas. We define a bank as local in a district if it shows:

i) a relatively *high concentration of its loan portfolio* in the ID;
ii) a relatively *large credit market share* in the ID.

We will refer to conditions i) and ii) as the *double concentration condition* (DCC).

Provided that double condition holds, a sort of bilateral monopoly between the district's banking system and its industrial system emerges. Condition i) can be seen as a credible *commitment of local banks towards the ID community*. Condition ii), on the other hand, leads to the development of long-lasting *customer relationships between local banks and district firms*. In exchange for this commitment to the local community, these banks will benefit from the district's cooperative atmosphere and, if condition ii) applies as well, they will probably refrain from exploiting their market power to extract rents from local firms through high interest rates.

3.2 Concentration of loan portfolio

One tenet of the ID literature is that long-term interaction among ID firms gives rise to cooperative equilibria sustained through the threat of social sanctions in case of deviant behaviour. We can then imagine that a bank may benefit from operating in a district's socio-economic setting. First of all, its lending will be protected against local enterprises'

free-riding by social sanctions that are not available to outside banks. Secondly, members of the community, as depositors, may decide to open accounts with the local bank even if they could get higher returns from outside banks, because they enjoy the positive externalities accruing from the lending activity of the bank to the community.

In order to benefit from cooperative behaviour in the ID, a bank has to be recognised as a member of the local community. The main instrument for a bank to signal its commitment to being an ID member is to get a big stake in the district by letting its total lending to ID firms represent a large share of its loan portfolio.

One implication of this condition is that the bank's loan portfolio should not greatly exceed the ID credit market. This does not automatically rule out the possibility that a big bank may signal its commitment toward cooperative behaviour. Through its branches in the *ID area*, this bank could try to build a local reputation by charging low interest rates and/or by providing ID firms with more credit. Now, reputational capital requires *personal* knowledge and *stability* of the economic actors; but a common feature of big banks is the high turnover of their branch managers (Ferri, 1997). This can be explained by the big banks' worry that local management may collude with local customers. As a result, big banks cannot guarantee a long-lasting presence of personnel at local branches and cannot get effectively involved in customer relationships with local firms.

However, there are forces that can *counterbalance* the factors for high concentration of loan portfolios in the district. In particular, if a bank concentrates its loans in IDs, *the riskiness of its activity will increase*. IDs are usually specialised in single phases of a vertically-integrated productive network. So if loans to ID firms represent a large share of the bank's overall loan portfolio, the bank's performance and stability would be at risk if the market for the good contracted. In addition, IDs are often characterised by a concentration of firms specialising in the production of investment goods or intermediate goods that are subsequently used by other district firms to manufacture a district-specific final product. The economic life of such firms is therefore strongly linked with the success of the firms that produce or market the ID-specific final good. It follows that if a local bank concentrates its lending on ID firms, it can still face high risks of default on loans, in case of a decrease in the demand for the final good.

Thus, *a trade-off emerges between the advantage to a bank of concentrating its loan portfolio on the local economy, thereby signalling its commitment to the local community, and the need for diversification as the means to better risk management.*

3.3 Concentration of credit supply

Concentration of credit supply in ID credit markets can be explained by two peculiar features of IDs: the *small size of firms* and the dense *network* of socio-economic relations.

A long-established district area usually features high rates of business formation and the presence of more mature small and medium-sized firms. These two characteristics can be associated with highly concentrated ID credit markets. Petersen and Rajan (1995) show that young firms have a better chance to be financed in more concentrated credit markets than in competitive ones. According to their view, the banks' monopolistic power represents a sort of a stake in the future profits of their client firms. Now while monopolistic banks can trade current profits for future profits, those acting in competitive markets must break even in each period. Young firms characteristically have low current cash flow but good future profit prospects. A monopolistic bank can thus decide to subsidise these firms in periods of low cash flow, and recover the missed profits by exploiting its market power in the future.

More mature small firms, on the other hand, usually have higher cash flow than young enterprises. Yet, they may still face problems in signalling their creditworthiness, so that they may still need strong links with some monopolistic banks. Therefore, the small size of firms helps explain why a greater loan market concentration should be expected in IDs.

The district-specific web of relations reinforces this conclusion. Under asymmetric information, a bank will spend resources to screen and monitor customers in order to reduce adverse selection and moral hazard. However, the creditworthiness of a single ID firm cannot be properly assessed unless its whole *web* of productive relations is considered. Assessing such ties *raises screening and monitoring costs* and specific ID investment by the bank becomes necessary. Since investment in screening and monitoring is district-specific, local banks can redeploy their monitoring technology elsewhere only to a limited extent and therefore incur sunk costs.

Once a bank decides to sink these costs, it will have incentives to operate in the district and to acquire local market power, thereby reaping the benefits of economies of scale. In

particular, it will have incentives to spread fixed screening and monitoring costs by offering credit to a large number of firms in the district. Thanks to the strong interdependence among ID firms, lending to many ID businesses will benefit the bank, since observing the behaviour of single borrowers will provide information on the others at lower cost. Sunk costs and the propensity of the bank to operate at district level will also create entry barriers, thereby making credit markets in ID less contestable.

Hence, *the small size of ID firms and their strong interdependence call for a relatively high degree of market concentration across lenders in order to overcome the typical information problems of IDs*.

In this case too, however, there may be forces that diminish the degree of concentration. In particular, investing in monitoring the ID network of relationships may be too costly. If a bank's volume of activity does not greatly exceed the size of the ID credit market, average costs may increase considerably, while average returns may not increase as much. The bank's profitability would then be impaired. On the other hand, monitoring and screening investment can be too costly for big banks as well. These banks usually screen and monitor their customers using standardised credit scoring techniques, which can be inadequate to catch the specific nature of the district network of relationships among firms. As a consequence, *there exists an upper bound to the degree of credit market concentration across lenders in district areas*.

3.4 Mutual banks and IDs

It is difficult to say what category of banks may give rise to strong ties with district firms. However, the embeddedness of economic behaviour in IDs' social settings can entail that community members may prefer to set up a *cooperative bank* rather than dealing with other kinds of banks.

By *mutual bank* we mean a credit cooperative such that: a) each member is entitled to a single vote regardless of capital shareholding and can participate in the management of the enterprise;[15] b) a large share of its total credit offering goes to its members.

[15] Generally speaking, legal provisions also restrict the number of shares that each member of a mutual

We said before that screening and monitoring ID firms tends to be more costly to a bank because of the firms' small size and of the network of productive relations they are involved in. A cooperative bank can effectively overcome these informational problems. First of all, cooperative membership can work as a selection device, thereby contributing to the solution of adverse selection problems. Secondly, cooperative legal form can induce mutual monitoring by its members (*peer monitoring assumption*; see Varian, 1990, and Stiglitz, 1990). Incentives to monitor other members can be explained by the fact that free riding can damage the mutual bank as a whole, thereby impairing reciprocal trust and the opportunity for other members to have access to a privileged source of credit. Notice that reciprocal monitoring will be relatively easier for ID firms, since they are strongly and reciprocally interlinked through the production process and probably know each other as well as the nature of their transactions.

Apart from informational advantages, a mutual bank can also exploit the positive externalities accruing from being a community member. Borrowers from the mutual bank will be members of both the ID community and the mutual itself. Hence, this intermediary will benefit from social sanctions against fraudulent behaviour not otherwise available to ordinary banks (Banerjee, Besley and Guinnane, 1994; Besley and Coate, 1995).

We can say that *a mutual bank will have two different advantages over an ordinary bank: better monitoring capability and better ability to threat and punish borrowers'* misconduct (see Pagano and Panunzi, 1997). *These advantages will be comparatively greater in districts, given the economic actors' reciprocal knowledge and their strong attachment to the community*.

However, the peculiar allocation of property rights in mutual banks can generate specific costs. Due to the "one-head-one-vote" rule, members may have insufficient incentive to monitor the management.[16] Hence, managers can behave opportunistically and finance only low-risk investment projects, since they are aware that their performance will

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bank can hold. There are consequently two property limits in cooperative banks: i) the "one head-one vote" constraint and ii) the shareholding constraint.

[16] For this peculiar form of separation of property from control in the Italian cooperatives see De Bonis, Manzone and Trento (1994) and Buzzacchi and Pagnini (1997).

not be judged on the basis of the mutual's profitability (see Pagano and Panunzi, 1997). These agency costs will increase with the number of members because, as the membership increases, the incentives to monitor management are further reduced. The costs of monitoring borrowers can also rise as their number increases, thereby exacerbating the adverse incentive effects. Hence, *a trade-off between allocative and operational efficiency can emerge: economies of scale in banking would push mutual banks to increase their size, but this would lower their advantage in terms of allocative efficiency*.

4. An empirical analysis of credit markets in district and non-district areas

4.1 Introduction

In this section we illustrate the locational and structural patterns of Italian banks in district and non-district areas. Generally speaking, three kinds of banks have traditionally concentrated their business in local credit markets in Italy:

- Banche popolari (POP), or cooperative banks;
- Banche di credito cooperativo (BCC) or mutual banks;
- Savings banks (SAV).

The first two categories of banks (POPs and BCCs) are both cooperatives but they are quite different entities; the operating range of BCCs is much narrower than that of POPs. Under the supervisory provisions, BCCs can only operate in a restricted number of municipalities, and at least 50 per cent of their lending must go to their members. This constraint does not hold for POPs, which in this respect are more similar to SAVs, even though the latter are not cooperatives.

These three groups of banks have traditionally played an important role in financing small firms in local markets. Padoa-Schioppa (1993, 1997) argues that, despite their limited size, POPs, SAVs and especially BCCs behave like "micro giants" in many small local markets.

Besides these three categories, we consider a further composite group of banks (BIGs), all the other Italian banks which mostly operate nationwide.[17]

Our approach to the analysis of the role of local banking in IDs is essentially *static*. We take IDs already in place showing a given degree of maturity. Then we draw some conclusions as to the working of credit markets in these areas, comparing them with credit markets in non-district areas. We do *not* deal with the role of credit intermediaries in fostering the birth and industrial take-off of IDs or with the nexus between the districts' life-cycle and the role of the banking system.

There are both practical and theoretical reasons for this choice. Firstly, the Istat industrial-district dataset refers to one year only (1991); hence, we lack the necessary data to follow the evolution of IDs through time. Secondly, although the statistical definition of district areas has some limitations (see Section 2.2), the methodology employed by Istat to identify them guarantees a certain degree of homogeneity in their definition. In particular, the requirement for a relatively high degree of industrialisation rules out regions at an early stage of development, while that for a relatively widespread presence of small firms excludes cases in which districts have evolved towards a more hierarchical structure and in which big companies play a major role.

This is not to deny the importance of dynamic analysis for a good assessment of the interaction between the banking industry and the evolution of ID firms. Yet the dynamic approach does not completely overshadow the merits of static analysis, since explaining the rise of some particular forms of economic organisation is not equivalent to studying them once in place. The two issues should be addressed separately, thereby leaving room for comparative-static analysis.

To carry out our study, we match the Istat dataset on LLSs and IDs, based on the 1991 industrial census, with the banking supervisory returns at municipal level on outstanding credit and bank branches in those areas in 1991. The focus is on the locational pattern and to the market position of banks, as captured by their degree of "double concentration".

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[17] For a brief sketch of the Italian banking system, see Appendix II. In 1991, the Italian banking system was made up of 12833 branches, 11.9 per cent of which pertained to BCCs, 17.7 to POPs, 10.9 to SAV and 59.4 to BIGs.

Note that a proper comparison between the bank-firm relationship at district and non-district level can be made only if we take account of the urban or rural character of the area. A big city tends to act as a "gravitational pole", shaping LLS's territories on a hierarchical rather than a network pattern. In order to control, at least to some extent, for the presence of a big city in the areas and to compare more homogeneous sets of municipalities, we proxy the urban effect with the presence (or the absence) of a provincial capital in district and non-district areas. As a result, we identify four area types: *non-district areas with provincial capital*; *non-district areas with no provincial capital*; *district areas with provincial capital*; *district areas with no provincial capital*. Proper comparisons can then be made only between the first and the third or between the second and the fourth types.

The four area types and the four bank categories provide us with a useful tool to interpret the empirical verification of the "double concentration condition", implemented in paragraph 5. As a preliminary, however, let us first describe the Italian banking system according to this geographical and institutional classification.

In particular, in the following two sections we consider: the geographical composition of each bank category aggregate loans' portfolio (4.2), the market share held by each bank category in each area type (4.3), and the average market concentration, as measured by the Herfindahl index, in LLSs' credit markets in each area type (4.3).

4.2 The geographical composition of the four bank categories' loan portfolio

Table 3 shows the distribution of the four bank categories' loan portfolios across the four area types. More than 73 per cent of the banking system's lending goes to non-district LLSs; that is only 26.7 per cent goes to IDs (Table 3), which is by and large consistent with the relative weight of IDs and non-district areas in the economy.

The highest concentration of lending to IDs is that of BCCs (40 per cent), whereas POPs and SAVs concentrate in district areas 38 and 35 per cent respectively. BIGs are much more specialised in non-district areas featuring a provincial capital (67.7 per cent), while their lending to ID areas is well below POPs' share.

The specialisation index compares the relative weight of aggregate loans granted by each bank category in each area type with the banking system's average in the same areas

(brackets in Table 3). A closer look at the portfolio specialisation pattern of the four categories reveals that SAVs and BCCs tend to specialise in areas with *no* provincial capital. The pattern of specialisation regarding BCCs is not surprising, for these institutions originated as "rural and artisans' banks". BCCs seem to specialise in smaller *non-district* areas.

Table 3

LOAN PORTFOLIOS OF BANKS BY CATEGORY AND AREA TYPES (1)
ITALY
(percentages and specialisation indexes)

Areas	BCC	POP	SAV	BIG	Banking System
Non-district areas with provincial capital	26.1	49.2	45.2	67.7	61.4
	(0.4)	(0.8)	(0.7)	(1.1)	
Non-district areas with no provincial capital	33.8	12.7	19.7	9.7	11.9
	(2.8)	(1.1)	(1.7)	(0.8)	
Non-district areas	*59.9*	*61.9*	*64.9*	*77.4*	*73.3*
Industrial districts with provincial capital	9.5	18.5	11.7	11.7	12.6
	(0.8)	(1.5)	(0.9)	(0.9)	
Industrial districts with no provincial capital	30.6	19.5	23.4	11.0	14.1
	(2.2)	(1.4)	(1.7)	(0.8)	
Industrial districts	*40.1*	*38.0*	*35.1*	*22.7*	*26.7*
ITALY	100.0	100.0	100.0	100.0	100.0

Source: Based on banking supervision returns and on Istat data.

(1) Figures in brackets show for each area the specialisation indexes calculated as the ratio between the figure for each bank category and the whole banking system.

The index also suggests that POPs homogeneously concentrate their loans in district areas, regardless of the presence of a provincial capital.

It is interesting to compare the results at national level presented in Table 3 with analogous data referring to the four macro-regions (North-West, North-East, Centre, and South including Sicily and Sardinia - henceforth South).[18]

[18] The North-West is made up of the following regions: Piedmont, Val d'Aosta, Lombardy and Liguria; the North-East: Trentino-Alto Adige, Veneto, Friuli-Venezia Giulia and Emilia-Romagna; the Centre: Tuscany, Umbria and Marche; the South: Abruzzo, Molise, Campania, Puglia, Basilicata, Calabria, Sicily and Sardinia.

Tables B1-B5 in Appendix 3 show that POPs lend more to IDs than to non-district areas in those regions where IDs are most commonly found, namely North-West, North-East and to a lesser extent Central Italy.

It is noteworthy that in North-Eastern Italy (Table B2) over 64 per cent of POPs' lending goes to IDs; in no other macro-regions do POPs supply so much credit to IDs. In addition, we notice that BIGs allot over 50 per cent of their overall loans to IDs rather than to non-district areas, whereas BCCs' and SAVs' lending to IDs is slightly less than the national average (compare Tables 3 and B2).

This great concentration of POPs' loan portfolios in IDs could be interpreted as the result of a comparatively greater concentration of IDs in North-Eastern Italy than in the rest of the country. However, Tables A1 and A2 (Appendix III) show that this is only a partial explanation. As displayed in Table A1, 32.7 per cent of district areas are located in North-Eastern Italy, *vis-à-vis* about 30 in both North-Western and Central Italy. On the other hand, Table A2 shows that 45.5 per cent of LLSs in North-Eastern Italy can be defined as IDs, according to the Sforzi-Istat criteria. In the North-West and in the Centre the fraction of district areas reduces to 42.1 and 44.1 per cent respectively. Therefore, even if district areas are more numerous in the North-East, the difference is slight and cannot by itself explain the high concentration of POPs' loans to IDs.

Looking at other areas, we note that the pattern of banking localism in Central Italy is partly similar to what we found in the North-East. In the Centre, though, BCCs play a greater role: 56 per cent of their overall lending goes to district areas, as opposed to 52 per cent of POPs' and 51 per cent of SAVs'. However, while POPs seem to specialise in larger ID areas, BCCs (and to a lesser extent SAVs) mainly lend to district areas with no provincial capital.

In North-Western Italy (Table B1), BCCs concentrate much of their lending in district areas (70.4 per cent), particularly in IDs with no provincial capital. POPs and SAVs, on the other hand, concentrate only a relatively small part of their portfolios in ID areas. However, POPs' degree of specialisation in districts is higher than in non-district areas.

We consider Lazio in isolation due to the scarcity of ID areas in this region and to the fact that data are biased by the presence of Rome, where BIGs are enormously overrepresented. Data for Lazio are nonetheless given in separate tables.

In the South, with its scarcity of IDs, all bank categories concentrate their lending in non-district areas (Table B4). BCCs show a high degree of specialisation in smaller non-district areas, due to their rural character. As to district areas, SAVs play a more important role than the other bank categories.

In conclusion, with the possible exception of POPs there is not much evidence of greater concentration of local banks' loan portfolios in district than in non-district areas. In particular, BCCs' and SAVs' activity is not limited to ID areas; rather, it applies mainly to non-district areas, whereas POPs uniformly show a great specialisation of their loan portfolios in IDs.

4.3 The concentration of credit supply in the 4 area types

Table 4 reports the distribution of the market shares at national level. We can see that BIGs' shares are largest across all area types. However, the magnitude of BIGs' market shares diminishes in IDs compared with non-district areas, signalling that smaller banks play a more important role in district than in non-district credit markets.

Table 4 shows that POPs' credit market shares (about 20 per cent) in districts are always larger than those of BCCs (6.2 per cent) and SAVs (11.5 per cent). The latter categories hold their largest market shares in areas with no provincial capital. BCCs in particular display great market power in smaller areas and their market shares are greater in non-district areas with no provincial capital.

Table 4

LOAN MARKET SHARES
BY BANK CATEGORY IN THE FOUR AREA TYPES
(percentage values)

Bank category	Non-district areas with provincial capital	Non-district areas with no provincial capital	*Non-district areas*	District area with provincial capital	District area with no provincial capital	*Industrial districts*	ITALY
BCC	1.7	11.6	*3.3*	3.1	8.9	*6.2*	4.1
POP	11.3	15.1	*12.0*	20.9	19.7	*20.2*	14.2
SAV	6.3	14.2	*7.6*	8.0	14.3	*11.3*	8.6
BIG	80.6	59.2	*77.1*	68.1	57.2	*62.3*	73.2
TOTAL	100.0	100.0	*100.0*	100.0	100.0	*100.0*	100.0

Source: Based on banking supervisory returns.

Looking at credit market concentration at macro-regional level (see Appendix 3, Tables C1-C5), we see that POPs hold the largest market shares in Northern IDs, particularly in North-Eastern Italy, where they hold over 23 per cent of credit markets in district areas but less than 14 per cent in non-district areas (Table C2). BCCs too appear to have significant market shares in North-Eastern Italy, especially in *non-district* areas.

In Central Italy, POPs' and BCCs' market shares are much lower (Table C3). Conversely, SAVs tend to have greater market power in district areas of Central Italy (43.3 per cent). It is interesting to note that BIGs' market shares in this part of the country are the lowest, not only in district areas (42.2 per cent) but also in non-district areas (55.4 per cent).

A description of the territorial pattern of the Italian banking system may benefit, for our purposes, from an evaluation of the degree of average market concentration in the different geographical areas. Market concentration is commonly measured by the Herfindahl index of banks' loan-market shares and of their branches. The simple means of this index at LLS level shows that concentration is not greater in IDs than in non-district areas (Table 5). Considering the distribution of branches by area, again we find that concentration is not higher in district credit markets.

Table 5

HERFINDAHL INDEX FOR LOANS AND BRANCHES (1)
(simple means by area type)

	Loans	Branches
Non-district areas with provincial capital	0.16	0.15
	(76)	(76)
Non-district areas with no provincial capital	0.45	0.40
	(501)	(502)
Industrial districts with provincial capital	0.13	0.14
	(19)	(19)
Industrial districts with no provincial capital	0.31	0.28
	(179)	(179)
ITALY	0.38	0.34
	(775)	(776)

Source: Based on banking supervisory returns and on Istat data. The Herfindahl index is equal to the sum of the squares of market shares.

(1) Figures in brackets indicate the number of LLSs featuring loans granted by at least one bank or with at least a branch of a bank. Differences between corresponding numbers of municipalities are due to the different phenomena observed.

Similar results generally apply if we consider market concentration as measured by the average Herfindahl index at municipal level by macro-regions both with respect to loans and to branches (Appendix 3, Tables D1-D5). For Central Italy, however, Table D3 reveals that market concentration is higher than average in district areas; for non-district areas the evidence is mixed. In the South, higher-than-average market shares can be found in LLSs without provincial capitals.

Results do not change if we look at other concentration indexes, such as the simple mean of the largest market shares held at municipal level and the distribution of market leadership across bank categories and area-types.[19]

On the basis of this evidence, with the possible exception of POPs, there seems to be no category that can be seen as typical of district-local banks. But we do get an interesting insight into the pattern of BCCs' territorial specialisation. As Padoa-Schioppa argues, a "BCCs' Italy" exists in which "each of these banks, albeit very small in relation to the national system, plays a prominent role in its own local market space" (Padoa-Schioppa, 1997, p. 522). According to our analysis it appears that this "BCCs' Italy" is not concentrated in district areas: these banks seem capable of finding their own market niches in non-district contexts as well. BCCs' localism is in many respects linked to their being mutual banks. As we saw in Section 3, mutuals may elicit incentives that help overcome adverse selection and moral hazard (i.e., the *peer monitoring hypothesis and long-term interaction*)[20] Such mechanisms do not necessarily require that mutual banks operate in IDs. Therefore, BCCs' localism is not necessarily equivalent to ID localism.

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[19] The first index shows that banks do not hold larger market shares in district areas than in non-district areas, with the sole exception of Central Italy, where IDs display higher market concentration (see Appendix 3, Table E1). As for the frequency distribution of LLS market leadership across bank categories, BCCs show a tendency to be leaders (i.e. to retain the biggest share of the local market) in smaller areas, whereas POPs tend to be leaders mainly in larger IDs (see Appendix 3, Table E2). BCCs hold market leadership more frequently (26.3 per cent) than POPs (15.8 per cent) not only in small IDs, but also in district areas with provincial capitals. Finally, considering the frequency distribution of LLS market leadership across area-types, BCCs and POPs are market leaders more frequently in non-district areas than in IDs, while POPs tend to be market leaders mainly in smaller LLSs (district and non-district) rather than larger ones (see Appendix 3, Table E3).

[20] Cf. Banerjee, Besley and Guinnane (1994), Stiglitz (1990), Varian (1990). Angelini, Di Salvo and Ferri (1997) find empirical evidence consistent with the peer monitoring hypothesis. In particular their results show that, on average, BCC members enjoy better conditions than non-member clients. They accordingly reject their alternative hypothesis: the long-term interaction hypothesis. According to the latter, the most important incentive mechanism derives from the cooperative outcome of a sort of repeated game.

5. Patterns of banking localism in IDs

In this section, we give empirical content to the "double concentration condition". In order to test whether a bank is an ID bank or not, consider a bank b (b = 1, ..., B) that offers credit to a local labour system s (s = 1, ..., S). We start with the following definition.

DEFINITION (*ID bank*). A bank "*b*" is said to be a *local bank* in ID "*s"* if the following two conditions simultaneously hold (*double concentration condition*):

(1) $q_{bs} \geq q^{*}_{bs}$ $\qquad\qquad$ $q_{sb} \geq q^{*}_{sb}$

where q_{bs} is the credit market share held by bank b in LLS s; q_{sb} is the share of bank b's loan portfolio supplied to s; q^{*}_{bs} is the *quadratic mean* of all credit market shares q_{bs},; q^{*}_{sb} is the quadratic mean of all loan portfolio shares q_{sb}. If the conditions (1) are respected, we say that the banking system is *embedded* in the district's socio-economic context.

The reasons for choosing the quadratic mean will become clear if we formally develop condition (1). We obtain:

(2) $q_{bs} \geq \sqrt{\dfrac{\sum_s \sum_b q_{bs}^2}{N_{BS}}} = \sqrt{\dfrac{S}{N_{BS}} \cdot \hat{H}_S}$ $\qquad\qquad$ $q_{sb} \geq \sqrt{\dfrac{\sum_b \sum_s q_{sb}^2}{N_{BS}}} = \sqrt{\dfrac{B}{N_{BS}} \cdot \hat{H}_B}$

where S represents the total number of local labour systems with at least one bank granting credit; B is the total number of banks granting credit to the s-th local labour system; N_{BS} is equal to the non-empty intersection between the set of banks and that of local labour systems; $\hat{H}_S$ is the mean value of the Herfindahl indexes measuring market concentration in each LLS; $\hat{H}_B$ is the mean value of the Herfindahl indexes measuring banks' loan portfolio concentration for each bank.

Simple means of q_{bs} and q_{sb} are equal to $\frac{S}{N_{BS}}$ and $\frac{B}{N_{BS}}$, respectively the reciprocal of the average number of banks per LLS and of LLSs per bank. These fractions do not take account of the different size of local labour systems and of banks, so we correct them by the average Herfindahl indexes. Finally we compute mean values in (2) according to the different geographical area to which LLS belong and according to their including a provincial capital or not.

According to our methodology, only 58 out of 199 IDs have an embedded banking system (Table 6). The need for the bank to diversify risk, thereby reaping the benefits from scale economies, and the firms' desire to free their decisions from the influence of quasi-monopolistic banks set limits on the degree of banking localism.

Districts with an embedded banking system do not show any special difference from other district areas, as far as the distribution by sector and the geographical area is concerned.

It is worth noting IDs with banking embeddedness include Biella, Prato, Carpi, Reggio Emilia, Pesaro and Fermo, probably among the best known, and the earliest to be studied of Italy's district areas; this may explain a sort of observational bias in the literature in favour of the natural link between districts and local banks.

BCCs present the highest absolute frequency of banking embeddedness in IDs. They pass our test in 28 cases and for 24 districts.[21] As to the other bank categories, BIGs satisfy the DCC 18 times, SAVs 13 and POPs only 9. In fact, the 24 IDs in which BCCs are "local" represent 17.9 percent of all the IDs in which BCCs operate. The percentage diminishes to 11.1, 8.7 and 6.1 for SAVs, BIGs and POPs, respectively. This indicates that BCCs are more capable of getting embedded in IDs. But, as was shown in the previous section, BCCs play the role of local banks in non-ID areas as well. Furthermore, the embeddedness of BCCs is concentrated in smaller districts: the ID credit markets in which BCCs are embedded are much smaller, on average, than those of the other categories (see Table 6).

[21] Note that our methodology does not rule out cases in which more than one bank per district can pass the test.

Finally, Table 6 also shows that BCCs that play the role of local banks in IDs have more branches than the average and the median for the category. On the contrary, SAVs tend to be smaller than the average for that category. Evidence is less clear for POPs and especially for BIGs, which have a large number of outliers.

Table 6

DISTRICTS WITH LOCAL BANKS

Bank category	Number of districts (1)	Number of banks (2)	Average size of ID loan markets (3)	Size of ID banks: number of branches		Size of bank category: number of branches	
				Mean	Median	Mean	Median
BCC	24	28	220,638	3.2	3.0	2.6	2.0
POP	9	9	2,503,050	35.0	28.0	37.4	19.5
SAV	13	13	1,683,633	35.8	34.0	43.8	37.5
BIG	16	18	2,759,321	38.7	24.5	56.0	11.0
TOTAL	58	68	1,301,081	17.7		3.4	

Source: Banking supervisory returns.

(1) Number of IDs in which each bank category is "local". - (2) Number of banks which are local in IDs ((2) may be > (1)). - (3) Simple mean of total loans granted to ID resident clients by any bank category (million lire).

According to our analysis, we cannot take it for granted that a local bank will arise in IDs. This confirms that IDs do not seem to be homogeneous entities even at the level of the bank-firm relationship. We leave it to future research to study these aspects, drawing on more highly disaggregated data and a longer sample period.[22]

6. Investment and liquidity constraints in industrial districts

In Section 2.2 we noted that IDs have had outstanding performance in terms of growth of income and employment. It is interesting to check whether the financial system, and in particular credit markets, have channelled a sufficient volume of resources, and kept transaction costs reasonable. We stressed that there may be trade-offs between the factors working for and against district banking localism. The empirical evidence on the main features of ID credit markets, in terms of DCC and of cooperative legal form, is mixed. We

[22] By definition, we build Table 6 by considering simultaneously loan portfolio concentration and credit market concentration. To get an idea of the two sides of the DCC see table B6 and C6.

have not so far investigated the net effect of those trade-offs on the extent credit rationing vis-à-vis ID firms. In this section, we carry out an empirical analysis to this purpose.

In imperfect capital markets there are many different reasons why firms may choose internal sources to finance their investment. First of all, asymmetries of information between lenders and borrowers entail agency costs. If these costs are passed on to debtors, the latter may seek to avoid them by resorting to internal finance (see Jensen and Meckling, 1976; Myers and Majluf, 1984). Secondly, internal and external sources can also be matched with the alternative governance structures they are associated with (Williamson, 1988). Financing through debt or capital markets involves sharing residual rights of control with lenders and capital holders, while internal sources avoid it and keep all power with the incumbents. Such a governance structure could have lower transaction costs than external financing, which may explain why internal sources are preferred.

A quite clear-cut implication then is that, with imperfect capital markets, investment will be positively correlated with current cash flow or, more in general, with some measure of the firm's liquidity. In a neoclassical world with perfect capital markets it would only depend on the stream of future expected profits.

Starting from the seminal paper by Fazzari, Hubbard and Petersen (1988) an entire stream of literature has argued that as the bank-firm relationship becomes closer, the sensitiveness of investment to measures of liquidity decreases. Hoshi, Kashyap and Scharfstein (1991), for instance, show that Japanese firms belonging to groups called *keiretsu* are less liquidity-constrained than non-affiliated firms. That is due to the presence of a main bank in the group with which other group firms establish very strong ties, thereby reducing information asymmetries and agency costs.

In a recent and very provocative paper, Kaplan and Zingales (1997) argue that capital market imperfections can certainly explain why cash flow is positively correlated with investment, but that an increasing degree of these imperfections cannot explain greater sensitivity of investment to liquidity measures. They offer a very simple theoretical model in which, under reasonable assumptions about production and cost functions, greater capital market imperfection leads to lower sensitivity of investment to the availability of internal resources. They also provide empirical evidence that the firms which are most likely to be

rationed, according to a reasonable *a priori* classification, are those with lower, not higher, sensitivity of investment to liquidity measures.

Although we cannot discuss this paper in detail, two critical remarks are appropriate. From a theoretical point of view, the conceptual framework within which the model is valid is too narrow.[23] As for the empirical analysis, most of the findings refer to a sample of listed companies, which can raise external funds to finance investment. This circumstance actually complicates the role of cash flow, so that the latter can no longer be a mere source of investment financing. When we consider small firms, as in IDs, external sources to finance investment consist essentially in bank loans. Imperfections in credit markets can then explain the different sensitivity of investment to liquidity measures.

For these reasons, we propose to carry out an experiment in which we compare the sensitivity of investment to liquidity measures in IDs with respect to other areas. We interpret the results of this experiment as a measure of the different degree of credit rationing of ID versus non-ID companies.

Our data comes from the Italian Company Account Data Service (Centrale dei bilanci), which reports data on the balance sheets of over 40,000 companies, for the years 1982-1995. Albeit very detailed, this sample is partially biased: it mostly includes medium-to-large firms and reports data for limited liability companies only, ruling out sole proprietorships and partnerships.

The sample used in the regression analysis is selected by filtering data according to different criteria. In particular, we choose firms that in the initial year of analysis had fewer than 250 employees, in order to account for the small size of ID firms. We excluded firms belonging to groups, since the availability of an internal capital market for these firms may affect the results. We also ruled out those companies reporting irregular data and those for which the growth rate of sales differed from the average value by more than twice the standard deviation. As a result we obtain a sample of more than 4,000 companies reporting data for the entire period 1985-1994. The main statistics are reported in Table 7.

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[23] In particular, their model is static and does not allow for endogeneity of the amount of funds raised in the market with respect to the cost differential between internal and external sources.

A bit less than 25 per cent of this sample is made up of firms located in IDs. We did not count as district firms those located in a district but operating in sectors other than that in which the district specialises. Median values are quite similar between the two groups, although ID firms on average tend to have higher growth rates of sales and accumulation of capital, higher cash flow, and more debt. Differences between the two groups are rather modest. So it is better to use multivariate analysis in order to go more deeply into the issue. The reported data actually start from 1988, since we use lags in the regression.

There are several alternative ways in which investment behaviour can be associated with liquidity measures. We could approach the issue via Tobin's *q* model augmented by a cash-flow variable. Since most of the companies in our sample are not listed, we cannot have data on their market value, and Tobin's *q* cannot be computed. Another approach can be based on Euler's equation, in which investment behaviour is explicitly designed as a dynamic optimisation problem. Again, this model can be augmented by financial variables, in order to check their possible impact on investment. We think, however, that this approach is based on a number of restrictive assumptions that are very difficult to control empirically.

We therefore prefer using an *ad hoc* dynamic model of investment based on the *accelerator principle* with adjustment costs augmented by cash flow and initial stock of liquid assets.

Our basic equation is then as follows:

(1) $$\frac{I_t}{K_{t-1}} = a_0 + a_1 \frac{I_{t-1}}{K_{t-2}} + a_2 \frac{CF_t}{K_{t-1}} + a_3 \frac{L_{t-1}}{K_{t-1}} + a_4 \frac{\Delta F_t}{K_{t-1}} + v_{it}$$

Table 7

SUMMARY STATISTICS COMPARING ID FIRMS AND NON-ID FIRMS
(percentage values)

Variables	Non-district		District	
	Median	CV(1)	Median	CV(1)
Investment/capital	9.131	156.13	9.460	229.42
Annual growth rate of sales	7.80	238.03	8.68	209.07
Return on assets	7.867	83.87	8.179	79.736
Cash flow/capital	14.009	378.41	15.250	202.43
Liquid assets/capital	3.353	132.83	3.338	132.93
Financial debt/total assets	27.777	60.594	29.145	59.08
Total assets (million lire)	10,226	101.52	9,662	94.10
Number of firms	3,156		963	

Source: Company Account Data Service (Centrale dei bilanci).
(1) Coefficient of variation=standard deviation/mean.

in which I_t represents investment at time t (t = 1988, ..., 1994), K_{t-1} is the stock of capital at the beginning of period, ΔF_t is the first difference in sales, CF_t is the cash flow in the period, L_{t-1} stands for initial stock of liquid assets and v_{it} represents an error term in which i indicates the individual firm and t time (t = 1988, ..., 1994). We assume that the error term is actually equal to $\mu_i + \varepsilon_{it}$, where the first term represents the individual effect at firm level and the second is a proper error term with zero mean and constant variance.

We expect both lagged investment and first difference of sales, considered as a proxy for demand, to have a *positive* influence on current investment, consistently with the accelerator principle. As for the two financial variables, they both proxy for the availability of internal finance. In principle, if these resources are available to firms either as a flow or as a stock, and if capital markets are imperfect, we expect a positive influence of both variables on current investment.

In order to estimate this dynamic panel data model, we take first differences and then proceed with an instrumental variable estimation, due to the presence of a lagged dependent variable among the regressors. As instrument we use I_{t-2}/K_{t-3}. In this way we should get at least a consistent estimation of parameters, although there could be problems with efficiency.[24] All the data are at book value. We then run this regression for the two groups of firms: those belonging to IDs and the others. Notice also that we deal with a balanced panel, with a constant number of firms. Results are reported in Table 8.

The most important piece of evidence is that the values of parameters for liquidity measures are much *higher* for ID firms than for non-ID firms;[25] the cash-flow parameter for ID firms, in particular, is *nearly ten times* that for non-ID firms. The other results from the table are quite clear: all the parameters show the expected sign and all the regressors are highly significant.

Can we conclude, then, that agency costs in ID credit markets are such that district firms are more severely liquidity-constrained than other firms? Before accepting this conclusion, we have to go more deeply into this matter and address a number of issues.

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[24] See Baltagi (1995), including survey of the literature.

[25] In a recent paper, Pagnini (1998) obtained exactly the same result using completely different methodology and source of data. In particular, he used unauthorised overdrafts as a percentage of total credit lines as a proxy for the magnitude of financial constraints in different areas. Descriptive statistics and regression analysis consistently indicate that this percentage is higher in ID than in non-ID areas. The conclusions reached in the present paper are not restricted to the validity of the test used in this paper which is based on the correlation between real investment and cash flow.

Table 8

Dependent variable: investment/lagged capital
(standard errors in parenthesis)

Regressors	Total	Non-district	District
Lagged investment	0.00407639	0.100646	0.039012
	(0.0015852)	(0.008321)	(0.01388)
Cash flow	0.045819	0.035352	0.285493
	(0.0023555)	(0.0022539)	(0.01315)
Lagged short term securities	0.295574	0.277468	0.379710
	(0.03108)	(0.03354)	(0.07939)
First difference of sales	0.023443	0.016526	0.027605
	(0.0008992)	(0.001052)	(0.0022845)
Number of firms	4,119	3,156	963

1) Cash flow could proxy for profit opportunities. Hence, a greater sensitivity of investment to this variable may not necessarily signal the degree of financial constraint. To control for this factor we introduce a proxy for profits. The results do not change significantly: the sensitivity of investment to liquidity measures remains much higher for ID firms.

2) Greater sensitivity to liquidity measures may signal that ID firms are specialised in sectors of economic activity with better growth opportunities. Looking at the sectoral composition of the two samples, it turns out that non-district firms are more concentrated in sectors such as food and beverages, petroleum and chemical products and paper and publishing. It is not clear whether these have higher growth rates. In any case, we run a regression by selecting only those sectors in which IDs are mostly concentrated (textiles, leather and footwear, wood and wood products, glass, non-metal mineral-based-products, machinery). The results do not change radically.

3) We also carried out sensitivity analysis by changing the threshold for the maximum size of firms in the initial year. The effects of liquidity measures on investment in IDs remain significantly greater. To better qualify the influence of size, we also introduce the logarithm of the number of employees. We obtain the same result.

4) The geographical composition of the two samples is rather different: the frequency of non-district firms is higher among southern than among northern firms. Southern companies, in particular, are usually considered as more liquidity-constrained than the others; hence, the different sample composition should act in the opposite direction with respect to our main result. In any case, even when we run the regression excluding southern firms, the sensitivity of investment to liquidity measures turns out to be greater in the district areas.

We offer two alternative interpretations for this evidence. On the one hand, greater cash-flow sensitivity in ID areas may genuinely signal the existence of agency problems in ID credit markets. This conclusion may be better qualified, however, if we look at the characteristics of our sample. As we have seen, the Company Account Data Service panel consists overwhelmingly of medium-to-large firms. Very small firms are not included. Furthermore, we have taken only firms reporting data for the entire period 1988-1994, thereby probably further reducing the proportion of small firms.

As was explained in Section 3, district areas may also have internal capital markets in which comparatively bigger firms, responsible for marketing the final product, apply for bank credit on behalf of smaller firms operating in the intermediate stages of production. Now, due to the lack of strong ties with the banking system, these larger firms may suffer from the sort of agency problems we mentioned before. At the same time, it may be economic for these firms to alleviate liquidity problems for smaller firms in the district by channelling funds to them through internal capital markets. So our results could be due to a sort of selection bias. In other words, because of the over-representation of larger firms in the Company Account Data Service sample, we may have only observed firms applying for credit on behalf of the whole district and bearing the bulk of the agency costs. At the same time, however, we cannot observe the smaller firms that benefit most from access to internal capital markets.

On the other hand, a different interpretation is also available. So far, the level of aggregation chosen has been a sort of representative district. But industrial districts can differ in their banking relations, stage of industrialisation, local conditions and so on (see Sections 3 and 4). In this respect, our conclusion that investment is more sensitive to cash-flow measures in IDs may have been influenced by the characteristics of a subset of districts.

In order to carry out the analysis at a higher level of disaggregation, we run equation (1) by alternatively considering: a) districts classified by the nature of their banking relations; b) the regions to which district and non-district companies belong to; c) the sectors of economic activity of ID and non-ID companies. We restrict our analysis to those cases for which we have a sufficient sample size.

To investigate the extent of the banking relationship in ID areas, we run two different regressions for districts with a local bank, according to the definition given in Section 3, and for the others; surprisingly, there is no difference in the sensitivity of investment to liquidity measures. This suggests a need to go more deeply into the analysis of bank-firm relationships and also consider other indicators of their nature.

We also run regression (1) for different sectors of economic activity (see Figure 4). Here, the results are quite different from those of the aggregate analysis. Whereas in the case of machinery and furniture the correlation between investment and cash flow is actually stronger in ID areas, this is not true for the food-and-beverage sector and especially for the textile, clothing and leather sector. This seems to confirm that the nature of banking relationships and the way investment is financed in the districts depends heavily on the nature of the productive process.

Finally, we replicate our regression at regional level (Figure 5). Again, the results are quite different across regions. While in northern regions like Lombardy and Veneto, ID firms seem to be more financially constrained than non-district firms, the opposite holds for Emilia-Romagna, Tuscany and Marche.

All these results suggest that we should abandon the concept of a representative district and move toward more disaggregate levels of analysis.

Figure 4

SECTORAL CASH-FLOW PARAMETERS IN THE INVESTMENT EQUATION IN ID AND NON-ID AREAS

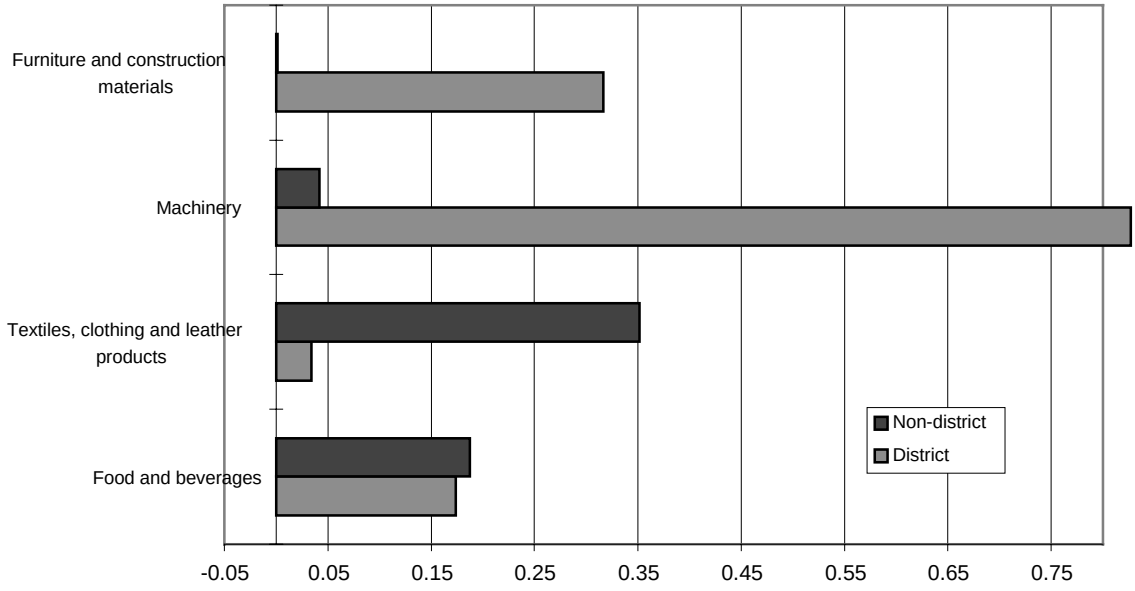
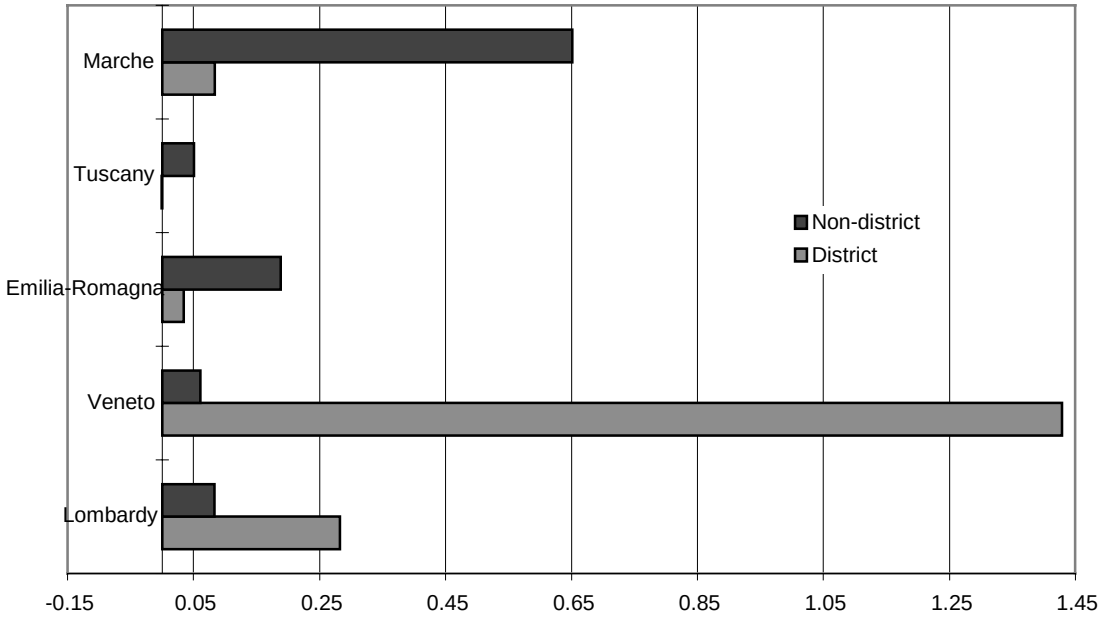


Figure 5

REGIONAL CASH-FLOW PARAMETER VALUES IN THE INVESTMENT EQUATION IN ID AND NON-ID AREAS



Appendix I

The empirical definition of IDs

In Section 2 we briefly sketched the methodology used by Istat in 1991 to identify the Italian IDs. This appendix describes the methodology more extensively. As we pointed out earlier, the national territory is first divided into *local labour systems* (LLSs), i.e. territorial groupings of self-contained municipalities, marked by a certain degree of commuting.[26] Next, a LLS is defined as an ID if the following conditions are met:[27]

i) the proportion of manufacturing-sector employment in the LLS must exceed the national average;

ii) in at least one of the manufacturing sub-sectors in which the LLS is specialised (i.e. in which the percentage of manufacturing employment of the LLS industry is greater than the corresponding national ratio), employment must be relatively more concentrated in small productive units than the national average;

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[26] The procedure for identifying LLSs is very complex and can be found in Sforzi (1997). Very loosely, the procedure goes through 2 main steps. First, it identifies municipalities exhibiting a relatively high degree of *centrality* (i.e. attracting a large number of workers who live in other municipalities) and a high degree of *self-containment* (i.e. having a large share of their resident workforce employed in those same municipalities). Second, the procedure joins the municipalities with the highest degrees of centrality and of self-containment with those from which workers mainly come. This aggregation makes up an LLS. One implication of this methodology is that, if in principle one individual municipality has no significant interaction with other units, it will by itself constitute a LLS.

[27] This appendix borrows heavily on Brusco and Paba (1997). There exists, however, a somewhat different definition of IDs in Italy, developed for industrial policy reasons. Law 317/1991 and a subsequent 1993 decree by the Minister for Industry and Commerce define IDs as those LLSs in which the following concentration criteria are simultaneously met:

i) the *manufacturing industrialisation index*, given by the ratio of local manufacturing employment to total local employment, must be greater than the equivalent national ratio by at least 30 per cent;

ii) the level of employment in the manufacturing activity in which the LLS is specialised must exceed total LLS manufacturing employment by 30 per cent;

iii) the level of employment in LLS-based productive units operating in the manufacturing activity in which the LLS is specialised must be over 50 per cent of total employment in the same activity at the LLS level;

iv) the *entrepreneurial density index*, defined as the ratio of local productive units to resident population, must exceed the national average;

v) the *productive specialisation index*, that is to say the ratio of the LLS's employment in one given manufacturing *activity* to total manufacturing employment within the LLS, must exceed the equivalent national ratio by at least 30 per cent.

However, the introduction of numerical benchmarks is too constrictive, and some district areas in which even one of the above criteria is not met will be left out of the analysis. Istat procedure then seems more flexible.

iii) the degree of concentration of manufacturing employment in small local productive units (i.e. industrial plants with no more than 250 employees) must be greater than the national average;

iv) employment in one of the subsectors satisfying condition ii) must exceed 50 per cent of total manufacturing employment in the same LLS.

Thus, each ID is associated to a manufacturing sector which in the text we refer to as its “sector of specialisation” or “sector in which an ID is specialised”.

Appendix II

A note on the Italian banking system

In this paper we use the 1991 banking data. In that year the 1936 Banking Law was still in force[28] and had not yet been replaced by the 1993 Banking Law. In this appendix we give some information as to the types of banks that existed under the old law.

The old banking law framed the Italian banking structure within a rigid regulatory system in which the supervisory institution had pervasive structural powers. In particular, any new banks had to be authorised first, and a different authorisation was also necessary for the newly formed bank to begin its activity. Branching also required prior authorisation. Moreover, the old banking regime featured *functional*, *sectoral* and *territorial* specialisation.

Functional specialisation consisted in the definite separation of the fund-raising activities that could be undertaken by commercial banks (*aziende di credito*) from those that could be carried out by long-term special credit institutions (*istituti di credito speciale*). More specifically, whereas commercial banks could raise sight deposits, short-term deposits (meaning deposits with less than 18 months maturity) and medium-to-long-term maturity funds, *special credit institutions* could generally raise funds featuring long-term maturities.[29]

A functional subdivision of commercial banks was also in force. Accordingly, commercial banks were divided into:[30]

i) public law banks (Banco di Napoli, Banco di Sicilia, Banca Nazionale del Lavoro, Istituto Bancario San Paolo di Torino, Monte dei Paschi di Siena and from 1944 Banco di Sardegna);

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[28] The 1936 Banking Law resulted from two governmental acts: i) royal decree 375/1936 and (*i*iii) royal decree 1400/1937. These decrees were subsequently and respectively transposed into parliamentary acts 141/1938 and 636/1938 and successively modified and integrated by act 933/1940. Although other changes took place in the years between 1938 and 1992-93 (such as Legislative Decree 350/1985, which adapted the Italian banking law to the norms of EC directive 77/780 of 1977 - "First Banking Directive"), the main body of the Italian banking law remained substantially.

[29] This complex system was developed to overcome a series of banking crises towards the end of the twenties and the beginning of the thirties.

[30] Notice, however, that public law banks and savings banks could collect medium-term funds and grant long-term loans through some "special sections" specifically set up to deal with specific long-term lending activities.

ii) banks of national interest (Banca Commerciale Italiana, Istituto di Credito Italiano and Banco di Roma);

iii) limited company banks;

iv) popular cooperative banks (banche popolari) - POPs;

v) savings banks - SAVs;

vi) first and second class pledge banks;

vii) rural and artisans' mutual banks - BCCs;

viii) branches of foreign banks.

Some of these categories were also disciplined by some specific legal provisions which, among other things, restricted their operations.

Public law banks were credit institutions whose main feature was the public legal form. They were generally organised in the form of foundations. The composition of the boards of directors and chief executives and their salaries were often determined by central government authorities.

Banks of national interest were large public banks organised as stock corporations. Their shares were concentrated in the hands of IRI as a result of their precarious financial situation during the thirties. The purpose of this provision was to prevent the acquisition of dominant positions by non-public bodies. "National interest" was defined on the basis of their vast territorial organisation (as determined by the existence of branches in at least 30 provinces).

SAVs, *POPs* and *BCCs* were originally set up in order to provide for the financial needs of local communities of entrepreneurs and/or farmers and artisans.[31] Whereas savings banks were generally set up in the form of moral institutions and foundations,[32] both popular banks and rural and artisans' banks were credit cooperatives with mutual-aid features. However, some distinctive features gradually emerged between popular and savings banks on the one

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[31] In many cases, the savings banks date back to the 18th century, whereas popular banks and rural and artisans' mutual banks began to spread in the second half of the 19th century. However, whereas savings banks originated from the initiative of the middle classes, both popular and artisans' banks were initially formed by less wealthier social classes and often had religious roots.

[32] Substantially similar to savings banks, the first and second class pledge banks were created with a view to granting credit to small otherwise-would-be rationed savers and to fight usury beginning in the 15th and 16th centuries.

hand,[33] whose branching was not necessarily restricted to specific parts of Italy,[34] and the rural and artisans' banks on the other. The latter had to limit their operating range to a few municipalities (in some cases in one municipality only), while their members could only be residents of the area of operation. One trait common to both POPs and BCCs was the limited number of shares that each member could detain.

Sectoral specialisation referred to the asset side of the special credit institutions' balance sheets and of the *special sections* of public law banks and of savings banks. According to regulatory provisions, special credit institutions' and *special sections* had to concentrate their lending in one economic sector only (*e.g.* agricultural lending, housing lending, investment banking and public-works lending).

Finally, *territorial specialisation* consisted in limiting the operating range of banks to the areas where they had been authorised to branch.

Radical changes in the Italian banking system were introduced by the new 1993 banking law (Legislative Decree 385/1993), issued to adapt the banking system to the norms of EC Directive 89/646 of 15 December 1989. According to the new law, Italian banks may be either be *società per azioni* (limited or public limited company banks) or *società cooperative per azioni a responsabilità limitata* (cooperative limited responsibility banks). The latter can either be *cooperative banks* (banche popolari - POPs) or *mutual banks* (banche di credito cooperativo - BCCs). All the former public law banks, national interest banks and savings banks are by now limited or public limited companies.

At present, the legal difference between limited (or public limited) banks and POPs is very thin,[35] whereas the traditional distinction between POPs and BCCs has been preserved. So whereas POPs are in principle not prevented from branching nationwide (indeed some are even present abroad), BCCs have specific local and mutual-aid features and, by legal provision, at least 50 per cent of their loans must be granted to their members.

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[33] Further information on this subject may be found, among many other papers, in De Bonis, Manzone and Trento (1994).

[34] Indeed, Banca Popolare di Novara and Banca Popolare di Milano, on the one hand, and Cassa di Risparmio delle Province Lombarde, on the other, have branches all over Italy and abroad.

[35] For example, the capital requirement for limited banks and cooperative banks is 12.5 billion lire, whereas for mutual banks is only 2 billion lire.

Appendix III

Tables and summary statistics

Table A1

DISTRIBUTION OF LLS BY AREA TYPE AND MACRO-REGIONS (1)
(absolute values)

	North-West	North-East	Centre	South	ITALY
Non-district areas with provincial capital	15	12	15	34	76
Non-district areas with no provincial capital	66	66	61	316	509
Non-district areas	*81*	*78*	*76*	*350*	*585*
Industrial districts with provincial capital	5	8	5	1	19
Industrial districts with no provincial capital	54	57	55	14	180
Industrial districts	*59*	*65*	*60*	*15*	*199*
TOTAL	140	143	136	365	784

Source: Based on Istat data.

(1) North-West: Piedmont, Val d'Aosta, Lombardy and Liguria; North-East: Trentino-Alto Adige, Veneto, Friuli-Venezia Giulia and Emilia-Romagna; Centre: Tuscany, Marche, Umbria and Lazio; South: Abruzzo, Molise, Campania, Puglia, Basilicata, Calabria, Sicily and Sardinia.

Table A2

DISTRIBUTION OF LLS BY AREA TYPE AND MACRO-REGIONS (1)
(percentage values)

	North-West	North-East	Centre	South	ITALY
Non-district areas with provincial capital	10.7	8.4	11.0	9.3	9.7
Non-district areas with no provincial capital	47.1	46.2	44.9	86.6	64.9
Non-district areas	*57.9*	*54.5*	*55.9*	*95.9*	*74.6*
Industrial districts with provincial capital	3.6	5.6	3.7	0.3	2.4
Industrial districts with no provincial capital	38.6	39.9	40.4	3.8	23.0
Industrial districts	*42.1*	*45.5*	*44.1*	*4.1*	*25.4*
TOTAL	100.0	100.0	100.0	100.0	100.0

Source: Based on Istat data.

(1) North-West: Piedmont, Val d'Aosta, Lombardy and Liguria; North-East: Trentino-Alto Adige, Veneto, Friuli-Venezia Giulia and Emilia-Romagna; Centre: Tuscany, Marche, Umbria and Lazio; South: Abruzzo, Molise, Campania, Puglia, Basilicata, Calabria, Sicily and Sardinia.

Table A3

DISTRIBUTION OF MUNICIPALITIES BY AREA TYPE AND MACRO-REGIONS (1)
(number of non-district areas)

	North-West	North-East	Centre	South	ITALY
Non-district areas with provincial capital	541	234	267	632	1674
Non-district areas with no provincial capital	1236	494	382	1835	3947
Non-district areas	*1777*	*728*	*649*	*2467*	*5621*
Industrial districts with provincial capital	281	201	37	22	541
Industrial districts with no provincial capital	1006	552	315	65	1938
Industrial districts	*1287*	*753*	*352*	*87*	*2479*
TOTAL	3064	1481	1001	2554	8100

Source: Based on Istat data.

(1) North-West: Piedmont, Val d'Aosta, Lombardy and Liguria; North-East: Trentino-Alto Adige, Veneto, Friuli-Venezia Giulia and Emilia-Romagna; Centre: Tuscany, Marche, Umbria and Lazio; South: Abruzzo, Molise, Campania, Puglia, Basilicata, Calabria, Sicily and Sardinia.

Table B1

LOAN PORTFOLIOS OF BANK CATEGORIES BY AREA TYPES (1)
NORTH-WESTERN ITALY (2)
(percentage values and specialisation indexes)

Area	BCC	POP	SAV	BIG	North-West
Non-district areas with provincial capital	13.5	56.7	63.6	70.5	66.8
	(0.2)	(0.8)	(1.0)	(1.1)	
Non-district areas with no provincial capital	16.0	7.6	19.6	6.7	7.4
	(2.2)	(1.0)	(2.6)	(0.9)	
Non-district areas	*29.6*	*64.2*	*83.2*	*77.2*	*74.2*
Industrial districts with provincial capital	12.8	13.6	1.8	10.2	10.6
	(1.2)	(1.3)	(0.2)	(1.0)	
Industrial districts with no provincial capital	57.6	22.2	15.0	12.6	15.3
	(3.8)	(1.5)	(1.0)	(0.8)	
Industrial districts	*70.4*	*35.8*	*16.8*	*22.8*	*25.8*
TOTAL	100.0	100.0	100.0	100.0	100.0

Source: Based on banking supervisory returns and on Istat data.

(1) Figures in brackets show the specialisation index. – (2) North-West: Val d'Aosta, Piedmont, Lombardy and Liguria.

Table B2

LOAN PORTFOLIOS OF BANK CATEGORIES BY AREA TYPES (1)
NORTH-EASTERN ITALY (2)
(percentage values and specialisation indexes)

Area	BCC	POP	SAV	BIG	North-East
Non-district areas with provincial capital	20.8	25.3	44.8	39.3	35.7
	(0.6)	(0.7)	(1.3)	(1.1)	
Non-district areas with no provincial capital	39.7	10.5	22.3	8.1	12.5
	(3.2)	(0.8)	(1.8)	(0.6)	
Non-district areas	*60.5*	*35.8*	*67.2*	*47.4*	*48.2*
Industrial districts with provincial capital	13.1	36.9	16.1	33.8	31.0
	(0.4)	(1.2)	(0.5)	(1.1)	
Industrial districts with no provincial capital	26.4	27.3	16.8	18.8	20.8
	(1.3)	(1.3)	(0.8)	(0.9)	
Industrial districts	*39.5*	*64.2*	*32.9*	*52.6*	*51.8*
TOTAL	100.0	100.0	100.0	100.0	100.0

Source: Based on banking supervisory returns and on Istat data.

(1) Figures in brackets show the specialisation index. – (2) North-East: Trentino-Alto Adige, Veneto, Friuli-Venezia Giulia and Emilia-Romagna.

Table B3

LOAN PORTFOLIOS OF BANK CATEGORIES BY AREA TYPES (1)
CENTRAL ITALY (2)
(percentage values and specialisation indexes)

Area	BCC	POP	SAV	BIG	Central Italy
Non-district areas with provincial capital	28.6	30.9	35.9	53.2	43.8
	(0.7)	(0.7)	(0.8)	(1.2)	
Non-district areas with no provincial capital	15.4	17.0	13.0	8.2	11.1
	(1.4)	(1.5)	(1.2)	(0.7)	
Non-district areas	*44.0*	*47.9*	*48.9*	*61.4*	*54.9*
District area with provincial capital	9.1	29.2	14.4	13.2	14.8
	(0.6)	(2.0)	(1.0)	(0.9)	
District area with no provincial capital	46.9	22.9	36.7	25.4	30.4
	(1.5)	(0.8)	(1.2)	(0.8)	
Industrial districts	*56.0*	*52.1*	*51.1*	*38.6*	*45.3*
TOTAL	100.0	100.0	100.0	100.0	100.0

Source: Based on banking supervisory returns and on Istat data.

(1) Figures in brackets show the specialisation index. – (2) Centre: Tuscany, Marche and Umbria.

Table B4

LOAN PORTFOLIOS OF BANK CATEGORIES BY AREA TYPES (1)
SOUTHERN ITALY (2)
(percentage values and specialisation indexes)

Area	BCC	POP	SAV	BIG	Southern Italy
Non-district areas with provincial capital	40.1	68.0	44.9	75.4	71.0
	(0.6)	(1.0)	(0.6)	(1.1)	
Non-district areas with no provincial capital	54.6	28.6	41.1	22.7	26.0
	(2.1)	(1.1)	(1.6)	(0.9)	
Non-district areas	*94.7*	*96.6*	*86.0*	*98.1*	*97.0*
District area with provincial capital	0.1	1.1	7.8	0.4	1.0
	(0.1)	(1.2)	(8.3)	(0.4)	
District area with no provincial capital	5.2	2.3	6.1	1.5	2.0
	(2.6)	(1.1)	(3.0)	(0.7)	
Industrial districts	*5.3*	*3.4*	*14.0*	*1.9*	*3.0*
TOTAL	100.0	100.0	100.0	100.0	100.0

Source: Based on banking supervisory returns and on Istat data.

(1) Figures in brackets show the specialisation index. – (2) South: Abruzzo, Molise, Campania, Puglia, Basilicata, Calabria, Sicily and Sardinia.

Table B5

LOAN PORTFOLIOS OF BANK CATEGORIES BY AREA TYPES (1)
LAZIO (2)
(percentage values and specialisation indexes)

Area	BCC	POP	SAV	BIG	Lazio
Non-district areas with provincial capital	68.4	80.3	84.0	94.2	92.4
	(0.7)	(0.9)	(0.9)	(1.0)	
Non-district areas with no provincial capital	31.6	19.1	16.0	5.4	7.2
	(4.4)	(2.7)	(2.2)	(0.8)	
Non-district areas	*100.0*	*99.4*	*100.0*	*99.6*	*99.6*
District area with provincial capital (3)	0.0	0.0	0.0	0.0	0.0
	-	-	-	-	
District area with no provincial capital	0.0	0.6	0.0	0.4	0.4
	(0.0)	(1.3)	(0.0)	(1.0)	
Industrial districts	*0.0*	*0.6*	*0.0*	*0.4*	*0.4*
TOTAL	100.0	100.0	100.0	100.0	100.0

Source: Based on banking supervisory returns and on Istat data.

(1) Figures in brackets show the specialisation index. – (2) Lazio was considered on its own, because of the relatively scarce presence of district areas in the region and its peculiar banking structure, with huge presence of big banks mainly concentrated in Rome and in its province. – (3) According to the Sforzi-Istat algorithm, Lazio had no ID area with provincial capital in 1991.

Table B6

AVERAGE SHARE OF LOCAL MARKETS IN LOAN PORTFOLIOS OF INDIVIDUAL BANKS IN SPECIFIC AREA TYPES (1)
(simple means; percentage values)

Area	BCC	POP	SAV	BIG	Banking system
Non-district areas with provincial capital	84.7	14.8	20.0	12.4	22.3
Non-district areas with no provincial capital	75.5	7.1	4.8	2.9	16.8
Non-district areas	*78.4*	*9.9*	*9.2*	*7.0*	*19.0*
District area with provincial capital (3)	73.1	9.9	15.4	4.2	13.8
District area with no provincial capital	66.5	4.2	6.7	3.1	15.2
Industrial districts	*67.6*	*5.6*	*8.2*	*3.4*	*14.8*
ITALY	74.8	8.3	8.9	5.9	17.6

Source: Based on banking supervisory returns and on Istat data.

(1) The figure in the first line, first column indicates, for instance, that, in non-ID areas with a provincial capital, on average individual BCCs have a share of 84.7 per cent of the local market.

Table C1

LOAN MARKET SHARES HELD BY EACH BANK CATEGORY IN THE FOUR AREA-TYPES
NORTH-WESTERN ITALY (1)
(percentage values)

Bank categories	Non-district areas with provincial capital	Non-district areas with no provincial capital	*Non-district areas*	District area with provincial capital	District area with no provincial capital	*Industrial districts*	North-West
BCC	0.5	5.1	*0.9*	2.9	8.9	*6.4*	2.4
POP	13.6	16.4	*13.9*	20.7	23.4	*22.3*	16.1
SAV	2.7	7.4	*3.1*	0.5	2.8	*1.8*	2.8
BIG	83.2	71.1	*82.0*	76.0	64.9	*69.5*	78.8
TOTAL	100.0	100.0	*100.0*	100.0	100.0	*100.0*	100.0

Source: Based on banking supervisory returns and on Istat data.

(1) North-West: Val d'Aosta, Piedmont, Lombardy and Liguria.

Table C2

LOAN MARKET SHARES HELD BY EACH BANK CATEGORY IN THE FOUR AREA-TYPES
NORTH-EASTERN ITALY (1)
(percentage values)

Bank categories	Non-district areas with provincial capital	Non-district areas with no provincial capital	*Non-district areas*	District area with provincial capital	District area with no provincial capital	*Industrial districts*	North-East
BCC	4.7	25.7	*10.1*	3.4	10.3	*6.2*	8.1
POP	13.2	15.6	*13.9*	22.3	24.5	*23.2*	18.7
SAV	12.5	17.8	*13.8*	5.2	8.0	*6.3*	10.0
BIG	69.6	41.0	*62.2*	69.2	57.2	*64.4*	63.3
TOTAL	100.0	100.0	*100.0*	100.0	100.0	*100.0*	100.0

Source: Based on banking supervisory returns and on Istat data.

(1) North-East: Trentino-Alto Adige, Veneto, Friuli-Venezia Giulia and Emilia-Romagna.

Table C3

LOAN MARKET SHARES HELD BY EACH BANK CATEGORY IN THE FOUR AREA-TYPES
CENTRAL ITALY (1)
(percentage values)

Bank categories	Non-district areas with provincial capital	Non-district areas with no provincial capital	*Non-district areas*	District area with provincial capital	District area with no provincial capital	*Industrial districts*	Central Italy
BCC	2.8	6.0	*3.5*	2.6	6.6	*5.3*	4.3
POP	5.6	12.2	7.0	15.7	6.0	*9.1*	7.9
SAV	31.5	45.3	*34.2*	37.4	46.2	*43.3*	38.3
BIG	60.1	36.5	*55.4*	44.3	41.2	*42.2*	49.4
TOTAL	100.0	100.0	*100.0*	100.0	100.0	*100.0*	100.0

Source: Based on banking supervisory returns and on Istat data.

(1) Centre: Tuscany, Marche and Umbria.

Table C4

LOAN MARKET SHARES HELD BY EACH BANK CATEGORY IN THE FOUR AREA-TYPES
SOUTHERN ITALY (1)
(percentage values)

Bank categories	Non-district areas with provincial capital	Non-district areas with no provincial capital	*Non-district areas*	District area with provincial capital	District area with no provincial capital	*Industrial districts*	Southern Italy
BCC	2.5	9.1	*4.2*	0.5	11.1	*7.7*	4.3
POP	12.6	14.4	*13.1*	15.8	14.5	*14.9*	13.1
SAV	3.9	9.8	*5.5*	51.3	18.6	*29.0*	6.2
BIG	81.0	66.7	*77.2*	32.5	55.8	*48.4*	76.3
TOTAL	100.0	100.0	*100.0*	100.0	100.0	*100.0*	100.0

Source: Based on banking supervisory returns and on Istat data.

(1) South: Abruzzo, Molise, Campania, Puglia, Basilicata, Calabria, Sicily and Sardinia.

Table C5

LOAN MARKET SHARES HELD BY EACH BANK CATEGORY IN THE FOUR AREA-TYPES
LAZIO (1)
(percentage values)

Bank categories	Non-district areas with provincial capital	Non-district areas with no provincial capital	*Non-district areas*	District area with provincial capital (2)	District area with no provincial capital	*Industrial districts*	Lazio
BCC	1.5	9.2	*2.1*	0.0	0.0	*0.0*	2.1
POP	5.2	16.0	*6.0*	0.0	7.7	*7.8*	6.0
SAV	3.3	8.1	*3.6*	0.0	0.0	*0.0*	3.6
BIG	90.0	66.7	*88.3*	0.0	92.2	*92.2*	88.3
TOTAL	100.0	100.0	*100.0*	100.0	100.0	*100.0*	100.0

Source: Based on banking supervisory returns and on Istat data.

(1) Lazio was considered on its own, because of the relatively scarce presence of district areas in the region and its peculiar banking structure, with a huge presence of big banks mainly concentrated in Rome and in its province. – (2) According to the Sforzi-Istat algorithm, Lazio had no ID area with provincial capital in 1991.

Table C6

AVERAGE LOCAL LOAN MARKET SHARES HELD BY INDIVIDUAL BANKS IN EACH AREA TYPE (1)
(simple means; percentage values)

Bank categories	Non-district areas with provincial capital	Non-district areas with no provincial capital	*Non-district areas*	District area with provincial capital	District area with no provincial capital	*Industrial districts*	ITALY
BCC	1.4	17.8	*12.6*	1.1	9.7	*8.2*	11.2
POP	4.3	20.1	*14.3*	4.1	12.4	*10.3*	12.8
SAV	10.4	34.7	*27.6*	8.5	20.5	*18.4*	24.2
BIG	5.1	19.9	*13.4*	4.0	11.8	*9.6*	12.3
BANKING SYSTEM	4.9	21.1	*14.7*	4.1	12.5	*10.4*	13.3

Source: Based on banking supervisory returns and on Istat data.

(1) The figure in the first line, first column indicates, for instance, that, in non-ID areas with a provincial capital, on average individual BCCs have a 1.4 per cent share of the local loan market.

Table D1

HERFINDAHL INDEX FOR LOANS AND BRANCHES (1)
NORTH-WESTERN ITALY (2)
(simple means by area type)

	Loans	Branches
Non-district areas with provincial capital	0.16	0.18
	(16)	(16)
Non-district areas with no provincial capital	0.34	0.29
	(68)	(68)
Industrial districts with provincial capital	0.10	0.12
	(5)	(5)
Industrial districts with no provincial capital	0.26	0.23
	(55)	(55)
NORTH-WEST	0.28	0.25
	(144)	(144)

Source: Based on banking supervisory returns and on Istat data.

(1) Number of LLSs with at least one bank's loans or branches in brackets. Differences between corresponding numbers of municipalities are due to the different phenomena observed. – (2) North-West: Val d'Aosta, Piedmont, Lombardy and Liguria.

Table D2

HERFINDAHL INDEX FOR LOANS AND BRANCHES (1)
NORTH-EASTERN ITALY (2)
(simple means by area type)

	Loans	Branches
Non-district areas with provincial capital	0.15	0.13
	(12)	(12)
Non-district areas with no provincial capital	0.32	0.28
	(64)	(64)
Industrial districts with provincial capital	0.11	0.12
	(8)	(8)
Industrial districts with no provincial capital	0.26	0.23
	(56)	(56)
NORTH-EAST	0.27	0.24
	(140)	(140)

Source: Source: Based on banking supervisory returns and on Istat data.

(1) Number of LLSs with at least one bank's loans or branches in brackets. Differences between corresponding numbers of municipalities are due to the different phenomena observed. – (2) North-East: Trentino-Alto Adige, Veneto, Friuli-Venezia Giulia and Emilia-Romagna.

Table D3

HERFINDAHL INDEX FOR LOANS AND BRANCHES (1)
CENTRAL ITALY (2)
(simple means by area type)

	Loans	Branches
Non-district areas with provincial capital	0.17 (10)	0.18 (10)
Non-district areas with no provincial capital	0.39 (41)	0.39 (41)
Industrial districts with provincial capital	0.15 (5)	0.17 (5)
Industrial districts with no provincial capital	0.38 (54)	0.34 (54)
CENTRAL ITALY (2)	0.35 (110)	0.33 (110)

Source: Based on banking supervisory returns and on Istat data.

(1) Number of LLSs with at least one bank's loans or branches in brackets. Differences between corresponding numbers of municipalities are due to the different phenomena observed. – (2) Centre: Tuscany, Umbria and Marche.

Table D4

HERFINDAHL INDEX FOR LOANS AND BRANCHES (1)
SOUTHERN ITALY (2)
(simple means by area type)

	Loans	Branches
Non-district areas with provincial capital	0.17 (33)	0.13 (33)
Non-district areas with no provincial capital	0.52 (308)	0.45 (309)
Industrial districts with provincial capital	0.30 (1)	0.34 (1)
Industrial districts with no provincial capital	0.47 (13)	0.41 (13)
SOUTHERN ITALY	0.48 (355)	0.42 (356)

Source: Based on banking supervisory returns and on Istat data.

(1) Number of LLSs with at least one bank's loans or branches in brackets. Differences between corresponding numbers of municipalities are due to the different phenomena observed. – (2) South: Abruzzo, Molise, Campania, Puglia, Basilicata, Calabria, Sicily and Sardinia.

Table D5

HERFINDAHL INDEX FOR LOANS AND BRANCHES (1)
LAZIO
(simple means by area type)

	Loans	Branches
Non-district areas with provincial capital	0.18 (5)	0.21 (5)
Non-district areas with no provincial capital	0.37 (20)	0.34 (20)
Industrial districts with provincial capital (2)	0.0 (0)	0.0 (0)
Industrial districts with no provincial capital	0.33 (1)	0.22 (1)
LAZIO	0.33 (26)	0.32 (26)

Source: Based on banking supervisory returns and on Istat data.

(1) Number of LLSs with at least one bank's loans or branches in brackets. Differences between corresponding numbers of municipalities are due to the different phenomena observed. – (2) According to the Sforzi-Istat algorithm, Lazio had no ID area with provincial capital in 1991.

Table E1

LARGEST CREDIT-MARKET SHARES HELD BY BANKS IN EACH DISTRICT AND NON-DISTRICT LLS (1)
(percentage values; simple means by macro-regions and area types)

	North-West	North-East	Centre (2)	Lazio	South	ITALY
Non-district areas with provincial capital	29.9	30.4	30.3	33.6	28.8	29.8
	(15)	(13)	(10)	(5)	(33)	(76)
Non-district areas with no provincial capital	45.9	44.4	48.5	48.3	60.5	55.0
	(67)	(64)	(42)	(20)	(308)	(501)
Non-district areas	*43.0*	*42.1*	*45.0*	*45.4*	*57.5*	*51.7*
Industrial districts with provincial capital	21.9	22.5	30.6	-	50.3	26.0
	(5)	(8)	(5)	(0)	(1)	(19)
Industrial districts with no provincial capital	38.4	37.5	48.5	37.8	54.6	42.5
	(54)	(57)	(54)	(2)	(14)	(180)
Industrial districts	*37.0*	*35.7*	*47.0*	*37.8*	*54.3*	*40.6*
TOTAL	0.40	39.2	46.1	44.8	57.4	48.9

Source: Banking supervisory returns, calculations performed on municipalities with at least one bank branch.

(1) Figures in brackets indicate the number of LLSs in each area type with at least one bank branch. – (2) Lazio is not included.

Table E2

LOAN MARKET LEADERSHIP ACROSS BANK CATEGORIES
(percentage values)

	BCC	POP	SAV	BIG	TOTAL
Non-district areas area with provincial capital	25.0	13.2	13.2	48.7	100
Non-district areas with no provincial capital	18.3	17.7	11.4	52.6	100
Non-district areas	*21.7*	*15.4*	*12.3*	*50.6*	*100*
Industrial districts with provincial capital	26.3	15.8	0.0	57.9	100
Industrial districts with no provincial capital	22.9	19.0	11.7	46.4	100
Industrial districts	*24.6*	*17.4*	*5.9*	*52.1*	*100*
TOTAL	20.2	17.5	11.3	50.9	100

Source: Based on banking supervisory returns and on Istat data.

Table E3

LOAN MARKET LEADERSHIP ACROSS AREA TYPES
(percentage values)

	BCC	POP	SAV	BIG	Banking System
Non-district area with one provincial capital	12.1	7.4	11.4	9.4	9.8
Non-district area with no provincial capital	58.6	65.4	64.8	66.8	64.7
Non-district areas	*70.7*	*72.8*	*76.1*	*76.2*	*74.5*
District area with one provincial capital	3.2	2.2	0.0	2.8	2.4
District area with no provincial capital	26.1	25.0	23.9	21.0	23.1
Industrial districts	*29.3*	*27.2*	*23.9*	*23.8*	*25.5*
TOTAL	100.0	100.0	100.0	100.0	100.0

Source: Based on banking supervisory returns and on Istat data.

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