Bank–firm relationships and allocative efficiency in Northeastern and Central Italy and in the South

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Abstract

We make two contributions on the extent and impact of relationship banking – based on close and long-lasting bank–firm customer relationships – in the three sub-systems in which Italy may be subdivided. First, we show that relationship banking is more extensive in both sub-systems where small businesses prevail: the fast-growing Northeast and Center (NEC) and the South, the marginal area of dependent development. Second, we demonstrate that relationship banking improves the allocation of credit in the NEC but worsens it in the South. This evidence suggests that relationship banking may be beneficial or detrimental depending on the socio-economic structure. \copyright~2000 Elsevier Science B.V. All rights reserved.

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1. Introduction

The paper aims to ascertain whether, in Italy, the geographical differences in productive and socio-economic structures are paralleled by differences in
financial systems, especially banking systems, with each area distinguished by particular bank–firm relationships and by their different impact on the debt contracts. Specifically, it has long been recognized that economic structure and social organization of Italy’s regions tend to be similar within three territorial subsystems: the Northwest, i.e. the area of oldest industrialization; the Northeast and Center (NEC), distinguished by industrial districts of small and medium-sized enterprises (SMEs);¹ and the South, the marginal area of dependent development (see, for example, Bagnasco, 1977).² The study thus compares the features of the banking systems and bank–firm relationships in the Northwest, the NEC, and the South.

In the first place, we seek to show that close and long-lasting customer relationships between banks and firms are more extensive in the NEC and in the South than in the Northwest of the Italian economic system. Second, we seek to explain on both theoretical and empirical grounds why the implications of the relationship banking pattern are mainly virtuous in the NEC and mainly vicious in the South.

We begin with a brief description of the productive and banking structure of the three macro-areas, focusing on the NEC and the South (Section 2). We then briefly review the literature explaining the survival and potential efficiency of regional and local banks (Section 3). The aim of these two sections is to identify the differing financial requirements of the industrial districts of the NEC on the one hand and the SMEs of the South on the other, and to bring out the related specificity of banking supply in the two areas. This specificity provides theoretical grounds for the two different territorial patterns of bank–firm relations, and particularly for the fact that relationship banking improves allocative efficiency of credit in the NEC but worsens it in the South.

After showing that, in fact, relationship banking patterns are more pervasive in the NEC and in the South vis-à-vis the Northwest, we select three empirical tests to ascertain whether that relationship banking improves allocative efficiency of credit in the NEC but worsens it in the South (Section 4).

¹ In this paper we do not follow the statistical and economic definition of “industrial district” (see Section 2). As we use it, the expression is synonymous with systems of SMEs and denotes a cluster of productive activities located within a circumscribed territory.
² The Northwest comprises four regions (Liguria, Lombardy, Piedmont and Valle d’Aosta), the NEC seven (Emilia-Romagna, Friuli-Venezia Giulia, Marche, Tuscany, Trentino-Alto Adige, Umbria and Veneto), and the South eight (Abruzzo, Basilicata, Calabria, Campania, Molise, Puglia, Sardinia and Sicily). The presence of the national capital in Lazio influences that region’s productive and financial structure, making it advisable to exclude Lazio from the NEC and include it in the Northwest. If our analysis were based on indicators of economic growth, however, Lazio would have to be treated as part of the South.
The first test asks whether the subset of local banks operating in the NEC or in the South that establish close and long-lasting relations with customers have – respectively – a lower or higher incidence of bad and doubtful loans than the average for banks in their area. Given the assumption that an efficient pattern of relationship banking should saddle the bank with part of the “real” negative shock effects, the second test is designed to ascertain whether in the second half of 1992 relationship-banking firms of the NEC actually suffered a smaller deterioration in their terms of access to credit than the average for firms in their area, and whether this did not occur in the South. Finally, given the hypothesis that successful local firms owe part of their success to an efficient pattern of relationship banking, the third test verifies whether recourse to a close relationship with a local bank improved the terms of access to credit for successful firms in the NEC but worsened it for successful firms in the South. On the basis of these empirical results, which prove consistent with our hypotheses (Section 5), we draw some policy implications in the conclusions (Section 6).

2. Industrial districts and small southern firms: The different financial needs

Despite their increasing internal differentiation, the three macro areas are still clearly identifiable by the distinctive features of their productive structure. At the beginning of the 1990s over 60% of the productive units in the South had fewer than 10 employees, around a third higher than the proportion in the rest of Italy. The percentage of units with fewer than 50 employees was only slightly lower in the South than in the rest of the country owing to the large number of small firms based in the NEC. Over 65% of the productive units in the NEC and under 60% in the Northwest had fewer than 50 employees on payroll. For every size class above 50 employees, the proportion was higher in the Northwest than in the NEC and, even more so, than in the South. These differences increased with size class.

These few figures only corroborate what the eye can see: in the NEC, small and medium-sized enterprises are widespread; in the South, very small firms dominate the industrial regional landscape. This contrast, however, masks a much deeper difference in the organization of economic relations in the two areas. Unlike most of the southern productive units, the SMEs of the NEC tend to form industrial districts. By clustering themselves into productive

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3 During the second half of 1992 monetary conditions were tightened sharply and the economy approached the low of the recessionary phase of a cycle in Italy. That period thus constitutes a crucial test.
systems, SMEs in the NEC avail themselves of factors of competitiveness external to the individual firm but internal to the system. On the contrary, the tiny units of the South are often the tip of an underground economy which, by and large, consists mainly of activities unable to reach the minimum level of efficiency that would allow them to emerge. The presence of systems of linked firms is therefore limited in the South.

Although we do not need to venture into the details, it is important for the following that we recall three aspects which characterize here the industrial districts and which are well known in the literature: 4

(i) Industrial districts of SMEs cannot be reduced to strictly economic variables. Economists (Becattini, 1991) and sociologists (Bagnasco, 1977) agree that districts are based on a complex combination of cooperation and competition between SMEs, human capital formation and supply, well-performing markets, efficient economic and political institutions, diversified but non-conflictual social relations, and historical experience instilling shared acquisitive values. When these features come together in a circumscribed territory, they foster important factors of competitiveness that are external to the individual firms but internal to the district, i.e. positive “externalities” for the set of firms in the district.

(ii) SMEs in industrial districts are consequently able to adapt to changes in the demand for their output and rapidly to imitate technical innovations. Flexibility permits many SMEs of the NEC to carve out important room for themselves and even to secure positions of leadership in niches of the international markets (Brusco and Sabel, 1981). This occurs most notably in activities with limited production runs and with economies of scale and scope that are either unimportant or can be internalized through marketing cooperation and a small degree of vertical integration (Hart and Tirole, 1990; Hart and Moore, 1990). Such features are found above all in the traditional or mature technology branches and in interstitial product areas with “thin” export markets.

(iii) Industrial districts began to wield significant weight in the economy of the NEC in the 1960s and have expanded and evolved considerably in the years since (Brusco and Paba, 1997). Many new districts have emerged in branches of economic activity and geographical zones adjacent to the existing ones, through a process of productive and geographical “contagion”. This pattern

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4 The statistical definition of industrial district is complex. Sforzi (1991) has devised a methodology – adopted by the National Institute of Statistics, Istat (Istat, 1997) – that identifies “local labor systems” and classifies as districts those systems exceeding given thresholds of industrialization, firm density, productive specialization and presence of SMEs. However, such a specific definition does not suit our descriptive purposes.
has been accompanied by changes in the product specialization of the districts’ firms, by advances in their size and organization, by expansion of the network of mutual relations. Some districts have ventured into less traditional fields of technology and, while leaving room for SMEs, have catalyzed significant processes of consolidation. One consequence of these changes is that the job of managing production and achieving rapid imitative and/or incremental innovations has grown more complex and requires increasingly sophisticated services.  

It follows that the availability of efficient and increasingly sophisticated business services is an essential ingredient to reproduce positive externalities, and thus to strengthen the competitiveness and growth potential of the industrial districts. Among these services, financial ones are crucial. This amounts to saying that the banking system is crucial, given its dominant role in the Italian capital market.

It is well known that, in general, finance for SMEs comes largely from self-financing and bank credit, especially at short term. Also districts’ SMEs undergo these constraints, but besides having generally good margins of self-financing they also seek to stabilize the flow of bank credit by increasing the share of medium and long-term loans and, above all, by establishing close and stable relationships with a small number of “main banks”. These relationships enable these SMEs to signal their reliability to providers of finance and to build a solid reputation, reduce borrowing costs, minimize the risk of credit rationing and facilitate access to a growing range of financial services. Those firms operating in nationwide and international markets, in particular, have started requesting services to support exports and the associated exchange-rate risks. More recently, they have required assistance for the financial management of decentralization and delocalization of their production.

This recent demand for corporate finance services does not yet translate into a widespread request for banks to take an equity interest in firms. Nevertheless, a larger range of financial instruments is needed to gradually transform family-held firms into companies listed on the regulated markets.

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Industrial districts are however varied in typology. For example, the more solidly established districts are shifting some of their production beyond their geographical borders. Transfer of production to the nearest southern regions (capacity decentralization) or to less congested parts of the NEC (speciality decentralization) has been followed more recently by transfer to countries of Central and Eastern Europe or Southeast Asia. The internationalization and delocalization of production have generally been accompanied by the reorganization of firms and other activities within the district (e.g., financial concentration or centralization) and the strengthening of the strategic service functions that are retained within the district (e.g., services related to production and marketing).
It is our hypothesis that in the NEC “relationship banking” serves to render bank–firm relations more efficient and highly ramified. Even if the limited number of “main banks” can lead to a less competitive credit market, it generally does not lead to the survival of inefficient banks or to the “information capture” of small borrowers by banks ready to increase interest rates and unable to supply an adequate range of financial services (e.g. Sharpe, 1990).

According to our hypothesis, the opposite should apply to bank–firm relationships in the South. Unlike the SMEs of the industrial districts, southern SMEs are mainly isolated production units that are insufficient to generate significant clusters. Even in the increasing cases where clusters would be organizationally possible and economically efficient, firms do not always exploit this market opportunity probably to avoid attracting unwanted attention from organized crime. Moreover, many activities in the South are so frail that they operate in the underground economy and are unable to evolve toward more structured forms of organization. The relative fragility and instability of southern enterprises are also reflected in the fact that a significant share of their output is targeted primarily to local markets (sheltered markets, above all), and that a large part of their export depends chiefly on price competitiveness (Giannola et al., 1999). The fragility and fragmentation of production deprive southern SMEs of one of the main factors underpinning the competitiveness of their counterparts in the NEC, namely the economies external to the individual firms but internal to the industrial district. This also reduces the drive for organizational efficiency, product specialization and financial management typical of SMEs in the NEC’s districts.

Therefore, it is no surprise that southern firms’ demand for loans and financial services is a good deal more elementary than that of the networked enterprises in the NEC. In the most cases, southern firms tend only to request short-term bank credit and thus do not stimulate a more diversified supply of financial services (Messori, 1996). Even the simplest debt contracts between banks and firms do not often satisfy criteria of allocative efficiency. Banks’ selection and monitoring of borrowers are inadequate, financing costs are too high, credit rationing is too strong, and the financial support provided to start-ups and successful firms is insufficient. Against this background, relationship banking takes on a different economic meaning than in the NEC. The exclusive, close relations established between local banks and SMEs are often the consequence – and also a strengthening factor – of segmentation of the southern credit market. In contrast with the situation in the NEC, the presence of local “main banks” in the South does not generally lead to more efficient and diversified bank–firm relationships, but tends rather to secure the survival of inefficient banks or leads to the “information capture” of SMEs by banks that are inefficient and unable to supply an adequate range of services.
3. Banking structure and the role of local banks

Before turning to the empirical analysis, it is useful to discuss the geographical differences in the supply side of financial, especially banking, services. As regards the banking structure, deep differences would appear between the Northwest and the NEC. Not only does the Northwest have a wider proportion of large firms, but it is home to Italy’s financial center, as well as to a large share of financial services and, together with Lazio, of major banking groups. In the NEC, by contrast, the high incidence of industrial districts of SMEs is coupled by a rich fabric of small and medium-sized regional and local banks. Thus, in Italy’s two economically most advanced areas there is some correspondence between firm size and bank size, suggesting that there may be two different patterns of relations between the banking system and the productive economy.

Concerning the Northwest, it is reasonable to suppose that financial relationships extend beyond the supply of loans and other banking services to include both direct financial relationships between savers and investors and the work of non-bank intermediaries, albeit within the limits due to the “thin” supply side of the Italian capital market. We therefore expect dealings between banks and firms to be relatively more based on patterns of the “arm’s length banking” variety in which transactions hinge on competition rather than mutual knowledge and reputation (e.g. Rajan, 1992). A corollary is that we expect to find loser bank–firm customer relationships and more multi-bank borrowing by firms in the Northwest. As regards the NEC, our hypothesis is that financial relationships are based largely on the supply of loans and other services by banks, and that this translates into closer and longer-lasting customer relationships (“relationship banking”) between regional or local banks and SMEs in the districts, with a consequent attenuation of multi-bank borrowing.

The correspondence between the banking system and the productive structure of a given geographical area is not always so mechanical. As we sketched above, the productive structure of the South is distinguished by a multitude of small companies and a dearth of large ones to an even greater extent than that of the NEC. Logically, then, we might suppose the South to have a widespread fabric of small and medium-sized banks able to establish long-term relationships with their customers. Conversely, the South traditionally had a polarized structure of its banking system: few large but regional banks, an excessive number of small local banks, and a negligible presence of medium-sized

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6 During the 1990s the banking system in the NEC has realized a widespread process of consolidation; however, the most part of the banking groups located in this area are smaller than those located in the Northwest.
banks. In any case, southern local and regional banks have well-established relationship patterns with local SMEs. Our expectation is that the southern pattern of relationship banking is inefficient compared with the NEC (Messori 1996, 1997).

Fig. 1 summarizes what we have claimed for the beginning of the 1990s. It clearly shows that both firms and banks are distinctly larger on average in the Northwest than in the NEC. On the contrary the South fails to confirm this relative correspondence between bank-size and firm-size: in the South, the firm-size is even smaller than in the NEC – as expected – but the bank-size is significantly larger.

This suggests that the financial system of the NEC and that of the South have both common and contrasting features. It is a common feature that, unlike the system operating in the Northwest, until recently these two systems were dominated by regional and local banks, i.e. banks with a reach broadly coinciding with the macro area or zone in which their registered office is located. However, as shown, banks in the South were on average comparatively larger than banks in the NEC whereas firms in the South were on average comparatively smaller than firms in the NEC. Thus, the relative size of banks vis-à-vis firms was larger in the South. This may have a bearing for our hypothesis that the banking system of the NEC and that of the South play very different roles vis-à-vis the productive structure in their respective areas. Even banking structures sharing some similarities can in fact enter into virtuous or vicious relationships with firms.

To explain this, we need to analyze the specific functions that regional and local banks can perform. This analysis raises, however, a preliminary and basic

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7 During the 1990s there has been an increase in the presence of large and medium-sized banking groups, which entered the area from the outside in order to salvage a local banking system in the throes of structural crisis. Nonetheless, the registered office of these outsiders remains usually located in the Northwest or in the NEC, and the acquired southern banks often continue to enjoy a wide degree of operative autonomy. Hence, even today, the number of the very small banks located and registered in the South is excessive and that of medium-sized ones inadequate. It is worth noting that our empirical analysis of the geographical differences in the bank-firm customer relationships often classifies banks according to the location of their registered offices.

8 This figure is analogous to Fig. 1 in Conti and Ferri (1997). Using Bank of Italy data, the bank-size indicator is obtained through the following steps. First, we calculate the average of the number of bank branches present in each town, weighting each branch according to the size class of the bank to which it belongs under the Bank of Italy classification in force until 1992 (the weights are 1/5 for branches of minor and tiny banks, 2/5 for branches of small banks, 3/5 for branches of average-sized banks, 4/5 for branches of large banks and 1 for branches of largest banks). Then we calculate the simple average of the indicators across all the individual towns in the same geographical area. The indicator ranges from 0 to 1. The larger the banks present, the closer it will be to 1; the smaller, the closer it will be to 0. On the other hand, the firm-size indicator is computed – using 1991 Census data – by taking the ratio of total employees to total productive units in the area.
question: how to explain the existence of small local banks or medium-sized regional banks, especially in the face of financial liberalization and consolidation in the banking industry in the international markets?

Leading theories of financial intermediation reach the following conclusions: banks exist because they have information advantages over individual savers and non-bank intermediaries (see for example: Diamond, 1984; Fama, 1985; and Freixas and Rochet, 1997). Consequently, the more the economy is characterized by information problems, the more the banks' functions will dominate those of non-bank financial intermediaries and, to an even greater extent, those of individual savers (Diamond, 1991).

Yet these conclusions are not sufficient to justify the existence of local and regional banks. On the contrary, several elements appear to point in the opposite direction. The gradual unification of the international capital markets and the growing importance of sophisticated services in sectors such as corporate finance and investment banking increase the efficient minimum size of multifunction or universal banking groups and make room for specialized banking intermediaries. This implies that the optimal size or degree of specialization of banking activities must be at least such as to exploit economies of organization and scope as well as specific economies of scale. Further, non-specialized banks are able to optimize their information advantages vis-à-vis non-banks only if their selection, monitoring and control of borrowers solidify into long-term financial relationships (Mayer, 1988) or even in the acquisition of equity interests (Stiglitz, 1985). Assuming the role of “main bank” depends in turn on the ability a bank has to offer borrowers a wide range of financial services typical of universal banks above a given threshold of size.

Fig. 1. Average bank-size and firm-size at the end of 1991.
Regional and local banks encounter evident limits of specialization, growth and diversification; these limits place them at a disadvantage with respect to their competitors operating on a national or international scale. If the conclusion is not to be that the survival of regional and local banks in the capital market is only and always a legacy of past regulatory restrictions, it will be necessary to demonstrate that at least in certain geographical contexts such banks fulfill specific, positive functions that can more than offset the absence of economies of organization, scope and scale. One way to do this is by demonstrating that these functions are based on specific information advantages accruing to banks that are situated in efficient, delimited socio-economic environments and have a strong ability to establish stable, long-term relationships with borrowers even without offering a full range of financial services.

If they sink their roots in favorable geographical contexts, regional and local banks can effectively count on factors that give them a competitive edge – in dealing with information asymmetries – over large universal banks or specialized banks that operate nationwide and in international markets. These factors concern at least three costs that banks bear when entering into and executing any debt contract with firms, namely: agency costs, deriving from ex ante information asymmetries; monitoring costs, linked to the control of the correspondence between the clauses of the contract and the carrying out of the project financed; enforcement costs, deriving from ex post information asymmetries. 

Unlike banks operating on a national or international scale, regional and local banks are part of the same socio-economic system as their borrowers and belong to the same community of market participants. Coupled with their direct experience, this gives regional and local banks an accurate knowledge of the local system’s risk that they can update without incurring high costs. In addition, these banks are able to observe the state of the local economy from the key position they usually occupy in local deposit markets. Also, they have innumerable and hence less costly informal channels for acquiring information about the specific risk of potential borrowers. Another strength is that managers of regional and local banks are less mobile than those of outside institutions and thus accumulate a better personal knowledge of customers and

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10 Becattini (1991) and Barca et al. (1998) make in fact this claim for Italy.

11 We are not concerned here with the geographical management of savings, but it is worth recalling that one of the chief factors of competitiveness of regional and local banks vis-à-vis “outsiders” is their position of strength in local deposit markets.
of the institutions and workings of the local credit market (Ferri, 1997). If the socio-economic fabric is efficient and the local bank well organized, the competitive advantages vis-à-vis outsiders in terms of agency costs are clear. Regional and local banks can in fact reduce the effects of ex ante information asymmetries by grouping borrowers in narrower and hence more homogeneous risk classes, and this is reflected in the supply of loan contracts approaching optimal separating contracts.

This process sets up a beneficial mechanism of selection and is destined to grow stronger over time. Given the availability of separate contracts, ceteris paribus the less risky borrowers can sign loan contracts at lower cost and thus have an incentive to adopt a regional or local bank as their “main bank”. On the supply side, the self-selection of the best borrowers and the reproduction of the financial relationship weaken the ex ante information asymmetries and create further advantages for the main bank in dealing with agency costs. In conjunction with the modest average size of the loans requested by SMEs, this tends to make it too costly for outsider banks to attempt to make up the information disadvantage and induces them to adopt a sort of “arm’s length banking”. In consequence, the integration of regional and local banks with the local community strengthens over time, and this integration accelerates the building of an ever more ramified network of customer relationships. The ultimate result tends to be a virtuous circle: belonging to a community allows regional or local banks to select customers more effectively; better customer selection means these same banks collect a substantial share of the financial transactions carried out in their area of operation and increase their integration into the community.

Accordingly, we can argue that regional and local banks in areas such as the NEC should enjoy particular information advantages with respect to agency costs and have a strong ability to establish long-term relationships with local borrowers even where they lack the ability to offer a full range of financial services. These same advantages often extend to the costs of monitoring borrowers and to the costly procedures of verification and recovery of defaulted loans, i.e.

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12 This is of vital importance for small and medium-sized enterprises. When SMEs have exhausted their margins of self-financing, they turn prevalently to (short-term) bank loans to finance their activities and production plans. The availability of an efficient local banking system thus constitutes a positive externality for SMEs; its importance increases the more local SMEs are engaged in traditional branches of activity with little technological and innovative content and must therefore base their ability to compete in international markets on positive externalities.

13 See, also, Nakamura (1993). It is, however, worth noting that information technology and financial innovations can cut the agency costs and improve the risk management for the outside banks (see White, 1998). Hence, in the next future the competitiveness of local banks could depend on their ability to improve the range of financial services offered.
enforcement (Hoff and Stiglitz, 1990; Banerjee et al., 1994; Angelini et al., 1998). One advantage should stem from the role of main bank played by regional and local banks. This role can, in fact, provide them with effective incentives and instruments for disciplining borrowers’ activity and imposing compliance with contracts: e.g. a main bank could threaten to terminate its relationship with the firm, thereby damaging the firm’s reputation at less informed competing banks in the area. Another advantage should arise from the integration of regional and local banks in the community. This should lower the costs of using the informal mechanisms of monitoring and enforcement made available by local institutions. It should also give local banks access to less formal monitoring procedures, since regional – and especially local – banks will often find local businessmen willing to provide interested but free assistance. Mechanisms of collective liability or, more often, implicit aims of limiting local “systemic risk” could spur local businessmen to keep a watch on the solvency of the banks’ borrowers through forms of mutual control known in the literature as “peer monitoring” (Stiglitz, 1990; Arnott and Stiglitz, 1991).14

Various authors hold that this should allow regional and local banks operating in efficient socio-economic contexts to more than make up for their disadvantages vis-à-vis the largest universal banks operating on a national or international scale. Some empirical studies corroborate this position. For example, it has been found that the loan contracts drawn up between banks and SMEs within the framework of efficient long-term customer relationships involve lower financial charges and less collateral (Berger and Udell, 1995) and a lower incidence of quantitative rationing.15

In laying out the foregoing explanation for the existence of regional and local banks and emphasizing their functions in efficient geographic areas such as the NEC, we do not mean to rule out potential drawbacks to close relationships between such banks and SMEs. We shall only highlight two distortions that could become prevalent in inefficient geographic areas. First, it is well known that each local bank tends to concentrate much of its supply of credit and financial services in a circumscribed zone and to divide it among a limited number of businesses often specialized in similar or linked sectors (see, for example, Williamson, 1985). As a result, these banks are quite vulnerable to the systemic risk of the area in which they are established, have a limited capacity to diversify the specific risk of their set of borrowers, and have smaller margins of credit recovery. If the area in which they are established is plagued

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14 Peer monitoring sometimes leads to forms of mutual assistance, support and insurance among borrowers (Varian, 1990).

15 Petersen and Rajan (1994), Angelini et al. (1998). As already noted, it is an open question whether these results can hold even when universal or specialized banks will routinely adopt information technology and financial innovations in order to overcome their lack of information and reduce their agency and enforcement costs.
by severe economic inefficiencies, as in the case of the South of Italy. Long-term financial relationships with local SMEs can indeed generate significant allocative distortions.

The second distortion stems from the fact that the closer and longer-lasting are the relationships between banks and borrowers in a circumscribed area, the greater will be the barriers to competing banks and, ceteris paribus, the less competitive will be the local credit market. Empirical findings have confirmed this: relationship banking goes together with concentrated rather than competitive local credit markets (Petersen and Rajan, 1995). Other empirical inquiries have shown that where the degree of banking concentration is due to relationship banking, the recurring inverse relation between such concentration and the share of financing granted to SMEs is attenuated (Berger et al., 1995). However, this finding may have opposite theoretical explanations: (i) stable bank–firm relationships weaken the information asymmetries, and thus attenuate discrimination toward efficient SMEs; (ii) stable relationships reinforce local credit market segmentations, and thus permit inefficient banks to survive by means of the information capture of their borrowers (Sharpe, 1990). A plausible hypothesis is that the first explanation could prevail in efficient areas such as the NEC and the second in inefficient ones such as the South. Furthermore, the observation above that bank-size tends to be larger than firm-size in the South but not in the NEC stresses the importance of segmentations in the former credit market more than in the latter.

These considerations lead us to argue that in the South relationship-banking patterns may generate inefficiencies in the allocation of finance and ensure market niches for inefficient banks. If so, long-term dealings between southern banks and firms would lead to a vicious circle. The “information capture” of weak companies by inefficient local banks would translate into debt contracts with a high risk of default; the reproduction of these contracts over time would aggravate the allocative distortions of banking supply to the point of endowing the borrower companies with a sort of “power of failure” over the lending banks. This would reinforce long-term relationships and augment the excessive riskiness of loans. Also, local banks in the South would not enjoy competitive advantages even in terms of monitoring and enforcement costs. The contribution of local market institutions in this respect is negative; one has only to think of the delays and distortions afflicting credit recovery procedures (Generale and Gobbi, 1996; Messori, 1997). In addition, the use of informal channels (such as peer monitoring) would be undermined by the lack of a crucial factor: “confidence” among the members of the same community (Gambetta, 1988).

16 Local banks also run the risk of being captured by local parties seeking to bend their allocative function to the private benefit of a few.
4. The hypotheses tested

The arguments developed in the two preceding sections imply that: (a) there should be a higher intensity of relationship banking in the NEC and in the South than in the Northwest or in the hard-to-classify region of Lazio; (b) relationship banking should have positive effects in the NEC and negative effects in the South as regards the terms of loan contracts (costs and quantity constraints), the allocative efficiency of financial services, and the monitoring and enforcement of signed contracts. The hypotheses set out must now be empirically tested. As often happens, our tests will not be able to refer directly to all the theoretical issues raised but will focus on several crucial points and make abundant use of proxies.

The empirical evidence we shall propose with regard to point (a) consists in showing that the values of the variables used as proxies for relationship banking differ between the Northwest and Lazio on the one hand and the NEC and the South on the other. As we mentioned, in the early-industrialised Northwest there is a higher incidence of mid-sized and large firms and large banks. However, since the largest Italian banks have traditionally been small compared with the largest Italian firms, it is reasonable to expect there to be greater recourse in the Northwest to multi-bank borrowing. It is also reasonable to expect relationship banking to be less prevalent in the Northwest, since major companies are more likely to turn to the financial market and hence to be less dependent on bank credit. Similar considerations hold for Lazio, especially the Rome area, the traditional center of operation of a number of large state-owned companies and banks.

After verifying the higher degree of relationship banking in the South and in the NEC, we shall turn to point (b) and attempt to prove that relationship banking has opposite effects in the two areas: in the NEC main banks write loan contracts that are even more efficient than the good average for the area; in the South they write loan contracts that are even less efficient than the very poor southern average. We verify this by means of various tests.

The first empirical test consists in ascertaining whether the ratio of bad and doubtful loans of the subset of local banks more oriented toward relationship banking differs from the average for the area both in the early 1990s (1992) and

\[17\] If we stress the distortionary effects of relationship banking in the South, this is not because we think that the inefficiencies in the southern debt contracts are due solely to the inefficiencies of local or regional banks there. On the contrary, in our view these inefficiencies are largely attributable to the structural weaknesses of the socio-economic system of the South as manifested in repeated market failures (Messori, 1989). As a consequence, one would like to consider also other aspects beside the behavior of local banks. For instance, ownership structure and management of local firms could play an important role. However, data availability forces us to focus on the efficiency of debt contracts only.
in the second half of the 1990s (1997). The underlying hypothesis is that, for the reasons stated, relationship banking improves allocative efficiency and thus reduces the incidence of bad and doubtful loans in the NEC but has opposite effects in the South. It is important to note that this exercise is carried out with reference to two relatively self-contained banking subsystems; both banks located in the South and those located in the NEC have placed a very high proportion of their loans within their respective areas. The same exercise could not be extended with equally meaningful results to many banks of the Northwest or to those of Lazio.

This first test involves a problem of interpretation, however. In fact, it is likely that, in a given area, banks are more exposed to systemic risk if they are more oriented towards relationship banking. Thus, this first approach could ascribe to relationship banking non-performing loan dynamics that are actually attributable to systemic shocks. To eliminate this erroneous overlap, we have tried to integrate the first empirical test with a test that can examine the different impact of relationship banking on the terms of loan contracts in the South and in the NEC upon the occurrence of a strong systemic shock.

This is the reason why our second empirical test refers to a very specific situation: the monetary tightening of 1992. In an attempt to fight speculative attacks on the Italian lira, between June and September the Bank of Italy tightened its monetary policy stance sharply. It raised its rate on advances to banks from 12.5% to 16%, and even after the lira left the European exchange rate agreement in September 1992 official interest rates were only brought back down very gradually. Bank lending rates rose rapidly, peaking in November. The sudden surge in the cost of credit for Italian firms in the second half of 1992 is almost a “laboratory experiment” helping to identify the impact, if any, of relationship banking. It is plausible to assume that efficient banks having to raise lending rates will discriminate in favor of the firms with which they have the strongest customer relationships. This is because efficient banks are better informed about these firms’ risks and are in a position to spread out the increase in interest rates to faithful customers, according to the typical procedures of “implicit” or “risk-sharing” contracts.

This expectation is consistent with various contributions in the literature. Fried and Howitt (1980) present a model of risk sharing in which bank–firm customer relationships lead the bank to smooth the pass-through of interest rate shocks on to the borrowers. Moreover, the results of Berlin and Mester (1997) suggest that, in general, loan rate smoothing in response to an interest-rate shock is part of an optimal long-term contract between a bank and its borrower. 18

18 Machauer and Weber (1998) show evidence of loan rate smoothing but attribute it to money illusion.
Examining the period from June to December 1992, Conigliani et al. (1997) find that the probability of incurring high increases in the cost of bank credit is significantly lower for Italian firms with strong relationships with banks than for others. Following the same approach and utilizing the same elementary data bases, we intend to test whether these results hold not only for Italy as a whole but also for the two macro areas under examination (NEC, South). It should be obvious at this point that we expect that the difference between the impact of increases in the cost of credit on firms with relationship banking and those without will not be the same in the NEC and in the South. In particular, we expect that relationship banking will be correlated with a lower (higher) probability of incurring sharp increases in interest rates for firms in the NEC (in the South).

Finally, we try to assess whether there is a link between firms’ degree of relationship with banks and firms’ performance. This assessment is based on the sample of small and medium-sized enterprises covered by one of the main surveys on Italian industry (i.e., the Mediocredito Centrale survey of 1994), and identifies a subset of strong performers in the NEC and an analogous subset in the South. The analysis compares the degree of local relationship banking for strong performers with that for other firms of similar size in the same area. We expect a high degree of relationship banking to be a rewarding factor, typical of a successful firm, in the “good” equilibrium of the NEC, and a penalizing factor, irrespective of a firm’s success, in the “bad” equilibrium of the South. We therefore expect that the degree of relationship will be relatively high for successful firms in the NEC and relatively low for those in the South; and that successful companies will consequently be able to enter into debt contracts on appreciably better-than-regional-average terms in the NEC but not in the South.

5. Empirical results

Our preliminary test determines whether the values of the variables that are used as proxy for relationship banking differ between the Northwest and Lazio versus the NEC and the South. Two proxies are set for each bank: an indicator of multi-bank borrowing and an indicator of credit concentration. Both are calculated for each individual borrower and then aggregated for each bank by weighting them on the basis of the shares of loans to each of these borrowers in the total loans of the bank. 19

Let $L_{ij}$ be the loans granted by bank $i$ to firm $j$ and let $L_i$ be the total loans granted by bank $i$ to all firms. The indicator of multi-bank borrowing is defined

---

19 These two indicators were developed, respectively, by Ferri (1997) and Angeloni et al. (1995).
as follows. If for firm $j$ the number of lending banks is $nb_j$, the multiple banking index for bank $i$ is given by

$$NB_i = \sum_{j=1}^{n} q_{ij} nb_j,$$

where $j (= 1, \ldots, n)$ indicates borrowers $j$ of bank $i$, and $q_{ij} (= L_{ij}/L_i)$ indicates the share of loans by bank $i$ to customer $j$ on total loans by bank $i$.

On the other hand, the indicator of loan concentration for firm $j$ is the Herfindahl index

$$h_j = \left( \sum_{i=1}^{m} \frac{L_{ij}}{\left( \sum_{i=1}^{m} L_{ij} \right)} \right)^2,$$

where $i (= 1, 2, \ldots, m)$ indicates the lending bank $i$.

The concentration index for bank $i$ is then

$$H_i = \sum_{j=1}^{n} q_{ij} h_j,$$

where $j (= 1, \ldots, n)$ indicates the borrower $j$ of bank $i$, and $q_{ij} (= L_{ij}/L_i)$ indicates the share of loans by bank $i$ to customer $j$ on total loans by bank $i$.

As two of the three subsequent empirical tests refer to 1992, both indicators are calculated for December of that year. They refer to 208 banks that constitute the set of Italian banks, excluding rural and artisans’ banks – later called credit cooperative banks – operating in the year of reference and having five or more branches. The distribution of the banks, divided into three macro areas, is reported in Tables 1 and 2.

Table 1
Proxies for relationship banking by geographic area$^a$

<table>
<thead>
<tr>
<th>Area</th>
<th>Number of banks</th>
<th>Indicator of multi-bank borrowing</th>
<th>Indicator of concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>North-west and Lazio</td>
<td>73 (35.8%)</td>
<td>12.59 (13.11)</td>
<td>0.899 (0.896)</td>
</tr>
<tr>
<td>NEC</td>
<td>83 (39.9%)</td>
<td>11.62 (12.21)</td>
<td>0.920 (0.918)</td>
</tr>
<tr>
<td>TDIFF</td>
<td>1.4$^*$</td>
<td></td>
<td>3.3$^{**}$</td>
</tr>
<tr>
<td>South</td>
<td>52 (24.3%)</td>
<td>8.86 (10.11)</td>
<td>0.947 (0.942)</td>
</tr>
<tr>
<td>TDIFF</td>
<td>3.6$^{***}$</td>
<td></td>
<td>6.0$^{***}$</td>
</tr>
<tr>
<td>Italy (A)</td>
<td>208 (100.0%)</td>
<td>11.41 (12.00)</td>
<td>0.920 (0.916)</td>
</tr>
</tbody>
</table>

$^a$Percentage shares are shown in brackets in the first column. Median values and, in brackets, mean values are shown in the second and third columns. The levels of significance at which the null hypothesis (i.e. that the average of the NEC or that of the South derive from the same population of the average of the Northwest and Lazio), can be rejected are indicated by, respectively: $^*$ (at 10%), $^{**}$ (at 5%) and $^{***}$ (at 1%).
In Table 1 a comparison of the indicators according to geographic area confirms our expectations. Both the banks of the NEC and, even more, those of the South have lower indicators of multi-bank borrowing and higher indicators of concentration than those of the Northwest and Lazio. A simple $t$-test (TDIFF), under the normality hypothesis, allows us to reject the possibility that the indicators of multi-bank borrowing and concentration for the banks of both areas originate from a distribution with a mean equal to that calculated for the banks of the Northwest and Lazio.

Also Table 2 reports information on banks with very strong or very weak customer relationships. The second (third) column includes that subset of banks for which the indicator of multi-bank borrowing is lower than (equal to or higher than) the median of the total of the 208 banks and the indicator of concentration is higher than (equal to or lower than) the median of the total of the banks. The fourth column is the residual one. A simple comparison with the first column points out that Northwestern banks are over-represented among those with weak and intermediate relationships, southern banks are clearly over-represented among those with strong relationships and under-represented among those with weak ones, whereas the banks of the NEC are slightly over-represented in both the strong and the weak relationships.

The first of the empirical tests to identify the impact, if any, of relationship banking on the terms and outcomes of debt contracts ascertains whether, in accordance with our expectations, the subset of banks with a strong orientation toward relationship banking have a lower incidence of bad and doubtful loans in the NEC with respect to the average of this same area and a higher one in the South with respect to the regional average. The test consists in a simple regression in which Eq. (1) is estimated with the ordinary least squares method:

\[
\text{NPLLOA} = a + b_1 \times \text{RLOA} + b_2 \times \text{AVLOA} + b_3 \times \text{DUPUB} + b_4 \\
\times \text{DUNEC} + b_5 \times \text{DUSOU} + b_6 \times \text{DUREL} + b_7 \\
\times \text{DUNOREL} + b_8 \times \text{DUNECREL} + b_9 \\
\times \text{DUNECNOREL} + b_{10} \times \text{DUSOUREL} + b_{11} \\
\times \text{DUSOUNOREL} + e, \quad (1)
\]
where for each bank: NPLLOA is the sum of bad and doubtful loans in relation to total loans; RLOA is per loan returns; AVLOA is the average loan amount (total loans divided by the number of customers); DUPUB, DUNEC and DUSOU are three dummy variables that have a value of 1, respectively, for banks owned by the public sector (i.e. public-law banks and savings banks), for banks with their registered office in the NEC and for those with their registered office in the South; DUREL and DUNOREL are also dummy variables and have a value of 1 for banks that have, respectively, strong and weak customer relationships; DUNECREL and DUNECNOREL (DUSOUREL and DUSOUNOREL) have a value of 1 for banks in the NEC (in the South) that have, respectively, strong and weak customer relationships.

RLOA takes account, under the assumption of risk neutrality, of the possibility that the various banks may choose different risk–return combinations; its expected sign is positive. AVLOA captures another aspect of the bank–firm relationship: a high value identifies banks that lend to large customers, often considered to be less risky; the expected sign is therefore negative (Angeloni et al., 1995). Since the allocative efficiency of banks owned by the public sector is generally lower than that of private banks, the expected sign of DUPUB is positive. If DUREL had a negative sign and/or DUNOREL a positive sign, this would mean that stronger customer relationships lead to a better allocation of bank credit. The different effects that stronger or weaker customer relationships can display, respectively, in the NEC and in the South are captured by the signs, respectively, of DUNECREL/DUNECNOREL and DUSOUREL/DUSOUNOREL.

The results of the regression are reported in Table 3, where two estimations are presented. The first refers to the ratio of bad and doubtful loans to total loans, calculated in December 1992. The second refers to the semi-sum of bad and doubtful loans in December 1992 and December 1997 in relation to the semi-sum of total loans at the same dates. Their explanatory variables refer to December 1992. The first estimation serves to measure the distribution of bad and doubtful loans at the start of the period considered, the second to show their dynamics in the course of that period. The results of the two estimations are qualitatively homogeneous. However, the first permits a more linear interpretation inasmuch as the restructuring of the southern banking system and consolidation of banks in the NEC are at least partly reflected in the data for 1997.

The signs of the independent variables of both estimations are basically consistent with our expectations. A twofold finding is especially important for our purposes: banks with strong relationships have a significantly lower ratio of bad and doubtful loans than the average for the universe examined (1.3% lower in the 1992 estimation and 1.2% in the second estimation), whereas banks with weaker relationships record a significantly higher bad and doubtful
loan ratio than the average for the universe (1.2% and 0.9% higher, respectively). Among the dummy variables introduced to verify whether there is a difference in the impact of relationship banking in the NEC vis-à-vis the South, the only one to prove significant is the variable relative to southern banks with strong customer relationships. Note that its sign is positive and its value in absolute terms is greater than the (negative) value assumed by the same variable relative to Italian banks with strong customer relations (respectively, +4.4% and +4.8% against −1.3% and −1.2%). Thus, whereas banks in the NEC with strong customer relationships do not diverge substantially from the results reached for the subset of all such Italian banks, the specific effect for the corresponding banks in the South aggravates their non-performing loan ratio enough to offset the generally beneficial effect of strong customer relationships.

The second empirical test uses a sample of 33,808 non-financial firms defined by Conigliani et al. (1997). It estimates the probability of each of these firms having incurred, between June and December 1992, an increase in interest rates on their loans exceeding 28.2%, which represents the value of the 75th percentile of the distribution of firms according to the percentage increase in loan interest rates during the period. Accordingly, the dependent variable (PEN-RATE) takes value one for those firms whose borrowing rate increased by

Table 3
Relationship banking and allocative efficiencya

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimated coefficient</td>
<td>White’s t-statistic</td>
</tr>
<tr>
<td>Constant</td>
<td>−0.091</td>
<td>−2.5***</td>
</tr>
<tr>
<td>RLOA</td>
<td>1.154</td>
<td>5.3***</td>
</tr>
<tr>
<td>AVLOA</td>
<td>−0.333</td>
<td>−2.4***</td>
</tr>
<tr>
<td>DUPUB</td>
<td>0.009</td>
<td>1.4*</td>
</tr>
<tr>
<td>DUNEC</td>
<td>0.002</td>
<td>0.3</td>
</tr>
<tr>
<td>DUSOU</td>
<td>0.039</td>
<td>1.9**</td>
</tr>
<tr>
<td>DUREL</td>
<td>−0.013</td>
<td>−1.3*</td>
</tr>
<tr>
<td>DUNOREL</td>
<td>0.012</td>
<td>1.5*</td>
</tr>
<tr>
<td>DUNECREL</td>
<td>0.004</td>
<td>0.3</td>
</tr>
<tr>
<td>DUNECNOREL</td>
<td>−0.009</td>
<td>−0.7</td>
</tr>
<tr>
<td>DUSOUREL</td>
<td>0.044</td>
<td>1.8**</td>
</tr>
<tr>
<td>DUSOUNOREL</td>
<td>0.029</td>
<td>0.8</td>
</tr>
<tr>
<td>No. of observations</td>
<td>208</td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.60</td>
<td></td>
</tr>
<tr>
<td>$R^2$ adjusted</td>
<td>0.58</td>
<td></td>
</tr>
</tbody>
</table>

a*, ** and *** indicate the same levels of significance specified as in Table 1; * indicates significance at 14%.
more than 28.2% and is zero for the others. The specification of Conigliani et al. includes: an indicator of stability of customer relationships (INDS), which does not prove significant; an indicator of credit concentration, utilized among the lending banks (HERF), which has a negative sign; the number of lending banks (NUMBAN), which has a positive sign; the logarithm of the amount of credit drawn by the firm (LCD), which has a positive sign; a control dummy for southern firms (DUSOU), which has a negative sign. Here we have expanded the number of variables by adding to the preceding specification a geographical dummy, which has the value of 1 for borrowers in the NEC (DUNEC). We have also included six variables to capture any differentiated effects of the proxies for relationship banking for the NEC and for the South: INDSNEC, HERFNEC and NUMBANNEC are the variables INDS, HERF and NUMBAN only for borrowers in the NEC; INDSSOU, HERFSOU and NUMBANSOU are the corresponding variables only for borrowers in the South.

The equation for estimation thus becomes:

\[ \text{PENRATE} = a + b_1 \times \text{INDS} + b_2 \times \text{HERF} + b_3 \times \text{NUMBAN} \\
+ b_4 \times \text{LCD} + b_5 \times \text{DUNEC} + b_6 \times \text{DUSOU} + b_7 \\
\times \text{INDSNEC} + b_8 \times \text{HERFNEC} + b_9 \\
\times \text{NUMBANNEC} + b_{10} \times \text{INDSSOU} + b_{11} \\
\times \text{HERFSOU} + b_{12} \times \text{NUMBANSOU} + b_{13} \\
\times \text{BRANCH} + b_{14} \times \text{PROV} + e \]  

As noted, our theoretical expectation is that, given a stronger degree of relationship banking, banks will act as shock absorbers in the NEC but not in the South.

The results of the probit estimation are reported in Table 4 (the dummies controlling for province (PROV) and product specialization (BRANCH) are omitted). The results generally confirm the importance of two of the three proxies for relationship banking: the probability of incurring especially large increases in loan interest rates decreases as HERF increases and rises as NUMBAN increases. The proxies for relationship banking referring to firms of the NEC do not display significantly different behavior from the rest of the sample. The same does not hold for southern firms: other conditions being equal, the probability of incurring interest rate hikes of more than 28.2% increases significantly as HERFSOU increases, and the estimated value of the coefficient is more than double that estimated for HERF. Thus, for southern borrowers who have strongly concentrated their demand for credit among the lending banks, the latter do not function as shock absorbers in respect of lending rates; indeed, the very opposite occurs.
Finally, we perform an assessment of the possible links between the degree of relationship banking and the terms of access to credit for successful firms in the NEC and in the South. We selected the small and medium-sized enterprises (with up to 500 employees) from those included in Mediocredito Centrale’s survey of SMEs that supplied sufficient information regarding their relationships with the banks (see above). The resulting set consisted of 780 firms from the NEC and 124 from the South. For each of these two areas we determined the distribution of the firms in question according to average return on equity between 1989 and 1994, and then we selected the firms in the top 50%. For these good performers, we calculated the average values of NUMBAN, HERF, INDS and interest rate on bank loans received (values calculated with reference to 1993). We then compared these values with the average values computed for the full set of firms in the area.

---

Table 4
Relationship banking and the probability of a sharp rise in bank lending rates (probit estimation; the z-statistics are adjusted for heteroskedasticity)\(^a\)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimated coefficient</th>
<th>z-statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.30</td>
<td>-11.3***</td>
</tr>
<tr>
<td>INDS</td>
<td>0.079</td>
<td>1.2</td>
</tr>
<tr>
<td>HERF</td>
<td>-0.186</td>
<td>-2.8***</td>
</tr>
<tr>
<td>NUMBAN</td>
<td>0.018</td>
<td>5.3***</td>
</tr>
<tr>
<td>LCD</td>
<td>0.060</td>
<td>7.3***</td>
</tr>
<tr>
<td>DUNEC</td>
<td>0.371</td>
<td>2.0</td>
</tr>
<tr>
<td>DUSOU</td>
<td>0.267</td>
<td>0.84</td>
</tr>
<tr>
<td>INDSNEC</td>
<td>-0.033</td>
<td>-0.3</td>
</tr>
<tr>
<td>HERFNEC</td>
<td>-0.021</td>
<td>-0.2</td>
</tr>
<tr>
<td>NUMBANNEC</td>
<td>-0.007</td>
<td>-1.4</td>
</tr>
<tr>
<td>INDSOU</td>
<td>-0.132</td>
<td>-0.9</td>
</tr>
<tr>
<td>HERFSOU</td>
<td>0.449</td>
<td>3.2***</td>
</tr>
<tr>
<td>NUMBANSOU</td>
<td>-0.007</td>
<td>-0.8</td>
</tr>
<tr>
<td>No. of observations</td>
<td>33808</td>
<td></td>
</tr>
<tr>
<td>chi(^2) (105)</td>
<td>1854.37***</td>
<td></td>
</tr>
<tr>
<td>Pseudo R(^2)</td>
<td>0.052</td>
<td></td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-18034.06</td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) ** and *** indicate the same level of significance as specified in Table 1.

---

20 187 outliers were discarded: 28 firms had average ROE 1989–1994 negative and less than 100%, while 159 had positive average ROE greater than 500%.

21 Considering that higher-return firms are usually faster-growing, it is convenient to focus more on the Herfindahl and on the number of lending banks than on the stability index. In fact, high growth can make it necessary for firms to expand the number of lending banks over time; and this would by construction lower the stability index. Thus, the stability index is calculated in Table 5 but is not further analysed.
The interesting results that emerged confirmed to some extent our expectations (see Table 5).

In the NEC, multi-bank borrowing is very common among successful firms as among others; thus the number of lending banks (NUMBAN) is not significantly different for more successful and less successful firms in the area (8.9 against 8.7 banks); on the other hand, in the South, the same indicator is significantly higher for successful firms than for the other firms (7.6 against 6.2 banks). Likewise, in the NEC our indicator of lending concentration (HERF) is not significantly different for successful firms vis-à-vis the rest of the firms in the area (0.22 against 0.23); in the South, the same indicator is lower for successful firms (0.26 against 0.31).

Clearly, the empirical test in question is preliminary and should be backed up with more rigorous analyses. Nonetheless, it too suggests that relationship banking does not interfere with firms’ success in the NEC, but it does in the South. In fact, the degree of relationship banking is no lower for the successful companies than for the others in the NEC but is somewhat lower in the South.

Table 5 also shows that more successful firms pay higher interest rates than their regional peers both in the NEC and in the South. Using the data for the above 904 firms, we shed more light on the link between relationship lending and the cost of credit by estimating the following OLS regression:

\[
\text{RATE} = a + b_1 \times \text{NEMP} + b_2 \times \text{CG} + b_3 \times \text{INDS} + b_4 \\
\times \text{NUMBAN} + b_5 \times \text{HERF} + b_6 \times \text{INDSSFNEC} + b_7 \\
\times \text{INDSSFSOU} + b_8 \times \text{NUMBANSFNEC} + b_9
\]

Table 5
Successful small and medium-sized firms and relationship banking (mean values)\(^a\)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Northeast and center</th>
<th>South</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less successful firms</td>
<td>More successful firms</td>
</tr>
<tr>
<td>Number of firms</td>
<td>381</td>
<td>399</td>
</tr>
<tr>
<td>Employees</td>
<td>120</td>
<td>87</td>
</tr>
<tr>
<td>Number of lending banks</td>
<td>8.7</td>
<td>8.9</td>
</tr>
<tr>
<td>TDIFF</td>
<td>0.422</td>
<td></td>
</tr>
<tr>
<td>Herfindahl</td>
<td>0.23</td>
<td>0.22</td>
</tr>
<tr>
<td>TDIFF</td>
<td>0.247</td>
<td></td>
</tr>
<tr>
<td>Indicator of stability</td>
<td>0.77</td>
<td>0.74</td>
</tr>
<tr>
<td>TDIFF</td>
<td>0.002</td>
<td></td>
</tr>
<tr>
<td>Interest rate</td>
<td>13.5</td>
<td>14.1</td>
</tr>
<tr>
<td></td>
<td>0.001</td>
<td></td>
</tr>
</tbody>
</table>

\(^a\)Where applicable, the levels of significance at which the null hypothesis that – according to a Mann–Whitney–Wilcoxon test – the median of the variable for successful firms in the area is equal to that of the area’s other firms, can be rejected are reported in italics.
where RATE is the average borrowing interest rate paid by the firm, NEMP measures its number of employees, CG indicates the amount of credit granted by banks, DUSOU, HERF, INDS, and NUMBAN are the same as in Eq. (2), and when the last three are accompanied by the suffix SFNEC and SFSOU identify the specific features of the successful firms in the NEC and in the South, respectively.

The results of the regression are reported in Table 6, where we present the full specification, and then drop the HERF variables since none of them turns out to be significant. As expected, firms with more employees or been granted with a larger amount of credit pay systematically lower interest rates whereas the set of firms in the South pay 155 basis points above the average. Most interestingly to our purposes, we can notice two other differential effects for Southern firms. First, the stability index has a negative and significant impact on the average borrowing interest rate: a firm that has never changed its banking partner(s) pays 153 basis points less than a firm that has changed them constantly. On the opposite, stability increases the borrowing costs for

Table 6
Relationship banking and lending rates (OLS estimation; the t-statistics are adjusted for heteroskedasticity)\textsuperscript{a}

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimated coefficient</th>
<th>t-statistics</th>
<th>Estimated coefficient</th>
<th>t-statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>15.294</td>
<td>22.53\textsuperscript{**}</td>
<td>15.350</td>
<td>21.10\textsuperscript{**}</td>
</tr>
<tr>
<td>NEMP</td>
<td>-0.003</td>
<td>-2.18\textsuperscript{*}</td>
<td>-0.003</td>
<td>-2.22\textsuperscript{*}</td>
</tr>
<tr>
<td>CG</td>
<td>$2.29\times10^{-4}$</td>
<td>-3.07\textsuperscript{**}</td>
<td>$2.27\times10^{-4}$</td>
<td>-3.08\textsuperscript{**}</td>
</tr>
<tr>
<td>HERF</td>
<td>$-4.73\times10^{-4}$</td>
<td>-0.00</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>NUMBAN</td>
<td>-0.003</td>
<td>-0.09</td>
<td>-0.003</td>
<td>-0.16</td>
</tr>
<tr>
<td>INDS</td>
<td>-1.463</td>
<td>-1.35</td>
<td>-1.529</td>
<td>-1.89\textsuperscript{*}</td>
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<td>HERFSFNEC</td>
<td>0.280</td>
<td>0.14</td>
<td>-</td>
<td>-</td>
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<tr>
<td>HERFSFSOU</td>
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<td>0.10</td>
<td>-</td>
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<td>INDSSFNEC</td>
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<tr>
<td>INDSSFSOU</td>
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<td>2.299</td>
<td>2.48\textsuperscript{*}</td>
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<td>0.010</td>
<td>0.33</td>
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<td>NUMBANSFSOU</td>
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<tr>
<td>DUSOU</td>
<td>1.548</td>
<td>4.46\textsuperscript{**}</td>
<td>1.547</td>
<td>4.82\textsuperscript{**}</td>
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<table>
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<tr>
<th>No. of observations</th>
<th>904</th>
<th>904</th>
</tr>
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<tbody>
<tr>
<td>$R^2(12, 891)$</td>
<td>10.55\textsuperscript{**}</td>
<td>13.91\textsuperscript{**}</td>
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<tr>
<td>$R(9, 894)$</td>
<td>0.106</td>
<td>0.106</td>
</tr>
<tr>
<td>Root MSE</td>
<td>2.638</td>
<td>2.634</td>
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\textsuperscript{a}*, ** and *** indicate the same levels of significance as specified in Table 1.
the set of Southern successful firms: a Southern successful firm that has never changed its banking partner(s) pays on average 75 basis points more than another Southern firm that has changed them constantly. Secondly, increasing the number of borrowing banks has no significant impact on the average borrowing cost for the set of firms, but it significantly reduces the borrowing interest rate for Southern successful firms.

6. Conclusion

This paper makes two contributions. First, we demonstrated that the patterns through which banks and firms relate differ across the three macro-areas in which Italy may be sub-divided. Specifically, we have shown that “arm’s length” patterns prevail in the Northwest, the area of oldest industrialization with larger banks and firms. On the contrary, relationship banking patterns – based on closer and longer-lasting customer relationships – prevail in the rest of the country, populated to a larger extent by smaller banks and firms. Thus, relationship banking characterizes both the fast-growing Northeast and Center (NEC) and the South, the marginal area of dependent development.

The second contribution consists in demonstrating that close customer relationships between local banks and firms promote a better allocation of credit in the NEC but actually make it worse in the South. Compared with the average for banks in their area, local banks in the NEC (South) with a strong orientation toward relationship banking have a lower (higher) incidence of bad and doubtful loans and are more (less) willing to enter into debt contracts with fuller sharing of the cyclical risk, that is into risk-sharing contracts. Moreover, compared with other firms in the South (NEC), successful ones have looser (similar) relations with the banking system; and closer customer relationships with banks worsen the conditions of access to credit for the successful firms in the South but not for the successful firms in the NEC.

This suggests that local banks will enjoy a competitive advantage vis-à-vis outsiders in terms of agency costs only when they are well organized and the socio-economic fabric is conducive as in the NEC. In such a situation, thanks to their informational advantage and better ability to deal with agency problems vis-à-vis borrowers, regional and local banks can in fact reduce the effects of ex ante information asymmetries by grouping borrowers in narrower and hence more homogeneous risk classes, and this is reflected in the supply of loan contracts approaching optimal separating contracts.

Thus, relationship banking appears desirable in the NEC but not in the South. In fact, the opposite results for the South stem from at least two factors. First, in the context of the fragile southern capital market, relationship
banking represents a barrier that strengthens niche positions and weakens competition among the local banks. Second, and consequently, relationship banking enables many ineffectively run southern local banks to survive in the market. Indeed, in the early 1990s, these two factors have helped to cause a major structural crisis of the southern banking system. Hence the survival of the current form of relationship banking does not appear to be desirable in the South, in contrast with our findings for the NEC. The consolidation that has accompanied and cushioned the impact of the structural crisis of southern banking could represent the first step for redefining relationship-banking patterns in the South. However, consolidation by itself is plainly insufficient. 22

Relationship banking patterns would become efficient only if they induced efficient banks to promote autonomous local development, selecting and encouraging borrowers, supplying not only credit flows but also more sophisticated financial services, providing support for the financial management of local businesses. 23

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22 The process of consolidation has involved the large southern banks. The biggest bank in the South was at the center of a rescue operation that first entailed costly intervention by the Italian Treasury and then gave rise to a takeover by a state-owned bank and a public-sector insurance company now privatized. The other large southern banks have been acquired by a state-owned bank and by a bank that still belongs to the public sector (the largest stake is held by banking foundations). Furthermore, a good number of local banks in the South have been the targets of takeovers, often designed as rescue operations, on the part of medium-sized and large outside banks. These acquisitions have reduced the niche positions in the southern credit markets and raised the market’s degree of competitiveness. However, the new banking groups that have thus come into being are focusing their efforts on deposits and asset management services; for now, lending policy seems to have been focused on increasing the proportion of less risky exposures or of loans to non-local borrowers.

23 Reducing the issue to its barest essentials, three guidelines for an efficient and close relationship between local banks and firms can be identified: (1) An adequate supply of services for the active financial management of successful SMEs, including the provision of instruments that strengthen corporate ownership structures (e.g. private investment funds). This regards enterprises that are already solid, relatively stable and able to serve as example for others. Their growth capability can be strengthened with an infusion of equity capital tied to a “market” valuation. (2) The provision of a financial instrument that will encourage the emergence of the most dynamic part of the underground economy. The most obvious instrument consists in venture capital finance. Multilateral markets can find it difficult to evaluate marginal or fuzzy situations and be very reluctant to become involved in them. Here again, however, priority needs to be accorded not to debt but to equity capital, obtained if necessary on a bilateral basis, so as to optimize the framework of incentives. (3) Financial support for measures designed to improve the socio-economic environment through the construction of infrastructure able to generate positive externalities for firms. The key instruments for such intervention are local credit and project financing.
Acknowledgements

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References


